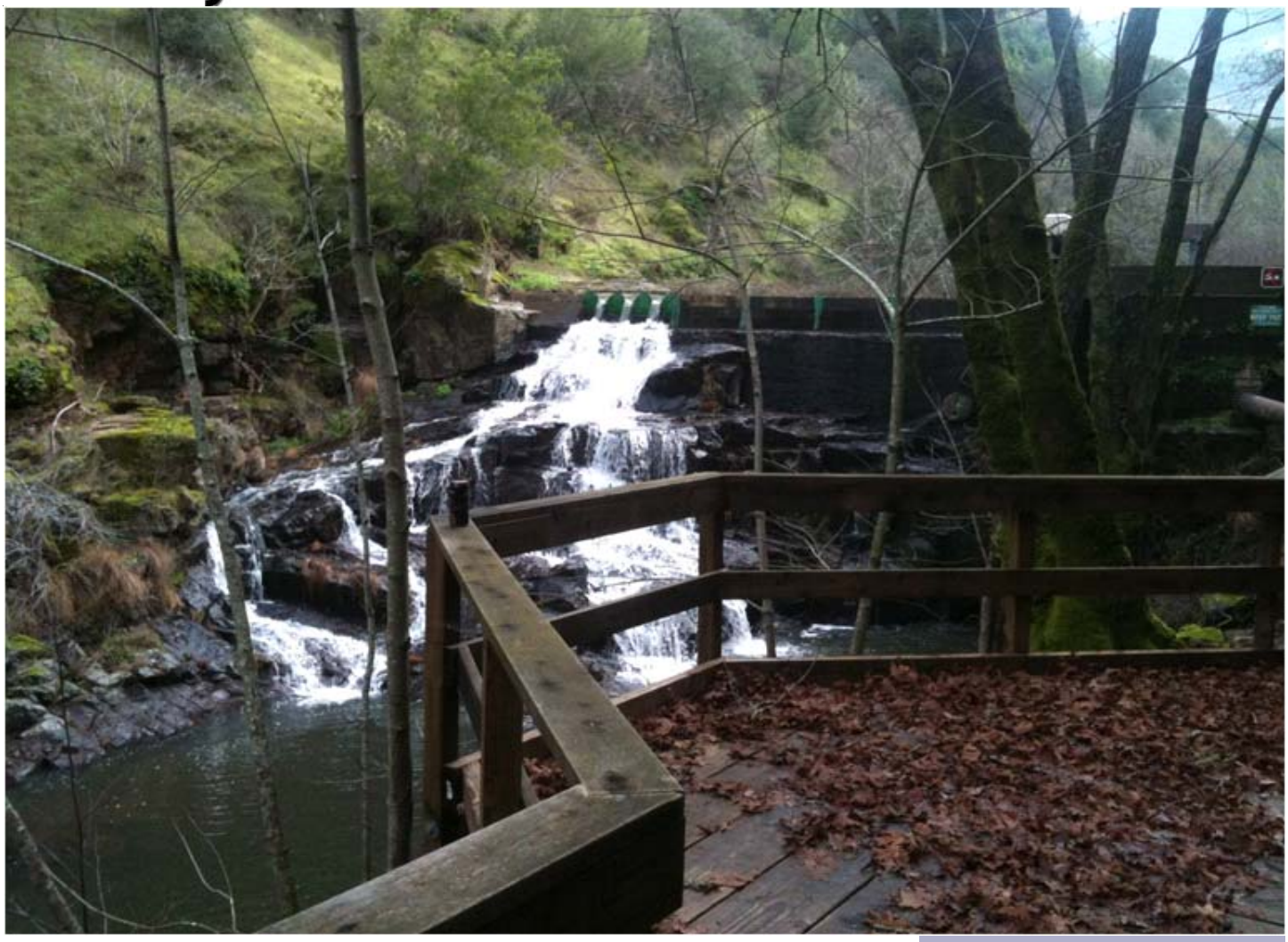
CITY of NAPA

2013 DRINKING WATER QUALITY REPORT



In order to ensure that tap water is safe to drink, the US Environmental Protection Agency (USEPA) and the California Department of Public Health (CDPH) prescribe regulations that limit the amount of certain contaminants in water provided by the public water systems. If the product is bottled in California, CDPH regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

A primary purpose of this drinking water quality report is to provide Napa's water consumers with detailed information regarding where your water comes from, what it contains and how it compares to Federal and State standards for the period January 1, 2013 - December 31, 2013.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien. Para recibir información en Español comuníquese con Bea Manriquez al (707) 257-9520 extensión 7743.

