The City of West Melbourne

2014 Annual Drinking Water Quality Report

We're pleased to provide you with this year's Annual Drinking Water Quality Report. We want to keep you informed about the water and services we have delivered to you over the past year. Our goal is and always has been, to provide to you a safe and dependable supply of drinking water. We purchase our water from the City of Melbourne, which is derived from two independent sources, Lake Washington and the Floridian Aquifer. The City of Melbourne has a diversified water-supply approach, using both surface water and groundwater to make sure high-quality water is always available when needed. Lake Washington is part of the St. Johns River, the largest river in Florida. Lake Washington is approximately four miles long, one mile wide, and 10 to 15 feet deep. The Floridian Aquifer is an extensive underground water source that covers some 82,000 square miles. Melbourne's Joe Mullins Reverse Osmosis Water Treatment Plant is supplied by four Floridian Aquifer system wells. The wells are approximately 650 to 900 feet deep. Brackish water from the Floridian Aquifer is treated with a reverse osmosis filtering process to remove salts and impurities. We are pleased to report that your drinking water meets all Federal and State requirements.

If you have any questions about this report or concerning your water utility, please contact the Public Works Department at (321) 727-3710. We encourage our valued customers to be informed about their water utility.

The City of Melbourne routinely monitors for contaminants in your drinking water according to Federal and State laws, rules, and regulations. The City of West Melbourne monitors bacteriologicals, asbestos and lead and copper tap samplings. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2013. Data obtained before January 1, 2013, and presented in this report are from the most recent testing done in accordance with the laws, rules and regulations.

In 2009, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment (SWA) on the City of Melbourne's system. The assessment results are available on the FDEP Source Water Assessment and Protection Program web site at www.dep.state.fl.us/swapp.

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 the Water Quality Table, you may find unfamiliar terms and abbreviations.
To help you better understand these terms we've provided the following definitions:

Maximum Contaminant Level (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 (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 (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 (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 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 (µg/l): One part by weight of analyte to 1 billion parts by weight of the water sample.
Turbidity: A measure of the cloudiness of the water. It is a good indicator of the effectiveness of the filtrations systems. High turbidity can hinder the effectiveness of disinfectants.
Nephelometric Turbidity Unit (NTU): Measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
Not Detected (ND): Indicates that the substance was not found by laboratory analysis.
N/A: Not applicable

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.

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 (1-800-426-4791).

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. 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 (1-800-426-4791).

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. The City of West Melbourne 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.

2013 MELBOURNE WATER QUALITY TEST RESULTS TABLE - (unless noted as *West Melbourne*)

NON-SECONDARY CONTAMINANTS TABLE

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)	1/13-12/13	N	0.13	100%	N/A	TT	Soil runoff

Inorganic Contaminants

Barium (ppm)	5/13	N	0.016	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	5/13	N	0.81	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm
Nitrate (as Nitrogen) (ppm)	5/13	N	0.35	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	5/13	N	0.083	N/A	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural depoits
Sodium (ppm)	5/13	N	71.1	N/A	N/A	160	Salt water intrusion, leaching from soil

STAGE 1 DISINFECTANTS & 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)	1/13-12/13	N	2.0	ND-6.6	MCLG=0	MCL=10	By-product of drinking water disinfection
Chloramines (ppm)	1/13-12/13	N	3.2	0.1-12.2	MRDLG= 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	1/13-12/13	N	16.8	8.2-29.0	N/A	MCL = 60	By-product of drinking water disinfection
TTHMs (Total trihalomethanes) (ppb)	1/13-12/13	N	44.2	12.0-41.2	N/A	MCL = 80	By-product of drinking water disinfection

The monthly TOC removal ratio is the ratio between the actual TOC removal and the required TOC removal

Contaminant and Unit of Measurement	*Dates of Sampling (mo./yr.)*	*TT Violation Y/N*	*Lowest Running Annual Average of Monthly Removal Ratios*	*Range of Monthly Removal Ratios*	*MCLG*	*MCL*	*Likely Source of Contamination*
Total organic carbon	1/13-12/13	N	2.1	1.8-2.3	N/A	TT	Naturally present in the environment

STAGE 2 DISINFECTANTS & 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 (five) (HAA5) (ppb) ***West Melbourne***	1/13-12/13	N	N/A	5.49-55.3	N/A	60	By-product of drinking water disinfection
TTHMs (Total trihalomethanes) (ppb) ***West Melbourne***	1/13-12/13	N	N/A	9.1-20.6	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 Violation Y/N*	*90th Percentile Result*	*No. of sampling sites exceeding the AL*	*MCLG*	*AL (Action Level)*	*Likely Source of Contamination*
Copper (tap water) (ppm) ***West Melbourne***	8/11	N	0.0726	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb) ***West Melbourne***	8/11	N	3.6	1	0	15	Corrosion of household plumbing systems, erosion of natural deposits

We at the City of West Melbourne work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. If you have any questions or concerns about the information provided, please feel free to call any of the numbers listed.