

# 2019 Drinking Water Quality Consumer Confidence Report for Miami Co.- Deer Cliff Run Public Water Systems OH5502203



## INTRODUCTION

Miami County Sanitary Engineering Department (MCSED) has prepared this report to provide information to you, the consumer, on the quality of our drinking water. This report includes general health information, water quality test results, water source and contact information.

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## GENERAL INFORMATION

Miami County has a current unconditional license to operate its Public Water System issued by the OEPA on January 1, 2019. This report is a requirement of the Safe Drinking Water Act Amendments of 1996.

This water quality report is for the year **2018**.

## WATER SOURCE INFORMATION

The Miami County Sanitary Engineering Department serves you with water we purchase from NAWA Tipp City, Ohio water plant located at 525 S. 1st. Street, Tipp City, Ohio. NAWA obtains its public drinking water supply from buried valley sand and gravel aquifers associated with the Great Miami River. NAWA currently utilizes six (6) production wells to draw water from the aquifer for treatment at the water plant. Well water is pumped to the water treatment plant where it runs through sand filters for Iron and Manganese. Nano filtration membranes are used for the reduction or removal of hardness, viruses and other contaminants. Fluoride is added for dental health and Orthophosphate is added to minimize corrosion and scaling prior to being pumped to you, the consumer. Miami County water meets or exceeds all the standards that are set forth by the Ohio and United States Environmental Protection Agencies.

A susceptibility analysis was completed by NAWA. The assessment indicates that NAWA's source of drinking water has a high susceptibility to contamination due to the: Lack of a protective layer of clay overlying the aquifer; a shallow depth (less than 20 feet below ground surface) of the aquifer.; Presence of significant potential contaminant sources in the protection area; and the presence of manmade contaminants in treated water. Nitrates have been detected in NAWA's source of drinking water at concentrations above concern. The risk of future contamination can be minimized by implementing appropriate protective measures. This does not mean that the source waters are contaminated, just that they have a high susceptibility to contamination. You can obtain a copy of the complete report by contacting NAWA at (937) 667-1890.

## ADDITIONAL INFORMATION

For more information on your drinking water please contact Jeff Shields, Water and Wastewater Superintendent at the Miami County Sanitary Engineering Department at 937-440-5653 or see [www.miamicountyohio.gov](http://www.miamicountyohio.gov). Public participation and comments are encouraged by contacting MCSED, or the Board of Miami County Commissioners located in the Miami County Safety Building, Troy, Ohio.

## WHAT ARE THE SOURCES OF CONTAMINANTS IN DRINKING WATER?

The sources of drinking water, both tap and bottled water, includes 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; (farming, septic tanks, lawn chemicals, storm runoff, etc.)

Contaminants that may present in source water include: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharge, oil and gas production, mining, or farming; (C) Pesticides and herbicides, which may come from 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; (D) 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; (E) 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, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA 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 (1-800-426-4791).

## WHO NEEDS 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 are available from the Safe Drinking Water Hotline at (800) 426-4791.

## Water Quality Results for Miami Co-Deer Cliff Run PWS

| Substance      | Highest Level Detected | Range of Detections | Highest Level Allowed (MCL) | Ideal Goals (MCLG) | Violations | Year Samples | Sources of Substances                |
|----------------|------------------------|---------------------|-----------------------------|--------------------|------------|--------------|--------------------------------------|
| Fluoride       | 1.25 ppm               | 0.12-1.26 ppm       | 4 ppm                       | 4 ppm              | None       | 2018         | Erosion of Natural Deposits          |
| Barium         | 0.081 ppm              | N/A                 | 2 ppm                       | 2 ppm              | None       | 2018         | Erosion of Natural Deposits          |
| Total Chlorine | 1.30 ppm               | 0.7-1.3 ppm         | 4 ppm                       | 4 ppm              | None       | 2018         | Water Disinfection                   |
| Total Coliform | 0 ppm                  |                     | 1 positive/month            |                    | None       | 2018         | Naturally Present in the Environment |
| Nitrate        | 0.702 ppm              | 0.702               | 10 ppm                      | 10 ppm             | None       | 2018         | Runoff from fertilizer use           |

### Regulated at the Customer's Tap

|        |         |         | Action Level |          |      |      |                    |
|--------|---------|---------|--------------|----------|------|------|--------------------|
| Lead   | <5 ppb  | <5 ppb  | 15.5 ppb     | 0 ppb    | None | 2018 | Household Plumbing |
| Copper | <50 ppb | <50 ppb | 1350 ppb     | 1300 ppb | None | 2018 | Household Plumbing |

