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2003 CONSUMER CONFIDENCE REPORT VISTA IRRIGATION DISTRICT

WHAT IS THIS REPORT?

We are pleased to send you our Consumer Confidence Report (CCR), also known as the Water Quality Report. We take all steps necessary to safeguard your water supply, conducting more than 12,000 tests for over 75 drinking water contaminants. **Last year, your water met all Federal and State safe drinking water standards.**

This report provides a snapshot of quality of water we provided last year. 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. If you have any questions or concerns regarding the information presented in this report, please contact Water Quality Technician Marty Becker at (760) 597-3143.

WHAT MIGHT BE PRESENT IN MY DRINKING WATER?

The following contaminants may potentially be present in our water sources:

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 stormwater runoff, and septic systems.

Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

WHAT WERE THE FINDINGS OF THE LOCAL AND IMPORTED SOURCE WATER ASSESSMENTS?

LOCAL WATER SOURCES

In December 2000, VID, in conjunction with the City of Escondido, prepared a Sanitary Survey of the local watershed. This survey assesses activities within the watershed that have the potential to influence the quality of water delivered from Lake Henshaw, Dixon Lake and Lake Wohlford. While the survey identifies a number of activities that have the potential to adversely affect water quality, including residential septic facilities, highway run-off, and agricultural and recreational activities, no contaminants from these activities were detected in the local water supply in 2003. A copy of the Watershed Sanitary Survey, which contains a Source Water Assessment Program, is available for review at the District Office located at 1391 Engineer Street in Vista.

VID tests 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, 2003.

Esté informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hablé con alguien que lo entienda bien.

IMPORTED WATER SOURCES

The Metropolitan Water District of Southern California completed its source water assessment of its Colorado River and State Water Project supplies in December, 2002. Colorado River supplies are considered to be most vulnerable to recreation, urban/storm water runoff, increasing urbanization in the watershed and wastewater. State Water Project supplies are considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. A copy of the assessment can be obtained by contacting Metropolitan by phone at (213) 217-6850.

The Vista Irrigation District's Board meetings are held the first and third Wednesdays of each month at 8:30 a.m. at VID's facilities located at 1391 Engineer Street in Vista. When appropriate, the District holds public hearings on various water quality reports at the board meetings.

This report is also available on our website at www.vid-h2o.org.



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Where Does My Water Come From?

The Vista Irrigation District uses three sources for its drinking water. The first one is local water, which originates from the watershed and well fields located near Lake Henshaw. VID owns the 43,000-acre Warner Ranch which encompasses the lake and monitors any activity that could contaminate it. Water from Lake Henshaw is transferred to Lake Wohlford via an open canal originally constructed in the 1890s. Once the water reaches the Escondido/Vista Water Treatment Plant (EVWTP), we treat it and add disinfectant to protect you against microbial contaminants. The second water source is the Colorado River. The third source is from Northern California. The latter two, called imported water, are delivered to San Diego County and ultimately to the Vista Irrigation District via the Metropolitan Water District of Southern California (MWD) and the San Diego County Water Authority (SDCWA). Imported water may be treated at either the EVWTP or MWD's Skinner Filtration Plant in Riverside County.



Where Can I Get More Information?

San Diego County Water Authority
(858) 522-6600
www.sdcwa.org

California Department of Health Services
Division of Drinking Water and Environmental Management
(619) 525-4159 – Southern California Drinking Water Field Operations Branch
www.dhs.ca.gov/ps/ddwem

U.S. Environmental Protection Agency
Office of Ground Water & Drinking Water
(800) 426-4791
www.epa.gov/safewater

Metropolitan Water District of Southern California
(213) 217-6000
www.mwd.dst.ca.us

In The News

Perchlorate is an inorganic chemical used in the manufacture of rocket fuels and explosives. Perchlorate, originating from an industrial site in Nevada, has been found in low levels in water supplies from the Colorado River. Colorado River water is an important source of drinking water for southern California and much of the water VID receives from the Metropolitan Water District of Southern California (MWD) comes from the Colorado River.

The Nevada Environmental Protection Agency has taken significant steps to mitigate leaching of perchlorate into the river, and as a result, levels in MWD water have decreased and are anticipated to continue decreasing over the next few years.

There is currently no Maximum Contaminant Level (MCL) for perchlorate but there is a Public Health Goal (PHG), which is the level of a contaminant in drinking water below which there is no known or expected risk to health. The Office of Environmental Health Hazard Assessment established a PHG of six parts per billion in March, 2004. To protect consumers until a MCL is in place, the California Department of Health Services will use six parts per billion as the Action Level (AL), which is a non-enforceable advisory level, for perchlorate. The Department recommends that utilities remove sources that exceed ten times the AL.

