



# CITY OF BISHOP

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## Annual Water Quality Report for 2010

This report provides information on water the City of Bishop delivered during 2010.

**Water Sources:** City of Bishop domestic water comes from three wells. The primary well is located about 2 miles west of Bishop on West Line Street. This well produces about 85% of the City's water. The second well is located near Sierra Street within the City limits. This well produces about 15% of the City's water. The second well runs when the primary can't keep up with high demand such as during the summer months. The third well is a standby well located behind the Bishop Police Department near Line Street. The third well is a standby well because the water from the well has slightly more fluoride than the State allows. This standby well produced no water in 2010. Bishop is working to add a second water storage tank for emergency supply and to improve system efficiency and reliability.

**Water Conservation:** Average daily water consumption in Bishop is very high. Consumption is about 400 gallons per person per day in Bishop while the statewide national average is about 150. The national average is about 125. Although water is plentiful in Bishop, all Bishop water is pumped out of the ground and the electrical cost to pump the water is high. The more water used, the higher the rates have to be to cover the pumping costs. Water use is the highest during the summer when outside irrigation use overwhelms indoor uses. For this reason, good irrigation practices could drastically reduce water consumption in Bishop and reduce the cost. Irrigation should be done every third day, only in the early morning, and only enough to wet the soil. Water should never run off your property and down the street.

**Water Quality:** The quality of Bishop water is excellent. Still, the state and federal governments require water be tested and that the results be reported to customers. The results of those tests are shown on the next few pages (called a Consumer Confidence Report).

**More Information:** The City of Bishop Department of Public Works has provided a high-quality, safe, affordable, and dependable supply of water for over 100 years. Please contact Public Works at 760-873-8458 or [publicworks@ca-bishop.us](mailto:publicworks@ca-bishop.us) for more information about City of Bishop water. The United States Environmental Protection Agency also provides information about contaminants and potential health effects through its Safe Drinking Water Hotline at 800-426-4791.

**Water Is A Valuable Resource – Use It Wisely!**

# 2010 Consumer Confidence Report

Water System Name: City of Bishop Report Date: 8 June 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 beber. Tradúzcalo ó hable con alguien que lo entienda bien.**

Type of water source(s) in use: Groundwater

Name & location of source(s): Well 4 and Well 2, near and in Bishop

Drinking Water Source Assessment information: A source water assessment for these sources was completed by Inyo County Environmental Health in May 2003. These sources are considered most vulnerable to the following activities NOT associated with any detected Contaminants: historic gas stations, sewer collection systems, and animal activities.

Time and place of regularly scheduled board meetings for public participation: The Bishop Water and Sewer Commission meets the second Tuesday of every other month at 301 West Line Street, Bishop, California 93514

For more information, contact: Deston Dishion Phone: 760-873-8458

## 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.

**Primary Drinking Water Standards (PDWS):** MCLs 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.

**NA:** not applicable

**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)

**pCi/L:** picocuries per liter (a measure of radiation)

**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 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).

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

**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.

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

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*, which 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, 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 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 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**

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	(In a mo.) 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>	(In the year) 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 NL	NL	MCLG	Typical Source of Contaminant
Lead (ppb) 8/8/10	20	ND	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper (ppm) 8/8/10	20	0.095	0	1.3	0.17	Internal corrosion of household water 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)	3/15/10	8.35	4.7-12	none	none	Generally found in ground and surface water
Hardness (ppm)	3/15/10	58.5	48-69	none	none	Generally found in ground and surface water

**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	PHG (MCLG)	Typical Source of Contaminant
Gross Alpha (pCi/L)	3/15/10	ND	ND	15	(0)	Erosion of Natural Deposits
Arsenic (ppb)	3/15/10	1.85	ND-3.7	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Flouride (ppb)	3/15/10	0.26	0.14-0.38	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate as NO3(ppm)	3/15/10	ND	ND	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	08/05/08	0.27	ND-0.54	80	NA	Byproduct of drinking water chlorination
Chlorine (Cl <sub>2</sub> , ppm)	Weekly	0.32	0.01-0.32	[MRDL= 4.0 (as Cl <sub>2</sub> )]	[MRDLG= 4.0 (as Cl <sub>2</sub> )]	Drinking water disinfectant added for treatment

**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
Total Dissolved Solids [TDS] (ppm)	3/15/10	103.5	67-140	1,000	NA	Runoff/leaching from natural deposits
Specific Conductance (micromhos)	07/20/06	139.5	99-180	1,600	NA	Substances that form ions when in water; seawater influence
Chloride (ppm)	3/15/10	3.1	2.4-3.8	500	NA	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	3/15/10	6.95	5.6-8.3	500	NA	Runoff/leaching from natural deposits' industrial wastes

**TABLE 6 - DETECTION OF UNREGULATED CONTAMINANTS**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Notification Level	Health Effects Language
Vanadium (ppb)	3/15/2010	ND-8.3	50	The babies of some pregnant women who drink water containing vanadium in excess of the action level may have an increased risk of developmental effects, based on studies in laboratory animals