2024 Annual Drinking Water Quality Report

Orosi Public Utility District

We test the drinking water quality for many constituents as required by State and Federal Regulations. This report shows the results of our monitoring for the period of January 1 – December 31, 2024 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua de beber.
Tradúzcalo ó hable con alguien que lo entienda bien.

We are pleased to provide you with this year's Annual Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide you with a safe and dependable supply of drinking water. Our water source comes from four wells, Well Nos. 4, 5A, 8 and 10. Another well, Well No. 6 is inactive. Chlorination is provided at each well.

A source water assessment was conducted for the water supply wells of the Orosi Public Utility District water system in November, 2002. The sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply: fertilizer, pesticide and/or herbicide applications. The source is considered most vulnerable to the following activities not associated with any detected contaminants: septic systems – low density; fleet and/or truck and/or bus terminals; automobile gas stations; sewer collection systems; agricultural and/or irrigation wells; underground storage tanks – confirmed leaking tanks. A copy of the complete assessment may be viewed at the District office. If you would like a summary of the assessment sent to you or if you have any questions about this report or concerning your water utility, please contact Mr. Raul Mariscal, Foreman, at 12488 Avenue 416, Orosi, CA or phone 559/528-4262 Ext. 100.

We want our customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held the 2nd Tuesday of each month at 6:30 p.m., at the District office, 12488 Avenue 416, in Orosi.

The following are definitions of some of the TERMS USED IN THIS REPORT:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Residual Disinfectant Level (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 (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.

Primary Drinking Water Standards (PDWS): MCLs, MRDLs and treatment techniques (TT) for contaminants that affect health along with their monitoring and reporting requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

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

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

Variances and Exemptions: State Board permission to exceed an MCL or not comply with a treatment technique under certain conditions.

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.

N/A: Not applicable
ND: not detectable at testing limit
ppm: parts per million or milligrams per liter (mg/L)
ppb: parts per billion or micrograms per liter (µg/L)
ppt: parts per trillion or nanograms per liter (ng/L)
ppq: parts per quadrillion or picograms per liter (pg/L)
pCi/L: picocuries per liter (a measure of radioactivity)

In general, sources of drinking water (both tap water and bottled water) may 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.

Constituents that may be present in source water to contamination levels include:

- Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, that 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 may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.

- Organic chemical contaminants, including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production and can also come from gas stations, urban stormwater runoff, agricultural application and septic systems.
- Radioactive contaminants that can be naturally occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U. S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board – Division of Drinking Water (State Water Board/DDW) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations and California Law also establish limits for contaminants in bottled water that must provide the same protection for public health.

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. Orosi Public Utility District 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 at 1/800/426-4791 or at http://www.epa.gov/lead.

The tables below and on the following page(s) list all the drinking water constituents that were detected during the most recent samplings for the constituent. The presence of these constituents in the water does not necessarily indicate that the water poses a health risk. The State Water Board/DDW allows us to monitor for certain constituents less than once per year because the concentrations of these constituents are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, are therefore more than one year old.

SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants			MCL	MCLG	Typical Source of Contamination
Water Supply (Distribution System)	**Highest No. of detections**	**No. of months in violation**			
E. coli	(In the year) 0	0	(a)	0	Human and animal fecal waste
Water Source (Groundwater Wells)	**Total No. of detections**	**Sample Dates (of Detections)**			
E. coli	(In the year) 0	Not Applicable	0	0	Human and animal fecal waste

(a) Routine and repeat samples are total coliform-positive and either is E. coli-positive or system fails to take repeat samples following E.coli-positive routine sample or system fails to analyze total coliform-positive repeat sample for E. coli.

E. Coli/Fecal Coliform: E. coli/Fecal coliforms are bacteria whose presence indicate that water may be contaminated with human or animal wastes.

Total Coliform: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.

The District collects 3 samples per week in the water supply (distribution) system. The District collects monthly samples at each operational water well (source).

