



San Lorenzo Valley Water District

Water Quality Report 2004

Northern Distribution System

Volume 15, Number 1

Spring / Summer 2005

Your Water Passes All Tests

Once again, the San Lorenzo Valley Water District is pleased to report that our water quality met or surpassed all State and Federal criteria for public health protection. For additional information regarding water quality, please contact the San Lorenzo Valley Water District's Director of Operations, Rick Rogers, at (831) 430-4624 or e-mail to rogers@slvwd.com.

Sources of Water

The sources of drinking water (both tap 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.

Where Does Your Water Come From?

All water comes in the form of precipitation. Surface water accumulates mainly as a result of direct runoff from precipitation in the form of streams. Part of the precipitation that falls infiltrates the soil. Water drains downward (percolates) below the soil surface reaching a level at which all of the openings or voids in the earth's materials are filled with water. This zone of saturation is referred to as groundwater.

The District primarily uses surface water sources from November to May. During these months, they may provide up to 100% of all District water. Streams utilized by the District contain water from granite formations with very low mineral content. This results in very soft, pleasant tasting water. Collection points for these streams are in remote areas high within the District's protected watershed, away from human contamination.

During the summer months from June-November the District blends surface water with groundwater sources (wells) located in the Ben Lomond and Zayante areas. All wells conform to State construction standards. These wells, with the exception of Olympia 2 and 3 in the Zayante area, produce very soft water with quality similar to our surface sources.

Olympia Wells 2 and 3 have a higher mineral content, primarily iron, manganese and carbonate hardness. These minerals are harmless when consumed in water, but may affect the aesthetic qualities of the water such as taste, odor, and color. Dissolved gases present in groundwater may also affect taste.

Consumers in the Hihn Road and Zayante areas, from time to time, may experience periods of discolored water caused by iron and manganese. As water comes in contact with chlorine at the well head and with oxygen during the trip through the mainline distribution piping, the iron and manganese precipitate deposits in the water mains. The District adds a polyphosphate chemical to slow down this process. However, this is not totally effective and some deposition still occurs. Occasionally, during higher flows, the deposits become dislodged resulting in discolored water. During this time, water is safe to use; however, you may want to avoid washing laundry as staining may occur. If you experience periods of discolored water, please contact the District at (831) 338-2153.

Public Involvement

The Board of Directors of the San Lorenzo Valley Water District invites you to attend its meetings to express your views and opinions. The Board meets on the 1st and 3rd Thursday of each month. Meetings start at 7:30 p.m. at the District's Operations Building, 13057 Highway 9, Boulder Creek. Agenda information for the Board of Director's meetings can be obtained from the District at (831) 430-4636 or www.slvwd.com.

Is The Water Safe For Everyone to Drink?

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 from their health care providers about drinking water. 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 800-426-4791 or on the internet at <http://www.epa.gov/safewater>

"Our mission is to provide our customers and all future generations with reliable, safe and high quality water at an equitable price; to create and maintain outstanding customer service; to manage and protect the environmental health of the aquifers and watersheds; and, to ensure the fiscal vitality of the San Lorenzo Valley Water District."

Water Quality

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and 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 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 contaminants 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 (1-800-426-4791) or on the web at www.epa.gov/safewater.

Possible Contaminants

Contaminants that may be in the water prior to treatment may include:

Microbial Contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic sys-

tems, 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 agricultural, 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.

State Standards and Monitoring

Individual water suppliers do not arbitrarily decide what constitutes "safe" drinking water. The U.S. Environmental Protection Agency and the California State Department of Health Services require all public water suppliers to meet stringent quality standards. Compliance is mandatory for public water utilities.

In California, drinking water standards (also called Maximum Contaminant Levels, or MCLs) are established for two categories. Primary Standards are set for the protection of public health. Secondary Standards are set only for aesthetic qualities such as taste, odor and color, but do not represent any threat to health.

The District maintains a monitoring program to sample and test all water sources in accordance with State and Federal standards. Should the District fail to monitor, or the District's water exceed the MCLs allowable in the Primary Standards, it is required by law to notify all customers of the nature of the problem and any possible health effects. Some contaminants that are routinely monitored by the District are bacteria, turbidity, inorganic chemicals, metals, general minerals, volatile organic chemicals (VOCs), disinfection by-products (THMs), and radiation.

