



## Water Quality Report for 2016



The City of Oxford Water Treatment Plant began producing water in 1991. Routine operation removes iron and manganese, adds fluoride to help prevent tooth decay, and chlorinates to kill bacteria. The City of Oxford (Oxford) water system receives its drinking water from wells located in the federally designated Sole Source Aquifer of the Greater Miami Valley. The well fields are developed north and east of Oxford. Oxford has a current, unconditional license issued by the Ohio Environmental Protection Agency to operate its water system (License No. OH 0902312-1115500-2017, effective until January 30, 2018).

### **What are possible sources of contamination to drinking water?**

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 due to the presence of animals and/or from human activity.

Contaminants that may be 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 discharges, oil and gas production, mining, or farming; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; (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; and (E) Radioactive contaminants, which can be naturally occurring, or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The United States Food and Drug Administration (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 USEPA's Safe Drinking Water Hotline (1-800-426-4791) between the hours of 10:00 a.m. and 4:00 p.m. eastern time weekdays (excluding federal holidays), or on the internet by visiting <https://www.epa.gov/ground-water-and-drinking-water>. Internet access is available at most public libraries.

### **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 those 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 infection. These people should seek advice about drinking water from their health care providers. Guidelines from the USEPA and the Center for Disease Control on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791). While some people prefer bottled or home treated water, these are not necessarily safer than tap water. The safety of any water depends on its source and treatment. For more information about bottled water, please contact the FDA's Center for Food Safety and Applied Nutrition Safe Food Information Line (1-888-723-3366) between the hours of 10:00 a.m. and 4:00 p.m. eastern time weekdays (excluding federal holidays), or visit <http://www.fda.gov/Food/default.htm>. Additional information regarding bottled water is also available from the USEPA (<https://www.epa.gov/ground-water-and-drinking-water/bottled-water-regulation-and-fact-sheet>). Sources of information concerning home treatment devices can be obtained from the Safe Drinking Water Hotline. Basic information on home treatment devices is available on the internet at <https://www.epa.gov/ground-water-and-drinking-water/home-drinking-water-filtration-fact-sheet>.

### **Lead-specific 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. Oxford 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 thirty seconds 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. For listings of laboratories certified in Ohio to test for lead, go to <http://www.epa.state.oh.us/ddagw/DrinkingandGroundWaters.aspx>. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the USEPA's Safe Drinking Water Hotline (1-800-426-4791) or on the internet by visiting <https://www.epa.gov/ground-water-and-drinking-water>.

## CITY OF OXFORD WATER QUALITY DATA

**REGULATED CONTAMINANTS:** The state allows for monitoring of some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data below, though representative, are more than one year old.

Substances (unit)	Year Sampled	Maximum Allowed (MCL)	Contaminant Level Goal (MCLG)	Highest Compliance Level Detected	Range of Detections*	Violation	Typical Sources of Contamination For more details visit: <a href="http://www.epa.gov/safewater/hfacts.html">www.epa.gov/safewater/hfacts.html</a>
Combined Radium (pCi/L)	2014	5	0	2.60	2.60	No	Naturally occurring in geology
Fluoride (ppm)	2016	4	4	0.95	0.83 - 1.06	No	Water additive - protects teeth
Barium (ppm)	2014	2	2	0.10	0.10	No	Naturally occurring in geology
Nitrate (ppm)	2016	10	10	1.51	1.51	No	Agriculture fertilizer runoff
Lead (ppb)	2016	AL = 15	0	12.7	ND - 31.00	No	Corrosion of household plumbing
		Two of the 32 samples were found to have lead levels in excess of the lead action level of 15 ppb.					
Copper (ppm)	2016	AL = 1.3	1.3	0.17	ND - 0.33	No	Corrosion of household plumbing
		None of the 32 samples was found to have copper levels in excess of the copper action level of 1.3 ppm.					
Chlorine (ppm)	2016	4.0 (MRDL)	4 (MRDLG)	0.89 (RAA)	0.78 - 1.02	No	Disinfectant
Total Trihalomethanes (ppb)	2016	80	No goal set	8.40 (LRAA)	7.80 - 9.00	No	Disinfection byproduct
Total Haloacetic Acids (ppb)	2016	60	No goal set	4.21 (LRAA)	3.51 - 4.90	No	Disinfection byproduct

**UNREGULATED CONTAMINANTS:** Unregulated contaminant monitoring helps the USEPA determine where certain contaminants occur and whether future regulation of those contaminants is appropriate.

