# Buckingham Township Cold Spring Water System
# 2022 Annual Drinking Water Quality Report – PWSID #1090137

**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 2022.

**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 (800-426-4791).

**Where does my water come from?**

Our water source is from four groundwater wells, CS-1 (source 001), CS-2 (source 003), CS-3 (source 004), and CS-4 (source 006) located along Cold Spring Creamery Road, between State Routes 413 and 313.

**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.

**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.

**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.

**Water Conservation with an Instant Benefit**

As concerns with water supplies across the country rise, we as good residents need to start looking at things around the home that can improve our use of this precious resource. Since all of the water in Buckingham Township is provided by groundwater wells located around the Township, it should be looked upon as a local resource that needs to be protected. Through water-saving technologies and simple steps that can be taken around the house, we can help ensure reliable water supplies today and for future generations.

Anyone who showers first thing in the morning may be familiar with the waiting period for hot water to reach the fixture. Depending on where the hot water heater is located and where the shower is, it can take up to 90 seconds for the hot water to arrive.

Hot water recirculation pumps are a convenient option that allows you to benefit from an immediate supply of hot water to all of the faucets in your home. This immediate availability can help you conserve water. Instead of having to wait for the water to heat up every time you take a shower, wash your hands, or do the dishes, these unique systems will pump hot water through the hot water piping system and back to your heater.

In most cases, the hot water recirculation pump has a motion sensor located near each water fixture in your home. This sensor activates the circulation pump each time you turn the water on. The system includes temperature sensors and a check valve that prevents water from going back into the return plumbing line. The recirculation pump actually moves water in the line back to the water heater, thus reducing the amount of time needed for hot water to reach your faucet. It is estimated a hot water recirculation pump can save 11,000 gallons per year in a four-person household.

An on-demand hot water recirculation pump offers consumers an opportunity to maximize water conservation and energy efficiency. Unlike recirculation systems which run constantly or operate on a timer, the on-demand systems are button-activated and function only when needed. This option gives the consumer maximum control over their investment.

A recirculation pump may be a successful approach to water conservation in your home, office or business. If you are interested in obtaining more information about this technology, please contact a local, licensed plumber.

# WATER QUALITY DATA

**The Cold Spring 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 1st to December 31, 2022**.** 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 2022.

**DISINFECTANTS & DISINFECTION BYPRODUCTS**

| Chemical Contaminant | MCL in CCR Units | MCLG | Level Detected | Range of Detections | Units | Violation Y/N | Sources of Contamination |
|---|---|---|---|---|---|---|---|
| Chlorine (as CL2) | MRDL =4 | MRDLG =4 | 1.73 | 0.20-1.73 | ppm | N | Water additive used to control microbes. |
| Haloacetic Acids (Five) | 60 | N/A | 13.2 | NA | ppb | N | By-product of drinking water disinfection. |
| Total Trihalomethanes (TTHMs) | 80 | N/A | 49.4 | NA | 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** |
| Arsenic | 10 | 0 | 3 | ND-3 | ppb | N | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes |
| Nitrate | 10 | 10 | 3.87 | 2.89-3.87 | ppm | N | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Barium (2021) | 2 | 2 | 0.37 | 0.32-0.37 | ppm | N | Discharge of drilling waste, Discharge from metal refineries; 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 (Location 101) | 0.40 | 0.9 | 0.9-2.3 | ppm | N | Water additive used to control microbes. |
| Chlorine (Location 102) | 0.40 | 0.8 | 0.8-2.1 | ppm | N | Water additive used to control microbes. |

**LEAD AND COPPER**

| Chemical 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 out of 20 | N | Corrosion of household plumbing systems; Erosion of natural deposits |
| Copper | 1.3 | 1.3 | 1.2 | ppm | 1 out of 20 | 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** |
| Uranium (2020) | 30 | 0 | 1.14 | N/A | µg/L | N | Erosion of natural deposits |

Testing was conducted for a broad range of contaminants in 2022 which were not detected in our samples, including regulated volatile organic compounds, nitrite, total coliform presence, and asbestos).

| **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 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.

**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 form materials and components associated with service lines and home plumbing components. When you 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.

**Secondary Contaminant Testing**

EPA has established National Secondary Drinking Water Regulations (NSDWRs) that set non-mandatory water quality standards for 15 contaminants. EPA does not enforce these "secondary maximum contaminant levels" (SMCLs). They are established as guidelines to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color, and odor. These contaminants are not considered to present a risk to human health at the SMCL. The table below summarizes selected testing for Secondary Contaminants which has been performed on your water.

| Contaminant | Detected Level | SMCL | Noticeable Effects above SMCL |
|---|---|---|---|
| Chloride (2020) | 58.3-59.5 ppm | 250 ppm | salty taste |
| Sulfate (2020) | 19.4-20.4 ppm | 250 ppm | salty taste |
| Zinc (2020) | 0.0055 ppm | 5 ppm | metallic taste |

**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 Information**

Three secondary contaminants were detected in April of 2020 - chloride at 58.3 and 59.5 ppm, sulfate at 19.4 and 20.4 ppm, and zinc at 0.0055 ppm. The secondary maximum contaminant levels (SMCLs) of chloride (250 ppm), sulfate (250 ppm), and zinc (5 ppm) were not exceeded.

**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, included 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).