TEST RESULTS (A)

Lead and Copper Rule	No. of samples collected	PHG	Action Level	90th percentile level detected	No. Sites Exceeding Action Level	Typical Source of Contamination
Lead (ppb) 2023	20	0.2	15	ND	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) 2023	20	0.3	1.3	0.094	0	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	MCL	PHG [MCLG]	Sample Date	Average Level Detected	Range	Typical Source of Contamination
Hardness (ppm)	None	None	2022/2024	158	130 to 190	Generally found in ground and surface water
Sodium (ppm)	None	None	2022/2024	21	18 to 24	Generally found in ground and surface water

DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	**MCL**	**PHG [MCLG]**	**Sample Date**	**Average Level Detected**	**Range (B)**	**Typical Source of Contamination**
Arsenic (ppb)	10	4	2022/2024	2.6	2.3 to 2.9 (C)	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	1	2	2022/2024	0.072	0.059 to 0.094	Discharges of oil drilling wastes and from metal refineries: erosion of natural deposits
Chromium (Hexavalent) (ppb)	10	20	2024	0.53	0.37 to 0.65 (D)	Erosion of natural deposits; transformation of naturally occurring trivalent chromium to hexavalent chromium by natural processes and human activities such as discharges from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production and textile manufacturing facilities
Fluoride (ppm)	2	1	2022/2024	0.12	0.10 to 0.14	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate as N (ppm)	10	10	2024	5.4	3.4 to 9.0 (E)	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Perchlorate (ppb)	6	1	2021/2024	1.7	1.6 to 1.8 (F)	Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store or dispose of perchlorate and its salts.

DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD					
Chemical or Constituent (and reporting units)	**MCL**	**Sample Date**	**Average Level Detected**	**Range (B)**	**Typical Source of Contamination**
Chloride (ppm)	500	2022/2024	15	12 to 18	Runoff/leaching from natural deposits; seawater influence
Color (Units)	15	2022/2024	6	ND to 10	Naturally-occurring organic materials
Specific Conductance (µS/cm)	1600	2022/2024	393	320 to 470	Substances that form ions when in water; seawater influence
Sulfate (ppm)	500	2022/2024	9.2	4 to 14	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids(TDS)(ppm)	1000	2022/2024	283	250 to 330	Runoff/leaching from natural deposits
Turbidity (Units)	5	2022/2024	0.16	ND to 0.18	Soil runoff

DISINFECTION BYPRODUCTS AND DISINFECTANT RESIDUALS							
Chemical or Constituent (and reporting units)	**MCL [MRDL]**	**PHG**	**MCLG [MRDLG]**	**Sample Date**	**Running Annual Average**	**Range (B)**	**Major Sources in Drinking Water**
TTHM [Total Trihalomethanes] (ppb)	80	N/A	N/A	9/11/24	< 5.4	N/A	Byproduct of drinking water chlorination
HAA5 [Haloacetic Acids] (ppb)	60	N/A	N/A	9/11/24	< 6.0	N/A	Byproduct of drinking water disinfection
Chlorine as CL2 (ppm)	[4.0]	N/A	[4]	2024	0.77	0.24 to 1.14	Drinking water disinfectant added for treatment. Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose or stomach discomfort

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Orosi, CA 93647

DETECTION OF SYNTHETIC ORGANIC CONTAMINANTS INCLUDING PESTICIDES & HERBICIDES						
Chemical or Constituent (and reporting units)	**MCL**	**PHG [MCLG]**	**Sample Date**	**Average Level Detected**	**Range (B)**	**Typical Source of Contamination**
Dibromochloropropane (DBCP) (ppt)	200	3	2023	13	ND to 24	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit
Trichloropropane (G) (1,2,3-TCP) (ppt)	5	0.7	2024	0.95	ND to 2.8	Discharge from industrial and agricultural chemical factories; leaching from hazardous waste sites; used as cleaning and maintenance solvent, paint and varnish remover, and cleaning and degreasing agent; byproduct during the production of other compounds and pesticides

(A) Results reported due to regulatory requirement or detection of a constituent.

