



ANNUAL WATER QUALITY REPORT

Reporting Year 2023



Presented By
City of Livingston

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.



PWS ID#: 2410004

Our Vision Continues

We are pleased to present to you this year's annual water quality report. This report is a snapshot of last year's water quality covering all testing performed between January 1 and December 31, 2023. Included are details about your source of water, what it contains, and how it compares to standards set by regulatory agencies. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and providing you with this information because informed customers are our best allies. Please remember that we are always available should you ever have any questions or concerns about your water.

Where Does My Water Come From?

The City of Livingston currently utilizes local groundwater as its sole source of supply. The municipal water system extracts its water supply from aquifers via groundwater wells located throughout the city. The city's water system facilities include eight active and one emergency groundwater wells, one million-gallon potable water storage tank, and a distribution system. Water is conveyed from the wells to our customers via a distribution system that consists of nearly 40 miles of pressurized pipes ranging from 2 to 16 inches in diameter. In 2023 the City of Livingston delivered 2,333,319,587 gallons of water - as much as 244,982,007 gallons in a single month or over 7,902 gallons per day - to approximately 3,582 residential, commercial, and industrial customers.

Important Health Information

Nitrate in drinking water at levels above 10 parts per million (ppm) 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 above 10 ppm 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.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. Environmental Protection Agency (EPA)/Centers for Disease Control and Prevention (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 at (800) 426-4791 or water.epa.gov/drink/hotline.



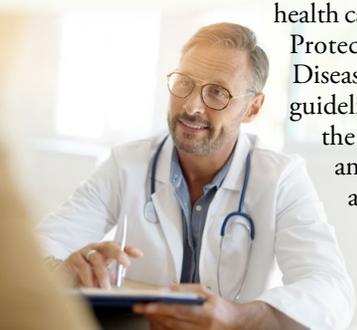
Source Water Assessment

A drinking water source assessment was completed for the City of Livingston wells by the California Department of Public Health, Merced District, in September 2002. The city's sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply: parks, chemical/petroleum pipelines, lagoons/liquid wastes, machine shops, wastewater treatment plants, hardware/lumber/parts stores, crops, irrigated (berries, hops, mint, orchards, sod, greenhouses), fertilizer/pesticide/herbicide application, housing - high density (>1 house/0.5 acre), septic systems - high density (>1/acre), apartments and condominiums, crops, nonirrigated (e.g., Christmas trees, grains, grass seeds, hay), sewer collection systems, automobile - body shops, automobile - repair shops, fleet/truck/bus terminals, RV/mini storage, and schools. The sources are also considered most vulnerable to the following activities not associated with any detected contaminants: automobiles - gas stations, historic gas stations, dry cleaners, injection wells/dry wells/sumps, septic systems - low density (<1/acre), wells - agricultural/irrigation, and agricultural drainage.

The assessment report is available at our office. If you would like to review it, please contact our office at 1416 C Street, Livingston, California 95334 or (209) 394-8044 during regular business hours.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Mr. Jesus Chavez Jr., Water/Wastewater Manager, at (209) 394-8044.



Substances That Could Be in Water

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.

In order to ensure that tap water is safe to drink, the U.S. EPA and State Water Resources Control Board (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health. 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.

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 can 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, which are by-products of industrial processes and petroleum production and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

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

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



Lead in Home Plumbing

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 two minutes before using water for drinking or cooking. (If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.) 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 epa.gov/safewater/lead.



Community Participation

You are invited to participate in our public forum and address the city council about your drinking water concerns. The city council meets every first and third Tuesday of the month at 7:00 p.m. in City Council Chambers at 1416 C Street. Visit livingstoncity.com for more information, or contact city staff directly at (209) 394-8044, extension 129.



Variations and Exemptions

Compliance Order No. 03-11-18R-013

A 1,2,3-trichloropropane (1,2,3-TCP) maximum contaminant level (MCL) violation was issued on April 20, 2018, for samples received on March 12, 2018, that exceeded the MCL for 1,2,3-TCP. This contaminant is widespread in the Central Valley because of dibromochloropropane (DBCP), a banned fumigant used to kill nematodes (small worms that live in the soil). The city is working diligently on the construction of treatment systems that will remove 1,2,3-TCP from the water supply. We anticipate resolving the 1,2,3-TCP violation by the end of 2027.



Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. Also, the water we deliver must meet specific health standards. Here, we show only those substances that were detected in our water. (A complete list of all our analytical results is available upon request.) Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

We participated in the fifth stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR5) program by performing additional tests on our drinking water. UCMR5 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water to determine if it needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data are available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminant Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
1,2,3-Trichloropropane [1,2,3-TCP] (ppt)	2023	5	0.7	160	ND-340	Yes	Discharge from industrial and agricultural chemical factories; leaching from hazardous waste sites; cleaning and maintenance solvent, paint and varnish remover, and degreasing agent; by-product of other compounds and pesticides
Arsenic (ppb)	2023	10	0.004	4	ND-7.7	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2022	1	2	0.137	ND-0.152	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chlorine (ppm)	2023	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	1.10	0.25-2.0	No	Drinking water disinfectant added for treatment
Dibromochloropropane [DBCP] (ppt)	2022	200	3	0.04	0.01-0.02	No	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit
<i>E. coli</i> [State Revised Total Coliform Rule] (positive samples)	2023	0	(0)	0	NA	No	Human and animal fecal waste
Fecal Indicator <i>E. coli</i> [Ground Water Rule] (positive samples)	2023	0	(0)	0	NA	No	Human and animal fecal waste
Fluoride (ppm)	2022	2.0	1	0.087	0.11-0.19	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2023	15	(0)	4.41	ND-8.82	No	Erosion of natural deposits
HAA5 [sum of 5 haloacetic acids]-Stage 2 (ppb)	2023	60	NA	0.7	ND-1.4	No	By-product of drinking water disinfection
Nitrate [as nitrogen] (ppm)	2023	10	10	6.13	ND-10	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [total trihalomethanes]-Stage 2 (ppb)	2023	80	NA	2.85	2.4-3.3	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Lead (ppb)	2022	15	0.2	2.36	1/40	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits



SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2023	500	NS	14	ND-44	No	Runoff/leaching from natural deposits; seawater influence
Copper (ppm)	2022	1.0	NS	0.001625	ND-0.065	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Manganese (ppb)	2023	50	NS	2.8	ND-52	No	Leaching from natural deposits
Odor, Threshold (TON)	2022	3	NS	1	1-1	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2022	1,600	NS	413.75	330-570	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2023	500	NS	6.4	15-18	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2022	1,000	NS	262.5	220-350	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2023	5	NS	1.33	0.080-0.38	No	Soil runoff

UNREGULATED SUBSTANCES¹

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Hardness, Total [as CaCO ₃] (ppm)	2023	67.5	47-100	Sum of polyvalent cations present in the water, generally naturally occurring magnesium and calcium
Sodium (ppm)	2020-2023	53.5	34-76	Naturally occurring

¹ Unregulated contaminant monitoring helps the U.S. EPA and SWRCB determine where certain contaminants occur and whether the contaminants need to be regulated.

About Our Violation

In 2023 1,2,3-TCP was detected in the drinking water from all nine wells above the MCL of 5 parts per trillion (ppt). 1,2,3-TCP is an organic chemical found in various industrial and pesticide compounds. The City of Livingston operates water treatment at Well 8. Water testing after the treatment at Well 8 confirms that 1,2,3-TCP is effectively being lowered to within acceptable levels.

In 2021 the city started the Wells 14 and 16 arsenic and TCP renovation project, which involved adding a fourth vessel to remove arsenic and installing eight granular activated carbon vessels to remove TCP from the wells. The arsenic renovation is complete, and the TCP project was online by August 2021. Treated water from Wells 14 and 16 did not contain 1,2,3-TCP above laboratory detection limits except in October and November 2022, when it exceeded the MCL. Analytical results have been received and properly recorded as required by state and federal law.

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

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

MCL (Maximum Contaminant Level): 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 (SMCLs) are set to protect the odor, taste, and appearance of drinking water.

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 are set by the U.S. EPA.

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.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

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

PHG (Public Health Goal): 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 EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

ppt (parts per trillion): One part substance per trillion parts water (or nanograms per liter).

TON (Threshold Odor Number): A measure of odor in water.

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

