



## 2016 Water Quality Report

### Our Continuing Commitment to You

The City of Lompop Water Division is proud to present this information on drinking water quality testing performed in 2016. As in past years, our tap water met all U.S. Environmental Protection Agency (USEPA) and California State drinking water health standards.

In-line monitoring as well as around the clock sampling and testing performed by State certified treatment operators insures that the drinking water provided by the Lompop Water Treatment Plant is safe and enjoyable to drink.

State certified distribution operators install meters at homes and businesses, exercise fire hydrants and replace aging pipe on a regular maintenance schedule.

Water samples are collected from throughout the city every week and analyzed by State certified water quality analysts to ensure the water reaching your tap is carefully monitored.

### Information in Spanish

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

## Lompop's Water Sources and Treatment

The City of Lompop's source of supply is from ten groundwater wells. The annual production of clean drinking water for the City in 2016 was 1.3 billion gallons or 3.6 million gallons per day (MGD). The City uses a conventional treatment process to ensure the safety and quality of our drinking water. Constructed in 1964, the treatment consists of disinfection, coagulation, flocculation, sedimentation, and filtration. With some enhancements and additions of filters, our production capability is approximately 10 MGD.

A few customers in Miguelito Canyon, including Santa Barbara County Miguelito Park, receive treated surface water from the Frick Springs treatment plant operated by the City of Lompop. The water is collected from seven springs located in the upper hills of Miguelito Canyon and is treated using diatomaceous earth (DE) filtration and Chlorine disinfection. Frick Springs water treatment plant must comply with the Surface Water Treatment Rule (SWTR). The annual production for Frick Springs was 2.18 million gallons, with a daily average of 6,050 gallons.



## Water Management and Planning

The 2015 Urban Water Management plan outlines objectives to maintain a sustainable, reliable, high-quality water supply for the long term. It is available on the City website at:

<http://www1.cityoflompop.com/utilities/water/UWMP2015.pdf>

A Sanitary Survey was completed in 2016. The purpose of a Sanitary Survey is to identify any health concerns related to the water system and to assess the overall construction, operation, maintenance, and management of the water system. The State Water Resources Control Board conducted a site inspection of the water sources, treatment facilities, storage reservoirs and pump stations. A review was also conducted of the distribution system, routine monitoring and reporting to the Department of Drinking Water, water system manage-

ment and operations and operator compliance with State requirements.

Source water assessments for wells 1 through 9 and Frick Springs were completed in 2002 and well 11 in 2012. The City's water sources are considered most vulnerable to the following: sewer collection systems, storm water drainage points, high density housing, parks, gas stations, auto-body and boat repair shops, dry cleaners, agricultural runoff, agricultural wells and low density septic systems.

Frick Springs is most vulnerable to animal grazing, feeding and manure piles, low density septic systems, wild animals and insects.

Information from the Sanitary Survey and Source Water Assessments can be obtained by calling the Water Treatment Plant at (805) 736-1617.

You can help protect our aquifer by bringing oil, paint, cleaners, pesticides, batteries and medicines to Lompop's Household Hazardous Waste Collection Facility at 1585 North V Street. Appointments are available Monday through Saturday by calling (805) 875-8024.

## Community Participation

Included in the oversight of the Water Division are the City Council and Utility Commission.

The Lompop City Council meets the first and third Tuesdays of each month, where public communication is available. Meetings are held at 6:30 p.m. at 100 Civic Center Plaza, Lompop City Hall Council Chambers.

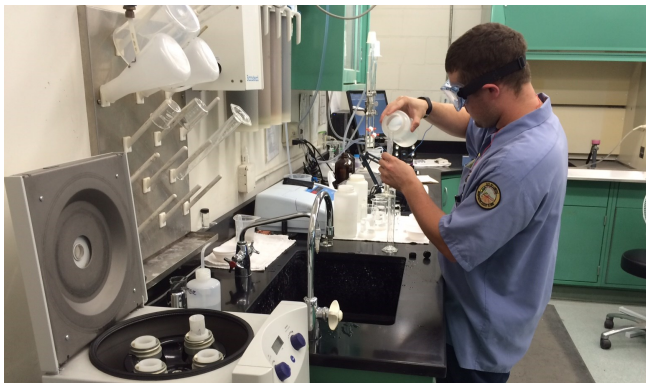
You are also invited to participate in the monthly Utility Commission meetings, held on the second Monday of the month, starting at 6:00 p.m. at 100 Civic Center Plaza, Lompop City Hall Council Chambers. Time for public communications is scheduled at the beginning of the meeting agenda.

