



MONTGOMERY
C O U N T Y

ENVIRONMENTAL SERVICES

MONTGOMERY COUNTY ENVIRONMENTAL SERVICES
Drinking Water Quality Report
for the 2016 Testing Year



This year, Montgomery County is proud to say that your drinking water has once again met all state and federal water quality standards. Drink up!



ENVIRONMENTAL SERVICES

Drinking Water & Water Reclamation Services

1850 Spaulding Road
Kettering, Ohio 45432
www.mcoho.org/water

Solid Waste & Recycling Services

2550 Sandridge Drive
Moraine, Ohio 45439
www.mcswd.org

Customer Services

- Water/Sewer Billing 781-2688
- Water/Sewer Emergency 781-2678
- Water Quality 781-2666
- Maintenance & Repairs 781-2678
- Education & Outreach 781-3064
- Recycling Services** 225-4999
- Report-a-Dumper** 225-HELP

Engineering Services

- Backflow Prevention 781-2650
- Commercial Permits 781-2628
- Residential Permits 781-2628

Water Reclamation (Sewer)

- Eastern Regional 781-3034
- Western Regional 781-3029

Environmental Lab 781-3016

GIS & Maps 781-2619

Public Record Request 781-2532

Our County Commissioners



JUDY DODGE



DAN FOLEY



DEBBIE LIEBERMAN

Reinvest in Aging Infrastructure



PAT TURNBULL

I am pleased to announce that our drinking water has once again met or exceeded all drinking water quality standards in 2016. For decades, our water has met or exceeded every water quality standard. Our citizens expect and deserve safe, reliable drinking water; as well as safe, effective sewer services.

But high-quality drinking water and sewer services come at a cost. The infrastructure that delivers water to your tap and removes wastewater from your home is aging faster than it is being replaced. For example, more than 50% of our underground pipes are at least 50 years old. Our pumping stations, water towers and wastewater treatment plants are aging and must be maintained with ongoing capital investments.

This is not a unique problem. This is an issue facing communities large and small across our great nation. As a community, it is time for all of us to seriously reinvest in our infrastructure, so that Montgomery County Environmental Services can continue to provide you with the high-quality water and sewer services that you have come to expect.

As a public servant, I care deeply about the services that we provide to our citizens – water, sewer, trash and recycling. These are indispensable public services that improve our quality of life, and also preserve and protect our natural environment. We must ensure that our children enjoy the same quality of drinking water and sewer services that we have all enjoyed for decades.

I hope this Drinking Water Quality Report leaves you with an appreciation for the importance of our water resources, and the hard work our employees do every day to deliver clean water to your home.

For questions or concerns regarding this report, please contact (937) 781-2532.

Sincerely,

Patrick Turnbull, P.E.

Fun Facts About Your Water

Water Hardness is 9 grains/gallon (156 ppm)

Water pH is 8.6

Water Iron Content is < 25 ppb

Montgomery County drinking water met all EPA standards in sample year 2016.

Montgomery County has a current, unconditioned license to operate our water system.

