We are pleased to provide you with this year's Annual Drinking Water Quality Report

This water quality report contains detailed information about your drinking water, the steps we take to ensure its safety, the results of the sampling and testing we conducted during 2024, and how we are working to conserve this resource for future generations.

The top priority of the City of Melbourne is to deliver clean, safe, dependable, great-tasting water to our approximately 168,000 consumers. Our state-certified lab conducts thousands of chemical and bacteriological water quality tests each year to monitor all 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, 2024. Data obtained before January 1, 2024, and presented in this report are from the most recent testing done in accordance with the laws, rules and regulations.

How to Obtain a Copy of This Report

This water quality report, also known as a consumer confidence report, is produced annually in accordance with both federal and state requirements.

This report will be mailed to customers upon request by calling 321-608-5080. It is also available at Melbourne City Hall, 900 E. Strawbridge Avenue, Melbourne, FL 32901 and at all public libraries in our water service area. For more information about this report, for questions relating to your drinking water, or for additional hard copies of this report, please go to www.melbourneflorida.org/waterqualityreport, or call 321-608-5080 or email waterqualityreport@mlbfl.org. You can obtain additional information from the EPA at their Safe Drinking Water Hotline (800-426-4791).

Melbourne's Drinking Water Sources

Source water includes Lake Washington and the Floridan Aquifer. Lake Washington is part of the St. John's River, the largest river in Florida. The water from the lake, also known as surface water, is treated using the Actiflo process at the John A. Buckley Surface Water Treatment Plant. Chloramines are used as a disinfectant and are formed when ammonia is added to chlorine to treat drinking water. Chloramine provides long-lasting disinfection as the water moves through pipes to consumers. Ozone is used to reduce the potential for disinfection byproducts.

The Floridan Aquifer is an extensive underground water source that covers 100,000 square miles in all of Florida and parts of Alabama, Georgia and South Carolina. Melbourne's Joe Mullins Reverse Osmosis Water Treatment Plant is supplied by four Floridan Aquifer system wells. The brackish water from the wells is treated with a reverse osmosis filtering process to remove salts and impurities.

The treated groundwater is blended with the treated surface water. This blended water, after disinfection, is then distributed to our consumers. Chloramine booster stations in the water distribution system ensure that adequate levels of disinfection are maintained throughout the system. Melbourne has a permitted water production capacity of 25 million gallons per day; however, on a typical day, demand for water is about 18 million gallons per day.

SWAPP Statement

In 2024, the Florida Department of Environmental Protection (DEP) performed a Source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our groundwater wells and surface water intakes. There were 4 potential sources of contamination identified for this system with low susceptibility levels. The assessment results are on the DEP SWAPP website at https://prodapps.dep.state.fl.us/swapp/

EPA Information

Haloacetic acids (five) (HAA5): Some people who drink water containing haloacetic acids in excess of the maximum contaminant level (MCL) over many years may have an increased risk of getting cancer.

Turbidity Statement

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. High turbidity can hinder the effectiveness of disinfectants.

Lead and Copper

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and home plumbing. The City of Melbourne Public Works & Utilities Department is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time.

Ways to Reduce Exposure
You can protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you are concerned about lead in your water and wish to have your water tested, contact The City of Melbourne at 321-608-5000. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at https://www.epa.gov/safewater/lead.

Sources of Lead Can Include:
Older fixtures and valves: Lead can be found in older fixtures and valves inside your home. It may also be found in old solder where pipes are joined together.

Service lines: This pipe connects a property's plumbing to the water main in the street. Maintaining or replacing the service line after the meter is the responsibility of the property owner.

We will continue to update our service line inventory as more records are located and as field investigations are conducted. You can view this inventory as well as more information about the EPA's Lead and Copper Rule and frequently asked questions about service lines and lead at www.melbourneflorida.org/lead.

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.

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 U.S. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least some small amounts of 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).

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. U.S. Environmental Protection Agency/Centers for Disease Control (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).

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.

Treated Water Quality Terms to Know

In the water quality data table, you will find many terms and abbreviations with which you might not be familiar. To help you better understand these terms, please refer to the following definitions:

Non-Detects (ND): Not detected and indicates that the substance was not found by laboratory analysis.

Maximum Contaminant Level or MCL: The highest level of 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.

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

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

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.

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.

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.

Picocurie per liter (pCi/L): Measure of the radioactivity in water.

Nephelometric Turbidity Units (NTU): Measurement of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

N/A: Not applicable

2024 Water Quality Data

The results presented on the tables that follow are for the monitoring period of

January 1 to December 31, 2024, unless otherwise noted.

Microbiological Contaminants

Contaminant and Unit of Measurement	Dates of sampling (mo./yr)	MCL Violation Y/N	The Highest Single Measurement	The Lowest Monthly Percentage of Samples Meeting Regulatory Limits	MCLG	MCL	Likely Source of Contamination
Turbidity (NTU)	1/24 - 12/24	N	0.53	98.9	N/A	TT	Soil runoff

The result in the lowest monthly percentage column is the lowest monthly percentage of samples reported in the Monthly Operating Report meeting the required turbidity limits.

Radioactive Contaminants

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
Radium 226 + 228 or combined radium (pCi/L)	5/24	N	0.7	N/A	0	5	Erosion of natural deposits

Inorganic Contaminants

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
Fluoride (ppm)	1/24 – 12/24	N	0.63	N/A	4	4.0	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)	1/24 – 12/24	N	0.16	N/A	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nitrate (as Nitrogen) (ppm)	1/24 –12/24	N	0.16	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

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
Nitrite (as Nitrogen) (ppm)	1/24 –12/24	N	0.082	N/A	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	1/24 – 12/24	N	79	N/A	N/A	160	Saltwater intrusion, leaching from soil

Stage 1 Disinfectants and Disinfection By-products

Disinfectant or Contaminant and Unit of Measurement	Dates of sampling (mo./yr)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Bromate (ppb)	1/24 – 12/24	N	4.5	ND - 22	MCLG = 0	MCL = 10	By-product of drinking water disinfection
Chloramines (ppm)	1/24 – 12/24	N	3.2	ND – 5.9	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes

For bromate and chloramines, the level detected is the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected. The range of results is the range of results of all the individual samples collected during the past year.