Perchlorate was not detected in imported water delivered from the Skinner Filtration Plant or the Escondido/Vista Water Treatment Plant during this period.

At high concentrations in drinking water it can interfere with the thyroid gland's ability to produce hormones necessary for normal growth and development. Pregnant women, infants and small children with low levels of iodine in their diets, as well as individuals with hypothyroidism, may be sensitive to the effects of perchlorate. If you have any questions about whether your family should consider alternatives to tap water containing perchlorate, contact your health provider.

Copper & Lead—The Lead and Copper Rule requires VID to collect special samples every three years. The last sample we collected was in 2003. Lead and copper were not detected in the drinking water but were detected in low levels in private households. The source of the lead and copper comes from the leaching of the lead solder and copper from household plumbing fixtures. If you suspect that you have lead solder you can greatly reduce or eliminate the contaminants by simply running the water 30 seconds to two minutes prior to drawing a glass.

Fluoride—In October 1995, Governor Pete Wilson signed a new law conditionally requiring fluoridation of any public water supply with at least 10,000 service connections or customers. However, public agencies meeting the requirements do not have to fluoridate until funding is made available. Some agencies, like the cities of Los Angeles and Santa Monica, have moved forward with fluoridation even without the availability of state funding.

In February 2003, Metropolitan Water District's (MWD) board of directors joined a majority of the nation's public water suppliers in adopting a policy to add fluoride to treated drinking water supplies in order to prevent tooth decay. The addition of fluoridation facilities at Metropolitan's five water treatment facilities is expected to take two and a half years and cost an estimated \$5.5 million. It is anticipated that the district will receive fluoridated water from the San Diego County Water Authority and MWD by late 2006.

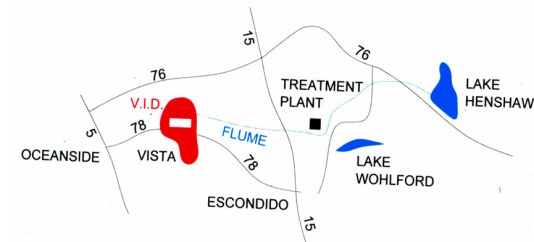
In line with recommendations from the state of California Department of Health Services, as well as the U.S. Centers for Disease Control and Prevention, Metropolitan will adjust the natural fluoride concentration in the water, which for Metropolitan supplies ranges from 0.1 to 0.3 parts per million, to a target dose of 0.7 to 0.8 parts per million which is recommended for optimal dental health.

The City of Escondido is adding fluoridation equipment at the water treatment plant jointly owned by the city and the district. The district will have the ability to fluoridate its local and imported raw water supplies at this location. The natural fluoride concentration levels would be adjusted from the current range of 0.2 to 0.3 parts per million to the optimal level. The district does not plan to fluoridate its local water supply until such time as it begins receiving fluoridated water from the San Diego County Water Authority and MWD.

More information about the fluoridation of drinking water can be obtained by visiting the following web sites:

- ◆ Centers for Disease Control and Prevention
888-CDC-2306
<<http://www.cdc.gov/OralHealth/factsheets/flbackground.htm>>
- ◆ National Institute of Dental and Craniofacial Research
<<http://nidcr.nih.gov/health/waterfluoridation.asp>>
- ◆ National Cancer Institute
<http://cis.nci.nih.gov/fact/3_15.htm>
- ◆ American Dental Association
<<http://www.ada.org/public/topics/fluoride/fluoridelinks.asp>>

VID Water Sources—Statewide & Local



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.

What Are These Data Tables?

These tables 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 State Department of Health Services (DHS) 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.

We took over 1,300 routine samples to test for Coliform Bacteria and, specifically, E.coli. Four samples tested positive for Coliform Bacteria; however, none tested positive for E.coli. Follow-up samples were taken at the sample sites and the test results were negative.

Some of the following tables show water from two sources—local water from Lake Henshaw that is treated at the Escondido/Vista Water Treatment Plant (EVWTP) and imported water which is provided by the Metropolitan Water District (MWD).