| Contaminants (Units) | Ideal Goals (MCLG) | Highest Level Allowed (MCL) | Level Found | Range of Detections | Violation? | Contaminant Source |
|---|------------------------|-----------------------------|---------------------|---------------------|------------|--|
| Regulated at the Treatment Plant | | | | | | |
| Fluoride (ppm) | 4.0 | 4.0 | 1.06 | 0.64-1.06 | No | Natural geology and/or dental supplement |
| Nitrate (ppm) | 10.0 | 10.0 | 1.61 | 0.11-1.61 | No | Natural geology and/or fertilizer runoff |
| Turbidity (NTU) | N/A | TT = 1 | 0.73 | 0.02-0.43 | No | Lime softening residuals |
| | TT ≥ 95% must be ≤ 0.3 | | 100 % ¹ | | | |
| Cis-1,2-Dichloroethylene (ppb) | 70 | 70 | 0.67 | ND-0.67 | No | Factory discharge |
| Total Organic Carbon (ppm) | N/A | TT | 0.93 ² | 0.36-0.93 | No | Naturally present in the environment |
| Regulated at the Customer's Tap | | | | | | |
| Lead* (ppb), north region | 0 | AL = 15 | < 5 ³ | N/A | No | Corrosion of household plumbing systems |
| Lead* (ppb), south region | 0 | AL = 15 | < 5 ³ | N/A | No | |
| Copper* (ppb), north region | 1300 | AL = 1300 | 54 ³ | N/A | No | Corrosion of household plumbing systems |
| Copper* (ppb), south region | 1300 | AL = 1300 | 44 ³ | N/A | No | |
| Regulated in Distribution System | | | | | | |
| Total Coliform Bacteria* (% positive samples/month), north region | 0% | 5% | 0% ^{4a} | N/A | No | Naturally present in the environment |
| Total Coliform Bacteria* (% positive samples/month), south region | 0% | 5% | 0.83% ^{4b} | 0 – 0.83% | No | Naturally present in the environment |
| Chlorine* (ppm), north region | 4 ⁷ | 4 ⁸ | 1.12 ⁶ | 1.07 – 1.21 | No | Water additive to control microbes |
| Chlorine* (ppm), south region | 4 ⁷ | 4 ⁸ | 1.18 ⁶ | 1.07 – 1.25 | No | |
| Haloacetic Acids* (ppb), north | N/A | 60 | 6.8 ⁵ | <6.0 – 9.8 | No | By-products of drinking water chlorination |
| Haloacetic Acids* (ppb), south | N/A | 60 | 7.2 ⁵ | <6.0 – 10.5 | No | |
| Trihalomethanes* (ppb), north | N/A | 80 | 37.2 ⁵ | 15.8 – 46.5 | No | By-products of drinking water chlorination |
| Trihalomethanes* (ppb), south | N/A | 80 | 34.1 ⁵ | 18.2 – 43.9 | No | |
| Unregulated Compounds | | | | | | |
| Bromodichloromethane (ppb) | N/A | N/A | 1.45 | 1.09-1.99 | N/A | By-products of drinking water chlorination |
| Bromoform (ppb) | N/A | N/A | ND | ND-0.73 | N/A | |
| Chloroform (ppb) | N/A | N/A | 1.01 | 0.57-1.73 | N/A | |
| Dibromochloromethane (ppb) | N/A | N/A | 1.65 | 0.73-1.93 | N/A | |
| Cis-1,2-Dichloroethylene (ppb) | N/A | N/A | ND | ND-0.673 | N/A | Factory Discharge |
| <i>All data reflects the 2016 sampling year, except for Lead and Copper, which is tested every three years and was last tested in 2014.</i> | | | | | | |
| <i>* Montgomery County Environmental Services data from the distribution system. All other data is provided by the City of Dayton.</i> | | | | | | |

- Dayton complied with requirements for every month in 2016. Turbidity is used to measure the performance of sand filters.
- Dayton complied with alternate compliance criteria for TOC regulations under the D/DBP Rule. The level reported is "average."
- 90th percentile – 90% of the residential samples were below this level. None of the 30 samples from the North or 50 samples from the South exceeded the Action Limits. There have been no exceedances in 21 years of testing.
- (a) None of the 973 distribution samples tested in 2016 tested positive for total coliform bacteria. No samples tested positive for E. coli. (b) Of the 1,453 distribution samples tested in 2016, two tested positive for total coliform bacteria.

- No samples tested positive for E.coli. Subsequent analyses were negative..
- Locational running annual average.
- Highest running quarterly average.
- Maximum residual disinfectant level goal (MRDLG) – The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefit 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 the addition of a disinfectant such as chlorine is necessary for control of microbial contaminants.