Stage 1 Disinfectants and Disinfection By-Products

Contaminant and Unit of Measurement	Dates of sampling (mo./yr)	TT Violation Y/N	Lowest Running Annual Average, Computed Quarterly, of Monthly Removal Ratios	Range of Monthly Removal Ratios	MCLG	MCL	Likely Source of Contamination
Total Organic Carbon (ppm)	1/24 – 12/24	N	2.08	1.74 – 2.25	N/A	TT	Naturally present in the environment

Stage 2 Disinfectants and Disinfection By-Products

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
Haloacetic Acids (HAA5) (ppb)	1/24 – 12/24	N	16.48	5.28 – 21.54	N/A	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	1/24 – 12/24	N	25.51	9.14 – 31.22	N/A	80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement	Dates of sampling (mo./yr)	AL Exceeded (Y/N)	90th Percentile Result	No. of sampling sites exceeding the AL	Range of Tap Sample Results	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	8/23	N	0.0778	0	0.0023 – 0.14	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Lead (tap water) (ppb)	8/23	N	1.2	0	ND – 4.6	0	15	Corrosion of household plumbing systems and service lines connecting buildings to water mains; erosion of natural deposits

Unregulated Contaminants

Contaminant	Unit of Measurement	Dates of sampling (mo./yr)	Level Detected (average)	Range	Likely Source of Contamination
Perfluorobutanesulfonic Acid (PFBS)	ppb	1/24	0.0040	N/A	PFAS are a group of synthetic chemicals used in a wide range of consumer products and industrial applications, including non-stick cookware, water-repellent clothing, stain-resistant fabrics and carpets, cosmetics, firefighting foams, electroplating, and products that resist grease, water and oil. PFAS are found in blood of people and animals, in water air, fish, and soil at locations across the United States and around the world.

We sampled a series of unregulated contaminants, including 29 PFAS compounds (per- and polyfluoroalkyl substances) and one metal, Lithium. You have the right to know this data is available. This table shows results for any 29 contaminants with detectable quantities. Unregulated contaminants do not yet have a drinking water standard; this monitoring will help EPA determine whether the contaminants should require on-going testing and establish allowable maximum contaminant limits. If you are interested in learning more about the results, please call The City of Melbourne, Water Production at (321) 608-5700

The Importance of Water Conservation

Conserving water means using our water supply wisely and responsibly. Here are the reasons why saving water is important:

The uses are endless

We use water every day of our lives. It is required in almost everything we do. We need water for drinking, bathing, cooking, washing, flushing the toilet and countless other activities.

Water grows food

Fruits and vegetables, as well as other produce, require water to grow. Good irrigation and easy availability of water affect the quality of crops and the price at which the food is sold. If an area is suffering from a drought, crops are affected.

It protects our ecosystem and wildlife

Humans are not the only species on earth that requires water for survival. In fact, every species on this planet needs water to live and survive. It is highly important that we save water that is essential to our sustainability.

Less water usage means more savings

By practicing basic water conservation techniques, you can save thousands of gallons each year.

Conserving water also saves energy

Energy is required to run the equipment that treats and pumps water from the treatment facilities to your home or business. Saving water will lead to saving energy and a reduced carbon footprint. We can start saving water by making smart choices at home. This includes using plumbing fixtures and appliances that are the most water and energy efficient.

Water conservation measures are an important step in protecting our water supply. Such measures help preserve the supply of our source water and can save you money by reducing your water bill. You can find much more information on water conservation at www.sjrwmd.com/water-conservation/.

Community Education and Outreach

Education and outreach activities are an important part of our mission. We realize the importance of communicating with the public about our water quality, conservation and on-going improvement projects. We reach hundreds of students each year about the importance of water conservation and how they can personally take steps to reduce water usage. We have rebate programs in place to financially assist our customers with water-saving measures in their homes. New customer kits include water conservation brochures, and many other activities are conducted throughout the year to advance this cause. If you are interested in having someone speak to your class, civic group, community organization or homeowners' association about our water quality, treatment processes, conservation or other topics, please contact the Environmental Community Outreach (ECO) Division at (321) 608-5080.

Meet the Unflushables

Toilet paper breaks down as it travels through the wastewater system while other items remain intact and cause serious issues, from broken equipment to wastewater back-ups. To protect your pipes, only flush toilet paper.

DO NOT flush these items down the toilet or sink drain:

- "Flushable" wipes
- Feminine products
- Cotton swabs or balls
- Plastics
- Disposable diapers
- Medications – more information available at https://floridadep.gov/waste/permitting-compliance-assistance/content/pharmaceutical-waste-management-businesses-and

For More Information

Melbourne Public Works & Utilities Department

(321) 608-5000

U.S. EPA Safe Drinking Water Hotline

(800) 426-4791

You can also visit the EPA's drinking water web page at

www.epa.gov/ground-water-and-drinking-water/safe-drinking-water-information

or visit Melbourne's web site at: www.melbourneflorida.org

Other Customer Service Phone Numbers

City Hall Switchboard

(321) 608-7000

Water Production

(321) 608-5700

Utility Billing

(321) 608-7100

Water & Wastewater Operations

(321) 608-5100

After-Hours Water or Wastewater Emergencies

(321) 255-4622