2021 Consumer Confidence Report for Public Water System
CITY OF MANOR

This is your water quality report for January 1 to December 31, 2021,

CITY OF MANOR provides surface water and ground water from River Alluvium Aquifer in Travis County.
Manville WSC, 130 REGIONAL WSC, and City of Austin.

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Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al teléfono (512)-272-5555.

Definitions and Abbreviations

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.

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.

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.

Definitions and Abbreviations

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.

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 EPAs 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.

Information about Source Water

Source Water Name	Type of Water	Report Status	Address	County
City of Manor				
1 - Well #1 G2270241A	GW	Active	5211 GILBERT LN	Travis
2 - Well #2 G2270241B	GW	Active	4905 GILBERT LN	Travis
3 - Well #3 G2270241C	GW	Active	5313 GILBERT LN	Travis

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	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.	1	Repeat sample was Negative of coliform	0	N	Naturally present in the environment.

Lead and Copper

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2019	1.3	1.3	0.194	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2019	0	15	2.1	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

2021 Water Quality Test Results

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)*	2021	12	1.3 – 23.1	No goal for the total	60	ppb	N	By-product of drinking water disinfection.

*{The value in the Highest Level or Average Detected column is the highest average of all HAA5 sample results collected at a location over a year'

Total Trihalomethanes (TTHM)	2021	64	13 – 106	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

'* The value in the Highest Level or Average Detected column is the highest average of all TTHM sample results collected at a location over a year'

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2021	0.0834	0.0834 - 0.0834	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2021	0..25	0.25 - 0.25	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2021	2	0.08 – 1.98	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	2021	3.3	3.3 - 3.3	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Uranium	2021	2.3	2.3 - 2.3	0	50	mrem/yr	N	Erosion of natural deposits.

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Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MRDL	MRDLG	Units	Violation	Likely Source of Contamination
Atrazine	2020	0.13	0.13 - 0.13	0	50	ppb	N	Runoff from herbicide used on row crops.

Residual Disinfectant Level

Year	Disinfectant	Highest Level Detected	Range of Levels Detected	Average Level	MCL	MRDLG	Units	Violation	Source of Contaminant
2021	Free Chlorine	2.80	0.29– 2.97	1.50	4.0	< 4.0	ppm	N	Disinfectant used to control microbes

Secondary and Other Constituents Not Regulated (No associated adverse health effects)

Year	Contaminant	Range of Levels Detected	Highest Level Detected	Secondary	Units	Source of Contaminant
2021	Bicarbonate (Alkalinity)	306 – 306	306	N/A	ppm	Corrosion of carbonate rocks such as limestone
2021	Calcium	98.7– 98.7	98.7	N/A	ppm	Abundant naturally occurring element.
2021	Chloride	100– 100	100	300	ppm	Abundant naturally occurring element; used in water; by-product of oil field activity.
2021	Iron	0.012 – 0.012	0.012	0.3	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
2021	Magnesium	12.2 – 12.2	12.2	N/A	ppm	Abundant naturally occurring element.
2021	Manganese	0.0059 – 0.0059	0.0059	0.05	ppm	Abundant naturally occurring element.
2021	Nickel	0.0002 – 0.0002	0.0002	N/A	ppm	Erosion of natural deposits.
2021	Sodium	70.3 – 70.3	70.3	N/A	ppm	Erosion of natural deposits; byproduct of oil field activity.
2021	Sulfate	48-48	48	300	ppm	Naturally occurring; common industrial byproduct; by-product of oil field activity.
2021	Total Dissolved Solids (TDS)	513 – 513	513	1000	ppm	Total dissolved mineral constituents in water.
2021	Total Hardness as CaCO 3	297 – 297	297	N/A	ppm	Naturally occurring calcium.
2021	Zinc	0.0059 -0.0059	0.0059	5	ppm	Moderately abundant naturally occurring element used in the metal industry

Manville WSC Consumer Confidence Report Data 2021

Information about Source Water

Manville WSC	Type of Water	Report Status	Address	County
	GW	Active	Gregg Lane	Travis

Disinfection Byproducts

Year	Disinfectant	Highest Level Detected	Range of Levels Detected	MRDLG	MCL	Units	Violation	Source of Contaminant
2020	Total Haloacetic Acids	22	8.2-24.6	No goal for the total	60	ppb	N	By-product of drinking water chlorination.

The value in the Highest Level or Average Detected column is the highest average of all HAA5 sample results collected at a location over a year

Year	Disinfectant	Highest Level Detected	Range of Levels Detected	MRDLG	MCL	Units	Violation	Source of Contaminant
2020	Total Trihalomethanes	81	61- 97.6	No goal for the total	60	ppb	N	By-product of drinking water chlorination.

