

City of Norwalk 2022 Drinking Water Consumer Confidence Report

Mayor David Light and the City of Norwalk Water Department are proud to report that throughout 2022 your drinking water met or exceeded all requirements set by the Ohio Environmental Protection Agency.

Please read this report to learn more about general health information, water quality test results, and how to find answers to any questions about the water.

The City of Norwalk holds a current, unconditional Ohio EPA license to operate its water system. In 2022, roughly 593 million gallons of water were processed at the city's treatment plant, an average of about 1.62 million gallons a day. The capacity of the plant, located at the intersection of Woodlawn Avenue and Old State Road, is 4 million gallons a day. The plant operates and is staffed 24 hours a day, every day of the year.

The water undergoes multiple types of treatment to ensure its safety. Treatment includes: adsorption, coagulation, sedimentation, oxidation, filtration, stabilization, fluoridation and disinfection. Most all of the plant operations have back-up systems available to always maintain the ability to provide safe water to our customers. The treatment plant staff strives to keep all equipment in top working condition, while at the same time keeping costs and customer rates as low as possible.

Finished drinking water is stored in two elevated tanks with capacities of 400,000 gallons and 750,000 gallons. The larger tank, originally constructed in 1952, was completely rehabilitated in 2016 so that it can continue to serve the city's needs for decades to come. Vital facilities at the water plant were also rehabilitated in 2016.

The city also buys almost 55 million gallons of finished drinking water a year from Northern Ohio Rural Water (NORW) to supplement water produced at the plant. In an emergency, additional water could be obtained from NORW. Sources for the NORW water are municipal water plants in Elyria, Lorain, Sandusky, Huron and New London. For more information contact NORW at 419-668-7213.

Expanded efforts to protect the primary source of your drinking water – the Norwalk Creek Watershed -- were launched by the city in 2013. To protect consumers, the City of Norwalk administers a backflow prevention program. Backflow is the unwanted reversal of water flow and can be a serious health risk. In a backflow event, potentially contaminated water can enter the water supply system from a facility's plumbing. A properly installed and maintained backflow prevention device can stop contaminated water from leaving the premises. The flow reversal can be caused by a water main break or other unpredictable change in the system, or a change within the facility itself.

Most businesses, residences with lawn-sprinkling systems, and certain other facilities must have backflow prevention devices in their plumbing systems to help prevent contamination of drinking water in the distribution system. Additionally, all consumers are urged to use a simple vacuum breaker on hoses to help prevent possible back-siphonage of water from swimming pools, lawn chemicals or other contaminants into the drinking water system. For more information, call David Ackerman at 419-663-6725.

For more information

Questions about water quality may be directed to David Ackerman, Superintendent of the Water Treatment Plant at 419-663-6725. Public comments are also welcome at City Council's regular meetings, held at 7:30 p.m. on the first and third Tuesdays of each month in the Community Room at the Ernsthausen Recreation Center, 100 Republic St.

Copies of this report are available at City Hall, the Water Treatment Plant, and the Wastewater Treatment Plant, and on the city's website: www.norwalkoh.com.

About your drinking water

The EPA requires regular sampling to ensure drinking water safety. The Norwalk Water Treatment Plant conducted sampling for bacteria, inorganic compounds, synthetic and volatile organic compounds, lead, copper, and nitrates during 2022. Samples were collected for a total of about 75 different contaminants most of which were not detected in the City of Norwalk's water supply. The Ohio EPA requires us to monitor for some contaminants less than once per year because concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old.

What are sources of contamination 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 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 can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring, or be the result of oil and gas production and mining activities.

