
Public Water System

Consumer Confidence Report



**Ohio Environmental Protection Agency
Division of Drinking and Ground Waters**

www.epa.ohio.gov/ddagw

Delta Village
Drinking Water Consumer Confidence Report
For 2020

The Delta Village has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts.

Source Water Information

The Delta Village receives its drinking water from Reservoir 2, which has a storage capacity of 400 million gallons.

For the purposes of source water assessments, all surface waters are considered to be susceptible to contamination. By their nature surface waters are accessible and can be readily contaminated by chemicals and pathogens, with relatively short travel times from the source to the intake. Based on the information compiled for this assessment, the Village of Delta drinking water source protection area is susceptible to agricultural runoff (fertilizer/pesticide applications and storage, animal feedlots, row crops), above ground storage tanks, oil and gas production activities, wastewater treatment discharges, and commercial sources.

It is important to note that this assessment is based on available data, and therefore may not reflect current conditions in all cases. Water quality, land uses and other activities that are potential sources of contamination may change with time. While the source water for the Village of Delta Public Water System is considered susceptible to contamination, historically, the Village of Delta Public Water System has effectively treated this source water to meet drinking water quality standards. Copies of the source water assessment report prepared for Delta Village are available by contacting, The Delta Water Plant at 419-822-4143, or emailing jflores@villageofdelta.org.

The **Delta Village** also has an **Emergency** connection with the **City of Wauseon**. This connection was not used during the operating year of 2020. If this connection is used in the future, Delta Village will supply the water quality parameters in this section of the Consumer Confidence Report.

What are sources of contamination to 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: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; (B) 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; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; (D) 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; (E) 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).

About your drinking water.

The EPA requires regular sampling to ensure drinking water safety. The Delta Village conducted sampling for bacteria; inorganic and organic; radiological; synthetic organic; volatile organic, nitrite, nitrate, lead, copper, disinfection by-products, microcystins, cyanobacteria, turbidity during 2020. Samples were collected for a total of 53 different contaminants most of which were not detected in Delta Village water supply. The Ohio EPA requires 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, though accurate, are more than one year old.

Monitoring & Reporting Violations & Enforcement

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether our drinking water meets health standards. During the weeks of July 14 through August 10 and October 20 through November 2, 2019 we did not monitor for cyanobacteria and total microcystins and therefore cannot be sure of the quality of our drinking water during those times. This notice is to inform you that Delta Village PWS did not monitor, and report results for the presence of cyanobacteria and microcystins in the public drinking water system during the weeks listed above as required by the Ohio Environmental Protection Agency. You do not need to take any action in response to this notice. Upon being notified of this violation, we were required to have the drinking water analyzed for cyanobacteria and total microcystins according to our current monitoring schedule. We have also taken steps to ensure that adequate monitoring is performed.

We also routinely monitor our water for turbidity (cloudiness). This tells us whether we are effectively filtering the water supply. A water sample taken May 16, 2020 and June 11, 2020 showed turbidity levels above the standard of 1.00 turbidity units. Because of this high level, there is an increased chance that the water may contain disease-causing organisms. We failed to notify Ohio EPA and our consumers as soon as practical but no later than 24 hours after the exceedance is known, as required by OAC Rule 3754-81-75(E) and OAC Rule 3745-81-32(B), so consumers could be warned to boil the water before use. The water which contained high levels of turbidity has since been consumed so there is no need to boil the water which is being provided to your tap at this time. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. Boiling kills bacteria and other organisms in the water. People with severely compromised immune systems, infants, and some elderly people may be at increased risk. These people should seek advice about drinking water from their health care providers. The symptoms listed are not caused only by organisms in drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice. During the time of these violations the public was notified via centralized locations and internet.

On the day of October 13, 2020, we did not complete all the required testing of the membrane filters. Therefore, we cannot be sure of the quality of your drinking water during that day. Specifically, one membrane filter (CMF #1).

There is nothing you need to do currently. You do not need to boil your water or take other corrective actions. Upon being notified of this violation, we have completed all required testing. We are currently taking the appropriate steps to ensure that we conduct adequate testing.

During the month of November 2020 two of our inline turbidity meters failed. During failure, we are required to collect grab samples at regular intervals during times of plant operations. These times are first and last hour of operation and every 4 hours in between. On November 26, 2020, we failed to complete all the required time slots of testing. We did not report enough tests for two individual membranes filters (CMF #3 AND CMF #4). We missed the required testing amount by 1 sample. There is nothing you need to do currently. You do not need to boil your water or take other corrective actions. Upon being notified of this violation, the inline turbidity units were repaired and have operated as intended.

The Village of Delta Water Treatment Plant received a Notice of Violation (NOV) on September 17, 2017 regarding a limited scope site visit (LSSV). During this visit the Water Treatment plant was issued a Significant Deficiency. The deficiency of OAC Rule 3745-83-01(H)(1), "The owner and operator shall ensure that the facilities and equipment necessary for the treatment and distribution of water shall be maintained, at a minimum so as to function as intended." The superintendent at the time of this visit indicated that all filtration equipment was not function as intended. Which lead to the plant not being able to meet demand operating 24-hours a day from August 20, 2019 through September 28, 2019. 30-days after the receipt of this NOV a schedule of compliance was created to repair any malfunctioning equipment that was suspected of contributing to the failure to meet demand.

Table of Detected Contaminants

Listed below is information on those contaminants that were found in the **Delta Village** drinking water.

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Bacteriological							
Turbidity (NTU)	NA	TT	1.0	0.03-1.0	N	2020	Soil runoff.
Turbidity (% meeting standard)	NA	TT	99.9%	99.9-100%	N	2020	
Radioactive Contaminants							
Radium 228 & 226 (pci/L)	0	5	1.5	1.5 – 1.5	N	2020	Erosion of natural deposits.
Inorganic Contaminants							
Nitrate (ppm)	10	10	3.05	1.15 – 3.05	N	2020	Runoff from fertilizer use; Erosion of natural deposits.
Fluoride (ppm)	4	4	1.11	1.0 – 1.3	N	2020	Erosion of nature deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Barium (ppm)	2	2	0.025	0.025 – 0.025	N	2020	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Residual Disinfectants							
Contaminants (Units)	MRDL	MRDLG	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Total Chlorine (ppm)	4.0	4.0	1.52	1.0 – 2.4	N	2020	Water Additive used to control microbes.

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Total Trihalomethanes, TTHM (ppb)	0	80	76.5	51.90 – 93.0	N	2020	By-product of drinking water chlorination.
Haloacetic Acids, HHA5 (ppb)	0	60	37.68	16.6 – 54.2	N	2020	By-product of drinking water chlorination.

Lead and Copper

Contaminants (units)	Action Level (AL)	Individual Results over the AL	90% of test levels were less than	Violation	Year Sampled	Typical source of Contaminants
Lead (ppb)	15 ppb	0	3.58	N	2020	Corrosion of household plumbing systems.
	0 out of 20 samples were found to have lead levels in excess of the lead action level of 15 ppb.					
Copper (ppm)	1.3 ppm	NA	0.178	N	2020	Corrosion of household plumbing systems.
	0 out of 20 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.					

Detected Unregulated Contaminates

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 warranted. If you would like a list of the Delta Village unregulated contaminates and our sample results, please contact Jammie Flores, Water Superintendent at 419-822-4143 or jflores@villageofdelta.org.

Unregulated Contaminant Table

Contaminants (Units)	Average	Range
Harmful Algal Bloom (HAB)		
Total Cyanobacteria, Gene Copies, ug/L	183	5.8-524

Turbidity

Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the samples analyzed each month and shall not exceed 1 NTU at any time. As reported above, the **Delta Village's** highest recorded turbidity result for **2020** was **1.0** NTU and lowest monthly percentage of samples meeting the turbidity limits was **99.9%**.

Violations

A water sample taken May 16, 2020 and June 11, 2020 showed turbidity levels above the standard of 1.00 turbidity units. Because of this high level, there is an increased chance that the water may contain disease-causing organisms. We failed to notify Ohio EPA and our consumers as soon as practical but no later than 24 hours after the exceedance is known, as required by OAC Rule 3754-81-75(E) and OAC Rule 3745-81-32(B), so consumers could be warned to boil the water before use. The water which contained high levels of turbidity has since been consumed so there is no need to boil the water which is being provided to your tap at this time. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause

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During the time of these occurrences of violation it was unclear what the cause of the turbidity spike was. Since these occurrences, the analyzing equipment has been calibrated to manufacture standards, and results have been closely monitored. The water plant has not experienced a turbidity violation since the spike on June 11, 2020.

Lead Educational 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. Delta Village 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>.

