2020 Annual Drinking Water Quality Report
Bedford Township Municipal Authority

As your public drinking water supplier (Public Water Supply ID Number 4050037), the Bedford Township Municipal Authority (BTMA) is pleased to present to you our Consumer Confidence Report for the 2020 operating year. This report provides you with information about the quality of water and the services we deliver to you every day. We constantly strive to provide you with a safe and dependable supply of drinking water. We want you to understand the constant effort we make to continually protect our water sources and improve the quality of water supplied to you. We are committed to ensuring the quality and consistency of your water.

SOURCES: Three separate groundwater sources, consisting of a total of five production wells, make up the public water supply that is owned and operated by the BTMA. The first source is located in the Chalybeate area of Bedford Township and consists of two wells known as the Bowman Tract Wells. Construction of these wells was completed in May 2000. The second source is situated in the Bedford Springs area and consists of one well referred to as the Bedford Springs or "Hotel" Well. This well was placed into operation in mid-2007. Development of a third new source was completed in and placed into operation in late 2009. The third source consists of two wells known as the Shaffer Tract wells. These wells are located in the Belden (Camp Shaffer) area of the Township. The BTMA developed this additional source to ensure an adequate supply for its current customers, to provide for continuing growth that is being experienced within the Township and to provide an alternative source of supply in the event of an emergency, a supply problem, or down time during system maintenance within one of its other sources. The BTMA is also in the process of developing an additional supply well in the Bedford Springs area to provide a supplemental backup source for the area supplied by the existing Bedford Springs Well. During 2020, a combined total of nearly 76 million gallons of water was provided from these sources for use by BTMA customers. The availability of multiple, independent sources of supply affords the BTMA considerable flexibility in its operation of the water system which minimizes the chance of a long term service interruption to its customers during periods of necessary source maintenance and repair, or potential emergency events.

In addition to these ground water sources, the Authority maintains four active, bidirectional interconnections with Bedford Borough's water system which may be utilized during emergency situations as supplemental sources of supply for both the BTMA and Bedford Borough when needed. These interconnects were not needed to supplement the BTMA supply in 2020.

SOURCE WATER ASSESSMENT: A Geographic Information System (GIS) analysis-based, Source Water Assessment was completed in 2005 by the PA Department of Environmental Protection (PA DEP) and the Penn State Environmental Resources Research Institute for the Bedford Township Municipal Authority water supply. The Assessment has found that the BTMA ground water sources are potentially susceptible to contamination from agricultural activities situated within the well systems' recharge zones. Source Water Assessments were also completed for the Bedford Borough Water System in 2003. The Bedford Borough Source Water Assessments determined that the Bedford surface water sources have a high risk susceptibility rating for contamination from runoff of deicing materials and spills along roadways, bridges and railroads storm water runoff from salt storage facilities, agricultural fields, golf courses, malfunctioning septic systems and timbering operations. Copies of the respective reports were provided to the BTMA, Bedford Township, Bedford Borough Water Authority and the Altoona District Office of the PA DEP. Copies of the respective summary reports are available by writing to the BTMA, 1007 Shed Road, Suite 102, Bedford PA 15522 or to the Bedford Borough Water Authority, 244 West Penn Street, Bedford PA 15522. A summary of the PA DEP Source Water Assessment report is available in the eLibrary page on the DEP website at www.depgreenport.state.pa.us/elibrary/GetFolder.aspx?FolderID=4490. Copies of the complete reports are also available for review at the PA DEP Southcentral Regional Office, Records Management Unit at (717) 705-4700.

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 byproducts 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.

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 / 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 at (1-800-426-4791).

DRINKING WATER, INCLUDING BOTTLED WATER, may reasonably be expected to contain at least small amounts of some contaminants. The presence of some 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 EPA's Safe Drinking Water Hotline (1-800-426-4791). **IN ORDER TO ENSURE THAT TAP WATER IS SAFE TO DRINK**, EPA and DEP prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration and DEP regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

WATER QUALITY was monitored during the operating period between January 1, and December 31, 2020. The Authority routinely monitors for contaminants in your drinking water according to Federal and State laws.