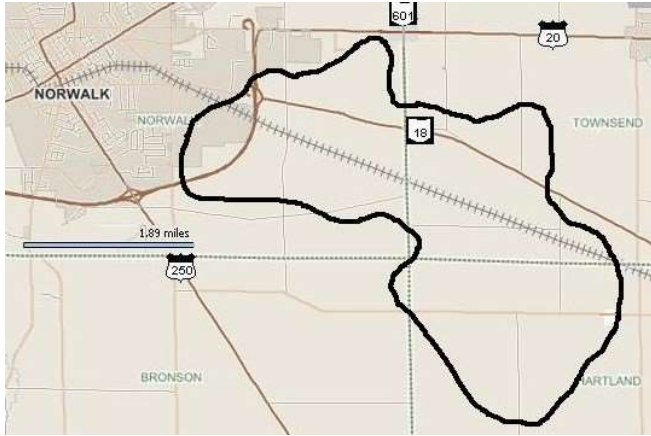
In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 Federal Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

Who needs to take special precautions?

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 infection. 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 (1-800-426-4791).

Source water information



The City of Norwalk's Water Treatment Plant is fed by rainwater runoff from about 8 square miles of land east-southeast of the city (see map at left). The runoff forms Norwalk Creek, which flows into the city's reservoirs on Old State Road. Raw water is pumped from the Lower Reservoir into the plant for sophisticated treatment before it is distributed to consumers. The design capacity of the three-reservoir system is nearly 700 million gallons, more than a year's supply. The East Branch of the Huron River is an additional water source.

With the assistance of the Ohio Rural Water Association and Ohio EPA, the City of Norwalk developed a Source Water Protection Plan for the Norwalk Creek watershed. The plan was endorsed by Ohio EPA in 2014. The plan calls for the city to work with property owners in the watershed to find ways to improve

the quality of water coming into the reservoirs. Harmful algal blooms have occurred in Norwalk's reservoirs in the past. These types of algae, also known as cyanobacteria, sometimes produce toxins that can be harmful to people and domestic animals. The phosphorus required for a harmful algal bloom to occur was a result of activities in the watershed. The blooms illustrate how vulnerable the water supply is to activities in the watershed. To date, algal toxins have not entered the water plant. But if they did, water plant staff is confident any toxins can be effectively removed before the water reaches customers.

The source water protection plan, including a more detailed map of the watershed, is available on the city's website at <https://static1.squarespace.com/static/5c2c2e65266c07cf922a4231/t/5e94a03daf9d553df47efe26/1586798682106/Norwalk+Protection+Plan+%28February+2015+update%29.pdf>

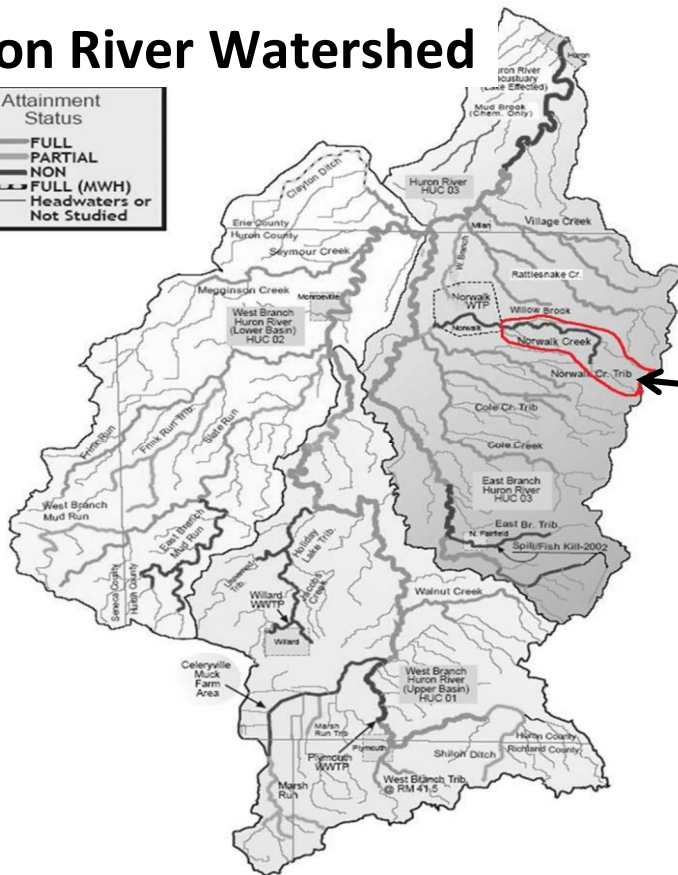
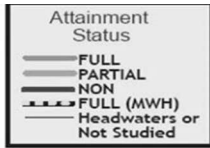
Ohio EPA performed an assessment of our source water in 2005. For the purposes of water source assessments, all surface water in Ohio, including the Norwalk Creek watershed, is considered to be susceptible to contamination. By its nature, surface water is readily accessible and can be contaminated by chemicals and pathogens that may rapidly arrive at the public drinking water intake with little warning.

