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# 2005 ANNUAL WATER QUALITY REPORT

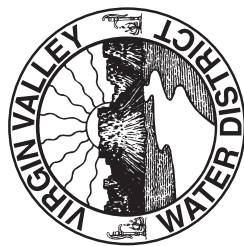


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*We are pleased to present to you the 2005 Water Quality Report. This report is designed to inform you about the water we deliver to you every day. Our constant goal is to provide you with safe and a dependable supply of drinking water at the lowest cost possible. We want you to understand that we are continually making every effort to protect your water resources. We are committed to ensuring the quality of your water.*

## NEVADA SOURCE WATER ASSESSMENT PROGRAM SUMMARY SHEET

State of Nevada Department of Human Resources – Health Division  
Bureau of Health Protection Services

Assessor: State

The federal Safe Drinking Water Act (SDWA) was amended in 1996 to require states to develop and implement source water assessment programs (SWAP) to analyze existing and potential threats to the quality of public drinking water throughout the state. The 1996 Amendments also required a summary of the findings of the assessment to be included in the water system's annual Consumer Confidence Report (CCR). The 1996 Amendments specifically require states to delineate areas that are sources of public drinking water, identify potential contamination sources within the delineated area, assess the water system's susceptibility to contamination, and to inform the public of the results. These results are summarized below.

### WATER SYSTEM CONTACT INFORMATION

<b>Water System Name:</b> VIRGIN VALLEY WATER DISTRICT		<b>County:</b> Clark
<b>BHPS System ID Number:</b> 167	<b>Number of Connections:</b> 6300	<b>Population Served:</b> 19,000
<b>Owner Rep:</b> MICHAEL A. WINTERS	<b>Address:</b> 500 RIVERSIDE/VIRGIN VALLEY WATER DIST, MESQUITE	
<b>Telephone:</b> (702) 346-5731	<b>Fax:</b> (702) 346-2596	<b>E-mail:</b> mike@vvh2o.com
<b>Operator:</b> WILLIAM S. PETERSON	<b>Address:</b> 500 RIVERSIDE RD, MESQUITE, NV 89027	
<b>Telephone:</b> (702) 346-5731	<b>Fax:</b> (702) 346-2596	<b>Web site:</b> vvh2o.com

### FEDERAL AND STATE WATER QUALITY STANDARDS COMPLIANCE

- If checked, the above referenced water system is in compliance with all State of Nevada and federal water quality standards.  
If not, then explain:

The Virgin Valley Water District utilizes nine wells. Eight wells may not comply with the revised arsenic Maximum Contaminant Level of 10 parts per billion that becomes effective in January 2006.

### WATER SYSTEM CONTAMINATION VULNERABILITY

- If checked, the above referenced water system is considered to have low vulnerability potential for contamination.

The above referenced water system is considered potentially vulnerable to the following contaminant groups:

- Volatile Organic Compounds (VOC)  Inorganic Compounds (IOC)  Microbiological   
Synthetic Organic Compounds (SOC)  Radionuclides

Volatile Organic Compounds (VOC) are typically associated with gas stations and dry cleaners; Synthetic Organic Compounds (SOC) are typically associated with herbicides and insecticides; Inorganic Compounds (IOC) are typically associated with natural deposits, fertilizers, septic systems, and asbestos components in the distribution system; microbiological contaminants are typically associated with lakes, streams, and animal holding facilities; and radionuclides are typically associated with erosion of natural deposits and industrial activities.

The water system is considered vulnerable to the activities/sources associated with the contaminant groups checked in the boxes above for the following reasons:

Wells generally located in and north of Mesquite are generally moderately vulnerable to Volatile Organic Compounds and Synthetic Organic Compounds. Wells located in Bunkerville are generally moderately vulnerable to Synthetic Organic Compounds and Inorganic Compounds. The remaining wells are considered to have low vulnerability from contamination. The water system is presently in compliance with all State and Federal Maximum Contaminant Levels for drinking water.

A copy of the complete source water assessment is available for viewing at the Bureau of Health Protection Services (BHPS) Carson City office between the hours of 8:00 A.M. and 5:00 P.M., Monday through Friday. It is suggested that an appointment be made if you are interested in viewing a report. The BHPS office is located at 1179 Fairview Drive, Suite 101, Carson City, Nevada 89701-5405. Telephone 1-775-687-4754. Toll Free 1-800-992-0900.

