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Annual Drinking Water Quality Report July 1, 2012

The City of Florence presents this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you each day. The City of Florence Public Services Department routinely monitors for contaminants in your drinking water according to federal and state regulations. Our mission is to provide you with a safe and dependable supply of drinking water in a financially responsible manner.

During 2011, we purchased our water from the Boone-Florence Water Commission. The Boone-Florence Water Commission receives its water from Greater Cincinnati Water Works (GCWW), www.cincinnati-oh.gov/water/pages/-3026-/, which is treated surface water from the Ohio River.

The City of Florence is pleased to report that our system has met all sampling, monitoring, and reporting requirements of the Federal and State Environmental Protection Agencies during the reporting year 2011. The tables on the following pages show the results of our monitoring for the period of January 1st to December 31st, 2011.

We want our customers to be informed about their water quality. If you want to learn more about your water quality, please contact our office at 859-647-5416 or visit our website at www.florence-ky.gov. Copies of this report are available at the Public Services Department, Florence Government Center, 8100 Ewing Blvd. Copies of the Greater Cincinnati Water Works Annual Drinking Water Quality Report is also available at the Public Services Department or their website at www.cincinnati-oh.gov/water/pages/-3301-/.

THM (Trihalomethanes)

The current MCL for total trihalomethanes (TTHM) is 80 ppb. Although our water is below the MCL, we are including the following health effects language.

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.

UCMR

(Unregulated Contaminants Monitoring Rule)

UCMR monitoring was completed in 2010. There were no detections for any UCMR contaminants. Results are available upon request.

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Water Source Information Drinking Water Regulations

Greater Cincinnati Water Works performs an average of 300 tests per day throughout their system to ensure safe drinking water. Source waters are tested routinely to detect contaminants before they enter treatment plants. Water quality experts then test the water after each stage of the treatment process to ensure optimal treatment. Finally, water samples are collected in the distribution system to monitor the quality of the water once it has left the treatment plant.

The surface water source of raw water for GCWW is the Ohio River. A source water assessment has been completed. The following is a summary of the susceptibility analysis that is part of the source water assessment. Several areas of concern are related to the extensive development of transportation infrastructure, the potential for spills, high degree of impervious cover and polluted runoff. Areas of row crops and urban and recreational grasses introduce the potential for herbicide, pesticide, and fertilizer use – possible non-point source contaminants. Bridges, railroads, ports, waste handlers or generators, and Tier II hazardous chemical users in the area introduce the potential for spills or leaks of hazardous materials. Landfills and permitted discharges are relatively high in number for a supply area. Other areas of concern include several segments of streams already assessed as having impairments, power line right-of-way with potential herbicide use, and residential septic systems located throughout the watershed. Since the intake is in an urban area, the threat of underground storage tanks leaking must also be taken into account. The entire report is available at Northern Kentucky Area Development District, 22 Spiral Drive, Florence, Ky 41042. Phone: 859-283-1885.

We at the City of Florence Public Services Department work diligently to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. For more information of our operations, visit our website at www.florence-ky.gov. Please call our office at 859-647-5416, if you have questions.

Information About 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 Florence 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 or at <http://www.epa.gov/safewater/lead>.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as 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 infections. 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 (800-426-4791).

Health Information
Cryptosporidium (*Crypto*) is a microscopic organism that, when ingested, can result in diarrhea, fever and other gastrointestinal symptoms. GCWW has tested for *Crypto* in treated waters from the Miller and Bolton Treatment Plants for thirteen years and has never detected it. The organism is found in GCWW source water and comes from animal wastes in the watershed. *Crypto* is eliminated by an effective treatment combination including sedimentation, filtration, and disinfection.

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 may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

What contaminants could be in source water?

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.

