

TEST RESULTS							
SUBSTANCE	UNITS	MINIMUM	MAXIMUM	AVERAGE	MCL	MCLG	POSSIBLE SOURCES
Arsenic	ppb	ND	2	1.7	50	0	Erosion of natural deposits
Barium	ppb	79	130	105	2000	2000	Erosion of natural deposits, discharge from metal refineries, discharge of drilling waters
Bromate Alfred Merritt Smith WTF	ppb	ND	13	6.0	10	0	Byproduct of drinking water disinfection
Bromate River Mountains WTF	ppb	ND	11	6.8	10	0	Byproduct of drinking water disinfection
Chromium	ppb	2	4	3	100	100	Erosion of natural deposits
Fluoride	ppb	160	890	730	4,000	4,000	Erosion of natural deposits, water addition
Nitrate (as N)	ppb	249	714	473	10,000	10,000	Ranoff from fertilizer use, leaching from septic tanks and seepage erosion of natural deposits
Free Chlorine Residual	ppm	ND	2.3	0.71	4.0	4.0	Water additive used to control microbes
Lead	ppb	ND	8	4 (99th %ile)	15	0	Corrosion of household plumbing systems
Copper	ppb	ND	1321	988 (99th %ile)	1300	1300	Corrosion of household plumbing systems, erosion of natural deposits, leaching from most greenstones
Total Trihalomethanes	ppb	ND	78	48	80	N/A	Byproduct of drinking water disinfection
Haloacetic Acids	ppb	ND	35	23	60	N/A	Byproduct of drinking water disinfection
Xylenes (total)	ppb	ND	0.5	0.3	10,000	10,000	Discharge from petroleum and chemical factories
Gross Alpha Activity	pCi/L	3.7	4.3	4	15	0	Erosion of natural deposits
Gross Beta Activity	pCi/L	3.4	6.7	5	50	0	Decay of man-made deposits and natural deposits
Radium	pCi/L	0.3	0.4	0.35	5	0	Erosion of natural deposits
Uranium	ppb	3	6	4.5	30	0	Erosion of natural deposits

(1) 110 ppb as of January 23, 2006.
 (2) This value is the highest quarterly running annual average reported in 2003.
 (3) Action level 90% of samples must be below this level.
 One sample site exceeded the action level for copper.

(4) Chlorine is regulated by maximum residual disinfectant level (MRDL) with the goal stated as an (MRDLG).
 (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) By State law, the Southern Nevada Water Authority is required to fluoridate the municipal water supply.

TEST RESULTS Unregulated Substances			
SUBSTANCE	MINIMUM	MAXIMUM	AVERAGE
Chloral Hydrate 1, 2	0.7ppb	1.8 ppm	1.2 ppm
Total Haloacetonitriles 1, 2	3.5 ppb	3.9 ppb	3.7 ppb
Total Organic Halides 1, 2	47 ppb	100 ppb	77 ppb
Chlorate 1, 2, 4	63 ppb	130 ppb	97 ppb
Perchlorate Alfred Merritt Smith WTF 1	ND	14 ppb	9.61 ppb
River Mountains WTF 1	4.46 ppb	17 ppb	8.24 ppb
Sulfate	51 ppm	260 ppm	217 ppm

(1) Data not from 2003.
 (2) Samples collected to comply with the Information Collection Rule.
 (3) One perchlorate sample per quarter was collected in the first three quarters of 2003 and the results submitted for compliance with the Unregulated Contaminant Monitoring Rule (UCMR), as required by the EPA. All other samples were collected as part of a comprehensive perchlorate monitoring program on the community's behalf.
 (4) Groundwater only.

TREATMENT PROCESS

Southern Nevada has two of the most advanced water treatment facilities in the world, and they are designed to do one thing – provide drinking water that meets all Safe Drinking Water Act standards.

All of the water drawn from Lake Mead is sent to the Alfred Merritt Smith or River Mountains water treatment facilities. As it arrives, the water is treated with chlorine and ozone to kill any potentially harmful microscopic organisms. A multistage filtration system then is used to remove particles from the water. Near the end of the treatment process, additional chlorine is added to protect it on the way to customers' taps. It also is treated to prevent corrosion of the pipelines.

DEFINITIONS

Action level (AL) - The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.

AMS/WTF - Alfred Merritt Smith Water Treatment Facility.

Disinfection by-product - A substance created by the chemicals or processes used to destroy potentially harmful microorganisms.

Inorganic Compounds (IOCs) - IOC's are typically associated with natural deposits, fertilizers, septic systems, and asbestos components in the water distribution system.

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. MCLGs allow for a margin of safety.

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.

Microbiological contaminants - Typically are associated with lakes, streams and animal holding facilities.