Potential contaminant sources to the city's drinking water are agricultural runoff, pesticide/fertilizer/petroleum storage, a fertilizer plant, transportation accidents, confined animal feedlots, above ground storage tanks, auto repair and car dealerships, silage, pastures, industrial storm water, home construction, gas line rupture, laundromats, construction and demolition debris, and golf courses. The water plant treats water to meet drinking water standards, but available treatment techniques cannot address all potential contaminants. Implementing measures to protect Norwalk Creek can further decrease the potential for water quality impacts. More detailed information is in the city's Drinking Water Source Assessment Report, which can be obtained from the water plant at 419-663-6725.

The city's Source Water Protection Plan attempts to address the potential contamination sources listed above through the voluntary cooperation of property owners and other governmental agencies.

In 2020, our PWS was sampled as part of the State of Ohio's Drinking Water Per and Polyfluoroalkyl Substances (PFAS) Sampling Initiative. Six PFAS compounds were sampled, and none were detected in our finished drinking water. For more information about PFAS, please visit pfas.ohio.gov.

Huron River Watershed



The Norwalk Creek watershed (outlined), which feeds the city's reservoir system, is a small portion of the overall Huron River watershed. The reservoirs' watershed is about 8 square miles, less than 2 percent of the river's overall watershed.

The Huron River Watershed drains some 403 square miles of land in western Huron County along with portions of Erie, Seneca, and Richland counties.

Definitions of Some Terms Used in This Report

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

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

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

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

MRDLG - Maximum Residual Disinfectant Level Goal - The level of residual disinfectant in drinking water 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.

Microcystin – Liver toxins produced by a number of cyanobacteria. Total microcystins are the sum of all the variants/congeners (form) of Cyanotoxin microcystin.

N/A – Not applicable

ND – Not detected

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

PFAS: Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals applied to many industrial, commercial and consumer products to make them waterproof, stain resistant, or nonstick. PFAS are also used in products like cosmetics, fast food packaging, and a type of firefighting foam called aqueous film forming foam (AFFF) which are used mainly on large spills of flammable liquids, such as jet fuel. PFAS are classified as contaminants of emerging concern, meaning that research into the harm they may cause to human health is still ongoing.

ppm - Parts Per Million - Units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

ppb or ug/l - Parts Per Billion - Units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

90th Percentile – 90% of samples are equal to or less than the number in the chart.

NTU - Nephelometric Turbidity Unit - A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

What's in my water?

The following chart identifies contaminants found in the City of Norwalk's drinking water. EPA establishes the safe drinking water regulations that limit the amount of contaminants allowed in drinking water. The table shows the concentrations of detected substances in comparison to regulatory limits. Substances that were tested for, but not detected are not included in this table.