2003 Water Quality Monitoring Results

Parameter	Units	State MCL [MRDL]	PHG (MCLG) [MRDLG]	LOCAL Range	LOCAL Average	IMPORTED (MWD) Range	IMPORTED Average	DLR	Typical Source/Comments
Inorganic Contaminants—Primary Standards									
Fluoride (F)	mg/L	2	1	0.20–0.27	0.23	0.15-0.27	0.22	0.1	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Barium (Ba)	mg/L	1	2	ND–0.1	0.1	ND	ND	0.1	Erosion of natural deposits; discharge of oil drilling wastes and from metal refineries
Inorganic Contaminants—Secondary Standards									
Color	Units	15	NS	1-1	1	1-3	2	-	Decaying vegetation or other naturally occurring organic materials
Chloride (Cl)	mg/L	500	NS	77-90	82	76-92	81	-	Runoff/leaching from natural deposits; seawater influence
Sulfate (SO ₄) ²⁻	mg/L	500	NS	160-190	178	147-206	171	0.5	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	mg/L	1000	NS	480-590	523	436-563	487	-	Runoff/leaching from natural deposits; industrial wastes
pH	Units	6.5-8.5	NS	7.41-7.62	7.54	8.04-8.08	8.06	-	Measurement of acidity/alkalinity
Zinc (Zn)	mg/L	5.0	NS	0.45-0.50	0.48	ND	ND	0.05	Corrosion control additives
Foaming Agents (MBAS)	ug/L	500	NS	ND-51	50	ND	ND	-	Municipal and industrial waste discharges
Specific Conductance	umho/cm	1600	NS	786-881	831	745-922	816	-	Substances that form ions in water; seawater influence
Inorganic Contaminants—Unregulated									
Boron	mg/L	AL=1	NS	0.12-0.15	0.13	0.11-0.14	0.13	0.1	State regulations require us to monitor these contaminants while the
Vanadium	ug/L	AL=50	NS	3.9	3.9	ND	ND	3	State considers setting limits on them
Additional Analyzed									
Total Alkalinity	mg/L	NS	NS	94-121	108	100-124	112	-	Erosion of natural deposits; Leaching
Hydroxide (OH ⁻)	ug/L	NS	NS	5-10	8	NR	NR	-	Erosion of natural deposits; Leaching
Carbonate (CO ₃) ²⁻	ug/L	NS	NS	27-54	40	NR	NR	-	Erosion of natural deposits; Leaching
Bicarbonate (HCO ₃)	mg/L	NS	NS	115-147	131	NR	NR	-	Erosion of natural deposits; Leaching
Hardness as CaCO ₃	mg/L	NS	NS	229-259	242	209-264	227	-	Erosion of natural deposits; Leaching
Calcium (Ca)	mg/L	NS	NS	53-61	57	49-64	54	-	Erosion of natural deposits; Leaching
Magnesium (Mg)	mg/L	NS	NS	23-26	25	21-26	22.5	-	Erosion of natural deposits; Leaching
Sodium (Na)	mg/L	NS	NS	71-84	77	66-89	76	-	Erosion of natural deposits; Leaching
Potassium (K)	mg/L	NS	NS	3.8-4.2	4.0	3.6-4.3	3.9	-	Erosion of natural deposits; Leaching
Total Chlorine Residual	mg/L	[4]	[4]	2.3-2.8	2.57	2.40-2.40	2.40	-	Addition of chlorine and ammonia as a combined disinfectant chloramines
Chlorite (C102-)	mg/L	1	0.8	0.2-1.0	0.65	NR	NR	-	Byproducts of drinking water chlorination
Chlorate (C103-)	mg/L	NS	NS	0.1-0.2	0.15	NR	NR	-	Byproducts of drinking water chlorination
Total Organic Carbon (TOC)	mg/L	TT	NS	2.2-3.1	2.4	2.0-2.7	2.4	0.7	Naturally occurring organic material
Phosphate (PO ₄)	mg/L	NS	NS	0.21-0.33	0.27	NR	NR	-	Corrosion control additives
Radionuclides Analyzed Every Four Years, for Four Consecutive Quarters (Local Water Sampled in 2000 and Imported Water Sampled in 2002-2003)									
Gross Alpha Activity	pCi/L	15	N/A	ND-3.5	3.1	2.99-3.96	3.41	1	Erosion of natural deposits
Gross Beta Activity	pCi/L	50	N/A	ND-6.6	5.1	ND-4.08	ND	4	Decay of natural and man-made deposits
Combined Radium	pCi/L	5	N/A	ND-1.7	1.2	ND-0.51	ND	0.5	Erosion of natural deposits
Uranium	pCi/L	20	0.5	ND-2.7	2.4	ND-2.39	ND	2	Erosion of natural deposits
Microbiological Contaminants in Distribution System									
Total Coliform Bacteria (monthly positives) -	%	5	(0)	0-1	Monthly Highest=2.24%	-	-	-	Naturally present in the environment
Fecal Coliform/E.Coli	%	*	(0)	0	0	-	-	-	Naturally present in the environment

* **Fecal coliform/E.coli MCLs:** The occurrence of two consecutive total coliform positive samples, one of which contains fecal coliform/E.coli, constitutes an acute MCL violation. The MCL was not violated in 2003.

