

CITY OF ALTURAS

2016 CONSUMER CONFIDENCE REPORT

April 15, 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 through December 31, 2016 and may include earlier monitoring data.

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: 4 deep wells. Name & general location of source(s): South Fork Pit River Sub-basin

Drinking water source assessment information:

Time & place of regularly scheduled board meetings for public participation:

Alturas City Council; 2 p.m., Every 3rd Tuesday of each month at 200 W. North Street, Alturas

For more information, please contact Joe Picotte, Public Works Director, at (530) 233-2377.



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 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.

Maximum Residual Disinfectant Level Goal (MRDLG): 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.

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.

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

ND: not detectable at testing limit

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

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

ppt: parts per trillion or nanograms per liter (ng/L)

ppq: parts per quadrillion or picogram per liter (pg/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 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 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 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 California 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 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.

EXAMPLE – This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2016. All water systems are required to comply with the state Total Coliform Rule. Beginning April 1, 2016, all water systems are also required to comply with the federal Revised Total Coliform Rule. The new federal rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and E. coli bacteria). The U.S. EPA anticipates greater public health protection as the new rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system.

Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria (state Total Coliform Rule)	(In a mo.) 3	1	1 positive monthly sample	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i> (state Total Coliform Rule)	(In the year) 0	0	A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or <i>E. coli</i> positive		Human and animal fecal waste
<i>E. coli</i> (federal Revised Total Coliform Rule)	(from 4/1/16-12/31/16)	0	(a)	0	Human and animal fecal waste

(a) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

Lead and Copper (complete if lead or copper detected in the last sample set)	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb) 06/09/16	10	3.7	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) 06/09/16	10	0.0	0	1.3	0.3	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)	09/01/11	32.62	23.1 - 40.7	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	09/01/11	113	76 - 182	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
Hexavalent Chromium	1/28/15	1.35	1.25 - 1.46	10	.02	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits

*Any violation of an MCL or AL is asterisked. 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 (ppb)	09/01/11	5.07	4.0 – 6.1	10	.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Gross Alpha Particle Activity (pCi/L)	12/10/14	4.57	0.0 - 4.57	15	0	Erosion of natural deposits
Nitrate [as nitrate, NO ₃] (ppm)	06/05/15	4.67	2.79 - 9.05	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Perchlorate	06/16/16	0.00	0.0	6	1	Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts.
Radium 228 (pCi/L)	2016 Well 5,6,7,8	1.14	0.0-2.77	5	0.019	Erosion of natural deposits

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
Chloride (ppm)	09/01/11	8.3	5.5 – 16.4	500	n/a	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	09/01/11	19.35	19.0 – 24.2	500	n/a	Runoff/leaching from natural deposits; industrial wastes

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

In addition to the above listed chemicals, we have tested for more than 60 additional chemicals, none of which were detected.

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. 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).

We routinely monitor for drinking water contaminants. In September 2015 our routine water samples showed the presence of coliform bacteria. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did to correct this situation. The standard is that no more than one sample per month may show the presence of total coliform bacteria. We took 4 samples in September 2015 that tested positive for total coliform bacteria. In accordance with State regulations, 16 follow-up samples were taken, all of which were negative for the presence of total coliform bacteria in the water. We did not find fecal coliform or *E. coli* bacteria in any of our water samples, either in the first four routine samples, nor the sixteen follow-up samples.

Total coliform bacteria are generally not harmful themselves. *Coliforms are bacteria which are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.*

Usually, coliform are a sign that there could be a problem with our treatment or distribution system (pipes). Whenever we detect coliform bacteria in any sample, we do follow-up testing and check for the presence of other bacteria of greater concern, such as fecal coliform or *E. coli*. Again, all sixteen follow-up samples were negative for any coliforms, and no sample, routine nor follow-up, had either fecal coliform or *E. coli* bacteria.

While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

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 City of Alturas 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 30 seconds to 2 minutes before using water for drinking or cooking. [Optional: 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 or at <http://www.epa.gov/lead>.

Drinking Water Source Assessment Information:

The California Department of Health Services completed source water assessments on the City's four (4) wells in May, 2013. The sources are considered most vulnerable to the following activities not associated with any detected contaminants:

Automobile – gas stations; Injection wells/dry wells/sumps; Underground injection of commercial/industrial discharges
Contractor or government agency equipment storage yards; Funeral services/graveyards
Housing – high density (> 1 house / .5 acres); Motor pools; Wells – water supply; Historic gas stations

The sources are considered most vulnerable to the following activities associated with nitrate detected in the water supply:

Fertilizer/pesticide/herbicide application; Septic systems – low density (> 1/ acre); Sewer collection systems

Nitrate is believed to be associated with runoff and leaching from fertilizer use, leaching from septic tanks and sewage, and erosion of natural deposits.

A copy of the complete assessment may be reviewed at:

City of Alturas
200 W. North Street
Alturas, CA 96101

You may request a summary of the assessments be sent to you by contacting:

Franklin Saylor
Associate Civil Engineer
(530) 224-4874

