Volusia County Utilities is pleased to present to you this year’s Annual Water Quality Report. This report is designed to inform you about the quality of water and services we deliver to you every day. We want you to understand the efforts we make to provide you with a dependable and safe supply of drinking water. We are committed to ensuring the quality of your water and protecting our water resources.

Where Does My Water Come From and How is it Treated?

Seven wells provide VC/Southwest Interconnect with groundwater pumped from the Floridan Aquifer. This water system consists of four Water Treatment Plants. At the main plant, Glen Abbey, water is aerated for hydrogen sulfide removal and is followed by tank aeration, mixing and forced ventilation to remove trihalomethanes. Each of the interconnected facilities adds orthophosphate as a corrosion inhibitor and applies a combination of chlorine and ammonia (chloramines) to ensure the distribution system is safe from pathogenic bacteria.

Understanding Source Water Quality:

The sources of drinking water for 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:

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

- **Microbial contaminants**, such as viruses bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operation, and wildlife.

- **Inorganic contaminants**, such as salts and metals, which may 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.

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.
About Water Quality:

All 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 Safe Drinking Water Hotline at (800-426-4791) or by visiting the following website: epa.gov/dwstandardsregulations

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 of infections. These people should seek advice about drinking water from their health care providers. EPA and Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available for the Safe Drinking Water Hotline (800-426-4791)

Lead in Drinking Water:

Volusia County Utilities routinely monitors water quality parameters at each of our groundwater supply wells and again at the point of entry into our distribution system. This allows us to ensure that proper process controls are implemented in order to ensure water characteristics such as pH, alkalinity, and calcium levels are optimal when it leaves our water treatment plant.

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. Volusia County 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 two 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 reduce exposure is available from the Safe Drinking Water Hotline (800-426-4791) or by visiting http://www.epa.gov/safewater/lead
**Key Terms in This Report:**

Volusia County Water Resources and Utilities routinely monitors for more than 80 regulated contaminants in your drinking water according to federal and state laws, rules and regulations. The primary contaminants which are monitored include inorganic compounds (mostly metals that are naturally found in the environment), volatile compounds, pesticides, PCBs, and radionuclides. Secondary contaminants which are monitored include compounds associated with the aesthetic quality of water.

Except where indicated otherwise, this report is based on the most recent results of our monitoring for the period of January 1, 2022 to December 31, 2022. Data obtained before January 1, 2022 and presented in this report are from the most recent testing done in accordance with the laws, rules and regulations.

In the water quality results tables, you may find unfamiliar terms and abbreviations. To help you better understand these terms, we have provided the following definitions:

- **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.

- **“ND”** means not detected and indicates that the substance was not found by laboratory analysis.

- **“N/A”** means not applicable.

- **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 disinfectant to control microbial contaminants.

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

- **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.

- **Parts per billion (ppb) or Micrograms per liter (ug/l):** One part by weight of analyte to 1 billion parts by weight of the water sample.

- **90th Percentile:** Value for which ninety percent of the sites sampled were either equal to or below.

- **Locational Running Average (LRAA):** The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.
### Disinfectants and Disinfection By-Products

<table>
<thead>
<tr>
<th>Contaminant and Unit of Measure</th>
<th>Dates of Sampling (mo/yr)</th>
<th>MCL Violation Y/N</th>
<th>Level Detected</th>
<th>Range of Results</th>
<th>MRDLG</th>
<th>MCL or MRDL</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloramines (ppm)</td>
<td>01/22 - 12/22</td>
<td>No</td>
<td>2.7</td>
<td>1.1 - 3.8</td>
<td>4</td>
<td>MRDL = 4</td>
<td>Water additive used to control microbes.</td>
</tr>
<tr>
<td>Haloacetic Acids (HAA5) (ppb)</td>
<td>01/22, 04/22, 07/22, 10/22</td>
<td>No</td>
<td>34.8</td>
<td>25.5 - 34.6</td>
<td>N/A</td>
<td>MCL = 60</td>
<td>By-product of drinking water disinfection.</td>
</tr>
<tr>
<td>Total Trihalomethanes (TTHM) (ppb)</td>
<td>01/22, 04/22, 07/22, 10/22</td>
<td>No</td>
<td>50.5</td>
<td>43.2 - 51.7</td>
<td>N/A</td>
<td>MCL = 80</td>
<td>By-product of drinking water disinfection.</td>
</tr>
</tbody>
</table>

