WATER QUALITY REPORT 2001

TWO THOUSAND ONE

CITY OF NORTH LAS VEGAS

Your Community of Choice

An Annual Publication for Customers of the City of North Las Vegas • Visit us at www.cityofnorthlasvegas.com

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 each 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 us at 633-1561, Monday through Thursday, 7:00 am to 5:00 pm.

MONITORED SUBSTANCES

Source Information

Drinking water, including bottled water, may reasonably 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) 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, which may come from sewage 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.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health. For more information on bottled water, call the International Bottled Water Association at 1-800-WATER11.

Additional Monitored Substances

These are additional substances which are monitored regularly. Although the EPA has not established MCLs for these substances, we believe it is important for our customers to know about anything that may affect their drinking water.

Perchlorate - a man-made salt consisting of chloride and oxygen, has been detected at low levels in untreated and treated water. Scientists have traced the salt's origin to shallow groundwater entering the Las Vegas Wash. Although there are no State of Nevada or federal limits for perchlorate in drinking water, Southern

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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.

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Important Contacts:

EPA Safe Drinking Hotline
. 800-426-4791

NLV Water Operations Div.
. 702-633-1280

NLV Water & Sewer Info
. 702-633-1290

LVVWD:
Water Quality 702-258-3215
Public Info 702-258-3930

SNWA Conservation Hotline
. . . . . .702-258-SAVE

Aviso En Sepañol

Este informe contiene información importante acerca de la cualida de agua potable en North Las Vegas. Si ustad no entiende inglés, recomendamos que hable con un amigo bilingüe que se lo pueda traducir.

Utilities Division
City of North Las Vegas
2829 Fort Sumter
North Las Vegas, NV 89030
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VIOLATIONS

The City of North Las Vegas had NO violations of the Safe Drinking Water Act in 2001!

CNLV SOURCE WATER

Inflows to Lake Mead

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 nations 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, Gas Stations (leaking underground storage tanks).

North Las Vegas' Newest Jewel - The Aquatics Complex facility at Silver Mesa Recreation Center

SHOPPING FOR A WATER FILTER?

Ask The Authority

As a public service, the Southern Nevada Water Authority (the regional agency responsible for treating and delivering the valley's water) will provide consumers with information free of charge on various types of home water treatment systems. For an informational packet that can help you make an informed choice, call 258-3930 or visit snwa.com for details.

Monitored Substances Continued from page one

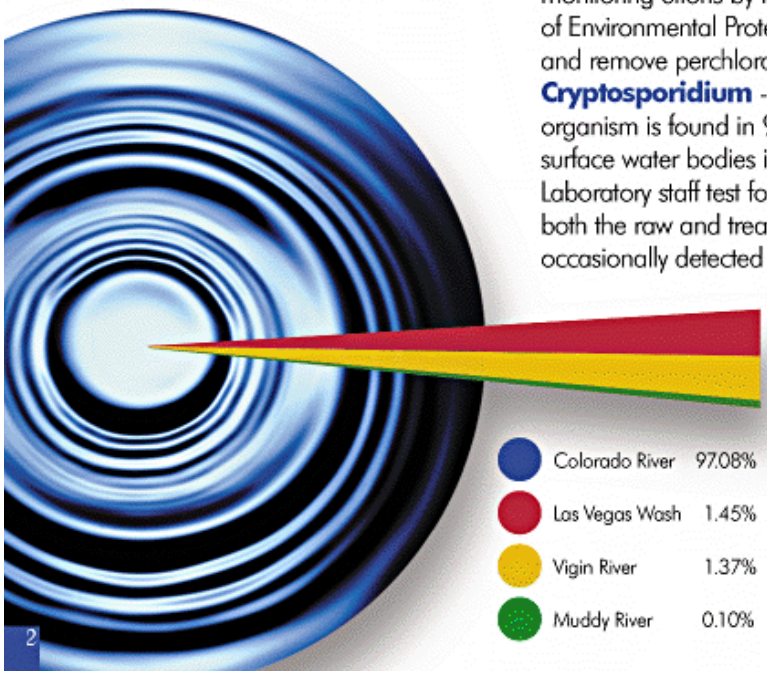
Nevada's water agencies are closely monitoring efforts by the Nevada Division of Environmental Protection to intercept and remove perchlorate at its source.

Cryptosporidium - This microscopic organism is found in 95 percent of all surface water bodies in the United States. Laboratory staff test for Cryptosporidium in both the raw and treated water. While it is occasionally detected in untreated lake water, it has not been detected in the finished drinking water.

