2021 ANNUAL DRINKING WATER QUALITY REPORT

PWSID #: 6250087 NAME: Fairview Township Water Authority, District 1

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, ó hable con alguien que lo entienda. (This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.)

WATER SYSTEM INFORMATION:

This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact Chuck Giewont, Manager at 814-474-2238. We want you to be informed about your water supply. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the third Wednesday of the month at 2:00 or 7:00 p.m. at the Fairview Township Sewer and Water Building. Please call to confirm meeting date and time.

SOURCE(S) OF WATER:

Our water sources are: Erie City Water Authority, 626 State Street, Erie, PA 16501:
Fairview Township Water Authority District 3, 7485 McCray Road, Fairview, PA 16415

Our water source consists of treated surface water purchased from the Erie City Water Authority. Additionally, we obtain 18% of our supply from District 3 in Fairview Township, which is treated well water.

A *Source Water Assessment* of our source was completed in 2003 by the PA Department of Environmental Protection (PA DEP). The assessment has found that our source is potentially most susceptible to wastewater discharges from wastewater treatment plants and on-site septic systems, drainage from streets, parking lots and other paved surfaces, permitted and tested treatment system water from the Millcreek Dump, and leakage spills from Lake Erie cargo traffic. Overall, our source has little risk of significant contamination. A summary report of the assessment is available by writing to Erie City Water Authority, 340 West Bayfront Parkway, Erie, PA 16501, (814) 870-8000 and is available on the PA DEP Web site at www.depweb.state.pa.us (keyword: "source water"). Complete reports were distributed to municipalities, water supplier, local planning agencies and PA DEP offices. Copies of the complete report are available for review at the PA DEP Northwest Regional Office, Records Management Unit at (814) 332-6945.

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* (800-426-4791).

MONITORING YOUR WATER:

We routinely monitor for contaminants in your drinking water according to federal and state laws. The following tables show the results of our monitoring for the period of January 1 to December 31, 2019. The State allows 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 is from prior years in accordance with the Safe Drinking Water Act. The date has been noted on the sampling results table.

DEFINITIONS:

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

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 contaminants.

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

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

Mrem/year = millirems per year (a measure of radiation absorbed by the body)

pCi/L = picocuries per liter (a measure of radioactivity)

ppb = parts per billion, or micrograms per liter (µg/L)

ppm = parts per million, or milligrams per liter (mg/L)

ppq = parts per quadrillion, or picograms per liter

ppt = parts per trillion, or nanograms per liter

DETECTED SAMPLE RESULTS: FAIRVIEW TOWNSHIP DISTRICT 1: PWSID # 6250087

Microbial					
Contaminants	**MCL**	**MCLG**	**Highest # or % of Positive Samples**	**Violation Y/N**	**Sources of Contamination**
Total Coliform Bacteria	For systems that collect <40 samples/month: • More than 1 positive monthly sample For systems that collect ≥ 40 samples/month: • 5% of monthly samples are positive	0	ND IN 52 SAMPLES	N	Naturally present in the environment.
Fecal Coliform Bacteria or *E. coli*	0	0	ND IN 52 SAMPLES	N	Human and animal fecal waste

Lead and Copper							
Contaminant	**Action Level (AL)**	**MCLG**	**90th Percentile Value**	**Units**	**# of Sites Above AL of Total Sites**	**Violation Y/N**	**Sources of Contamination**
Lead	15	0	0	ppb	0 of 20	N	Corrosion of household plumbing.
Copper	1.3	1.3	0.16	ppm	0 of 20	N	Corrosion of household plumbing.

Chemical Contaminants								
Contaminant	**MCL in CCR Units**	**MCLG**	**Level Detected**	**Range of Detections**	**Units**	**Sample Date**	**Violation Y/N**	**Sources of Contamination**
Chlorine	4	4	1.02	0.69 – 1.02	ppm	Sept. 2021	N	Water additive used to control microbes.
Trihalomethanes (TTHM) Running Ave.	80	na	41.85	26.5 – 55.8	ppm	08/16/2021	N	By-product of drinking water chlorination.
Haloacetic acids (HAA5) Running Ave.	60	na	13.0	12.8 – 13.3	ppm	8/16/2021	N	By-product of drinking water chlorination.

EDUCATIONAL INFORMATION:

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 run-off, 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, EPA and DEP prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA and DEP 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* (800-426-4791).

Information about 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. Fairview Township Water Authority 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*.