THE FOLLOWING TABLE SHOWS THE RESULTS OF OUR WATER QUALITY MONITORING for the period of January 1st through December 31, 2020. In reviewing this table, it should be noted that the State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of the data is from previous years in accordance with the Safe Drinking Water Act. The date of sampling has been noted on the following sampling results table. Only those contaminants found in the Authority's treated water are listed in the table.

2020 Detected Regulated Contaminant Table Bedford Township Municipal Authority							
Contaminant (Unit of Measure)	MCL	MCLG	Highest Level Detected	Range	Sample Period	Violation	Likely Source of Contamination
Inorganic Contaminants							
Barium (ppm) *[BTMA Entry Points]*	2	2	0.0254	0.0118 to 0.0254	2018	No	Discharge of drilling waste, discharge from metal refineries, erosion of natural deposits
Selenium (ppb) *[BTMA Entry Points]*	50	50	3.65	ND to 3.65	2018	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Radiological Contaminants							
Combined Radium (pCi/L) *[Entry Point 102]*	5	0	1.05	NA-One sample only	2018	No	Erosion of natural deposits
Disinfectant Residuals							
Chlorine – Distribution System							
Chlorine (ppm) *[BTMA distribution system]*	MRDL = 4	MRDLG = 4	Max Level Detected= 1.39 *(February)*	0.91 to 1.39	2020	No	Water additive used to control microbes
Chlorine (ppm) – Entry Points							
BTMA Bowman Wells (ppm)	MinRDL=0.4	NA	Min Level Detected =0.99 12/01/2020	0.99 to 1.99	2020	No	Water additive used to control microbes
BTMA Bedford Springs Well (ppm)		NA	Min Level Detected = 0.82 8/31/2020	0.82 to 1.99	2020	No	
BTMA Shaffer Wells (ppm)		NA	Min Level Detected= 0.73 4/06/2020	0.73 to 2.02	2020	No	
Disinfection By-Products							
Trihalomethanes, Total (ppb) [*BTMA distribution system]*	80	NA	3.58	0.00 to 3.58	3rd Qtr 2020	No	Byproduct of drinking water chlorination.
Haloacetic Acids (ppb) [*BTMA distribution system]*	60	N/A	1.29	ND to 1.29	3rd Qtr 2020	No	Byproduct of drinking water disinfection.
Lead and Copper							
Contaminant (Unit of Measure)	Action Level (AL)	MCLG	90th Percentile Value	# Sites Above AL of Total Sites	Sample Period	Violation	Likely Source of Contamination
Lead (ppb) *[BTMA Distribution System]*	15	0	2.73	Zero out of 13 samples	2019	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm) *[BTMA Distribution System]*	1.3	1.3	0.54	Zero out of 13 samples	2019	No	Corrosion of household plumbing systems; Erosion of natural deposits. Leaching from wood preservatives.

Violations- Bedford Township Municipal Authority Water System – No violations were issued to BTMA in 2020.

Supplemental Information Regarding Lead in Drinking Water – Although **no** samples from the BTMA distribution system that were tested for lead exceeded the established Action Limit (AL), lead was present at detectable levels in five samples analyzed in 2019. Elevated levels of lead, if present, 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 BTMA 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.

Additional contaminants are regulated and are also routinely tested for, but are **not** present at detectable levels. Contaminants that have been tested for by the Bedford Township Municipal Authority, but **not detected** in the Authority's system during 2020 or recent years, included:

