

2022 saw the Water Treatment Plant develop a Risk and Resilience Assessment (RRA) of our water infrastructure. The City of Lompoc Water Division completed their required RRA, outlining all possible scenarios/concerns and developed an updated Emergency Response Plan (ERP). The ERP includes strategies and resources to improve our cyber and physical security of our system. Plans and procedures outlined by the ERP can be implemented in the event of a natural disaster or act of malevolence. The ERP will not only lessen the impact of a hazard on public health and safety, but also provide safe alternative drinking water sources in the event of an emergency. Emergency strategy training of all water staff employees provided real life possible scenario situations to brainstorm and solve.

Risk and Resilience Assessment 2022



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 U.S. Environmental Protection Agency (USEPA) Safe Drinking Water Hotline (1-800-426-4791).

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 for 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).

Regulated Limits

In order to ensure that tap water is safe to drink, the U.S. EPA and the California State Water Resources Control Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Water Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health. Routine sampling of the distribution system is shown in photo below.



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 the result of oil and gas production and mining activities.

ment and operations, and operator compliance with state requirements.

Source water assessments for wells one through nine and Frick Springs were completed in 2002 and well eleven in 2012. The City's water sources are considered most vulnerable to the following: sewer collection systems, storm water drainage points, high density housing, 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 ground water by bringing oil, paint, cleaners, pesticides, batteries and medicines to Lompoc's Household Hazardous Waste Collection Facility at 1585 North V Street. Appointments are available Tuesday 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 Lompoc City Council meets the first and third Tuesdays of each month at 6:30 p.m. Remote participation is encouraged. Meetings are live streamed at www.cityoflompoc.com, aired on KPEG 100.9 FM radio and broadcast on TAP TV channel 23. Submit public comments to s_haddon@ci.lompoc.ca.us by 4:00 before the meeting. Please see <https://www.cityoflompoc.com/home/showpublisheddocument/32302/637608244534770000>

for updates on Utility Commission meetings, usually held on the second Monday of the month in Council Chambers, starting at 5:00 p.m. Meetings may be postponed due to COVID19 health guidelines.

Information Flows on the Website

To view this Consumer Confidence Report (CCR) online, please visit the following web sites:

English version: <https://www.cityoflompoc.com/home/showpublisheddocument/34421/637568492940400000>

Spanish version: <https://www.cityoflompoc.com/home/showpublisheddocument/34422/637568492940400000>

Hard copies will be available in English and Spanish at Lompoc City Hall, Lompoc Library, Dick DeWees Community and Senior Center and the Lompoc Water Treatment Plant. If you would like a copy mailed to your address, or have questions, call Greg Rubio at 805-736-1617.

Copper and Lead

Every three years, the Water Division tests for copper and lead from homes determined to be at a higher risk. In our 2022 Lead and Copper study, all of the homes tested were below action levels for both copper and lead. The next testing will be in July, 2025.

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 Lompoc 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 thirty 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 (1-800-426-4791) or at <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>

Coliform Level 1 Assessment 2022

Coliforms are bacteria that are naturally present in the environment. They are used as an indicator for potentially harmful waterborne pathogens that may be present, or that a potential pathway exists through which contamination may enter the drinking water distribution system. During routine sampling in October of 2022, Miguelito reservoir and two sample stations within the distribution loop closest to Miguelito reservoir came up positive for total coliform (TC+), and negative for E. coli (EC-). In our sample siting plan, when a routine sample is TC+, we must resample the positive location, an upstream and downstream sample from the positive location, WTP raw and treated water, and all raw water sources (wells) that were active. Because of a low positive result on two sites, a level 1 assessment was conducted. A Level 1 Assessment is the study of a water system to identify potential problems and determine why total coliform bacteria have been found in our system. It is a "find and fix" approach that takes us through our entire water works process. We completed the Level 1 Assessment within 3days. With the completion of the level 1 assessment, we were required to take 5 corrective actions, which we completed. No further contamination of Coliform bacteria was detected.



