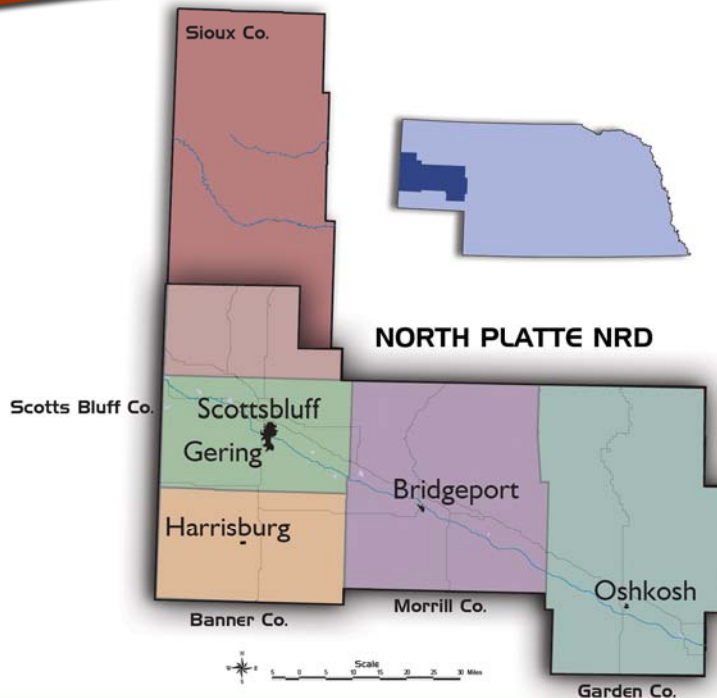


KNOW YOUR NRD



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

Summer/Fall 2009



NRD QUICK FACTS:

2008 Precipitation: 14.28"
 Registered Wells: 2,900
 Monitoring Wells: 600
 Tree Planted: Over 4 million since 1972
 Total Irrigated Acres: 223,194
 Ground Water Only Acres: 107,645
 Over half (115,548) of the District's total irrigated acres are supplied by commingled (canal AND well) water.
 Western Nebraska ground water is greatly dependent upon the series of canals, tributaries, and seasonal irrigation run-off, which recharge the aquifer.
 A moratorium on new water well drilling in 2001 was the first such moratorium on the Platte River.

Protecting Lives

Protecting Property

Protecting the Future



The North Platte NRD protects the well-being of western Nebraska residents by maintaining

and inspecting a public water system in Harrisburg, managing a ground water management sub-area in Garden County where nitrates are closely monitored, and testing the static ground water levels at 600 monitoring wells located throughout the District. We administer a well decommissioning program to help landowners properly cap their abandoned wells, protecting children, pets, and property.



Nine Mile Creek

Panhandle No Till Partnership

The North

Platte NRD has been successful in partnering relationships with landowners and other agencies. In 2004 work began on the well-known Nine Mile Creek project where 100 landowners were contacted and consented to having invasive Russian olive and saltcedar removed from their properties along the creek. In 2006 the District partnered with NRCS and the South Platte and Upper Niobrara-White NRDs to form the Panhandle No Till Partnership, providing an annual conference and ongoing producer no till education.



Certification of Ground Water Uses
 Flow Meters
 Allocation of Ground Water Uses

Accurate measurement results in accurate management of ground water. The first-ever moratorium on drilling of new water wells within the Platte River system was set by the North Platte NRD in 2001. Two years later the first allocation of ground water began in the Pumpkin Creek Basin. In 2007-08 the NRD worked with landowners to certify all ground water uses within the District. With better water use records and regulation, the North Platte NRD is poised to protect the future of western Nebraska's water.

Science-Based Management

Sound science is the basis for sound management. In efforts of making more informed, fact-based resource management decisions, the North Platte NRD has partnered with the United States Geological Survey (USGS), the University of Nebraska, Nebraska Environmental Trust, Department of Natural Resources (DNR), and other NRDs to conduct studies that will provide comprehensive science-based knowledge for present and future management decisions.



The **Canal Geophysics Survey** conducted by the USGS and partially funded by the DNR's Interrelated Water Management Plan Program fund is helping western Nebraska water managers understand the region's geological characteristics and how they are related to the canal system. In time, the NRD would like to utilize the intricate irrigation projects for intentional ground water recharge and storage projects. The intent of this study is to show the optimum places to store surface water in order to sustain the aquifer.

The **Helicopter Electro Magnetic (HEM) Survey**, conducted in 2008 and 2009 by the USGS and partially funded by the Nebraska Environmental Trust, will provide three-dimensional maps of the region's geological formations. These maps will be used by hydrologists and correlate with data from the canal survey to determine the most optimum ground water holding areas in the aquifer.

The **Pumpkin Creek Limited Irrigation Project**, with major funding and support provided by the North Platte NRD, NRCS, and the Nebraska Department of Agriculture, was conducted from 2004 to 2007 in the Pumpkin Creek Basin by UN-L Soils Specialist Dr. Gary Hergert. This worthy project demonstrated limited irrigation and no tillage cropping systems to maximize efficient use of ground water. Many of the results and findings of the study have been incorporated into Pumpkin Creek Basin producers' cropping rotations. For Dr. Hergert's full details on the study, go to http://www.panhandle.unl.edu/pumpkin_creek/index.htm.

Wise and Safe Ground Water Use

In addition to placing a moratorium on new well drilling, certifying all ground water uses, and metering ground water uses, the North Platte NRD is also encouraging the **permanent retirement of irrigated acres** throughout the District. In 2006-2007 nearly 3,500 acres were permanently retired in the Pumpkin Creek Basin. These lands were converted to dryland, rangeland, or wildlife habitat.

The use of flow meters on all regulated wells and the allocation of ground water within the overappropriated area of the District is also now in practice. These wise management moves will help the District comply with state statute of returning the District to 1997 levels of use and protect the resource for long-term sustainability. The District also maintains approximately **600 monitoring wells to check ground water nitrate, uranium, and static depth levels.**

A **Buffalograss seed reimbursement program** is also available to help homeowners convert their thirsty bluegrass lawns to more water-conscious buffalograss, which is a logical solution for western Nebraska.

- Protecting ground water by monitoring nitrate and uranium levels
- Protecting over 3 million acres in Western Nebraska with tree planting, soil conservation, and ground water projects
- Effectively using only 5 cents per \$100 for programs and services

What is Commingled Water?

Commingled Water is one of our District's greatest assets—and greatest management challenges. Commingled water is irrigation water that is derived from both surface (canal) water and ground (well) water. Commingled water accounts for over half of the irrigation water that is used on lands within the District (107,645 ground water-only acres vs. 115,548 commingled water-irrigated acres). The North Platte NRD needs its surface irrigation system in order to maintain a sustainable ground water mound and is working to encourage irrigators to use their surface water first before tapping the ground water supply.

YOUR Investment in LOCAL Natural Resources

The North Platte NRD is a local government agency that operates on a portion of your annual property taxes. Compared to State and County Governments and School Districts, the NRD uses less than 1% of the total property taxes collected in each county. For example, in the North Platte NRD, on a \$100,000 home, this would equate to less than \$70 per year. To help fund programs, studies, and cost-share assistance, the NRD utilizes money available from the Nebraska Environmental Trust, Bureau of reclamation funds, and other state and federal agencies.