Revised Total Coliform Rule (RTCR) Information

All water systems were required to begin compliance with a new rule, the Revised Total Coliform Rule, on April 1, 2016. The new rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of total coliform bacteria, which includes E. coli bacteria. The U.S. EPA anticipates greater public health protection under the new rule, as it requires water systems that are vulnerable to microbial contamination to identify and fix problems. As a result, under the new rule there is no longer a maximum contaminant level violation for multiple total coliform detections. Instead, the new rule requires water systems that exceed a specified frequency of total coliform occurrences to conduct an assessment to determine if any significant deficiencies exist. If found, these must be corrected by the PWS.

Harmful Algal Bloom (HAB)

Starting the first week in May, PWSs in Ohio will follow HAB season monitoring requirements per their assigned schedule. All PWS assigned to schedules 1 or 2 are assigned the same biweekly qPCR monitoring periods. PWSs should collect qPCR and microcystin samples based on the assigned HAB season monitoring schedule instructions below.

Schedule 1: PWSs systems must collect weekly raw and finished water microcystins samples and biweekly qPCR samples beginning the week of May 2, 2021. The cyanobacteria screening sample must be paired with the first weekly raw and finished water microcystins samples.

Schedule 2: PWSs will collect their first biweekly qPCR sample the week of May 2, 2021. They will collect their first biweekly raw water microcystins sample the week of May 9, 2021. Cyanobacteria screening and raw water microcystins samples must be collected on alternating weeks thereafter.

Delta Village is currently collecting samples based on the "Schedule 2" requirement.

Cyanobacteria – (AKA blue-green algae)

Microscopic organisms found naturally in surface water. True algae and cyanobacteria both utilize some form of

chlorophyll to perform photosynthesis. True algae are essentially plants. Cyanobacteria are actually photosynthesizing bacteria. Cyanobacteria also contain the accessory pigment phycocyanin, that can give decaying blue-green algae a blue color. Some of the most commonly occurring cyanobacteria in Ohio waters include: microcystis, anabaena, pseudoanabaena, planktothrix, aphanizomenon, and cylindrospermopsis. True algae and cyanobacteria are very different organisms and therefore should not be treated the same. There are no known harmful toxins released by dying true algae. Cyanobacteria, however, can contain harmful cyanotoxins within the cell wall which may be released during cell growth or death.

Some species of cyanobacteria can produce cyanotoxins, including neurotoxins (nervous systems), hepatotoxins (liver) and dermatotoxins (skin irritant). Monitoring for cyanotoxins in Ohio is currently focused on the most prevalent cyanotoxins where reliable analytical capabilities exist, including microcystin, cylindrospermopsin, saxitoxin and anatoxin-a.

Microcystins

Consuming water containing concentrations of microcystins over the action level may result in abnormal liver function, diarrhea, vomiting, nausea, numbness, or dizziness. Children younger than school age, pregnant women, nursing mothers, the elderly immune-compromised individuals, those with pre-existing liver conditions and those receiving dialysis treatment may be more susceptible than the general population to the health effects of microcystins. Delta Village follows the Schedule 2 sampling requirements listed above and all samples for the operating year 2020 were non-detect (**0 ug/L**).

License to Operate (LTO) Status Information

In **2020** we had an unconditioned license to operate our water system.

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Public Participation and Contact Information

How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings of *The Village Council* which meet on the first and third Monday of every month. For more information on your drinking water contact Jammie Flores, Water Superintendent at 419-822-4143 or jflores@villageofdelta.org.

Definitions of some terms contained within this report.

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

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

Maximum Residual Disinfectant Level Goal (MRDLG): The level of 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.

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

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

Contact Time (CT) means the mathematical product of a "residual disinfectant concentration" (C), which is determined before or at the first customer, and the corresponding "disinfectant contact time" (T).

Microcystins: Liver toxins produced by a number of cyanobacteria. Total microcystins are the sum of all the variants/congeners (forms) of the cyanotoxin microcystin.

Cyanobacteria: Photosynthesizing bacteria, also called blue-green algae, which naturally occur in marine and freshwater ecosystems, and may produce cyanotoxins, which at sufficiently high concentrations can pose a risk to public health.

Cyanotoxin: Toxin produced by cyanobacteria. These toxins include liver toxins, nerve toxins, and skin toxins. Also sometimes referred to as "algal toxin".

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

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 multiple occasions.

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.

Parts per Million (ppm) or Milligrams per Liter (mg/L) are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

Parts per Billion (ppb) or Micrograms per Liter ($\mu\text{g/L}$) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

The "<" symbol: A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.

Picocuries per liter (pCi/L): A common measure of radioactivity.