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The goal of the Department of Public Service Water Division is to ensure that any contaminants in your drinking water are restricted below a level at which there is no known health risk. The City of Gahanna has prepared the following report to provide information to you, the consumer, on the quality of our drinking water.

SOURCE WATER INFORMATION

The City of Gahanna receives its drinking water from the City of Columbus' Hap Cremean Water Plant (HCWP). The water source for the HCWP is the Hoover Reservoir via the Big Walnut Creek.

LICENSE TO OPERATE (LTO) STATUS INFORMATION

The City of Gahanna has a current, unconditioned license to operate its water system.

WHAT ARE SOURCES OF CONTAMINATION TO DRINKING WATER?

The sources of drinking water, both tap 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 agricultural, 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, 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 and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

WHO NEEDS TO TAKE SPECIAL PRECAUTIONS?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised individuals such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune systems 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 at 1-800-426-4791.

UNI-DIRECTIONAL FLUSHING

The City of Gahanna completed another year of uni-directional waterline flushing. This innovative technique allows the Division of Water to clean waterlines using less water while achieving proven results. The technique includes closing specific valves on each waterline to allow the water to flow quickly through the pipes and exit a specified hydrant. The fast moving water cleans out the waterlines and provides better quality drinking water. This method is endorsed and encouraged by the Ohio EPA. Uni-directional waterline flushing occurred in the following areas in 2012: College Park, Imperial Rise, Royal Manor, Woodside Green and Woodside Green South.

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CONTACTS AND ADDITIONAL INFORMATION

If you have questions regarding any of the information contained in this report, contact City of Gahanna Water Resources Engineer, Jeff Feltz, at 614-342-4005. This report can also be found on our website at www.gahanna.gov/departments/service/waterSewer.aspx. More detailed information on common water quality concerns, the water treatment process and source water assessment information can be found on the City of Columbus Department of Public Utilities website at www.drinkingwater.columbus.gov or by calling the Watershed Division at 614-645-1721.

The public can offer input on issues related to Gahanna's water system at Council meetings which take place the 1st and 3rd Monday of each month at 7:00pm.

TOTAL ORGANIC CARBON

The value reported for total organic carbon (TOC) is the lowest running annual average ratio between the percentage of TOC actually removed to the percentage of TOC required to be removed. A value greater than one indicates that the water system is in compliance with TOC removal requirements. A value less than one indicates a violation of the TOC removal requirements.

TURBIDITY

Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of the filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the daily samples and shall not exceed 1 NTU at any time.

NITRATE

Nitrate in drinking water at levels above 10ppm is a health risk for infants less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your healthcare provider. Local television, radio, and print media will be notified within 24 hours if the level of nitrate rises above 10ppm. The media will similarly be notified once the level decreases.

None of the water supplied to Gahanna (by Columbus' Hap Cremean Water Plant) exceeded the nitrate maximum contaminant level (MCL) of 10ppm in 2012.

LEAD

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 City of Gahanna 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 1-800-426-4791 or online at www.epa.gov/safewater/lead.

DEFINITIONS

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

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 a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

MFL: Million fibers per liter

ND: Not detected

Nephelometric Turbidity Unit (NTU): A measure of particles held in suspension in water.

Parts per Billion (ppb) or Micrograms per Liter ($\mu\text{g}/\text{L}$): Unit of measure for concentration of a contaminant. A ppb corresponds to one ounce in 7,350,000 gallons of water.

Parts per Million (ppm) or Milligrams per Liter (mg/L): Unit of measure for concentration of a contaminant. A ppm corresponds to one ounce in 7,350 gallons of water.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in water.

Turbidity: A measure of cloudiness of the water. Turbidity is monitored because it is a good indicator of water quality and the effectiveness of the treatment process.

CONTAMINANT MONITORING

The EPA requires regular sampling to ensure drinking water safety. The EPA requires some contaminants to be sampled less than once per year due to the fact that the concentrations of these contaminants do not change frequently. Therefore, some of the data in the table, though accurate, may be more than a year old. Below is a chart showing the sampling results performed by the City of Columbus and the City of Gahanna during 2012.

	Sample Year	Maximum Contaminant Level Goal (MCLG)	Maximum Contaminant Level (MCL)	Level Found	Range of Detection	Violation	Typical Source of Contaminant
HAP CREMEAN WATER PLANT							
INORGANIC CONTAMINANTS							
Fluoride (ppm)	2012	4	4	1.04	0.13 - 1.04	No	Water additive (protects teeth)
Nitrate (ppm)	2012	10	10	1.2	< 0.5 - 1.2	No	Agricultural fertilizer runoff
MICROBIOLOGICAL CONTAMINANTS							
Total Organic Carbon	2012	No goal set	TT (removal ratio > 1)	2.37	2.00 - 3.05	No	Naturally present in environment
Turbidity (NTU)	2012	No goal set	< 1	0.14	0.03 - 0.14	No	Soil runoff
Turbidity (% meeting standard)	2012	No goal set	> 95%	100%	100% - 100%	No	Soil runoff
SYNTHETIC ORGANIC CONTAMINANTS							
Alachlor (ppb)	2012	0	2	ND	ND	No	Agricultural herbicide runoff
Atrazine (ppb)	2012	3	3	0.21	< 0.10 - 0.98	No	Agricultural herbicide runoff
Simazine (ppb)	2012	4	4	0.10	< 0.10 - 0.21	No	Agricultural herbicide runoff
UNREGULATED CONTAMINANTS							
Bromodichloromethane (ppb)	2012	0	No set level	10.0	N/A	No	By-product of drinking water disinfection
Bromoform (ppb)	2012	0	No set level	< 0.5	N/A	No	By-product of drinking water disinfection
Dibromochloromethane (ppb)	2012	60	No set level	1.5	N/A	No	By-product of drinking water disinfection
Metolachlor (ppb)	2012	No goal set	No set level	ND	ND	No	Agricultural herbicide runoff
Metribuzin (ppb)	2012	No goal set	No set level	ND	ND	No	Agricultural herbicide runoff
VOLATILE ORGANIC CONTAMINANTS							
Chloroform (ppb)	2012	70	No set level	48.0	N/A	No	By-product of drinking water disinfection
CITY OF GAHANNA							
INORGANIC CONTAMINANTS							
Asbestos* (mfl)	2011	< 5.6	5.6	< 0.2	N/A	No	Decay of asbestos cement water mains; erosion of natural deposits
Copper* (ppm)	2012	1.35	1.35	0.067	< 0.050 - 0.083 (0 of 32 sites above AL)	No	Erosion of natural deposits, leaching from wood preservative, corrosion of household plumbing
Lead* (ppb)	2012	0	15	< 5.0	< 5.0 - 10.6 (0 of 32 sites above AL)	No	Erosion of natural deposits, corrosion of household plumbing
MICROBIOLOGICAL CONTAMINANTS							
Total Coliform Bacteria	2012	0%	Present in < 5% of monthly samples	0%	N/A	No	Bacteria present in environment
RESIDUAL DISINFECTANTS							
Total Chlorine (mg/L)	2012	4 (MRDLG)	4 (MRDL)	1.71	1.53 - 1.94	No	Disinfectant
VOLATILE ORGANIC CONTAMINANTS							
Total Haloacetic Acids, HAA5 (ppb)	2012	No goal set	60	34	6.0 - 48.5	No	By-product of drinking water disinfection
Total Trihalomethanes, TTHM (ppb)	2012	No goal set	80	84	27.1 - 110.0	Yes**	By-product of drinking water disinfection

* Asbestos testing has been scheduled for 2013. The next lead and copper testing is scheduled for 2015.

** Gahanna exceeded the MCL for the TTHMs in the 4th quarter. The system's Locational Running Annual Average (LRAA) for Site DS202 was 84.5 parts per billion (ppb). More information about this violation is below:

- Testing results from 4th quarter sampling (November 2012) shows that our system exceeds the standard, or maximum contaminant level (MCL), for total trihalomethanes (TTHMs). The standard for TTHMs is 80 ppb averaged at an individual monitoring location over the year. In November 2012, our TTHM level at site DS202 was 84.5 ppb. TTHMs, which are four volatile organic chemicals, form when disinfectants react with natural organic matter in the water. We are diligently working to minimize the formation of TTHMs while ensuring an adequate level of disinfection to protect customers from exposure to bacteria.
- We have since taken samples at this location and throughout the system and had them tested. These results show that the samples meet the standards.
- Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys or central nervous systems and may have an increased risk of getting cancer

WATER QUALITY ASSURANCE

The City of Columbus' Water Quality Assurance Laboratory (WQAL) is a large modern water lab with a long history of distinguished public service starting under the noted water quality chemist Charles Hoover. The lab continues to deliver that tradition of excellence and technical innovation in the ongoing use of state of the art equipment for water analysis, while continuing to research the latest advancements in water treatment techniques.