CONTACT INFORMATION:

Phone: ***(814) 474-2238*** ***Website: www.fairviewsewerandwater.com***
Fax: ***(814) 474-3210*** ***Email: info@fairviewsewerandwater.com***

WATER SAVINGS

The amount of water savings depends on current water consumption habits, water, sewer and energy costs, current flow rate for fixtures and flush volumes of toilets, system pressure, and the amount of water leakage through fittings and toilets.

The following chart highlights how much water can be conserved by installing water-saving equipment in place of conventional plumbing fixtures, fittings, and appliances.

Fixture/Fitting/Appliance	Water use in Gallons Per	
Vintage Toilet	4 – 6	flush
Conventional Toilet	3.5	flush
Low-Consumption Toilet	1.6	flush
Conventional showerhead	3 – 10	minute
Top-Loading Washer	40 – 50	load
Front-Loading Washer	22 – 25	load
Low-flow Shower Head	2 – 2.5	minute
Faucet Aerator	3 – 6	minute
Flow Regulating Aerator	.5 – 2.5	minute
Dishwasher	8 – 12	load

REPAIR ALL LEAKS

A dripping faucet is more than annoying... it is expensive. Even small leaks can waste significant amounts of water. Hot water leaks are a waste of water and energy used to heat the water. Leaks inside the toilet can waste up to 200 gallons per day. Toilet leaks can be detected by adding a few drops of food coloring to water in the toilet tank. If the colored water appears in the bowl, the toilet is leaking.

Water costs money... don't waste it!

A dripping faucet or fixture can waste 3 gallons a day...a total of 1095 gallons a year.

	U.S. Equivalent	Metric Equivalent
Fluid oz.	8 fl. drams (1.804 cu. inches)	29.573 milliliters
Pint	16 fl. oz. (28.875 cu. inches)	0.473 liter
Quart	2 pints (57.75 cu. inches)	0.946 liter
Gallon	4 quarts (231 cu. inches)	3.785 liters

Waste per quarter at 60 psi water pressure

Diameter of stream	Gallons	Cubic Feet	Cubic Meters
¼"	1,181,500	158,000	4,475
3/16"	666,000	89,031	2,521
⅛"	296,000	39,400	1,115
1/16"	74,000	9,850	280

A continuous leak from a hole this size would, over a three month period, waste water in the amounts shown above.

ERIE DETECTED SAMPLE RESULTS
Public Water System ID: 6250028

Inorganic Contaminants

Contaminant (Unit of measurement)	Location	Violation Y/N	Level Detected	Range	MCLG	MCL	Source of Contamination
Aluminum (ppb)	WP	Y (2019)	92	ND-290	50-200	200	Erosion of natural deposits; Leaching from rocks and soil
	CP	N	34				
	Dist	Y (2019)	96	ND-310			
Barium (ppm)	WP	N	0.021		2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
	CP	N	0.020				
Copper (ppm)	WP	N	0.0071	0.0032 - 0.0110	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
	CP	N	0.0015				
Fluoride (ppm) (a)	WP	N	0.46		2	2	Erosion of natural deposits; water additive which promotes stronger teeth; discharge from fertilizer and aluminum factories
	CP	N	0.48				
Iron (ppb)	Dist	N	25	ND-180	300	(na)	Erosion of natural deposits; corrosion of household plumbing
Manganese (ppb)	WP	N	0.63	ND-2.70	50	50	Erosion of natural deposits; discharge from metal refineries; runoff from agriculture
	Dist	N	2.7	ND-27.0	50	50	
Nitrate (ppm)	WP	N	0.48		10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Orthophosphate (ppm)	WP	N	0.64	0.34-0.82	(na)	(na)	Water additive used for corrosion control
	CP	N	0.66	0.55-0.83			
	Dist	N	0.83	0.23-1.19			
Sodium (ppm)	WP	N	13	10-15	(na)	(na)	Erosion of natural deposits; wastewater effluent; runoff from road salting
	CP	N	12				
	Dist	N	13	10-16			
Sulfate (ppm)	WP	N	20	19-20	250	(na)	Erosion of natural deposits; Leaching from rocks and soil
	CP	N	20				
Zinc (ppb)	Dist	N	8.1	ND-15	(na)	(na)	Erosion of natural deposits; Discharge of mining wastes; discharge from metal refineries

Synthetic Organic Compound (SOC)

Contaminant (Unit of measurement)	Location	Violation Y/N	Level Detected	Range	MCLG	MCL	Source of Contamination
Atrazine (ppb)	Dist	N	0.06		3	3	Runoff from herbicide used on row crops
Dalapon (ppb)	Dist	N	1.02		200	200	Runoff from herbicide used on rights of way
Di(2-ethylhexyl) phthalate (ppb)	Dist	N	3.07		0	6	Discharge from rubber and chemical factories

