

WATER QUALITY REPORT: 2006



A LETTER TO OUR CUSTOMERS

City Manager
Gregory E. Rose

Mayor
Michael L. Montandon

Council Members
William E. Robinson
Stephanie S. Smith
Shari Buck
Robert L. Eliason



Utilities Department

2829 Ft Sumter • North Las Vegas, Nevada 89030
Telephone: (702) 633-1275 • Fax: (702) 649-9784 • TDD: (800) 326-6868
www.cityofnorthlasvegas.com

Dear Water Customer,

We are pleased to provide the Water Quality Report for 2006 to the citizens of North Las Vegas. Each year this report provides essential details about the quality and source of our drinking water. We are thus able to reassure you that our water meets both state and federal drinking water standards.

We want you to understand the process that it takes for high quality water to reach your homes and businesses. Knowledgeable citizens are more likely to protect their drinking water and limited resource and mandatory conservation measures must be taken seriously.

We take pride in keeping you informed about the quality of our water and the service we provide. Please take a few minutes to review the content in this report and you will definitely feel more confident about the safety of our drinking water.

Sincerely yours,

A handwritten signature in blue ink that reads "D.H. Bereskin".

David H. Bereskin, P.E.
Director of Utilities

NORTH LAS VEGAS WATER QUALITY TEST RESULTS

These results represent levels in the treated water supply, based on 2005 data.

REGULATED CONTAMINATES

SUBSTANCE	MINIMUM	MAXIMUM	AVERAGE	MCL (EPA LIMIT)	MCLG (EPA GOAL)	POSSIBLE SOURCES
Arsenic	2.2 ppb	2.2 ppb	2.2 ppb	50 ppb (1)	0	Erosion of natural deposits
Barium	0.14 ppm	0.14 ppm	0.14 ppm	2 ppm	2ppm	Erosion of natural deposits; discharge from metal refineries; discharge of drilling wastes
Bromate (7)						
Alfred Merritt Smith WTF	N/D	10 ppb	2.1 ppb (2)	10 ppb	0	By-product of drinking water disinfection
River Mountains WTF	N/D	10 ppb	2.7 ppb (2)	10 ppb	0	
Fluoride	0.16 ppm	0.87 ppm	0.79 ppm	4.0 ppm	4.0 ppm	Erosion of natural deposits; water additive (8)
Nitrate (as N)	0.47 ppm	0.47 ppm	0.47 ppm	10 ppm	10 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Free Chlorine Residual	0.14 ppm	1.82 ppm	1.0 ppm (2)	4.0 ppm (3)	4.0 ppm (3)	Water additives used to control microbes
Lead (6)	N/D	8 ppb	4 ppb (90th% Value)	15 ppb (4)	0	Corrosion of household plumbing systems; erosion of natural deposits
Copper (6)	N/D	1.32 ppm	0.99 ppm (90th% Value)	1.3 ppm (4)	1.3 ppm	Corrosion of household plumbing systems; erosion of natural deposits
Total Coliforms	0% Positive	1.2% Positive	0.1% Positive	5% Positive (Per Month)	0	Naturally present in the environment
Total Trihalomethanes	5.7 ppb	81 ppb (10)	48 ppb (2)	80 ppb	N/A (9)	By-product of drinking water disinfection
Halooacetic Acids	1.1 ppb	50 ppb	20 ppb (2)	60 ppb	N/A (9)	By-product of drinking water disinfection
Alpha Particles (7)						
Alfred Merritt Smith WTF	N/D	N/D	N/D	15 pCi/L	0	Erosion of natural deposits of certain minerals that are radioactive
River Mountains WTF	4.4 pCi/L	4.4 pCi/L	4.4 pCi/L	15 pCi/L	0	
Beta Particles and Photon Emitters (7)						
Alfred Merritt Smith WTF	6.1 pCi/L	6.1 pCi/L	6.1 pCi/L	50 pCi/L (5)	0	Decay of natural and man-made deposits of certain minerals that are radioactive
River Mountains WTF	N/D	N/D	N/D	50 pCi/L (5)	0	
Radium 226 and Radium 228 (combined) (7)						
Alfred Merritt Smith WTF	2.59 pCi/L	2.59 pCi/L	2.59 pCi/L	5 pCi/L	0	Erosion of natural deposits
River Mountains WTF	0.89 pCi/L	0.89 pCi/L	0.89 pCi/L	5 pCi/L	0	
Uranium (7)						
Alfred Merritt Smith WTF	4.6 ppb	4.6 ppb	4.6 ppb	30 ppb	0	Erosion of natural deposits
River Mountains WTF	4.5 ppb	4.5 ppb	4.5 ppb	30 ppb	0	