The table in this report shows our test results for 2004. Once again, the San Lorenzo Valley Water District is pleased to report that our water quality met or surpassed all State and Federal criteria for public health protection. For additional information regarding water quality, please contact the San Lorenzo Valley Water District at (831) 338-2153.

In an effort to provide this report to everyone, the District encourages landlords to provide a copy of this report to their tenants.

WATER QUALITY ANALYSIS FOR 2004							
North System - Boulder Creek, Brookdale, Ben Lomond, Zayante							
GROUNDWATER				SLVWD Range of Detection	SLVWD Water Average	Sample Date	Source
Primary Standards	Meas.	MCL	PHG (MCLG)	SLVWD Range of Detection	SLVWD Water Average	Sample Date	Source
Nitrate	ppm	45	45	< 1 - 12	2.7	2004	Runoff and leaching from fertilizer use, leaching from septic tanks and sewage, erosion of natural deposits.
Total Chromium	ppb	50	(100)	N.D. - 3.0	0.9	2002 ⁽¹⁾	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits. See Note 1.
Trichloroethylene (TCE)	ppb	5 (average of 6 samples)	0.8	N.D. - 0.7	N.D.	2004	Discharge from metal degreasing sites and other factories.
Fluoride	ppm	2	1	0.18 - 0.29	0.22	2003 ⁽¹⁾	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories. See Note 1.
Arsenic	ppb	50	N/A	< 2 - 2.9	1.1	2004	Erosion of natural deposits.
Radioactive Contaminants	Meas.	MCL	PHG (MCLG)	SLVWD Range of Detection	SLVWD Average	Sample Date	Source
Gross Alpha	pci/L	15	0	N.D. - 0.57	0.16	2003 ⁽¹⁾	Erosion of natural deposits. See Note 1.
Secondary Standards							
Sulfate	ppm	250	N/A	10 - 310	119	2003 ⁽¹⁾	Runoff / leaching from natural deposits. See Note 1.
Total Dissolved Solids	ppm	1000	N/A	90 - 590	279	2004	Runoff / leaching from natural deposits.
Iron	ppb	300	N/A	< 50 - 110	63	2003 ⁽¹⁾	Leaching from natural deposits. See Note 1.
Manganese	ppb	50	N/A	< 15 - 150⁽³⁾	80	2004	Leaching from natural deposits. See Note 3.
Chloride	ppm	500	N/A	6.5 - 9.6	8	2003 ⁽¹⁾	Runoff / leaching from natural deposits. See Note 1.
Additional Constituents Analyzed	Meas.	MCL	PHG (MCLG)	SLVWD Range of Detection	SLVWD Average	Sample Date	Source
Sodium	ppm	N/A	N/A	10 - 15	12	2003 ⁽¹⁾	Generally naturally occurring. See Note 1.
Total Hardness	ppm	N/A	N/A	46 - 470	211	2003 ⁽¹⁾	Hardness is the sum of polyvalent cations present in the water, generally magnesium and calcium. See Note 1.
Total Phosphorous ⁽³⁾	ppm	N/A	N/A	N.D. - 4.4	2.7	2004	See Note 3.
SURFACE WATER				SLVWD Range of Detection	SLVWD Average	Sample Date	Source
Primary Standards	Meas.	MCL	PHG (MCLG)	SLVWD Range of Detection	SLVWD Average	Sample Date	Source
Fluoride	ppm	2	1	< 0.1 - .11	< 0.1	2004	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Total Chromium	ppb	50	(100)	N.D. - 7.0	0.9	2002 ⁽¹⁾	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits. See Note 1.
Total Organic Carbon (TOC) Control of DBP precursors	ppb	Treatment requirement	N/A	N.D. - 1.5	0.8	2002 ⁽¹⁾	Various natural manmade sources. See Note 1.
Radioactive Contaminants	Meas.	MCL	PHG (MCLG)	SLVWD Range of Detection	SLVWD Average	Sample Date	Source
Gross Alpha	pci/L	15	0	N.D. - 0.72	0.15	2003 ⁽¹⁾	Erosion of natural deposits. See Note 1.
Secondary Standards							
Sulfate	ppm	250	N/A	3.0 - 4.9	4.1	2004	Runoff / leaching from natural deposits.
Total Dissolved Solids	ppm	1000	N/A	99 - 130	112	2004	Runoff / leaching from natural deposits.
Chloride	ppm	500	N/A	7.2 - 7.7	7.4	2003 ⁽¹⁾	Runoff / leaching from natural deposits. See Note 1.
Additional Constituents Analyzed	Meas.	MCL	PHG (MCLG)	SLVWD Range of Detection	SLVWD Average	Sample Date	Source
Sodium	ppm	N/A	N/A	9.2 - 10	9.6	2004	Generally naturally occurring.
Total Hardness	ppm	N/A	N/A	55 - 77	63	2004	Hardness is the sum of polyvalent cations present in the water, generally magnesium and calcium.
Turbidity ⁽²⁾	NTU	TT = Less Than or Equal to 0.2 NTU. In 95% of samples each month. Never to exceed 1 NTU.	N/A	Highest single measurement 0.25 NTU	Less Than or Equal to 0.2 NTU. In 99% of samples in one month.	2004	Soil runoff. See Note 2.
SYSTEM WIDE - COMBINED GROUND AND SURFACE WATER				SLVWD Range of Detection	SLVWD Average	Sample Date	Source
Microbial Contaminants	Meas.	MCL	PHG (MCLG)	SLVWD Range of Detection	SLVWD Average	Sample Date	Source
Total Coliform	P/A	5% of Samples Positive in any one month	0	N.D.	N.D.	2004	Naturally present in the environment.
Disinfectant Residual	Meas.	MRDL	MRDLG	SLVWD Range of Detection	SLVWD Average	Sample Date	Source
Chlorine	ppm	4	4	0.2 - 1.0	0.54	2004	Drinking water disinfectant added for treatment.
Disinfection By-Products	Meas.	MCL	PHG (MCLG)	SLVWD Range of Detection	SLVWD Average	Sample Date	Source
TTHM (Total Trihalomethanes)	ppb	80	N/A	2 - 38	19	2004	By-product of drinking water chlorination.
HAA5 (Haloacetic Acids)	ppb	60	N/A	N.D. - 25	20	2004	By-product of drinking water chlorination.
Regulated at the tap	Meas.	AL	PHG (MCLG)	SLVWD Range of Detection	SLVWD Average	Sample Date	Source
Lead (90th percentile)	ppb	15	2	N.D. - 7.0	90th Percentile = 2.5 Number of sites above AL = 0	2002 ⁽¹⁾	Corrosion of household plumbing, discharges from industrial manufacturers, erosion of natural deposits. See Note 1.
Copper (90th percentile)	ppb	1300	170	N.D. - 440	90th Percentile = 100 Number of sites above AL = 0	2002 ⁽¹⁾	Corrosion of household plumbing, erosion of natural deposits, leaching from wood preservatives. See Note 1.

