

2005 CONSUMER CONFIDENCE REPORT
BELLA VISTA WATER DISTRICT
MAY 2006

(Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.)

The District is pleased to present this year's Consumer Confidence Report. Our constant goal is to provide a safe and dependable supply of drinking water. We want you to understand the efforts that we make to continually improve the water treatment process and to protect our water. This report shows our water quality and what it means.

WHERE OUR WATER COMES FROM

Our water sources include surface water from the Sacramento River, groundwater from five wells, and emergency intertie connections with the City of Redding, Mountain Gate CSD, and the City of Shasta Lake. When water from the Wintu Pumping Plant, located on Sacramento River, becomes too dirty for the treatment plant to adequately treat the water, the District runs its wells and/or interties to provide safe water to its customers. Due to the construction of improvements at the District's Wintu Pump Station and our Water Treatment Plant in 2005, these facilities were off line for the entire months of January, February and December, as well as most of November. The District ran its wells and supplemented with intertie water, when necessary, to meet our customer's water demands while the surface water facilities were offline.

In April 2006, construction of the improvements to the Wintu Pump Station and Water Treatment Plant was completed. The improvements will enable the District to continue to provide safe drinking water meeting all current and pending federal and state standards. Treatment consists of disinfection with chlorine and the addition of a coagulant at the Wintu facility followed by pressure filtration at the District's Water Treatment Plant. The new facilities at the Wintu Pump Station include: two new 600 horsepower pumps with variable speed drives, 2.2 megawatts of emergency power generation, coagulant addition facilities, new chlorine injection facilities, new telemetry equipment, and a new control system. The improvements at the Water Treatment Plant include six new pressure filters (bringing the total to 16); individual flow meters on each filter, filter rate-of-flow controls, and filter-to-waste capabilities on all sixteen filters; and additional monitoring and control equipment.

As part of the project the District also upgraded its Quail Ridge Pump Station by replacing the two 20 horsepower (hp) constant speed pumps with two 50 hp and one 10 hp variable speed pumps. In addition, the District installed 2,300 feet of 16-inch pipeline to provide additional disinfectant contact time prior to the Quail Ridge Pump Station. This will enable the District to decrease the amount of chlorine it uses to disinfect the water while still meeting State and Federal drinking water regulations. The total construction contract for the improvements is approximately \$7.7 million. The District is financing the project through a low interest loan from the State of California Department of Health Services. A bimonthly Water Treatment Plant charge of \$14.00 is included on customers' water bills for repayment of this loan.

In 2005, surface water made up 89.1% of the treated water supply, or approximately 4.51 billion gallons. With the improvements at the Wintu Pumping Plant and the Water Treatment Plant the District can now pump up to 52.5 million gallons per day (mgd) through its treatment facilities (up from 45 mgd).

The District's wells draw from the Redding groundwater basin. Groundwater made up 10.3% of the total supply, or approximately 520 million gallons in 2005. The treatment process at each of the five wells consists of oxidation of iron and manganese using chlorine followed by absorption of the iron and manganese oxides in pressure filters. A chlorine residual is carried through the entire process to aid in maintaining a chlorine residual in the distribution system. Well water is warmer than the treated surface water and has a different taste due to its higher mineral content. Mixing of chlorinated well water with treated river water in the distribution system at times generates a more noticeable taste due to the different physical and chemical properties of the waters. The same microbiological testing at sites in the District's water distribution system is completed weekly regardless of the source to ensure the safety of the water.

The District received 0.6% of its total supply, or approximately 29.6 million gallons of water, through its interties during 2005.

