

## 2010 Consumer Confidence Report

Water System Name: City of Lakeport Report Date: June 1, 2011

*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, 2010.*

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

**Type of water source(s) in use:** Groundwater (Wells) and surface water (Lake).

**Name & location of source(s):** Our surface water comes from Clear Lake. Well water comes from four wells Located at Scotts Creek and the Green Ranch.

### **Drinking Water Source Assessment Information:**

An assessment of the drinking water source for the City of Lakeport was completed by California Department of Public Health in April 2002. The City of Lakeport also participated in the Clearlake Watershed Sanitary Survey update in 2007. Clearlake 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 a summary of the assessment be sent to you by contacting Bruce Burton, District Engineer, California Department of Public Health, at (707) 576-2145. A copy of the complete assessment is also available for review, along with the Watershed Sanitary Survey, at the City of Lakeport. You may request a copy to review by contacting Matthew Johnson at (707) 263-3578.

### **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 the City Hall, located at 225 Park Street, Lakeport. Items relating to water system are placed on the City Council agenda.

### **TERMS USED IN THIS REPORT:**

**Maximum Contaminant Level (MCL):** 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 are set to protect the odor, taste, and appearance of drinking water.

**Maximum Contaminant Level Goal (MCLG):** 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).

**Public Health Goal (PHG):** 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.

**Maximum Residual Disinfectant Level (MRDL):** The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

**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.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

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

**Variations and Exemptions:** Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

**ND:** not detectable at testing limit

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

**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)

**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, which 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 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, that 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**, the USEPA and the state 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.

**Tables 1, 2, 3, 4, and 5 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. The Department 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.

**TABLE 1 - SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA**

Microbiological Contaminants (to be completed only if there was a detection of bacteria )	Highest No. of detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

**TABLE 2 - SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER**

Lead and Copper (to be completed only if there was a detection of lead or copper in the last sample set)	No. of samples collected	90 <sup>th</sup> percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	40	.00057	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	40	.321	0	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**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	6/09/10	13.0	13.0 mg/l	none	none	Generally found in ground & surface water
Hardness (ppm)	6/09/10	142	142.0 mg/l	none	none	Generally found in ground & surface water

\*Any violation of an MCL or AL is marked with an asterisk. Additional information regarding the violation is provided later in this report.

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

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Arsenic	6/09/10	< 2	< 2	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Fluoride	6/09/10	.14	.14	1.4	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Combined radium (pCi/L)	2/18/10- 10/14/10	1.42	.65-2.15	5	0	Erosion of natural deposits
Gross Alpha particle activity (pCi/L)	2/18/10- 10/14/10	.113	.113	15	0	Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	4/28/10- 10/13/10	9.13	4.5-17.58	80	n/a	By-product of drinking water chlorination
Nitrate (ppm)	3/17/10- 8/11/10	.3	<1-1	45 (as nitrate)	45 (as NO3)	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Lab Turbidity	6/9/10	2.0	2.0	5 Units	n/a	Soil runoff

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

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
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Aluminum	6/9/10	56	56	200 ug/L	N/A	Erosion of natural deposits; residual from some surface water treatment processes
Chloride	6/9/10	7.2	7.2	500 mg/L	N/A	Runoff/leaching from natural deposits; seawater influence
Color	6/9/10	9	9	15 Units	N/A	Naturally-occurring organic materials
Iron	6/9/10	100	100	300 ug/L	N/A	Leaching from natural deposits; industrial wastes
Specific Conductance	6/9/10	260	220-300	1,600 $\mu$ S/cm	N/A	Substances that form ions when in water; seawater influence
Sulfate	6/9/10	7.2	7.2	500 mg/L	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	6/9/10	160	160	1,000 mg/L	N/A	Runoff/leaching from natural deposits
Foaming Agents [MBAS]	6/9/10	.06	.06	500 ug/L	N/A	Municipal and industrial waste discharges

**TABLE 6 - DETECTION OF UNREGULATED CONTAMINANTS**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Notification Level	Health Effects Language
Vanadium	10/16/02	4	50	The babies of some pregnant women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.

\*Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

### Additional General Information on Drinking Water

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).

### Summary Information for Contaminants Exceeding an MCL, MRDL, or AL, or a Violation of Any Treatment Technique or Monitoring and Reporting Requirement

**Copper:** is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years may suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

**Lead:** Infants and children who drink water containing lead in excess of the action level may experience delays in their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink water containing lead in excess of the action level over many years may develop kidney problems or high blood pressure.

### **For Systems Providing Surface Water as a Source Of Drinking Water:**

*(Refer to page 1, "Type of water source in use" to see if your source of water is surface water or groundwater)*

<b>TABLE 7 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES</b>	
<i>Treatment Technique</i> <sup>(a)</sup> (Type of approved filtration technology used)	
Turbidity Performance Standards <sup>(b)</sup> (that must be met through the water treatment process)	<u>Turbidity of the filtered water must:</u> 1 – Be less than or equal to .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 NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	.14
Number of violations of any surface water treatment requirements	0

(a) A required process intended to reduce the level of a contaminant in drinking water.

(b) 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 filtration requirements.

\* Any violation of a TT is marked with an asterisk. Additional information regarding the violation is provided earlier in this report.

### **Summary Information for Surface Water Treatment**

The water source for the City of Lakeport is obtained from four ground wells and one surface water treatment plant. Water from the wells is pumped to the storage tank site (1.0 & 1.5 million gallon tanks) on Brewery Hill where chlorination treatment is applied. From the tank site, the treated water flows into the distribution system by gravity.

Raw water from Clear Lake is pumped to the treatment plant where pre-ozone, chemical addition, up flow adsorption clarification, mixed media filtration, post ozonation, granular activated carbon and disinfection treatment is applied. The treated water is transferred to a 136,000 gallon chlorine contact tank followed by a 14,500 gallon clearwell. Water is pumped from the clearwell into the distribution system.

## Frequently Asked Questions

### Fluoride

The City of Lakeport does not add fluoride to the water supply. Fluoride is naturally occurring trace element in the ground water which is of low levels, and helps prevent dental cavities. The U. S. Public Health Service considers optimal levels of fluoride to be 0.7-1.2 ppm for drinking water. The City of Lakeport's fluoride level tests at .14 ppm and is considered to be lower than optimal for helping to prevent dental decay. You may want to consider consulting your dentist about ways to prevent tooth decay.

### Cloudy or Milky Water

During the colder winter months you may experience milky white water, also commonly described as cloudy, hazy, soapy, or foamy, and is usually caused by air in the water. One of the many properties of water is its ability to dissolve gases, including air. Sometimes the air comes back out of the water in the form of many tiny bubbles; this gives the water a milky white appearance. Water can hold more air (oxygen) when it is cold, and when the water flows from the tap, the air may release and form tiny bubbles. To see if the white color in the water is due to air, fill a glass with water and let it set on the counter. Observe the glass of water for 2 or 3 minutes. If the white color is due to air, the water will begin to clear at the bottom of the glass first and then gradually clear all the way to the top. This is a natural phenomenon and is completely normal; the water is safe to use.