## We're on the Web!

To view this Consumer Confidence report online, please visit the following web site:

<http://www1.cityoflompop.com/departments/utilities/2016ccr.pdf>

Hard copies will be at Lompop City Hall, the Lompop Library and the Water Treatment Plant. If you would like a copy mailed to your address, or have questions about the report, please call Mimi Erland, Water Treatment Plant Chemist, at (805)736-1617.



## 2016 Copper and Lead Study

The City of Lompoc conducted a study of copper and lead from homes determined to be at higher risk. All of the homes tested below action levels for both copper and lead. Please see the table on the reverse side of this page for results.

### What is a 90<sup>th</sup> percentile?

Under the authority of the Safe Drinking Water Act, the U.S. Environmental Protection Agency (EPA) set the action level for lead in drinking water at 15 ppb. This means utilities must ensure that water from the customer's tap does not exceed this level in at least 90 percent of the homes sampled (90th percentile value). The action level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. If water from the tap does exceed this limit, then the utility must take certain steps to correct the problem. Because lead may pose serious health risks, the EPA set a Maximum Contaminant Level Goal (MCLG) of zero for lead. The MCLG is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

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 Water Division 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. [Optional: 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 (1-800-426-4791) or at <http://www.epa.gov/lead>.

## Federal Revised Total Coliform Rule

This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2016. All water systems in California are required to comply with the State Total Coliform Rule. As of April 1, 2016, all water systems are also required to comply with the federal Revised Total Coliform Rule. The new federal rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and *E. coli* bacteria). The U.S. EPA anticipates greater public health protection as the new rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system.



## Important Notice for Sensitive Populations

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).

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 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).

## 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.

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 storm water 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 storm water 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 storm water runoff, agricultural application, and septic systems.

**Radioactive contaminants** can be naturally-occurring or be the result of oil and gas production and mining activities.

## Regulated Limits

In order to ensure that tap water is safe to drink, the USEPA 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. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.





## 2016 Sampling Results

The tables below 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.

We are proud to report there were no violations of action levels or maximum contaminant levels.

The State Board 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, are more than one year old.

### Terms Used in this Report

**ppm:** parts per million or milligrams per liter (mg/L)

**ppb:** parts per billion or micrograms per liter (µg/L)

**ND:** not detectable at testing limit

**NA:** not applicable; **NS:** no standard is set at this time

**NTU:** Nephelometric Turbidity Units. A measure of the clarity of water.

**µs/cm:** microsiemens per centimeter. A measure of the electrical conductivity of a solution.

**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 Public Health Goals (or MCLGs) as is economically and technologically feasible. Secondary MCLs (**SMCL**) 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. Environmental Protection Agency (USEPA).

**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 Environmental Protection Agency.

**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.

**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 the health at the MCL levels.

Primary Drinking Water Standards (Regulated Substances)				City of Lompoc		Frick Springs		Typical Source
Unit	MCL	PHG	Average	Range	Average	Range		
Arsenic	ppb	10	0.004	2.1	ND - 4	4	NA	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium	ppm	1	2	0.006	NA	0.0783	NA	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Cadmium	ppb	5	0.04	ND	NA	0.4	NA	Internal corrosion of galvanized pipes; erosion of natural deposits; discharge from electroplating and industrial chemical factories, and metal refineries; runoff from waste batteries and paints
Chlorine (as CL <sub>2</sub> )	ppm	MRDL = 4	MRDLG = 4	1.51	1.33 - 1.78	1.39	1.00 - 1.68	Drinking water disinfectant added for treatment
Chromium (Total)	ppb	50		ND	NA	4	NA	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride	ppm	2.0		ND	NA	0.2	NA	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nickel	ppb	100		1	NA	4	NA	Erosion of natural deposits; discharge from metal factories
Nitrate (as Nitrogen)	ppm	10		0.18	ND - 1	ND	NA	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium	ppb	50		4	NA	9	NA	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
Total Coliform Bacteria	% positive samples	More than 5 % positive monthly	0	2.99	0 - 4.61	0	NA	Naturally present in the environment