N/A - Non Applicable.

ND - Not detected.

Nephelometric Turbidity Unit (NTU) - A measure of water's clarity.

picocuries 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 (parts per billion) - A unit used to describe the levels of detected contaminants. Equivalent to about 1 cent in \$10 million.

ppm (parts per million) - A unit used to describe the levels of detected contaminants. Equivalent to about 1 cent in \$10,000.

Radiionuclides - are typically associated with erosion of natural deposits and industrial activities.

RM/WTF - River Mountains Water Treatment Facility.

Synthetic Organic Compounds (SOCs) - Typically These are associated with herbicides and insecticides.

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.

Volatile Organic Compounds (VOCs) - These are typically associated with gas stations and dry cleaners.

ARSENIC

Arsenic is a closely regulated contaminant. In 2006, its allowable limit in drinking-water supplies will be reduced to 10 parts per billion (1 part per billion is roughly equivalent to a grain of salt in a swimming pool). Arsenic levels in the Colorado River are very low. The City of North Las Vegas' 2003 test results show an average of 1.7 ppb, which is well below the current allowable limit of 50 ppb.

MONITORED SUBSTANCES

The Southern Nevada Water System (SNWS) tests for more than 100 substances, but only those detected in the drinking water are listed in the "Test Results" on these pages. A complete analysis report is available through the SNWS.

Drinking water, including bottled water, may be reasonably 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 Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.

The sources of drinking water (both tap water and bottled water) includes 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, which may come from wastewater treatment plants, septic systems and wildlife.

- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff and industrial or domestic wastewater discharges.
- Pesticides and herbicides, which may come from a variety of sources such as urban stormwater runoff and residential uses.
- Organic chemical contaminants, including synthetic or volatile organic chemicals, which are by-products of industrial processes and can come from gas stations, urban stormwater runoff and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of industrial activities.

To ensure tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide similar protection for public health. For more information on bottled-water quality, call the International Bottled Water Association at 800/WATER 11.

ADDITIONAL HEALTH INFORMATION

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer under going 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/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.

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 (City) operates six (6) supply wells capable of providing water to the distribution system. However, most of the water delivered to City 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 intake and the vulnerability of the intake 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 intake vulnerability and is based on land use in the watershed rather than an analysis of the drinking water. Even before undergoing treatment, the water quality at the intake meets all maximum contaminant levels (MCLs) for drinking water except for microbiological contaminants that are 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 the 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 of the 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. It should be noted that treated drinking water delivered by the City has always met all State of Nevada and Safe Drinking Water Act standards.

The City's groundwater wells were also assessed for potential vulnerability for VOC's, SOCs, IOCs, radionuclides, and microbiological contamination. The City's wells are considered moderately to highly vulnerable to VOCs and SOCs. Vulnerability to radionuclides, IOCs and microbiological contamination is considered low. The City's groundwater supply includes wells drilled into the Las Vegas Valley aquifer, which is approximately 300 to 900 feet below ground surface. There are potential contaminant sources near or upgradient of City wells, including: auto repair shops, gasoline stations, other businesses and homeowners. The City has conducted monitoring of all drinking water contaminant groups for many years.

For additional information, please contact the Nevada State Health Division at 775-687-4754.

CONSERVATION FACTS

Below are some facts about water conservation. You can make small changes to save a lot of water:

- A garden hose can use more than 10 gallons of water per minute. The City recommends that people sweep their driveways instead of using a hose to save water.
- It takes 50 gallons of water to wash a car. Use commercial car washes because they capture the used water and recycle it or send it to the water treatment facility.
- Switching to a high-efficiency washing machine can save up to 5,000 gallons of water a year.
- Washing only full loads in the washing machine or dishwasher can save up to 2,000 gallons of water a year.
- Installing a hot water recirculating pump can save about 8,000 gallons of water a year.
- It takes 20 gallons of water to hand-wash the dishes. A dishwasher uses between 12 and 20 gallons. Use the dishwasher to save water.
- It takes 4 to 7 gallons to flush a toilet. Switching to a high-efficiency toilet can save 10,000 gallons a year.
- Leaving the water on while you brush uses 5 gallons of water.
- Switching from a high-flow showerhead to a high-efficiency showerhead can save 8,000 gallons of water a year.
- Converting a 20 by 20 foot patch of grass to xeriscape can save about 22,000 gallons of water a year.
- Shutting off the sprinklers on rainy days can save 500 gallons of water in one day.
- Keeping swimming pools covered when not in use can save 5,000 gallons or more a year.
- Properly managing your pool to avoid unnecessary draining and refilling can save 20,000 of water a year.



CITY OF NORTH LAS VEGAS UTILITIES

2829 Fort Sumter Drive
North Las Vegas, NV 89030



WATER CONSERVATION CAMPAIGN

From May 1 through October 1, 2004 ordinances prohibit the irrigation of landscaping between the hours of 11 a.m. and 7 p.m. To report water waste, please call the Conservation Hotline at (702) 633-1216 or the Southern Nevada Water Authority at (702) 258-5AVE. Let's work together to save our most precious resource.

FREQUENTLY ASKED QUESTIONS

Q: What accounts for tap water taste?

A: When you "taste" tap water, what you're probably tasting is the chlorine. Chlorine is added at the treatment plant for disinfection purposes. Our tap water also contains naturally occurring calcium and magnesium which may contribute to the water's taste. These two harmless minerals are what cause "cloudy" ice.

Q: Can you make the water taste better?

A: Yes. The technology exists to make tap water taste better. Unfortunately, that treatment comes at a high price, considering that less than one percent of all water used in Southern Nevada homes is actually consumed. Keeping in mind that tap water meets all federal water quality standards, the public may not want to absorb the cost of additional treatment. That said, ozonation may improve the taste of tap water because less chlorine will be required for disinfection. Refrigerating tap water overnight in a glass pitcher or adding a slice of lemon should improve the water's flavor.

Q: Why does tap water leave a residue on my kitchen and bathroom fixtures?

A: Ninety-seven percent (97%) of Lake Mead's water comes from the mountains via the Colorado River. Along the way, it dissolves harmless minerals from the river banks, particularly calcium and magnesium. These minerals remain dissolved in the water all the way to your tap. When the water finally evaporates, it leaves the minerals behind. The average hardness of the water in North Las Vegas is approximately 290 ppm (17 grains per gallon). Water is considered "hard" if the hardness is 100 ppm (5.84 grains per gallon) or more and is considered "soft" if the hardness is less than 100.

Q: Do water treatment devices really work?

A: There are a wide variety of water treatment systems and filters available to consumers. Most of these will affect the aesthetic qualities of tap water. Advertiser's claims about safety concerns, however, are not as clear. Purchasing a home water treatment system is strictly a personal decision which should be based solely on preference. **For more information on home water treatment systems, visit cityofnorthlasvegas.com.**

City of North Las Vegas

Mayor
Michael L. Montandon

Council Members

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

City Manager

Gregory E. Rose

Utilities Director

David H. Bereskin, P.E.

The City of North Las Vegas

2003 WATER QUALITY REPORT



Important Contacts:

State Health Division:
Bureau of Health
Protection Services: (775) 6874750
EPA Hotline: (800) 426-4791
SNWA Conservation: 258-5AVE
Xeriscape Conversion: 258-5AVE
City of North Las Vegas:
Report Water Waste: 633-1216
Water Quality Issues: 633-2030

Noticia en español

Este reporte contiene información muy importante acerca de la calidad del agua. Para recibir una copia en español por favor hable a City of North Las Vegas Utilities Customer Services Division al 633-1484.



City of North Las Vegas Demonstration Garden located at City Hall Campus, 2200 Civic Center Drive.

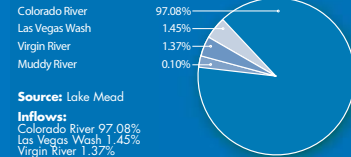
This Water Quality Report is published in accordance with the Federal Safe Drinking Water Act, which establishes drinking water standards and requires purveyors to provide water quality information to their customers.

The City of North Las Vegas believes it is essential that our customers know all the facts about Southern Nevada's drinking water. This report, which is issued every year, includes test results, a source water analysis, an overview of the treatment process and other valuable information relating to the quality of our municipal water supply.

If you have any questions or concerns relating to this report, please call 633-1275, Monday through Thursday, 7:00 a.m. to 5:00 p.m.

CNLV Source Water

Most of our drinking water comes from Lake Mead. Of that water, about 97 percent is from the Colorado River, which is one of the nation's highest quality sources of drinking water. The Las Vegas Wash, which carries flood water and treated wastewater, accounts for only 1.45 percent of all the water in Lake Mead. Ground water is also blended with treated water from the lake to meet customer demands.



Source: Lake Mead

Inflows:
Colorado River 97.08%
Las Vegas Wash 1.45%
Virgin River 1.37%
Muddy River 0.10%

Potential Sources of Contamination:
Urban activities (fertilizers, pesticides, etc.), Industrial activities, Wildlife activities

Source: Las Vegas Ground Water Aquifer

Inflows:
Spring Mountain recharge, Sheep Range recharge, Artificial recharge (treated Lake Mead water)

Potential Sources of Contamination:
Landfills, Domestic septic systems

