

IMPACT

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Water conservation program encourages change

The Situation

Landscaping can increase the value of your property by as much as 20%, according to the National Society of Real Estate Appraisers; however, keeping a landscape in top shape in southern Idaho requires irrigating. As much as 60% of domestic household water is used outdoors to irrigate most landscapes. The typical large-lawn landscapes found in most residential, commercial and public sites in southern Idaho can require several weekly irrigations. Employing water conserving methods on landscapes is essential in Idaho's arid Treasure Valley (Ada, Canyon, Payette, Emmett, and Elmore counties) and Magic Valley (Twin Falls, Gooding, Cassia, Minidoka, and Jerome counties) with their low annual precipitation rates of 11-12 inches and 10-11 inches, respectively. Dry conditions coupled with continued population growth and normal irrigation use for residential and agricultural properties, have depleted reservoir levels. This water shortage has led some municipalities to place restrictions on usage, and shorten the irrigation season by one month. The dry conditions have also caused local moratoriums on well drilling and increased municipal water costs for water treatment. High water bills add to the financial burden of Idaho homeowners who in some cases have drastically reduced or stopped irrigating their landscapes completely. With a lack of water, landscape plants, especially trees that depend on regular irrigations, become stressed and decline. Insect predation is heavier on stressed plants which can lead to an increased use of insecticides to mitigate the problem. When mature trees die, property values decrease.

Many cities in arid regions like Albuquerque, Santa Fe, Denver, Colorado Springs and Salt Lake City, began promoting the conservation of water in landscapes through the practice of xeriscaping. Xeriscap-

ing promotes water conservation in landscapes, and when xeric principles are followed, can reduce water used in a landscape by as much as 50-60%. Having water efficient landscapes did not alter the quality of life in those cities mentioned above, nor did property values drop. Xeriscaping can actually improve the quality of life by creating beautiful, lower maintenance, yet sustainable environments.

Our Response

University of Idaho Extension faculty in Ada and Twin Falls counties collaborated over the years with a number of businesses, as well as state and county agencies to plan educational programs that would build homeowner awareness of water consumption issues and available xeriscaping techniques. Among the collaborators were: United Water Idaho and other major water purveyors, Boise Public Works Department, the Idaho Botanical Garden, and the Idaho Department of Agriculture's Soil and Water Conservation Districts. A 7-week Water Efficient Landscaping Series was initiated in Ada County (Boise) in 1991. This educational effort continued for the next 22 years in Boise with classes covering the seven xeriscape principles: 1) Effective landscape planning and design, 2) Soil improvement, 3) Appropriate plant selection, 4) Practical turf areas, 5) Efficient irrigation, 6) Use of mulches, and 7) Proper landscape maintenance. These classes were taught by University of Idaho (UI) Extension faculty, UI Advanced Master Gardeners, and experts from the green industry. Questionnaires were used to evaluate the program and the adoption rate of these best management practices.

Program Outcomes

Adults Trained: Attendance at the Water Efficient Landscaping Series (WELS) was overwhelming. An-

nual course attendance ranged from 400-700 participants. It is estimated that over 15,000 people participated in the trainings over the past 22 years.

Other shorter water conserving courses and workshops were also offered to provide residents with low water landscaping strategies both in the Treasure and Magic Valleys. Sixty three (63) different groups received training in the last 10 years with attendees numbering 1,860. In 2008, the xeriscaping principles were presented at the Idaho Nursery and Landscape Association's Annual Conference to 520 participants. Xeriscape training was also added to the annual Idaho Master Gardener (MG) Program curriculum. In the past 22 years in Boise alone, over 950 MG adult students learned about water conserving techniques. Class evaluations indicated that 98% of WELS attendees found the water conservation information presented in the classes to be useful, and 72% declared that they would implement one or more of the xeriscaping practices. Adoption of several of the water conserving techniques taught in the series has been observed around Boise and surrounding towns since the educational effort was initiated.

Publications & Demonstration Sites: Eight publications were authored by UI Extension faculty on water conservation since the educational effort began. Three xeriscape demonstration gardens were installed at the UI Extension Office in Boise in 2002 and 2003. Collaborative educational partner, United Water Idaho, installed a xeric demonstration garden in front of their main office in Boise in 2006. This year, a xeric native plant demonstration site was established at the Twin Falls Extension Office.

Water Savings: According to United Water Idaho, the largest purveyor of water in the Boise area, the average home in southern Idaho uses 147,000 gallons of water annually. If the 72% of class participants who declared that they would implement one or more of the xeriscaping practices truly did, a remarkable water savings event would occur. For this example, we will take two of the simplest water conserving practices: 1) using mulch to reduce evaporation from the soil surface, and 2) reducing a typical weekly watering schedule by one 30-minute irrigation. If this occurred, this could equal a savings of 125 gallons per sprinkler head per week. (<http://libertylake.org/water-conservation>). An average landscaped lot in Boise or Twin Falls has about 15 rotating spray heads. Using the above water savings figure, a homeowner could potentially save 1,875 gallons of water per week, and in one growing season 22,500 gallons of water. That's 15% of a household's annual water supply! A beneficial spin-off for municipalities is the energy savings of not having to pump or treat that water.

In summary, if indeed 72% of our 18,330 class attendees reduced their irrigation water usage as outlined above, a potential 292 million gallons of water could easily be saved annually in southern Idaho. Our educational effort has indeed helped bring about such a change in water conservation as United Water Idaho verifies that a 30% reduction in per capita water consumption in Boise has occurred over the past 10 years.

FOR MORE INFORMATION

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