2021 ANNUAL WATER QUALITY REPORT

City of Delano – Prepared April 2022

This brochure is a report to consumers regarding the drinking water quality provided by the City of Delano. Included is an explanation of where our water comes from, the results of water quality testing and information on how to interpret this data. We share the results with you, so that you may have confidence in the quality of our drinking water.
We test the water quality for many constituents as required by both State and Federal Regulations. This report gives the results of our monitoring for the period of January 1 through December 31, 2021.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards.

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

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

Water Source and Location
The City of Delano water system is supplied entirely with groundwater from aquifers beneath the city. There are fourteen wells supplying the water system (Well #32 is inactive). Source Locations are:

Well #20 – 22nd & Kalibo
Well #22 – 5th &Randolph
Well #24 – 20th & Flores
Well #25 – Schuster & S. Randolph
Well #26 – Browning and Poplar
Well #29 – Veneto & Primavera
Well #30 – County Line & Randolph
Well #31 – Diaz & Channa
Well #32 – 400 block S. Lexington
Well #33 – 20th & Trenton
Well #34 – Stradley & Woollomes
Well #35 – Austin &1st Avenue
Well #38 – S99 & County Line
Well #39 – 21st & Albany
Well #40 – N. Kern State Prison

Drinking Water Assessment Information
A source water assessment was conducted for the City of Delano water supply wells in February 2015. The sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply:

- Fertilizer / Pesticide / Herbicide Applications

The water sources are also considered most vulnerable to the following activities not associated with the detected contaminants:

- Automobile Repair Shops and Gas Stations
- Machine Shops
- Photo Processing / Printing/Dry Cleaners

For more information contact:
Department of Public Works, 725 S. Lexington Street, Delano, CA 93215. Telephone (661) 721-3350.

The City Council meets on the first and third Monday of each month at 5:30 pm in the City Hall Council Chambers located at 1015 Eleventh Avenue.

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 and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment 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 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: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit
mg/L: milligrams per liter or parts per million (ppm)
µg/L: micrograms per liter or parts per billion (ppb)
ng/L: nanograms per liter or parts per trillion (ppt)
pg/L: picogram per liter or parts per quadrillion (ppq)
pCi/L: picocuries per liter (a measure of radiation)
<: less than

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.

Contaminants that may be present in source water 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*, that 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 by-products 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 be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the STATE Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, and 5 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, is more than one year old.

CITY OF DELANO WATER QUALITY TABLES

(For Explanation of Violations, See End of Tables)

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF MICROBACTERIA

Microbiological Contaminants	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria[1]
Total Coliform Bacteria (STATE Total Coliform Rule)	0	0	N/A	N/A	Naturally present in the environment
Fecal Coliform or *E. coli* (STATE Total Coliform Rule)	0	0	0	0	Human and animal fecal waste
E. coli (FEDERAL Revised Total Coliform Rule)	0	0	(a)	0	Human and animal fecal waste
Giardia lamblia, Viruses, Heterotrophic Plate Count Bacteria*, Legionella, Cryptosporidium*	HPC=27 Others = NA	HPC=10 Others = NA	TT	HPC=NA; Others = (0)	Naturally present in the environment

(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*.

1: Per the SWRCB CCR Guidelines

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper	Sample Date	No. of samples collected	90th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant[1]
Lead (µg/L)	2021	1	0	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (mg/L)	2021	1	0	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS						
Chemical or Constituent (and reporting units)	**Sample Date**	**Average Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant[1]**
Sodium (mg/L)	2021	46	NA	none	none	Salt present in the water and is generally naturally occurring
Hardness (mg/L)	2021	77	NA	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
1: Per the SWRCB CCR Guidelines						

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	**Sample Date**	**Average Level Detected**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant[1]**
Arsenic (µg/L)	2021	4.51	ND-10	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Aluminum (mg/L)	2021	0	NA	1	0.6	Erosion of natural deposits; residue from some surface water treatment processes
Antimony (µg/L)	2021	0	NA	6	1	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Barium (mg/L)	2021	0.13	NA	1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Beryllium (µg/L)	2021	0	NA	4	1	Discharge from metal refineries, coal burning factories, and electrical, aerospace, and defense industries
Cadmium (µg/L)	2021	0	NA	5	0.04	Internal corrosion of galvanized pipes; erosion of natural deposits; discharge from electroplating and industrial chemical factories
Chromium [Total] (µg/L)	2021	8.75	8.20-9.40	50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (mg/L)	2021	0.2	NA	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2021	N/A	N/A	15	0	Erosion of natural deposits.
Mercury [Inorganic] (µg/L)	2021	0	NA	2	1.2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland
Nickel (µg/L)	2021	0	NA	100	12	Erosion of natural deposits; discharge from metal factories
Nitrate (mg/L) (as Nitrogen, N)	2021	0.72	0-1.87	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrite (mg/L) (as Nitrogen, N)	2021	0.0003	0-0.0454	1	1	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Perchlorate (µg/L)	2021	0	NA	6	1	Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks,

