

Public Value in the West

An initiative of the Western Extension Directors Association

Safe and Sustainable Water



Relevance

Water quantity challenges and the maintenance of water quality in the western region are vital to the area's survival and way of life. For example, in Washington State, Puget Sound supports \$20 billion in annual economic activity and hundreds of thousands of jobs. Puget Sound is one of the most popular venues for recreation regionally, and accounts for more than 80 percent of the state's tourism dollars (PSP, 2013).

As the region faces the challenge of supporting and protecting safe and sustainable water resources, there is the potential for unprecedented conflict. At the same time, however, the potential for unprecedented cooperation exists. Western region Cooperative Extension fills a unique role in the region by contributing credibility, objectivity, and research-based information to solutions, as well as facilitating engagement across disciplines with multiple partners and stakeholders.

Extension's Response

Western Region Extension has reached constituents with a range of programs that include water quality monitoring, indoor and outdoor water use efficiency, agricultural water use efficiency, irrigation technology and practices, storm water management, weather monitoring, cooperative management of water resources, drinking water protection, improved crop management practices, drought and flood response, riparian area protection, and low impact development.

(your University) Extension, U.S. Department of Agriculture and (your state) counties cooperating.

Extension programs are available to all without discrimination. April, 2015

Water is key to life on Earth, supporting human and animal health, food production, urban and rural landscapes, and natural ecosystem services. However, only a limited amount of Earth's water is potentially useful for humans and ecosystems; water covers two-thirds of its surface and constitutes 60-70% of the living world.

Average global per capita consumption of water is 327,500 gallons per year. In the western United States, though, that amount jumps to 655,000 gallons per capita per year. In the over-allocated water systems of the West, where populations continue to grow, extended drought has become a fact of life and predicted climate change poses significant supply reductions in many regions, the current level of water use cannot be sustained. Solutions for preserving the quality and quantity of fresh water are critical.

Extension has protected and sustained safe and sustainable water resources in the western region since its inception in 1914, as water is integral to agricultural production.

Today, regional Extension personnel continue to sustain and protect water resources by addressing agricultural water use efficiency, urban water supplies and demand, industrial uses, storm water management, and natural resource conservation.

Results

Agriculture

In the western region of the U.S., as much as 85% of water is used for agricultural irrigation and there are growing pressures on this water for growing urban populations and for non-traditional, non-consumptive uses like recreation and ecosystem support.

More farmers rely on Extension agents and faculty for information on reducing irrigation costs and conserving water than any other information source.

Providing this information to growers has contributed to irrigation system improvements on 13.4 million acres (65%) of the irrigated agricultural land in the region.

Urban

In the urban sector of the western region, 70-75% of total household water use is applied to amenity landscapes in the form of outdoor irrigation.

On average, Utahans participating in the USU Water Check Program save 25,750 gallons of water annually, reducing the amount of water applied to landscapes by 8%.

In Salt Lake City, UT, water savings by Water Check Program participants has resulted in a cumulative savings of 1,141,384 Kgal (thousands of gallons), while cumulative dollar savings on water bills of program participants has reached \$1,700,662.

Forest and Rangeland

In Washington State, as a result of Cooperative Extension programming efforts in 2013, sustainable management practices were applied on over 171,000 acres of rangelands and forests.

Environment

Nutrients and pathogens are of concern in the western region due to the potential for health and environmental risks along with the degradation of water resources. In Washington State more than 759,205 people have participated in Cooperative Extension natural resource stewardship programs, and 227,761 applied recommended practices and strategies to protect water quality.

Coastal and Marine

Most fresh water eventually flows to the ocean and whatever affects water inland, even far away from coastal areas, eventually impacts the health and quality of coastal and marine waters (USEPA, 1996). In the Puget Sound Basin where there have been ongoing Extension programming efforts there was a net increase of 2888 acres of harvestable shellfish beds between 2007 and 2013. In addition, between 2004 and 2012, the number of beaches meeting water quality standards for swimming increased by 4% (PSP, 2013).

Your institution's
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Contact Information

References

USEPA (1996): http://water.epa.gov/type/oceb/habitat/up-load/2007_06_26_oceans_treasure_treasure.pdf

Puget Sound Partnership (2013): <http://www.psp.wa.gov/vitalsigns/>

United States Geologic Survey (2014): <http://wfrc.usgs.gov/>

Northwest Fisheries Science Center, National Oceanic and Atmospheric Administration: <http://www.nwfsc.noaa.gov>