

# **DELTA WATER TREATMENT PLANT**

## **Drinking Water Consumer Confidence Report**

### **For 2017**

The Delta Water Treatment Plant 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.

The Delta Water Treatment Plant was placed in service in 2006 and is located at 7697 County Road H, across the street from the Delta Reservoirs. The facility is an integrated membrane water treatment plant. There are two types of membranes used in the treatment process, Microfiltration (MF) and Reverse Osmosis (RO). This newer technology treats a full flow through the continuous microfiltration (CMF) train followed by a split stream flowing through the reverse osmosis (RO) units. The treatment process lowers the hardness and the turbidity of the reservoir water. With this modernization the Village of Delta will be in a position to better serve the present and anticipated customer base well into the future. Before the water is pumped to you, the customer, fluoride, chlorine and caustic soda are added to the finished water. Fluoride aids in the prevention of tooth decay. Chlorine is used as a disinfectant and caustic soda, stabilizes the water, which helps prevent the corrosion of pipes in the distribution system.

The plant capacity is rated at 1.2 MGD (million gallons per day). The plant produced 248.91 MG (million gallons) in 2017. The average production per day was 0.681 MGD. For finished water storage the plant has two (2), 200,000-gallon clearwells on-site, one 200,000-gallon elevated storage tank, on Helvetia Street and a 600,000-gallon elevated storage tank (West Side) located on Co. Rd. 10. The West Side pump station has remote monitoring and operational capabilities.

#### **Source Water Information**

The Delta Water Treatment Plant receives its raw water from one of two (2) reservoirs that are filled with water pumped from Bad Creek. The majority of the water used at the water plant comes from Reservoir #2, with Reservoir #1 as a backup. The watershed for Bad Creek is roughly bordered by State Route (St. Rt.) 109 N to the east, St. Rt. 20 to the north, St. Rt. 108 to the west and County Road H to the south. The Village of Delta also has an emergency connection with the City of Wauseon, located near the intersection of St. Rt. 2 and Co. Rd. 11. During the year of 2017, no water was used from this connection.

#### **Source Water Assessment**

For the purpose of source water assessments, all surface waters are considered to be susceptible to contamination. By their nature, surface waters as 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 the assessment, the Village of Delta drinking water source protection area is susceptible to agricultural runoff (fertilizer/pesticide application 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 to meet drinking water quality standards.

#### **What are sources of contamination to drinking water?**

The sources of drinking water both tap water and bottled water includes 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 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).

### License to Operate

The Village of Delta Water Treatment Plant has a current, unconditioned license to operate our water system as directed by the Ohio Environmental Protection Agency (OEPA).

### About your drinking water

The EPA requires regular sampling to ensure drinking water safety. The Delta Water Treatment Plant conducted sampling for bacteria, inorganic, nitrates, synthetic organic chemicals (Group 1), volatile organic chemicals, disinfection byproducts during 2017. 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, may be more than one year old.

Listed in the enclosed table is the information on those contaminants that were found in the Village of Delta drinking water.

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample	Typical Source of Contaminants
<b>Microbiological Contaminants</b>							
Turbidity (% of samples meeting standard)	N/A	TT	100%	100.0%	No	2017	Soil run-off
Turbidity (NTU)	N/A	TT	0.05**	0.03 - 0.12	No	2017	Soil run-off
Microcystins (ppb)	NA	0.3 AL for children under 6 and sensitive populations 1.6 for children 6 and older and adults	0.01**	0.0-0.033	No	2017	Produced by some naturally occurring cyanobacteria, also known as blue green algae, which under certain conditions (i.e., high nutrient concentration and light intensity) may produce microcystins.
Total Coliform Bacteria	0	1	0	0-1	No	2017	Naturally present in the environment
Total Organic Carbon	N/A	TT	2.47**	1.8-3.2	No	2017	Naturally present in the environment
<b>Inorganic Contaminants</b>							
Nitrate (mg/L)	10	10	2.80**	2.14-4.34	No	2017	Runoff from fertilizer use; erosion of natural deposits
Fluoride (mg/L)	NA	4.0	0.99**	0.82-1.22	No	2017	
Barium (mg/L)	NA	2	0.021	N/A	No	2017	Discharge of drilling wastes or metal refineries; erosion of natural deposits
<b>Volatile Organic Contaminants</b>							
Dichloroacetic Acids*	NA	NA	13.9**	10.3-20.9	No	2017	By-product of drinking water chlorination
Trichloroacetic Acids*	NA	NA	9.2**	6.4-13.9	No	2017	By-product of drinking water chlorination

TTHM-Total Trihalomethanes (ug/L)	0	80	60.8**	26.6-77.3	No	2017	By-product of drinking water chlorination
Bromodichloromethane* (ug/L)	N/A	N/A	10.1**	5.3-13.5	No	2017	By-product of drinking water chlorination
Chloroform* (ug/L)	N/A	N/A	48.6**	20.1-64.6	No	2017	By-product of drinking water chlorination
Dibromochloromethane* (ug/L)	N/A	N/A	2.9**	1.2-7.9	No	2017	By-product of drinking water chlorination
HAA5-Haloacetic Acid (ug/L)	N/A	60	19.6**	17.2-32.2	No	2017	By-product of drinking water chlorination
<b>Lead and Copper</b>							
Contaminants	Action Level (AL)	Individual Results over The AL	90% of test levels were Less than	Violation	Year Sampled	Typical Source of Contaminants	
Lead (ppb)	.015mg/l	.029	.002	No	2017	Corrosion of household plumbing systems	
1 out of 20 samples were determined to be above the action level of .015 mg/l							
Copper (ppm)	1.3mg/l	0	.094	No	2017	Corrosion of household plumbing systems	
<b>Residual Disinfection</b>							
Total Chlorine (mg/L)	4 (MRDLG)	4 (MRDLG)	1.67**	1.1-2.2	No	2017	Water additive to control microbes

N/A: Not Applicable

\* Component of TTHM's

\*\*Level in the table based on the average of the detected limits for each sample of 2017

**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.

**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 (µg/L)** are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

**Maximum Residual Disinfection 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.

**Maximum Residual Disinfection 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.

**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.

**NTU:** Nephelometric Turbidity Unit is a measure of the clarity of water. Turbidity in excess of 5 NTU's is just noticeable to the average person.

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 daily samples and shall not exceed 5 NTU at any time. As reported above the Delta Water Treatment Plant highest recorded turbidity result for 2017 was 0.12 NTU and the lowest monthly percentage of samples meeting the turbidity limits was 100%. 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 that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Some people who drink water containing Trihalomethanes in excess of the MCL over many years may experience problems with liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

### **Lead Educational Information**

If present, elevated levels of lead can cause serious health problems, especially for pregnant woman and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Delta 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 <http://www.epa.gov/safewater/lead>.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

The value reported in the table under "level found" for Total Organic Carbon (TOC) is the lowest ratio between the percentages 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 the TOC removal requirements.

### **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.*

PWSs that triggered a Level 1 or Level 2 Assessment must inform their customers of:

- a) The appropriate text (dependent on whether there is an E. coli MCL), listed below
- b) The number of assessments required and completed.
- c) The corrective actions required and completed.
- d) The reasons for conducting assessments and corrective actions.
- e) Whether the PWS has failed to complete any required assessments or corrective actions.

f) the specific assessment-related definitions as appropriate

If your PWS was required to comply with the Level 1 Assessment requirement or a Level 2 Assessment that was not due to an E. coli MCL violation, the PWS shall include the following text in the report, as applicable, filling in the blanks accordingly:

- (a) *"Coliforms are bacteria which are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct any problems that were found during these assessments."*
- (b) *"During the past year we were required to conduct **[insert number of level one assessments]** level one assessments. **[insert number of level one assessments]** level one assessments were completed. In addition, we were required to take **[insert number of corrective actions]** corrective actions and we completed **[insert number of corrective actions]** of these actions."*
- (c) *"During the past year **[insert number of level two assessments]** level two assessments were required to be completed for our water system. **[insert number of level two assessments]** level two assessments were completed. In addition, we were required to take **[insert number of corrective actions]** corrective actions and we completed **[insert number of corrective actions]** of these actions."*

If the PWS was required to conduct a Level 2 Assessment due to an E. coli MCL violation, the PWS shall include in the report the following text, filling in the blanks accordingly:

- (a) *"E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches or other symptoms. They may pose a greater health risk for infants, young children, the elderly and people with severely compromised immune systems. We found E. coli bacteria, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct any problems that were found during these assessments."*
- (b) *"We were required to complete a level two assessment because we found E. coli in our water system. In addition, we were required to take **[insert number of corrective actions]** corrective actions and we completed **[insert number of corrective actions]** of these actions."*

A PWS that must conduct a Level 1 or Level 2 Assessment must include the specific assessment-related definitions in their CCR, as appropriate (see Section 21).

**How do I participate in decisions concerning my drinking water?**

Public participation and comment are encouraged at regular meetings of the Village of Delta council which meets every 1<sup>st</sup> and 3<sup>rd</sup> Monday of the month at 7:00 pm, in the council chambers, located in the Memorial Hall, 401 Main Street.

**For more information** on your drinking water please feel free to contact Dustin Cass, Water Superintendent at 419-822-4143 extension 151.

**If there are other people you know that use water from the Village of Delta and may not receive this notice (i.e., renters, trailer parks, senior centers, etc.), please let them know that this information is available. Additional copies are available at the Village Hall (401 Main St) as well as at the Delta Water Treatment Plant (7697 Co. Rd. H).**