

2018 Water Quality Report

Volume 21, Issue 1

Consumer Confidence Report

June, 2019

Little Hocking Water is the largest rural water system in Washington County

- We serve a population of about 12,000 people
- Over 250 miles of water lines
- 7 booster pump stations
- 8 water tanks with a total capacity of about two million gallons
- 4 water wells with an average production of 787,000 gallons per day in 2018.
- Two Class II OEPA licensed operators.

Water Facts

LHW water hardness is about 300 mg/l (as CaCO₃) or 17.5 grains (very hard).

The treatment that we provide

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Water Quality Meets OEPA Standards

The Little Hocking Water Association has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. This report is a summary of the quality of water provided in 2018. In the future, similar reports will be issued annually, as required by the Safe Drinking Water Act Reauthorization of 1996. This report includes general health information, water quality test results, water system contacts and information on how to participate in decisions concerning your drinking water. As indicated in this report, the Little Hocking Water Association meets the water quality standards of the Ohio Environmental Protection Agency (OEPA).* We have a current, unconditioned license to operate our water system.

* The Ohio EPA has not established any drinking water standard for C8. Although the US EPA has required treatment of Little Hocking source water because the C8 level exceeds 0.40 parts per billion, there is still no established "safe" level for C8 in drinking water. The Little Hocking Water Association continues to maintain that there should be no detectable level of C8 and related compounds in its water.

FUTURE WATER RATES

In order for our water system to stay financially healthy, water rate increases, like cost increases for everything else, are inevitable. Therefore, in a continuing effort to reduce the impact of water rate increases on our customers, we are implementing smaller annual rate increases, instead of the periodic larger ones. The following residential rate changes go into effect July 2019 and will show up on the August 2019 billing:

Rate Block	Existing	New	Change
0 to 2,000 gals.	\$22.50/2,000 gals.	\$23.50/2,000 gals.	\$1.00/1,000 gals.
2,001 to 8,000 gals.	\$7.25/1,000 gals.	\$7.60/1,000 gals.	\$0.35/1,000 gals.
8,001 to 20,000 gals.	\$6.00/1,000 gals.	\$6.25/1,000 gals.	\$0.25/1,000 gals.
OVER 20,000 gals.	\$5.00/1,000 gals.	\$5.25/1,000 gals.	\$0.25/1,000 gals.

Drinking Water Source is Wells

The Little Hocking Water Association's water source is groundwater obtained from four water wells located in the Porterfield area. The source of water for the wells is the Ohio River Valley Aquifer. This aquifer, which supplies drinking water to the Little Hocking Water Association, has a high susceptibility to contamination, due to the sensitive nature of the aquifer in which the drinking water wells are located and the existing potential contaminant sources identified. This does not mean that this wellfield will become contaminated, only that conditions are such that the groundwater could be impacted by potential contaminant sources. Future contamination may be avoided by implementing protective measures. More information is available by calling 740-989-2181 or Ohio EPA at 614-644-2752.

We have mutual aid agreements with the Tappers Plains-Chester Water District, the City of Belpre, and the Warren Water Association. The only actual pipe interconnection is with the Warren Water Association, which has limited capacity to assist us. In 2018 we did not pump water from any other water source other than our own water wells.

Public Participation Information

Public participation and comment are encouraged at regular meetings of the Little Hocking Water Association which meets at the Association office on the third Monday of each month at 7:00 PM. The Association office is located in Little Hocking across from the U.S. Post Office.

If you have any questions regarding this report, or any other matter regarding our drinking water, you may contact Tom Hanning, General Manager at (740) 989-2181.

Sources of Water Contamination

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: (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; (E) Radioactive contaminants, which can be naturally-occurring or be the result 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. 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).

LEAD 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 Little Hocking Water Association 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. A list of laboratories certified in the State of Ohio to test for lead may be found at <http://www.epa.ohio.gov/ddagw> or by calling 614-644-2752. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 800-426-4791 or <http://www.epa.gov/safewater/lead>.

Drinking Water Sampling

The EPA requires sampling to ensure drinking water safety. The Little Hocking Water Association (LHWA) collected numerous samples for bacteria, fluoride, chlorine, nitrate, disinfection by-products, and inorganics during 2018. Samples were collected for a total of 30 different contaminants most of which were not detected in the LHWA water supply. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data though accurate, may be more than one year old. Listed below is information on regulated and unregulated contaminants that were found in the LHWA drinking water.

Table of Detected Contaminants

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Inorganic Contaminants							
Lead (ppb)	0	AL = 15	0.0	NA	NO	2018	Corrosion of household plumbing
None of 30 samples checked had lead levels in excess of the Action Level of 15 ppb.							
Copper (ppb)	1300	AL = 1300	0.177	NA	NO	2018	Corrosion of household plumbing
None of the 30 samples checked had copper levels in excess of the Action Level of 1300 ppb.							
Nitrate (ppm)	10	10	0.64	NA	NO	2017	Runoff from fertilizer use; erosion of natural deposits
Barium (ppm)	2	2	0.108	NA	NO	2018	Erosion of natural deposits
Fluoride (ppm)	4	4	1.02	0.89- 1.20	NO	2018	Water additive which promotes strong teeth: erosion of natural deposits
Residual Disinfectants							
Total Chlorine (ppm)	MRDLG = 4	MRDL = 4	1.33	1.24- 1.40	NO	2018	Water additive used to control microbes
Unregulated Contaminants							
Name		Average		Range			
Chromium - 6 (ppb)		0.039		0.39 (Distribution System)			
Molybdenum (ppb)		2.692		1.881 (Distribution System) - 3.503 (Entry Point)			
Strontium (ppb)		161.46		141.393 (Distribution System) - 181.526 (Entry Point)			
Vanadium (ppb)		0.236		0.215 (Distribution System) - 0.257 (Entry Point)			

Unregulated Contaminants monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants. Results of non

Definitions of Terms

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 contaminant 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 of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

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

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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 contaminant in that sample was not detected.