Lompoc's Water Sources and Treatment

The City of Lompoc's source of supply is from ten groundwater wells. The annual production of clean drinking water for the City in 2022 was 1.35 billion gallons or 3.69 million gallons per day (MGD). The Lompoc Water Treatment Plant uses a conventional treatment process that includes disinfection, coagulation, flocculation, sedimentation, and filtration. Originally constructed in 1964, 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 Lompoc. 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 2.88 million gallons, with a daily average of 7,900 gallons.

Water Management and Planning

The 2020 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:

<https://www.cityoflompoc.com/home/showpublisheddocument/32302/637608244534770000>

A sanitary survey was completed in 2022 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-



2022 Water Quality Report

The City of Lompoc Water Division is proud to present this information on drinking water quality testing performed in 2022. As in past years, our tap water met all United States Environmental Protection Agency and California State drinking water health standards. Detailed results are in the tables on the back page.

The City of Lompoc Water Treatment Plant has been the corner stone of serving the public for over 60 years. Throughout the years, a dedicated professional staff has been providing the best quality product of finished drinking water. Normally, simple disinfection of potable water is the only step taken. Here at The City of Lompoc's Water Treatment Plant, the extra steps taken at our plant serve as an added bonus to the public.

Through our proven process of softening, purification, and disinfection, the City of Lompoc Water Treatment Plant continues a tradition that began over 60 years ago. Even though the times and technology have changed, the goals of our staff as public servants have not wavered as we enter into the next 60 years of operation.

We are dedicated to providing clear, safe, good tasting water every time you turn on the tap. Call 805-736-1617 for questions, comments or leak reports.

Para Información en Español

Este informe contiene información muy importante sobre su agua potable. Esta disponible en el Ayuntamiento y <https://www.cityoflompoc.com/home/showpublisheddocument/34422/637568492940400000>

2022 Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any biological, inorganic, volatile organic, synthetic organic or radioactive contaminants. The tables below show only those contaminants that were detected in the water. The State Water Board allows us to monitor for certain contaminants less than once per year because their concentrations do not change frequently. In these cases, the most recent sample data is included, along with the year in which the sample was taken.

Terms Used in this Report

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 United States Environmental Protection Agency (USEPA).

MRDL: Maximum Residual Disinfectant Level. The highest level of a disinfectant allowed in drinking water. There is con-

vincing 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 detectable at testing limit

NS: no standard is set at this time

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

pCi/L: picocuries per liter. A measure of radiation.

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.

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

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

Primary Drinking Water Standards (PDWS): maximum levels and maximum level goals for contaminants that affect health along with their monitoring, reporting and water treatment requirements.

Secondary Drinking Water Standards (SDWS): maximum levels for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

µS/cm: micro Siemens per centimeter. A measure of the electrical conductivity of a solution.

Primary Drinking Water Standards				City of Lompoc		Frick Springs		Typical Source
Unit	MCL	PHG	Average	Range	Average	Range		
Arsenic	ppb	10	0.004	3.7	ND — 7	4	NA	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Cadmium	ppb	5	0.04	ND	NA	0.3	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 CL2)	ppm	MRDL = 4.0	MRDLG = 4	1.60	1.36 — 1.78	1.51	1.38 — 1.60	Drinking water disinfectant added for treatment
Chromium (Total)	ppb	50		2	NA	9	NA	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride	ppm	2.0	1	0.34	0.2 — 0.4	0.2	NA	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Gross Alpha Particles	pCi/L	15	0	2.96	1.05 — 6.17	2.25	NA	Erosion of natural deposits (testing performed on wells and Frick spring influent 2015-2022)
Nickle	ppb	100	12	2	NA	6	NA	Erosion of natural deposits; discharge from metal factories
Nitrate (as Nitrogen)	ppm	10	10	ND	NA	ND	NA	Leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium	ppb	50	30	12	NA	11	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	6	ND — 5	ND	NA	Coliforms are bacteria that are naturally present in the environment and are used as an indicator organism for other potentially harmful pathogens that may be present.
Uranium	pCi/L	20	0.43	0.48	ND — 3.1	NA	NA	Erosion of natural deposits (testing performed on wells and Frick spring influent 2015-2022)

* See previous page under level 1 assessment for an explanation of positive and negative samples in Total Coliform Bacteria analysis.