Substances (unit)	Year Sampled	Maximum Allowed (MCL)	Contaminant Level Goal (MCLG)	Average Level Detected	Range of Detections*	Violation	Typical Sources of Contamination For more details visit: <a href="http://www.epa.gov/safewater/hfact.html">www.epa.gov/safewater/hfact.html</a>
Strontium (ppb)	2014	No set level	No set level	520	520	Unregulated	Naturally occurring in geology
Molybdenum (ppb)	2014	No set level	No set level	2.40	2.40	Unregulated	Naturally occurring in geology
Chloroform (ppb)	2016	No set level	70	2.55	2.20 - 2.90	Unregulated	Disinfection byproduct
Bromodichloromethane (ppb)	2016	No set level	0	3.89	3.58 - 4.20	Unregulated	Disinfection byproduct
Dibromochloromethane (ppb)	2016	No set level	60	3.66	3.47 - 3.85	Unregulated	Disinfection byproduct
Bromoform (ppb)	2016	No set level	0	0.85	0.75 - 0.95	Unregulated	Disinfection byproduct
Bromoacetic Acid (ppb)	2016	No set level	No set level	2.02	1.91 - 2.13	Unregulated	Disinfection byproduct
Dibromoacetic Acid (ppb)	2016	No set level	No set level	1.69	1.64 - 1.75	Unregulated	Disinfection byproduct
Dichloroacetic Acid (ppb)	2016	No set level	0	2.01	1.87 - 2.15	Unregulated	Disinfection byproduct
Trichloroacetic Acid (ppb)	2016	No set level	20	0.50	ND - 1.00	Unregulated	Disinfection byproduct

\*Some contaminants required collection and analysis of a single sample during this reporting period. These are reported as a single value in the "Range of Detections" column.

### **Definitions**

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water as established by the USEPA. MCL's are set as close to the MCLG's 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. MCLG's allow for a margin of safety and are established by the USEPA.

**Action Level (AL):** The concentration of lead or copper in tap water which determines whether a water system may be required to install corrosion control treatment, collect water quality parameter samples, collect source water samples, replace lead service lines and/or deliver public education materials about lead.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water as established by the USEPA. 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 drinking water disinfectant established by the USEPA, below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Abbreviations used:** ppm: parts per million ppb: parts per billion ND: Not Detected (at USEPA standardized testing limits) RAA: Running Annual Average; and

LRAA: Locational Running Annual Average



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## **City of Oxford Drinking Water Quality Information Enclosed**

### **About Your Drinking Water**

The United States Environmental Protection Agency requires regular sampling to ensure drinking water safety. Water samples are analyzed for bacteria, inorganic, radiological, synthetic organic, volatile organic, and disinfection by-product contaminants on a contaminant-specific monitoring schedule in accordance with the Federal Safe Drinking Water Act. Samples were collected for all regulated and many unregulated contaminants, most of which were not detected in the City of Oxford (Oxford) water supply; those which were detected are listed in this document. The Ohio Environmental Protection Agency (Ohio EPA) requires that Oxford monitor for some contaminants less than once per year, as the concentrations of these possible contaminants do not change frequently. The Ohio EPA also conducts additional monitoring on untreated water at Oxford well sites. Information about source water protection and historic water monitoring analytical results may be obtained from <http://www.epa.state.oh.us/ddagw/DrinkingandGroundWaters.aspx>, or telephone 1-937-285-6357 between the hours of 8:00 a.m. and 5:00 p.m. weekdays (excluding federal holidays), and requesting to be connected with a Drinking Water Representative. The Miami Conservancy District is another source of information, and may be contacted at telephone number 1-937-223-1271 (between 8:30 a.m. and 4:30 p.m. weekdays, excluding federal holidays), or via the internet at <http://www.mcdwater.org>. Internet access is available at most public libraries. You may receive additional assistance by contacting Mr. David Weihrauch, Oxford's Water Treatment Plant Manager, at telephone number 1-513-523-1753.