Data on contaminants found in the City of Norwalk's drinking water							
Contaminants (units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contamination
Microbiological Contaminants							
Total Organic Carbon (a)	N/A	TT	1.83	1.60 - 2.24	No	2022	Naturally present in the environment
Turbidity (NTU) (b)	N/A	TT	0.25	.03 - .25	No	2022	Soil runoff
Turbidity (% samples meeting standard)	N/A	TT	100.00%	100%	No	2022	Soil runoff
Levels for Total Organic Carbon and Total Chlorine are based on running averages for the year 2022.							
Inorganic Contaminants							
Barium (ppm)	2	2	0.013	N/A	No	2022	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	0.9	0.78 - 1.08	No	2022	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (ppm)	10	10	0.72	>0.10 - 0.72	No	2022	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits
Synthetic Organic Contaminants							
Atrazine (ppb)	3	3	0.12	N/A	No	2022	Run off from herbicide used on row crops
Volatile Organic Contaminants							
Haloacetic Acids [HAA5](ppb)	N/A	60	40.5	14.6 - 43.7	No	2022	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	N/A	80	74.43	32.7 - 80.9	No	2022	By-product of drinking water chlorination
Levels for Total Trihalomethanes and Haloacetic Acids are based on locational running averages for the year 2022.							
Residual Disinfectants							
Total Chlorine (ppm)	MRDLG=4	MRDL=4	1.46	1.18 - 1.61	No	2022	Water additive used to control microbes
Lead and Copper							
Contaminants (Units)	Action Level (AL)	MCLG	Individual Results Over the AL	90% of test levels were less than	Violation	Sample Year	Typical Source of Contaminants
Copper (ppm)	1.3	1.3 ppm	NONE	.16 ppm	No	2022	Corrosion of household plumbing systems; Erosion of natural deposits
Zero out of 30 samples found to have a copper level in excess of the action level 1.3 ppm.							
Lead (ppb)	15	0 ppb	NONE	2.9 ppb	No	2022	Corrosion of household plumbing systems; Erosion of natural deposits
Zero out of 30 samples found to have a lead level in excess of the action level 15 ppb.							

Notes explaining portions of the contaminant charts

- (a) The value reported under "Level Found" for Total Organic Carbon (TOC) is the lowest ratio between the percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one indicates that the water system is in compliance with TOC removal requirements. A value of less than one indicates a violation of TOC removal requirements. Compliance is based on a running annual average.
- (b) Turbidity is a measure of cloudiness of water and is an indication of the effectiveness of our filtration systems. The turbidity limit set by the EPA is 0.3 NTU in 95 percent of daily samples, and turbidity shall not exceed 1 NTU at any time. As reported above, The City of Norwalk's highest recorded turbidity result was 0.25 NTU and the lowest monthly percentage of samples meeting the turbidity limits was 100 percent.

Lead information

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. The Norwalk Water Treatment Plant 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 at 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

Testing in 2022 showed that the City of Norwalk is in compliance with the Ohio EPA Lead and Copper Rule.

Lead can enter drinking water through corrosion of plumbing materials, especially where the water has high acidity or low mineral content. Homes built before 1986 are more likely to have pipes, fixtures and/or solder containing lead. Homes built before about 1940 may have a service line made of lead. A service line is the pipe that runs from the street to the building. Since 2014, federal law has become more stringent -- requiring all new pipes, pipe fittings, plumbing fittings, fixtures and solder to be "lead-free."

Corrosion is a dissolving or wearing away of metal caused by a chemical reaction between water and plumbing. A number of factors are involved in the extent to which lead enters the water including the chemistry of the water (acidity and alkalinity), the amount of lead it comes into contact with, how long the water stays in the plumbing materials, and the presence of protective scales or coatings inside the plumbing materials.

Following EPA protocol, The City of Norwalk applies sodium hydroxide and polyphosphates to the water to ensure it is stable, and not corrosive to plumbing. Plant operators run tests every two hours to ensure the water has a proper pH. More extensive testing is done weekly to confirm the water is stable.

Sodium hydroxide increases the pH of the water so that it has less potential to be corrosive. Polyphosphates further stabilizes the water, and leaves a thin coating on pipes and plumbing fixtures. The coating provides a protective barrier between the water and the metals in the plumbing.