



CITY OF ODESSA



2020 Water Quality Report PWS No. TX0680002

This annual report provides information on the City of Odessa's drinking water. The United States Environmental Protection Agency (EPA) requires that all drinking water suppliers in the country provide a water quality report to their customers on an annual basis.

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. 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. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

For more information regarding this report contact: Thomas Kerr at 432-335-4634.

En español: Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en español, favor de llamar al tel. (432) 335-4631 – para hablar con una persona bilingüe en español.

Where Do We Get Our Drinking Water? The City purchases all of its water, untreated, from the Colorado River Municipal Water District (CRMWD). The majority of the water is surface water from Lake Ivie (Runnels County), Lake Thomas (Scurry County), and Lake Spence (Coke County). Groundwater or wells are also sources for our drinking water supply. The City may receive water from Ward and Martin Counties wells as needed to meet water system demands. The TCEQ completed an assessment of our source water and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for our water system are based on this susceptibility and previous sample data. Any detection of these contaminants may be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, please contact us.

Water Sources: 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 Contaminants that may be present in the source:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations.

Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrially 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.

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 activities. 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, color, odor, or color of drinking water, please contact the systems business office.

Special Notice for the ELDERLY, INFANTS, CANCER PATIENTS, and people with HIV/AIDS or other immune problems: 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 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 provider. Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline at (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 Odessa 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>.

The table below lists all of the federally regulated or monitored constituent which have been found in the drinking water.

Substance	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely source of contamination
Barium (ppm)	0.16	0.16-0.16	2	2	Ppb	N	Drilling waste; erosion of natural deposits
Cyanide (ppb)	108	108 - 108	200	200	Ppb	N	Discharge from manufacturing
Fluoride (ppm)	0.3	0.291 – 0.291	4	4.0	Ppb	N	Natural geology; supplement
Nitrate (ppm, measured as Nitrogen)	1	0.193 – 0.92	10	10	ppm	N	Runoff from fertilizer use.

Turbidity	Level Detected	Limit (Treatment Techniques)	Unit of Measurement	Violation	Source of Contamination
Highest Single Measurement	0.8	1	NTU	N	Soil runoff
Lowest Monthly % Meeting Limit	97%	0.3	NTU	N	Soil runoff

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.

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 more hardy than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.

Total Coliform Bacteria	Highest Monthly % of Positive Samples	MCL	Unit of Measurement	Source of Contamination
0	0	*	Presence	Naturally present in environment.

* Presence of coliform bacteria in 5% or more of the monthly samples

Fecal Coliforms – No fecal coliform bacteria were detected in the water supply during the required monitoring for 2020.

Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Source of Contamination
Atrazine	2020	0.1	0.1 – 0.1	3	3	Ppb	N	Runoff from herbicide used on row crops.

Lead and Copper - Lead and copper is analyzed once every three years by rule. Samples are collected from 50 sites in the system based on age of area associated with plumbing codes of the time.

Year	Constituent	The 90 th Percentile	# of Sites Exceeding Action Level	Action Level	MCLG	Unit of Measure	Violation	Source of Contamination
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Year	Constituent	Highest Level	Range of Levels Detected	MCL	MCLG	Unit of Measure	Violation	Source of Constituent
2017	Beta/Photon Emitters	6.1	6.1 – 6.1	50	0	pCi/L	N	Decay of natural and man-made deposits
2017	Uranium	1.5	1.5 – 1.5	30	0	ug/l	N	Erosion of natural deposits
2020	Lead	10.1	2	15	0	Ppb	N	Household Plumbing
2020	Copper	0.257	0	1.3	1.3	Ppm	N	Household Plumbing

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.

Radioactive Contaminants

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

Disinfectant Residuals

Constituent	Annual Average	Range of Detected Levels from Single Sample		MRDL for Annual Average	MRDLG	Unit of Measure	Violation	Source of Constituent
		Minimum	Maximum					
Chloramines	3.83	2.09	4.19	4.04	4.0	ppm	N	Disinfectant used to control microbes

Disinfection Byproducts

Constituent	Highest Level Detected Avg.	Range of Individual Samples	MCL	Unit of Measure	Source of Constituent
Total Trihalomethanes (TTHM)*	51	2.69 - 98.1	80	ppb	By-product of drinking water chlorination.
Total Haloacetic Acids (HAA5)**	23	0 – 26.9	60	ppb	

*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.