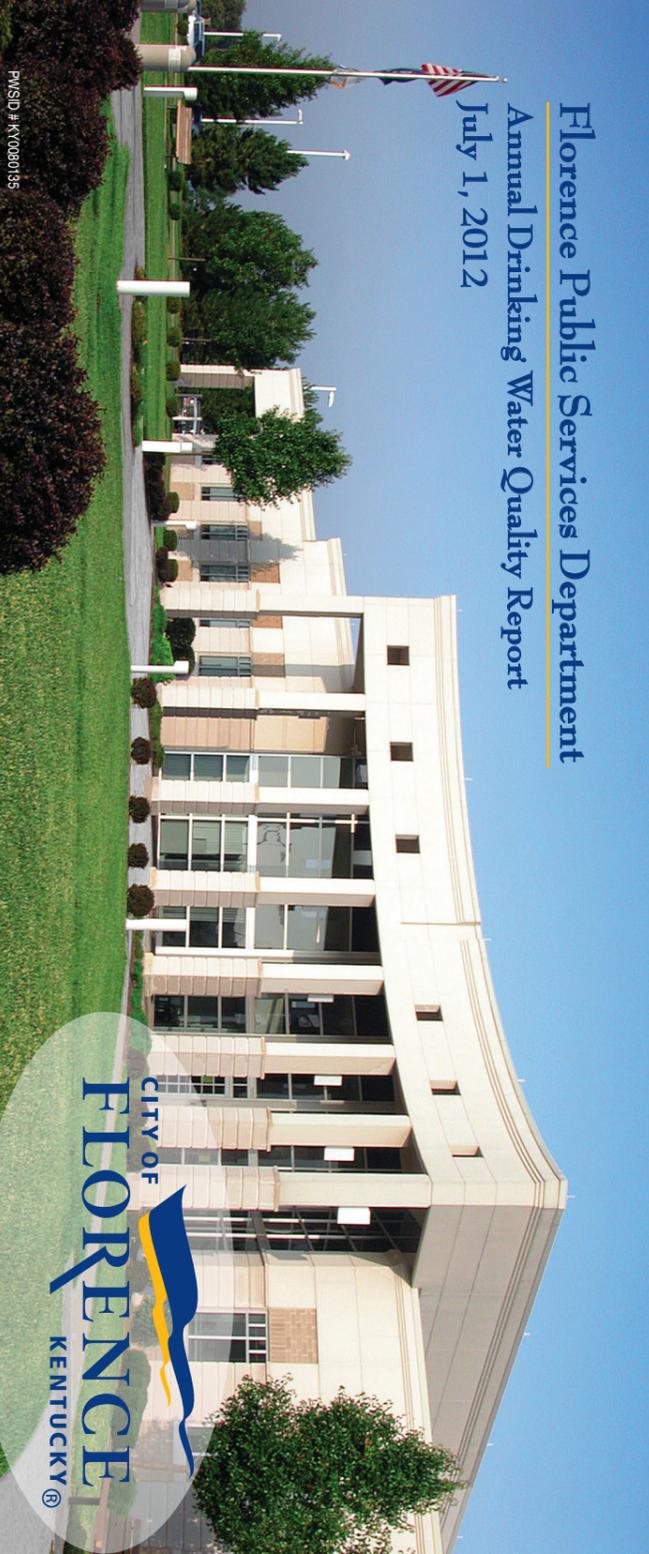
Contaminants that may be present in source water include: Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming; Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses; Organic chemical contaminant, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

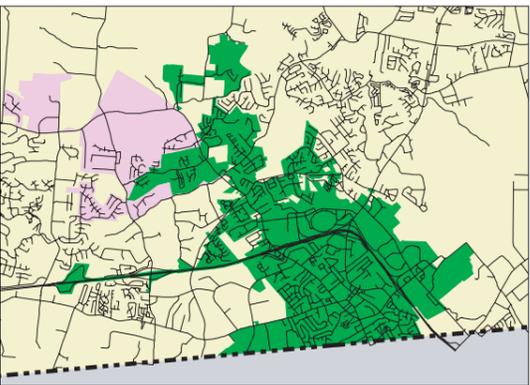
To ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water that shall provide the same protection for public health.

STORMWATER MESSAGE:

An illicit discharge is an unlawful act of disposing, dumping, spilling, emitting, or other discharge of any substance other than storm water into the storm drain system; such as catch basins, yard inlets, or lakes and streams. Please remember to properly dispose of items such as paint, oil, antifreeze and yard waste. If you see anyone illegally dumping things into the storm system, please call our Storm Water Hotline: (859) 647-4623.

PWSID # KY000185





Green = Florence Purple = Union
Tan = Unincorporated Boone County
Gray = Kenton County
Black Lines = Street Centerlines

Boone Florence Water Commission

Maximum Allowed (MCL*)

Substance	MCL*	MCLG*	Highest Compliance Level Detected	Range of Detection
Fluoride (ppm)	4	4	0.96	0.80 to 0.96
Total Trihalomethanes (ppb)	80	na	53	26 to 55
Halooacetic Acids (ppb)	60	na	11	7 to 26

*See definitions.

City of Florence IDSE* (Stage 2)

Substance	Range of Detection
Total Trihalomethanes (ppb)	16 to 70
Halooacetic Acids (ppb)	7 to 22

2007/2008 Initial Distribution System Evaluation Data, Stage 2 Compliance Monitoring will begin in May of 2012.

City of Florence 2011 Chlorine Data

Highest Annual Average	1.21
Range	0.52 to 1.61

In 2011, The City of Florence had 1 out of 510 Routine Total Chlorine Samples that were positive.

