City of North Las Vegas
WATER TEST RESULTS

UNDERSTANDING TEST RESULTS:

This report contains results of water quality monitoring performed in 2012. The US Environmental Protection Agency (EPA) sets national standards for tap water to protect public health. The Safe Drinking Water Act requires water agencies to meet these health-based water standards and send customers an annual water quality report.

The City's drinking water meets or surpasses all state and federal Safe Drinking Water Act standards. The following are a few additional facts to assist in reading this report:

- Read the table on pages 3-4 from left to right to learn which contaminants were found in the City's water, how they are measured, their detected quantities and how those findings compare to state and federal limits. You'll also see contaminants' possible sources.
- The EPA requires water agencies to monitor for approximately 90 (primary) regulated contaminants. Federal standards usually measure contaminant levels in extremely tiny quantities such as parts per million or parts per billion. Even small concentrations of certain constituents can be a health concern. That's why many regulatory standards are set at very low levels.
- This report shows results for the regulated contaminants detected in the City of North Las Vegas' water supply. If a contaminant was not detected, it is not reported.
- EPA requirements for monitoring vary. The City monitors for each contaminant at required sites (treatment facilities, distribution system and/or groundwater wells) and reports those results to the Nevada Division of Environmental Protection (NDEP).

DEFINITIONS:

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

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

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.

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 microbial contamination.

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

N/A: Not applicable

N/D: Not detected. Does not equate to zero, but refers to an amount below analytical reporting limits.

Nephelometric Turbidity Unit (NTU): A measurement of water's clarity.

Part per billion (ppb): A unit used to describe the levels of detected contaminants. Equivalent to 1 cent in $10 million.

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

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.

Running annual average: Based on the monitoring requirements, the average of 12 consecutive monthly averages or the average of four consecutive quarters.

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

SOUTHERN NEVADA WATER AUTHORITY INFORMATION:

The Southern Nevada Water Authority's (SNWA) mission is to meet the needs of the region's water agencies. The SNWA is responsible for drawing nearly all municipal water from Lake Mead, treating it to drinking-water standards and delivering it to the local water agencies members including the City of North Las Vegas. The SNWA is also responsible for long-term water planning, which includes developing new water sources and managing conservation efforts. Each SNWA agency member is responsible for enforcing watering restrictions within its service area. To learn more, visit www.snwa.com.

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BE WATER SMART:

The City of North Las Vegas Utilities Department promotes "Water Smart" Programs to encourage water conservation. In this dry desert environment, water is the most precious resource. Lake Mead is the main drinking water source for the Las Vegas Valley and since January 2000, the surface elevation has decreased over 100 feet, which has reduced the storage capacity of Lake Mead to less than 50 percent.

Together we can learn to "Be Water Smart" and work to sustain our drinking water sources for the future. For information on water saving tips, visit the City of North Las Vegas Utility Department's Web site at: www.cityofnorthlasvegas.com/Departments/Utilities/Utilities.shtm

MAYOR & COUNCIL

Pictured from left to right: Councilwoman Anita G. Wood, Councilman Robert L. Eliason, Mayor Shari L. Buck, Councilman Wade W. Wagner, and Councilwoman-Mayor Pro Tempore Pamela A. Goynes-Brown.

CONTACTS:

City of North Las Vegas:

Report Water Waste
(702) 633-1275

Water Quality Issues:
(702) 633-1484

Water Customer Service:
(702) 633-1484

Espanol
(702) 633-1484

EPA's Safe Drinking Water Hotline (800) 426-4791

CITY MANAGER

Timothy R. Hacker

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Para una versión en español acerca del informe sobre la calidad del agua, póngase en contacto con City of North Las Vegas Utilities Department al 633-1484 o visite el portal electrónico www.cityofnorthlasvegas.com.

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WATER QUALITY REPORT 2013

A City of North Las Vegas Communication • www.cityofnorthlasvegas.com

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Dear Valued WATER CUSTOMER

The 2013 Water Quality Report has been prepared and distributed to City of North Las Vegas customers in accordance with federal and state regulations of the Safe Drinking Act. I encourage you to take the time to become familiar with the information and know the facts:

"WATER DELIVERED BY THE CITY OF NORTH LAS VEGAS MEETS OR SURPASSESS ALL STATE OF NEVADA AND FEDERAL DRINKING WATER STANDARDS."

