

# 2009 Water Quality Report

Volume 12, Issue 1

Consumer Confidence Report

June, 2010

**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 801,000 gallons per day in 2009.
- 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 CaCO<sub>3</sub>) 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 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 2009. 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 U.S. 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.

## C8 CONTAMINATION OF WELLS

The Little Hocking Water Association is aware that there is C8 and related chemicals in our wellfield and in the blood of our customers. LHWA has filed suit in federal court in Columbus, Ohio to cleanup LHWA's groundwater (aquifer) and to address the other concerns about the contamination in that aquifer. Please read the enclosed insert for details about LHWA's concerns and for references to more detailed facts and data about the contamination, including test results concerning contamination of the environment at and about the wellfield.

## 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 2010, and will show up on the August 2010 billing:

Rate Block	Existing	New	Change
0 to 2000 gals.	\$16.80/2000 gals.	\$17.40/2000 gals.	\$0.30/1000 gals.
2001 to 8000 gals.	\$5.00/1000 gals.	\$5.20/1000 gals.	\$0.20/1000 gals.
8001 to 20000 gals.	\$3.60/1000 gals.	\$3.80/1000 gals.	\$0.20/1000 gals.
OVER 20000 gals.	\$2.80/1000 gals	\$3.00/1000 gals	\$0.20/1000 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 2009 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

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. Little Hocking Water 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. 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 <http://www.epa.gov/safewater/lead>.

## Drinking Water Sampling

The EPA requires regular sampling to ensure drinking water safety. The Little Hocking Water Association collected numerous samples for bacteria, fluoride, chlorine, nitrate, disinfection by-products, and synthetic organic chemicals during 2009. 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 Little Hocking Water Association drinking water.

**Table of Detected Contaminants**

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
<b>Inorganic Contaminants</b>							
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	0.61	NA	NO	2009	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	1.10	0.84 – 1.14	NO	2009	Water additive which promotes strong teeth: erosion of natural deposits
<b>Residual Disinfectants</b>							
Total Chlorine (ppm)	MRDLG =4	MRDL =4	1.06	0.86—1.19	NO	2009	Water additive used to control microbes
<b>Unregulated Contaminants</b>							
Dibromochloro-methane (ppb)	NA	NA	0.58	NA	NO	2009	By-products of drinking water disinfection

## 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**

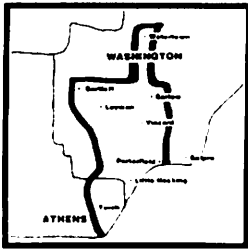
Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants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



# LITTLE HOCKING WATER ASSOCIATION, INC.

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## July 2010 – 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.

Even though our GAC Plant is currently removing C8 from our drinking water down to undetectable levels, nothing is being done to clean up the groundwater in our aquifer and nothing is being done to stop the spread of the contamination from our aquifer.<sup>1</sup> After more than 15 months of failed settlement talks, LHWA was forced to file a federal lawsuit<sup>2</sup> to resolve these and the following additional concerns:

- 1. the trend of increasing C8 levels in LHWA’s groundwater (aquifer).** As LHWA has known for some time, and as the U.S. EPA pointed out in a March 3, 2010 letter to DuPont, the C8 levels in LHWA’s groundwater “are increasing and do not appear to have reached a plateau or started to decline.”
- 2. the C8 contamination of plants (the food chain) in LHWA’s wellfield.** In October 2009, plant samples (grass and tree leaves) were collected from LHWA’s wellfield and analyzed for C8. C8 was found in all of the samples, at levels as high as 699 ng/g (parts per billion). The results of the LHWA plant sampling show that C8 is readily taken up by plants. These results indicate that C8 exposure is not only from drinking water but can be from ingestion of plants (e.g. homegrown foods and other locally grown crops) by humans and animals. The October 2009 plant data is part of the public record in LHWA’s federal case against DuPont.
- 3. the inadequacy of DuPont’s C8 environmental assessment.** Based on a 2005 voluntary agreement with the U.S. EPA, DuPont conducted an “environmental assessment” that was supposed to characterize past and current C8 releases associated with the Washington Works Plant. An independent third-party’s evaluation of DuPont’s work found that “significant limitations and omissions” exist in the data sets collected and relied on by DuPont. DuPont has been “urged” to “adequately characterize current and future exposures” to C8 from groundwater. The review panel’s evaluation, U.S. EPA’s review, and additional background materials can be found online at <http://itp-foia.ce.cmu.edu/pages/documents.html>.

