

ANNUAL

# WATER QUALITY REPORT

*Water testing performed in 2008*



REYNOLDSBURG  
WATER DEPARTMENT

PWS ID#: 2503203

## Meeting the Challenge

We are once again proud to present to you our annual water quality report. This edition covers all testing completed from January 1 through December 31, 2008. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal drinking water standards. We continually strive to adopt new and better methods for delivering the best quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please share with us your thoughts about the information in this report. After all, well-informed customers are our best allies.

## Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) 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 (800) 426-4791.

## Community Participation

Public participation and comment are encouraged at regular meetings of Reynoldsburg City Council, which meets the first and third Mondays of each month at 7:30 p.m. (except August and holidays) at the Municipal Building, 7232 East Main Street, Reynoldsburg, Ohio.

## Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration 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 these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

**Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or may 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 Contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems;

**Radioactive Contaminants**, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

## Testing For Cryptosporidium

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have under gone organ transplants, persons with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infection. These people should seek advice from their health care providers about drinking water.

*Cryptosporidium*, for example, is a microscopic organism that when ingested can result in diarrhea, fever, and other gastrointestinal symptoms. *Cryptosporidium* comes from animal wastes in the watershed and may be found in our source water. The last time the Columbus Division of Water had any detections of *Cryptosporidium* was in the spring of 2001; that spring there were two unconfirmed detections of the organism in the Scioto River and one unconfirmed detection in Big Walnut Creek. By using a multibarrier water treatment process including coagulation, sedimentation, softening, filtration, and disinfection, *Cryptosporidium* is eliminated. The U.S. EPA/CDC guidelines on appropriate means to lessen risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

Columbus water is regularly tested for organisms, including *Cryptosporidium*, which could be harmful to people. While it is sometimes found in Ohio's rivers and streams, it has never been found in our finished drinking water.

## Water Conservation

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you can save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

## Questions?

For more information about this report, or for any questions relating to your drinking water, please call Mark Kipp, Superintendent of Water/Wastewater, at (614) 322-4500.



## Where Does My Water Come From?

The City of Reynoldsburg purchases its water from the City of Columbus. We receive our water through six master water meters. The water from Columbus entering Reynoldsburg on East Main Street and along East Broad Street is treated at the Hap Cremean Water Plant. The Hap Cremean Water Plant utilizes surface water from the Hoover Reservoir on Big Walnut Creek. The water entering Reynoldsburg on SR 256 is treated at the Parsons Avenue Water Plant. The Parsons Avenue Water Plant draws water from a groundwater supply. We purchased 1.18 billion gallons of drinking water from Columbus, an average 3.22 million gallons per day.



## Source Water Assessment

A high-quality source water supply allows the Columbus Division of Water to provide consumers with quality water at a reasonable cost. Protecting our raw water sources requires investments to secure the needs of a growing population, now and in the future. As part of its on-going efforts to maintain regulatory compliance and monitor our water supply, the Columbus Division of Water has completed a Source Water Assessment process. Below is a synopsis of the results:

The City of Columbus water system uses surface water from the Scioto River and Big Walnut Creek, as well as groundwater pumped from sand and gravel deposits of the Scioto River Valley. All three sources of water have a relatively high susceptibility to contamination from spills or releases of chemicals. The groundwater pumped at the Parsons Avenue plant is susceptible (compared to other groundwater systems) because there is no significant clay overlying and protecting the aquifer deposits. The Scioto River and Big Walnut Creek are even more susceptible because they are more accessible and less protected from spills.

The drinking water source protection areas for the three water sources of the City of Columbus contain numerous potential contaminant sources, especially the protection area for the Dublin Road Water Treatment Plant (extending along the Scioto River). These include industrial activities, stormwater runoff from developing areas, and a heavily traveled transportation network running alongside and over the water bodies. Runoff from agricultural fields is a concern in both the Scioto River and Big Walnut Creek watersheds.

The City of Columbus treats the water to meet drinking water quality standards, but no single treatment protocol can address all potential contaminants. The City has been proactive in pursuing measures to further protect its source waters. These include land stewardship programs and incentive-driven programs to reduce erosion and runoff of pesticides and fertilizers into the Scioto River and Big Walnut Creek and their reservoirs. More detailed information is provided in the City of Columbus Drinking Water Source Assessment Report, which can be viewed by calling the Watershed Section at (614) 645-1721.

## Lead and Drinking Water

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 Reynoldsburg Water Department 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).