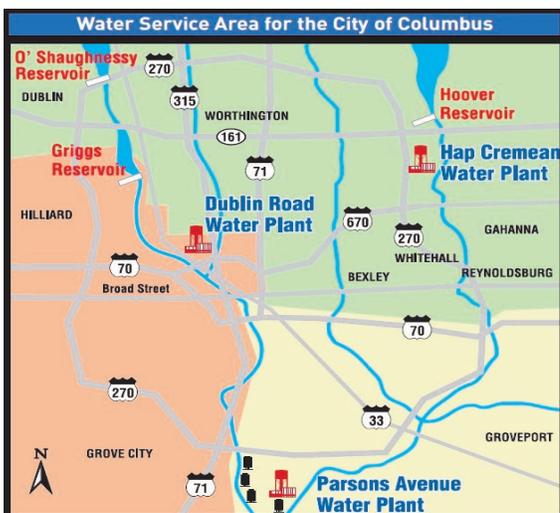
The WQAL performs water quality monitoring and treatment research to ensure that Columbus drinking water meets or is better than all federally mandated Safe Drinking Water Act (SDWA) standards. The WQAL also provides water quality information to the water treatment plants and to master meter cities, such as Gahanna.

To maintain compliance with current SDWA regulations, WQAL activities were directed at developing information regarding new and upcoming rules. These include the Unregulated Contaminant Monitoring Rule (UCMR), Stages 1 and 2 of the Disinfectant/Disinfection Byproducts Rule (D/DBP) and the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR).

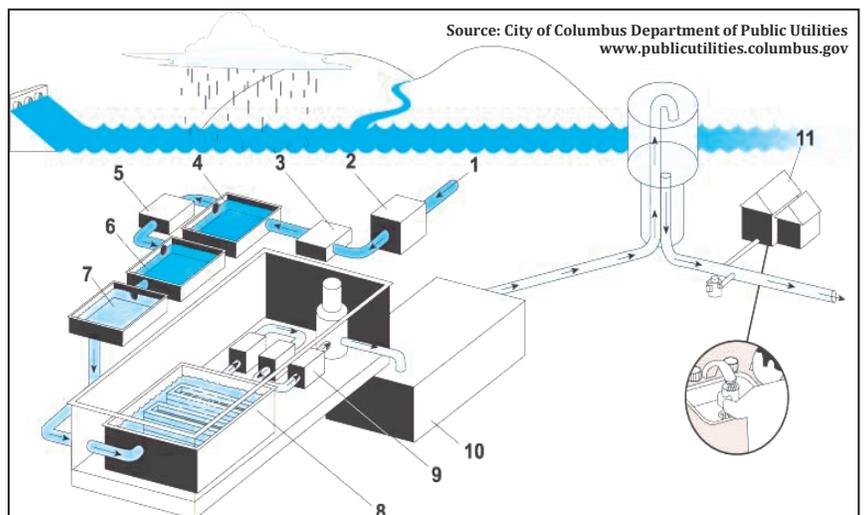
Additionally, the lab has been closely involved in planning the improvement of watershed and water distribution system surveillance and detection measures for security concerns in the wake of the 9/11 attacks and their associated heightened security protocols.

As with the WQAL staff, the State of Ohio licenses and certifies the water plant operators who are charged with running and maintaining each of the water treatment plants. The operators also perform the critical task of treatment and process monitoring to ensure the water leaving the plant is of the highest quality.

CITY OF GAHANNA
DEPARTMENT OF PUBLIC SERVICE
200 SOUTH HAMILTON ROAD
GAHANNA, OHIO 43230



Hap Cremean Water Plant (HCWP): This water plant serves OSU and northern residents. The water source is the Big Walnut Creek.



Water Treatment Process: 1. inflow 2. large debris removal 3. coagulation 4. sedimentation 5. softening 6. carbon dioxide addition 7. stabilization 8. filtration 9. disinfection 10. holding tanks 11. delivery to customer