The table below summarizes the drinking water contaminants that were detected in the period January 1, 2013 - December 31, 2013. Of all the contaminants analyzed, we found only one at a higher level than the State allows*. Our water temporarily exceeded drinking water standards, affecting 6 customers, in one specfic area of the distribution system. For more information, see the paragraph marked **Violation** on the back.

PRIMARY INORGANIC CONTAMINANTS						
CONTAMINANT	UNITS	MCL (NL)	PHG (MCLG)	AVERAGE	RANGE	CONTAMINANT SOURCES
Aluminum	ppm	1	0.6	0.02	ND - 0.06	Erosion of natural deposits; residues from some surface water treatment plants
SECONDARY INORGANIC CONTAMINANTS						
Total Dissolved Solids	ppm	1000	NA	226	100 - 453	Runoff/leaching from natural deposits
Specific Conductance	uS/cm	1600	NA	260	140 - 340	Substances that form ions when in water; seawater influence
Chloride	ppm	500	NA	19	10 - 44	Runoff/leaching from natural deposits; seawater influence
Sulfate	ppm	500	NA	34	15 - 44	Runoff/leaching from natural deposits; industrial wastes
UNREGULATED CONTAMINANTS						
Boron	ppm	(1)	NA	0.04	ND - 0.12	Unregulated contaminant monitoring helps EPA & the State determine where certain contaminants occur & whether the contaminants need to be regulated
Vanadium	ppb	(50)	NA	1.63	ND - 4.90	
Chromium VI	ppb	NA	NA	0.06	ND - 0.28	Naturally occuring; used in making steel & other alloys
Chlorate	ppb	(800)	NA	228	94 - 400	Agricultural defoliant or desiccant
Molybdenum	ppb	NA	NA	0.28	ND - 1.30	Naturally occuring; found in ores & present in plants, animals & bacteria
Strontium	ppb	NA	NA	141	93 - 170	Naturally occurring; used in cathod-ray tube TVs
OTHER CONTAMINANTS						
Sodium	ppm	NA	NA	18	13 - 27	Naturally-occurring in ground and surface water
Hardness	ppm	NA	NA	90	29 - 151	

MICROBIOLOGICAL CONTAMINANTS				
COLIFORM BACTERIA				
Minimum # of Monthly Samples Required: 92			Maximum % of Postive Samples Allowed(MCL): < 5.0%	
CONTAMINANT	TOTAL # OF SAMPLES TAKEN	HIGHEST MONTHLY % POSITIVE	TOTAL % POSITIVE	CONTAMINANT SOURCES
Total Coliform Bacteria	1328	0.78	0.08	Naturally present in the environment

FILTER PERFORMANCE				
TURBIDITY (THE STANDARD MEASURE OF THE CLARITY IN WATER)				
CONTAMINANT	PERFORMANCE STANDARD (TT)	HIGHEST DETECTED MEASUREMENT (NTU)	LOWEST % OF SAMPLES < 0.3	CONTAMINANT SOURCES
Turbidity	TT = 1.0; Minimum 95% of samples each month < 0.3	0.29	100.0	Soil runoff

DISINFECTION BYPRODUCTS, DISINFECTANT RESIDUALS and DISINFECTION BYPRODUCT PRECURSORS						
TRIHALOMETHANES (THMs) AND HALOACETIC ACIDS (HAAs)*						
CONTAMINANT	UNITS	MCL	PHG (MCLG)	HIGHEST LRAA	RANGE	CONTAMINANT SOURCES
THM	ppb	80	NA	78.25	43 - 95	Byproduct of drinking water disinfection
HAA	ppb	60	NA	62.48*	ND - 116	
Bromate	ppb	10	0.1	1.21	0.82 - 1.70	
CHLORINE (Cl_2)						
CONTAMINANT	UNITS	MRDL	MRDLG	AVERAGE	RANGE	CONTAMINANT SOURCES
Chlorine	ppm	4.0	4.0	0.51	ND - 1.42	Drinking water disinfectant added for treatment
TOTAL ORGANIC CARBON (TOC)						
CONTAMINANT	COMPLIANCE RATIO	MCL	PHG	AVERAGE	RANGE	CONTAMINANT SOURCES
TOC	> 1	TT	NA	1.69	1.00 - 2.02	Various natural and man-made sources

DETECTION OF LEAD AND COPPER IN CUSTOMER TAPS							
CONTAMINANT	UNITS	AL	PHG	90TH PERCENTILE DETECTED	# SITES EXCEEDING AL	# SITES SAMPLED	CONTAMINANT SOURCES
Lead	ppb	15	0.2	ND	0	30	Plumbing corrosion; erosion of natural deposits
Copper	ppm	1.3	0.3	0.4	1	30	

WATER QUALITY GLOSSARY

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

LRAA - Locational Running Annual Average

MCL - Maximum Contaminant Level: The highest level of contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically & technologically feasible. Secondary MCLs are set to protect the odor, taste & appearance of drinking water.

