

# **Buckingham Township Buckingham Village Water System 2021 Annual Drinking Water Quality Report – PWSID #1090145**

## **Spanish (Español)**

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

## **Is my water safe?**

Last year, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards. Buckingham Township vigilantly safeguards its water supplies and we are proud to report that our system did not violate a maximum contaminant level in 2021.

## **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/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4761).

## **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 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 drinking 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>.

## **Information about Copper**

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

## **Where does my water come from?**

Our water source is from two groundwater wells, BV-1 (source 001) and BV-2 (source 002) located behind the Buckingham Knoll Development in Buckingham Township.

## **Source Water Assessment and its availability**

Source water assessment was completed by the Penn State Environmental Resource Research Institute and received from PA DEP in June of 2007. Copies of the complete report are available

for review at the PA DEP Southeast Regional office, Records Management Unit at (484) 250-5910.

## **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 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 stormwater 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 stormwater run-off, 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 run-off, 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 assure 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 the 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 the 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).

## **Water System Information**

If you have any questions about this report or concerning your water utility, please contact Stephen Clark (215-794-8834). We want our valued customers to be informed about their water utility. We want you to be informed about your water supply. If you want to learn more, please attend any of our regularly scheduled meetings. Upcoming meeting dates are listed on the Township website at [www.buckinghampa.org](http://www.buckinghampa.org).

## **Other Information**

Three secondary contaminants were detected in April 2020: chloride at 8.4 ppm, sulfate at 44.9 ppm, and zinc at 0.013 ppm. The secondary maximum contaminant levels (SMCLs) of chloride (250 ppm), sulfate (250 ppm), and zinc (5 ppm) were not exceeded.



## WATER QUALITY DATA

The Buckingham Village Water System is routinely monitored for constituents in your drinking water according to Federal and State laws. The following table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31, 2021. However, 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. Samples collection and testing was conducted by Analytical Laboratories, Inc. (215) 723-6466 during 2021.

### DISINFECTANTS & DISINFECTION BYPRODUCTS

Chemical Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Violation Y/N	Sources of Contamination
Chlorine (as CL <sub>2</sub> )	MRDL =4	MRDLG =4	1.76	0.58-1.76	ppm	N	Water additive used to control microbes.
Haloacetic Acids (Five)	60	N/A	6.8	0-6.8	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHMs)	80	N/A	30.2	6.8-30.2	ppb	N	By-product of drinking water chlorination.
Chemical Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Violation Y/N	Sources of Contamination
Nitrate	10	10	4.18	3.63-4.18	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Barium	2	2	0.36	N/A	ppm	N	Discharge of drilling waste, Discharge from metal refineries; Erosion of natural deposits
Nickel	0.1	0.1	0.0053	N/A	ppm	N	Discharge from metal refineries and organic chemical manufacturing, erosion of natural deposits

### ENTRY POINT DISINFECTION RESIDUAL

Chemical Contaminant	MinRDL	Lowest Level Detected	Range of Detections	Units	Violation Y/N	Sources of Contamination
Chlorine	0.40	0.5	0.5-2.3	ppm	N	Water additive used to control microbes.

### LEAD AND COPPER

Chemical Contaminant	Action Level (AL)	MCLG	90 <sup>th</sup> Percentile Value	Units	# of Sites Above AL of Total Sites	Violation Y/N	Sources of Contamination
Lead (2019)	15	0	3	ppb	0 out of 10	N	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper (2019)	1.3	1.3	0.29	ppm	0 out of 10	N	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.

### RADIOACTIVE CONTAMINANTS

Chemical Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Violation Y/N	Sources of Contamination
Combined Radium (2016)	5	0	1.14	N/A	pCi/L	N	Erosion of natural deposits

Testing was conducted for a broad range of contaminants in 2021 which were not detected in our samples, including: nitrite, total coliform presence, regulated volatile organic compounds, synthetic organic compounds, and several inorganic compounds (including arsenic, fluoride, chromium, cyanide, and mercury).



Unit Descriptions	
Terms	Definitions
ug/L	Number of micrograms of substance in one liter of water
ppm	Parts per million (ppm) or Milligrams per liter (mg/l)
ppb	Parts per billion (ppb) or micrograms per liter (µg/l)
pCi/L	Picocuries per liter – a measure of radioactivity.
NA	Not applicable
ND	Not detected
NR	Monitoring not required, but recommended.
Important Drinking Water Definitions	
Term	Definition
MCLG	Maximum Contaminant Level Goal – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
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	Treatment Technique – A required process intended to reduce the level of a contaminant in drinking water.
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	State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
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.
MinRDL	Minimum Residual Disinfectant Level – The minimum level of residual disinfectant required at the entry point to the distribution system.
MRDL	Maximum Residual Disinfection Level – The highest level of a disinfectant that is allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MNR	Monitored not regulated
MPL	State assigned maximum permissible level

### Information about Nitrate and Nitrite

Nitrate and nitrite in drinking water at levels above 10 ppm and 1 ppm, respectively, is a health risk for infants of less than six months of age. High nitrate and nitrite levels in drinking water can cause blue baby syndrome. Nitrate and nitrite levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

### Other Violations

We are required to monitoring drinking water for nitrate and nitrite on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. We are required to sample nitrate and nitrite on a quarterly basis. In 2021, we sampled and tested for three of the four quarters; these results were below the allowable level. However, during the fourth quarter in 2021, we did not complete all monitoring or testing for nitrate and nitrite and therefore cannot be sure of the quality of our drinking water during that time. The sample was not taken due to a laboratory error. We did sample the subsequent quarter on time (i.e. the first quarter in 2022) and these results were below the allowable level. We have continued our required sampling for 2022.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. The report for total coliform presence during the month of October was submitted late. Compliance was achieved in December upon report submission. All results of samples taken were below the allowable level; you do not need to take any actions at this time.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.



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*Annual Drinking Water Quality Report*  
Buckingham Township – Buckingham Village System