- **Radioactive Contaminants: (2018)** Gross Alpha Emitters, Radium 226 & Combined Uranium
- **Volatile Organic Compounds (VOCs) including: (2020 all sources)** cis-1,2-Dichloroethylene; Benzene; trans-2-Dichloroethylene; Dichloromethane; 1,2-Dichloropropane; Ethylbenzene; Styrene; Tetrachloroethylene; 1,1,1-Trichloroethane; 1,1,2-Trichloroethane; Trichloroethylene; Toluene; Xylenes (total); Carbon tetrachloride; Chlorobenzene; o-Dichlorobenzene; p-Dichlorobenzene; 1-2-Dichloroethane; 1,1-Dichloroethylene; 1,2,4-Trichlorobenzene; Vinyl chloride - Bowman, Shaffer and Bedford Springs Well Sources
- **Inorganic contaminants including: (2020)** Nitrates; Nitrites, **(2020)** Antimony; Arsenic; Beryllium; Cadmium; Chromium; Cyanide; Mercury; Nickel; Fluoride; Thallium – Bowman, Shaffer and Bedford Springs sources; **(2014)** Asbestos
- **Synthetic Organic Chemicals (SOCs) including: (2018 all sources)** Lindane; Methoxychlor; Endothall; Di(2-Ethylhexyl)Adipate; Oxymal (Vydate); Simazine; Di(2-Ethylhexyl) Phthalate; Piclorem; Carbofuran; Hexachlorocyclopentadiene; Atrazine; Alachlor; 2,4-D; Benzo(a)pyrene; Pentachlorophenol; 1,2-Dibromo, 3 Chloroprop; Ethylene Dibromide (EDP); Chlorodane; Toxaphene; Dalpon; Diquat; Glyphosate; Dinoseb; Dioxin; Heptachlor; Heptachlor epoxide; 2,4,-D; 2,4,5-Silvex; Hexachlorobenzene; Endrin; PCBs
- **Microbial Contaminants (2020):** Total Coliform Bacteria

Glossary of Terms Used in This Report

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

BTMA - Bedford Township Municipal Authority

DEP – Pennsylvania Department of Environmental Protection; **EPA** – US Environmental Protection Agency

Maximum Contaminant Level (MCL) - 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.

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 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 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 contamination.

Minimum Residual Disinfectant Level (MinRDL) – The minimum level of residual disinfectant required at the entry point to the distribution system.

NA – Not Applicable **ND** – Not Detected (**pCi/L) -** PicoCuries per liter **-** A measure of radioactivity

(ppb) - Parts per billion or micrograms per liter **(ppm) -** Parts per million or milligrams per liter

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

- PLEASE CONSERVE OUR WATER RESOURCES –

The Bedford Township Municipal Authority requests that customers conserve our water resources by conserving water in the home and at places of work Efficient water use can have major environmental, public health, and economic benefits by helping to improve water quality, maintain aquatic ecosystems, and protect drinking water resources. Efficient use of water, through behavioral, operational, or equipment changes, if practiced broadly can help mitigate the effects of drought. Efficiency measures can also save the homeowner money on their water and energy bills. The following tips and suggestions were obtained from *Wateruseitwisely website* and can help you conserve water, save money and protect and preserve our water resources. For many more water saving tips and water conservation resources, please visit their website at www.wateruseitwisely.com.

SAVE INDOORS

Kitchen

1. When washing dishes by hand, don't let the water run. Fill one basin with wash water and the other with rinse water.
2. Dishwashers typically use less water than washing dishes by hand. Now, Energy Star dishwashers save even more water and energy. Make sure it's fully loaded; you can save 1000 gallons/month.

3. Designate one glass for your drinking water each day or refill a water bottle. This will cut down on the number of glasses to wash.
4. Soak pots and pans instead of letting the water run while you scrape them clean.
5. Use the garbage disposal sparingly. Instead, compost vegetable food waste and save gallons every time.
6. Don't use running water to thaw food. For water efficiency and food safety, defrost food in the refrigerator.

Laundry

1. When doing laundry, match the water level to the size of the load.
2. Washing dark clothes in cold water saves water and energy, and helps your clothes retain color.
3. When shopping for a new machine, compare resource savings among Energy Star models. Some can save up to 20 gallons of water per load.