Source water assessments were performed by the Department of Health Services between January 2002 and April 2003. The District's Sacramento River source is considered most vulnerable to the following activities associated with contaminants detected in the water supply: 1) metal plating/finishing/fabricating, 2) wood/pulp/paper processing and mills, and 3) drinking water treatment plants. The source is considered most vulnerable to the following activities not associated with any detected contaminants: 1) concentrated aquatic animal production facilities, 2) historic waste dumps/landfills, 3) landfills/dumps, 4) historic mining operations, and 5) wastewater treatment plants and disposal facilities. The District's well sources are considered most vulnerable to the following activities not associated with any detected contaminants: 1) lumber processing and manufacturing, 2) septic systems - low density, 3) sewer collection systems, 4) historic waste dumps/landfills, 5) automobile - gas stations, and 6) utility stations - maintenance areas.

A copy of the complete assessment may be viewed at Bella Vista Water District, 11368 E. Stillwater Way, Redding, CA 96003. You may request a summary of the assessment be sent to you by contacting the District Secretary @ (530) 241-1085, ext. 105.

In 1989 the Federal Surface Water Treatment Rule set forth specific regulations requiring proper treatment of surface waters, as well as specific license requirements for water treatment operators. Although the regulations have changed dramatically, the overall process has not. Currently five state certified water treatment operators and nine certified water distribution operators operate and maintain the District's facilities 365 days per year.

CONTAMINANTS IN 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 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 storm water 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 storm water runoff, and residential uses.

- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, can also come from gas stations, urban storm water runoff, agricultural application, and septic systems.
- Radioactive contaminants which can be naturally occurring or be the result of oil and gas production and mining activities.

STATE AND FEDERAL REGULATIONS

In order to ensure that tap water is safe to drink, the U.S; Environmental Protection Agency (USEPA) and the California 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 must provide the same protection for public health.

The tables in this report list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The Department of Health Services requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, are more than one year old.

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.

A NOTE TO THE IMMUNO-COMPROMISED FROM THE UNITED STATES EPA

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/Center for Disease Control (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 (1-800-426-4791) or on their website at <http://www.epa.gov/safewater>.

ABOUT THE WATER QUALITY TABLES

Bella Vista Water District routinely monitors for constituents in your drinking water according to federal and state laws. The tables in this report show the results of our monitoring for the period through December 31, 2005. Where contaminants are monitored less than once per year, the values included in the report tables represent the results of the most recent analyses. All drinking water, including some bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. The presence of these constituents does not necessarily pose a health risk.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms, we are providing the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not detectable at current testing limits.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in 1.9 years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 1,900 years, or a single penny in \$10,000,000.

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 (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. Turbidity in excess of 5 NTU is just noticeable to the average person.

Maximum Contaminant Level (MCL) - 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.

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 health at the MCL levels.

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 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.

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

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

YOUR VIEWS ARE WELCOME

If you have any questions about this report, please contact Don Groundwater, your District Engineer, at (530) 241-1085, ext. 114. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled Board of Directors meetings. The meetings are held on the fourth Monday of each month at 5:30 p.m. at the District office, located at 11368 E. Stillwater Way, Redding, CA 96003.

Bella Vista Water District is an Equal Opportunity Provider

RESULTS OF WATER QUALITY ANALYSES - 2005

Sampling Results Showing the Detection of Coliform Bacteria

Contaminant	MCL	PHG (MCLG)	Unit of Measurement	Sacramento River		Well Water	
				Highest No. of Detections	Range	Highest No. of Detections	Range
1. Total Coliform Bacteria	Presence of coliform bacteria in more than one sample per month	0	presence/absence	None	-	None	-
2. Fecal coliform and <i>E. coli</i>	A routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	0	presence/absence	None	-	None	-

Sampling Results Showing Treatment of Surface Water Sources

Contaminant	Performance Standard	Unit of Measurement	Sacramento River	
			Value	Range
3. Turbidity	Treatment Technique:			
	(1) Less than 0.3 NTU in 95% of the measurements taken each month	Lowest Monthly % of measurements meeting the standard	100%	100%
	(2) Shall at no time exceed 1 NTU	Based on measurements made at 4 hour intervals while the plant is in operation	0.14 avg monthly max	0.06 to 0.26
	(3) Reduction in turbidity of 80% or more	Percentage reduction in turbidity	Average = 98.6	97.9 - 99.0