**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.

Water Loss

Water loss and accountability is reported annually to the Texas Water Development Board. Water loss is based on the amount of water metered for delivery exiting the Water Treatment Plant less the amount of water accounted for as metered to the customers throughout the system. Numerous factors account for the 'loss' of water including line breaks, filter backwash, weeping mains, theft, water quality flushing, and meter inaccuracy.

Description	Produced Water (Gallons)	Metered Water (Gallons)	Water Losses (Gallons)	Lost Water Percentages	10 Year Target
Water Accountability	7,278,071,000	6,779,444,000	108,012,050	1.54%	8%

Questions or Comments? The Utilities Department values your comments on the Water Quality Report as well as on other issues relating to water quality or provision of water service. No meetings concerning this report are scheduled. If you have any comments or questions or would like additional conservation information, please contact us by calling 432-335-4627, write us at City of Odessa Utilities Department, P.O. Box 4398, Odessa, Texas 79760 or email us at utilities@odessa-tx.gov

About the Tables Contained In This Report. The tables in this report list all of the federally regulated or monitored constituents, which have been found in Odessa's water. The EPA requires testing of up to 97 constituents. The concentrations (MCL and MCLG) of these standards are set by the EPA based on the potential health effects of the regulated constituent in the public water supply. The data presented in the report is from the most recent testing done in accordance with regulations. The following abbreviations/definitions are used in the tables:

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.

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

Mrem – millirems per year (a measure of radiation absorbed by the body)

NTU - Nephelometric Turbidity Units (a measure of turbidity)

ppb - parts per billion, or micrograms per liter ($\mu\text{g/L}$).

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

ppt – parts per trillion, or nanograms per liter.

ppm - parts per million, or milligrams per liter (mg/L)

ppq – parts per quadrillion, or pictograms per liter

na – not applicable

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

Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected health risk to health. MCLG's allow for a margin of safety.

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG as feasible using the best available treatment technology.

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 contamination.

Maximum Residual Disinfectant Level (MRDL) – The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Violations

The City OF ODESSA, PWS ID TX0680002, has violated the monitoring and reporting requirements set by Texas Commission on Environmental Quality (TCEQ) in Title 30, Texas Administrative Code (30 TAC) Section 290, Subchapter F. Public water systems that treat surface water and/or ground water under the direct influence of surface water are required to submit monthly operating reports with operational data of the treatment, disinfection and quality of the water provided to their customers.

The CITY OF ODESSA failed to meet the minimum treatment technique requirements for the month of February 2021. Specifically, our water system had more than 5% of the combined filter effluent turbidity readings were above 0.3 NTU for the month.

The CITY OF ODESSA has taken the following corrective actions to prevent a recurrence of the violation: Jar test were done, and chemical dosages were adjusted throughout the treatment process and pinpointed issues in sedimentation. Plant #1 was being pushed to its maximum ability which caused shearing of floc particles causing the filters to have problems. Flow was reduced to 20 MGD to relieve stress on the plant, which allowed the filters to operate efficiently.

The CITY OF ODESSA has also failed to include a Filter Profile and Filter Assessment Report with the February 2021 SWMOR.

The CITY OF ODESSA has taken the following actions to address this issue: As part of the City of Odessa Water Treatment Plant Rehabilitation and Miscellaneous Improvements Project, the City will replace the train 1 flocculation/sedimentation basin with a newer high-rate system, replace and upgrade chemical feed and storage facilities including increasing chemical feed and storage capacities and upgrading all the filters with new underdrains and media. These improvements will help the City meet the TCEQ criteria for water plants and will result in improved performance and reliability of the treatment process for years to come.

Results of regular monitoring are an indicator of whether or not your drinking water is safe. We did not complete all monitoring and/or reporting for surface water constituents, and therefore TCEQ cannot be sure of the safety of your drinking water during that time.

Please share this information with all people who drink this water, especially those who may not have received this notice directly (i.e., people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

If you have questions regarding this matter, you may contact Thomas G. Kerr at 432-335-3244.