Bathroom

1. Shorten your shower by a minute or two and you'll save up to 150 gallons/month. Or time your shower to keep it under 5 minutes; you'll save up to 1,000 gallons/month.
2. Take showers instead of baths; a full bathtub requires up to 70 gallons of water.
3. Toilet leaks can be silent! Be sure to test your toilet for leaks at least once a year. Put food coloring in your toilet tank; if it seeps into the bowl without flushing, there's a leak. Fix immediately to save gallons!
4. Turn off water while you brush your teeth and save up to 4 gallons/minute. That's 200 gallons/week for a family of four.
5. One drip every second adds up to five gallons per day! Check faucets and shower heads for leaks.

Office

1. Install and instant water heater near your kitchen sink so you don't have to run the water while it heats up. This also reduces energy costs.
2. Upgrade older toilets with water saving WaterSense® labeled models.
3. Install water-saving aerators on all of your faucets.
4. Some commercial refrigerators and icemakers are cooled with water. Upgrade to air-cooled appliances for significant water savings.
5. Wash company vehicles at commercial car washes that recycle water.
6. When ice cubes are leftover from your drink, don't throw them out; pour them into a plant.

SAVE OUTDOORS

General Outdoors

1. Winterize spigots when temperatures dip below freezing to prevent pipes from leaking or bursting.
2. Use a commercial car wash that recycles water. Or wash your car on the lawn, and you'll water your grass at the same time.
3. Use a broom instead of a hose to clean patios, sidewalks, and driveways. Saves water every time!
4. Report broken pipes, leaky hydrants and errant sprinklers to property owners or your local water provider.

Pool

1. Use a pool cover to help keep your pool clean, reduce chemical use and prevent water loss through evaporation.
2. Make sure your swimming pools, fountains, and ponds are equipped with recirculating pumps.
3. Don't overfill your pool. Lower water levels will reduce water loss due to splashing.

Landscaping

4. Plant in spring and fall, when the watering requirements are lower.
5. When sprucing up your front or backyard, consider xeriscaping. The landscape method uses low-water-use plants to limit your water use.
6. Next time you add or replace a flower or shrub, choose a low-water-use plant and save up to 500 gallons/year.
7. Collect water from your roof by installing gutters and downspouts. Direct runoff to plants and trees.
8. Adjust your lawn mower to the height of 1.5 to 2 inches. Taller grass shades roots and holds soil moisture better than short grass.
9. Leave lawn clippings on your grass, this cools the ground and holds in moisture.
10. Look for WaterSense® irrigation controllers.
11. Adjust your watering schedule each month to match seasonal weather conditions and landscape requirements.

Check out these additional websites for more water conservation information:

www.epa.gov/WaterSense
wateruseitwisely.com/100-ways-to-conserve/index.php;
www.americanwater.com/49ways.php
www.epa.gov/greenhomes/ConserveWater.htm
www.h2ouse.org/

Please help us find leaks, save water and reduce water service costs…Because water lines are located underground, leaks may go u unnoticed for days and even years resulting in a considerable waste of our valuable water resource and additional costs for all customers. Please help us locate these leaks by reporting to the Water Department any occurrences of: water running in locations that are normally dry; wet spots in yards and streets; the sound of water running in your home when water is not in use; the sound of water trickling or running in a storm inlet when it is not raining; sudden or unusually low water pressure; and slugs of discolored or cloudy water. When an occurrence such as this is reported, a representative of the water department will make contact and investigate the situation.

Bedford Township Municipal Authority
1007 Shed Road, Suite 102
Bedford PA 15522

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This report shows our water quality and what it means. **IF YOU HAVE ANY QUESTIONS ABOUT THIS REPORT** or questions concerning your water utility, please contact Shawna Howsare, BTMA Administrative Assistant at (814) 623-7879, Monday through Friday, 7:30 a.m. to 3:30 p.m. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled Authority meetings. They are held at 4:00 p.m. on the first Wednesday of each month at the Bedford Township Municipal Building located at 1007 Shed Road, Suite 102, in Bedford Township. For more information regarding the Bedford Township Municipal Authority and the BTMA water system, you may visit the Authority's webpage on the PA Rural Water Association website at: http://www.goh2o.net/btma.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.