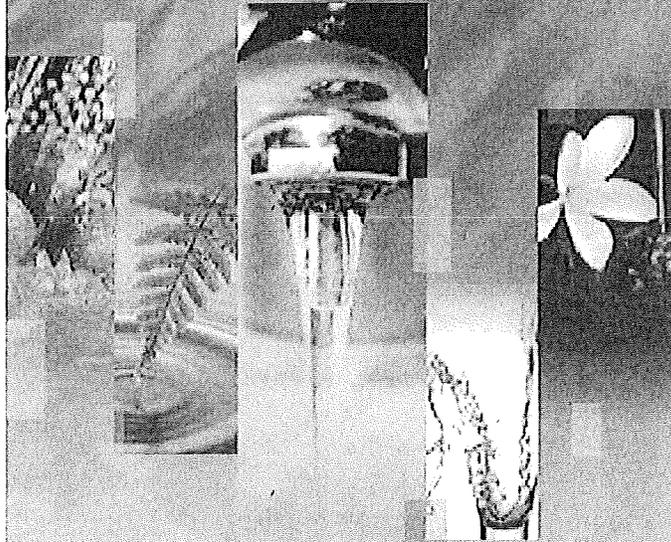


Annual
**WATER
QUALITY
REPORT**

Reporting Year 2013



Presented By
City of Livingston

PWS ID#: 2410004

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

ਇਹ ਸੂਚਨਾ ਮਹੱਤਵਪੂਰਣ ਹੈ।
ਕਿਹਾ ਜਰਜੇ ਕਿਸੀ ਤੋ ਇਸ ਦਾ ਅਨੁਵਾਦ ਕਰਾਓ।

There When You Need Us

We are once again proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2013. 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 to assist you should you ever have any questions or concerns about your water.

Community Participation

You are invited to participate in our public forum and address the City Council about your concerns about drinking water. The City Council meets every first and third Tuesday of the month beginning at 7:00 p.m. at 1416 "C" Street, Livingston, CA 95334. You may also visit the City of Livingston on the Internet at www.livingstoncity.com for more information or contact City staff directly by phone at (209) 394-8044.

Important Health Information

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>.

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 California Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must 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, that are by-products of industrial processes and petroleum production and that 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 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 www.epa.gov/safewater/lead.

Water Conservation Facts and Tips

- Note that the City of Livingston Water Restrictions are in effect.
- An average family of four uses 881 gallons of water per week just by flushing the toilet.
- Landscaping accounts for about 1/2 of the water Californians use at home; showers use another 18%; while toilets use about 20%.
- Adjust sprinklers so that only your lawn is watered. Apply water only as fast as your soil can absorb it and during the cooler parts of the day, to reduce evaporation.
- Of all of the earth's water, 97% is salt water found in oceans and seas.
- Less than 2% of the earth's water supply is fresh water; only 1% of the earth's water is available for drinking water; 2% is frozen.
- If you water your grass and trees more heavily, but less often, this saves water and builds stronger roots.
- Water your lawn only when it needs it.
- If you step on the grass and it springs back up when you move, it doesn't need water. If it stays flat, it does.
- Use water-efficient shower heads. They are inexpensive, easy to install, and can save up to 750 gallons of water, plus heating costs, a month.
- Run your clothes washer and dishwasher only when they are full. This can save up to 1,000 gallons of water a month.
- Teach your kids about water conservation to insure a future generation that uses water wisely. Make it a family effort to reduce waste and conserve water.

Where Does My Water Come From?

The City of Livingston currently utilizes local groundwater as its sole source of supply. The City's municipal water system extracts its water supply from underground aquifers via groundwater wells located throughout the City. The City's water system facilities include eight active groundwater wells, a 1.0 (one) million gallon (MG) 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 size from 2 to 16 inches in diameter. For 2013, the City of Livingston delivered 2,480,880,000 gallons of water, with up to 255 million gallons in a single month or over 8 million gallons per day to approximately 3,100 residential, commercial, and industrial customers.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call the City of Livingston Water Division: Mr. Tony Avina, Utility Worker II, at (209) 394-8044 x130, or Mr. Jose Antonio Ramirez, City Manager, at (209) 394-8041 x113.

Variations and Exemptions

In some cases, the Department gives permission to water systems to exceed an MCL or not comply with a treatment technique under certain conditions. The City is in compliance with all of the directives that were in compliance order (No. 03-11-13R-002) issued on May 16, 2013, as a result of the arsenic MCL exceedance at Well No. 13. The compliance order gives a deadline of June 1, 2016, to comply with the arsenic MCL. In Summary, the City remains out of compliance with the arsenic MCL at Well No. 13 but is complying with the order given by the Department to ensure public health is protected.

Until arsenic reduction treatment is installed, the City will minimize the use of Well #13. In the next few weeks, the City will be conducting a Pilot Demonstration of various technologies to determine the most cost-effective technology to be used at Well #13.

