

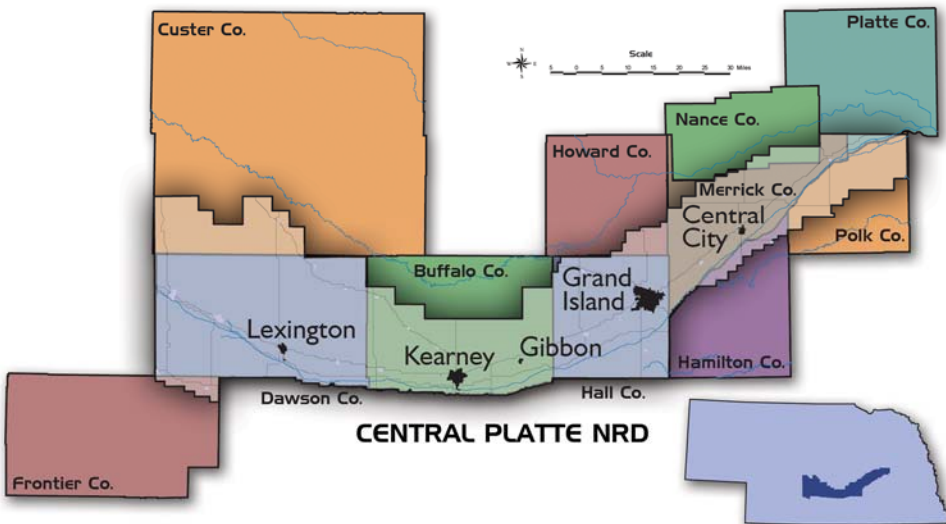
# KNOW YOUR NRD



**CENTRAL PLATTE**  
Natural Resources District  
Grand Island, NE

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

Fall 2009



## CPNRD QUICK FACTS:

The Central Platte NRD manages natural resources for all or parts of 11 counties along the Platte River.

### River System

- Platte River: 205 miles
- North Channel: 49.9 miles
- Wood River: 173 miles

### Irrigation

- 21,002 irrigation wells
  - Over 1 million acres certified
  - \* To ensure the safety of ground water, 575 wells are monitored once every 3 years in a rotation.
  - \* To ensure the quantity of ground water levels, 575 wells are monitored in the spring & fall.
- Of those wells:
- 97 are monitored monthly
  - 15 USGS wells monitored all year-round for continuous data

Protecting lives

Protecting property

Protecting the future

### **Nitrates Continue to Drop**

In 1988, the NRD implemented a Groundwater Management Program to undertake a long-term solution to protect groundwater and drinking water from widespread nitrogen contamination. The practices that have been implemented by landowners are helping nitrogen levels decrease annually.

Currently at 15.21 ppm (parts per million) the Program is having a beneficial impact on average nitrate levels. When the directors adopted the program in 1988, the highest nitrate level was tested at 19.24.

Groundwater is the main drinking source for 130,000 people in CPNRD. The goal is to reduce the average amount to 10 ppm. Over the last two decades the NRD has reached 40% of its goal.

### **Flood Control Projects**

The months of May and June 2008 gave the NRD's flood control projects a test- which they passed- as parts of the District received over six inches of rain in just the first eight days of the month.

The NRD's largest flood control project, the Wood River Project, continued to move waters away from Grand Island in 2009. The total cost of the project was \$15.5 million, saving homeowners & insurance companies over \$8 million in just a few months after its completion in 2004. On May 11, 2005, over 7 inches of rain fell within 24 hours. *The Corps of Engineers estimates that \$24 million in property damage were prevented in 2005 alone.*

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### **Water Bank Working**

The Central Platte NRD has spent \$2.9 million in purchasing water rights to enable future development by getting the over-appropriated area of the District back to a fully appropriated status.

Ron Bishop, general manager, believes the banking program is working. Bishop said the board decided to acquire water rights from landowners, rather than implement an acreage reduction system, to make up the required depletions to the river.

