

# ORANGE CITY UTILITIES

## PWS# 3640946

# Water Quality Report 2022

Orange City Utilities (OCU) is a leader in natural resource protection. The City is proud of its treasured natural resources, such as Blue Springs, and strives to protect them throughout comprehensive management of water resources while ensuring public health. It is the City's goal to continue to improve water quality. In 2015, the City started the "Water Quality Improvements Projects" and spent approximately \$13 million replacing defective and obsolete water mains and upgrading our Water Treatment Plants. The next steps are to replace more obsolete water mains and to add Greensand filters at the Main Water Treatment Plant. Both of these projects are in process this year. These improvements will help address issues with discolored water and other water quality challenges. OCU provides this Annual Water Quality Report to our customers so you may understand the concerted and rigorous efforts that are made to continually maintain and improve the water-treatment process and preserve Orange City's precious water resources.

OCU's water system provides safe, clean, drinking water to an approximate population of **12,335** who use a system-wide daily average of approximately 1.60 million gallons per day. Making every drop safe is our top priority. Our goal is, and always has been, to provide OCU customers a safe and dependable supply of drinking water. OCU treats groundwater pumped from the Floridan Aquifer. Our treatment process consists of aeration and disinfection using sodium hypochlorite. OCU's water is tested continuously at our water treatment plants and throughout the distribution system. Water straight from the faucet continues to be safe, and the use of home filtration systems remains a matter of preference.

**Orange City Utilities is very pleased to provide you with this year's Annual Water Quality Report.** We strive to keep you informed about the excellent water and services we have delivered to you over the past year. This report depicts our water quality results. Orange City Utilities routinely monitors for contaminants in your drinking water according to Federal and State laws, rules, and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1, to December 31, 2022. Data obtained before January 1<sup>st</sup>, 2022 and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

## Source Water Assessment

The Florida Department of Environmental Protection (DEP) under the Federal Safe Drinking Water Act has created the Source Water Assessment and Protection Program. The program is designed to ensure the safety of drinking water at the source. Contamination of ground water can occur from contaminants such as hazardous chemicals, storm water runoff, waste disposal sites and underground storage tanks. In 2022 the Department of Environmental Protection updated the Source Water Assessment on our system. The assessment was updated to provide information about any potential sources of contamination in the vicinity of our wells. There are **eleven (11) potential** sources of contamination identified as low susceptibility level and **three (3) identified** for moderate susceptibility level for this system. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at <https://prodapps.dep.state.fl.us/swapp/> or they can be obtained from Orange City Utilities at 426 S Volusia Ave, Orange City, 32763.

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline at 1-800-426-4791.

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:

- (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

- (B) 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.
- (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- (D) 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.
- (E) 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, the EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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. Orange City Utilities 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 <http://www.epa.gov/safewater/lead>

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

In the tables below, you may find unfamiliar terms and abbreviations. To help you better understand these terms, we've provided the following definitions:

Table Terms and Abbreviations	
<ul style="list-style-type: none"> <li>• Non-Applicable (NA): Does not apply</li> <li>• Non Detect (ND): Means not detected and indicates the substance was not found by laboratory analysis</li> <li>• Parts per million (ppm) or Milligrams per liter (mg/l): One part by weight of analyte to 1 million parts by weight of the water sample               <ul style="list-style-type: none"> <li>• Parts per billion (ppb): or Micrograms per liter (µg/l): one part by weight of analyte to 1 billion parts by weight of the water sample</li> <li>• Action Level (AL): The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow</li> </ul> </li> <li>• 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.</li> </ul>	<p>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.</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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 contaminant.</li> <li>• Picocurie per liter (pCi/L): measure of the radioactivity in water</li> <li>• 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.</li> </ul>

# WATER QUALITY TEST RESULTS

The following table shows the results of the monitoring period from January 1 to December 31, 2022. The State of Florida allows for the monitoring of some contaminants less than once a year because the concentration of some of these contaminants does not change frequently. Therefore, some of the provided data, though representative, is more than a year old.

