

2010 Consumer Confidence Report

Water System Name: 2910001 City of Grass Valley

Report Date: June 15, 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. Last year, as in years past, your tap water met all EPA and State drinking water health standards. Grass Valley Water Treatment Plant vigilantly safeguards its water supplies and once again we are proud to report that our system has never violated a maximum contaminant level or any other water quality standard. This brochure is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards. We are committed to providing you with information because informed customers are our best customers.

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: Surface Water

Name & location of source(s): City of Grass Valley Surface Water from NID originating from Lower Scotts Flat Lake

This water is transmitted in channels and pipelines to the Alta Vista Treatment Plant where it is treated and distributed to the customer.

Source Water Assessment: In February 2007, NID, along with the Placer County Water Agency and Starr Consulting updated a Source Water Susceptibility Assessment for your drinking water sources. This assessment describes the susceptibility and types of constituents that may come into contact with your drinking water source. The report confirmed that district watersheds have very low levels of contaminants. To a limited extent, those contaminants found are usually associated with wildlife and human recreational activity. Leading sources of potential contamination include highways, roadways, and railroads near rivers and raw water canals, septic tanks, unidentified utility pipelines crossing canals, recreation at upstream reservoirs, historic and active mining operations, and utility operations. A copy of the complete assessment is available for review at N.I.D.'s office, or through the California Department of Public Health, Division of Drinking Water, 415 Knollcrest Drive, Suite 110 Redding, California 96002.

Time and place of regularly scheduled board meetings for public participation: **Grass Valley City Council meets the second and fourth Tuesday of each month at 7:30pm at 125 E. Main St., Grass Valley, CA 95945**

For more information, contact:
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530-477-4625

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.

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.

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

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 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 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 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.

| TABLE 1 - SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA | | | | | |
|---|---------------------------|----------------------------|---|----------|---|
| Microbiological Contaminants | 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 th percentile level detected | No. sites exceeding AL | AL | PHG | Typical Source of Contaminant |
| Lead (ppb) | 20 | 10.9 | *2 | 15 | 0.2 | Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits |
| Copper (ppm) | 20 | .955 | 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 | | MCL | PHG (MCLG) | Typical Source of Contaminant |
| Sodium (ppm) | 2-4-09 | 3.6 | | none | none | Generally found in ground & surface water |
| Hardness (ppm) | 8-2-10 | 11.0 | | 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 <u>PRIMARY</u> DRINKING WATER STANDARD | | | | | | |
|---|-------------|--------------------|--|---------------|--------------------------|--|
| Chemical or Constituent (and reporting units) | Sample Date | Level Detected | | MCL [MRDL] | PHG (MCLG) [MRDLG] | Typical Source of Contaminant |
| Haloacetic Acid (ppb) | 3/3/10 | 9.1 | | 60 | n/a | Byproduct of drinking water chlorination |
| | 6/1/10 | 4.4 | | | | |
| | 9/7/10 | 6.7 | | | | |
| | 12/8/10 | 5.2 | | | | |
| Barium (ppm) | 2/24/04 | .0139 | | 1.0 | 2.0 | Discharge from oil drilling wastes and from metal refineries; erosion of natural deposits |
| Chlorine (ppm) | weekly | 0.25 to 0.7 | | 4.0 | 4.0 | Disinfection Residual |
| Total Trihalomethane (ppb) | 1/15/10 | 14 | | 80 | n/a | Byproduct of drinking water chlorination. |
| | 3/3/10 | 20 | | | | |
| | 6/1/10 | 34 | | | | |
| | 9/7/10 | 23 | | | | |
| | 12/8/10 | 22 | | | | |
| Nickel (ppb) | 1/30/07 | 11 | | 100 | 12 | Erosion of Natural Deposits |
| TOC (ppb) | 2/17/10 | 0.87 | | NA | | Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. |
| | 5/18/10 | 0.94 | | | | |
| | 8/16/10 | 0.97 | | | | |
| | 11/23/10 | 0.83 | | | | |
| Ra228 (pci/L) | 2/28/08 | 0.185 | | 2.0 | | Erosion of natural deposits. |

| TABLE 5 - DETECTION OF CONTAMINANTS WITH A <u>SECONDARY</u> DRINKING WATER STANDARD | | | | | | |
|---|-------------------|--|--|--------------|---------------|---|
| Chemical or Constituent (and reporting units) | Sample Date | Level Detected | | MCL | PHG (MCLG) | Typical Source of Contaminant |
| Total Dissolved Solids (ppm) | 2/4/09 | 16 | | 1,000 | | Runoff/leaching from natural deposits. |
| Chloride (ppm) | 8/2/10 | 4.7 | | 500 | | Runoff/leaching from natural deposits. |
| Sulfate (ppm) | 2/4/09 | 6.0 | | 500 | | Runoff/leaching from natural deposits. |
| Color (units) | 8/3/10 | ND | | 15 | | Erosion of natural deposits; residual from some surface water treatment processes. |
| Corrosivity – AI<10.0: highly aggressive 10.0<AI<=11.5: moderately aggressive | 5/14/10 8/2/10 | 8.892 8.704 – <i>Index Number</i> <i>Highly</i> | | - | | Natural or industrially-influenced balance of hydrogen, carbon & oxygen in the water; affected by temperature and other factors. |

| | | | | | |
|------------------------------|-------------------|------------------|--|------|--|
| If AI>12.0: non-aggressive | | <i>corrosive</i> | | | |
| Odor (ton) | 8/3/10 | 1 | | 3 | Natural-occurring organic materials. |
| Silver (ppb) | 1/3/07 | 13 | | 100 | Erosion of natural deposits. |
| Specific Conductance (mS/cm) | 7/28/10 8/2/10 | 51 49.3 | | 1600 | Substances that form ions when in water. |

TABLE 6 - DETECTION OF UNREGULATED CONTAMINANTS

| Chemical or Constituent (and reporting units) | Sample Date | Level Detected | Notification Level | Health Effects Language |
|--|---|--------------------------------|-----------------------|-------------------------|
| 1,2 Dichlorobenzene-d4 (ppb) | 1/5/10 | ND | 600 | |
| 4, Bromofluorobenzene (ppb) | 1/5/10 | ND | None | |
| Chloroform (ppb) | 1/5/10 3/3/10 6/1/10 9/7/10 12/8/10 | 13.0 19.0 32 21 20 | | |
| Fluorobenzene (ppb) | 1/31/07 | 10.0 | | |

**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. 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).

**Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and/or flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the USEPA Safe Drinking Water Hotline (1-800-426-4791).*

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 Grass Valley 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. 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/safewater/lead>.

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

There were no violations of any kind.

FOR SYSTEMS PROVIDING GROUND WATER AS A SOURCE OF DRINKING WATER

TABLE 7 – SAMPLING RESULTS SHOWING FECAL INDICATOR-POSITIVE
GROUND WATER SOURCE SAMPLES

Table 7 Omitted. Ground Water is not our source of drinking water.

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)

TABLE 8 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES

| | |
|---|---|
| Treatment Technique ^(a) (Type of approved filtration technology used) | Dual media gravity filtration |
| Turbidity Performance Standards ^(b) (that must be met through the water treatment process) | <u>Turbidity of the filtered water must:</u> 1 – Be less than or equal to <u>0.3</u> NTU in 95% of measurements in a month. 2 – Not exceed <u>1.0</u> NTU for more than eight consecutive hours. 3 – Not exceed <u>1.0</u> NTU at any time. |
| Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1. | 100% |
| Highest single turbidity measurement during the year | 0.46 NTU |
| 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

There were no violations for surface water treatment.
