



CITY OF LAKEPORT

Over 100 years of community,
pride, progress, and service.

Year Consumer Confidence Report

June 6, 2017

We test the drinking water quality for many constituents as required by State and Federal Regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2016 (or earlier, if monitoring was not required in **YEAR**).

Este informe contiene informacion muy importante sobre su agua beber. Traduzcalo o hable con alguien que lo entiende bien.

Type of water source: Groundwater (Wells), and surface water.

Name and location of source(s): Groundwater comes from four wells located at Scotts Creek and the Green Ranch. Surface water comes from Clear Lake.

Drinking Water Source Assessment information:

An assessment of the drinking water source for the City of Lakeport was completed by the California Department of Public Health in 2002. Clear Lake is considered most vulnerable to these activities: Managed Forests and Lake Recreation. Wells are most vulnerable to the following activities not associated with any detected contaminants: Agricultural drainage, septic systems - low density and Agricultural/Irrigation. A copy of the completed assessment is available at the California Department of Public Health, 50 D Street, Suite 200, Santa Rosa, Ca 95404. You may request that summary of the assessment be sent to you by contacting Sherri Miller, District Engineer, State Water Resources Control Board. The City of Lakeport also participated in the Clearlake Watershed Sanitary Survey updated in 2012.

Time and place of regularly scheduled board meetings for public participation: City Council meetings are held on the first and third Tuesday of each month at 6:00 pm at City Hall, located at 225 Park Street, Lakeport. Items related to the water system are placed on the City Council agenda.

For more information, contact: Paul Harris, Utilities Superintendent

Phone: (707) 263-3578

Terms used in this report

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCL's are set as close to the PHG's (or MCLG's) as is economically and technologically feasible. Secondary MCL's are set to protect the odor, taste, and appearance of drinking water.	Primary Drinking Water Standards (PDWS): MCL's for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's are set by the U.S. Environmental Protection Agency	Secondary Drinking Water Standards (SDWS): MCL's for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWS do not affect the health at the MCL level.
Maximum Residual Disinfectant Level (MRDL): The level of a disinfectant added for water treatment that may not be exceeded at the customer's tap.	Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected health risk. PHG's are set by the California Environmental Protection Agency.
Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for water treatment below which there are no known or expected risks to health. MRDLG's are set by the U.S. EPA	Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.
ND: Not detectable at testing limit ppm: parts per million or milligrams per liter (mg/L) ppb: parts per billion or micrograms per liter (ug/L) ppt: parts per trillion or nanograms per liter (ng/L) pCi/L: picocuries per liter (a measure of radiation).	Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. Variances and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

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 minerals that occur naturally and, in some cases, radioactive material. It can, also, pick up substances resulting from the presence of animals or from human activity.

All 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. 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 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).

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*, which may come from a variety of sources such as agriculture, urban storm water runoff, and septic systems.
- * *Organic chemical contaminants*, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- * *Radioactive contaminants*, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA and the state Department of Health Services (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.

Tables 1,2,3,4, and 5 list all of the drinking water contaminants that were detected during monitoring performed in the year YEAR or earlier. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, are more than one year old.

TABLE 1 - Sampling Results Showing The Detection Of Coliform Bacteria

Contaminant	Unit Measurement	MCL	MCLG	Highest Number of detections	No. of months in violation	Typical Source of Bacteria
Total Coliform Bacteria	No more than 1 positive sample in a month.		0	0	0	Naturally present in the environment.
Fecal Coliform and <i>E. Coli</i>	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. Coli</i> .		0	0	0	Human and animal waste
Turbidity		TT	N/A	0	0	Soil runoff

TABLE 2 - Sampling Results Showing The Detection Of Lead and Copper

Contaminant	Number of samples	90th percentile level detected	Number of samples exceeding AL	MOST RECENT SAMPLE DATE	AL	MCLG	Typical source of Contaminant
Lead (ppb)	20	0	0	August 19, 2015	15	2	Internal corrosion of household plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper (ppm)	20	0.33	0	August 19, 2015	1.3	0.17	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

TABLE 3 - Sampling Results For Sodium and Hardness

Contaminants	Unit	MCL	PHG	MCLG	MOST RECENT SAMPLE DATE	LEVEL DETECTED	RANGE OF DETECTIONS	Typical Source of Contaminant
Sodium (Na)	ppm	N/A	N/A	N/A	April 25, 2016	14	N/A	Generally found in ground and surface water.
Hardness (as CaCO ₃)	ppm	N/A	N/A	N/A	September 26, 2016	90	N/A	Generally found in ground and surface water.

TABLE 4 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD.

