

City of Melissa

Consumer Confidence Report Jan. 1 to Dec. 31, 2021

City of Melissa Public Water Supply (WS 0430040)



For more information regarding this report, contact
Public Works Director Jeff Cartwright at
(469) 853-9788 or jcartwright@cityofmelissa.com

Este reporte incluye información importante sobre
el agua para tomar. Para asistencia en español,
favor de llamar al teléfono (972) 623-8836.



Superior drinking water in Melissa

Melissa residents enjoy a clean, safe, plentiful water supply, thanks in part to the work of City of Melissa management and employees as well as members the Melissa City Council who oversee the financial and operational aspects of the Melissa Water Division. The dedication and commitment of personnel who work in the Water Division is evident each time residents and business owners open their faucets, operate their water-based appliances, and irrigate their property. Water is an important resource and ensuring that the water meets the highest standards of safety and usability is a responsibility that the City of Melissa takes very seriously. Together, residents, business owners, and the City of Melissa exercise a partnership that maintains water as a critical resource that benefits everyone.

- City of Melissa Water System obtains water from the North Texas Municipal Water District in Collin County.
- The Country Ridge Water Well obtains water from the Woodbine Aquifer in Collin County.
- The City's system maintains 117.15 miles of distribution water lines.
- During this reporting period, 5,978 residential connections were active.
- The Melissa Fire Department maintains 1,080 fire hydrants within the City.

Information about your drinking 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 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.

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 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.
- 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.

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.

You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer; persons who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders, can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care providers. Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* 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>.

City of Melissa

Water Quality Data for Year 2021

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Number of E. coli Positive Results	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample	4	0	0	No	Naturally present in the environment.

NOTE: Reported monthly tests found no fecal coliform bacteria. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Haloacetic Acids (HAA5)	2021	26.7	15.5 - 26.7	No goal for the total	60	ppb	No	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2021	38.5	29.4 - 38.3	No goal for the total	80	ppb	No	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2021	0.044	0.037 - 0.038	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Chromium	2021	Levels lower than detect level	0 - 0	100	100	ppb	No	Discharge from steel and pulp mills; erosion of natural deposits.
Fluoride	2021	0.23	0.306 - 0.480	4	4	ppm	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate (measured as Nitrogen)	2021	0.592	0.0386 - 0.592	10	10	ppm	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.

Nitrate Advisory: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Atrazine	2021	0.3	0.2 - 0.3	3	3	ppb	No	Runoff from herbicide used on row crops.
Simazine	2021	0.12	0.06 - 0.12	4	4	ppb	No	Herbicide runoff.

Maximum Residual Disinfectant Level

Disinfectant Type	Year	Average Level of Quarterly Data	Lowest Result of Single Sample	Highest Result of Single Sample	MRDL	MRDLG	Units	Source of Chemical
Chlorine Residual (Chloramines)	2021	2.3	0.5	3.9	4.0	<4.0	ppm	Disinfectant used to control microbes.

NOTE: Water providers are required to maintain a minimum chlorine disinfection residual level of 0.5 parts per million (ppm) for systems disinfecting with chloramines and an annual average chlorine disinfection residual level between 0.5 (ppm) and 4 parts per million (ppm).

Lead and Copper

Lead and Copper	Date Sampled	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	Aug., 2021	1.3	0.611	0	ppm	NO	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.
Lead	Aug., 2021	15	3.83	0	ppb	NO	Corrosion of household plumbing systems; erosion of natural deposits.

ADDITIONAL HEALTH INFORMATION FOR LEAD: 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 Melissa 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>.

Unregulated Contaminants

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Chloroform	2021	13.6	9.2 - 13.6	ppb	By-product of drinking water disinfection.
Bromoform	2021	2.46	1.29 - 2.46	ppb	By-product of drinking water disinfection.
Bromodichloromethane	2021	14.3	10.3 - 14.3	ppb	By-product of drinking water disinfection.
Dibromo-chloromethane	2020	9.8	6.78 - 9.8	ppb	By-product of drinking water disinfection.

NOTE: Bromoform, chloroform, dichlorobromomethane, and dibromochloromethane are disinfection by-products. There is no maximum contaminant level for these chemicals at the entry point to distribution.

Secondary and Other Constituents Not Regulated

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Aluminum	2021	None	0 - 0	ppm	Erosion of natural deposits.
Calcium	2021	77.5	34.5 - 77.5	ppm	Abundant naturally occurring element.
Chloride	2021	73.5	4.78 - 73.5	ppm	Abundant naturally occurring element, used in water purification; by-product of oil field activity
Magnesium	2021	4.43	3.40 - 4.43	ppm	Abundant naturally occurring element.
Nickel	2021	0.006	0.004 - 0.006	ppm	Erosion of natural deposits.
Sulfate	2021	153	22.4 - 153	ppm	Erosion of natural deposits; by-product of oil field activity.
Total Alkalinity as CaCO ₃	2021	128	65 - 128	ppm	Naturally occurring soluble mineral salts.
Total Dissolved Solids	2021	444	186 - 444	ppm	Total dissolved mineral constituents in water.
Total Hardness as CaCO ₃	2021	192	96 - 192	ppm	Naturally occurring calcium.

Violations Table

There were no violations during this CCR year and any previous violations have been corrected in accordance with TCEQ.	
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Note: The full report is available for review at www.cityofmelissa.com

Definitions and Abbreviations

The following tables contain scientific terms and measures, some of which may require explanation.

Action Level: 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.

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

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.

The Level 1 and Level 2 Assessment are an evaluation of a public water system to identify potential or actual causes of microbial contamination, also called a sanitary defect. If a sanitary defect is identified during an assessment, it should be corrected as soon as possible to protect public health.

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 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.

MFL: million fibers per liter (a measure of asbestos)

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

na: not applicable.

NTU: nephelometric turbidity units (a measure of turbidity)

pCi/L: picocuries per liter (a measure of radioactivity)

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

ppm: milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

ppq: parts per quadrillion, or picograms per liter (pg/L)

ppt: parts per trillion, or nanograms per liter (ng/L)

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

2021 Water Loss Report

In the water loss audit submitted to the Texas Water Development Board for the time period January – December 2021, our system had an estimated water loss of 28.49 gallons per capita per day.

A Focus on Water

Water is, of course, necessary for life, but it is also a critically important component for the growth and development of cities. In addition to the usual considerations like the quality of schools and the general welcoming attitude of a community, individuals and families, whether consciously or not, also take into consideration the availability and accessibility of a good, clean water supply. At the same time, businesses and commercial concerns carefully look at a community's approach to the management of water before deciding on whether or not to invest in that community. For Melissa, attaining the highest level of efficiencies in the distribution, storage, and management of water are a priority. Our new North Elevated Storage Tower, our Leak Detection and Repair program, along with our plan to invest in a new water intake site, all serve to reinforce and strengthen the skills and dedication of our water professionals on staff. Water is indeed necessary for life, and that includes the life of our community.