## STATE OF NEVADA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES BUREAU OF SAFE DRINKING WATER

901 S. STEWART STREET, SUITE 4001 CARSON CITY, NEVADA 89701-5405 (775) 687-9521



## CONSUMER CONFIDENCE REPORT CERTIFICATE OF DELIVERY

PWS NAME: Sand Creek

PWS ID: NV00000406

The community public water supply system named above hereby confirms that its annual consumer confidence report (CCR), covering the calendar year 2011, was distributed to all bill paying customers and that a good faith effort will be made to distribute the report to the local county health department on May 4,2012, and that appropriate notices of availability have been given via the Churchill County website. Further, the system certifies that the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to the state office.

Certified by:	Name: Cindy Parrish	
	Title: Compliance Manager	
	Address: <u>430 Stoker Ave. Ste. 207</u> City: <u>Reno</u>	Zip: <u>89503</u>
	Phone No:	
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	Date: May 4, 2012	

Return to: Bureau of Safe Drinking Water

Attn: Ross Cooper

901 S Stewart St, Suite 4001 Carson City, NV 89701

# 2011 SAND CREEK ANNUAL WATER QUALITY REPORT

#### Is my water safe?

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

#### Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 providers. EPA/Centers 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 Water Drinking Hotline (800-426-4791).

#### Where does my water come from?

Water is supplied by a well located on Elizabeth Parkway.

#### Source water assessment and its availability

A source water assessment was completed on 3/24/2005 for the Pine Grove Water system. To date, no source water assessment has been completed by the State of Nevada for the Sand Creek Water system.

#### Why are there contaminants in my drinking water?

Drinking water, including bottled water, may reasonably be 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 (EPA) Safe Drinking Water Hotline (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:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming; pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

- Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Pesticides and herbicides may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses. Organic Chemical Contaminants, including synthetic and volatile organic chemicals, are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

#### How can I get involved?

Please continue to conserve water. If you see anyone tampering with any part of the water system, please be sure they are authorized. If you do not feel comfortable approaching the individual, please contact either SPB Utility Services, Inc. at 775-329-7757 or the Churchill County Sheriff's Department at 423-3116. The security of our water system is of high importance and it is required by law.

#### **Description of Water Treatment Process**

Your water is treated at the Sand Creek Water Plant by adsorption, accomplished by passing the water through a greensand filtration media. Greensand is a product manufactured by treating glaucenite with manganous sulfate and potassium permanganate. Greensand has the ability to adsorb and catalize the oxidation of iron and manganese and provide filtration. Using greensand as an adsorbptive media can remove arsenic, hydrogen sulfide, manganese, radium and other elements from drinking water to meet required quality standards.

Your water is also treated by disinfection. Disinfection involves the addition of chlorine to kill dangerous bacteria and microorganisims that may be in the water. Disinfection is considered to be one of the major public health advances of the 20th century.

#### **Water Conservation Tips**

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference – try one today and soon it will become second nature.

- Take short showers a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.

- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

#### **Source Water Protection Tips**

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

#### **Additional Information for Lead**

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sand Creek is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

### **Water Quality Data Table**

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

	MCLG	MCL,						
	or	TT, or	Your	Ra	nge	Sample		
<b>Contaminants</b>	<b>MRDLG</b>	<b>MRDL</b>	Water	Low	<u>High</u>	<u>Date</u>	<b>Violation</b>	Typical Source
Disinfectants & Disinfectant By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Haloacetic Acids (HAA5) (ppb)	NA	60	16	N/A	16	2011	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	5.4	N/A	5.4	2011	No	By-product of drinking water disinfection
Inorganic Contaminants								
Barium (ppm)	2	2	0.032	N/A	0.032	2010	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	0.4	N/A	0.4	2011	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	10	10	0.08	N/A	0.08	2011	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Arsenic (ppb)	0	10	1	ND	1	2011	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Radioactive Contam	inants							
Alpha emitters (pCi/L)	0	15	0.62	0.007	0.62	2008	No	Erosion of natural deposits
Radium (combined 226/228) (pCi/L)	0	5	0.78	0.315	0.78	2008	No	Erosion of natural deposits
Beta/photon emitters (pCi/L)	0	50	4.81	4.75	4.81	2008	No	Decay of natural and man-made deposits. The EPA considers 50 pCi/L to be the level of concern for Beta particles.

			Your	Sample	# Samples	Exceeds	
<b>Contaminants</b>	<b>MCLG</b>	<u>AL</u>	Water	<b>Date</b>	Exceeding AL	<u>AL</u>	Typical Source
Inorganic Contaminants							
Copper - action level at consumer taps (ppm)	1.3	1.3	0.15	2011	0		Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb)	0	15	2	2011	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

Unit Descriptions					
Term	Definition				
ppm	ppm: parts per million, or milligrams per liter (mg/L)				
ppb	ppb: parts per billion, or micrograms per liter (μg/L)				
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)				
NA	NA: not applicable				
ND	ND: Not detected				
NR	NR: Monitoring not required, but recommended.				

Important Drinking Water Definitions					
Term	Definition				
MCLG	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	MCL: Maximum Contaminant Level: 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.				
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.				
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.				
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.				
MRDLG	MRDLG: Maximum residual disinfection level goal. 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 contaminants.				
MRDL	MRDL: Maximum residual disinfectant level. 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.				
MNR	MNR: Monitored Not Regulated				
MPL	MPL: State Assigned Maximum Permissible Level				

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