

## WATER IS A VALUABLE RESOURCE

### *2003 Annual Water Quality Report for the City of Bishop*

- **The City of Bishop provides high quality water and fire flow to all developed properties in the City.**
- **All water is pumped from a deep aquifer and distributed to all properties and fire hydrants.**
- **The water is safe and meets all Federal and State drinking water standards.**
- **Your water service fees pay for all operation and maintenance costs, construction of new water improvements, replacement of existing water facilities and the purchase of tools, supplies and equipment necessary to maintain the system (See attached Exhibit "A").**

Our fifteenth (15<sup>th</sup>) Annual Water Quality Report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve water production, treatment and delivery and our commitment to water quality. The source of water for the City of Bishop is the underground aquifer of the Bishop cone. Water is pumped from the aquifer by three wells described below.

- **Well #4 is the primary source of water for Bishop. The well is located approximately 3 miles west of Bishop and is 260 feet south of Highway 168 (West Line Street) near Bishop Creek. This well produced about 522 million gallons in 2003 which was 89% of the City's total water production.**
- **Well #2 is the backup source of water for Bishop. The well is located 400 feet north of Sierra Street and 550 feet west of Main Street. The well normally operates during April through September and produced about 63 million gallons in 2003 which was 11% of the City's total water production.**
- **Well #1 is the stand-by well that may be used in emergencies. This well is located at Church and Warren Streets behind the Police Department. This well did not produce water during 2003.**

If you have any questions about this report or concerning your water utility, please contact Andy Boyd, Public Services Department, at 873-5863. We want our customers to be informed about their water utility. If you want to learn more, please telephone me or stop by City Hall at 377 W. Line Street. Also, please note that our City Council normally meets

the 2<sup>nd</sup> and 4<sup>th</sup> Monday of every month. There is a public comment period at the beginning of every meeting when you can address the City Council.

The City of Bishop routinely monitors the water system for contaminants according to Federal and State laws. The tables below show the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2003. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

The City tests for 89 reportable contaminants and 23 secondary (aesthetic) standards. Of these, four (4) reportable contaminants were found and are shown in the tables below. All results are well below established public health goals. The results of all tests are available for review at City Hall.

In these tables you will find terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

*Parts per million (ppm) or Milligrams per liter (mg/l)* - one part per million corresponds to one inch in 15.78 miles.

*Parts per billion (ppb) or Micrograms per liter (ug/l)* - one part per billion corresponds to one inch in 17,783 miles.

*Picocuries per liter (pCi/L)* - picocuries per liter is a measure of the radioactivity in water.

*Nephelometric Turbidity Unit (NTU)* - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

*Maximum Contaminant Level* - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.

*Maximum Contaminant Level Goal* - The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

*Public Health Goal or 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.

*Primary Drinking Water Standard or PDWS* - MCLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.

## TEST RESULTS

Well #2

11% of City water production in 2003

| Contaminant                                | Violation Y/N | Level Detected | Range  | Unit Measurement | MCL   | PHG | MCL G | Likely Source of Contamination |
|--|---------------|----------------|--------|------------------|-------|-----|-------|--------------------------------|
| <b>Microbiological Contaminants (2003)</b> |               |                |        |                  |       |     |       |                                |
| 1. Turbidity                               | N             | 1.5            |        | NTU              | 5 NTU | *   | *     | Soil runoff/Inactive well      |
| <b>Radioactive Contaminants (2002)</b>     |               |                |        |                  |       |     |       |                                |
| 2. Alpha Activity, Gross                   | N             | 3.3            | ± 0.76 | pCi/L            | 15    | *   | *     | Erosion of natural deposits    |

| Inorganic Contaminants (2003) |   |      |  |     |            |    |     |  |
|-------------------------------|---|------|--|-----|------------|----|-----|--|
| 3. Nitrate (NO3)              | N | 2.8  |  | ppm | 45         | 45 | 45  | Runoff & leaching from fertilizer use; leaching from septic tanks & sewage; erosion from natural deposits.                 |
| 4. Fluoride                   | N | 0.59 |  | ppm | 1.4 to 2.4 | 1  | N/A | Erosion of natural deposits; water Additive which promotes strong teeth; discharge from fertilizer and aluminum factories. |
| 5. Arsenic                    | N | 7.8  |  | ppb | 50         | *  | N/A | Erosion from natural deposits.   |

\*Not regulated

| TEST RESULTS                         |               |                |       |                  |            |     |       |  |
|--------------------------------------|---------------|----------------|-------|------------------|------------|-----|-------|--|
| Well #4                              |               |                |       |                  |            |     |       |  |
| 89% of City water production in 2003 |               |                |       |                  |            |     |       |  |
| Contaminant                          | Violation Y/N | Level Detected | Range | Unit Measurement | MCL        | PHG | MCL G | Likely Source of Contamination   |
| Microbiological Contaminants (2003)  |               |                |       |                  |            |     |       |  |
| 1. Turbidity                         | N             | 0.1            |       | NTU              | 5 NTU      | *   | *     | Soil runoff  |
| Inorganic Contaminants (2003)        |               |                |       |                  |            |     |       |  |
| 2. Nitrate (NO3)                     | N             | 2.5            |       | ppm              | 45         | 45  | 45    | Runoff & leaching from fertilizer use; leaching from septic tanks & sewage; erosion from natural deposits.                 |
| 3. Fluoride                          | N             | 0.24           |       | ppm              | 1.4 to 2.4 | 1   | N/A   | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories. |
| 4. Arsenic                           | N             | 2.1            |       | ppb              | 50         | *   | N/A   | Erosion of natural deposits.   |

