



Village of Lockland, Ohio

What's On Tap?



2016 Water Quality Consumers' Confidence Report

Last year your Lockland tap water met all US EPA and State EPA drinking water health standards!

This pamphlet, *What's On Tap?* gives all the details.

Lockland Water Source

The source of Lockland's drinking water is three wells, about 200 feet deep, each having the capacity to pump 700 to 900 gallons per minute: that's more than 1,000,000 gallons per day. The wells are located three miles north of Lockland in Sharonville, Ohio. This source has provided a dependable water supply since the early 1940s.

The wells are susceptible to contamination due to the sensitive nature of the sand and gravel aquifer in which the water wells are located and the existing potential contaminant sources (e.g., commercial and manufacturing establishments). The wells' depth, however, of about 200 feet, provides some natural protection against the downward migration of contamination.

Since 1999, in order to minimize any future potential contamination to the well field, Lockland has been active in implementing EPA recommended strategies, including:

- Wellhead Protection Delineation in 1999
- Wellhead Protection Inventory of Potential Pollution Sources in 2001
- Resurvey of Potential Sources in 2002, 2003, 2007, and 2008
- In the Spring of 2015 another Resurvey of Potential Sources was initiated
- Implemented Wellhead Management Plan in 2003

Ohio EPA awarded Lockland a certificate commending the Village for our Wellhead Protection Program.

The Lockland Water Works also has a back-up & emergency connection with the Greater Cincinnati Water Works (GCWW). During 2016 we used .0297 million gallons. On average, this connection is used for approximately 0-7 days each year. This report does not contain information on the water quality received from GCWW, but a copy of their consumer confidence report can be obtained by contacting them at (513)624-5600 or email info@gcww.cincinnati-oh.gov or visiting their website <http://www.cincinnati-oh.gov/water/>.

Water Treatment Process

The well water is pumped from the well field to the Lockland water treatment plant for the following processes:

- *Reduce the Well Water Hardness.* The well water hardness, averaging 385 mg/l (parts per million), is reduced to an average of 170 mg/l by adding lime (calcium hydroxide) to precipitate the harness as calcium carbonate.
- *Stabilization.* Corrosion and lime scale deposits in the water distribution system and residential plumbing are minimized by adjusting the water pH with carbon dioxide and adding 1 mg/l sodium hexameta phosphate (Calgon).
- *Disinfection.* Is achieved by the addition of chlorine to the water. The average chlorine residual in the distribution system was 0.2 mg/l; the maximum was 0.5 mg/l. The EPA maximum allowable residual is 4.0 mg/l.
- *Filtration.* Is achieved by running the water through two sand and gravel gravity filters before distribution to Lockland customers.

Routine Water Quality Analysis

Average 2016 Daily Treated Water Quality Analyses:

Hardness, average per day	172.72 mg/l
Alkalinity, average per day	75.92 mg/l
Chlorine (free), average per day	1.08 mg/l
Chlorine, maximum	3.70 mg/l
EPA Maximum Residual Disinfectant Level (MRDL):	4.1 mg/l

Distribution System

Bacteriological, Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. Lockland is required to take 4 samples per month. In 2016 Lockland did not have any positive samples for coliforms out of the samples taken. In January of 2016 Lockland submitted 4 routine testing samples for total coliforms to Ohio EPA. Ohio EPA requires 5 samples to be submitted. The LWW regrets that it did not meet this requirement. The LWW has taken steps to make sure we meet all Ohio EPA testing sample requirements in the future.

Possible Drinking Water Contaminants

The sources of drinking water (both tap & 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 human activity.

Contaminants that may be present in source water include: (A) Microbial contaminants, such as viruses & bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations & 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 & gas production, mining, or farming; (C) Pesticides & herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, & residential uses; (D) Organic chemical contaminants, incl. synthetic & volatile organic chemicals, which are by-products of industrial processes and petroleum production, & can also come from gas stations, urban storm water runoff, & septic systems; (E) Radioactive contaminants, which can be naturally-occurring or be the result of oil & gas production & 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 & potential health effects can be obtained by calling the Federal Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791) or at <http://water.epa.gov/drink/contaminants/>.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised person, 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 infection. These people should seek advice about drinking water from their health care providers. The EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the US EPA Safe Drinking Water Hotline (1-800-426-4791) and <http://water.epa.gov/drink/contaminants/>.

Based upon past monitoring data, lead in Lockland’s drinking water is not a concern. Test results at individual residences were all less than the detectable level. (<5 ug/l)

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 water service lines and home plumbing.

Lockland’s public drinking water system is responsible for providing high quality drinking water, but cannot control the variety of materials used in home plumbing components. When your water has been setting for several hours, you can minimize the potential for lead exposure by running your tap for 30 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. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline 1.800.426.4791 or at <http://www.epa.gov/safewater/lead>.

