

Town of Orleans Water Works

2023 Annual Water-Quality Report

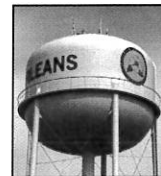
Public Water System ID: IN5259003

We are pleased to present to you the Annual Water Quality Report (Consumer Confidence Report) for the year, for the period of January 1 to December 31, 2023. 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. (Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien).

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Sources of Drinking Water

ORLEANS WATER WORKS is Purchased surface water.

Our water source(s) and source water assessment information are listed below:

PATOKA LAKE REGIONAL WATER - IN5219012	SOUTH PIT	Surface water
PATOKA LAKE REGIONAL WATER - IN5219012	NORTH PIT	Surface water
PATOKA LAKE REGIONAL WATER - IN5219012	CR 575 North	Surface 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 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. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791. 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 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 can 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, 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.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact the system's business office.

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 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 <http://www.epa.gov/safewater/lead>.

In the tables below, you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms, we've provided the following 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. ALGs allow for a margin of safety.

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 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.

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.

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

Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Avg: Average - Regulatory compliance with some MCLs are based on running annual average of monthly samples.

LRAA: Locational Running Annual Average

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

ppb: micrograms per liter (ug/L) or parts per billion - or one ounce in 7,350,000 gallons of water.

ppm: milligrams per liter (mg/L) or parts per million - or one ounce in 7,350 gallons of water

pCi/L: picocuries per liter (pCi/L): picocuries per liter is a measure of the radioactivity in water.

na: not applicable.

Our water system tested a minimum of 2 samples per month in accordance with the Total Coliform Rule for microbiological contaminants. With the microbiological samples collected, the water system collects disinfectant residuals to ensure control of microbial growth.

Disinfectant	Date	HighestRAA	Unit	Range	MR DL	MRD LG	Typical Source
CHLORINE	2023	2	ppm	-	4	4	Water additive used to control microbes

Regulated Contaminants

In the tables below, we have shown the regulated contaminants that were detected. Chemical Sampling of our drinking water may not be required on an annual basis; therefore, information provided in this table refers back to the latest year of chemical sampling results.

Lead and Copper	Period	90TH Percentile: 90% of your water utility levels were less than	Range of Sampled Results (low - high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2018 - 2021	0.13	0.009 - 0.239	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2018 - 2021	1.89	1.03 - 2.6	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

Disinfection Byproducts	Sample Point	Period	Highest LRAA	Range	Unit	M CL	MCL G	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	1018 S MAPLE ST	2022 - 2023	31.5	18.4 - 42.4	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	830 N MAPLE ST	2022 - 2023	31.6	19.8 - 45.6	ppb	60	0	By-product of drinking water disinfection
TTHM	1018 S MAPLE ST	2022 - 2023	41.8	21.2 - 32.9	ppb	80	0	By-product of drinking water chlorination
TTHM	830 N MAPLE ST	2022 - 2023	41.6	22.4 - 37.6	ppb	80	0	By-product of drinking water chlorination

Regulated Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCL G	Typical Source
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Radiological Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCL G	Typical Source
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Violations

During the period covered by this report we had the below noted violations.

Violation Period	Analyte	Violation Type	Violation Explanation
12/31/2022 - 1/30/2023	E. COLI	MONITORING, ROUTINE, MAJOR (RTCR)	Failed to collect routine or replacement coliform samples

There are no additional required health effects notices.

There are no additional required health effects violation notices.

Deficiencies

Unresolved significant deficiencies that were identified during a survey done on the water system are shown below.

Date Identified	Facility	Code	Activity	Due Date	Description
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No deficiencies during this period.

Reseller Contaminants

Regulated Contaminants	Collection Date	Water System	Highest Sample Result	Range of Sampled Result(s) (low - high)	Unit	MCL	MCLG	Typical Source
BARIUM	9/10/2023	PATOKA LAKE REGIONAL WATER	0.019	0.019	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE	9/10/2023	PATOKA LAKE REGIONAL WATER	0.72	0.72	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories