

2014 REPORT



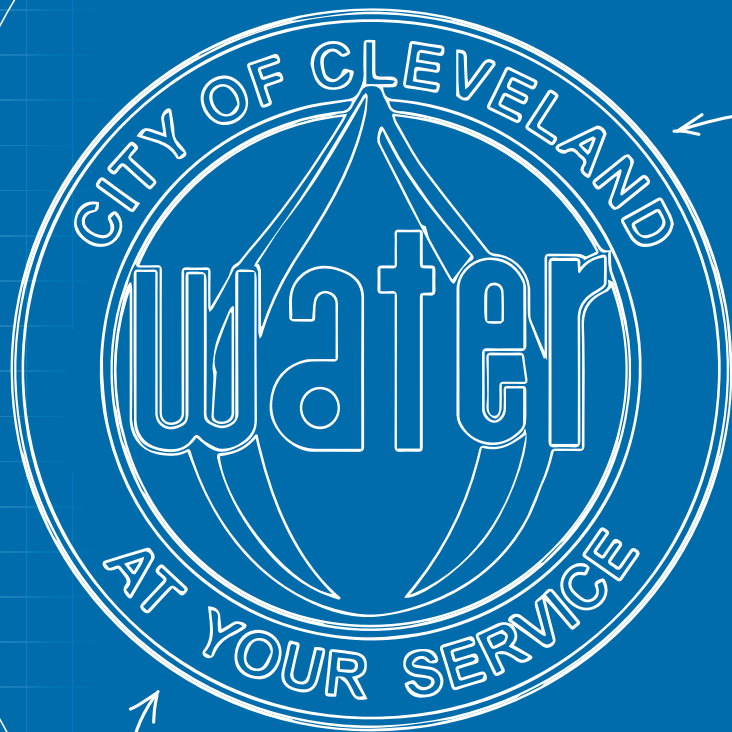
# WATER QUALITY

---

CLEVELAND WATER

---





# COMMITMENT TO QUALITY

*Cleveland Water is committed to providing all of our customers with a virtually unlimited supply of clean, safe, potable water. This commitment is our pledge as members of the Partnership for Safe Water program. The Partnership is a voluntary cooperative effort between the U.S. Environmental Protection Agency (US EPA), drinking water professional organizations, and 200 drinking water utilities across the country. All water utilities which join the Partnership agree to adopt stringent performance standards in order to optimize treatment and to protect the water supply against microbiological contamination.*

*When a utility joins the Partnership, it also agrees to perform a self-assessment of their water treatment operations, identify performance limiting factors, and take corrective actions to improve water quality. All of Cleveland's treatment plants completed this self-assessment and optimization program. This enormous amount of time and effort was put forth to provide you, our customers, with great tasting water with a higher degree of protection against microbiological contaminants of the water system.*

CLEVELAND WATER  
IS COMMITTED TO  
PROVIDING ALL OF  
OUR CUSTOMERS  
WITH A VIRTUALLY  
UNLIMITED SUPPLY  
OF CLEAN, SAFE,  
POTABLE WATER.

NO. 352058-5533

# ALL ABOUT YOUR WATER

## LEARN MORE ABOUT YOUR WATER

### OUR WATER

*Making sure customers receive quality water at all times is our Top Priority!*

Our source for drinking water is Lake Erie, which is one of the five Great Lakes. Over 90% of the water entering Lake Erie comes from the upstream lakes - Superior, Michigan and Huron - as well as the rivers and streams that flow into these lakes. The remaining water comes from rain and snow in the Lake Erie drainage basin, including the streams and rivers that flow into Lake Erie.