Sampling Results Showing the Detection of Contaminants With a Primary Drinking Water Standard

Contaminant	MCL	PHG (MCLG)	Unit of Measurement	Sacramento River		Well Water	
				Average Value	Range	Average Value	Range
4. Aluminum	1000	600	ppb	ND	-	12.6	ND - 63
5. Arsenic	50	0.004	ppb	ND	-	3.2	2 - 5.1
6. Barium	1000	(200)	ppb	ND	-	197	124 - 311
7. Chromium	50	(100)	ppb	ND	-	2.8	2 - 4
8. Fluoride	2	1	ppm	ND	-	0.10	ND - 0.18
9. TTHM [Total trihalomethanes]	80	N/A	ppb	32.5	13 - 51	-	-
10. HAA5- Haloacetic acids	60	N/A	ppb	23	1.0 - 40	-	-

Note: TTHM and HAA5 results are from samples collected from the Distribution System which may include water from both the river and wells.

Sampling Results Showing the Detection of Contaminants With a Secondary Drinking Water Standard

(Aesthetic standards, established by the California Department of Health Services - Division of Drinking Water)

Contaminant	MCL	PHG (MCLG)	Unit of Measurement	Sacramento River		Well Water	
				Average Level Detected	Range	Average Level Detected	Range
11. Foaming Agents (MBAS)	500	N/A	ppb	ND	-	8	ND - 30
12. Total dissolved solids	1,000	N/A	ppm	85	-	202	167 - 234
13. Specific conductance	1,600	N/A	micro-ohms	115	-	312	252 - 399
14. Chloride	500	N/A	ppm	3	-	34.2	9.9 - 56.1
15. Sulfate	500	N/A	ppm	6.9	-	2.2	0.7 - 5.1

Sampling Results for Sodium and Hardness

16. Sodium	N/A	N/A	ppm	4	-	40	18 - 60
17. Hardness	N/A	N/A	ppm	42	-	58	44 - 75

Sampling Results for Unregulated Contaminants

18. Boron	Action Level = 1000 ppb	N/A	ppb	ND	-	498	208 - 996
19. Vanadium	Action Level = 50 ppb	N/A	ppb	4	-	0.4	ND - 1

Sampling Results Showing the Detection of Lead and Copper

Contaminant	PHG (MCLG)	Action Level (AL)	90 th percentile level detected	No. of samples collected	No. Sites exceeding AL	Typical Source of Contaminant
Lead (ppb)	2	15	ND	32	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppb)	170	1300	293	32	0	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives

TYPICAL SOURCES OF DETECTED CONTAMINANTS

Contaminant	Typical Source of Contaminant
1. Total Coliform Bacteria	Naturally present in the environment
2. Fecal Coliform and <i>E. coli</i>	Human and animal fecal waste
3. Turbidity	Soil runoff
4. Aluminum	Erosion of natural deposits; residue from some surface water treatment processes
5. Arsenic	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
6. Barium	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
7. Chromium	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
8. Fluoride	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
9. TTHM [Total trihalomethanes]	By-products of drinking water chlorination
10. Haloacetic Acids	By-products of drinking water chlorination
11. Foaming Agents (MBAS)	Municipal and industrial waste discharges
12. Total dissolved solids	Runoff/ leaching from natural deposits
13. Specific conductance	Substances that form ions when in water; seawater influence
14. Chloride	Runoff/leaching from natural deposits; seawater influence
15. Sulfate	Runoff/leaching from natural deposits; seawater influence
16. Sodium	Generally found in ground and surface water
17. Hardness	Generally found in ground and surface water
18. Boron	Laundry products, sewage, agricultural chemicals and fertilizers, coal combustion mining and glass and ceramics manufacturing
19. Vanadium	Natural sources and from the burning of fuel oils