

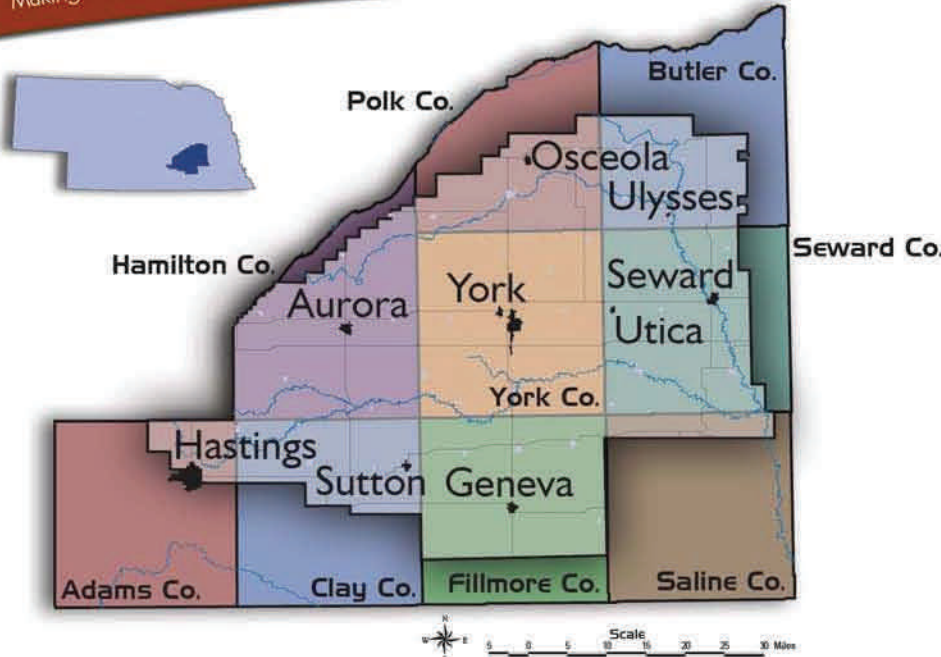
KNOW YOUR NRD



UPPER BIG BLUE
Natural Resources District
York, NE

Nebraska's Natural Resources Districts
Making the Good Life Better Since 1972

Fall / Winter 2010



UPPER BIG BLUE NRD

Upper Big Blue NRD Water Quality & Quantity FACTS

Groundwater irrigated acres: 1,159,645
2009 irrigation water use averaged
7.10 acre inches.

Free home water tests (1997-2010):
Nitrate tests: 2,572
Bacteria tests: 703

Irrigation flowmeter cost-share:
1,816 installed and inspected

Wellhead Protection Areas established:
23 communities

The Upper Big Blue NRD
water management area is larger
than the state of Delaware...

Flood control dams built (1972-2010):
45 structures

Recreation areas: 5 sites/ 640 acres of
water and land managed.

Forestry (1975-2010): 1,678,600 trees
sold

Protecting Lives



Who is monitoring the safety of our drinking water?
Dan Leininger is...

The Domestic Well Testing Program keeps rural residents of the Upper Big Blue NRD apprised of

the quality of their drinking water in regard to nitrate levels. Federal regulations state that nitrate-nitrogen concentrations in drinking water greater than 10 parts per million (ppm) are potentially hazardous to high-risk individuals such as infants and the elderly.

In towns, the city government or water supplier is required to annually inform residents of their water quality. In 2008, the NRD tested nitrate levels in 239 domestic wells.

Protecting Property

Who is working to control floods?
Jeff Ball is...

The Upper Big Blue NRD has built dams to ensure the safety of our District's citizens.



These dams are designed as multi-purpose/use areas for flood control, recreation, habitat establishment, water quality protection, and soil erosion prevention. Landscapes with uncontrolled water sheds can present many challenges such as flooding and soil erosion. This can cause property damage and possible water contamination. In other cases, uncontrolled areas can cause harm to humans and livestock.

Protecting the Future

Who ensures that my grandchildren will have enough water in the future?

Courtney Woodman does...



