

ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2018

Presented By
City of Livingston



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

ਇਹ ਸੂਚਨਾ ਮਹੱਤਵਪੂਰਣ ਹੈ।
ਕ੍ਰਿਪਾ ਕਰਕੇ ਕਿਸੀ ਤੋਂ ਇਸ ਦਾ ਅਨੁਵਾਦ ਕਰਾਉ।

PWS ID#: 2410004

Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2018. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. 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.

Please remember that we are always available should you ever have any questions or concerns about your water.



Important Health Information

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. 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.

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. EPA/CDC (Centers for Disease Control and Prevention) 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 <http://water.epa.gov/drink/hotline>.



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 the City Council Chambers at 1416 C Street, Livingston, California. You may also visit the City of Livingston website at www.livingstoncity.com for more information or contact city staff directly at (209) 394-8044, ext. 130.

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 supply from underground aquifers via groundwater wells located throughout the city. The city's water system facilities include nine active groundwater wells, a 1-million-gallon potable water storage tank, and a distribution system. Water is conveyed from the wells to our customers via the distribution system, which consists of nearly 40 miles of pressurized pipes ranging in diameter from 2 to 16 inches. In 2018 the City of Livingston delivered 2.2 billion gallons of water, which is up to 246 million gallons in a single month or over 9.4 million gallons per day, to approximately 3,300 residential, commercial, and industrial customers.

About Our Violations

Compliance Order No. 03-11-18R-013 -- 123-Trichloropropane (123-TCP) Maximum Contaminant Level Violation was issued on April 20, 2018 due to samples received on March 12, 2018 that exceeded the maximum contaminant level for 1,2,3-trichloropropane (123-TCP). 123-TCP contamination is widespread in the Central Valley of California because of a banned fumigant, DBCP, which was used to kill nematodes (small worms that live in the soil). The city is working diligently on construction of treatment systems that will remove 123-TCP from the water supply. We anticipate resolving the 123-TCP violation by the end of 2021. Some people who drink water containing 123-TCP in excess of the MCL over many years may have an increased risk of getting cancer.

Citation #03-11-18C-049 for total coliform monitoring in October 2018 was issued on December 13, 2018. The city is required to monitor drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether our drinking water meets health standards. During October 2018 we did not meet all monitoring requirements for coliform bacteria and therefore cannot be sure of the quality of the city's drinking water during that time.

Compliance Order No. 03-11-18R-019 - Arsenic Maximum Contaminant Level Violation for Well #15 was received on August 10, 2018 due to high arsenic sample results received on June 2017. The quarterly amount of 11 MG/L arsenic level is the reason the City received the compliance order. Well # 15 has been shut down and will be used only for emergency purposes.

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 2 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 at www.epa.gov/safewater/lead.

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. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Board) 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.

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, irrigated crops (berries, hops, mint, orchards, sod, greenhouses), fertilizer/pesticide/herbicide application, high-density housing (more than one house per 0.5 acre), high-density septic systems (more than one per acre), apartments and condominiums, non-irrigated crops (e.g., Christmas trees, grains, grass seeds, hay), sewer collection systems, automobile body and repair shops, fleet/truck/bus terminals, RV/mini storage facilities, and schools. The sources are also considered

most vulnerable to the following activities not associated with any detected contaminants: current and historic gas stations, dry cleaners, injection wells/dry wells/sumps, low-density septic systems (fewer than one per acre), agricultural/irrigation wells, and agricultural drainage.

A drinking water source assessment plan is available at our office. This plan is an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area and determination of the water supply's susceptibility to contamination by the identified potential sources.

If you would like to review the drinking water source assessment plan, please contact our office at 1416 C Street, Livingston, California, or call (209) 394-8044 during regular business hours.

We remain vigilant in delivering the best-quality drinking water

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Mr. Tony Avina, Superintendent, at (209) 394-8044, ext. 130, or Mr. Jose Antonio Ramirez, City Manager, at (209) 394-8041, ext. 113.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show 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.

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 [123-TCP] (ppt)	2018	5'	0.7	190	< 0.005-660	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) - treated	2018	10	0.004	10	< 2-0.013	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Arsenic (ppb) - raw	2018	10	0.004	10	< 2-26	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2018	1	2	< 0.1	< 0.1-0.3	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chlorine (ppm)	2018	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	1.1	NA	No	Drinking water disinfectant added for treatment
Fecal Coliform and E. coli (# positive samples)	2018	A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or E. coli positive.	[0]	0	NA	No	Human and animal fecal waste
Fluoride (ppm)	2018	2.0	1	0.1	< 0.1-0.2	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2018	15	(0)	< 3	< 3-6	No	Erosion of natural deposits
HAA5 (ppb)	2018	60	NA	2.0	< 2-20	No	By-product of drinking water disinfection
Nitrate [as nitrogen] (ppm)	2018	10	10	3	0.5-8	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewages; erosion of natural deposits
Total Coliform Bacteria (# positive samples)	2018	1 positive monthly sample	0	0	NA	No	Naturally present in the environment
TTHMs [Total Trihalomethanes] (ppb)	2018	80	80	7.0	< 2-10	No	By-product of drinking water disinfection
Turbidity ¹ (NTU)	2018	TT	NA	2.1	< 0.1-2.1	No	Soil runoff
Uranium (pCi/L)	2017	20	0.43	3	< 1-9	No	Erosion of natural deposits

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)	PHG (MCLG)	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	7/19/16	1.3	0.3	<0.05	0/30	No	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	7/19/16	15	0.2	<5	0/30	No	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	EXCEEDANCE	TYPICAL SOURCE
Chloride (ppm)	2018	500	NS	42	5-81	No	Runoff/leaching from natural deposits; seawater influence
Manganese (ppb)	2018	50	NS	< 34	< 20-69	Yes	Leaching from natural deposits
Specific Conductance (umho/cm)	2018	1,600	NS	399	317-528	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2018	500	NS	17	4-41	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2018	1,000	NS	264	134-366	No	Runoff/leaching from natural deposits

UNREGULATED SUBSTANCES³

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
1,3-Dichloropropane (ppt)	2018	17	< 10-120	Banned nematocide that may still be present in soils due to leaching from former crop use
Hardness, Total [as CaCO ₃] (ppm)	2018	106	46-248	Naturally occurring
Sodium (ppm)	2018	55	40-90	Naturally occurring

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.

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

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

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).

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

¹This substance had a notification level (NL) of 5 ppt until December 14, 2017, when the MCL of 5 ppt became effective.

²Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

³Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board determine where certain contaminants occur and whether the contaminants need to be regulated.