**\*\*See Special Comments**

### Regulated in the Distribution System

|                      |            |                   |         |       |      |      |   |
|----------------------|------------|-------------------|---------|-------|------|------|---|
| Total Trihalomethane | 25.48 ug/l | <18.86-25.48 ug/l | 80 ug/l | 0 ppb | None | 2018 | By-Product of Drinking Water Chlorination |
| Haloacetic Acids     | 6.105 ug/l | <.6-6.105 ug/l    | 60 ug/l | N/A   | None | 2018 | By-Product of Drinking Water Chlorination |

### Unregulated Contaminants

|                      |            |      |      |      |      |      |                                     |
|----------------------|------------|------|------|------|------|------|-------------------------------------|
| Bromodichloromethane | 4.76 ug/l  | N.R. | N.R. | N.R. | None | 2018 | Components of Total Trihalomethanes |
| Bromoform            | <0.5 ug/l  | N.R. | N.R. | N.R. | None | 2018 |                                     |
| Chloroform           | 18.94 ug/l | N.R. | N.R. | N.R. | None | 2018 |                                     |
| Dibromochloromethane | 1.78 ug/l  | N.R. | N.R. | N.R. | None | 2018 |                                     |

### Special Comments

\*\*This report lists the highest recorded concentrations of contaminants measured in 2018. The listed concentration for Copper during 2018 was <50 ppb. There were 10 samples collected from residential users to comply with annual reduced monitoring Lead and Copper Rule Requirements. The 90<sup>th</sup> percentile concentration for Copper was <50 ppb. The number of sites above the action level = 0. Copper and Lead sampling will be collected again in 2019.

### What are the sources of contaminants in drinking water?

The sources of drinking water, both tap and bottled water, includes 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; (farming, septic tanks, lawn chemicals, storm runoff, etc.)

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 unless the contaminant level exceeds the MCL established by the USEPA. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Hotline (800-426-4791).

### Lead Education

"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. Miami County Deer Cliff Run PWS 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 Hotline at 800-426-4791 or at <http://www.epa.gov/safewater/lead>."

### E.P.A Requirements

The OEPA requires regular sampling to ensure drinking water safety. Chlorine and bacteria sampling is performed on a regular routine basis, while tests for lead and copper and other contaminants are performed on a specified schedule in accordance with EPA regulations.

### Susceptibility Analysis

The aquifer that supplies drinking water to NAWA's wells has a high susceptibility to contamination due to the following:

1. Water quality results indicate impacts of nitrates.
2. The sand and gravel aquifer has a depth to water of 5-15 feet below the ground surface.
3. The sand and gravel aquifer material is continuous to the surface and the soil is sandy.
4. No confining layer exists which could act as a barrier between the ground surface and the aquifer.
5. Potential significant contamination sources exist with the protection area.

## **Ground Water Protection**

The City of Tipp City developed and implemented a ground water protection program in 1996. Twelve monitoring wells are currently used to study ground water quality up gradient of the well field area. This serves as an "early warning" device should dangerous contaminants threaten our well field. In 1994, Tipp City developed a Well Head Protection Program. This program served to inventory potential sources of ground water contamination within a 5-year "time of travel" zone around the wells. Special zoning regulations have been adopted to further reduce the risk of ground water contamination within a 1-year "time of travel" zone around the wells. Public information will play a key role in providing additional risk reduction to protect this very important resource. For further information regarding the Tipp City (NAWA) Well Head Protection Program or Source Water Assessment, please contact Lisa Hendricks at 937-506-3200.

### **DEFINITIONS OF TERMS AND ABBREVIATIONS USED IN THIS REPORT:**

Maximum Contamination Level (MCL): The highest level of contamination that is allowed in drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's are set by the USEPA and allow for a significant margin of safety.

Not Regulated (N.R.): USEPA has not established a MCL or MCLG.

Parts per Million (ppm) or Milligrams per Liter (mg/L): Units of measure for concentration of a contaminant. One part of a substance in one million parts of a substance.

Parts per Billion (ppb) or Micrograms per Liter (ug/L): Units of measure for concentration of a contaminant. One part of a substance in one billion parts of a substance.

Action Level: The concentrations of a contaminant that triggers the public water system to install other treatment technologies to reduce the concentration of the contaminant.

PicoCuries per liter: a measure of radioactivity in water.