

2007 Water Quality Report

Volume 10, Issue 1

Consumer Confidence Report

June, 2008

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 865,000 gallons per day in 2007.
- One Class III and five Class I OEPA licensed operators. All of our water operators are licensed by the Ohio EPA.

Water Facts

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

The treatment that we provide to the water is granular activated carbon filtration (as of November 2, 2007), plus the addition of chlorine and fluoride.

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Water Quality Meets OEPA Requirements

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 2007. In the future similar reports will be issued annually, as required by the Safe Drinking Water Act Reauthorization of 1996. Included within this report are general health information, water quality test results, water system contacts and how to participate in decisions concerning your drinking water. As indicated in this report, the Little Hocking Water Association meets the water quality requirements of the Ohio Environmental Protection Agency (OEPA).*

* The Ohio EPA has not set a standard for C8 in drinking water. For more information on the 0.50 ppb action level set by the U.S. EPA please refer to the enclosed 2008 Update Notice.

C8 CONTAMINATION OF WELLS

Please read the Update - Notice of Contamination enclosed herein.

The Little Hocking Water Association is aware that there is C8 and related compounds in our wellfield and in the blood of our customers. The Little Hocking Water Association maintains that there should be no detectable level of C8 and related compounds in the water. Although there is now a level established by USEPA that requires treatment of LHWA source water because it exceeds 0.50 ppb of C8, there is still no established "safe" level for C8 in drinking water. Therefore, please read the enclosed insert for details about the presence of C8 in our wellfield and the potential health risks.

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 rate changes go into effect in July 2008, and will show up on the August 2008 billing:

Rate Block	Existing	New	Change
0 to 2000 gals.	\$16.00/2000 gals.	\$16.40/2000 gals.	\$0.20/1000 gals.
2001 to 8000 gals.	\$4.60/1000 gals.	\$4.80/1000 gals.	\$0.20/1000 gals.
8001 to 20000 gals.	\$3.40/1000 gals.	\$3.50/1000 gals.	\$0.10/1000 gals.
OVER 20000 gals.	\$2.60/1000 gals.	\$2.70/1000 gals.	\$0.10/1000 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 2007 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 second 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 Bob Griffin, 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

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. Another precaution would be to flush your tap for 30 seconds to 2 minutes before using the tap water. Additional information is available from the **Safe Drinking Water Hotline (1-800-426-4791)**.

Drinking Water Sampling

The EPA requires regular sampling to ensure drinking water safety. The Little Hocking Water Association collected numerous samples for bacteria, fluoride, nitrate, disinfection by-products, disinfection residuals, inorganics, and radiologicals during 2007. 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 those regulated contaminants that were found in the Little Hocking Water Association drinking water.

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Inorganic Contaminants							
Lead (ppb)	0	AL=15	5.7	<2.0 – 9.3	NO	2007	Corrosion of household plumbing
None of the 30 samples checked had lead levels in excess of the Action Level of 15 ppb.							
Copper (ppb)	1300	AL=1300	460	<10 – 570	NO	2007	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	0.69	NA	NO	2007	Runoff from fertilizer use; erosion of natural deposits
Barium (ppm)	2	2	.069	NA	NO	2007	Erosion of natural deposits
Selenium (ppm)	.05	.05	.0032	NA	NO	2007	Erosion of natural deposits
Fluoride (ppm)	4	4	1.06	0.74 – 1.18	NO	2007	Water additive which promotes strong teeth; erosion of natural deposits
Volatile Organic Contaminants							
Total Trihalomethanes	NA	80	18.5	NA	NO	2007	By-products of drinking water
Haloacetic Acids [HAA5] (ppb)	NA	60	<6.0	NA	NO	2007	By-products of drinking water chlorination
Residual Disinfectants							
Total Chlorine (ppm)	MRDL= 4	MRDLG= 4	0.86	0.67—1.03	NO	2007	Water additive used to control microbes

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.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of residual disinfectant below which there is no known or expected risk to health.

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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.

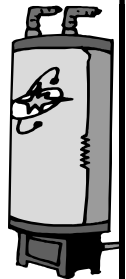
All private sources of water must be completely disconnected and physically separated from our water system. (A valve separating the systems is not acceptable.) All of our customers have signed a Water User's Agreement by which they agree "that no other present or future source of water will be connected 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

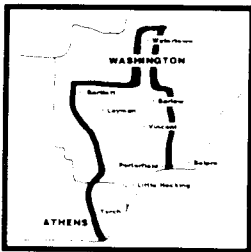
Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants 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 may be needed 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.**



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June 2008 – Update – Notice of Contamination

The Little Hocking Water Association (“LHWA”) is sending this Update as part of our continuing effort to keep our members apprised of developments regarding the contamination of our wellfield with C8 and related chemicals. LHWA is also sending this Update to provide our members with the facts gathered since its January 2008 Update so that you can continue to make informed decisions about your uses of LHWA water.