<sup>1</sup> A negotiated agreement between U.S. EPA and DuPont requires treatment of drinking water if C8 levels exceed 0.4 parts per billion (the “action level”). LHWA was excluded from the discussions about this agreement and is aware that the State of New Jersey’s scientific findings justify an action level 10 times lower, or 0.04 parts per billion.

<sup>2</sup> LHWA’s federal lawsuit against DuPont was filed in the U.S. District Court for the Southern District of Ohio. A state lawsuit has also been filed in the Court of Common Pleas for Washington County, Ohio.

4. **the impacts of C8 on human health.** The evolving body of scientific literature indicates a connection between higher C8 levels in people and, e.g.: (a) “bad” cholesterol; (b) cardiovascular impacts; (c) reproductive impacts such as lower birth weight; and (d) suppression of the immune system. Further, recent data raise concerns about the impact of C8 on early onset of puberty. Information on studies concerning C8 exposure can be found in past Updates; in documents that are part of the public record in LHWA’s federal and state cases against DuPont; on-line at [www.c8healthproject.org](http://www.c8healthproject.org); and, on-line at [www.c8sciencepanel.org](http://www.c8sciencepanel.org).
  
5. **the fact that the 0.4 ppb action level is based on short-term exposure.** LHWA understands that the 0.4 ppb action level was calculated based on short-term (or “acute”) exposures to contaminants. It does not account for long-term (or “chronic”) exposures to contaminants like C8 in a public water source. LHWA also understands that, if the action level had been calculated based on long-term exposures to C8, it would be *ten times lower* than the action level set forth in the agreement between the U.S. EPA and DuPont. Nevertheless, it appears that DuPont is urging U.S. EPA to *raise* the “action level” for exposure to C8 in drinking water.
  
6. **the lack of data on the presence and impact of perfluorinated chemicals other than C8 (e.g. C6 through C16).** In the past, perfluorinated chemicals other than C8 have been detected in LHWA’s groundwater and in the blood of individuals who use LHWA water. DuPont refused to test LHWA’s treated water for the presence of these other perfluorinated chemicals. Research is just beginning on the health risks associated with perfluorinated chemicals other than C8 and their possible interaction with C8. Until LHWA has reliable data concerning the presence of other perfluorinated chemicals in its water, please be aware that you may be drinking or otherwise using water containing these chemicals and that there may be health risks from that exposure.

### **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 [www.littlehockingwater.org](http://www.littlehockingwater.org).

## LHWA's Commitment

LHWA continues to maintain its longstanding position that C8 and related chemicals do not belong in our wellfield. Even though the GAC Plant is currently removing C8 down to undetectable levels, "undetectable" does not mean zero and there may be very small quantities of C8 in LHWA's distribution system. Further – as noted in paragraph 6 above – DuPont will not test the water entering the distribution system for perfluorinated chemicals other than C8. 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 contamination by other perfluorinated chemicals). *Nevertheless, please be aware that, until a resolution to this problem is secured, you are drinking or otherwise using water that may contain C8 and/or related chemicals and that you do so knowing of possible health risks.* To keep you apprised of current information and the status of this issue, we will continue to post updated information on our website at [www.littlehockingwater.org](http://www.littlehockingwater.org). You can also contact us for additional information:

Little Hocking Water Association, Inc.  
Attn: Robert L. Griffin  
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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