MTBE - Methyl tertiary butyl ether (MTBE), a chemical agent used in gasoline to reduce smog, was not detected in the City's wells or distribution system.

Chromium 6 - Chromium is a common element found in nature. It is made up of two forms, Chromium-3 and Chromium-6. In the Chromium-3 state, it is an essential nutrient with 50-200 micrograms per day recommended for adults. In the Chromium-6 state, however, it is believed to be a health risk from inhalation. It is not believed to be a threat to health from ingestion. While from time to time, Chromium has been detected in Southern Nevada supplies, it has been less than one-tenth of the USEPA MCL of 100 ppb.

In response to public concern over Chromium-6 contamination in California, we have had our water supply tested for this element and it was undetected. We will continue to monitor for this contaminant on a monthly basis throughout 2002.



IMPORTANT DEFINITIONS

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

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

Treatment Technique -
A required process intended to reduce the level of a contaminant in drinking water.

Turbidity -
Caused by suspended matter in water, turbidity may consist of clay, silt and microscopic organisms. It is measured as a way to determine if the water treatment plant is operating efficiently and can indicate if there are problems in the distribution system.

NTU -
Nephelometric Turbidity Unit

Disinfection Byproduct -
A substance created by chemicals or processes used for disinfection.

ABRBREVIATIONS

ppm - parts per million
MFL - million fibers per liter
ppb - parts per billion
N/D - not detected
pCi/L - Picocuries per liter
N/A - not applicable

TESTING

Every month, scientists collect and analyze hundreds of water samples from throughout the valley. In fact, water treatment facility technicians test even more frequently and extensively than the Safe Drinking Water Act requires.

ON THE HORIZON

The current chlorination disinfection process is being converted to ozonation, a highly effective disinfection technology that infuses water with ozone. This advanced disinfection technique eradicates organisms such as Cryptosporidium while reducing the amount of chlorine used in treatment. The Alfred Merritt Smith Water Treatment Facility will convert from chlorine to ozone as a primary disinfectant by 2002. The new River Mountain Water Treatment Facility will also utilize ozonation when it becomes operational that same year.

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.

CONSERVATION KICK-OFF!

May 1 through October 1, 2002 is the City of North Las Vegas Conservation Campaign. 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-SAVE. Let's work together and SAVE our most precious resource.

CITY PRIORITIES

- Planned and quality growth
- Redevelopment and revitalization
- Parks and recreation
- Community improvement projects
- Public safety
- Economic development
- Demand for services
- Consensus building

ANSWERS TO COMMON QUESTIONS

Q: What's that taste in the tap water?

A: When you "taste" tap water, what you're probably tasting is the chlorine. Our tap water also contains naturally occurring calcium and magnesium which may contribute to the waters' taste. These two harmless minerals, by the way, 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. In the interim, refrigerating tap water overnight in a glass pitcher or adding a slice of lemon should improve the waters' 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 ppm (5.84 grains per gallon).

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. Advertisers' 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 Information on finding and purchasing the proper water filter see page 2 of this publication.

WATER SAVER - HOME GUIDE

Usage Information

Outdoor water usage accounts for about 60 percent of the average residential bill except in hot summer months, when it can be as high as 90 percent. Here are some examples:

ACTIVITY	USAGE
Running sprinklers for 15 minutes	200 gallons (depending upon type of sprinklers)
Watering with a hose	10 - 12 gallons per minute
Washing a car	100 gallons
Cleaning the driveway	50 gallons

Residential water usage accounts for 65 percent of all water used in Southern Nevada. Here are some examples.

ACTIVITY	USAGE
Washing Machine	60 gallons (full cycle), per load
Dishwasher	30 gallons (full cycle)
Shower	5-8 gallons per minute
Tub bath	36 gallons (full)
Brushing Teeth	5 gallons per minute
Shaving	5 gallons per minute
Washing Hands	5 gallons per minute
Kitchen Sink	2 - 5 gallons per minute
Toilet	2 - 5 gallons per flush
Leaky faucet	50 - 1100 gallons per day

*Information gathered from Southern Nevada Water Authority.
For ways to save water indoors and out, call 258-SAVE.

