2023 Annual Drinking Water Quality Report
TERRA BELLA IRRIGATION 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, 2023 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 water and services we have delivered to you over the past year. Over the past year, our source water came from the Friant Kern Canal and was supplemented with groundwater from Wells Nos. 72, 80, 84, 85, 86 and 87. Treatment of the canal water supply and these groundwater supplies consists of conventional filtration using dual media gravity filters followed by chlorination.

A source water assessment was conducted for the Wells 50, 72, 76, 77, 80, 84 and 85 in March 2003 for Well 86 in April 2006 and for Well 87 in March 2014. The water sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply: fertilizer, pesticide/ herbicide application; septic systems – low density. The source is considered most vulnerable to the following activities not associated with any detected contaminants: grazing; septic systems – low density; septic systems – high density; lumber processing and manufacturing; automobile – gas stations; sewer collection systems; historic gas stations; wastewater treatment plants and disposal facilities. A sanitary survey report for the Friant-Kern Canal water supply has also been completed. An update to this report was completed in 2019. A copy of the complete assessment and sanitary survey report may be viewed at: Terra Bella Irrigation District, 24790 Avenue 95, Terra Bella, CA 93270. If you would like a summary of the assessment or sanitary survey report sent to you or if you have any questions about this report or concerning your water utility, please contact Mr. Albert Smith, Operations Superintendent, 559/535-4414.

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 Wednesday of each month at 9:00 a.m., at the office of the Terra Bella Irrigation District located at 24790 Avenue 95 in Terra Bella.

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, 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. US 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. Terra Bella Irrigation 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 or at http://www.epa.gov/lead.

The tables below and on the following pages 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 TREATMENT OF SURFACE WATER SOURCES			
Treatment Technique	**Turbidity Performance Standards (TPS)****	**Lowest monthly percentage of samples that met TPS**	**Highest single turbidity measurement during the year**
Conventional Filtration Treatment with Chlorination	Turbidity of the filtered water must be less than or equal to 0.3 NTU in 95% of measurements in a month.	100%	0.273
** Turbidity (measured in NTU) is a measurement of the cloudiness of water and is an indicator of filtration performance. Filtration which meets performance standards is demonstrated by meeting turbidity requirements.			

SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA					
Microbiological Contaminants			**MCL**	**MCLG**	**Typical Source of Contamination**
Water Suppiy (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 (Surface Water and Groundwater Wells)	**Total No. of detections**	**Sample Dates (of Detections)**			
E. coli (b)	(In the year) N/A (b)	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.					
(b) Sampling for E.coli at each water source (surface water, groundwater) occurs if a detection occurs in the water distribution system.					
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 4 to 6 samples each month in the water supply (distribution) system. The District collects samples of the blended (surface water and groundwater) sources. Water source-specific samples are collected if a E.coli positive sample occurs in the water distribution system. The District collects monthly samples at each well that is in use.					

TEST RESULTS (A)							
Lead and Copper Rule	**No. of samples collected**	**PHG**	**Action Level**	**90th percentile level detected**	**No. Sites Exceeding Action Level**	**Number of Schools Requesting Lead Sampling**	**Typical Source of Contamination**
Lead (ppb) 2023	10	0.2	15	ND	0	3 (Completed in 2019)	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) 2023	10	0.3	1.3	0.17	0	N/A	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

SAMPLING RESULTS FOR SODIUM AND HARDNESS						
Constituent	**MCL**	**PHG [MCLG]**	**Sample Date**	**Weighted Average Level Detected (B)**	**Range**	**Typical Source of Contamination**
Hardness (ppm)	None	None	2022/2023	64.6	43 to 120	Generally found in ground and surface water
Sodium (ppm)	None	None	2019/2022/2023	9.6	3.0 to 26	Generally found in ground and surface water

DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Constituent	**MCL**	**PHG [MCLG]**	**Sample Date**	**Weighted Average Level Detected (B)**	**Range (C)**	**Typical Source of Contamination**
Aluminum (ppm)	1	0.6	2022/2023	**5.1**	ND to **13**	Erosion of natural deposits
Arsenic (ppb)	10	0.004	2022/2023	2.8	ND to 3.1	Erosion of natural deposits
Barium (ppb)	1000	2000	2022/2023	139	ND to 150	Discharges of oil drilling wastes; erosion of natural deposits
Chromium Total (ppb)	50	[100]	2022/2023	15.5	ND to 18	Erosion of natural deposits
Copper (ppm)	AL=1.3	0.3	2022/2023	0.1	ND to 0.14	Erosion of natural deposits; leaching from wood preservatives
Fluoride (ppm)	2	1	2022/2023	0.08	ND to 0.60	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead (ppb)	AL=15	0.2	2022/2023	9.3	ND to 13	Discharges from individual manufacturers; Erosion of natural deposits
Nickel (ppb)	100	12	2022/2023	12.1	ND to 13	Erosion of natural deposits; discharges from metal factories
Nitrate as N (ppm)	10	4	2023	0.5	ND to 1.2	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits