Spring 2013

Nevada City Newsletter

Water Quality Report

2012 Calendar Year Consumer Confidence Report

Special points of interest inside this issue:

As a public service, the City of Nevada City, in cooperation with the California Department of Public Health (CDPH) has prepared this Water Quality Report to inform you of the quality of the water you consume. This report covers data for the calendar year 2012 that is required to be published to the community annually.

It is hoped that the data will be clear, complete, and easy to understand. We have included a list of terms, definitions, units, and symbols to assist you. The list of constituents analyzed includes water clarity, micro biological organic and inorganic chemicals, radioactivity, and aesthetic values. All of the compounds analyzed this past year meets all the Primary drinking water standards and were found to be well below the levels set forth by the CDPH.

The source of Nevada City's water supply is Little Deer Creek that runs along the side of Banner Mountain. Water is diverted from the creek into a 54 acre foot resevoir. Before being delivered to City customers, the water is completely treated and filtered at the City's Water Plant. As a backupsource, we can also draw water ainto our reservoir from the nearby D.S. canal, operated by Nevada Irrigation District (N.I.D.). This is done primarily during periods of high water use. N.I.D. reports all test results for the canal to be well below the allowable limits.

Chlorine is added to the water during the treatment process for disinfection and the control of taste and odor. Chlorine, when combined with materials naturally present in the water forms a compound known as Trihalomethanes (THM). California State drinking water standards require that the level of THM in the system not exceed 0.80 part per million (PPM). Analysis results indicate that Nevada City provides water with a THM level of 0.0195 PPM; well below the safe drinking standard.

There's exciting news on the water conservation front. This past year the City introduced its Water WiseProgram. Go to our website at www.nevadacityca.gov/water for more information on how you can be part of water conservation throughout Nevada City & find out about how you can obtain a FREE low flow showerhead. Below is a list of thrifty measures you can take right at your home or business, insuring that this precious commodity is available for all your various needs throughout the year.

The City's hope is is that you will find this report useful and informative. It is advised that property owners provide a a copy of this report to your tenants. If you have any Questions or would like to find out how to view a copy of the 2009 Sanitary Survey and Source Water Assesment contact Supervising Operator Howard Schmitz at 530-265-6645.

Sincerely,

Chris Towne
Nevada City Water Treatment Plant

City residents can participate in decisions that affect their drinking water by contacting City Hall at 530-265-2496 to obtain information about City Council meeting schedules and other opportunities to get involved.

Este informe contiene informacion muy importante sobre su agua potable. Traduzcalo o hable con alguien que lo entienda bien.

Nevada City Residents Can Conserve Water Right at Home

Indoor water saving tips

- Only run full loads in the washing machine and if you are purchasing a new washer sometime soon, purchase a water and energy saving model.
- Running full loads in the washing machine and dishwasher saves about 800 gallons a month.
- Don't let the water run while you're washing dishes or brushing your teeth.
- If you don't have a low-flow toilet, use plastic bottles filled with water and pebbles to displace water in the tank. Don't obstruct float. Don't use bricks.
- Fix leaky faucets and toilets - if the toilet flapper valve leaks, it's an easy problem to fix and stops enormous waste of water.
- Taking five minute showers while using a low-flow shower head can save about 600 gallons of water a month.
- Cool drinking water in refridgerator or with ice, not by running tap. Use leftover drinking water for pets or to water plants.

Outdoor water saving tips

- Landscaping benefits most from slow, thorough, infrequent watering. Minimize evaporation by watering early morning or evening. Aerate lawns. Install drip irrigation and automatic timers.
- Make sure your sprinklers are directed toward watering the yard, not the sidewalk, or driveway.
- Landscaping with plants and flowers that need a little water can use 50% less water.
- Instead of a hose, use a broom to clean driveways and walkways.
- Use a shutoff nozzle on your hose.

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The City of Nevada City water system is located in Nevada County, CA, serving a population of 3,000, with approximately 1,333 service connections. Water for the system is provided seasonally by surface water in Little Deer Creek watershed, and by the Nevada Irrigation District's DS canal. General land uses in the watershed are residential dwellings, managed forests and undeveloped land. A surface water source assessment was completed for the Little Deer Creek watershed in August 2008. This surface water source is considered to be vulnerable to storm drain discharge; historic mining, propane storage tanks, septic systems, use of pesticides and herbicides, fertilizers, managed forests, streets, roads, and water supply wells. A complete copy of this assessment is available for review at Nevada City Hall, 317 Broad St., Nevada City, CA 95959. (530)265-2496. A copy of NID's complete assessment is available for review at their office located at 1036 West Main St., Grass Valley, CA 95945. You may also contact the California Department of Public Health, Division of Drinking Water, 415 Knollcrest Drive, Suite 110, Redding, CA 96002 to review either of the source water assessment reports.

Definitions of Terms

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

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to a single penny in $10,000.

Parts per billion (ppb) or Micrograms per liter (µg/L) - one part per billion corresponds to a single penny in $10,000,000.

