Wade Walter, a City of Scottsbluff water operator, checks some of the gauges at one of the city's supply wells.

WATER WISE: A Look at the Municipal Side of Water Conservation

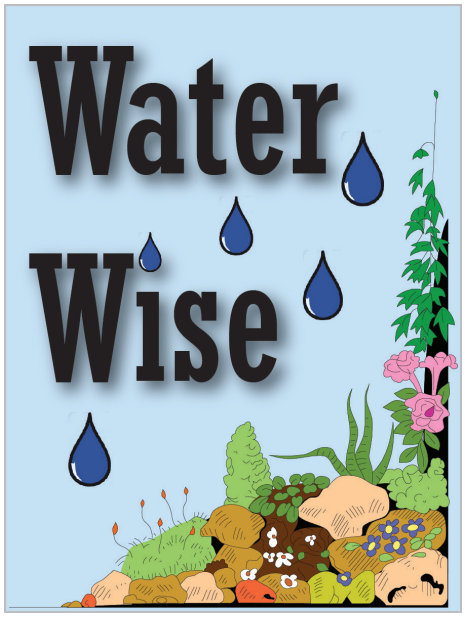
By Vicky Thomason
City of Scottsbluff Utilities Administrative Coordinator

Conserving water in homes and outdoor landscapes not only helps preserve this vital natural resource, but also has benefits that go beyond what some may realize.

The Cities of Gering, Scottsbluff and Terrytown encourage all residents to voluntarily conserve water. While each community operates a separate water system and faces different obstacles, a common goal is to have customers use water wisely.

The annual average amount of water produced by the City of Gering is 1.1 billion gallons; in Scottsbluff it's 1.4 billion gallons, and in Terrytown it's 193 million gallons. This includes residential and commercial consumption, as well as firefighting activities, watering of public parks and recreation areas, public swimming pools, water leaks, construction activity and the like.

It's easy to underestimate the amount of water a household uses, especially when watering outdoors. A survey of water use from residential properties in Scottsbluff showed that on average, customers used 239,000 gallons a year. Of that, 64,000 gallons (27 percent) was used from November to April, and 175,000 gallons (73 percent) was used from May to October. The average highest bimonthly use during the summer was 38,000 gallons. In Scottsbluff, a customer who reduced the 38,000 gallons of use by 20 percent (7,600 gallons) could save $11.73 bimonthly on the water portion of their utility bill for that period. A reduction of 50 percent (19,000 gallons) could save $31.85 bi-monthly. A Gering resident would experience similar savings. The City of Terrytown is scheduled to install water meters this year on every property, after which customers will be



University of Nebraska-Lincoln Extension, the Nebraska Forest Service and the Cities of Gering, Scottsbluff and Terrytown, are working together to provide information on how to conserve water by using it wisely and the benefits that come from doing so. Along with providing weekly articles on landscape water conservation, they will be holding two workshops that are free to the public at the Lied Scottsbluff Public Library: April 23 at 7 p.m., and April 24 at 1:30 p.m.

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paying for the amount of water consumed rather than a flat fee.

In addition to lowering household water bills, consuming less water can affect the public water supply and the rate payer in several other ways, including cost of treatment and the increase in electrical use.

With regard to treatment, each gallon of water used has to meet drinking water standards. When water consumption increases in the summer, so does the amount of product needed to treat the water. The cost of treatment is directly tied to the amount of water produced for consumption.

The City of Gering adds Sodium Hypochlorite (chlorine) to disinfect the water supply and fluoride to increase the levels that are naturally present. Treatment is added at one central point and costs an average of $26,000 annually. The City of Scottsbluff adds Sodium Hypochlorite at 10 different well locations throughout the city at an annual average cost of $50,000. The City of Terrytown does not add treatment unless needed for short periods.

As for electricity, it is used to run the public water wells that pump water into the distribution system and for adding treatment. When water consumption increases, so does the amount of electricity used to run the wells and treatment equipment, resulting in higher electrical costs. Conserving water helps keep these costs down.

Our communities are located in an area of Nebraska where water is already over-appropriated to all the users that require it. Municipalities, farmers and others are regulated on the amount of water they are permitted to use. Any additional use requires state approval and likely, mitigation efforts that will create a return of water in the amount that exceeds the permitted use.

Everybody has a responsibility to use water wisely. The effect of our combined efforts to conserve water now, will help us preserve this resource for the future.