TURBIDITY*

	% Samples less than 0.3 NTU	Maximum Turbidity and Date Found	Possible Sources
Alfred Merritt Smith WTF	100 %	0.065 NTU on Jan. 13, 2005	Soil Runoff
River Mountains WTF	100 %	0.076 NTU on Jan. 13, 2005	Soil Runoff

* Turbidity has a Treatment Technique (TT) requirement - 95% of all samples taken after filtration each month must be less than 0.3 NTU. Maximum turbidity cannot exceed 1.0 NTU.

UNREGULATED CONTAMINATES*

SUBSTANCE	MINIMUM	MAXIMUM	AVERAGE
Perchlorate			
Alfred Merritt Smith WTF	N/D	7.7 ppb	3.2 ppb
River Mountain WTF	N/D	6.7 ppb	3.0 ppb
Sulfate	250 ppm	280 ppm	263 ppm

*The Environmental Protection Agency has not established limits for the unregulated contaminants shown, but is monitoring them to determine if future regulation may be appropriate.

DEFINITIONS

ACTION LEVEL - The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement that a water system must follow.

DISINFECTION BY-PRODUCT - A substance created by the chemicals or processes used to destroy potentially harmful microorganisms.

MAXIMUM CONTAMINANT LEVEL (MCL) - The highest level of a contaminant allowed in drinking water. MCLs are set as close to the maximum contaminant level goal as feasible using the best-available treatment technology.

MAXIMUM CONTAMINANT LEVEL GOAL (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health.

MAXIMUM RESIDUAL DISINFECTANT LEVEL (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microorganisms.

N/A - Not applicable

N/D - Not detected

NEPHELOMETRIC TURBIDITY UNIT (NTU) - A measurement of water's clarity.

PIECOCURIES PER LITER (pCi/L) - A measure of the radioactivity in water. Low levels of radiation occur naturally in many water systems, including the Colorado River.

PPB (PART PER BILLION) - A unit used to describe the levels of detected contaminants. Equivalent to 1 cent in \$10 million.

PPM (PART PER MILLION) - A unit used to describe the levels of detected contaminants. Equivalent to 1 cent in \$10,000.

TREATMENT TECHNIQUE (TT) - A required process intended to reduce the level of a contaminant in drinking water.

TURBIDITY - A measure of water clarity, which serves as an indicator of the treatment facility's performance.

WTF - Water Treatment Facility

FOOTNOTES

- (1) 10 ppb as of January 13, 2006
- (2) This value is the highest quarterly running annual average reported in 2005.
- (3) Chlorine is regulated by maximum residual disinfectant level (MRDL), with the goal stated as an MRDLG.
- (4) Action Level: 90 percent of samples must be below this level. One of the sites sampled exceeded this action level for copper.
- (5) The actual MCL for beta particles is 4 mrem/year. The EPA considers 50 pCi/L to be the level of concern for beta particles.
- (6) Samples collected from North Las Vegas customers' homes. Annual testing not required, data from 2003.
- (7) This data is from entry points to the CNLV distribution system (AMSWTF & RMWTF).
- (8) By Nevada state law, the Southern Nevada Water Authority is required to fluoridate the municipal water supply.
- (9) No collective MCLG but there are MCLGs for some of the individual contaminants: Haloacetic Acids: dichloroacetic acid (0), trichloroacetic acid (300 ppb) Trihalomethanes: bromodichloromethane (0), bromoform (0), dibromochloromethane (60 ppb)
- (10) Maximum levels greater than the MCL are allowable as long as the running annual average of all locations sampled does not exceed the MCL.

CLEAN WATER BEGINS AT THE SOURCE

Most of the drinking water - nearly 90 percent - comes from the Colorado River via Lake Mead. The remainder comes from a deep groundwater aquifer beneath the Las Vegas Valley, which is used primarily during summer months to meet peak water demand.