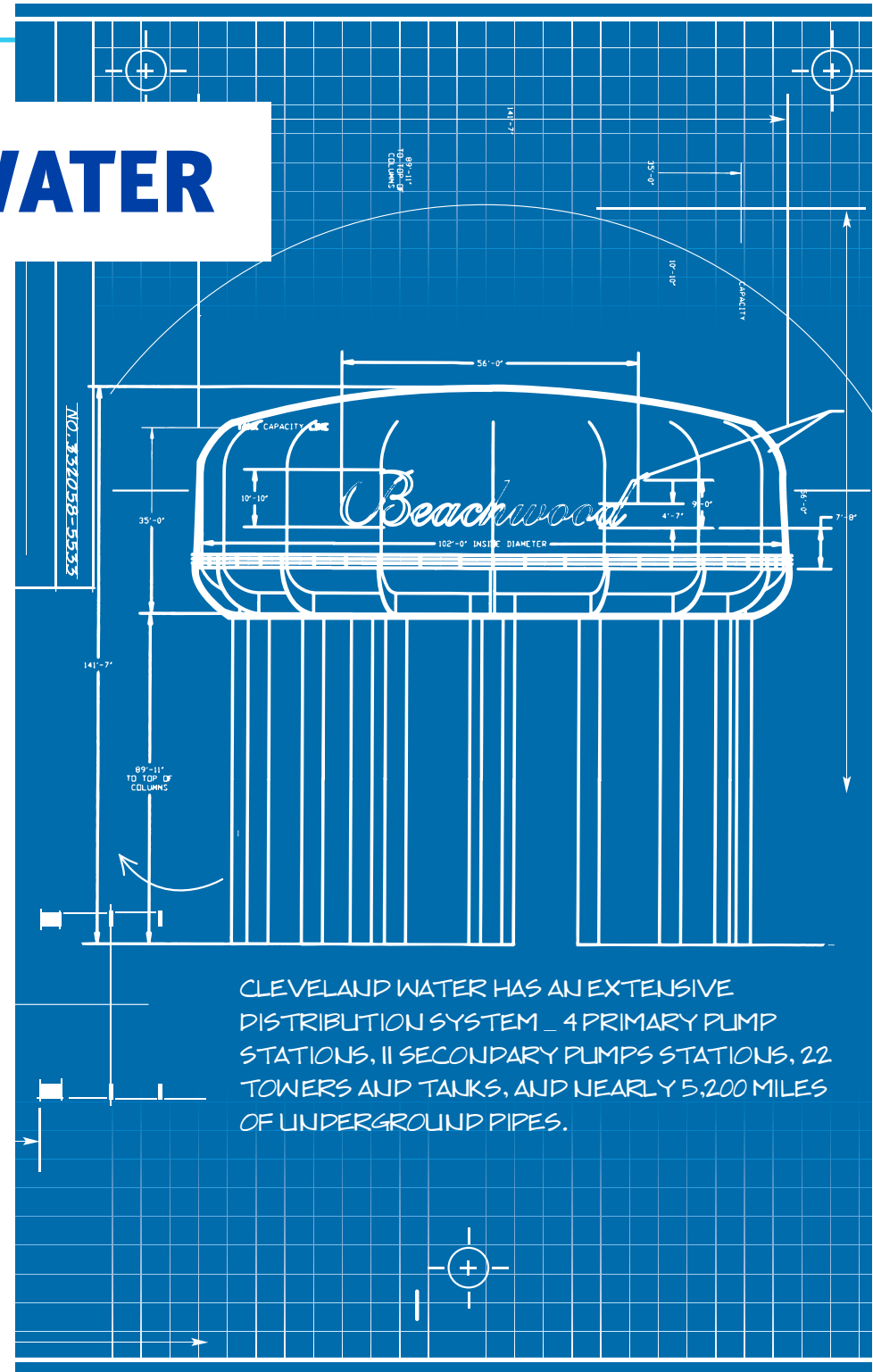
We use surface water drawn from four intakes in Lake Erie. Our intake systems are located a considerable distance offshore to protect our water from possible contamination. Cleveland Water regularly collects and tests about 300 water samples a day to ensure that the water our customers receive exceeds federal and state drinking standards

### WATER TREATMENT

Your water goes through a thorough treatment process that includes removing small debris, filtering, and disinfecting the water to meet drinking water quality standards. Cleveland Water's commitment to providing our customers with quality drinking water is proven through our treatment process.

### WATER DISTRIBUTION

The Water Treatment Plants are where we make water safe to drink, but the distribution system is how we deliver clean and great-tasting water to homes and businesses located throughout our 640-square-mile service area. Because our service area is so large, Cleveland Water has an extensive distribution system – 4 primary pump stations, 11 secondary pump stations, 22 towers and tanks, and nearly 5,200 miles of underground pipes known as water mains – all designed to deliver water to our more than 1.4 million customers.



# WHAT TO EXPECT FROM YOUR WATER

## WHAT TO EXPECT FROM YOUR DRINKING 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.

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.