**INORGANIC CONTAMINANTS**

CONTAMINANT (UNITS)	MCGL	MCL	YOUR WATER	RANGE LOW	RANGE HIGH	SAMPLE DATE	VIOLATION	TYPICAL SOURCES
Arsenic (ppm)	N/A	.010	.028	.015	.055	9/05	Yes	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Nitrate (ppm) <i>[Measured as Nitrogen]</i>	10	10	.22	.34	1.2	9/05	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

**MICROBIOLOGICAL CONTAMINANTS**

CONTAMINANT (UNITS)	MCGL	MCL	YOUR WATER	RANGE LOW	RANGE HIGH	SAMPLE DATE	VIOLATION	TYPICAL SOURCES
Total Coliform	0	0	0	N/A		Monthly	No	Naturally present in the environment.

**INORGANIC CONTAMINANTS**

CONTAMINANT (UNITS)	MCGL	AL	YOUR WATER	# OF SAMPLES AL	SAMPLE DATE	EXCEEDS AL	TYPICAL SOURCES
Copper (ppm)	1.0	N/A	.11	10	9/23/04	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems. At this time VVWD is only required to test every 3 years.
Lead (ppb)	0	0	0	10	9/23/04	No	Corrosion of household plumbing systems; Erosion of natural deposits. At this time VVWD is only required to test every 3 years.

**INFORMATION REGARDING ARSENIC**

Federal Regulations currently require that arsenic, which occurs naturally in the water supply, not exceed a concentration of 50 ppb in drinking water. This is an enforceable standard called a Maximum Contaminant Level (MCL) and was established by the EPA to protect public health. The 50 ppb MCL was based on studies, which suggest that long-term exposure to arsenic might cause skin lesions known as hyperkeratosis. People who drink water containing arsenic in excess of the allowable standard over many years could experience skin damage or problems with their circulatory system, and could have an increased risk of getting cancer. The National Research Council's report has concluded that arsenic in drinking water may cause bladder, lung and skin cancer, and may also cause other types of cancer. The EPA re-evaluated the arsenic MCL, and determined it to be too high and lowered the MCL to 10 ppb. The EPA has set January 2006 to be in compliance with the new standard. Engineering estimates to treat the District's water for arsenic is 17 million dollars. The Water District is doing everything possible to find other means of funding for arsenic treatment in order to keep your water bill as low as possible. The Water District did not meet the 2006 deadline for arsenic, but has been given a three year extension by the Bureau of Safe Drinking Water. The Water District is anticipating starting construction of the five (5) new arsenic treatment plants in August of 2006 with a completion date of October or November 2007.

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

**WHERE DOES MY WATER COME FROM?**

Our water supply currently comes from the hydrologic basin known as basin 222, the lower Virgin River basin. The Water District draws the water from nine (9) deep wells located throughout the valley. Depths of the wells range from 600' to 3,300'.

**WHAT OTHER INFORMATION CAN YOU GIVE ME ABOUT MY WATER?**

PH — 7.74                      Water Temperature — 75°  
 Total Dissolved Solids — 458 mg/l  
 Fluoride — 0.71 mg/l            Chloride — 43 mg/l  
 Sulfate — 164 mg/l            Hardness — 9-12 grains/gallon  
 Iron — .16 mg/l

Each water source is tested either on a quarterly or annual basis for 76 different contaminants as required by State and Federal agencies. Results of those tests can be found by contacting the Water District at 702-346-5731 or on the Water District's website at [www.vvh2o.com](http://www.vvh2o.com).

**WHY ARE THERE CONTAMINANTS IN MY DRINKING WATER?**

All drinking water, including the less regulated bottled water, may be reasonably expected to contain at least small amounts of some contaminants. It is important to remember that 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 EPA hotline at 1-800-426-4791.

The Virgin Valley Water District routinely monitors for contaminants in your drinking water according to State and Federal laws. This report shows the quality of the water as monitored during the period of January 1<sup>ST</sup> to December 31<sup>ST</sup> of 2005. A copy of all test results is available upon request at the District Offices.

**DO I NEED TO TAKE SPECIAL PRECAUTIONS?**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 provider. EPA/Center 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 1-800-426-4791.

**IMPORTANT DRINKING WATER DEFINITIONS**

**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 allow for a margin of safety.

**MCL (Maximum Contaminant Level)** — The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology.

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

**HOW CAN I LEARN MORE ABOUT MY WATER?**

If you have any questions regarding the Water Quality or District operations, the District Board of Directors meet every 1<sup>ST</sup> and 3<sup>RD</sup> Tuesday at 2:00 p.m. at 500 Riverside Road. These meetings are open to the public.