## IDSE Program

Under the Stage 2 Disinfectants/Disinfection By-products Rule (D/DBPR), our public water system was required by the U.S. EPA to conduct an evaluation of our distribution system. This is known as an Initial Distribution System Evaluation (IDSE) and is intended to identify locations in our distribution system with elevated disinfection by-product concentrations. The locations selected for the IDSE may be used for compliance monitoring under Stage 2 DBPR, beginning in 2012. Disinfection by-products are the result of providing continuous disinfection of your drinking water and form when disinfectants combine with organic matter naturally occurring in the source water. Disinfection by-products are grouped into two categories: Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5). The U.S. EPA sets standards for controlling the levels of disinfectants and disinfectant by-products in drinking water, including both TTHMs and HAA5s.



## Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. Although all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present in the water.

REGULATED SUBSTANCES											
				Reynoldsburg Water Distribution System		Hap Cremean Water Plant		Parsons Ave. Water Plant			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Atrazine (ppb)	2008	3	3	NA	NA	0.31	ND-1.19	NA	NA	No	Runoff from herbicide used on row crops
Chlorine (ppm)	2008	[4]	[4]	1.18	0.15-2.23	1.58	0.37-2.40	1.1	0.21-1.91	No	Water additive used to control microbes
Fluoride (ppm)	2008	4	4	NA	NA	1.16	0.66-1.16	1.1	0.95-1.10	No	Water additive which promotes strong teeth
Haloacetic Acids [HAA] (ppb)	2008	60	NA	37.1	22.2-44.1	42.6	28.2-65.1	4.3	1.4-6.4	No	By-product of drinking water disinfection
Nitrate (ppm)	2008	10	10	NA	NA	1.9	ND-1.9	NA	NA	No	Runoff from fertilizer use
Simazine (ppb)	2008	4	4	NA	NA	0.24	ND-0.40	NA	NA	No	Herbicide runoff
TTHMs [Total Trihalomethanes] (ppb)	2008	80	NA	64.3	26.5-68.9	50.4	24.0-100.7	14.7	11.0-16.9	No	By-product of drinking water chlorination
Total Organic Carbon [TOC] <sup>1</sup> (removal ratio)	2008	TT	NA	NA	NA	2.17	1.82-2.53	NA	NA	No	Naturally present in the environment
Turbidity (NTU)	2008	TT	NA	NA	NA	0.25	0.03-0.25	NA	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2008	TT	NA	NA	NA	100	NA	NA	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2008	1.3	1.3	0.03	0/32	No	Corrosion of household plumbing systems
Lead (ppb)	2008	15	0	1.43	0/32	No	Corrosion of household plumbing systems

UNREGULATED SUBSTANCES							
		Hap Cremean Water Plant		Parsons Ave. Water Plant			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE	
Bromodichloromethane (ppb)	2008	5.5	NA	3.0	NA	By-product of drinking water disinfection	
Bromoform (ppb)	2008	ND	NA	0.8	NA	By-product of drinking water disinfection	
Chloroform (ppb)	2008	27.5	NA	2.0	NA	By-product of drinking water disinfection	
Dibromochloromethane (ppb)	2008	0.65	NA	2.8	NA	By-product of drinking water disinfection	
Metolachlor (ppb)	2008	<0.20	<0.20-0.58	NA	NA	Agricultural herbicide runoff	

## IDSE SAMPLING RESULTS

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Reynoldsburg Water Distribution System		City of Columbus Distribution System		TYPICAL SOURCE
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	
<b>Haloacetic Acids [HAA]—IDSE Results</b> (ppb)	2008	NA	6–45.5	NA	3.2–41.4	By-product of drinking water disinfection
<b>TTHMs [Total Trihalomethanes]—IDSE Results</b> (ppb)	2008	NA	18.3–113.0	NA	11.2–44.6	By-product of drinking water disinfection

<sup>1</sup>The value reported under Amount Detected for TOC is the lowest ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one indicates that the water system is in compliance with TOC removal requirements. A value of less than one indicates a violation of the TOC removal requirements.

## Definitions

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

**MCL (Maximum Contaminant Level):** 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.

**MCLG (Maximum Contaminant Level Goal):** 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.

**MRDL (Maximum Residual Disinfectant Level):** 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.

**MRDLG (Maximum Residual Disinfectant Level Goal):** The level of a 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.

**NA:** Not applicable.

**ND (Not detected):** Indicates that the substance was not found by laboratory analysis.

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

**removal ratio:** A ratio between the percentage of a substance actually removed to the percentage of the substance required to be removed.

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