### Inorganic Contaminants

<table>
<thead>
<tr>
<th>Contaminant and Unit of Measure</th>
<th>Dates of Sampling (mo/yr)</th>
<th>MCL Violation Y/N</th>
<th>Level Detected</th>
<th>Range of Results</th>
<th>MCLG</th>
<th>MCL</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barium (ppm)</td>
<td>03/20, 05/20, 06/20</td>
<td>No</td>
<td>0.0212</td>
<td>0.0131 - 0.0212</td>
<td>2</td>
<td>2</td>
<td>Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.</td>
</tr>
<tr>
<td>Fluoride (ppm)</td>
<td>03/20, 05/20, 06/20</td>
<td>No</td>
<td>0.073</td>
<td>0.071 - 0.073</td>
<td>4</td>
<td>4.0</td>
<td>Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth at the optimum level of 0.7 ppm</td>
</tr>
<tr>
<td>Sodium (ppm)</td>
<td>03/20, 05/20, 06/20</td>
<td>No</td>
<td>21.6</td>
<td>13.0 - 21.6</td>
<td>N/A</td>
<td>160</td>
<td>Salt water intrusion, leaching from soil.</td>
</tr>
</tbody>
</table>

### Secondary Contaminants

<table>
<thead>
<tr>
<th>Contaminant and Unit of Measure</th>
<th>Dates of Sampling (mo/yr)</th>
<th>MCL Violation Y/N</th>
<th>Highest Result</th>
<th>Range of Results</th>
<th>MCLG</th>
<th>MCL</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron (ppm)</td>
<td>10/22</td>
<td>Yes</td>
<td>0.42</td>
<td>N/A</td>
<td>NA</td>
<td>0.3</td>
<td>Natural occurrence from soil leaching.</td>
</tr>
</tbody>
</table>

During the year of 2022 a secondary standard MCL violation for iron occurred. The secondary MCL for iron is set by the Environmental Protection Agency (EPA) for aesthetic purposes only. The Iron concentration found in our water is not associated with any adverse health effects. Volusia County Utilities is currently in the process of working in conjunction with consulting engineers to develop and implement additional treatment techniques at the water treatment facility that will reduce these concentrations and further enhance the aesthetic quality of water delivered to our customers. Volusia County Utilities continues to implement best management practices to effectively manage water quality levels and will continue to monitor iron levels as required by the Florida Department of Environmental Protection and Florida Department of Health. If you should have any questions, please contact Volusia County Utilities at 386-822-6465.
### Lead & Copper (Tap Water)

<table>
<thead>
<tr>
<th>Contaminant and Unit of Measure</th>
<th>Dates of Sampling (mo/yr)</th>
<th>AL Exceeded Y/N</th>
<th>90th Percentile</th>
<th>No. of Sampling Sites Exceeding AL (Action Level)</th>
<th>MCLG</th>
<th>AL (Action Level)</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper (tap water) (ppm)</td>
<td>08/20</td>
<td>No</td>
<td>0.66</td>
<td>1</td>
<td>1.3</td>
<td>1.3</td>
<td>Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.</td>
</tr>
<tr>
<td>Lead (tap water) (ppb)</td>
<td>08/20</td>
<td>No</td>
<td>2.7</td>
<td>1</td>
<td>0</td>
<td>15</td>
<td>Corrosion of household plumbing systems, erosion of natural deposits.</td>
</tr>
</tbody>
</table>

### Source Water Assessments:

The FDEP’s Source Water Assessment & Protection Program is meant to ensure that your drinking water is safe, not just at the tap, but at its source. Initiated as part of the federal Safe Drinking Water Act, the program identifies potential threats to drinking water supplies with the goal to protect our vital resources. The most recent Source Water Assessment performed for VC/Southwest Interconnect by the Department of Environmental Protection was in 2022. There were 6 unique potential sources of contamination identified for this system, all of which were identified as being of a low or moderate level of concern. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at: [https://prodapps.dep.state.fl.us/swapp/](https://prodapps.dep.state.fl.us/swapp/)

### Questions or Concerns?

If you have any questions or concerns about the information provided in this report, please feel free to contact Volusia County Utilities Operations at (386) 822-6465. You may also choose to attend a Volusia County Council meeting. These meetings are typically held on Tuesdays, usually on the first and third Tuesday of each month. Public participation is held near the beginning of each meeting. View the County Council Calendar for exact dates and times at: [https://www.volusia.org/government/county-council/county-council-meetings/county-council-calendar.shtml](https://www.volusia.org/government/county-council/county-council-meetings/county-council-calendar.shtml)

### Vision

**Mission & Values**

To employ best management, operations, engineering and financial practices necessary to produce and deliver safe drinking water; as well as treat and dispose wastewater within environmentally safe regulatory standards; while offering competitively priced products and services for all Volusia County Water Resources and Utilities Customers.