DEVELOPMENTS SINCE LHWA’S LAST UPDATE

1. GAC Plant Operations

The January 2008 Update explained that the interim water treatment plant (the “GAC Plant”) – which began its first full day of operation on November 2, 2007 – is designed to pump water from LHWA’s wells through two carbon filters. Since GAC Plant discussions began between LHWA and DuPont, LHWA has urged DuPont to perform frequent initial sampling at a number of points within the GAC Plant so LHWA can determine the extent to which C8 is being removed. DuPont agreed to take samples every two weeks to measure C8 levels in: (a) the pre-treated water entering the GAC Plant; (b) the water as it exits the first carbon filter; and, (c) the water as it exits the second carbon filter. LHWA and DuPont have agreed to (and the State of Ohio has approved) a procedure by which DuPont will change the carbon in the first filter when the level of C8 passing through the first filter reaches 15 parts per trillion (“ppt”), the “change-out trigger.”

For example, on June 10, 2008, LHWA received draft results from samples taken on May 30, 2008. These results show:

- (1) C8 levels of 3300 ppt in water entering the GAC Plant (i.e. pre-treated water);
- (2) Undetectable levels of C8 in water exiting the first carbon bed; and,
- (3) Undetectable levels of C8 in water leaving the GAC Plant and entering the distribution system.

To date, all of the GAC Plant sampling results indicate that the water leaving the GAC Plant and entering the distribution system is non-detect for C8. LHWA will continue to urge DuPont to maintain frequent sampling so we can be sure the GAC Plant continues to remove C8 to non-detectable levels.

Frequent sampling is particularly important in light of the fact that the carbon change-out trigger is being reached far more quickly than DuPont projected. DuPont originally projected that it would be over 149 days (about 5 months) before the 15 ppt change-out trigger would be reached. However, in just 7 months of operation, 3 change-outs have already been necessary. These change-outs took place on January 10, March 5, and, May 22, 2008.

Additionally, the January 2008 Update explained that LHWA emptied and refilled the 8 storage tanks in its distribution system from November 5 to November 30, 2007 to help remove any residual C8 from the distribution system. The Update also explained that 7 of 8 follow-up samples taken on December 3, 2007 still showed C8 levels above LHWA's non-detect criteria (but below the U.S. EPA 500 ppt "action level"). Details of this distribution system testing can be found in the January 2008 Update, which is posted on our website at: littlehockingwater.org.

LHWA has urged and will continue to urge DuPont to conduct further sampling at key points around the distribution system to confirm the quality of the water in the distribution system and to document any upward or downward trend in the C8 levels. However, DuPont has conducted no further distribution sampling since the December 3, 2007 sampling.

2. C8 Health Project Data

In our January 2008 Update, we noted that studies suggest that PFOA has multiple immune system effects, including suppression of the human immune system and the potential increase in the likelihood of developing asthma and allergies. In May 2008, West Virginia University scientists reported preliminary findings concerning PFOA's negative impact on the immune system. These findings were based on data collected as part of the "C8 Health Project"¹ and included findings that: (1) higher levels of PFOA in people correlate with lower levels of a protein that helps the body fight bacteria, viruses, and other pathogens and (2) higher PFOA levels in West Virginia and Ohio residents are associated with higher levels of two enzymes that can indicate liver damage, and with lower levels of a liver protein that is an important part of the body's defense against infection.

West Virginia University scientists also reported preliminary findings suggesting that elevated PFOA levels in children are associated with high cholesterol levels and that thyroid function was clearly affected in PFOA-exposed people, with the effect strongest at moderate levels of exposure, rather than the highest exposures.

3. DuPont Worker Information

Earlier this month, the possibility of a cancer cluster at DuPont's Washington Works plant was reported in various news releases. According to the news releases, DuPont data shows an abnormally high rate of carcinoid tumors – a rare type of cancer – among workers at the Washington Works plant. DuPont found 19 cases of carcinoid tumors among workers at 12 current or former DuPont plants. Six of these cases were found at Washington Works. One Delaware article states that "[t]he annual U.S. incidence rate for carcinoid tumors is 3.8 cases per 100,000 persons. The comparable rate for the West Virginia facility would be 7.3 cases per 100,000 workers." According to the news releases, DuPont does not know whether this increase is related to C8.