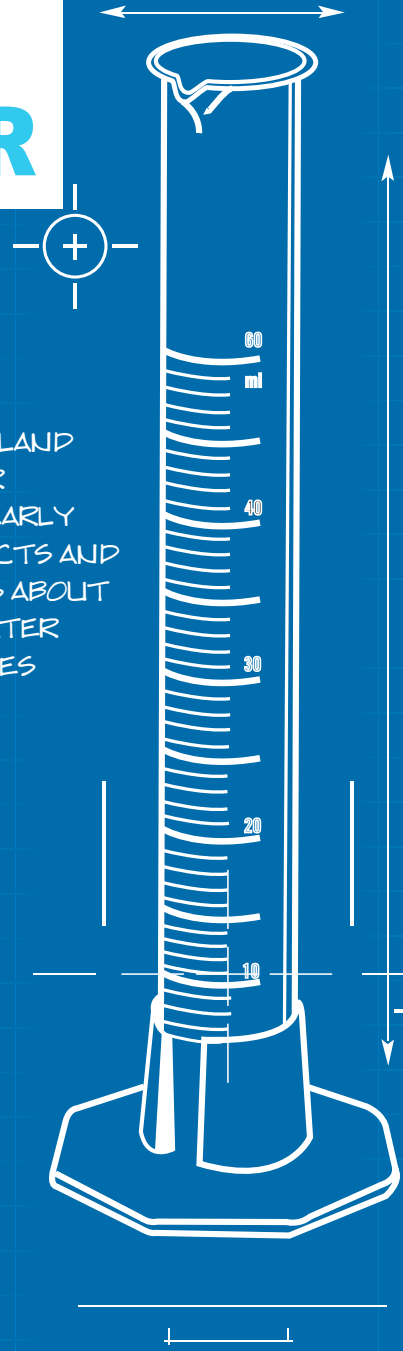
In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which shall provide the same protection for public health.

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 infections. These people should seek advice about drinking water from their health care providers.

USEPA/Centers for Disease Control 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).

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.

CLEVELAND WATER REGULARLY COLLECTS AND TESTS ABOUT 300 WATER SAMPLES A DAY



## POSSIBLE CONTAMINANTS

<b>Microbial Contaminants</b>	such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
<b>Inorganic Contaminants</b>	such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
<b>Pesticides and Herbicides</b>	which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
<b>Organic Chemical Contaminants</b>	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.
<b>Radioactive Contaminants</b>	which can be naturally-occurring or be the result of oil and gas production and mining activities.

## LEAD CONTAMINANTS

*Elevated lead levels may pose serious health risks for children and pregnant women. Lead in drinking water is mainly from service lines that connect your home to the water main and home plumbing. While Cleveland Water is responsible for delivering high quality water, we are not responsible for your home's plumbing materials or faucet fixtures. Older homes, typically pre-1950, may use lead service lines and lead pipes. Pre-1988 homes may use lead-based solder, often used to join copper pipes.*

### DID YOU KNOW?

- ▶ Faucet aerators that are not cleaned regularly may also increase lead exposure.
- ▶ Some lead may dissolve into water when water sits in your pipes overnight or when it is unused during the day. As a precaution, let the cold tap water run until you feel a change in water temperature to make sure you're getting water from the main on your street. Usually 30 seconds to 2 minutes.
- ▶ Always use cold water for cooking and drinking since hot water dissolves lead more quickly than cold water.

*If you want to have your tap water tested for lead levels, go to [www.epa.state.oh.us/ddagw/Documents/chemlabs.pdf](http://www.epa.state.oh.us/ddagw/Documents/chemlabs.pdf) to locate an Ohio EPA-certified laboratory. The Safe Drinking Water Hotline, 1-800-426-4791, or its website, [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead) is another valuable resource for additional information.*

