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*2022 Consumer Confidence Report for Public Water System CITY OF MANOR*

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This is the City of Manor’s water quality report for January 1 to December 31, 2022. This report provides information about Manor’s water system including source water, levels of detected contaminants, compliance with drinking water rules, and water quality data from the most recent U.S. Environmental Protection Agency (EPA) required test.

The City of Manor provides surface water and groundwater from the River Alluvium Aquifer in Travis County, Manville WSC, 130 Regional WSC, and the City of Austin.

For more information regarding this report contact:

Matt Woodard  
Public Works Director  
(512) 272-555 ext.5

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llama al

*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 Hotline at (800) 426-4791.

*Contaminants that may be present in source water include:*

- Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, 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 agricultural, urban storm 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.

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 the 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>.

## *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 is 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 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)

## Water Loss

In the water loss audit submitted to the Texas Water Development Board for the time period of January December 2022, our system lost an estimated 11.3 % of the total water produced. If you have questions about the water loss audit, please call 512-272-5555 Ext. 5

### Information about Source Water (City of Manor)

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

- CITY OF MANOR purchases water from MANVILLE WSC. MANVILLE WSC provides purchase groundwater from Edwards Aquifer, River Alluvium Aquifer, Simsboro and the Carrizo-Wilcox Aquifer located in Travis, Lee, Williamson & Burleson counties.
- CITY OF MANOR purchases water from 130 REGIONAL WSC. 130 REGIONAL WSC provides purchase groundwater from Carrizo-Wilcox Aquifer located in Burleson County.
- TCEQ completed an assessment of the City of Manor's source water, and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system contact the City at 512-272-5555 Ext. 5 Source water assessment information is available on Texas Drinking Water Watch at <https://dww2.tceq.texas.gov/DWW/>.

## 2022 Water Quality Test Results

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	0	Routine or repeat sample is coliform positive, and one is also fecal positive	0	N	Naturally present in the environment
<p>Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are hardier than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption. Fecal coliform bacteria and, in particular, E. coli, are members of the coliform bacteria group originating in the intestinal tract of warm-blooded animals and are passed into the environment through feces. The presence of fecal coliform bacteria (E. coli) in drinking water may indicate recent contamination of the drinking water with fecal material.</p>						

Lead and Copper								
Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2022	1.3	1.3	0.341	0	ppm	N	Erosion of natural deposits; leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2022	0	15	1.83	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.
<p>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 <a href="http://www.epa.gov/safewater/lead">http://www.epa.gov/safewater/lead</a>.</p>								

Disinfectant By-Products								
Disinfection By-Products	Collection Date	Highest Level Detected	Range of individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2022	12	1.1-11.7	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)	2022	60	11.6 – 57.8	No goal for 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 Constituents								
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MC LG	M CL	Units	Violation	Likely Source of Contamination
Barium	02/23/2021	0.0834	0.0834 - 0.0834	2	2	ppm	N	Discharge of drilling wastes. Discharge from metal refineries; Erosion of natural deposits.
Fluoride	02/23/2021	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)	2022	2	0 - 1.56	10	10	ppm	N	Runoff from fertilizer use. Leaching from septic tanks, sewage; Erosion of natural deposits.

<b>Selenium</b>	02/23/2021	<b>3.3</b>	3.3 - 3.3	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
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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 seek advice from your healthcare provider.

### Radioactive Constituents

Radioactive contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
<b>Uranium</b>	02/23/2021	2.3	2.3 - 2.3	0	30	ug/l	N	Erosion of natural deposits.

### Synthetic Organics

Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MRDL	MRDLG	Units	Violation	Likely Source of Contamination
<b>Atrazine</b>	2022	< 0.1	<0.1- <0.1	0	50	ppb	N	Runoff from herbicide used on row crops.

Disinfectant Residual								
Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Free Chlorine	2022	1.8	0.28 - 3.1	4	4	ppm	N	Disinfectant used to control microbes

\*A blank disinfectant residual table has been added to the CCR template, you will need to add data to the fields. Your data can be taken off the Disinfectant Level Quarterly Operating Reports (DLQOR).

Secondary and Other constituents Not Regulated (Not associated adverse health effects)						
Year	Contaminant	Range of Levels Detected	Highest Level Detected	Secondary	Unit	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.
2022	pH	7.2-9.2	9.2	>7.0	units	Measure of corrosivity of water.
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 by-product; 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 <sub>3</sub>	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 Date 2022

### Information about Source Water (Manville WSC)

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

Disinfection By-products								
Year	Disinfectant	Highest Level Detected	Range of Levels Detected	MRDLG	MCL	Units	Violation	Source of Contaminant
2022	Total haloacetic Acids	17	8-23.6	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.

