# 2012
# ANNUAL DRINKING WATER REPORT
# Village of Archbold Water Department

We're pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. The Tiffin River and Brush Creek are the two surface water sources that supply the village with its raw water. We're pleased to report that our drinking water is safe and meets federal and state requirements.

A source water assessment for the Village of Archbold was completed in 2003. For the purposes of source water assessments, all surface waters are considered to be susceptible to contamination. By their nature surface waters are accessible and can be readily contaminated by chemicals and pathogens, with relatively short travel times from source to the intake. Based on the information compiled for this assessment, the Village of Archbold's drinking water source protection area is susceptible to agricultural runoff, industrial storm water, gas station runoff, home construction, confined and unconfined feedlot runoff, gas line rupture, unsewered areas, recycling facility runoff, wastewater treatment discharges, silage, pasture, farm machinery repair areas, pesticide/fertilizer/petroleum above ground tank storage, lawn/farm stores, municipal garages, fleet truck area, furniture manufacturing and finishing, inactive and closed landfills, auto repair shops, wood mill, machine and metal working shops, car dealerships, underground storage tanks and combined sewer overflows.

It is important to note that this assessment is based on available data, and therefore may not reflect current conditions in all cases. Water quality, land uses and other activities that are potential sources of contamination may change with time. While the source water for the Village of Archbold Public Water System is considered susceptible to contamination, historically, the Village of Archbold Public Water System has effectively treated this source water to meet drinking water quality standards.

The Village of Archbold obtains its drinking water from the Tiffin River, which is impacted by high **turbidity**, seasonally high levels of **nitrates and pesticides**, and **pathogens** from pastures, concentrated animal feeding operations (CAFOs) and wastewater treatment systems. Treatment, pumping water only when water quality is optimal, and other source water protection efforts protect consumers from these contaminants.

In 2012 the Village of Archbold, with assistance from the Ohio EPA, developed a local drinking water protection plan. In addition to documenting ongoing protective activities-such as monitoring of the Tiffin River.

The plan provides for maintaining contacts with watershed groups in Michigan, and providing on the Archbold web site information for local residents on how to avoid contaminating the Tiffin River by proper handling of fertilizers, pesticides and manure, and maintenance of septic systems and petroleum storage tanks. Since the 1990's, Archbold has *partnered with the Fulton County and Lenawee County Soil and Water Conservation District to help fund and promote* wetland restoration and other types of conservation measures within the Tiffin watershed. The village recognizes that it can achieve its source water protection goals most effectively by encouraging and collaborating with such efforts whenever possible.

This annual water quality report shows our water quality and what it means. If you have any questions about this report or concerning your utility, please contact **Scott L. Schultz, Archbold Water Department, PO Box 406, Archbold, OH 43502, or by phone at 419-445-2506. The Source Water Assessment Program report can be reviewed at the Archbold Water Plant, 700 North Street.** 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 village council meetings. They are held on **the first and third Monday of each month at 7:00 pm in the village council chambers.**

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 EPA's safe Drinking Water Hotline (1-800-426-4791).

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 stormwater 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 stormwater 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 stormwater runoff, and septic systems
- Radioactive contaminants, which can be naturally-occurring or be the results of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

The Archbold Water Department routinely monitors for contaminants in your drinking water according to Federal and State laws. This report shows the results of our monitoring for the period of January 1st to December 31st, 2012.

Some of our data, though accurate, are more than one year old.