# CLEVELAND'S SOURCE WATER

*Do your part  
and help  
protect  
Lake Erie!*

## OUR WATER

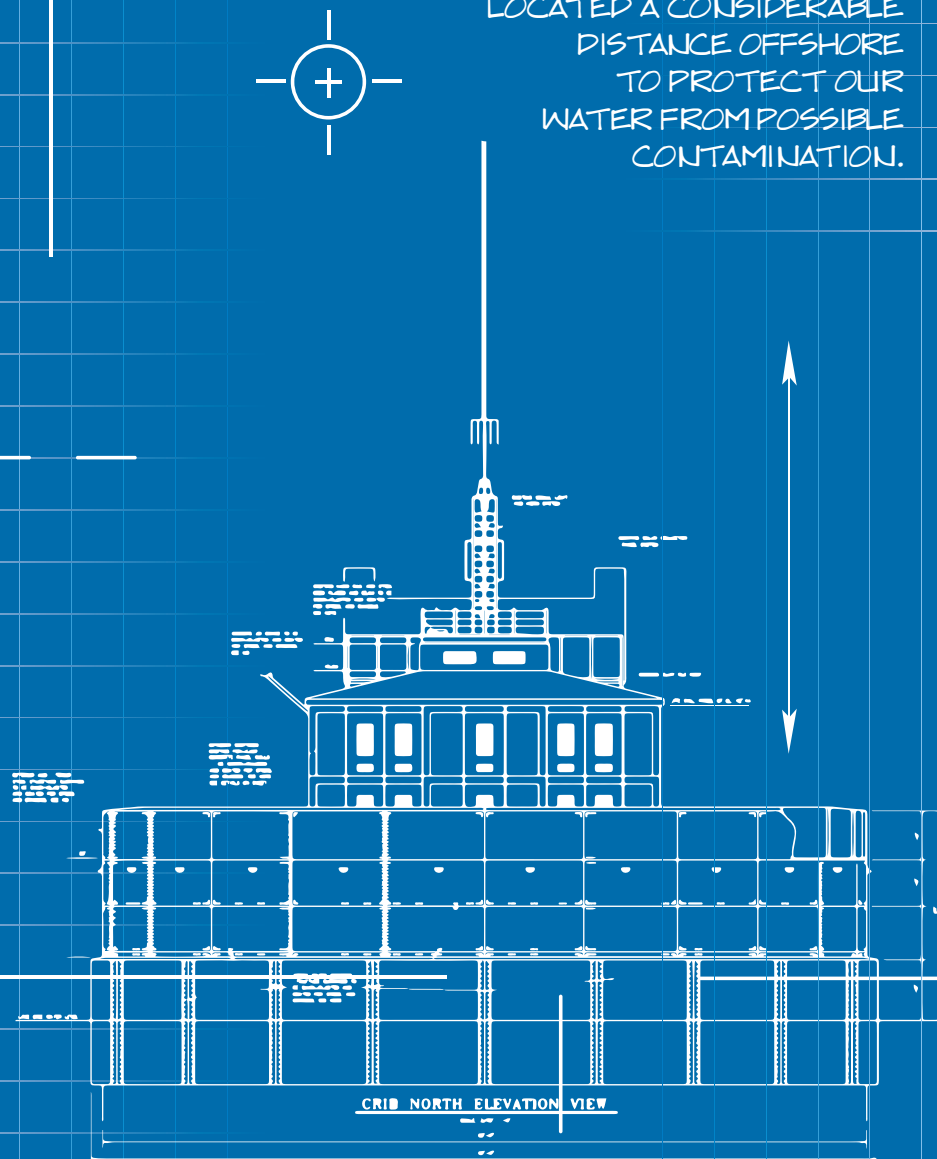
Cleveland Water uses surface water drawn from four intakes in Lake Erie as the source of our drinking water. Lake Erie is a part of the Great Lakes watershed. Ninety-five percent of the water entering Lake Erie comes from the upstream Great Lakes – Superior, Michigan, and Huron as well as all of the rivers and streams that flow into these Lakes. The remaining 5% comes from rain and snow in the Lake Erie drainage basin, which includes the various streams and rivers that flow into Lake Erie. By their nature, surface waters, such as lakes and rivers, are accessible and can be contaminated by chemicals and disease causing organisms. Since our intake systems are located a considerable distance offshore (built in the early 1900s and again in the '40s and '50s), potential contamination from rivers, streams and other nearby sources is greatly minimized.

Since no single treatment process can address all possible contaminants, we use a multiple barrier process to treat Lake Erie water in order to meet drinking water quality standards. Additionally, implementing measures to protect Lake Erie may improve our water quality. There are several key ways that area residents and businesses can help protect Lake Erie.

- Remove trash and debris from sewers and storm sewers.
- Dispose of household wastes such as fertilizers, pesticides, paints, paint thinners and motor oil properly.
- Prevent soil erosion by planting trees, grass or shrubs along streams and rivers.
- Support local watershed groups as well as other organizations dedicated to protecting the environment.

For more information about potential pollution sources, contact our Risk Management Section at 216-664-2444, x5838 Ask for our Drinking Water Source Assessment Report.

OUR INTAKE SYSTEMS ARE LOCATED A CONSIDERABLE DISTANCE OFFSHORE TO PROTECT OUR WATER FROM POSSIBLE CONTAMINATION.



CRIB NORTH ELEVATION VIEW

NO. 332058-5533

# TESTING OUR WATER

*Making sure customers receive quality water at all times is our Top Priority!*

## COMPLIANCE WITH DRINKING WATER REGULATIONS

Cleveland Water is in compliance with all Maximum Contaminant Levels and Treatment Techniques for drinking water. Cleveland Water has a current, unconditional license to operate our water system issued by the Ohio Environmental Protection Agency.