The value in the Highest Level or Average Detected column is the highest average of all HAA5 sample results collected at a location over a year

Inorganic

Year	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Units	Source of Contaminant
2019	Arsenic	2.7	2 – 2.7	0	2	10	ppm	Erosion of natural deposits; runoff from glass and electronics product wastes.
2019	Barium	0.142	0.046 – 0.142	2	2	N	ppm	Discharge of drilling wastes; Discharge from metal refineries; erosion of natural deposits.
2020	Fluoride	2.52	0.22 – 2.52	4	4	N	ppm	Erosion of natural deposits; water additive which promote strong teeth; discharge from fertilizer and aluminum factories
2019	Selenuim	4.8	0 – 4.8	50	50	N	ppb	Discharge from petroleum and metal refineries; erosion of natural deposit; discharge of mines
2021	Nitrate (measured as Nitrogen)	2.11	0-2.11	10	10	N	ppm	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits.

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.

Radioactive Contaminants

Year	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Units	Source of Contaminant
2020	Combined Radium 226 & 228	1.8	1.8 – 1.8	0	5	0	pCi/L	Erosion of natural deposits
2020	Gross alpha excluding radon and uranium	7.1	7.1 - 7.1	0	5	0	pCi/L	Erosion of natural deposits, including pesticides.

Volatile Organic Contaminants

Year	Contaminant	Highest Level	Range of Levels Detected	MCLG	MCL	Violation	Units	Source of Contaminant

		Detected						
2021	Xylenes	0.0031	0 – 0.0031	10	10	N	ppm	Discharge from petroleum factories. Discharge from chemical factories.

Manville WSC Consumer Confidence Report Data 2021

Secondary and Other Constituents Not Regulated (No associated adverse health effects)

Year	Contaminant	Range of Levels Detected	Highest Level Detected	Secondary	Units	Source of Contaminant
2020	Bicarbonate	299-404	404	N/A	ppm	Corrosion of carbonate rocks such as limestone
2019	Calcium	10.3-121	121	N/A	ppm	Abundant naturally occurring element.
2020	Chloride	32-51	90	300	ppm	Abundant naturally occurring element; used in water; by-product of oil field activity.
2019	Iron	<0.01 -0.703	0.703	0.3	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
2019	Magnesium	3.45-33	33	N/A	ppm	Abundant naturally occurring element.
2019	Manganese	<0.0010 – 0.0494	0.0494	0.05	ppm	Abundant naturally occurring element.
2019	Nickel	0.0012– 0.0045	0.0045	N/A	ppm	Erosion of natural deposits.
2019	Sodium	10.1-97	97	N/A	ppm	Erosion of natural deposits; byproduct of oil field activity.
2020	Sulfate	72-86	86	300	ppm	Naturally occurring; common industrial byproduct; by-product of oil field activity.
2019	Total Alkalinity as CaCO3	115-339	339	N/A	ppm	Naturally occurring soluble mineral salts
2019	Total Dissolved Solids	217-716	716	1000	ppm	Total dissolved mineral constituents in water.
2019	Total Hardness as CaCO3	38.9-381	381	N/A	ppm	Naturally occurring calcium.
2019	Zinc	0.0137-0.198	0.198	5	ppm	Moderately abundant naturally occurring element used in the metal industry

130 REGIONAL WSC Consumer Confidence Report Data 2021

130 REGIONAL WSC	Type of Water	Report Status	Address	County
	GW	Active	Tower Lane	Travis

Disinfection Byproducts

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)*	2021	2.4	2.4 – 2.4	No goal for the total	60	ppb	N	By-product of drinking water disinfection.

*{The value in the Highest Level or Average Detected column is the highest average of all HAA5 sample results collected at a location over a year'

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Trihalomethanes (TThm)*	2021	15.9	15.9- 15.9	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

Inorganic

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2020	0.141	0.141- 0.141	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2020	0.16	0.16 - 0.16	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2021	0.16	0.16 – 0.16	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	2021	3.3	3.3 - 3.3	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.

City of Austin 2021 Consumer Confidence Report Data 2021

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	5% of monthly samples are positive.	1.9	Fecal Coliform or E. Coli MCL: A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive.	1	N	Naturally present in the environment.

City of Austin

Type of Water	Report Status	Address	County
Surface	As Needed	Us HWY 290	Travis

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2021	1.3	1.3	0.0037	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Lead	2021	0	15	0	1	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2021	13	5.9 - 16.6	No goal for the total	60	ppb	N	By-product of drinking water disinfection.

*The value in the Highest Level or Average Detected column is the highest average of all HAA5 sample results collected at a location over a year

Total Trihalomethanes (TTHM)	2021	34	21.4 - 45.1	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

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Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2021	0.0129	0.0104 - 0.0129	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Cyanide	2021	110	10 - 110	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	2021	0.9	0.65 - 0.9	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2021	0.17	0 - 0.17	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2021	4.3	4.3 - 4.3	0	50	pCi/L*	N	Decay of natural and man-made deposits.

*EPA considers 50 pCi/L to be the level of concern for beta particles.

he value in the Highest Level or Average Detected column is the highest average of all TTHM sample results collected at a location over a year

Turbidity

	Level Detected	Limit (Treatment Technique)	Violation	Likely Source of Contamination
Highest single measurement	0.23 NTU	1 NTU	N	Soil runoff.
Lowest monthly % meeting limit	100%	0.3 NTU	N	Soil runoff.

Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

Total Organic Carbon

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violations section