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						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.
Selenium (µg/L)	2021	0	NA	50	30	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
Thallium (µg/L)	2021	0	NA	2	0.1	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
TTHMs (µg/L) (Total Trihalomethanes)	2021	10.92	0-45	80	N/A	By-product of drinking water disinfection
Sum of Haloacetic Acids [HAA5] (µg/L)	2021	2.1	0-12	60	N/A	Byproduct of drinking water disinfection
Chlorine (mg/L)	2021	2.09	1.23-3.39	4 as Cl_2	4 as Cl_2	Drinking water for disinfectant added for treatment
Alachlor (µg/L)	2021	0	NA	2	4	Runoff from herbicide used on row crops
Atrazine (µg/L)	2021	0	NA	1	0.15	Runoff from herbicide used on row crops and along railroad and highway right-of-ways
Dibromochloropropane [DBCP] (ng/L)	2021	9	0-29	200	1.7	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit
Ethylene Dibromide [EDB] (ng/L)	2021	0	0	50	10	Discharge from petroleum refineries; underground gas tank leaks; banned nematocide that may still be present in soils due to runoff and leaching from grain and fruit crops
Simazine (µg/L)	2021	0	NA	4	4	Herbicide runoff
1,2,3-Trichloropropane [1,2,3-TCP] (µg/L)	2021	0.0036	0-0.0170	0.005	0.0007	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.
Benzene (µg/L)	2021	0	NA	1	0.15	Discharge from plastics, dyes and nylon factories; leaching from gas storage tanks and landfills
Carbon Tetrachloride (ng/L)	2021	0	NA	500	100	Discharge from chemical plants and other industrial activities
1,2-Dichlorobenzene (µg/L)	2021	0	NA	600	600	Discharge from industrial chemical factories

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1,4-Dichlorobenzene (µg/L)	2021	0	NA	5	6	Discharge from industrial chemical factories
1,1-Dichloroethane (µg/L)	2021	0	NA	5	3	Extraction and degreasing solvent; used in manufacture of pharmaceuticals, stone, clay and glass products; fumigant
1,2-Dichloroethane (ng/L)	2021	0	NA	500	400	Discharge from industrial chemical factories
trans-1,2-Dichloroethylene (µg/L)	2021	0	NA	10	60	Discharge from industrial chemical factories; minor biodegradation byproduct of TCE and PCE groundwater contamination
Dichloromethane (µg/L)	2021	0	NA	5	4	Discharge from pharmaceutical and chemical factories; insecticide
1,2-Dichloropropane (µg/L)	2021	0	NA	5	0.5	Discharge from industrial chemical factories; primary component of some fumigants
Ethylbenzene (µg/L)	2021	0	NA	300	300	Discharge from petroleum refineries; industrial chemical factories
Methyl-tert-butyl ether (µg/L)	2021	0	NA	13	13	Leaking underground storage tanks; discharge from petroleum and chemical factories
Styrene (µg/L)	2021	0	NA	100	0.5	Discharge from rubber and plastic factories; leaching from landfills
1,1,2,2-Tetrachloroethane (µg/L)	2021	0	NA	1	0.1	Discharge from industrial and agricultural chemical factories; solvent used in production of TCE, pesticides, varnish and lacquers
Tetrachloroethylene (PCE) (µg/L)	2021	0	NA	5	0.06	Discharge from factories, dry cleaners, and auto shops (metal degreaser)
1,2,4-Trichlorobenzene (µg/L)	2021	0	NA	5	5	Discharge from textile-finishing factories
1,1,1-Trichloroethane (µg/L)	2021	0	NA	200	1000	Discharge from metal degreasing sites and other factories; manufacture of food wrappings
1,1,2-Trichloroethane (µg/L)	2021	0	NA	5	0.3	Discharge from industrial chemical factories
Trichloroethylene [TCE] (µg/L)	2021	0	NA	5	1.7	Discharge from metal degreasing sites and other factories
Toluene (µg/L)	2021	0	NA	150	150	Discharge from petroleum and chemical factories; underground gas tank leaks
Trichlorofluoromethane (µg/L)	2021	0	NA	150	1300	Discharge from industrial factories; degreasing solvent; propellant and refrigerant
1,1,2-Trichloro-1,2,2-trifluoroethane (mg/L)	2021	0	NA	1.2	4	Discharge from metal degreasing sites and other factories; dry-cleaning solvent; refrigerant
Vinyl Chloride (ng/L)	2021	0	NA	500	50	Leaching from PVC piping; discharge from plastics factories; biodegradation byproduct of TCE and PCE groundwater contamination

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Chemical or Constituent (and reporting units)	**Sample Date**	**Average Level Detected**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant[1]**
Xylenes (mg/L)	2021	0	NA	1.750	1.8	Discharge from petroleum and chemical factories; fuel solvent
1: Per the SWRCB CCR Guidelines 2: The MCL for 1,2,3 TCP is 5 ppt.						

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	**Sample Date**	**Average Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant[1]**
Color (NTU)	2021	0	NA	15	-	Naturally occurring organic materials
Foaming Agents [MBAS] (µg/L)	2021	0	NA	500	-	Municipal and industrial waste discharges
Iron (µg/L)	2021	0	NA	300	-	Leaching from natural deposits; industrial waste
Manganese (µg/L)	2021	0	NA	50	-	Leaching from natural deposits
Odor-Threshold (NTU)	2021	0	NA	3	-	Naturally occurring organic materials
Silver (µg/L)	2021	0	NA	100	-	Industrial discharges
Turbidity (NTU)	2021	0.14	NA	TT	-	Soil Runoff
Zinc (mg/L)	2021	0	NA	5	-	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (mg/L)	2021	280	NA	1000	-	Runoff/leaching from natural deposits
Specific Conductance (µS/cm)	2021	458.54	280-730	1600	-	Substances from ions when in water; seawater influence
Chloride (mg/L)	2021	25	NA	500	-	Runoff/leaching from natural deposits; seawater influence
Sulfate (mg/L)	2021	27	NA	500	-	Runoff/leaching from natural deposits; industrial waste

Additional General Information on Drinking Water

While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The U.S. Environmental Protection Agency continue to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in human at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791) or the FDA which regulates bottled water.

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, 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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Lead-Specific Language for Community Water Systems: 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 Delano 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.