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STATE ENGINEERS OFFICE

Water Conservation Update

City of Wells

May 31, 2006

Pursuant to NRS 540.131, a municipality is required to file with the Nevada Division of Water Resources a water conservation plan and consecutively every five years thereafter. The City of Wells in rural Nevada, and specifically a geographic climate described as high desert, views water conservation as an issue to continually be reviewed. Any members of the public or customers of the City of Wells may submit suggestions for water conservation at any time. These suggestions should be submitted in writing and will be forwarded to the City of Wells Water Department.

History

In 1989, the City of Wells, bonded for 40 years to update the municipal water system. This update included water main replacement of leaking, deteriorated lines as well as installation of water meters for residential and commercial connections. The City of Wells water code was also amended to form legislation for the handling of water to incorporate water conservation. However, areas that were not addressed included the following:

1. A rate structure sufficient to support the activity and promote conservation.
2. Meters for county served residences and new water connections.
3. Irrigation meters
4. Education for the public users
5. Technological changes that have facilitated water conservation

These remaining issues are the focus of this water conservation plan update.

Goals and Objectives:

1. The City will continue to monitor water rates to promote conservation and to promote solvency of the water enterprise account. In 1989, a base water usage amount of 35,000 gallons per month was allotted. Recently, this allotment has been reduced to 20,000 gallons per month and reduction to 15000 gallons is recommended. The overage while originally was \$.65 per 1000 gallons, now has been increased to \$1.30 per 1000 gallons. Also, demand charges for larger size water meters are incremental, so as to coincide with additional flow needs.

These rates promote water conservation. In a community with 52% of the population eligible for low to moderate income status, it is no longer cost effective to waste water. The base rate is designed to provide essential water, however, does not give a user the opportunity to have poor water habits without financial repercussions. The monitoring of water consumption is and will continue to be performed monthly with notice given to excessive uses. The City of Wells water code does provide for financial penalties to abusers.

2. All users on the City of Wells water system now are metered. At the time when meters were installed, users outside the city limits were charged a rate 1.5 times the residential rate, however, due to capital costs, no meters were installed. Now these users are individually metered.

This change has brought about plumbing improvements and specifically leak repairs. The City of Wells can and will continue to monitor gallons pumped at the well houses versus gallons billed to the user. This process shows leakage in the system and will help the city and the user to find leak detention. As development continues, the sizing of water systems is required so that over serving is not prevalent.

3. Irrigation meters have been promoted so that users can directly correlate lawn watering with seasonal temperature changes. Further, the Board has mandated that each City of Wells user is metered—park, cemetery, Senior Center, library, etc. Interdepartmental charges are expenses to areas of use. Other governmental users are also metered and charged accordingly.

This feature also gives the users knowledge of how much water is used for lawn and landscape care. By having the ability to turn off meters in cold weather seasons, water breaks in sprinkler systems are also minimized. The City recognizes that governmental users and other large users can quickly consume amounts higher than normal residential users and will continue to be accountable for consumption. Maximizing watering times, replacement of non functioning sprinkler heads and soil amendments will be used to create green areas without excessive water use. Also sprinkler systems and water clocks need to be part of the capital improvement plans.

4. Education to the users will further water conservation. The city will work with users to identify sources of excessive water usage. Leaking water faucets, running toilets, and forgotten sprinklers are common sources of excessive water consumption in Wells. The City urges evening watering of lawns also. The city plans promotion of this goal through example and education.

Cityhall features zero scaping as an example to residence of water conservation techniques. They will also continue to work with property owners to design sprinkler systems. The City recycles effluent through a pivot irrigation system on alfalfa fields.

5. Technological changes will continue to help the community conserve water.

The City plans to upgrade water meters to electronically read water meters. This feature will help identify water leakage during winter months faster and insure that all meters are read regularly.

The City will continue to promote water efficient plumbing fixtures and systems to include sprinkler systems and water clocks.

Because Wells is located in the high desert, drought conditions are frequently possible. In many cases the duration and intensity is mitigated by the accumulation of snow in the mountains and the runoff during warmer months. With greater surface quantities, the aquifer is challenged less due to less area irrigation. During severe drought conditions, these larger irrigation pivots along with the many non municipal wells surrounding the City may be required to seize pumping. Other conservation techniques such as watering limitations are easily implemented. The City would limit watering to even/odd street addresses to determine watering days.

Implementation of most of these conservation efforts is ongoing however, the City does propose to have all meters electronically connected by 2011. The total gallons pumped is a direct indicator of the conservation efforts and the City will continue to monitor and graph this activity.

In closing, water conservation will continue to be part of the planning and implementation goals for the City of Wells. As growth continues, conservation should increase proportionately with consumption.