



El Oso Water Supply Corporation

2022 Water Quality Report

PWS TX1280007

Annual Water Quality Report

This report is a summary of the quality of water El Oso Water Supply Corporation provides its customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in this report. We hope this information helps you become knowledgeable about what is in your drinking water. Our annual water quality report covers the period of January 1 to December 31, 2022. Our staff continues to work hard every day – at any hour to deliver quality drinking water. Although the challenges ahead are many, we feel that by relentlessly investing in customer outreach, new treatment technologies, and system upgrades and training, the payoff will be reliable, quality tap water delivered to you and your family.

Important Health Information

You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly, or immune compromised person such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorder, can be particularly at risk from infections. You should seek advice about drinking water from your 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.

Lead & Copper in Home Plumbing

The “lead and copper rule,” or LCR, was introduced by the EPA in 1991 to limit the concentration of lead and copper allowed in public drinking water at the consumer’s tap as well as to limit the corrosivity due to the water itself. 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 at (800) 426-4791 or at www.epa.gov/lead.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least a small amount of some contaminants. The presence of these contaminants does not necessarily indicate the water poses a health risk.

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 can acquire naturally occurring minerals, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source 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 may 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 may also, come from gas stations, urban storm water runoff, and septic systems.

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.



Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily cause for health concerns. For more information on taste, odor, or color of drinking water, please contact our business office at (830) 583-3543. For more information about contaminants and potential health effects, call EPS's Safe Drinking Water Hotline at (800) 426-4791.

Protecting Your Water

Bacteria are a natural and important part of our world. Coliform bacteria are common in the environment and are generally not harmful themselves. The presence of this bacterial form in drinking water is a concern, however, because it indicates that the water may be contaminated with other organisms that can cause disease.

In 2016, the EPA passed a new regulation called the Revised Total Coliform Rule, which requires additional steps that water systems must take in order to ensure the integrity of the drinking water distribution system by monitoring for the presence of bacteria like total coliform and E. coli. The rule requires more stringent standards than the previous regulation, and it requires water systems that may be vulnerable to contamination to have in place procedure that will minimize the incidence of contamination. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment of their system and correct any problems quickly. The EPA anticipates greater public health protection under the new regulation due to its more preventive approach to identifying and fixing problems that may affect public health.

Our goal is to eliminate all potential pathways of contamination into our distribution system, and this new rule helps us to accomplish that goal.

Chlorination Benefits

Disinfection, a chemical process used to control disease-causing microorganisms by killing or inactivating them, is unquestionably the most important step in drinking water treatment. By far the most common method of disinfection in North America is chlorination.

Drinking water chlorination and filtration has helped virtually to eliminate diseases in the U.S. Significant strides in public health are directly linked to the adoption of drinking water chlorination. In fact, the filtration of drinking water plus the use of chlorine is probably the most significant public health advancement in human history.

WATER CLOUDINESS

One of the many properties of water is its ability to dissolve gases, including air. Sometimes the air comes back out of the water in the form of many tiny bubbles, giving the water a temporary milky white appearance. To determine if the white color in the water is due to air, fill a clear glass with water and let it sit for a few minutes. If the white color is due to air, the water will gradually clear from bottom to top. This is completely normal! the water is safe to use.



Air bubbles dissipate from the bottom of the glass to the top in just a minute or two.

Flushing Water Mains

Distribution mains (pipes) convey water to homes and businesses. The water entering distribution mains is a very high quality; however, water quality can deteriorate in areas of the distribution main over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not pose health concerns, they can affect the taste, clarity, and color of the water. Sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms with distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen and disinfectant levels, and an acceptable taste and smell.

During flushing operations in your area, some short-term deterioration of water quality, though uncommon, is possible. Allow your cold water to run for a few minutes at full velocity before use, and avoid using hot water, to prevent sediment accumulation in your hot water tank.

Where Does My Water Come From?

El Oso Water Supply Corporation provides service to approximately 1900 active meters. Our drinking water is obtained from groundwater sources through the Carrizo Aquifer located in Wilson County and from the Catahoula Aquifer located in Karnes County.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water at our monthly Board of Directors meetings. These meetings are held the 2nd Tuesday of each month at 4:00 p.m. at the corporation office located at 4098 S Hwy 181, Kenedy, TX 78119. Office number: (830) 583-3543.



Water Loss Audit

In the water loss audit submitted to the Texas Water Development Board during the year covered by this report, our system lost an estimated 117,829,831 gallons of water. The amount lost includes required line flushing, leaks, main breaks, theft, etc.

Source Water Assessment

The Texas Commission on Environmental Quality (TCEQ) completed an assessment of your source water, and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your source water system are based on this susceptibility and on previous data. Any detection of these contaminants will be reported in this Consumer Confidence Report. More information about your source water assessment and protection can be found at www.epa.gov/safewater/protect

Water Facts

(Compiled by the Water Office – US EPA)

- Most common substance found on earth is water. Water is the only substance found naturally in three forms: solid, liquid and gas.
- 80% of the earth's surface is water.
- 40 trillion gallons of water a day are carried in the atmosphere across the United States.
- People need about 2.5 quarts of water a day (from drinking or eating) to maintain good health. A person can live without water for approximately one week, depending upon the conditions.
- 74% of home water usage is in the bathroom, 21% is for laundry and cleaning, 5% is in the kitchen.
- Clothes washer uses about 50 gallons of water.
- 12 to 20 gallons of water to run an automatic dishwasher for one cycle.

