



## 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 table below shows only those contaminants that were detected in the water. We feel it is important that you know exactly what was detected and how much of the substance was present in the water.

The state requires us to monitor for certain substances less 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.

### REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic <sup>1</sup> (ppb)	2007	10	0.004	17.5	13–24	Yes	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2006	2	2	0.232	0.192–0.305	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium (ppb)	2006	50	NA	1.70	1.00–4.00	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (ppm)	2006	2.0	1.0	0.2	ND–0.2	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2007	15	NA	4.98	ND–4.98	No	Erosion of natural deposits
Mercury [inorganic] (ppb)	2006	2.0	1.2	0.02	ND–0.02	No	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland
Nitrate [as nitrate] (ppm)	2007	45	45	14.8	10.9–21.8	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2007	80	NA	30.90	0.70–78.90	No	By-product of drinking water chlorination
Uranium (pCi/L)	2006	20	0.43	6.14	5.67–6.79	No	Erosion of natural deposits

Tap water samples were collected from 12 sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2006	1.3	1	0.233	0	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2006	15	2	1.36	0	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)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2006	250	NS	36.3	30.0–44.0	No	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µS/cm)	2006	900	NS	525	480–607	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2006	250	NS	16.3	13.0–19.0	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2006	500	NS	327	300–370	No	Runoff/leaching from natural deposits

### UNREGULATED AND OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bicarbonate (ppm)	2006	220	200–250	Erosion of natural deposits
Boron (ppb)	2006	146.7	100–200	Erosion of natural deposits
Calcium (ppm)	2006	45	40–50	Erosion of natural deposits
Hardness (ppm)	2006	154.7	137–174	Erosion of natural deposits
pH (Units)	2006	7.2	6.8–7.8	Erosion of natural deposits
Potassium (ppm)	2006	3	ND–3	Erosion of natural deposits
Sodium (ppm)	2006	43.7	37–53	Erosion of natural deposits
Total Alkalinity (ppm)	2006	180	160–210	Erosion of natural deposits
Vanadium (ppb)	2006	16.3	15–19	Erosion of natural deposits

<sup>1</sup> Effective January 23, 2006, the federal arsenic MCL is 10 ppb. A new state MCL has not yet been adopted and remains as 50 ppb.

## Definitions

**Action Level (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 level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

**MRDLG (Maximum Residual Disinfectant Level Goal):** 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. EPA.

**NA:** Not applicable

**ND (Not detected):** Indicates that the substance was not found by laboratory analysis.

**NS:** No standard

**pCi/L (picocuries per liter):** A measure of radioactivity.

**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).

## Violation Information

The Environment Protection Agency (EPA) recently reduced the Arsenic Maximum Contaminant Level (MCL) from 50 ppb down to 10 ppb. In accordance with this reduction, the City of Lathrop collected samples from all of its wells, and to date four wells contain water with arsenic levels above the MCL. Therefore, all four active wells failed the new Arsenic MCL drinking water standard. Although this is not an emergency, as our customers, you have the right to know what happened, what you should do, and what we are doing to correct the situation.

Specifically, we routinely monitor for the presence of drinking water contaminants. Recent testing results show that all four wells in our system were over the MCL of 10 ppb, their annual average was 17.5 ppb. Compliance with the Arsenic MCL is based on the average concentration of four consecutive quarterly samples (or an annual average) for each well, unless fewer samples would cause the running annual average to be exceeded.

### WHAT SHOULD I DO?

You do not need to use an alternative (e.g., bottled) water supply. However, if you have specific health concerns, consult your doctor.

### WHAT DOES THIS MEAN?

This is not an immediate risk. If it had been, you would have been notified immediately. However, some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems, and may have an increased risk of getting cancer.

### WHAT HAS BEEN DONE AND, WHAT IS BEING DONE?

The City of Lathrop is currently designing a treatment system to remove arsenic from the wells with arsenic levels above the Federal MCL of 10 ppb. In the meantime, the City is supplementing the well water with some surface water, which helps lower arsenic levels.

## Contamination from Cross-Connections

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems) or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand) causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed all industrial, commercial, and institutional facilities in the service area to make sure that all potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test each backflow preventer to make sure that it is providing maximum protection.

For more information, review the Cross-Connection Control Manual from the U.S. EPA's Web site at [www.epa.gov/safewater/crossconnection.html](http://www.epa.gov/safewater/crossconnection.html). You can also call the Safe Drinking Water Hotline at (800) 426-4791.