In the contaminant table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

*Parts per million (ppm) or Milligrams per liter (mg/l)* – one part per million corresponds to one minute in two years or a single penny in $10,000.
*Parts per billion (ppb) or Micrograms per liter (ug/l)* – one part per billion corresponds to one minute in 2,000 years or a single penny in $10,000,000.
*Less than = <*
*Nephelometric Turbidity Unit (NTU)* – nephelometric turbidity unit is measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
*Maximum Contaminant Level* – The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLGs as feasible using the best available treatment technology.
*Maximum Contaminant Level Goal* – The "Goal" (MCLG) is 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.
*Action Level (AL)* – The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.
*Treatment Technique (TT)* – A required process intended to reduce the level of a contaminant in drinking water.
*Picocuries per liter (pCi/L)* – picocuries per liter is a measure of the radioactivity in water.
*Maximum Residual Disinfectant Level Goal (MRDLG)*- The level of 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.
*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.

**Microbiological**

Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. The turbidity set by the EPA is 0.3 NTU in 95% of the daily samples and shall not exceed 1 NTU at any time. As reported in the table the Archbold Water Department highest recorded turbidity result for 2012 was 0.98 NTU and lowest monthly percentage of samples meeting the turbidity limits was 99.9.

**Lead & Copper**

A public water system is required to collect samples at homes that are a high risk to have elevated lead and copper levels in their water. A public water system is in compliance if the 90th percentile is no greater than 15 ppb for lead and 1.3 ppm for copper. The latest round of lead and copper monitoring for the Archbold Water Department was in June 2012. The 90th percentile for lead was <4 ppb and the highest single measurement was <4 ppb. The 90th percentile for copper was .04 ppm and the highest single measurement was .05 ppm.

## Lead Educational Information

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. The Archbold Water Department 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/safewaterlead .

| TEST RESULTS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Contaminant | Violation Y/N | Level Detected | Unit Measurement | MCLG | Range of Detections | Year of Sample | MCL | Likely Source of Contamination |
| **Microbiological Contaminants** | | | | | | | | |
| Turbidity | N | 0.98 | NTU | NA | 0.02-0.98 | 2012 | TT | Soil runoff |
| Turbidity (% samples meeting standard) | N | 99.90 | NTU | NA | 99.9-100 | 2012 | TT | Soil runoff |
| Total Organic Carbon (TOC) | N | 2.6 | ppm | NA | 2.0-4.2 | 2012 | TT | Naturally present in the environment |
| **Inorganic Contaminants** | | | | | | | | |
| Fluoride | N | 1.3 | ppm | 4 | 0.81-1.30 | 2012 | 4 | Erosion of natural deposits: water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| Nitrate | N | 2.27 | ppm | 10 | 0.50-2.27 | 2012 | 10 | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |
| Copper | N | .04 | ppm | 1.3 | .008-.05 | 2012 | AL=1.3 | Corrosion of household plumbing systems, erosion of natural deposits: Leaching from wood preservatives |
| **Volatile Organic Contaminants** | | | | | | | | |
| TTHM (Total trihalomethanes) | N | 68.3 | ppb | NA | 30.0-130.7 | 2012 | 80 | By-product of drinking water chlorination |
| Haloacetic Acids (HAA5) | N | 18.5 | ppb | NA | 11.7-34.6 | 2012 | 60 | By-product of drinking water chlorination |
| Chloroform | N | 12.3 | ppb | NA | NA | 2012 | NA | By-product of drinking water chlorination |
| Bromodichloromethane | N | 5.9 | ppb | NA | NA | 2012 | NA | By-product of drinking water chlorination |
| Dibromochloromethane | N | 2.4 | ppb | NA | NA | 2012 | NA | By-product of drinking water chlorination |
| | | | | | | | | |
| **Residual Disinfectants** | | | | | | | | |
| Total Chlorine | N | 1.5 | ppm | MRDLG 4 | 1.1-1.6 | 2012 | MRLD 4 | Water additive to control microbes |

*The value reported under "Level Found" for Total Organic Carbon (TOC) is the lowest ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements.*

**License to Operate (LTO) Status Information**

We have a current, unconditioned license to operate our water system.

What does this mean?

We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants have been detected. The EPA has determined that your water *IS SAFE* at these levels.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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).

We at the Archbold Water Department work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

Please call our office if you have any questions.