ANNUAL WATER QUALITY REPORT

Water Testing Performed in 2014

Presented By

City of Lompoc Water Division

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

PWS ID#: CA4210006

Our Mission Continues

We are proud to present once again our annual water quality report covering all testing performed between January 1 and December 31, 2014. Most notably, last year marked the 40th anniversary of the Safe Drinking Water Act (SDWA). This rule was created to protect public health by regulating the nation's drinking water supply. We celebrate this milestone as we continue to manage our water system with a mission to deliver the best-quality drinking water. By striving to meet and exceed the requirements of SDWA, we are ensuring a future of healthy, clean drinking water for years to come. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, operation efficiency, and community education while continuing to serve the needs of all our water users.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those 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

Included in the oversight of the Water Division are the City Council and Utility Commission. Here is their public meeting information:

You are invited to participate in the monthly Utility Commission meetings, held on the second Monday of the month, starting at 6 p.m. at 100 Civic Center Plaza (Lompoc City Hall, Council Chambers). Public communications are scheduled at the beginning of the meeting agenda.

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

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. State Board 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.

Where Does My Water Come From and How Is It Treated?

The City of Lompoc's source of supply is from ten groundwater wells. The annual production of clean drinking water for the City was 1.58 billion gallons or 4.33 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 process 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 (Frick Springs). The annual production for Frick Springs was 2.43 million gallons. The City is also responsible for the operation of Frick Springs treatment plant. This plant consists of small diatomaceous earth (DE) filtration and disinfection systems. The water treated at this plant is collected from seven springs located in the upper hills of Miguelito Canyon. Frick Springs water treatment plant must comply with the Surface Water Treatment Rule (SWTR).

CCR Electronic Download

In recent years, the City of Lompoc has mailed its customers a printed copy of the Consumer Confidence Report to comply with the Safe Drinking Water Act (SDWA). On February 21, 2013, the California Water Resources Control Board expanded its interpretation of the SDWA to allow for electronic delivery of the CCR. The electronic delivery method will allow the City to reduce the consumption of paper, and minimize potential printing and mailing costs. To view your 2014 CCR and to learn more about your drinking water, please visit the following Web site: http://www1.cityoflompoc.com/departments/utilities/2014ccr.pdf

Hard copies will be located at City Hall, the Public Library, and the Water Treatment Plant. If you would like a paper copy of the 2014 CCR mailed to your address, please call the Water Treatment Plant at (805) 736-1617.

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.

How Long Can I Store Drinking Water?

The disinfectant in drinking water will eventually dissipate even in a closed container. If that container housed bacteria before it was filled with tap water, the bacteria may continue to grow once the disinfectant has dissipated. Some experts believe that water could be stored up to six months before needing to be replaced. Refrigeration will help slow the bacterial growth.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Shaun Ryan, Water Treatment Plant Operations Supervisor, at (805) 736-1617, or visit our City of Lompoc Water Division website at http://www.cityoflompoc.com/utilities/water/.

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 show only those contaminants that were detected in the water. 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. A complete list is available at City Hall, the Public Library, and the Water Treatment Plant.

REGULATED SUBSTANCES

				City of Lompoc Water Division		Frick Springs			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic[1] (ppb)	2014	10	0.004	3	ND–3	4	NA	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2014	1	2	0.0069	NA	0.0821	NA	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Cadmium (ppb)	2014	5	0.04	ND	NA	0.4	NA	No	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 (ppm)	2014	[4.0 (as Cl2)]	[4 (as Cl2)]	1.43 (as Total Cl2)	1.39–1.46	1.4 (as Free Cl2)	1.1–1.8	No	Drinking water disinfectant added for treatment
Chromium[2] (ppb)	2014	50	(100)	ND	NA	1	NA	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride[3] (ppm)	2014	2.0	1	ND	NA	0.1	NA	No	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Nickel (ppb)	2014	100	12	ND	NA	4	NA	No	Erosion of natural deposits; discharge from metal factories
Nitrate [as nitrate][4] (ppm)	2014	45	45	0.5	ND–0.5	0.6	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	2014	50	30	8	NA	9	NA	No	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 [Total Coliform Rule][5] (% positive samples)	2014	More than 5.0% of monthly samples are positive	(0)	1.69	NA	0.0	NA	No	Naturally present in the environment
TTHMs [Total Trihalomethanes]–Stage 2 (ppb)	2014	80	NA	6.8	6.7–6.8	29.6	NA	No	By-product of drinking water disinfection
Haloacetic Acids–Stage 2 (ppb)	2014	60	NA	ND	NA	2.0	NA	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses with the cooperation of 31 homeowners throughout the community.