Notes: 1) 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. In this case dates of the sample. 2) Surface Water Treatment Technique (Type of Approved Filtration Technology); Microfloc package plant with upflow clarification and gravity filtration. 3) District Olympia Wells 2 and 3 periodically exceed the Secondary Maximum Contaminant Level (MCL) for Manganese. Secondary MCLs are set for aesthetic reasons only, and do not cause adverse health effects. Manganese can cause discolored water and staining. To offset this effect, the District adds phosphate, which acts to keep Manganese in solution and help prevent problems associated with this mineral.

Definitions, Terms and Abbreviations used in table :

Regulatory Action Level (AL): The concentration of a contaminant which, when exceeded, triggers treatment or other requirements that a water system must follow. **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. **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 (MRDLG):** The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLG's are set by the U.S. Environmental Protection Agency. **Primary Drinking Water Standards or PDWS:** MCLs and MRDLs for contaminants that effect health along with their monitoring and reporting requirements, and water treatment requirements. **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water. **n/a:** not applicable, **nd:** not detectable at testing limit, **ppb:** parts per billion or micrograms per liter, **ppm:** parts per million or milligrams per liter, **pCi/l:** picocuries per liter (a measure of radiation). **NTU:** Nephelometric Turbidity Units, **P/A:** Presence / Absence

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Este reporte contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.