(B) Results reported include amounts that are less than the State Water Resources Control Board – Division of Drinking Water (State Water Board/DDW) required detection level for this constituent.

(C) ABOUT ARSENIC: While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency 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.

(D) ABOUT HEXAVALENT CHROMIUM: Some people who drink water containing hexavalent chromium in excess of the MCL over many years may have an increased risk of getting cancer.

(E) ABOUT NITRATE: Nitrate in drinking water at levels above 10 mg/L (as N) is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels as N that are above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

(F) ABOUT PERCHLORATE: Perchlorate has been shown to interfere with uptake of iodide by the thyroid gland, and to thereby reduce the production of thyroid hormones, leading to adverse effects associated with inadequate hormone levels. Thyroid hormones are needed for normal prenatal growth and development of the fetus, as well as for normal growth and development in the infant and child. In adults, thyroid hormones are needed for normal metabolism and mental function.

(G) ABOUT 1,2,3-TCP: Some people who drink water containing 1,2,3-trichloropropane (1,2,3-TCP) in excess of the MCL over many years may have an increased risk of getting cancer.

Additional General Information on Drinking Water

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some constituents. The presence of constituents does not necessarily indicate that the water poses a health risk. More information about constituents, contaminant levels and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1/800/426-4791 or their website https://www.epa.gov/dwreginfo/drinking-water-regulations.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders and some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline 1/800/426-4791.

DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	**MCL**	**PHG [MCLG]**	**Sample Date**	**Average Level Detected**	**Range (B)**	**Typical Source of Contamination**
Arsenic (ppb)	10	0.004	2022/2024	2.6	2.3 to 2.9 (C)	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	1	2	2022/2024	0.072	0.059 to 0.094	Discharges of oil drilling wastes and from metal refineries: erosion of natural deposits
Chromium (Hexavalent) (ppb)	10	20	2024	0.53	0.37 to 0.65 (D)	Erosion of natural deposits; transformation of naturally occurring trivalent chromium to hexavalent chromium by natural processes and human activities such as discharges from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production and textile manufacturing facilities
Fluoride (ppm)	2	1	2022/2024	0.12	0.10 to 0.14	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate as N (ppm)	10	10	2024	5.4	3.4 to 9.0 (E)	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Perchlorate (ppb)	6	1	2021/2024	1.7	1.6 to 1.8 (F)	Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store or dispose of perchlorate and its salts.

DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD					
Chemical or Constituent (and reporting units)	**MCL**	**Sample Date**	**Average Level Detected**	**Range (B)**	**Typical Source of Contamination**
Chloride (ppm)	500	2022/2024	15	12 to 18	Runoff/leaching from natural deposits; seawater influence
Color (Units)	15	2022/2024	6	ND to 10	Naturally-occurring organic materials
Specific Conductance (µS/cm)	1600	2022/2024	393	320 to 470	Substances that form ions when in water; seawater influence
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DISINFECTION BYPRODUCTS AND DISINFECTANT RESIDUALS							
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HAA5 [Haloacetic Acids] (ppb)	60	N/A	N/A	9/11/24	< 6.0	N/A	Byproduct of drinking water disinfection
Chlorine as CL2 (ppm)	[4.0]	N/A	[4]	2024	0.77	0.24 to 1.14	Drinking water disinfectant added for treatment. Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose or stomach discomfort

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Spanish version available at the Office.

Versión en Español disponible en la Oficina.

Dear Customer,

The following page of the 2024 Annual Water Quality Report (Report) has been reprinted due to a typographical error associated with the Public Health Goal (PHG) for Arsenic. The Report incorrectly stated that the PHG for Arsenic was 4 parts per billion (ppb). The correct PHG for Arsenic is 0.004 ppb as shown on the opposite page.

If you have any questions, please contact the Orosi Public Utility District at 559-528-4262.