Virtually all of the water in Lake Mead begins as snowmelt in the Rocky Mountains. The four inflows to Lake Mead include:

- Colorado River – 97 percent
- Las Vegas Wash – 1.5 percent
- Virgin River – 1.45 percent
- Muddy River – 0.05 percent

Water in the Las Vegas Valley groundwater aquifer is naturally recharged from precipitation in the Spring Mountains and the Sheep Range; treated water from Lake Mead is also used to supplement the natural recharge and keep water levels stable.





Pictured left to right: Councilmember Robert L. Eliason, Councilmember Shari Buck, Mayor Michael L. Montandon, Councilmember Stephanie S. Smith, and Councilmember-Mayor Pro Tempore William E. Robinson



Gregory E. Rose
City Manager



David H. Bereskin
Director of Utilities

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www.cityofnorthlasvegas.com

ADA ACCOMMODATIONS (702) 633-1510 TDD (800) 326-6868

SOURCE WATER ASSESSMENT

The Safe Drinking Water Act was amended in 1996 to require states to develop and implement source water assessment programs for existing and potential threats to the quality of public drinking water, and to include a summary of that assessment in the water system's annual consumer confidence report. Specifically, states are required to delineate the sources of public drinking water, identify potential contamination sources within the delineated area, assess the water system's susceptibility to contamination and inform the public of the results. These results are summarized below.

The City of North Las Vegas (CNLV) operates 6 supply wells capable of providing water to the distribution system. However, most of the water delivered to CNLV consumers is treated surface water from the Colorado River System drawn from two intakes at Lake Mead.

The Surface Water Source Assessment includes an analysis of the current water-quality data at the intakes and the vulnerability of the intakes to potential contaminating activities located within the Las Vegas Valley watershed. The vulnerability analysis includes the time of travel from potential contaminating activities to the intake, physical barrier effectiveness of the watershed, the risk associated with the potential contaminating activities and evaluation of historical water-quality data prior to treatment. It is noteworthy that this study represents an initial survey of the drinking water intakes' vulnerability and is based on land use in the watershed rather than an analysis of the drinking water. Even before undergoing treatment, water quality at the intakes is within state and federal drinking water standards except for microbiological contaminants naturally found in all surface waters.

The vulnerability analysis of land use shows that the potential contaminating activities with the highest vulnerability rating include septic systems, golf

courses/parks, storm channels, gasoline stations, auto repair shops, construction and wastewater treatment plant discharges. Based on water-quality data (prior to treatment) and the results of the vulnerability analysis of potential contaminating activities, the drinking water intake is at a moderate level of risk for volatile organic (VOC), synthetic organic (SOC), microbiological and radiological contaminants and at a high level of risk for inorganic (IOC) contaminants. All Las Vegas Valley governmental agencies coordinate their watershed management programs to minimize the vulnerability risk to Lake Mead. The findings of the source water assessment will be used to enhance those programs.

The CNLV's groundwater wells were also assessed for potential vulnerability for VOC, SOC, IOC, radionuclide and microbiological contamination. The CNLV's wells are considered to be moderately vulnerable to VOC and SOC contamination. Vulnerability to radionuclide, IOC and microbiological contamination is considered low. The CNLV's groundwater supply includes wells drilled into the Las Vegas Valley Groundwater Aquifer, which is approximately 300 feet below ground level throughout the valley. There are potential contaminant sources near or upgradient of CNLV wells, including: auto repair shops, gasoline stations, other businesses and homeowners. The CNLV has conducted many years of monitoring for all drinking water contaminant groups. Although some analyses have indicated low levels of organic contaminants, in no instance did concentrations exceed state or federal standards. In most cases, the detections were one-time occurrences.

The treated water delivered by the City of North Las Vegas meets or surpasses all state and federal drinking water standards.

For additional information, please contact the Nevada Division of Environmental Protection at (775) 687-9520.

IMPORTANT CONTACT INFORMATION

State Health Division:

Bureau of Health Protection Services	(775) 687-4750
EPA Hotline	(800) 426-4791
SNWA Conservation.....	258-SAVE
Xeriscape Conversion.....	258-SAVE

City of North Las Vegas:

Report Water Waste.....	633-1216
Water Quality Issues	633-1484
Water Customer Service.....	633-1484
Español.....	633-1484

Noticia en español

Este informe contiene información muy importante acerca de la calidad del agua. Para recibir una copia en español, por favor comuníquese con la División de Utilidades de los Servicios al Cliente de la Ciudad de North Las Vegas 633-1484.



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