## TOTAL COLIFORM MONITORING

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During June and July 2014 we did not complete all monitoring for total coliform bacteria to the satisfaction of Ohio EPA. We collected and analyzed a sufficient number of total coliform samples, but due to a lapse in laboratory procedures where no incubator temperature was written down, Ohio EPA invalidated some of these samples and therefore issued us a violation for failing to have a sufficient number of samples analyzed to their satisfaction. However, all samples were analyzed and our results were negative for the presence of coliform bacteria. There is nothing you need to do at this time. You do not need to boil your water or take other corrective action.

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

We have updated our operating procedures to help prevent this type of incident from occurring again. For more information, please contact Cleveland Water at 216-664-2639 or CWD-CustomerService@ClevelandWater.com.

## MONITORING OUR WATER CONTENTS

Inorganic Contaminants	MCLG	MCL	Level Found	Range of Detections	Typical Source in Drinking Water
Fluoride (mg/L)	4	4	1.2	0.8-1.4	Water additive which promotes strong teeth.
Nitrate [as Nitrogen] (mg/L)	10	10	1.0	ND-1.0	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Chromium (µg/L)	100	100	0.24	ND-0.31	Erosion of natural deposits; discharge from steel mills.
Lead & Copper	MCLG	AL	Level Found	# of sites above the AL	Typical Source in Drinking Water
Copper (mg/L) ***	1.3	1.3	0.1	0 out of 56 sites	Corrosion of household plumbing systems.
Lead (µg/L) ***	0	15	ND	1 out of 56 sites	Corrosion of household plumbing systems.
Organic Contaminants	MCLG	MCL	Level Found	Range of Detections	Typical Source in Drinking Water
TTHMs [Total trihalomethanes] (µg/L)	N/A	80	38.0	8.4-48.3	By-product of drinking water chlorination.
HAA [Haloacetic Acids] (µg/L)	N/A	60	39.2	10.6-43.7	By-product of drinking water chlorination.
Total Organic Carbon (mg/L)*	N/A	TT	1.0	1.0-1.4	Naturally present in the environment.
Disinfectant	MRDLG	MRDL	Level Found	Range of Detections	Typical Source in Drinking Water
Chlorine (mg/L)	4	4	1.0	0-1.7	Water additive used to control microbes.
Microbiological Contaminants	MCLG	MCL	Level Found	Typical Source in Drinking Water	
Turbidity (NTU)**	N/A	TT=1	0.1	Soil runoff.	
		TT=95% of samples must be less than or=0.3 NTU	100%		

## UNREGULATED CONTAMINANTS

Contaminant	Level Found	Range of Detections
Chlorate (µg/L)	3.4	2.5-4.3
Chromium-6 (µg/L)	2.6	1.8-3.1
Molybdenum (µg/L)	1.3	1.0-1.5
Strontium (µg/L)	168.5	150-210
Testosterone (µg/L)	0.00016	ND-0.00016
Vanadium (µg/L)	0.4	ND-0.7

## CHART KEY

**NTU:** Nephelometric Turbidity Units  
**mg/L:** Milligrams per liter, or parts per million  
**µg/L:** Micrograms per liter, or parts per billion  
**N/A:** Not applicable  
**ND:** Not detected  
**AL:** Action Level  
**MCL:** Maximum Contaminant Level  
**MCLG:** Maximum Contaminant Level Goal  
**TT:** Treatment Technique  
**MRDL:** Maximum Residual Disinfectant Level  
**MRDLG:** Maximum Residual Disinfectant Level Goal

## DEFINITIONS

### Maximum Residual Disinfectant Level (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 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.

**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 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.

### Action Level (AL):

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system shall follow.

### Treatment Technique (TT):

A required process intended to reduce the level of a contaminant in drinking water.

\* The values reported for Total Organic Carbon (TOC) are the ratio between the percent of TOC actually removed to the percentage of TOC required to be removed.

A value of 1 or greater under "Level Found" indicates compliance with TOC removal requirements.

\*\* A measure of the cloudiness of the water that serves as a good indicator of the effectiveness of the water treatment process.

\*\*\* Samples collected June-September 2012



[WWW.CLEVELANDWATER.COM](http://WWW.CLEVELANDWATER.COM)

*To ask questions about information contained in this report, please contact Cleveland Water's Water Quality Line at 216-664-2639.*

*To learn more about our drinking water or our Speaker's Bureau Program, contact the Office of Public Affairs, Special Events at 216-664-2444, X5853.*