

# Lander County Water District #1 Battle Mountain Water System Water Conservation Plan

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## **Overview**

Lander County Water District #1 is located in the Town of Battle Mountain in northern Lander County. There are approximately 1,136 residential accounts and 156 commercial accounts serving an estimated 3,960 individuals.

Groundwater is the sole natural resource used to meet water demands in Battle Mountain. Methods critical to managing and extending this physical resource initially involve infrastructure. A significant amount of pipe in the distribution system was comprised of aged cast iron pipe. In the latter part of 2006 and early 2007, we replaced approximately 38,000 feet of water line and 150 meter boxes. This upgrade of the system should significantly improve our water loss problem. Efforts at conservation will be made with continued maintenance of the system and internal audits of water use in the district.

## **Water System**

The existing water system is comprised of three groundwater wells, a booster pumping facility, and two storage tanks. The system also contains approximately 23 miles of transmission and distribution piping, ranging from 12-inch to 4-inch in diameter.

### *Well-3*

Supplies water at a rate of 1,150 GPM. This well has a history of oil and/or other odor problems and has not been used since November, 2001. Consideration would be given to refurbish this well if needed.

### *Well-4*

Supplies water at a rate of 800 GPM. This well is currently operated during peak months, typically April through November each year.

### *Well-6*

Is the highest capacity well in service. It supplies water at a rate of 2,300 GPM and is used year round. This well replenishes the 2 MG tank and the 300 K gal tank and is automatically controlled by level sensors in the tanks.

## **Water Conservation Education**

Water conservation in and around the home will be the focal point of our consumer education. We will develop an education program for the community to help implement water conservation measures. Literature will be available on topics including:

- Fixture Retrofitting

- Changing Water Use Habits
- Water-Efficient Landscaping
- Irrigation Techniques and Efficiency
- Guidelines for When to Water

Our intent is to effectively provide additional resource by freeing up water that was previously consumed inefficiently or wasted. It is also a resource over which the community has complete control, because future availability depends more on individual customer efforts and less on influences outside the community.

### **Incentives**

It is widely observed in the water industry that metering water services is a strong incentive for water conservation. Battle Mountain Water System is currently metered. We are implementing programs to educate the public about the limits on its water supply and the need to conserve water. Additionally we intend to impose water conservation by adjusting metered water rates.

### **Conservation Initiatives and Water Waste Restriction**

#### *Stage 1 - Normal Water Conservation*

- *This initial stage is the on-going conservation standard for the Battle Mountain Water System.*

Battle Mountain Water System shall encourage water conservation by all residents and property owners within the water service area by:

- Including water conservation information in the Annual Water Quality Report.
- Posting on bulletin boards and other appropriate places, and changing on a regular basis, information dealing with water conservation.
- Providing (as funds allow), at low cost or no cost to the resident, low water use shower heads and faucet aerators.
- Exploring government and private grants/loans pertaining to reducing water use, including repair programs for leaking faucets, hose bibs, and toilets.

#### *Stage 2 - Water Alert (Voluntary Basis)*

- *This stage may be initiated during high water usage months. Specific measures would be identified that could reduce water consumption and not adversely affect the quality of life we currently enjoy.*

The following water conservation activities will be requested:

- No washing down of driveways, parking lots, or other similar areas with potable water. In addition, potable water shall not be used for dust control unless absolutely necessary.

- Residences with addresses ending in odd numbers may irrigate landscaping only on Mondays, Wednesdays, and Fridays.
- Residences with addresses ending in even numbers may irrigate landscaping only on Tuesdays, Thursdays, and Saturdays.
- No landscape irrigation will occur on Sundays.
- Lawn and landscape irrigation will occur only between 6:00 PM and 10:00 AM.
- No filling of swimming pools, ponds, or reservoirs over 200 cubic feet with potable water except by special permission from Battle Mountain Water System.

*Stage 3 - Water Warning*

- *This step will be initiated for management of the available water and insuring a continued supply of potable water during periods of drought.*

All of the water conservation activities in Stage 2, in addition to the following, will become mandatory requirements:

- Residences without landscaping shall be allowed to use water for inside use only, not for the installation of new landscaping.
- Lawn and landscape irrigation shall occur only between 7:00 PM and 8:00 AM.
- Lawn and landscape irrigation shall be controlled as to not allow excess irrigation water to flow down streets or drainage ditches.
- No washing of vehicles with potable water.
- The Battle Mountain Water System will initiate water patrols to insure compliance.
- Residences failing to comply with water conservation requirements will be contacted.

*Stage 4 - Water Emergency*

- *This step will be initiated when our water supply has deteriorated to such a state that the County Commissioners and water suppliers feel it is in the best interest of the community to declare a water emergency.*

All of the water conservation activities in Stage 2 and Stage 3, in addition to the following, will become mandatory requirements:

- Lawn and landscape irrigation shall be suspended.
- No swimming pools, ponds, or reservoirs will be filled with potable water.
- The Battle Mountain Water System will cite and fine residences for failing to comply with water conservation requirements and begin disconnect procedures.

## **Evaluation**

Upon implementation of the Conservation Plan, the Battle Mountain Water District will evaluate the plan's effectiveness. The District maintains water pumpage and consumption records. The data is retrieved through the billing and meter reading system.

After the Conservation Plan is implemented, the District will continue to monitor pumpage and consumption for the system. Using baseline and post-implementation data, the District will calculate water conservation data, which will be communicated to the community.

Once finalized, this Conservation Plan will be available for public inspection during office hours at the Battle Mountain Water System office at 550 West Second Street, Battle Mountain, Nevada 89820.