NORTH LAS VEGAS CITY COUNCIL

MAYOR
Mayor Michael Montandon

COUNCIL MEMBERS
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Robert L. Eliason

CITY MANAGER
Kurt Fritsch

ASSISTANT CITY MANAGERS
Gregory E. Rose
Dan Tarwater

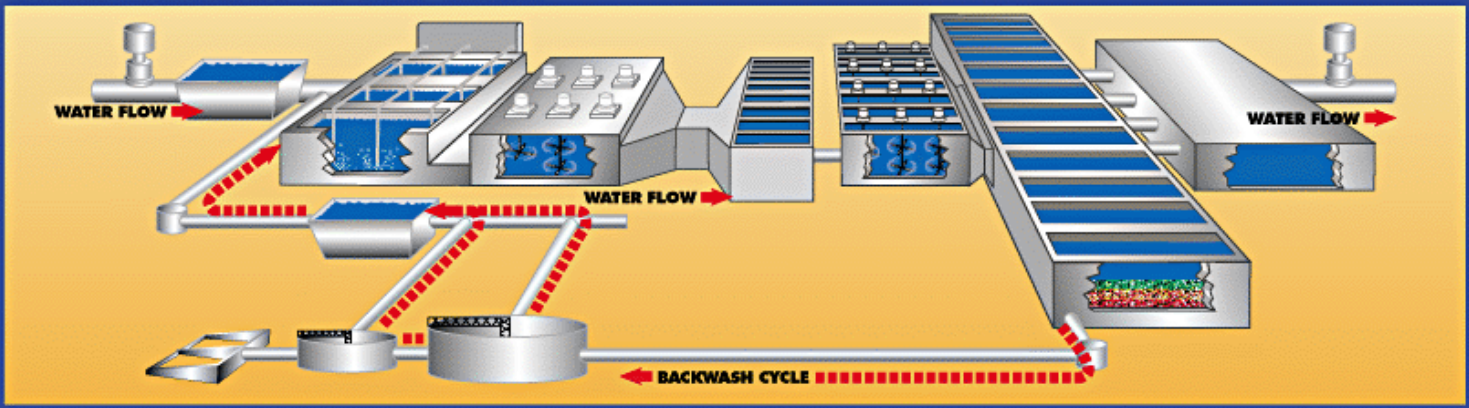
UTILITIES DIVISION
For information on this report or other water quality issues
Kirk Medina - Utilities Manager 633-2030

Water conservation
Andy Burton 633-1216

JUST HOW MUCH IS ONE PART PER BILLION?

- The world population is about 5 billion. Next time you're walking about, say hi to five people. **Thats 1ppb.**
- Lets say you won $10 million and upon counting the total you realized you were 1¢ short. **Thats 1ppb.**
- If you are 32 years old, you've lived 1 billion seconds. Close your eyes for 1 second. **Thats 1ppb.**

TREATMENT PROCESS



Nearly all of the water in Southern Nevada is treated at the Alfred Merritt Smith Water Treatment Facility. As the water arrives through the intake pipe, it is treated with chlorine to kill potentially harmful bacteria and microscopic organisms. After disinfection, the water moves through a direct filtration process to remove harmful particles. Before the water leaves the treatment facility, it is disinfected again and treated for corrosion control. Water drawn from Southern Nevada's deep ground water wells is treated with chlorine and sent through the distribution system.

TEST RESULTS

Regulated Contaminants

These results represent levels in the treated water supply, based on 2001 data

SUBSTANCE	MINIMUM	MAXIMUM	AVERAGE	MCL (EPA LIMIT)	MCLG (EPA GOAL)	POSSIBLE SOURCES
Arsenic	2	3	3	50 ppb	N/A	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production waste
Barium	0.100	0.110	0.104	2 ppm	2 ppm	Erosion of natural deposits; discharge from metal refineries; discharge of drilling wastes Chromium 2 14 7 100 ppb 100 ppb Erosion of natural deposits Cyanide Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Chromium	0.001	0.004	0.002	0.100 ppm	0.100 ppm	Erosion of natural deposits
Fluoride	0.18	0.89	0.77	4 ppm	4 ppm	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (as N)	0.34	0.44	0.4	10 ppm	10 ppm	Runoff from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits Selenium Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Gross Alpha Activity	1.4	2.8	2.1	15 pCi/L	0 pCi/L	Erosion of natural deposits; decay of man-made deposits
Gross Beta Activity	4.5	5.9	5.2	50 pCi/L (a)	0 pCi/L	Erosion of natural deposits; decay of man-made deposits
Total Trihalomethanes	0.5	62	44	100 ppb	0 ppb	By-product of drinking water chlorination
Lead	0.5	3	2.0 (90th Percentile)	15 ppb (b)	0 ppb	Corrosion of household plumbing systems
Copper	0.01	1.20	0.82 (90th Percentile)	1.3 ppm (b)	1.3 ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Selenium	0.001	0.001	0.001	0.05 ppb	0.05 ppb	Discharge from petroleum and metal refineries; erosion of natural deposits, discharge from mines

(a) The actual MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles

(b) Action level: 90% of samples taken must be below this amount; 0 samples exceeded action level

The SNWS tests for more than 100 substances. Only those substances on the EPA's Primary Contaminants List that are detected in the SNWS's drinking water are listed above.