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2013	1.3	0.3	0.153	0/31	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2013	15	0.2	1.4	0/31	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)	City of Lompoc Water Division AMOUNT DETECTED	City of Lompoc Water Division RANGE LOW-HIGH	Frick Springs AMOUNT DETECTED	Frick Springs RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2014	500	NS	106	90–120	54	NA	No	Runoff/leaching from natural deposits; seawater influence
Iron (ppb)	2014	300	NS	54	ND–110	ND	NA	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2014	50	NS	1.6	ND–3.1	ND	NA	No	Leaching from natural deposits
Specific Conductance[6] (µS/cm)	2014	1,600	NS	1,195	1,169–1,220	916	889–935	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2014	500	NS	413	360–483	77	NA	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2014	1,000	NS	798	720–898	560	NA	No	Runoff/leaching from natural deposits
Turbidity[6,7] (NTU)	2014	5	NS	0.12	0.06–0.24	0.06	0.04–0.17	No	Soil runoff

UNREGULATED AND OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	City of Lompoc Water Division AMOUNT DETECTED	City of Lompoc Water Division RANGE LOW-HIGH	Frick Springs AMOUNT DETECTED	Frick Springs RANGE LOW-HIGH	TYPICAL SOURCE
Alkalinity as CaCO3 (ppm)	2014	38	30–50	340	NA	Runoff/leaching from natural deposits
Boron[8] (ppm)	2014	0.2	NA	0.1	NA	Naturally occurring
Calcium (ppm)	2014	64.7	63.8–66.3	89	NA	Runoff/leaching from natural deposits
Magnesium (ppm)	2014	34.1	33.2–35.7	48	NA	Runoff/leaching from natural deposits
pH[6] (Units)	2014	NA	7.99–8.33	NA	7.37–7.56	Treatment process
Sodium[9] (ppm)	2014	138	111–172	42	NA	Sodium refers to the salt present in the water and is generally naturally occurring
Total Hardness as CaCO3 (ppm)	2014	305	282–326	420	NA	Hardness is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.
Vanadium[10] (ppb)	2014	ND	NA	18	NA	Naturally occurring

Definitions

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

µS/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.

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).

[1] Low detected amounts of arsenic in June, October-December, for the City of Lompoc were reported to the state office. In all other months, arsenic was Not Detected.

[2] We tested all active groundwater wells and Frick Springs Influent for Chromium VI, and all sources were Not Detected.

[3] Our treatment process does NOT add fluoride.

[4] Low detected amounts of nitrate in May, August, September, and November for the City were reported to the state office. In all other months, nitrate was Not Detected.

[5] One total coliform positive was found in October with all successive repeat samples negative.

[6] Results for pH, specific conductance, and turbidity are from distribution system samples.

[7] Turbidity is a measure of the cloudiness of the water. We monitor it because it is good indicator of water quality. Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

[8] The babies of some pregnant women who drink water containing boron in excess of the 1 ppm notification level may have an increased risk of developmental effects, based on studies in laboratory animals.

[9] Our softening process adds sodium to the drinking water. Consumers on sodium-restricted diets may wish to consult with their health care professionals.

[10] 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.