The City of North Las Vegas' priority is to deliver our customers safe and reliable drinking water with quality customer service. The City of North Las Vegas Utility employees work hard every day to ensure the water provided to our community meets the regulatory standards and is delivered with good water pressure for your use. We take pride in keeping you informed about the quality of our water and the service we provide.

Reed T. Scheppmann, P.E.
Director of Utilities

WATER SOURCE:

Clean water begins at the source, more than 90 percent of the water supplied to North Las Vegas customers comes from Lake Mead. Virtually all of the water in Lake Mead originates as snowmelt in the Rocky Mountains that flows down the Colorado River. The Lower Colorado River Regional water quality is monitored at Lake Mead weekly to ensure clean, safe drinking water for the Las Vegas Valley.

The remainder of the water supplied to customers comes from wells that tap a deep groundwater aquifer beneath the valley. Groundwater is used primarily in the summer months to meet peak water demands. During these months, customers who live in the northwest part of the City, have the potential to receive a blend of treated Lake Mead water and groundwater. Groundwater in the Las Vegas Valley aquifer is naturally recharged from precipitation in the Spring Mountains and the Sheep Mountain Range.

SOURCE WATER ASSESSMENT:

The Federal Safe Drinking Water Act was amended in 1996 and requires states to develop and implement source water assessment programs, which analyze existing and potential threats to the quality of public drinking water throughout the service area. The purpose of Source Water Protection is to help prevent contaminants from entering public water sources.

Detailed information pertaining to the findings of the source water assessment is available for viewing in person Monday through Thursday from 8 a.m. to 5:45 p.m., by appointment at the City of North Las Vegas Utility Department Office located in the new LEED certified City Hall at 2250 Las Vegas Blvd., N., North Las Vegas. Please call (702) 633-1275 to set up an appointment. Additional information about the Nevada Source Water Assessment Program may be found at www.ndep.nv.gov/bsdw.

SOURCE (UNTREATED) WATER CONTAMINANTS:

- Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides may come from a variety of sources such as storm water run-off, agriculture, and residential users.
- Organic contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, may also come from gas stations, urban storm water run-off, and septic systems.

To ensure tap-water safety, 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) 928-3711.

ABOVE & BEYOND THE SAFE DRINKING WATER ACT:

While the Environmental Protection Agency (EPA) requires water agencies to monitor for approximately 90 regulated contaminants, the City goes above and beyond to monitor for about 30 additional, unregulated contaminants. One unregulated contaminant that is closely monitored is Cryptosporidium.

This naturally occurring organism found in many U.S. source waters can cause gastrointestinal distress. The EPA now requires larger water systems that treat surface water to assure removal of Cryptosporidium. The Southern Nevada Water System monitors and tests for Cryptosporidium in both its source and treated water supplies. Ozonation, used at both our regional water treatment facilities, is among the most effective processes at destroying microorganisms such as Cryptosporidium. The Southern Nevada Water Authority's Microbiology Laboratory is among the few municipal facilities certified by the EPA for Cryptosporidium and Giardia detection.

