# 2021 ANNUAL DRINKING WATER QUALITY REPORT
# EAST COCALICO TOWNSHIP AUTHORITY
# PWSID #7360113

*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 **East Cocalico Township Authority (ECTA)** at **717-336-1731**. 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 the last Tuesday of each month at 7:00 p.m. at the East Cocalico Township Municipal Building.

## SOURCES OF WATER

Our water sources are ground water sources as follows: Wells 2A, 3A, 4&12, 5&6, 7, 8A, 9, 10, 11, 14 and F.

A Source Water Assessment of our sources was completed by the PA Department of Environmental Protection (PADEP). The Assessment has found that our sources are potentially most susceptible to heavy and light manufacturing facilities, fuel stations, agricultural (fertilizer and manure application), residential (heating oil tanks, herbicide and pesticide use), transportation corridors and sanitary sewer lines. Overall, our sources have high risk of significant contamination. A summary report of the Assessment is available on the ECTA website at www.eastcocalicotownshipauthority.com, by writing to ECTA at 102 Hill Road, Denver, PA 17517, or can be found on the Source Water Assessment Summary Reports eLibrary web page: www.depgreenport.state.pa.us/elibrary/GetFolder?FolderID=4490. Complete reports were distributed to municipalities, water supplier, local planning agencies and PADEP offices. Copies of the complete report are available for review at the PADEP Southcentral Regional Office, Records Management Unit at 717-705-4700.

**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, 2021. 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 year monitored is included in the Detected Sample Results tables.

## DEFINITIONS AND ABBREVIATIONS

**Action Level (AL) –** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which 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.

**Level 1 Assessment** – A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

**Level 2 Assessment** – A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

**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)

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

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

**ppq =** parts per quadrillion or picograms per liter

**ppb =** parts per billion or micrograms per liter (ug/L)

**ppt =** parts per trillion or nanograms per liter

**ug/L** = micrograms per liter

**CCR =** Consumer Confidence Report

**DETECTED SAMPLE RESULTS**

| ***Chemical Contaminants*** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Contaminant | MCL In CCR Units | MCLG | Highest Level Detected | Range of Detections | Units | Sample Date | Violation Y/N | Sources of Contamination |
| Chlorine | 4 MRDL | | 2.0 | 1.5-2.0 | ppm | 2021 | N | Disinfectant added to reduce bacterial growth |
| Arsenic | 10 | 0 | 3.0 | 1.0-3.0 | ppb | 2021 | N | Erosion of natural deposits |
| Barium | 2 | 2 | .7 | .01-.7 | ppm | 2021 | N | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Chromium | 100 | 100 | 2.0 | 2.0-2.0 | ppb | 2021 | N | Discharge from steel and pulp mills |
| Fluoride | 2 | 2 | 1.0 | 1.0-1.0 | ppm | 2021 | N | Erosion of natural deposits; Discharge from fertilizer and aluminum factories |
| Nickel | 100 | 100 | .03 | .03-.03 | ppm | 2021 | N | Erosion of natural deposits; Discharge from metal refineries. |
| Nitrate | 10 | 10 | 8.7 | 1.9-8.7 | ppm | 2021 | N | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Nitrite | 1 | 1 | .3 | .1-.3 | ppm | 2021 | N | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Sulfate | 250 | 250 | 52.3 | 52.3-52.3 | ppm | 2021 | N | Unknown |
| Haloacetic Acids** | 60 | 60 | 9.5 | 9.5-9.5 | ppb | 2021 | N | By-product of drinking water disinfection |
| Trihalomethanes** | 320 | 320 | 113 | 59-113 | ppb | 2021 | N | By-product of drinking water chlorination |
| 1.2-Dichloroethylene | 70 | 70 | 1.0 | 0.7-1.0 | ppb | 2020 | N | Discharge from industrial chemical factories |
| 1,1-Dichloroethylene | 7 | 0 | 0.1 | 0.1-0.1 | ppb | 2021 | N | Discharge from industrial chemical factories |
| Trichloroethylene | 5 | 0 | 2.5 | 2.5-2.5 | ppb | 2021 | N | Discharge from metal degreasing sites and other factories |
| Tetrachloroethylene | 5 | 0 | 1.0 | 1.0-1.0 | ppb | 2021 | N | Discharge from factories and dry cleaners |
| Gross Alpha | 15 | 0 | 3.9 | 3.3-3.9 | pCi/L | 2020 | N | Erosion of natural deposits |
| Combined Uranium | 30 | 0 | 5.7 | 1.0-5.7 | Ug/L | 2017 | N | Erosion of natural deposits |

| *Entry Point Disinfectant Residual* | | | | | | | |
|---|---|---|---|---|---|---|---|
| Contaminant | Minimum Disinfectant Residual | Lowest Level Detected | Range of Detections | Units | Sample Date | Violation Y/N | Sources of Contamination |
| Chlorine*** | 0.40 | .40 | .40-2.9 | ppm | 2021 | N | Water additive used to control microbes |

*** Entry point chlorine levels of less than 0.40 ppm did not exceed 4 hours of pump operation time.

| *Lead and Copper* | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Contaminant | Action Level (AL) | MCLG | 90th Percentile Value | Units | # of Sites Above AL of Total Sites | Sample Date | Violation Y/N | Sources of Contamination |
| Lead | 15 | 0 | 2.5 | ppb | 3 out of 29 | 2019 | N | Corrosion of household plumbing systems |
| Copper | 1.3 | 1.3 | .64 | ppm | 0 out of 29 | 2019 | N | Corrosion of household plumbing systems |

**OTHER VIOLATIONS**

The minimum Chlorine residual analytical results for sample dates May 24-31, 2021 were reported late due to a clerical error for entry point 108, Well #10. The reporting error was corrected and no further action was required of ECTA.

**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 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 storm water 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 prescribe 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).

**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. East Cocalico Township 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 www.epa.gov/safewater/lead.

**About Nitrate:** Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than 6 months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agriculture activity. If you are caring for an infant, you should ask for advice from your health care provider.

**About Arsenic:** While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

This report, along with forms and information pertaining to the EAST COCALICO TOWNSHIP AUTHORITY, are available on the Authority's website at www.eastcocalicotownshipauthority.com.