Maximum Residual Disinfectant Level (MRDL): The highest residual disinfectant level allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contamination.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of residual disinfectant 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.

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**DANGER FROM WELLS, CISTERNS,
SPRINGS, AND PONDS!!!**

It is mandated by the Ohio Environmental Protection Agency (OEPA) that residential auxiliary water supplies such as private wells, cisterns, springs, and ponds must **not** be connected in any way to our water system, because some are not safe. Therefore, they represent a danger to the public health. **All private sources of water must be completely disconnected and physically separated from our water system.** (A valve separating the systems is not acceptable.) All of our customers have signed a Water User's Agreement by which they agree "that no other present or future source of water will be connected to any water lines served by the Association's water lines...". **Violations of this Agreement endanger the public health and can result in the loss of water service.**

IMMUNO-COMPROMISED PERSONS

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 infection. 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 microbial contaminants are available from the **Safe Drinking Water Hotline (1-800-426-4791)**.

**POTENTIAL DANGER FROM
HOT WATER HEATERS
DUE TO THERMAL EXPANSION**

Water is a non-compressible fluid that expands when it is heated. This phenomenon is called **thermal expansion**. If heated water does not have any place into which to expand, it builds up pressure in the plumbing. In some cases in a "closed system" this pressure may cause the pressure relief valve on the hot water tank to "pop-off" or seep. **If the pressure relief valve on the hot water tank is not operating properly, the hot water heater could be damaged or even explode, due to thermal expansion.**



"Closed systems" can be caused by closed valves, single check valves, pressure reducing valves, dual check valves, and backflow prevention devices. As part of our backflow prevention program, mandated by the Ohio EPA, Little Hocking Water has been installing metersetters with dual check valves in residential meter pits for the past several years. Many of our customers have "closed systems" of some type. Therefore, the installation of a thermal expansion tank or other suitable pressure-relieving device is recommended within your plumbing system. **We recommend that you contact a reputable plumber or plumbing supplier to recommend a device that will meet your specific needs.**

C8 AND GENX CONTAMINATION OF WELLS

The Little Hocking Water Association is aware that there is C8 and related chemicals in our wellfield and there is a history of C8 in the blood of many of our customers. The granular activated carbon (GAC) plant, which filters Little Hocking water, operated throughout 2018 to filter water from our wellfield so the C8 in the water is below reporting limits as it enters our distribution system. Reporting limits are the levels below which C8 cannot be measured and reported under the methods used by DuPont/Chemours (now known as Chemours).

In the 2017 report, we informed you that the US EPA, once again, lowered its health advisory level for C8. The current level is 70 parts per trillion (ppt). The advisory level is not a final standard or regulation. There still is no final regulatory level or standard for C8. The 70 ppt number is less protective than levels set by Michigan and New Jersey, which have screening levels of 9 ppt and 14 ppt, respectively.

In 2018, Little Hocking also learned that an additional chemical (known as GenX) from the Chemours Washington Works plant has already reached Little Hocking's wellfield. Chemours uses GenX as a replacement for C8. In March 2018, we advised users of the detection of GenX in the wellfield and explained the health risks that GenX may present. The GAC plant filtered water from our wellfield so the GenX in the water is below Chemours' reporting limits as it enters our distribution system.

This is to advise you that recent sampling conducted by Chemours' consultants shows concentrations of PFOA *above reporting limits* at locations within the GAC plant after filtration. Chemours, the owner of the GAC plant, and Little Hocking's management and independent consultants promptly took steps to identify the cause. As a result of these efforts, special non-routine maintenance will be performed on a piece of equipment (the Contact Tank) within the GAC plant, with follow-up sampling to verify that the maintenance resolved the Contact Tank detections.

As a precautionary measure, Little Hocking also undertook more sensitive (*i.e.*, lower) sampling to determine whether any detectable level of C8 made its way into Little Hocking's finished water as a result of the detections found in the Contact Tank. That more sensitive sampling revealed that detectable concentrations of C8 were in the finished water, but well below the USEPA health advisory level of 70 ppt.

However, Little Hocking continues to maintain that, because of the historically high levels of C8 found in many of its water users, there should be no detectable level of C8 and related compounds, including GenX, in its water after GAC filtration. Little Hocking will continue to do all it can to prevent any detectable contamination from entering the finished water. Further, in light of the recent detections and in light of C8 levels set by states such as Michigan and New Jersey, it is Little Hocking's position that Chemours must employ more sensitive (at lower concentrations) reporting of C8 concentrations to verify that no detectable concentrations are present in Little Hocking's water after GAC filtration.

For information about the C8 and GenX contamination, please visit the LHWA website at <http://littlehockingwater.org>.