Nephelometric Turbidity Unit (NTU) - a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the eye. Turbidity has no health effects. However, high levels of tubidity can interfere with disinfection and provide a medium for microbial growth.

Micromhos per centimeter (µmhos/cm)– The units of measurement for specific conductivity.

Regulatory Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

90th Percentile – The level below which 90% of the test results fall, and above which 10% of the test results fall.

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.

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 EPA.

Primary Drinking Water Standard (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that additon of a disinfectant is necessary for control of microbial containments.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Water Testing Results:

The sources of drinking water (both tap and bottled water) includes 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 human activity. The term "contaminant", as used below refers to any substance in water, other than pure water itself, it is regulated and monitored for health and aesthetic reasons

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 storm water 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 the tap water is safe to drink, USEPA and the California 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 must provide the same protection for public health.

• Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminats does not necessarily indicate that 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 (800) 426-4791.

• Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 infections by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800) 426-4791.

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Detected Contaminants In Our Water Nevada City routinely monitors for contaminants in our drinking water according to Federal and State laws. The following paragraphs and tables show the results of our most recent testing. Please note that not all testing is required annually, so in some cases our results are more than one year old.

Microbiological Water Quality Testing for bacteriological contaminants in the distribution system is required by State regulations. This testing is done regularly to verify that the water system is free from coliform bacteria. The minimum number of tests required for our water system is one per week. The highest number of samples found to contain coliform bacteria during any one month in 2011 was zero.

Violation Information Nevada City is pleased to report that our water system generally meets all applicable regulations for monitoring, reporting, and treatment.

Chemicals Detected In Our Water

The following table gives a list of all regulated chemicals that were detected in our water during the most recent samplings

Chemical Detected	Year Tested	Level Detected	MCL	PHG (or MCLG)	Origin
Chloride	2012	1.4 ppm	500	N/A*	Naturally occurring; seawater influence
Sulfate	2012	ND	500	N/A*	Naturally occurring; industrial waste
Total Dissolved Solids	2012	28.0 ppm	1000	N/A	Run-off/leaching from natural deposits
Specific Conductivity	2012	45.3 umhos/cm	1600	N/A	Substances that form ions in water; seawater influence
Odor	2012	2 ppm	3*	N/A	Naturally occurring organic materials, chlorine
Chlorine	2012	1.5 ppm Range 0.8 - 2.2	4	4	Drinking water disinfectant added for treatment
Turbidity	2012	0.115 NTU Range 0.08 - 0.22	0.3	N/A	Soil run-off
Aluminum	2012	1.17 ppm* Range 0.06 - 0.39	1000	600/200*	Erosion of natural deposits Residual from treatment process
Sodium	2012	1.8 ppm	N/A	N/A	Erosion of natural deposits
Hardness	2012	12.0 ppm	N/A	N/A	Erosion of natural deposits
Barium	2012	23.8 ppb	1000	2000	Erosion of natural deposits
Trihalomethanes	2012	19.5 ppb	80	N/A	Byproduct of drinking water chlorination
Haloacetic Acids	2012	23.0 ppb	60	N/A	Byproduct of drinking water chlorination
Iron	2012	ND	300	N/A	Leaching from natural sources; industrial waste
MBAS (Surfacants)	2012	ND	500	N/A	Municipal and waste discharges
Copper	2012	ND	1000	N/A	Leaching from natural deposits and copper pipes

N/A = not applicable ND = not detected * secondary standard

The following have also been analyzed, but were not detected in the water: Antimony, arsenic, beryllium, cadmium, chromium, fluoride, manganese, mercury, nickel, selenium, silver, thallium, zinc, nitrate, nitrite, volatile organic chemicals (solvents and petroleum products), MTBE, radioactivity, and color. Although there is no MCL for sodium in public drinking water, we are providing sodium test results for persons who might be on a low-sodium diet. The American Heart Association recommends that persons on such a diet should use drinking water containing no more than 20 ppm of sodium. Likewise, hardness results (calcium + magnesium) are provided for informational purposes only, as there is no MCL. In 2008 the City collected samples for Radium 228. All of the quarterly samples for Radium 228 were negative.

Lead & Copper Testing Results

Lead & copper testing of water from individual taps in the distribution system is required by State regulations. The table below summarizes the most recent monitoring for these constituents. If the 90th percentile result does not exceed the action level for either lead or copper, the water system is in compliance. Due to previous analytical results, going back over 15 years, the City of Nevada City is required to test for lead & copper every 3 years. The next round of tests are set for the Summer, 2014. These results will be included in the Spring 2015 Water Quality Report.

	Year Tested	No. of Samples Collected	No. of Samples Required	90th Percentile Result (ppb)	No. of Samples Above Action level	Action Level (ppb)
Lead	2011	10	10	ND	1	15
Copper	2011	10	10	86.0	0	1300

If present, elevated levels of lead can cause serious health problems, expecially for pregnang wormen and young children. Lead in drinking water is primarily from materials and components associated with servcie lines and home plumbing. The City of Nevada City 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 flusing 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.

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