In May 2006, a U.S. Environmental Protection Agency Science Advisory Board concluded that C8 was "likely to be carcinogenic in humans."

¹ The C8 Health Project was established as part of a settlement in the West Virginia class action lawsuit, *Leach, et al. v. E.I. DuPont de Nemours and Company*. The purpose of the C8 Health Project is to collect health data from the class action members, including the amount of PFOA in class members' blood to be used to determine whether C8 exposure is related to disease.

4. Status of Ohio State Court Lawsuit

As explained in our June 2006 Update, LHWA filed a lawsuit in state court in Ohio (Washington County Court of Common Pleas) against DuPont on May 15, 2006 in order to preserve all of LHWA's rights to protect the wellfields now and in the future. On September 8, 2006, LHWA exercised its legal option of temporarily dismissing its lawsuit with the understanding that LHWA would re-file the lawsuit within one year if all legal disputes were not resolved. On September 4, 2007, LHWA re-filed its complaint in Washington County, Ohio before the re-filing deadline expired.

By letter dated January 7, 2008, the court informed LHWA that both Washington County judges had a conflict of interest in LHWA's case and that Judge Julie R. Selmon of Monroe County had accepted the assignment to LHWA's case as a visiting judge.

As further explained in our January 2008 Update, LHWA offered to stay (or delay) the litigation to continue its dispute resolution efforts with DuPont. While DuPont did not accept LHWA's offer to formally stay the litigation, LHWA and DuPont agreed to engage in pre-litigation mediation in an attempt to reach a resolution before the start of active litigation. If a resolution is not reached by August 29, 2008, the parties will revisit the issues with the Court and will either continue with mediation or move forward with the litigation.

5. Resource Conservation and Recovery Act ("RCRA") Notice

In addition to its current lawsuit in state court in Ohio, LHWA also has the legal option of filing a lawsuit in federal court to ensure DuPont's compliance with federal law. Under RCRA – a federal statute – a citizen may bring a lawsuit (i.e. "citizen suit") to prevent or stop an "imminent and substantial endangerment" to human health or the environment. As a first step, the party seeking to enforce the law must serve proper notice of the endangerment on the party who may be sued. On June 6, 2007, to satisfy this requirement, LHWA sent a "citizen suit notice letter" to DuPont advising DuPont that DuPont's handling of C8 and related chemicals "may present an imminent and substantial endangerment to health and the environment" under RCRA, a federal statute. LHWA's notice letter serves to protect its rights under RCRA but does not require LHWA to file a citizen suit.

On May 21, 2008, LHWA sent an updated notice letter to DuPont. LHWA took this step because events have taken place since the June 6, 2007 notice. These events include the GAC Plant startup and public health research announcements. Like the June 6, 2007 notice letter, the May 21, 2008 letter notifies DuPont of the RCRA endangerment posed by DuPont's handling of C8 and related chemicals. It also advises DuPont that the wellfields need to be cleaned up; that the source of the C8 in the wellfields needs to be identified and eliminated; and, that alternate water (or continued GAC treatment) needs to be provided for as long as C8 and related chemicals are detected in the Wellfields.

LHWA will attempt to resolve these issues with DuPont without resorting to additional litigation in the form of a citizen suit.

Further Background

Information contained in earlier Updates, such as past developments and historic C8 levels in LHWA production wells can be found on LHWA's website at littlehockingwater.org.

LHWA's Commitment

LHWA continues to maintain its longstanding position that C8 and related chemicals do not belong in our drinking water. The Board of Trustees and staff of LHWA remain committed to obtaining complete information related to C8 and the scope of contamination (including the extent of other perfluorinated contamination). LHWA is also researching alternative sources of water in addition to carefully evaluating the GAC Plant, and will continue to provide information to help our members to make more informed decisions about C8 and related chemicals. This Update and the January 2008 Update provide information on the substantial reduction of C8 levels in the water flowing through LHWA's distribution system. *Nevertheless, please be aware that, until LHWA has long-term, reliable data that establishes that C8 and related chemicals have been eliminated from LHWA's distribution system, you may be drinking or otherwise using water containing C8 and related chemicals and that you do so knowing of possible health risks.* To keep you apprised of the status of this issue, we will continue to post updated information on our website at www.littlehockingwater.org. You can also contact us for additional information:


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Phone: (740) 989-2181
Website: www.littlehockingwater.org

Please share this information with all other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Little Hocking thanks you for your patience as we work toward a resolution of this issue and we regret the inconveniences that this issue has caused.

Very truly yours,
Little Hocking Water Association, Inc.

By 
Robert L. Griffin, P.E.
General Manager