City of Florence Lead & Copper Data

	Lead	Copper
90th percentile levels	1 ppb	.043 mg/L
Number of Sites Above AL*	0	0
Number of Allowable Sites Above AL	0	0
Action Level	15 ppb	1.3 mg/L
MCLG*	0	0
Range	1 to 8 ppb	.001 to .052

Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives

* Data collected in 2011

* Lead and Copper compliance is met when 90% of the samples, collected from worst case sites, have lead and copper below the action level (AL).

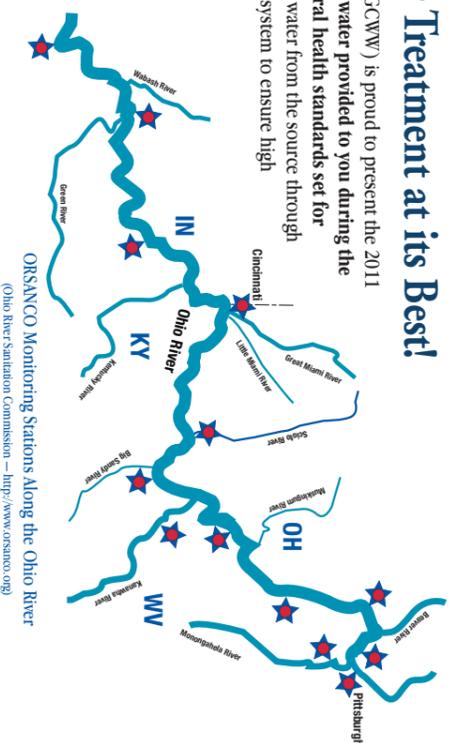
All other sample data was collected by Greater Cincinnati Water Works and can be referenced in the subsequent charts.

PWS ID# KY0080135

GCWW - Water Treatment at its Best!

Greater Cincinnati Water Works (GCWW) is proud to present the 2011 Safe Drinking Water Report. The water provided to you during the past year met all state and federal health standards set for drinking water. We monitor the water from the source through treatment and in the distribution system to ensure high quality drinking water.

ORSANCO's coordinated early warning organic detection system on the Ohio River is the only such system in the United States.



ORSANCO Monitoring Stations Along the Ohio River
(Ohio River Sanitation Commission - <http://www.orsanco.org>)

GCWW met or exceeded all state and federal health standards

GCWW is proud to say that our water meets or exceeds every health standard developed by both the USEPA and Ohio EPA. 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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which shall provide the same protection for public health.

REGULATED CONTAMINANTS

Substances subject to a Maximum Contaminant Level (MCL), Action Level (AL) or Treatment Technique (TT)*. These standards protect drinking water by limiting the amount of certain substances that can adversely affect public health and are known or anticipated to occur in public water systems.

Substance (Unit)	2011 Report		Miller Water (from the Ohio River)		Bolton Water (from the Great Miami Aquifer)		Typical Source of Contamination (for more details, visit www.epa.gov/safewater/facts.htm)
	Maximum Allowed (MCL*)	MCLG*	Highest Compliance Level Detected	Range of Detections	Violation	Year Sampled	
Fluoride (ppm)	4	4	0.93	0.77 - 1.04	No	2011	Additive which promotes strong teeth. May come from erosion of natural deposits.
Nitrate (ppm)	10	10	1.06	0.62 - 1.06	No	2011	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits.
THMs (ppb) [Trihalomethanes]	80	na	46.6	17.9 - 76.5	No	2011	Byproduct of drinking water chlorination.
HAAs (ppb) [Halooacetic Acids]	60	na	11.8	3.42 - 20.6	No	2011	Byproduct of drinking water chlorination.
Turbidity (NTU)	TT < 1 NTU Max and TT2 < 0.3 NTU 95% of the time	na	0.13	0.05 - 0.13	No	2011	Soil runoff.
Lead† (ppb)	AL = 15	0	na	na	No	2011	May come from erosion of natural deposits. There is no detectable lead in our water as it leaves the treatment plants. However, corrosion of household plumbing is a source of lead and copper contamination. GCWW tests water samples collected at customer taps, as required by the Safe Drinking Water Act to ensure safe water.
Copper† (ppm)	AL = 1.3	1.3	0.0263	na	No	2011	
Total Organic Carbon	TT†	na	1.95	1.41 - 3.23	No	2011	Naturally present in the environment.
Total Chlorine† (ppm)	MRLG=4	MRLG=4	1.05	0.89 - 1.15	No	2011	Water additive used to control microbes.
Barium (ppm)	2	2	0.052	na	No	2011	Erosion of natural deposits; Discharge of drilling wastes; Discharge from metal refineries.