Water Main Flushing

Distribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not themselves pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen and disinfectant levels, and an acceptable taste and smell.

During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. You should avoid tap water for household uses at such times. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use, and avoid using hot water, to prevent sediment accumulation in your hot water tank.

Please contact us if you have any questions or if you would like more information on our water main flushing schedule.

About Our Violation

In 2013, arsenic in the drinking water from well #13 and well #15 exceeded the MCL of 10 parts per billion (ppb) at levels ranging from 8 to 13 ppb. The arsenic standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water.

In response to the detected levels of arsenic in well #13 and well #15, public notice of the violations has been given, quarterly monitoring of these contaminants continues, and a plan is being developed to reduce the levels in the drinking water to within acceptable levels. Until arsenic reduction treatment is installed, the City will minimize the use of well #13. In the next few weeks, the City will be conducting a Pilot Demonstration of various technologies to determine the most cost-effective technology to be used at well #13.

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 or problems with the circulatory system, and which may have an increased risk of getting cancer. Some people who drink water containing arsenic in excess of the EPA MCL over many years may experience skin damage or circulatory system problems, and may have an increased risk of getting cancer.

Source Water Assessment

A Drinking Water Source Assessment was completed for the City of Livingston's 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 acres), 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.

A Drinking Water Source Assessment 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 a 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, please feel free to contact our office at 1416 "C" Street, Livingston, California 95334 or by phone at (209) 394-8044 during regular business hours.

Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below list all drinking water contaminants that we tested for and detected, according to state drinking water requirements. The state requires us to monitor for certain substances less often 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 3rd stage of the EPA's Unregulated Contaminant Monitoring Regulation (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL (MRLD)	PHG (MCLG) (MRLD)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic ¹ (ppb)	2013	10	0.004	7	5-13	Yes	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2013	1	2	<0.1	<0.1-0.1	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Dibromochloropropane [DBCP] (ppt)	2013	200	1.7	20	<20-130	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
Fluoride (ppm)	2013	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)	2011	15	(0)	2	<3-8	No	Erosion of natural deposits
Halocetic Acids-Stage 2 (ppb)	2013	60	NA	4	1-4	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes]-Stage 1 (ppb)	2013	80	NA	10	4-10	No	By-product of drinking water disinfection
Turbidity (NTU)	2013	5	NA	0.3	<0.1-0.3	No	Soil runoff
Uranium (pCi/L)	2011	20	0.4	2	<1-9	No	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)	2013	500	NS	26	8-48	No	Runoff/leaching from natural deposits; seawater influence
Iron (ppb)	2013	300	NS	<100	<100-112	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2013	50	NS	29	<20-47	No	Leaching from natural deposits
Specific Conductance (µS/cm)	2013	1,600	NS	373	299-439	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2013	500	NS	20	5-38	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2013	1,000	NS	243	205-309	No	Runoff/leaching from natural deposits

UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
Hardness (ppm)	2013	136	90-196
Sodium (ppm)	2013	47	31-54

¹ 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.

Definitions

AL (Regulatory Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow. **$\mu\text{S/cm}$ (microsiemens 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

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).



**Amendment
Annual Water Quality Report
Reporting Year 2013
Presented by: City of Livingston
PWS ID: 2410004**

The City of Livingston has included the 1,2,3-Trichloropropane (1,2,3-TCP) in the Consumer Confidence Report for the last several years. This year the results were inadvertently left out; please see table below:

TABLE 6 - DETECTION OF UNREGULATED CONTAMINANTS				
Chemical or Constituent (and reporting units)	Sample Date	Range of Detections	Action Level	Health Effects Language
Trichloropropane [1,2,3-TCP] (ppb)	2013	0.05* - 0.75*	0.005	Some people who drink water containing 1, 2, 3-trichloropropane in excess of the notification level over many years may have an increased risk of getting cancer.

*Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided below.

In 2013, 1,2,3-Trichloropropane (1,2,3-TCP) was detected in the drinking water from all seven wells above the 0.005 ppb action level. It is currently categorized as an unregulated chemical, part of the State required monitoring program. Unregulated contaminant monitoring helps the EPA and the California Department of Health Services determine where certain contaminants occur and whether they need to be regulated. Currently, there is no Maximum Contaminant Level (MCL) established, only an advisory recommended action level (AL), that when exceeded, triggers possible remedial actions. 1,2,3-TCP is an organic chemical found in various industrial and pesticide uses. Some people who use water containing 1,2,3-TCP in excess of the action level over many years may have an increased risk of getting cancer, based on studies in laboratory animals.

In response, public notice of the violations has been given, quarterly monitoring of these contaminants continues, and a plan is being developed to reduce the levels in the drinking water to within acceptable levels.

Questions?

For more information about this report or for any questions relating to your drinking water, please call the City of Livingston Water Division: Mr. Tony Avina, Utility Worker II, at (209) 394-8044 x130 or Mr. Jose Antonio Ramirez, City Manager, at (209) 394-8041 x113.