Stage 2 Disinfection By-Products				City of Lompoc		Frick Springs		Typical Source
Unit	MCL	PHG	Average	Range	Average	Range		
Haloacetic Acids (HAAs)	ppb	60	NA	0.5	ND - 1.0	7	NA	Byproduct of drinking water disinfection
Trihalomethanes (TTHMs)	ppb	80	NA	8.75	2.2 - 15.3	20.7	NA	By-product of drinking water disinfection

Secondary Drinking Water Standards - Aesthetic Standards				City of Lompoc		Frick Springs		Typical Source
Unit	SMCL	PHG	Average	Range	Average	Range		
Chloride	ppm	500	NS	125	92 - 163	52	NA	Runoff/leaching from natural deposits; seawater influence
Manganese	ppb	50	NS	0.93	ND - 3.8	ND	NA	Leaching from natural deposits
Specific Conductance	µs/cm	1,600	NS	1267	1099 - 1475	956	NA	Substances that form ions when in water; seawater influence
Sulfate	ppm	500	NS	413	350 - 519	74	NA	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	ppm	1,000	NS	835	760 - 1040	560	NA	Runoff/leaching from natural deposits
Turbidity	NTU	5	NS	0.07	0.04 - 0.19	0.06	0.02 - 0.23	Soil runoff

Additional Tests - Unregulated Substances				City of Lompoc		Frick Springs		Typical Source/Notes
Unit	SMCL	PHG	Average	Range	Average	Range		
Calcium	ppm	NS	NS	64	50 - 91	90	NA	Leaching from natural deposits
pH	units	NS	NS	8.41	7.64 - 8.79	7.44	7.32 - 7.74	pH is raised to aid in treatment and help prevent pipe corrosion
Sodium <sup>1</sup>	ppm	NS	NS	153	101 - 194	40	NA	Leaching from natural deposits
Total Hardness as CaCO <sub>3</sub>	ppm	NS	NS	312	258 - 457	418	NA	Leaching from natural deposits

### 2016 Copper and Lead Study - 35 Samples were collected from homeowners in July 2016

Unit of Measure	Action Level	Public Health Goal	90 <sup>th</sup> %tile level detected	Sites Exceeding Action Level	Typical Source	
Copper	ppm	1.3	0.3	0.163	0	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	ppb	15	0.2	1.5	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

### 2013 Unregulated Contaminant Monitoring Rule Part 3 Study (UCMR3) (UCMR 4 testing begins in 2018)

Unit	Year	Notification Level	City of Lompoc		Frick Springs		Ground Water Sample Station 3		Surface Water Sample Station 1		Typical Source	
			Average	Range	Average	Range	Average	Range	Average	Range		
Chlorate	ppb	2013	800	295	250 - 340	155	130 - 190	300	260 - 340	168	130 - 200	NA
Chromium (Total)	ppb	2013	50	0.43	0.32 - 0.53	1	ND - 1	0.36	0.27 - 0.45	ND	NA	Discharge from Steel and pulp mills and chrome plating; erosion of natural deposits.
Chromium-6	ppb	2013	10	0.36	0.30 - 0.41	0.027	ND - 0.044	0.32	0.31 - 0.32	0.04	0.032 - 0.051	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits.
Molybdenum	ppb	2013	NS	19	18 - 20	39	36 - 42	19	18 - 19	42	39 - 43	NA
Strontium	ppb	2013	NS	525	510 - 540	148	140 - 160	490	440 - 540	160	150 - 170	NA
Vanadium <sup>2</sup>	ppb	2013	50	0.41	0.36 - 0.46	18 <sup>3</sup>	NA	0.41	0.34 - 0.47	14	12 - 15	Naturally occurring

<sup>1</sup>Our disinfection and softening processes add sodium to the water. Consumers on sodium-restricted diets may wish to consult with their physicians.

<sup>2</sup>The babies of some pregnant women who drink water containing Vanadium in excess of the 50 ppb notification level may have an increased risk of developmental effects, based on studies in laboratory animals.

<sup>3</sup>Sampled in 2016