Our Water Source: Great Miami Buried Valley Aquifer

The City of Dayton's drinking water source is the Miami Valley Buried Aquifer, a large underground area of water-bearing sand and gravel deposits. Montgomery County purchases its water from the City of Dayton, and then distributes the water to you – our customers. Montgomery County has backup connections located in Greene County, West Carrollton, and Miamisburg.

As part of the Source Water Assessment and Protection (SWAP) Program, the Ohio Environmental Protection Agency (Ohio EPA) conducted a source water assessment of the Miami Valley Buried Aquifer. The assessment concluded that the aquifer, which supplies water to the City of Dayton's well fields, has a high susceptibility to contamination.

While Montgomery County Environmental Services customers receive high quality drinking water, the aquifer is still vulnerable to future contamination. This determination is based on the influence of surface water to replenish and recharge the aquifer, the presence of a relatively thin layer of clay overlaying the aquifer, the shallow depth of the aquifer, contaminant plumes in Dayton's well field protection area, the presence of significant potential contaminant sources in the protection area, and the presence of contaminants in treated water.

Source Water Contamination

Sources of drinking water (both tap 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. Water may also pick up substances that result from the presence of animals or from human activity.

To ensure that tap water is safe to drink, the USEPA prescribes regulations that limit the amount of certain contaminants in the water provided by public water systems. Drinking water may reasonably be expected to contain small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. Even rainwater contains dissolved minerals or other chemicals. More information is available by calling the USEPA's Safe Drinking Water Hotline at 1-800-426-4791.

Lead Precautions

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 associated with service lines and home plumbing.

When your water has been sitting for several hours, you can reduce the potential for lead exposure by running your tap for one to two 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, testing methods, and how to minimize exposure is available from the USEPA's Safe Drinking Water Hotline at 1-800-426-4791 or www.epa.gov/safewater/lead.

Special Health Concerns

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons (e.g., those who have undergone organ transplant), people with HIV/AIDS or other immune disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their healthcare providers.

Guidelines on how to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline at 1-800-426-4791. More information and resources are available from the USEPA at <http://water.epa.gov/drink>, or from the Centers for Disease Control (CDC) at www.cdc.gov/healthywater.

Public Participation Welcome

Montgomery County welcomes public participation and encourages citizens to express concerns and meet with officials. The Board of County Commissioners' meetings are open to the public and are held most Tuesdays at 1:30 p.m. on the 10th Floor of the County Administration Building, 451 W. Third St., Dayton, OH 45422. Contact (937) 225-4690 for more information.

Drinking Water Glossary

Action Level (AL) – concentration of a contaminant that, if exceeded, triggers treatment or another required action by the system.

Initial Distribution System Evaluation (IDSE) – evaluation required by the USEPA, intended to identify locations in the water distribution system with elevated concentrations of disinfection byproducts.

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 Contaminant Level (MCL) – the highest level of a contaminant allowed in drinking water. MCLs are set as close as feasible to the MCLGs, using the best available treatment technology.

ND – None detected (no amount detected)

NTU – Nephelometric Turbidity Units, which are used to measure water cloudiness.

Parts per million (ppm) – one part per million (milligrams per liter), corresponds to one minute in two years or a penny in \$10,000.

Parts per billion (ppb) – one part per billion (micrograms per liter), corresponds to one minute in 2,000 years or a penny in \$10 million.

TT – treatment technique, or required process intended to reduce the level of contamination in drinking water.

Possible Water Contaminants

Microbial contaminants, such as viruses and bacteria, might come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Radioactive contaminants might be naturally occurring, or they can be the result of oil and gas production, and mining activities.

Pesticides and herbicides might come from a variety of sources, including agriculture, urban storm water runoff, and residential uses.

Inorganic compounds, such as salts and metals, might be naturally occurring or result from storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Organic chemical contaminants, including synthetic and volatile organic chemicals (VOCs), are byproducts of industrial processes and petroleum production. These contaminants might also come from gas stations, urban storm water runoff, and septic systems.