## Disinfection By-products continued

Year	Disinfectant	Highest Level Detected	Range of Levels Detected	MRDLG	MCL	Units	Violation	Source of Contaminant
2022	Total Trihalomethanes	72	49-84.8	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 TTHM 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 Contaminants
2022	Arsenic	4	<2 - 4	0	10	N	ppb	Erosion of natural deposits; runoff from glass and electronics product wastes.

## Inorganic-Continued

Year	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Units	Source of Contaminants
2022	Barium	0.158	0.0514 – 0.158	2	2	N	ppm	Discharge of drilling wastes; Discharge from metal refineries; erosion of natural deposits.
2022	Fluoride	0.32	0.28 – 0.32	4	4	N	ppm	Erosion of natural deposits; water additive which promote strong teeth; discharge from fertilizer and aluminum factories.
2022	Selenium	10.6	<3 – 10.6	50	50	N	ppb	Discharge from petroleum and metal refineries; erosion of natural deposit; discharge of mines
2022	Nitrate (measured as Nitrogen)	1.61	<0.05 – 1.61	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	Unit	Source of Contaminant
2020	Combine 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 Detected	Range of Levels Detected	MCLG	MCL	Violation	Units	Source of Contaminant
2022	Xylenes	0.0005	0 - 0.0005	10	10	N	ppm	Discharge from petroleum factories.

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
2022	Bicarbonate	251-365	365	N/A	ppm	Corrosion of carbonate rocks such as limestone
2022	Calcium	11.2-99.6	99.6	N/A	ppm	Abundant naturally occurring element.
2022	Chloride	31-45	45	300	ppm	Abundant naturally occurring element; used in water; by-product of oil field activity.
2022	Iron	<0.01 -0.311	0.311	0.3	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
2022	Magnesium	3.36-31.8	31.8	N/A	ppm	Abundant naturally occurring element.
2022	Manganese	<0.001 – 0.0246	0.0246	0.05	ppm	Abundant naturally occurring element.
2022	Nickel	<0.001– 0.0042	0.0042	N/A	ppm	Erosion of natural deposits.
2022	Sodium	12.3-78	78	N/A	ppm	Erosion of natural deposits; byproduct of oil field activity.
2022	Sulfate	28-31	31	300	ppm	Naturally occurring; common industrial by-product; by-product of oil field activity.
2022	Total Alkalinity as CaCO <sub>3</sub>	206-299	299	N/A	ppm	Naturally occurring soluble mineral salts
2022	Total Dissolved Solids	359-414	414	1000	ppm	Total dissolved mineral constituents in water.

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

2022	Total Hardness as CaCO3	41.8-369	369	N/A	ppm	Naturally occurring calcium.
2022	Zinc	<0.005-0.0665	0.0665	5	ppm	Moderately abundant naturally occurring element used in the metal industry

Source Water Name	Type of Water	Report Status	Address	County
130 Regional WSC	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

## Disinfection Byproducts – Continued

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	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits. Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2022	0.08	0.08 – 0.08	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 Consumer Confidence Report Date 2022*

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.

Source Water Name	Type of Water	Report Status	Address	County
City of Austin	Surface	As Needed	Us HWY 290	Travis

## Lead and Copper

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

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination.
Haloacetic Acids (HAA5)	2022	13	5.9 – 14.7	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2022	35	23.6 – 40.6	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 HAA5 sample results collected at a location over a year

## Inorganic

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2022	0.0132	0.0105 – 0.0132	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Cyanide	2022	170	30 – 170	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	2022	0.8	0.45 – 0.8	4	4	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2022	0.21	0 – 0.21	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Radioactive Contaminants								
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. 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.

Turbidity				
	Level Detected	Limit (Treatment Technique)	Violation	Likely Source of Contamination
Highest single measurement	9 NTU	1 NTU	Y	Soil runoff.
Lowest monthly % meeting limit	96%	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. The three water treatment plants were in compliance with turbidity standards in 2022, with the exception of an event at one plant in February 2022. During a period between February 5-6, 2022, one water treatment plant did not continuously meet turbidity standards.

### 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.

### Violations

Interim Enhanced SWTR			
The Interim Enhanced Surface Water Treatment Rule improves control of microbial contaminants, particularly Cryptosporidium, in systems using surface water, or ground water under the direct influence of surface water. The rule builds upon the treatment technique requirements of the Surface Water Treatment Rule.			
Violation Type	Violation Begin	Violation End	Violation Explanation
SINGLE COMB FLTR EFFLUENT (IESWTR/LT1)	02/01/2022	02/28/2022	One turbidity measurement exceeded a standard for the month indicated. Turbidity (cloudiness) levels are used to measure effective filtration of drinking water.