WATER QUALITY MONITORING DATA for VILLAGE OF LOCKLAND

<u>Substance</u>	<u>MCL</u>	<u>Level Found</u>	<u>Violation</u>	<u>Analysis Date</u>	<u>Source (6)</u>
<u>Disinfection Byproducts</u>					
Trihalomethane	200 ug/L	<ug/L	None	7/26/2016	1
Halo acetic acid 5		<ug/l	None	7/26/2016	1
CHLOROFORM		3.36ug/l	None	7/26/2016	1
BROMOFORM		26.4ug/l	None	7/26/2016	1
BROMODICHLOROMETTHANE		6.5ug/l	None	7/26/2016	1
DIBROMOCHLOROMETHANE		13.4ug/l	None	7/26/2016	1
Total TTHM	80 ug/l	49.7ug/l	None	7/26/2016	1
MONOCHLOROACETIC ACID		<2.0 ug/l	None	7/26/2016	1
DICHLOROACETIC ACID		1.3ug/l	None	7/26/2016	1
TRICHLOROACETIC ACID		<1.0ug/l	None	7/26/2016	1
MONOBROMOACETIC ACID		<1.0ug/l	None	7/26/2016	1
DIBROMOACETIC ACID		5.4ug/l	None	7/26/2016	1
TOTAL HALOACETIC ACIDS (HAA5)	60 ug/l	6.7ug/l	None	7/26/2016	1
<u>VOC'S (Volatile Organic Compounds)</u>					
COPPER	AL 1300 ug/l	<5.0 ug/l	None	4/30/2015	2
LEAD	AL 15 ug/l	<5.0 ug/l	None	2014 +02015	2
Nitrate - 1040	10000 ug/l	<0.10mg/l	None	2/10/2017	3
Nitrite	100 ug/l	<0.10mg/l	None	2/10/2017	3
Selenium	5.0 ug/l	<5.0 ug/l	None	4/30/2015	4
Thallium Total	2 ug/l	<1.5 ug/l	None	7/17/2015	5

Definitions & Notes: ug = ppb parts per billion; ug/l = parts per billion per liter (microgram/liter); AL = Action Level; SOC = Synthetic Organic Compounds; MCL = Maximum Contaminant Level; VOC's = Volatile Organic Compounds; MRDL = Maximum Residual; mg/L = milligrams per liter; pCi/l = pica Curies per liter; mg/l; ppm = parts per million

Maximum Contaminant Level Goal (MCLG): This level of containment in drinking water above which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Containment Level (MCL): The highest level of containment that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Parts per Million (ppm) or Milligrams per liter (mg/l) are units for concentration of a containment. A part per million corresponds to one second in a little over 11.5 days.

Parts per Billion (ppb) or Micrograms per liter (ug/l) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

The "<" symbol: A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the containment in that sample was not detected.

Picocuries per liter (pCi/l): A common measure of radioactivity.

Source Code References

- 1 -By product of chlorination
- 2 - Corrosion of household plumbing, erosion of natural deposits
- 3 - Runoff fertilizer, septic leaching, sewage & erosion of natural deposits
- 4 - Discharge petroleum and metal refineries
- 5 - Natural occurring mineral in ground water
- 6 - Only primary sources listed
- 7 -Runoff from herbicides used on crops
- 8 - Discharge from factories, leaching from gas stations & storage tanks
- 9 - Discharge from chemical plants & other industrial activities
- 10 - Discharge from chemical & agricultural chemical factories
- 11 - Discharge from industrial chemical factories
- 12- Erosion of natural deposits, orchard runoff
- 13 - Discharge of drilling & metal refineries waste
- 14- Discharge from drug and chemical factories
- 15- Corrosion of galvanized pipes, erosion of natural deposits
- 16- Discharge from steel & metal factories
- 17- Erosion of natural deposits and water additive
- 18- Natural occurring mineral in ground water
- 19- Leaching from PVC pipes, discharge from plastic factories
- 20- Discharge from petroleum factories, discharge from chemical factories
- 21- Erosion of natural deposits

Water Treatment Plant Operations

The Director of Public Works, Kevin Cross is responsible for the water system operations.

Lockland is licensed to operate or maintain a public water system through the Ohio EPA. Each month we send reports to Ohio EPA. These reports show our compliance with EPA's chemical and bacteriological health regulations. Annually, Ohio EPA's engineers also inspect the water system for compliance with regulations, laboratory procedures, water quality and facilities maintenance.

Lockland's Water Treatment Plant Operator is licensed by the State of Ohio.

Mike Foster, ORC / Supervisor WS2-1011952-01

- * A Class 2 license is required for all water plants of Lockland's size and type of treatment process.
- * A Class 1 distribution license is required for distribution systems of Lockland's size and type.

If You Have Any Questions . . .

- Call Kevin Cross, Director of Public Works, at 513.623.2512 or e-mail (kcross@locklandoh.org)
or
- Write the Village of Lockland 101 North Cooper Avenue, Lockland, Ohio 45215.
or
- Attend a regular Village Council meeting at 7:30 p.m. on the third Tuesday of every month.