Terms Used in This Report

Detection Limit for Reporting (DLR): A detected contaminant is any contaminant detected at or above its detection level for purposes of reporting.

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).

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.

Nephelometric Turbidity Units (NTU): Turbidity is a measure of the cloudiness of the water. It is a good indicator of the effectiveness of the water treatment process and Distribution System.

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

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.

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

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

≥: More than

≤: Less than

mg/L: Milligrams per liter or parts per million (ppm)

NA: Not Applicable

NC: Not Collected

ND: Not detectable at testing limit

NR: Not Reported

NS: No Standard

pCi/L: Picocuries per liter (a measure of radiation)

ug/L: Micrograms per liter or parts per billion (ppb)

umho/cm: Micromho per centimeter

2003 Water Quality Monitoring Results (Continued)

Parameter	Units	State MCL [MRDL]	PHG (MCLG) [MRDLG]	LOCAL Range (<0.30NTU)	IMPORTED (MWD) Range	Average	DLR	Typical Source/Comments	
Clarity (Turbidity)									
Highest %(<0.30)									
Combined Filter Effluent Turbidity*	NTU %	TT=1 %(<0.30NTU)	NA	0.04-0.10	100%	0.09	100%	- Soil runoff	
Parameter	Units	State MCL [MRDL]	PHG (MCLG) [MRDLG]	LOCAL 90th Percentile of 53 Samples	IMPORTED (MWD) Range	Average	DLR	Typical Source/Comments	
Inorganic Contaminants—Copper/Lead in Residential Taps in the Year 2003									
Copper (Cu)	mg/L	1.0	.17	0.38	ND	ND	0.05	Corrosion of household plumbing systems; erosion of natural deposits. Sampled in 2003.	
Lead (Pb)	ug/L	15	2	ND	ND	ND	5		
Parameter	Units	State MCL [MRDL]	PHG (MCLG) [MRDLG]	LOCAL Range	IMPORTED (MWD) Range	Average	DLR	Typical Source/Comments	
Organic Contaminants—Primary Standards									
Effluent Total Trihalomethanes	ug/L	80	NS	30-46	39	32-61	45	0.5	By-product of drinking water chlorination.
Effluent Haloacetic Acids (HAA5)	ug/L	60	NS	12-18	15	11-20	16	1	By-product of drinking water chlorination.
Organic Contaminants—Disinfection By-Product in Distribution System									
Total Trihalomethanes (TTHMs)	ug/L	80	NS	32-67	47.1	NA	NA	0.5	By-product of drinking water chlorination.
Haloacetic Acids (HAA5)	ug/L	60	NS	12-24	17.3	NA	NA	1	By-product of drinking water chlorination.

*Turbidity is a measurement of the clarity 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.

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

**WE HAVE NOT
HAD ANY
VIOLATIONS
OF THESE
REGULATIONS!**

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

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 USEPA's Safe Drinking Water Hotline at 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 by calling the Safe Drinking Water Hotline at 1-800-426-4791.

FREQUENTLY ASKED QUESTIONS

What affects the taste of my water?

The taste of drinking water is affected by its mineral content as well as the presence of chlorine, which is used to protect against potential bacterial contamination. Sometimes plumbing can cause a metallic flavor, especially if the water has been sitting in pipes for many hours. Taste, however, does not indicate a higher or lower degree of water quality.

What causes bad odors?

Musty or fishy odors can be caused by harmless algae in the water, especially during the hot summer months. Even after chlorine has been added to disinfect the water, these odors may persist. Also, many people mistakenly confuse odors from their sink drain with the smell of their tap water. Check for tap water odors by filling a glass with fresh tap water and smelling it away from the sink. Please contact VID

at (760) 597-3100 if you notice any unpleasant odors so that staff may investigate the cause.

What causes cloudy water? Cloudy or milky-looking water is usually caused by trapped air picked up from an air pocket in the water main. Unusual surges or flows within the aqueduct can also trap air, similar to a waterfall. If the water is allowed to sit in a glass or pitcher for a few minutes, the air will dissipate and the water will become clear.

What is Cryptosporidium? Cryptosporidium (pronounced "krip-toe-spore-id-ee-um") is a protozoan parasite found in lakes and rivers typically when these waters contain animal or sewage waste. Cryptosporidium was not detected in any samples of the Vista Irrigation District's treated water supply.