UNREGULATED CONTAMINANTS

Substances for which EPA requires monitoring to determine where certain substances occur and whether it needs to regulate those substances.

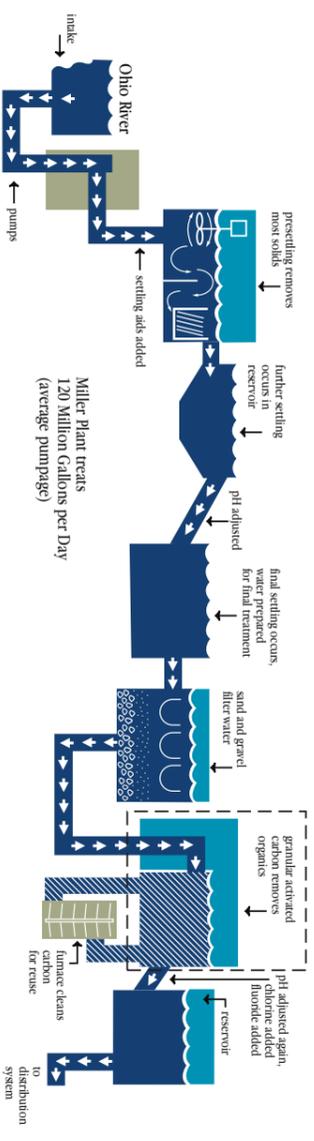
Substance (Unit)	2011 Report		Miller Water		Bolton Water		Typical Source of Contamination
	MCLG*	Avg. Level Detected	Range of Detections	Violation	Year Sampled	Year Sampled	
Chloroform (ppb)	70	1.99	na	na	2011	2009	Byproducts of drinking water disinfection, measured at the point of entry to distributor system.
Bromodichloromethane (ppb)	0	4.21	na	na	2011	2009	
Dibromochloromethane (ppb)	60	5.80	na	na	2011	2009	
Bromoform (ppb)	0	1.84	na	na	2011	2009	
Sulfate (ppm)	na	63	46 - 81	na	2011	na	Erosion of natural deposits.

Foot Notes

† The value reported under "Highest Compliance Level Detected" or "Total Organic Carbon (TOC)" actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements. ‡ Miller and Bolton were considered as one distribution system for regulatory purposes by Ohio EPA during 2011. Data listed for each system represents the combined distribution system.

ppb: parts per billion or micrograms per liter ppm: parts per million or milligrams per liter ppt: not regulated na: not applicable NTU: Nephelometric Turbidity Unit, used to measure clarity in drinking water nd: not detectable at testing limits pdr: procedures per liter, a measure of radioactivity in water THMs: Total Trihalomethane HAAs: Halooacetic Acids

The Treatment Process at the Miller Plant on the Ohio River



The major source of GCWW's water is the Ohio River which is treated at the Miller Plant. GCWW uses the latest treatment techniques in its state-of-the-art facilities. Granular Activated Carbon (GAC) treatment at Miller gives GCWW an edge in water quality management. Cincinnati pioneered the use of GAC treatment to remove organic contaminants from spills in the river. GAC also allows us to use substantially less chlorine in the treatment process. GCWW still has one of the largest GAC facilities in the U.S. (Backwash water from the sand filters and plant recycle water is returned to the beginning of the treatment process.)

The tables below show the substances detected in GCWW drinking water while performing the most up-to-date monitoring required by the EPA. 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. Because of this, some of our data, though accurate, is more than one year old. For a complete listing of GCWW test results, call (513) 591-7700 and press "0".

Typical Source of Contamination (for more details, visit www.epa.gov/safewater/facts.htm)

Additive which promotes strong teeth. May come from erosion of natural deposits.
Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits.
Byproduct of drinking water chlorination.
Soil runoff.
May come from erosion of natural deposits. There is no detectable lead in our water as it leaves the treatment plants. However, corrosion of household plumbing is a source of lead and copper contamination. GCWW tests water samples collected at customer taps, as required by the Safe Drinking Water Act to ensure safe water.
Naturally present in the environment.
Water additive used to control microbes.
Erosion of natural deposits; Discharge of drilling wastes; Discharge from metal refineries.

Definitions

Maximum Contaminant Level Goal or 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 or 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.
Action Level or AL: The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system shall follow.
Maximum Residual Disinfection Level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfection Level Goal or 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.
Turbidity: Limes who treat surface water are required to report on turbidity as an indication of the effectiveness of the filtration system. Turbidity is a measure of the cloudiness of water. 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. As reported in the table, GCWW's highest recorded turbidity result for 2011 was 0.13 NTU (Miller Water) and lowest monthly percentage of samples meeting the turbidity limits was 100%.

< 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.