CITY OF BROOKVILLE
2019 WATER QUALITY REPORT

IS MY WATER SAFE?

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

WHERE DOES MY WATER COME FROM?

Brookville's water comes from the City of Dayton Treatment Plant through the Montgomery County Water Distribution System and is serviced by the Westbrook pump station. Storage is in two elevated tanks, which hold a combined total of 700,000 gallons. The source of this water is the Miami Valley Buried Aquifer. The Aquifer is a large underground area of water bearing sand and gravel deposits. This groundwater is influenced by surface water. The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells.

SOURCE WATER ASSESSMENT AND ITS AVAILABILITY

The Ohio EPA conducted a source water assessment of Dayton's water source. The assessment concluded that the aquifer supplying water to the City of Dayton's well fields has a high susceptibility to contamination. This determination is based on: the influence of surface water recharge to the aquifer; the presence of a relatively thin protective layer of clay overlying the aquifer; the shallow depth of the aquifer; contaminant plumes in Dayton's well field protection area; the presence of significant potential contaminant sources in the protection area; and the presence of contaminants in treated water. More information about the source water assessment or what consumers can do to help protect the aquifer is available by calling the Division of Environmental Management at (937) 333-3725.

WHY ARE THERE CONTAMINANTS IN MY DRINKING WATER?

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 (EPA) Safe Drinking Water Hotline (800-426-4791). 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: microbial contaminants, such as viruses and bacteria, that 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; 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 prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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

ADDITIONAL INFORMATION FOR 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. The City of Brookville 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 or at http://www.epa.gov/safewater/lead.

PUBLIC NOTICE/VIOLATIONS

The City of Brookville failed to put mandatory language for turbidity and public participation in our 2018 Water Quality report. Additionally, there was 1 sample over the Action Level in our 2018 report. This sample was listed in the “Your Water” column but should have been listed separately. If you would like a revised copy, please contact Service Department Superintendent Christian Homan at 937-833-2135, extension 403. We have revised the format of the Water Quality Report to ensure this isn’t a recurring issue. In 2019, the City of Brookville received a high lead/copper test from one of its sample sites. Please see the TT Violation chart on the last page of this report for more information.

HOW CAN I GET INVOLVED?

If you would like to participate in decisions that affect drinking water quality, please contact the City of Dayton Water Department for information on Water Board or City/Council Meetings at 937-333-6030.

WATER CONSERVATION TIPS

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers, a 5-minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

CROSS CONNECTION CONTROL SURVEY

The purpose of this survey is to determine whether a cross-connection may exist at your home or business. A cross connection is an unprotected or improper connection to a public water distribution system that may cause contamination or pollution to enter the system. We are responsible for enforcing cross-connection control regulations and ensuring that no contaminants can, under any flow conditions, enter the distribution system. If you have any of the devices listed below please contact us so that we can discuss the issue, and if needed, survey your connection and assist you in isolating it if that is necessary.

- Boiler/ Radiant heater (water heaters not included)
- Underground lawn sprinkler system
- Pool or hot tub (whirlpool tubs not included)
- Additional source(s) of water on the property
- Decorative pond
- Watering trough

SOURCE WATER PROTECTION TIPS

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

WATER QUALITY DATA TABLE

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

City of Brookville Department of Water had a current unconditional license in 2019 to operate our public water system.

City of Dayton Department of Water **2019 Water Quality Report**

City of Dayton Department of Water had a current unconditioned license in 2019 to operate our public water system.

