



2011

UNIVERSITY OF
Nebraska
Lincoln

EXTENSION

Know how. Know **now.**

WATER CLIMATE ENVIRONMENT - COMMUNITY

Meeting the Challenge

Signature Outcome 1 ... Maintain/Improve Water Quality/Quantity

UNL Extension provided education that led to adoption of sustainable water quality and quantity management practices by private and community domestic water and wastewater system users. For example, from 2004-2011, families in the Shell Creek Watershed protected their water resources by decommissioning 41 illegal wells and upgrading over 45 septic systems that annually treat over 45.3 million gallons of sewage. And approximately 9,585 youth attending water festivals learned about Nebraska's water resources.

Signature Outcome 2 ... Resource Efficient Landscapes

Sustainably designed and managed landscapes and community green spaces are necessary for quality environments, healthy lifestyles, and vital, vibrant communities. UNL Extension education for green industry professionals, business and home owners, and public works employees leads to water and energy conservation, responsible pesticide use, increased plant diversity, and urban stormwater run-off mitigation with bioretention practices. These outcomes provide natural resource conservation and protection, economic opportunities, and a higher quality of life for Nebraska citizens.

Signature Outcome 3 ... Energy Efficient Buildings & Landscapes

The U.S. uses about 26% of the world's energy. According to the department of energy, buildings use about 1/3 of that energy and 2/3 of all electricity. Implementing energy efficient practices in buildings and landscapes is one solution for reducing the world's problems of global warming, energy security and fossil fuel depletion. Nebraskans will be a part of this solution by making changes in the way energy is consumed in homes and businesses. Through educational programs provided by UNL Extension, they will better understand how a building's design and surroundings affect energy use to maintain temperature, illumination and livability. They will improve energy efficiency and management practices, increase their use of green technologies and adopt energy conservation methods.



Public Value

Protecting human health, natural resources and the environment by:

- **PROTECTING SURFACE AND GROUND WATER QUALITY**
- **REDUCING EXPOSURE TO PESTICIDES**
- **CREATING SUSTAINABLE LANDSCAPES**
- **IMPROVING ENERGY EFFICIENCY IN BUILDINGS**

The result is reduced health care costs, a safer environment for children and adults, high quality drinking water and safe management of on-site residential waste, less demand on natural resources, less dependence on foreign oil and vital, vibrant communities.



Extension is a Division of the Institute of Agriculture and Natural Resources at the University of Nebraska-Lincoln cooperating with the Counties and the United States Department of Agriculture.

The 4-H Youth Development program abides with the nondiscrimination policies of the University of Nebraska-Lincoln and the United States Department of Agriculture.



“Water Quality/ Quantity” Impacts

Nebraskans have a safer drinking water supply and are ensured wastewater is being treated to a higher standard before being recycled to groundwater due to Extension education.

Trained contractors **protected water resources by improving management of septic systems** that generate over 252 million gallons of sewage annually.

People using drinking water NebGuides 69,062 times **achieved desired water quality** at a reasonable cost.

Nebraska ADT2 members in Afghanistan and families they work with know how to make **drinking water safe in remote areas with limited resources**.

More than 2,410 people attending events using a 6-foot model gained a **better understanding of Nebraska’s groundwater**.

Farmers’ soil was improved and fertilizer expenses were reduced as more than 29,000 tons of Lincoln’s biosolids were diverted from the landfill for land application.

“Resource Efficient Landscapes” Impacts

By using better design and management practices taught by Extension, green space managers reduced pesticide and fertilizer inputs and used less labor while improving Nebraska landscapes.

The use of environmental and economically sustainable greenspace practices have increased as a result of Extension programs teaching best management practices to over 2500 green industry professionals.

Largely as a result of Extension education, the City of Wayne saved nearly \$250,000 on three developments by using bioswales instead of conventional storm drains and by eliminating curbs and gutters on a new street in an industrial park

Resource efficient landscape practices are being used as a result of Backyard Farmer reaching over 22,000 households per week, over 295,000 views of BYF educational videos, a consistent top rating on iTunesU and through 462 Master Gardener volunteers reaching 82,000 people with a public value of approximately \$400,000.00 or twelve full-time Extension employees.

“Energy Efficient Buildings” Impacts

Low income families saved money and energy by using practices learned in programs developed by Extension in partnership with the Nebraska Energy Assistance Network and Nebraska RentWise Coalition.

Over 500 low income households **improved energy efficiency of their homes**, more efficiently managed energy consumption and installed more energy-efficient products.

Get a Head Start on Energy participants implemented 14 of 26 recommendations for **bringing down energy costs**. All but one energy-efficient product in energy kits were installed by at least half of the renters or homeowners.

As a result, in part, of adopting energy efficient practices

- **92% had not been disconnected by a utility or home heating supplier**
- **80% had not reduced their mortgage or rent payments to pay utility bills**

97% indicated that **finding an energy-efficient home is now more important to them**.

Missouri River flood victims were able to manage a host of financial, health and safety issues associated with flood-damaged homes, landscapes, drinking water and septic systems by accessing UNL Extension information through [flood.unl.edu](http://www.extension.unl.edu/home), factsheets and face-to-face meetings. A multifaceted effort was conducted to educate property owners and government officials about the effects of extended flooding on trees and the potential liability. Over 245 homeowners made decisions about cleaning, repairing or demolished homes after attending Extension-taught and sponsored meetings in 4 counties. The meetings allowed state and national disaster management officials to connect with property owners needing inspections and consultations.

For more information, contact your local UNL Extension office, <http://www.extension.unl.edu/home> or Carol Welte, 402/374-2929, Action Team Leader for this Program Area