MCLG - Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the

MRDL - Maximum Residual Disinfectant Level: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbioal contaminants.

MRDLG - Maximum Residual Disinfectant Level Goal: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not relect the benefits of the use of disinfectants to control microbial contaminants.

NA - Not Applicable

ND - Not Detected

NL - Notification Level

NTU - Nephelometric Turbidity Units

PHG - Public Health Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the CA EPA.

ppb - parts per billion: micrograms per liter (ug/L)

ppm - parts per million: milligrams per liter (mg/L); 17.1 ppm = 1 grain/gal. "Very Hard" Water is 180 mg/L or greater.

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

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

uS/cm: microsiemens per centimeter

SOURCE WATER

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 human activity.

The City of Napa's source water, depending on which water treatment plant is in operation, comes from: 1) Barker Slough in the Sacramento Delta via the North Bay Aqueduct (treated by the Edward I. Barwick Jamieson Canyon Water Treatment Plant), 2) Lake Hennessey (treated by the Hennessey Water Treatment Plant), and 3) Lake Milliken (treated by the Milliken Water Treatment Plant). 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.

PROTECTING OUR WATERSHEDS

The City of Napa is devoted to protecting the land surrounding our source waters in order to maintain the quality and purity of water used for Napa's drinking water consumers. Every five years, the City of Napa conducts Source Water Assessments to evaluate the quality of the water used as drinking water supplies and to examine activities associated with the specific waterway and surrounding areas to determine their contribution to contamination.

These potential contributors are then compiled into a Vulnerability Summary. Results from the Vulnerability Summaries show the most significant potential sources of contaminants for the City of Napa's source waters are:

Lake Hennessey *(completed December 2012)*: Pacific Union College WasteWater Treatment Plant, vineyards, fires, invasive species, potential hazardous material spills due to traffic accidents (on Highway 128 near lake), septic tank systems (in Angwin), and grazing and wild animals.

Lake Milliken *(completed December 2012)*: Fires, vineyards, grazing and wild animals.

Sacramento Delta *(updated June 2012)*: Recreational use, grazing animals, urban & agricultural runoff, herbicide runoff & seawater intrusion.

Copies of the complete assessments are available through the CDPH Water Field Operations Branch, Santa Rosa District Office, 50 D Street, Suite 200, Santa Rosa, CA 95404 or Ms. Amy Little, Associate Sanitary Engineer, CDPH at (707) 576-2145.

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 at (800) 426-4791.

SENSITIVE POPULATIONS

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 at (800) 426-4791.

TRIHALOMETHANES & HALOACETIC ACIDS (*VIOLATION)

To protect drinking water from disease-causing organisms, or pathogens, chlorine is added to drinking water as a disinfectant. However, disinfection byproducts form when organic-rich water is disinfected. For one sampling period in a localized area of our water system, the drinking water standard for HAAs was exceeded. Those 6 customers affected were notified in accordance with CDPH and we took immediate action to resolve the exceedance. We are actively exploring all options to reduce HAAsand continue to work to protect the watershed and water quality with the goal of minimizing organic content in the water. Similar to *Sensitive Populations* above, some people who drink water containing THMs and/or HAAs in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer. These diseases, however, are not caused only by chemicals in drinking water, but also by other factors.

LEAD & COPPER

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 Napa 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. The next round of lead and copper testing is in July 2015.

Water is a Natural Resource.

FOR MORE INFORMATION

If you have questions after reading this report regarding drinking water quality, please call Erin Kebbas at (707) 253-0822. For questions concerning the City of Napa Water Division, in general, please call (707) 257-9521. For emergencies or customer use during weekends and holidays, please call (707) 253-4451.

PARTICIPATE

The City of Napa encourages citizens to participate in our City Council meetings, which take place on the first and third Tuesday of each month at 3:30-5:00 pm and again at 6:30-9:00 pm, in our Council Chambers at City Hall, 955 School Street. For more information concerning City activities, please see our web site at http://www.cityofnapa.org.