ANNUAL
WATER QUALITY REPORT

WATER TESTING
PERFORMED IN 2015

Presented By
Reynoldsburg Water Department

PWS ID#: 2503203

Meeting the Challenge

Once again we are proud to present our annual drinking water report, covering all drinking water testing performed between January 1 and December 31, 2015. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to your homes and businesses. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users.

Please remember that we are always available to assist you, should you ever have any questions or concerns about your water.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those 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 or http://water.epa.gov/drink/hotline.

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 1.120 billion gallons of drinking water from Columbus in 2015, an average of 3.068 million gallons per day.

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 that 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.

Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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/lead.

Cryptosporidium in Drinking Water

Cryptosporidium (Crypto) is a microscopic organism that, when ingested, can result in diarrhea, fever, and other gastrointestinal symptoms. It is important to note that not all Crypto species are human pathogens and that they may not cause any adverse affects in humans. Crypto comes from animal waste in the watershed and may be found in our source water; it is found in surface water throughout the US. Crypto is eliminated by using a multi-barrier water treatment process including coagulation, sedimentation, softening, filtration, and disinfection; however, the most commonly used filtration methods cannot guarantee 100 percent removal.

Columbus's water is regularly tested for organisms that could be harmful to people, including *Cryptosporidium*. Crypto was detected 10 out of 24 times in the Scioto River and 11 out of 24 times in Big Walnut Creek. Also, Crypto was detected in 1 out of 11 times in the HCWP tap water. It should be noted that the presence in tap water was minimal and that current testing methods do not enable us to determine if the organisms are dead or if they are capable of causing disease.

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 (800) 426-4791. For additional information or questions about Columbus water quality, please call the Water Quality Assurance Lab at (614) 645-7691.

Source Water Assessment

A high-quality source water supply allows the Columbus Division of Water to provide consumers with high-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 ongoing efforts to maintain regulatory compliance and monitor our water supply, the Columbus Division of Water has completed a Source Water Assessment process. Here 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 City of Columbus's three water sources contain numerous potential contaminant sources, especially the protection area for the Dublin Road Water Treatment Plant (extending along the Scioto River). These contaminant sources include industrial activities, storm water runoff from developing areas, and a heavily traveled transportation network running alongside and over the water bodies. Run-off 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 efforts include land stewardship programs and incentive-driven programs to reduce erosion and run-off 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. More details about the land stewardship program can be found on Columbus's website at www.columbus.gov/watershed/.

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.

Water Treatment Process

The treatment process consists of a series of steps. First, raw water is drawn from our water source and sent to an aeration tank, which allows for oxidation of the high iron levels that are present in the water. The water then goes to a mixing tank where polyaluminum chloride and soda ash are added. The addition of these substances causes small particles to adhere to one another (called floc), making them heavy enough to settle into a basin from which sediment is removed. Chlorine is then added for disinfection. At this point, the water is filtered through layers of fine coal and silicate sand. As smaller, suspended particles are removed, turbidity disappears and clear water emerges.

Chlorine is added again as a precaution against any bacteria that may still be present. (We carefully monitor the amount of chlorine, adding the lowest quantity necessary to protect the safety of your water without compromising taste.) Finally, soda ash (to adjust the final pH and alkalinity), fluoride (to prevent tooth decay), and a corrosion inhibitor (to protect distribution system pipes) are added before the water is pumped to sanitized, underground reservoirs, water towers, and into your home or business.

QUESTIONS?

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

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 tables below show only those contaminants that were detected in the water. The state requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

In 2015 The City of Reynoldsburg Water Department was required to participate in the third Unregulated Contaminant Monitoring Rule (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality. Contact us for more information on this program.

The City of Reynoldsburg has a current, unconditioned license to operate our public water system.

REGULATED SUBSTANCES

				Reynoldsburg Water Distribution System		Hap Cremean Water Plant		Parsons Avenue 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)	2015	3	3	NA	NA	0.12	<0.10–0.46	ND	NA	No	Runoff from herbicide used on row crops
Chlorine (ppm)	2015	[4]	[4]	1.41	0.94–1.49	1.59	0.34–2.30	1.12	0.36–2.03	No	Water additive used to control microbes
Fluoride (ppm)	2015	4	4	NA	NA	0.91	0.75–0.96	0.92	0.82–1.05	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs] (ppb)	2015	60	NA	38.1	9.9–61.5	50.5	29.5–65.2	6.5	5.1–7.2	No	By-product of drinking water disinfection
Nitrate (ppm)	2015	10	10	NA	NA	1.7	<0.5–1.7	ND	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Simazine (ppb)	2015	4	4	NA	NA	<0.10	<0.10–0.18	ND	NA	No	Herbicide runoff
TTHMs [Total Trihalomethanes] (ppb)	2015	80	NA	56.0	22.6–93.4	58.9	33.7–87.7	24.4	16.7–33.8	No	By-product of drinking water disinfection
Total Coliform Bacteria (% positive samples)	2015	5% of monthly samples are positive	0	0	NA	0	NA	0	NA	No	Naturally present in the environment
Total Organic Carbon [TOC][1] (removal ratio)	2015	TT	NA	NA	NA	2.71	2.27–3.93	NA	NA	No	Naturally present in the environment
Turbidity[2] (NTU)	2015	TT	NA	NA	NA	0.15	0.03–0.15	NA	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2015	TT = 95% of samples < 0.3 NTU	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)	2014	1.3	1.3	0.0524	0/33	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2014	15	0	1.8	0/33	No	Corrosion of household plumbing systems; Erosion of natural deposits

SECONDARY SUBSTANCES

				Hap Cremean Water Plant		Parsons Avenue Water Plant			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
pH (Units)	2015	6.5–8.5	NA	7.7	7.5–7.8	7.8	7.7–7.9	No	Naturally occurring

UNREGULATED CONTAMINANT MONITORING RULE PART 3 (UCMR3)

		Reynoldsburg Water Distribution System		Hap Cremean Water Plant		Parsons Avenue Water Plant		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
1,4-Dioxane (ppb)	2015	0.07	<0.07–0.071	ND	NA	0.09	0.07–0.10	Used as a solvent stabilizer in manufacture and processing of paper, cotton, textile products, automotive coolant, cosmetics and shampoos
Chlorate (ppb)	2015	<20	<20–<20	ND	NA	ND	NA	Agricultural defoliant or desiccant
Chromium (ppb)	2015	0.32	0.28–0.34	0.29	0.22–0.35	0.45	0.34–0.56	Naturally occurring element; steel production
Hexavalent Chromium (ppb)	2015	0.17	0.16–0.18	0.19	0.15–0.24	0.15	0.10–0.18	Chrome plating; Dyes & pigments; Wood preservation
Molybdenum (ppb)	2015	5.7	4.4–7	5.8	4.2–7.6	9.9	8.5–12.0	Naturally occurring element found in ores and present in plants, animals, & bacteria
Strontium (ppb)	2015	193	170–220	169	150–180	410	370–480	Naturally occurring element
Vanadium (ppb)	2015	0.55	0.48–0.61	0.50	0.37–0.69	ND	NA	Naturally occurring metal element

OTHER SUBSTANCES

		Hap Cremean Water Plant		Parsons Avenue Water Plant	
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH
Hardness (ppm)	2015	104	91–130	122	121–124

[1] 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 1 indicates that the water system is in compliance with TOC removal requirements. A value of less than 1 indicates a violation of the TOC removal requirements.

[2] Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

Definitions

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

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as LRAAs.

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.

SMCL (Secondary Maximum Contaminant Level): SMCLs are established to regulate the aesthetics of drinking water like taste and odor.

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