

CITY OF CHRISTOPHER

2021 Water Quality Report

Introduction

This year, as in years past, the tap water produced by the Rend Lake Conservancy District Intercity Water Plant (Plant) and distributed by the City of Christopher met all USEPA and Illinois EPA drinking water health standards. The Plant vigilantly safeguards its surface water supply and we are able to report that the Rend Lake Conservancy District Intercity Water Plant had **no violations** and the City of Christopher had **no violations** (as listed below) of a contaminant level or of any other water quality standard in 2021. This report summarizes the quality of water that the City received from the Plant and also the quality of your water as it traveled through the City's distribution system. Also, it will discuss where the water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to providing you with this information because it is important to us that you are informed about the water you are receiving.

If you have any questions about this report or concerns about your water system, please contact **Mr. Greg Beckwith, Superintendent, at (618) 724-2011**. Please feel free to attend any regularly scheduled City Hall meeting. Meetings are held at the City Hall the second Monday of each month at 6:30 P.M.

Water Source

The City buys the water from the Rend Lake Intercity Water System. Their system treats relatively high-quality surface water pumped from the intake structure at Rend Lake. The intake structure is located along the southeast portion of the lake adjacent to the Plant.

The source water assessment for our supply has not been completed by the Illinois EPA. It is anticipated that this assessment will be performed within the next three years. Information provided by this assessment will indicate any contaminant sources of concern in the vicinity of Rend Lake and how it relates to the quality of water produced by the Plant.

Health Issues

Some people may be more vulnerable to contaminants in drinking water. Immuno-compromised people such as people with cancer undergoing chemotherapy, people 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 health care providers. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline at **800-426-4791**.

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 USEPA's Safe Drinking Water Hotline at **800-426-4791**.

Contaminant Sources

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 can dissolve naturally occurring minerals and radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Possible contaminants consist of:

- 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, which 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 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 stormwater runoff and septic systems.
- Radioactive Contaminants which may 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 that 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.

In addition to this informational section of the Water Quality Report, we have included several tables for your review. The tables will illustrate the contaminants that were detected in the Rend Lake Intercity Water System distribution lines and also the contaminants that the City detected in their own distribution lines. Please note that neither system had a violation of a contaminant level.

City of Christopher Violations:

None

Consumer Confidence Report

Annual Drinking Water Quality Report

CHRISTOPHER

IL0550150

Annual Water Quality Report for the period of January 1 to December 31, 2021

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

The source of drinking water used by CHRISTOPHER is Purchased Surface Water

For more information regarding this report contact:

Name Greg Beckwith
 phone 618 724-2011

Este informe contiene informacion muy importante sobre el agua que usted bebe. Tradúzcalo o hable con alguien que lo entienda bien.

Source of 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.

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, which can be naturally-occurring or result from urban storm water 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 storm water runoff, and residential uses.

- 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.

- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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 EPA's Safe Drinking Water Hotline at (800) 426-4791.

In order to ensure that tap water is safe to drink, EPA 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.

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. 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).

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 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>.

Source Water Information

Source Water Name	Type of Water	Report Status	Location
CC01 - CHRISTOPHER MASTER METER NO. PF IL0555100 TP02 INSIDE	SW	_____	SE CORNER SNIDER ST & RR TRACKS
CC02 - CHRISTOPHER MASTER METER NO. PF IL0555100 TP02 RLCD	SW	_____	100 FT N OF 901 CHERRY

Source Water Assessment

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled meetings. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please stop by City Hall or call our water operator at ~~618-724-2011~~. To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>.

Source of Water: REND LAKE INTER-CITY WATER SYSTEM Illinois EPA considers all surface water sources of public water supply to susceptible to potential pollution problems. Hence the reason for mandatory treatment of all public water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration and disinfection. Primary sources of pollution in Illinois lakes can include agricultural runoff, land disposal (septic systems) and shoreline erosion.

2021 Regulated Contaminants Detected

Water Quality Test Results

Definitions:

Avg:

The following tables contain scientific terms and measures, some of which may require explanation. Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Level 1 Assessment:

A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment:

A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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.

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 residual disinfectant 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 disinfectant level goal or MRDLG:

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.

mrem:

millirems per year (a measure of radiation absorbed by the body)

ppb:

micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

ppm:

milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

Treatment Technique or TT:

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

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chloramines	12/31/2021	3	2.7 - 3.3	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Halacetic Acids (HAA5)	2021	19	11 - 23	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2021	42	3.3 - 36.5	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

Violations Table

Lead and Copper Rule

The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.

Violation Type	Violation Begin	Violation End	Violation Explanation
LEAD CONSUMER NOTICE (LCR)	12/30/2021	2021	We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be provided no later than 30 days after learning the results.

2021 Regulated Contaminants Detected

Lead and Copper Date Sampled: 11/15/19

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

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety.

Lead MCLG	Lead Action Level (AL)	Lead 90th Percentile	# Sites Over Lead AL	Copper MCLG	Copper Action Level (AL)	Copper 90th Percentile	# Sites Over Copper AL	Likely Source of Contamination
0	15 ppb	0 ppb	0	1.3 ppm	1.3 ppm	0	0	Corrosion of household plumbing systems; Erosion of natural deposits

Water Quality Test Results

Definitions: The following tables contain scientific terms and measures, some of which may require explanation. **Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology. **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety. **ppm:** milligrams per liter or parts per million - or one ounce in 7,350 gallons of water. **ppb:** micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water. **N/A:** not applicable. **Avg.:** Regulatory compliance with some MCL's is based on running annual average of monthly samples. **Maximum Residual Disinfectant Level (MRDL):** The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants. **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of disinfectant in drinking water below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants. **pci/L:** Picouries per Liter (a measure of radioactivity)

Regulated Contaminants

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
*Not all sample results may have been used for calculating the Highest level detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.								
*Total Haloacetic Acids (HAA5)	2021	21	12 - 22.6	N/A	60	ppb	No	By-product of drinking water chlorination
*TTHMs [Total Trihalomethanes]	2021	42	24 - 41.2	N/A	80	ppb	No	By-product of drinking water chlorination
Chlorite	2021	0.52	0.018 - 0.52	0.8	1	ppm	No	By-product of drinking water chlorination
Chloramines	12/31/21	3	2.4 - 3.75	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Barium	2021	0.0164	0.0164 - 0.0164	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Arsenic	2021	1	1.04 - 1.04	0	10	ppb	No	Erosion of natural deposits; Runoff from orchards; Runoff from electronics production wastes

Inorganic Contaminants (continued)	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Fluoride	2021	0.6	0.57 - 0.57	4	4	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer or Aluminum Factory discharge
Sodium	2021	20	19.6 - 19.6			ppm	No	Erosion from naturally occurring deposits:

The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Combined Radium 226/228	1/22/2020	0.86	0.86 - 0.86	0	5	pci/l	No	Erosion of naturally occurring deposits
Gross alpha excluding radon and uranium	1/22/2020	0.12	0.12 - 0.12	0	15	pci/l	No	Erosion of naturally occurring deposits

Turbidity Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

Definitions: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
NTU - Nephelometric Turbidity Units

Lowest Monthly % meeting limit	Limit (Treatment Technique)	Violation	Source
100%	0.3 NTU	No	Soil Runoff
Highest Single Measurement	Limit (Treatment Technique)	Violation	Source
0.32	1 NTU	No	Soil Runoff
Total Organic Carbon	The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violation sections.		

VIOLATIONS: There were no violations this reporting period.