Sampling results for Inorganic Contaminants

Contaminants	Unit	MCL	PHG	MCLG	MOST RECENT SAMPLE DATE	LEVEL DETECTED	RANGE OF DETECTIONS	Typical Source of Contaminant
Antimony	ug/L	6	20	N/A	April 25, 2016	ND	N/A	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.
Arsenic	ug/L	10	N/A	N/A	April 25, 2016	2.1	N/A	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.
Barium(Ba)	ug/L	1000	N/A	2	April 25, 2016	ND	N/A	Discharge of oil drilling wastes from metal refineries; erosion of natural deposits.
Beryllium	ug/L	4	N/A	4	April 25, 2016	ND	N/A	Discharge from metal refineries, coal-burning factories, and electrical, aerospace, and defense industries.
Cadmium	ug/L	5	0.07	N/A	April 25, 2016	ND	N/A	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.
Chromium	ug/L	50	2.5	N/A	April 25, 2016	ND	N/A	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits.
Copper	ug/L	1000	0.17	N/A	April 25, 2016	ND	N/A	Internal corrosion of galvanizes pipes; erosion of natural deposits; discharge from electroplating and industrial chemical factories and metal refineries; runoff from waste batteries and paints.
Fluoride	ppm	2	1	N/A	April 25, 2016	0.14	N/A	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Mercury (inorganic)	ug/L	2	1.2	N/A	April 25, 2016	ND	N/A	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from croplands.
Nickel	ug/L	100	N/A	100	April 25, 2016	ND	N/A	Erosion of natural deposits; discharge from metal factories.
Nitrate (as nitrate, N03)	ppm	10	1	45	August 30, 2016	ND	N/A	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Selenium	ug/L	50	N/A	50	April 25, 2016	ND	N/A	Discharge from petroleum, glass and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive).
Thallium	ppb	2	0.1	N/A	April 25, 2016	ND	N/A	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories.

Sampling Results For Volatile Organic Contaminants

Total Trihalomethanes	ug/L	80	N/A	N/A	October 20, 2016	15.24	N/A	By-product of drinking water chlorination.
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Sampling Results for Disinfection and Disinfection Byproducts, Disinfection Residuals, and Disinfection Byproduct Precursors.

Contaminants	Unit	MCL (MRDL)	PHG (MRDLG)	MCLG (MRDLG)	MOST RECENT SAMPLE DATE	LEVEL DETECTED	RANGE OF DETECTIONS	Typical Source of Contaminant
Chlorine	ppm	4	0.8	0.8	December 27, 2016	1.23	0-5.0	Drinking water disinfectant added for treatment.
Haloacetic Acids	ug/L	60	N/A	N/A	October 20, 2016	6.9	N/A	By-product of drinking water chlorination.

TTHM's (Total Trihalomethanes)	ug/L	80	N/A	N/A	October 20, 2016	15.24	N/A	By-product of drinking water chlorination.
Bromate	ppb	10	0	0	November 8, 2016	ND	N/A	By-product of drinking water chlorination.

TABLE 5 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD.

Note: There are no PHG's or MCLG's for constituents with secondary drinking water standards because these are not health-based levels, but set on the basis of aesthetics.

Aluminum (Al)	ug/L	1000	N/A	N/A	April 25, 2016	240	N/A	Erosion of natural deposits; residue from some surface water treatment processes
Chloride (Cl)	ppm	500	N/A	N/A	April 25, 2016	8.4	N/A	Runoff/leaching from natural deposits; seawater influence.
Copper	ug/L	1000	N/A	N/A	April 25, 2016	ND	N/A	Internal corrosion of galvanizes pipes; erosion of natural deposits; discharge from electroplating and industrial chemical factories and metal refineries; runoff from waste batteries and paints.
Foaming Agents (MBAS)	ppb	0.5	N/A	N/A	April 25, 2016	ND	N/A	Municipal and industrial waste discharges.
Iron (Fe)	ug/L	300	N/A	N/A	September 26, 2016	ND	N/A	Leaching from natural deposits; industrial wastes.
Manganese (Mn)	ug/L	50	N/A	N/A	April 25, 2016	42	N/A	Leaching from natural deposits.
Methyl-tert-butyl ether	ug/L	13	N/A	N/A	September 26, 2016	ND	N/A	Leaking from underground storage tanks; discharge from petroleum and chemical factories.
Odor--Threshold	Ton	3	N/A	N/A	September 26, 2016	ND	N/A	Naturally -occurring organic materials.
Silver	ug/L	100	N/A	N/A	April 25, 2016	ND	N/A	Industrial discharges.
Turbidity	NTU	5	N/A	N/A	September 26, 2016	<.1	N/A	Soil runoff.
Zinc	ug/L	5000	N/A	N/A	April 25, 2016	ND	N/A	Runoff/leaching from natural deposits.
Total Dissolved Solids (TDS)	ppm	1000	N/A	N/A	April 25, 2016	190	N/A	Runoff/leaching from natural deposits.
Specific Conductance	umho/cm	1600	N/A	N/A	April 25, 2016	320	N/A	Substances that form ions when in water; seawater influence.
Sulfate (as SO4)	ppm	500	N/A	N/A	September 26, 2016	7.5	N/A	Runoff/leaching from natural deposits; industrial wastes.

SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER

Treatment Technique (TT); a required process intended to reduce the level of contamination in drinking water:

Turbidity Performance: Standards that must be met through the water treatment process. Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results, which meet performance standards, are considered to be in compliance with the following filtration requirements: (1) Be less than or equal to **0.2 NTU** in 95% of measurements in a month, (2) Not exceed **1.0 NTU** for more than eight consecutive hours, (3) Not exceed **5.0 NTU** at any time.

Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1: **100%**

Highest single turbidity measurement during the year: 0.150 NTU

Number of violations of any other surface water treatment requirements: **0**