City of North Las Vegas WATER TEST RESULTS

City of North Las Vegas
2013 Water Quality Monitoring Data

				NORTH LAS VEGAS DISTRIBUTION SYSTEM[1]			NORTH LAS VEGAS GROUNDWATER WELLS[1]		ALFRED MERRITT SMITH WATER TREATMENT FACILITY[1]			RIVER MOUNTAINS WATER TREATMENT FACILITY[1]			
REGULATED CONTAMINANTS	UNIT	MCL (EPA Limit)	MCLG (EPA Goal)	MINIMUM	MAXIMUM	AVERAGE	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	AVERAGE	MINIMUM	MAXIMUM	AVERAGE	POSSIBLE SOURCES OF CONTAMINATION
Alpha Particles	pCi/L	15	0	Entry Point Monitoring Only			N/D	6	2.9	2.9	2.9	3.1	3.1	3.1	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation
Arsenic	ppb	10	0				2	2	2	2	2	2	2	2	Erosion of natural deposits
Barium	ppm	2	2				0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Erosion of natural deposits; discharge from metal refineries: discharge of drilling wastes
Beta Particles and Photon Emitters	pCi/L	50[2]	0				N/D[3]	N/D[3]	3.5[3]	3.5[3]	3.5[3]	3.2[3]	3.2[3]	3.2[3]	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit a form of radiation known as photons and beta radiation
Bromate	ppb	10	0				N/A		3	11[4]	6[5]	3	15[4]	8[5]	By-product of drinking-water disinfection with ozone
Copper[6]	ppm	1.3[7] (Action Level)	1.3	N/D	1.4	0.9 (90th% value)	Distribution System Monitoring Only								Corrosion of household plumbing systems; erosion of natural deposits
Fluoride	ppm	4.0	4.0	0.2	0.7	0.6	0.2	0.2	0.6	0.7	0.7	0.6	0.8	0.7	Erosion of natural deposits; water additive[8]
Free Chlorine Residual	ppm	4.0[9] (MRDL)	4.0[9] (MRDLG)	N/D	1.6	0.9[5]	Distribution System Monitoring Only								Water additive used to control microbes
Haloacetic Acids	ppb	60	N/A[10]	N/D	44	RAA[5] 28 / LRAA[11] 34									By-product of drinking-water disinfection
Lead[6]	ppb	15[7] (Action Level)	0	N/D	4	2 (90th% value)									Corrosion of household plumbing systems; erosion of natural deposits
Nitrate (as Nitrogen)	ppm	10	10	Entry Point Monitoring Only			0.4	1.3	0.4	0.7	0.5	0.5	0.7	0.5	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	ppb	50	50				1	2	2	3	2	2	3	2	Erosion of natural deposits; discharge from mines; discharge from petroleum refineries
Total Coliforms	percent positive per month	5%	0	0%	1.0%	0.2%	Distribution System Monitoring Only								Naturally present in the environment
Total Trihalomethanes	ppb	80	N/A[10]	10	77	RAA[5] 55 / LRAA[11] 73									By-product of drinking-water disinfection
Turbidity	NTU	95% of the samples < 0.3 NTU[12]	N/A	Treatment Facility Monitoring Only					100% of the samples were below 0.3 NTU. The maximum NTU was 0.074 on December 30, 2012.			100% of the samples were below 0.3 NTU. The maximum NTU was 0.080 on February 14, 2012.			Soil runoff
Uranium	ppb	30	0	Entry Point Monitoring Only			2	2	4	4	4	4	4	4	Erosion of natural deposits

FOOTNOTES:

(1) Some Safe Drinking Water Act (SDWA) regulations require monitoring from the distribution system, while other SDWA regulations require monitoring at the entry points to the distribution system. (Alfred Merritt Smith WTF, River Mountains WTF, and North Las Vegas Wells) (2) The actual MCL for beta particles is 4 mrem/year. The U. S. Environmental Protection Agency (USEPA) considers 50 pCi/L to be the level of concern for beta particles. (3) Annual testing not required, data from 2011. (4) Maximum levels greater than the MCL are allowable as long as the running annual average does not exceed the MCL. (5) This value is the highest running annual average (RAA) reported in 2012. Reports are filed quarterly. (6) Samples are from the North Las Vegas customers' taps. (7) Lead and copper are regulated by a Treatment Technique (TT) that requires systems to control the corrosiveness of their water. If more than 10% of tap-water samples exceed the action level, water systems must take additional steps. For copper the action level is 1.3 ppm, and for lead it is 15 ppb. (8) By state law, the Southern Nevada Water Authority (SNWA) is required to fluoridate the municipal water supply. This law is not applicable to groundwater. (9) Chlorine is regulated by MRDL, with the goal stated as a MRDLG. (10) 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). (11) This value is the highest locational running annual average (LRAA) reported in 2012. Reports are filed quarterly. (12) Turbidity is regulated by 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.

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