Inorganic Contaminants							
Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation (Y/N)	Level Detected	Range of Results	MCGL	MCL	Likely Source of Contamination
Arsenic (ppb)	10/2020	N	1.8	0.3 – 1.8	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	10/2020	N	.029	.022 - .029	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	10/2020	N	.068	.053 - .068	4	4	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at the optimum level of 0.7 ppm
Mercury (inorganic) (ppb)	10/2020	N	.071	.056 - .071	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nitrate (as Nitrogen) (ppm)	11/2022	N	0.99	0.43-0.99	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	10/2020	N	45.0	10.0 – 45.0	NA	160	Salt water intrusion, leaching from soil
Lead and Copper (Tap Water)							
Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	AL Exceeded (Y/N)	90 <sup>th</sup> Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	07/2020	N	0.92	1	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead (tap water) (ppb)	07/2020	N	2.5	0	0	15	Corrosion of household plumbing systems, erosion of natural deposits

Stage 2 Disinfectant/Disinfection By-Product							
Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Chlorine (ppm)	1/2022 – 12/2022	N	0.66	0.2-1.40	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	1/2022 – 12/2022	N	31.2	19.9-39.4	NA	60	By-product of drinking water disinfection
TTHM (Total Trihalomethanes) (ppb)	1/2022-12/22	N	76.7	41.37-79.2	NA	80	By-product of drinking water disinfection
Secondary Contaminants							
Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation Y/N	Highest Result	Range of Results	MCLG	MCL	Likely Source of Contamination
Iron (ppm) <sup>1</sup>	1/22 5/22 8/22 11/22	Y	0.41	ND-0.41		0.3	Natural occurrence from soil leaching

During the past year, we were required to conduct one Level 1 assessment due to missed required repeat sampling of coliforms. One Level 1 assessment was completed. In addition, we were required to take one corrective actions and we completed one corrective actions as we updated our total coliform bacteria sampling and training protocols.<sup>2</sup>

#### Footnotes to Water Quality Test Results

- 1) Violations due to the exceedance of the Secondary Contaminant MCLs for Iron, were incurred during 2022. Secondary MCLs are set for aesthetic purposes only. The concentrations of these parameters found in our water are not associated with any adverse health effects.
- 2) Coliforms are bacteria that are naturally present in the environment and are used as an indicator that another potentially harmful waterborne pathogen may be present, or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found issues indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments. After conducting the assessment, no contamination was found.

## Water Conservation Practices Save Money while Protecting our Natural Eco- Systems



### Indoor Conservation Tips

- Fix leaks, including leaky toilets
- Install high-efficiency toilets, aerators on bathroom faucets, and water-efficient shower heads
- Take shorter (5 minute) showers
- Track your water bill and meter to curtail water use
- Turn off water when brushing teeth or shaving
- Use dishwashers and washing machines with full loads only

### Outdoor Conservation Tips

- Plant drought-tolerant/resistant plants and trees
- Recycle indoor water to use on plants
- Refrain from watering your home landscape when it rains
- Replace your grass/turf with water-wise plants
- Use a broom to clean driveways, patios, and sidewalks instead of water from a hose
- Water your outdoor landscape earlier in the day when temperatures are cooler

As part of Orange City Utilities outreach efforts, to communicate the excellent level of our drinking water, this publication serves as an information tool about our City's drinking water. Our number one goal is to provide you and your family a safe and dependable supply of drinking water. Our employees strive daily to deliver a quality product and protect the City's precious water resources.

OCU is a municipally-owned utility, governed by the Orange City Council. The Orange City Council meets at City Hall, 201 N Holly Ave, Orange City, Fla., on the second and fourth Tuesday of every month. Additional information is available at [www.OurOrangeCity.com](http://www.OurOrangeCity.com).

**For Additional information contact: Orange City Water Plant, Office 386-775-5442**

**Service and Billing Questions: (386) 775-5444 or After Hours Contact: (386) 736-5999**