Unregulated Contaminants

SUBSTANCE	MINIMUM	MAXIMUM	AVERAGE	UNITS
*Choral Hydrates	0.7	1.8	1.2	ppm
Total Haloacetic Acids	1	35	24	ppb
*Total Haloacetonitriles	3.5	3.9	3.7	ppb
*Total Organic Halides	47	100	77	ppb
*Free Chlorine	1.3	1.8	1.4	ppm
Sulfate	74.8	232	201	ppm

All of the listed unregulated contaminants except sulfate occur as a result of the disinfection process At present, the Environmental Protection Agency (EPA) does not consider these contaminants to be a public health concern. The EPA is monitoring these contaminants to determine if future regulations may be required.

** = Test results from Alfred Merritt Smith Treatment Plant*

THE CITY OF NORTH LAS VEGAS

The City of North Las Vegas is located in Clark County in Southern Nevada. The city stretches across the northern rim of the Las Vegas Valley encompassing more than 78 square miles. North Las Vegas grew 142% from 1990 to 2000, earning it the designation as the 5th fastest growing large city in America. Since 2000, North Las Vegas' population has grown another 16% and the current population is 134,713 (January 2002). This makes North Las Vegas the fourth largest city in Nevada. Approximately 1,000 new residents move to North Las Vegas each month. The city estimates that its build out population (in approximately 20 years) will be 480,000. North Las Vegas celebrates its diversity and is living up to its motto of being "Your Community of Choice"

The vitality of the Las Vegas Valley has situated North Las Vegas as one of the burgeoning premier communities in the country. In 2001, the Bureau of Land Management released 1905 acres for sale to the public and two nationally-recognized developers (Del Webb and American Nevada Corporation) joined forces, calling themselves North Valley Enterprises, LLC, and purchased the property at a record $47.2 million. The resulting development agreement between North Valley Enterprises and the City of North Las Vegas will result in a premier master planned community, complete with parks, trails, a public golf course, and a variety of housing options.

The City's focus on economic development has attracted numerous businesses to its already successful commercial and industrial business base. The City's industrial market enjoys the lowest vacancy rate in Southern Nevada, despite the tremendous growth in available space. (From 1998 to 2000, the construction of industrial and commercial space grew by 80%.) The economic development efforts are currently focused on attracting leading edge technology businesses to North Las Vegas. With these priorities and the population surge in North Las Vegas, new businesses flourish daily.

Backflow Technician - Certifying assembly to protect our water

Large Meter Crew - Replacing leaking water meter

The housing market in North Las Vegas provides an abundance of entry level and step-up homes. The median home price is approximately $155,000 and the median household income is approximately $45,000. The cost of living index is comparable to Phoenix, Arizona; Salt Lake City, Utah; Tucson, Arizona; Boise, Idaho; and Albuquerque, New Mexico. The growth in North Las Vegas has resulted in the assessed value of the City increasing 330% over the past ten years.

North Las Vegas offers the finest in quality of life amenities. At an elevation of 1,940 feet above sea level, the Las Vegas Valley enjoys an average daily temperature of 80.7 degrees, with humidity in the mid 20's, and an average monthly rainfall of .34 inches, making the climate ideal for enjoying the parks and trails within our community. As of January 2002, North Las Vegas has 28 parks with a total of 345 acres. This includes the neighborhood and community parks, school/joint use parks, special areas that include a sports complex, a historical site, a golf course, a regional park, and a linear park along a drainage area, as well as two full-service recreation centers.

The City's priority to provide quality recreational facilities will continue as the City grows. The 1,900 Acre Development by North Valley Enterprises, LLC will have more than 400 additional acres of parks and open space including trail systems. North Las Vegas is also situated near recreational facilities such as the Las Vegas Motor Speedway, the Lake Mead National Recreational Area, Hoover Dam, Red Rock Canyon Conservation Area, and The Valley of Fire. In addition, snow skiing, hiking and camping are available on Mt. Charleston in the nearby Toiyabe National Forest.

CITY OF NORTH LAS VEGAS

Your Community of Choice

Utilities Division -
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