***We are proud to report that the City of Dayton complied with all MCL* standards for drinking water during* 2019.**

2019 Report			Miami Plant				Ottawa Plant				Typical Source of Contaminants
Regulated Substance	Maximum Allowed (MCL*)	Ideal Goals (MCLG)	Highest Level Detected	Range of Detection	Violation	Year Sampled	Highest Level Detected	Range of Detection	Violation	Year Sampled	
Regulated at the Treatment Plant											
Fluoride (ppm)	4	4	**1.01**	0.81-1.04	**No**	**2019**	**0.99**	0.20-1.29	**No**	**2019**	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (ppm)	10	10	**0.88**	0.24-0.88	**No**	**2019**	**1.90**	0.96-1.90	**No**	**2019**	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Turbidity (NTU)	TT = 1	N/A	**0.52**	0.01-0.52	**No**	**2019**	**0.41**	0.01-0.41	**No**	**2019**	Lime softening residuals; Soil runoff.
	TT: > 95% must be < 0.3		**99.7% < 0.3[1]**				**99.7% < 0.3[1]**				
Total Organic Carbon (TOC) (ppm)	TT	N/A	**0.61[2]**	0.53-0.75	**No**	**2019**	**0.49[2]**	0.43-0.56	**No**	**2019**	Naturally present in the environment.
Barium (ppm)	2	2	**0.032**	N/A	**No**	**2019**	**0.043**	N/A	**No**	**2019**	Discharge from metal refineries; Erosion of natural deposits.

1 Dayton complied with requirements for every month in 2019. **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 1 NTU at any time. As reported above, the City of Dayton's highest recorded turbidity result for **2019** at **Miami Plant** was 0.52 NTU and lowest monthly percentage of samples meeting the turbidity limits was **99.7%**, and at **Ottawa Treatment Plant** was 0.41 NTU and lowest monthly percentage of samples meeting the turbidity limits was **99.7%.**

2 Dayton complied with alternate compliance criteria for TOC regulations under the D/DBP Rule. The level reported is "average".

3 Highest running annual average.

4 Highest running quarterly average.

5 In 2019, 1 distribution sample was positive for coliform bacteria. There were 1,504 samples analyzed. The highest level detected was 0.8% positive for coliform bacteria for the month.

Regulated at the Customer's Tap (City of Brookville)

Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source
Inorganic Contaminants							
Copper - action level at consumer taps (ppm)	1.3	1.3	.0373	2019	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb)	0	15	1.5	2019	1	No	Corrosion of household plumbing systems; Erosion of natural deposits
1 of 20 samples was found to have lead levels in excess of the lead action level of 15 ppb. 0 of 20 samples was found to copper levels in excess of the copper action level of 1.3 ppm.							

Regulated in the Distribution System (City of Brookville)

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Chlorine (as Cl2) (ppm)	4	4	.84	.39	.84	2019	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	7.5	5.3	7.5	2019	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	63.4	43.3	63.4	2019	No	By-product of drinking water disinfection

Unit Descriptions	
Term	**Definition**
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required but recommended.

Important Drinking Water Definitions	
Term	**Definition**
MCLG	MCLG: Maximum Contaminant Level Goal: 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.
MCL	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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Important Drinking Water Definitions	
MRDLG	MRDLG: Maximum residual disinfection level goal. 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.
MRDL	MRDL: Maximum residual disinfectant level. 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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

TT Violation	Explanation	Length	Health Effects Language	Explanation and Comment
Lead and copper rule violations	The City of Brookville received a high lead test from one of its sample sites. The lead level was 42.1 ppb. After further investigation, it was determined the homeowner had limited use of the sampling site. The site had not been used for almost a week.	The violation that occurred at the listed sample site has not had a previous violation. Increased use and flushing will bring contaminants below action levels.	Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.	The homeowner is aware that the designated test site must be a regularly used site. If the site does not continue to be used regularly the City will have to establish a new sampling point. The homeowner will be asked about the use of the sampling point before the next period.

The average water hardness for the distribution system is 140.75 mg/L.

FOR MORE INFORMATION, PLEASE CONTACT SERVICE DEPARTMENT SUPERINTENDENT CHRIS HOMAN, 301 SYCAMORE STREET, BROOKVILLE, OH 45309 PHONE: 937-833-2135 EXTENSION 401