The purpose for our regulations is to manage groundwater in times of shortage. This will ensure that we can sustain our long-term water supply for future generations and to avoid conflicts between users. Over 500 observation wells are measured in the spring of each year, allowing the water table to rebound from the previous irrigation season. Reporting and allocation triggers have been proactively put in place should the groundwater levels fall below a certain point.

News to keep you in the "know"...



Personal Safety: Knowing my family is safe

The Upper Big Blue NRD carries out a variety of projects and programs in groundwater management, land treatment, flood control, forestry, and recreation. The Upper Big Blue NRD staff takes tremendous pride in their work because they also have families who daily rely upon and use the same resources that they monitor and test.

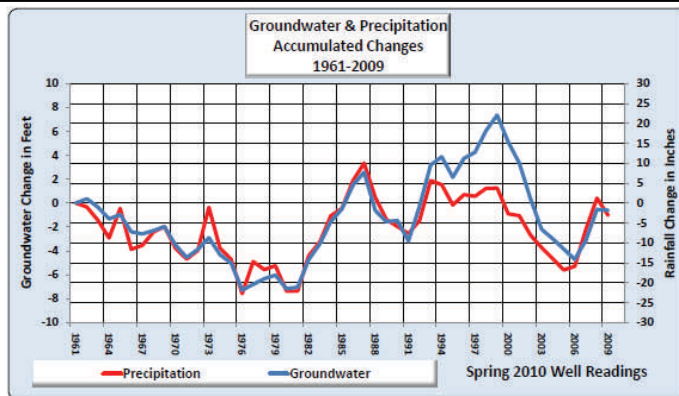
Flood Control & Soil Erosion Prevention

One of the main responsibilities of the NRD is flood control because of a variety of rivers and tributaries that flow through the District. With 45 flood control dams District-wide, the Upper Big Blue NRD works with producers, cities and county officials to improve storm water management and run-off. As an added benefit, the Upper Big Blue NRD maintains five recreational sites created through flood control dams that each form a lake for fishing and boating. Hiking, biking, and camping, as well as the development of wildlife habitat, are additional benefits incorporated into the design of these flood control sites. The NRD also works with landowners by cost-sharing on construction or installation of soil and/or water conservation practices. These practices prevent or reduce soil erosion, water contamination, and the overuse of both surface water and



CROP-TIP Agricultural Test Site

The NRD is helping producers increase their bottom-line while implementing conservation measures. This special agricultural test site managed by the NRD helps to demonstrate that calculated use of irrigation water and nitrogen application can help to save producers money, yet still allow similar or sometimes greater yields. This project called CROP-TIP provides information farmers can use as a management tool in their farming operations by measuring the difference of irrigation water applied, energy costs, labor and yields of sub-surface drip irrigation versus gravity irrigation over a number of years. Soil moisture sensors and data loggers are used to record soil moisture. Atmometers track evapo-transpiration for total crop water use.



groundwater and precipitation levels are placed together on a graph, the result is a mirror image, which indicates in our District that precipitation has a great deal to do with groundwater levels.

Precipitation Mirrors Groundwater Levels

The graph shows annual change in rainfall from 1961-2009 compared to groundwater levels. Rainfall data from 8 gauges and groundwater data from 500 observation wells across the NRD, reflect wet and dry periods. When

Nebraska's NRDs

- Protects lives through flood protection
- Leaders in groundwater management
- Use taxpayer dollars efficiently

Formed in 1972, Nebraska's Natural Resources Districts are local government entities with broad responsibilities to protect our natural resources.

NRDs help Nebraskans respond to natural resource challenges with local control and local solutions. Major Nebraska river basins form the boundaries of the 23 NRDs, each of which is governed by locally elected boards of directors. The Upper Big Blue NRD is governed by a 17-member board of directors. These directors are elected by registered voters within the District. The board sets policy for the District and works closely with the staff through a committee system to carry out the District's goals.

Statewide, NRDs are largely funded by property taxes and make efficient use of those tax dollars; typically a Natural Resources District uses only 1% to 2% of all property taxes collected in a county.

For example, in the Upper Big Blue NRD on a \$100,000 home this would equate to \$2.57 of property tax per month; A small investment for peace of mind knowing that your NRD is "Water Conscious".

"Conservation is the Nature of Our Business"

Concerned about your natural resources?...So are we!
Find out more about Nebraska's NRDs at www.nrdnet.org