2,4- D (ppb)	CP	N	0.05	ND-0.139	70	70	Runoff from herbicide used on row crops
	Dist	N	0.14	0.112-0.118			
Ethylbenzene (ppb)	Dist	N	1.85	0.9-2.8	700	700	Discharge from petroleum factories
Xylenes (ppm)	Dist	N	0.0111	0.0059-0.0184	10	10	Discharge from petroleum factories; Discharge from chemical factories

Disinfection and Disinfection By Products

Contaminant (Unit of measurement)	Location	Violation Y/N	Level Detected	Range	MCLG	MCL	Source of Contamination
Haloacetic Acids (ppb) (Highest Running Average)	Dist	N	18.3	7.5-28.3	(na)	60	Byproduct of drinking water disinfection
Total Trihalomethanes (ppb) (Highest Running Average)	WP	N	15.6	8.4-23.4	(na)	80	Byproduct of drinking water disinfection
	CP	N	9.4				
	Dist	N	39.2	13.2-74.2			
Chlorine (ppm) (Highest monthly average)	Dist	N	1.42	1.03-1.42	MRDLG = 4	MRDL=4	Water additive used to control microbes

Radiological Contaminants

Contaminant (Unit of measurement)	Location	Violation Y/N	Level Detected	Range	MCLG	MCL	Source of Contamination
Gross Beta (pCi/L) (b)	WP	N	5.8		0	50	Decay of natural and man-made deposits

Microbiological Contaminants

Turbidity

Contaminant	MCL	MCLG	Level Detected	Sample Date	Violation Y/N	Sources of Contamination
Turbidity (CFE) (ntu)	TT= 1 NTU for a single measurement (WP)	0	1.0000	10/21/2021	N	Soil runoff
	TT= 95% of monthly samples < 0.15 NTU (WP)	0	100.0%	October 2021	N	Soil runoff
	TT= 1 NTU for a single measurement (CP)	0	0.821	3/17/2021	N	Soil runoff
	TT= 95% of monthly	0	100.0%	March 2021	N	Soil runoff

Contaminant (Unit of measurement)	Location	Violation Y/N	Level Detected	Range	MCLG	MCL	Source of Contamination
Turbidity (CFE) (ntu)	WP	N	0.020	0.001-1.000	(na)	TT	Soil runoff
	CP	N	0.040	0.014-0.821	(na)		

Entry Point Disinfectant Residual

Contaminant	Location	Minimum Disinfectant	Lowest Level	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine	WP	0.2	0.06	0.06-1.83	ppm	4/15/2021	N	Water additive used to control microbes
	CP	0.2	0.21	0.21-1.70	ppm	9/13/2021	N	

Lead and Copper Study

Contaminant	Action Level (AL)	MCLG	90th Percentile Value	Units	# of Sites Above AL of Total Sites	Violation Y/N	Sources of Contamination
Lead	15	0	0.723	ppb	0 of 56	N	Corrosion of household plumbing systems; erosion of natural deposits
Copper	1.3	1.3	0.075	ppm	0 of 56	N	

Microbial

Contaminant	TT	MCLG	Assessments/ Corrective Actions	Violation Y/N	Sources of Contamination
Total Coliform Bacteria	Any system that has failed to complete all the required	(na)	See detailed description under	N	Naturally present in the environment

Total Organic Carbon (TOC)

Contaminant (Unit of measurement)	Location	Violation Y/N	Level Detected	Range	MCLG	MCL	Source of Contamination
SUVA (ppm)	WP	N	0.8	0.7-1.0	(na)	(na)	Test to determine TOC reactivity
	CP	N	0.8	0.7-0.9			
DOC (ppm)	WP	N	1.60	1.41-1.89	(na)	(na)	Test to determine TOC reactivity
	CP	N	1.77	1.64-1.88			
UV254 (cm^{-1})	WP	N	0.013	0.010-0.016	(na)	(na)	Test to determine TOC reactivity
	CP	N	0.015	0.014-0.015			

Contaminant	Range of % Removal Required	Range of Percent Removal achieved	Number of quarters out of compliance	Violation Y/N	Sources of Contamination
TOC	25% (CP only)	18.7 - 36.2%	0	N	Naturally present in the environment
		ACC used when below 25%	SUVA		

(a) EPA's MCL for fluoride is 4 ppm. However, Pennsylvania has set a lower MCL to better protect human health.

(b) EPA considers 50 pCi/L to be the level of concern for beta particles

(na) Not Applicable