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	1	NA	7	NA	By-product of drinking water disinfection
Trihalomethanes (TTHMs)	ppb	80	NA	5.54	NA	25.7	NA	By-product of drinking water disinfection

Secondary Drinking Water Standards				City of Lompoc		Frick Springs		Typical Source
Unit	SMCL	PHG	Average	Range	Average	Range		
Chloride	ppm	500	NS	104	98—113	52	NA	Runoff/leaching from natural deposits; seawater influence
Specific Conductance	µS/cm	1600	NS	1240	1160—1359	890	867—922	Substances that form ions when in water; seawater influence
Sulfate	ppm	500	NS	422	310—500	73.0	NA	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	ppm	1,000	NS	836	784—970	530	NA	Runoff/leaching from natural deposits
Turbidity	NTU	5	NS	0.07	0.05—0.32	0.04	0.03—0.05	Soil runoff. A measure of the cloudiness of the water. High turbidity can hinder disinfection.

Unregulated Substances				City of Lompoc		Frick Springs		Typical Source, Health Effects
Unit	Notification level	PHG	Average	Range	Average	Range		
pH	units	NS	NS	8.46	7.64—9.00	7.58	7.40—7.79	pH is raised to aid in treatment and help prevent pipe corrosion
Sodium	ppm	NS	NS	155	122—176	40	NA	Leaching from natural deposits; disinfection and softening processes add sodium to the water. Consumers on sodium-restricted diets may wish to consult with their physicians.
Hardness as CaCO₃	ppm	NS	NS	299	271—342	413	NA	Leaching from natural deposits; sum of polyvalent cations present in the water, generally magnesium and calcium, are usually naturally occurring.
Vanadium	ppb	50	NS	ND	NA	18	NA	Naturally occurring. 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.

2022 Copper and Lead Study - 35 Samples were collected from homeowners in August of 2022. Testing is every 3 years, so next testing is summer of 2025.

Unit	Action Level	PHG	90 %	Sites Exceeding Action Level	Typical Source	
Copper	ppm	1.3	0.3	0.080	0	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	ppb	15	0.2	< 0.05 (ND)	0	Internal corrosion of household plumbing systems; industrial manufacturing discharges; erosion of natural deposits

Unregulated Contaminant Monitoring Rule Part 4 Study (UCMR4) 2018-2019 (EPA designated certain tests for specific sites, so not all sites were tested for each contaminant)

Unit	Minimum Reporting Level	City of Lompoc					Frick Springs				Health Concerns	
		Raw	Treated	SS #3	SS #16	Range	Raw	Treated	SS #1	Range		
Cyanotoxins (2018)	ppb	0.3					ND		NA	NA	Under warm conditions they can produce algal blooms that can release toxins	
Germanium	ppb	0.30						0.55		0.50—0.59		
Manganese	ppb	0.40		1.2						1.0—1.4	Essential trace element, but high levels can stain laundry and cooking utensils	
Bromide	ppb	5.0	300							175	170—190	Once used as sleep aid, but banned due to skin, thyroid, liver and kidney damage
Total Organic Carbon	ppm	0.30	2.25							1.1	0.8—1.6	May react with disinfectants to produce potentially toxic and carcinogenic compounds
Total HAA5	ppb	0.20			2.9	2.3				4.8	4.3—5.2	Disinfection byproduct. May be potentially toxic and carcinogenic
Total HAA6BR	ppb	0.20			1.2	1.2				11.6	9.6—14	Disinfection byproduct. May be potentially toxic and carcinogenic
Total HAA9	ppb	0.20			3.7	3.0				14.3	11—18	Disinfection byproduct. May be potentially toxic and carcinogenic
Tribromoacetic acid	ppb	2.0								4.5	3.8—4.8	Disinfection byproduct. May be potentially toxic and carcinogenic