Every acre-foot of water that impacts the river that the NRD can acquire means that much restoration to the river and less cutbacks that the NRD would need to impose.

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## Flood Control Projects (continued)

Milt Moravek, assistant manager, said the channel works "exactly the way it was designed" and paid for itself within the first year of being built. Sponsors of the project were CPNRD, Hall & Merrick counties and the City of Grand Island.



The Warm Slough/Trouble Creek Project in Central City has been tested several times since its completion in 1993, including the 2005 flood. Moravek said the June 2008 rains exceeded a 100-year storm and the project "handled the water just fine." The sponsors of this project included the Nebraska Natural Resources Development Fund, CPNRD, Merrick & Hall counties, and the cities of Grand Island & Central City.

The Upper Prairie/Silver/Moores Creek Project in Grand Island is currently being constructed to alleviate flooding in the northwest part of GI. That project will be completed in 2015.

### GW Level Changes Spring '08- Spring '09

Buffalo	+1.73
Custer	+0.13
Dawson	+0.50
Frontier	-0.22
Hall	+1.41
Hamilton	+0.37
Howard	+1.20
Merrick	+1.07
Nance	-3.23
Platte	+0.40
Polk	-0.91

## Groundwater Levels Recover

Counties that battled a six-year drought have seen their average groundwater levels increase again this year. Average groundwater levels across the district are up .39 feet from spring of 2008 to spring 2009. As you can see in the chart to the left, the only counties that saw a decrease were Frontier and Nance counties. Nance is the only county in the District still in drought conditions at 3.23 feet below average. The remaining counties are at a comfortable range, either at or above average levels.

## Water Bank Working (continued)

The NRCS is helping the NRD find ways to conserve water. Both federal programs EQIP & CREP have partnered with the program to offer upfront incentives to operators to make permanent retirement of their irrigation rights. Under the EQIP program, producers can still plant dryland crops.

The Water Bank also offers water to other users. Several irrigators across Buffalo, Hall & Merrick counties need to find an additional water source and with the Water Bank they were able to expand enough to allow a center pivot to be installed.

The COHYST Model has been useful in determining the amount of acre-feet needed to bring the Platte River back to 1997 levels. As of now, it looks like the NRD will need to reduce river depletions in the Dawson County area by 2,400 acre-feet to bring the over-appropriated area back and about 3,400 acre-feet in total.

## Improving Groundwater Data Collecting

The Nebraska Environmental Trust is supporting a three-year project that uses a Magnetic Resonance Sounding (MRS) to gather information on ground water without drilling holes. MRS is a quick, non-invasive surface technique that directly measures groundwater—which will be used in place of test holes and aquifer pump tests that are sparse, time-consuming and expensive. Use of MRS parameters will improve the accuracy of groundwater models & enable managers to make more informed decisions.

## More CPNRD Facts

- 30 Flood Control Structures
- 68,703 trees sold in 2008  
19.71 miles weed barrier sold
- 165 burns conducted nearly 6,000 acres by CPNRD fire crew since 2004
- \$470,321 in cost share distributed in fiscal 2008-2009

## Education

The NRD is dedicated to providing natural resource information to adults and youth. We sponsor or partner with the following events:

- \*Nebraska Children's Groundwater Festival
- \*Outdoor Classrooms
- \*Regional, State & Cannon Envirothon
- \*Land & Range Judging Contests
- \*Arbor Day Tree Program
- \*Groundwater Guardian Team
- \*Chemigation Training
- \*Nitrogen Management Testing

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; which are governed by locally elected boards of directors.

Central Platte NRD is governed by a 21-member board of directors, who are elected by voters within the district. The board sets policy for the district and then works with the staff to carry out the district's goals. Our staff work cooperatively with other local and state groups to promote good stewardship of natural resources in the district.

Find out more about  
Nebraska's NRDs at  
[www.nrdnet.org](http://www.nrdnet.org) and  
[www.cpnrd.org](http://www.cpnrd.org)