- 2 gallons of water go down the drain when the kitchen faucet is run until the water's cold.
- 2 gallons of water are used to brush our teeth.
- Flushing a toilet requires 2 to 7 gallons of water.
- 10-minute shower can take 25 – 50 gallons of water.
- 25 – 50 gallons are needed for a tub bath.
- A typical garden hose can deliver 50 gallons of water in just 5 minutes.
- It can take up to 45 minutes for a water supplier to produce one glass of drinking water.
- Averages of 800,000 water wells are drilled each year in the U.S.
- U.S. and Canada have about one million miles of pipelines and aqueducts-enough to circle the planet 40 times.

The US Department of Agriculture (USDA) prohibits, discrimination in all of its programs and activities on the based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA. El Oso WSC is a recipient of USDA funds.

Delivering quality drinking water to our customers involves far more than just pushing water through pipes. Water treatment is a complex, time-consuming process. Because tap water is highly regulated by state and federal laws, water treatment plant and system operators must be licensed and are required to commit to long-term, on the job training before becoming fully qualified. Our licensed water professionals have a basic understanding of wide range of subjects, including

mathematics, biology, chemistry, and physics. Some of the tasks they complete on a regular basis include:

- Operating and maintaining equipment to purify and clarify water;
- Monitoring and inspecting machinery, meters, gauges and operating conditions;
- Maintaining optimal water chemistry;
- Conducting tests and inspections on water and evaluating the results;
- Applying date to formulas that determine treatment requirements, flow levels, and concentration levels;
- Documenting and reporting test results and system operations to regulatory agencies;
- Serving our community through customer support.

So next time you turn on your faucet, think of the skilled professionals who stand behind each drop.





Definitions

AL (Action Level): The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

ALG (Action Level Goal): 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.

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

MRDL (Maximum residual disinfectant level): 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.

MRDLG (Maximum residual disinfectant level goal): 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.

MCLG (Maximum Contaminant Level Goal): 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.

MFL: million fibers per liter

mrem: millirems per year

NA: not applicable.

NTU: nephelometric turbidity units.

pCi/L: picocuries per liter

ppb: micrograms per liter or parts per billion

ppm: milligrams per liter or parts per million.

ppq: parts per quadrillion, or pictograms 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.

LEAD AND COPPER

Parameter/Substance	Date Sampled	MCLG	Action Level (AL)	90 th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	05/062021	1.3	1.3	0.097	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	05/062021	0	15	1	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

DISINFECTANTS AND DISINFECTION BY-PRODUCTS

Parameter/Substance	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Trihalomethanes (TTHM)*	2022	56	35.1 – 71.5	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Haloacetic Acids (HAAS)*	2022	12	2.9 – 14.6	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 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



INORGANIC CONTAMINANTS

Parameter/Substance	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	3/19/2020	0.0731	0.0708 – 0.0731	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	3/19/2020	1.11	1.03 – 1.11	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	1	0.09 – 1.06	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, swage; Erosion of natural deposits
Selenium	3/19/2020	5.8	4.3 – 5.8	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Chromium	3/19/2020	11.4	0 – 11.4	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Arsenic*	2022	7	0 – 6.6	0	10	ppb	N	Erosion of natural deposits; Runoff from Orchards; Runoff from glass and electronics production wastes.

*While your drinking water meets EPA standards for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

RADIOACTIVE CONTAMINANTS

Parameter/Substance	Collection Date	Average Level	Range of Individual Samples	MCLG	MCL	Units	Violation	Source of Drinking Water
Gross alpha excluding radon and uranium	2022	2	0 – 2	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	2022	3.8	0 – 3.8	0	30	ug/l	N	Erosion of natural deposits
Beta/photon emitters	2022	8.9	5.4 – 8.9	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.

DISINFECTANT RESIDUAL

Parameter/Substance	Year	Average Level	Range of Individual Samples	MRDL	MRDLG	Units	Violation	Source of Drinking Water
Chlorine	2022	1.34	0.40 – 3.50	4	4	ppm	N	Water additive used to control microbes.



VIOLATIONS

Total Trihalomethanes (TTHM)

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, Kidneys, or Central Nervous systems, and may have an increased risk of getting cancer

Violation Type	Violation Begin	Violation End	Violation Explanation
None			

How To Read Your Water Quality Report

Parameter/Substance	Collection Date	Highest Level Detected	Concentration Range Found	MCLG	MCL	AL	Units	Violation	Likely Source of Contamination
Substance 1	2019	0.112	0.022 – 0.102	2	2	1.2	ppm	No	Erosion of natural deposits
Substance 2	2018	.015	0.02 – 0.14	45	45	14	ppb	No	Erosion of natural deposits

The highest amount of a contaminant detected in the drinking water

Below this level, a contaminant has no known or expected health risks

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements El Oso WSC must follow

Parts per million- one ppm equals to one teaspoon in 1,302 gallons

How a contaminant ends up in the drinking water

The year or years tests were conducted

The amount from lowest to highest of a contaminant detected in the drinking water

The highest amount of a contaminant the EPA allows in drinking water

Parts per million- one ppb equals to one teaspoon in 1,302 gallons

This describes some of the ways contaminants enter drinking water; Wording is provided by EPA and may or may not apply to El Oso WSC.

Questions About Your Water Quality Report?

If you would like more information or a copy of this Water Quality Report, call 830-583-3543

En español

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al teléfono (830) 583-3543.