\*Not regulated

**Note: The natural level of fluoride is very low and fluoride is not added to the water. Please consult your dentist regarding recommended fluoride intake.**

The following table shows the water analysis, frequency, and year last tested for Wells #2 and #4 for the 2002 Annual Water Quality Report:

| Water Analysis      | Frequency               | Year Last Tested |
|---------------------|-------------------------|------------------|
| Bacteriological     | monthly                 | 12/03            |
| General Mineral     | every 3 years           | 2003             |
| General Physical    | every 3 years           | 2003             |
| Inorganic Chemicals | every 3 years           | 2003             |
| Radioactivity       | quarterly every 4 years | 2002             |
| Organic Chemicals   | every 6 years           | 1999             |
| Lead & Copper       | every 3 years           | 2003             |

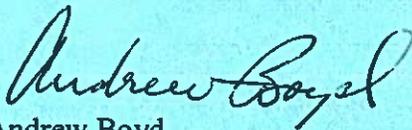
The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

The water system has been tested for Lead and Copper since 1992. Results from the 2003 tests are non-detect (ND) for Lead; and 150 ug/l for Copper. The action level limit and Public Health Goal (PHG) for Copper is 1,300 ug/l. We will test for Lead and Copper again in 2006 and report the updated results in a future report.

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 Environmental Protection Agency's Safe Drinking Water Hotline at 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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. Water is a valuable resource; please use it wisely.



Andrew Boyd  
Public Services Director  
July 2004

## **City of Bishop Water System**

**I. Water service fees pay for the operation and maintenance of the water system; for capital improvements to wells, storage, mains and fire hydrants; and for capital equipment. The following improvements were made to the City's water system between 1988 and 2003:**

**A. Improvements financed by water service fees -**

1. Replacement of main lines, services and fire hydrants on the following streets:
  - a. West Elm, Home Street to School
  - b. Rome Drive, Home Street to end of street
  - c. Pioneer Lane
  - d. Spruce Street, Yaney Street to Senior Citizen Center
  - e. Fulton Street, Edward Street and Lagoon Street from Edward to Fowler Streets
  - f. East Pine Street, Main Street to Hanby Street
  - g. Second Street, East Pine to north end of street
  - h. East Line/Poleta Road, First Street to Johnston Drive
  - i. BUES School Loop, West Pine Street to Keough Street
  - j. Main Street and West Line Street (Caltrans participation)
  - k. Whitney Alley
  - l. Sneden Street, Clarke Street to East South Street
  - m. Hobson Street, Grove Street to West Elm Street
2. One million gallon storage tank and related improvements
3. Upgrades to three wells
4. Hypochlorite generator
5. Valve Box Program
6. Replaced approximately 40 fire hydrants
7. Constructed approximately 50 new fire hydrants
8. Constructed approximately 250 isolation valves
9. Security fence at the water intake

**B. New facilities financed by development and water service fees:**

1. Kmart/Vons development
2. Caltrans
3. Eastern Sierra Motors
4. Bishop Factory Outlet (Smart and Final)
5. Lush Meadows
6. LADWP
7. Bowling Alley, Brass Bell and Outdoorsman
8. Hammond Street subdivision

9. Northern Inyo Hospital/BUES
10. Bishop Care Center
11. Sunland Storage Units
12. Holiday Inn Express

**C. Equipment and vehicles replaced with water fees and other revenues:**

1. Dump trucks
2. Backhoe
3. Loader
4. Flatbed truck
5. Service truck
6. Utility truck
7. Rammer
8. Guillotine saw
9. Chop saws
10. Tools
11. Compressor
12. Dewatering pumps
13. Safety barricades and lights
14. Upgraded shop facilities
15. Computers

**II. The following improvements are currently proposed for the 20-year planning period from 2004 to 2024:**

**A. Improvements:**

1. Well No. 1 – Seal Fluoride Zone/Install VSD.
2. Well No. 2 – Install VSD, upgrade electrical and controls.
3. Well No. 5 – Construct and equip well, 500,000 gallon tank, booster pump station
4. Alarm and communication system
5. Security improvements
6. Two IMG tanks at West Line Street Site
7. Pipelines – 20” line from West Line Street tanks; interconnect deadend pipelines and replace small diameter lines.
8. Full pipe from Well No. 4 to reservoir
9. Master Water Plan and digital aerial survey
10. Computer model of the water system



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