

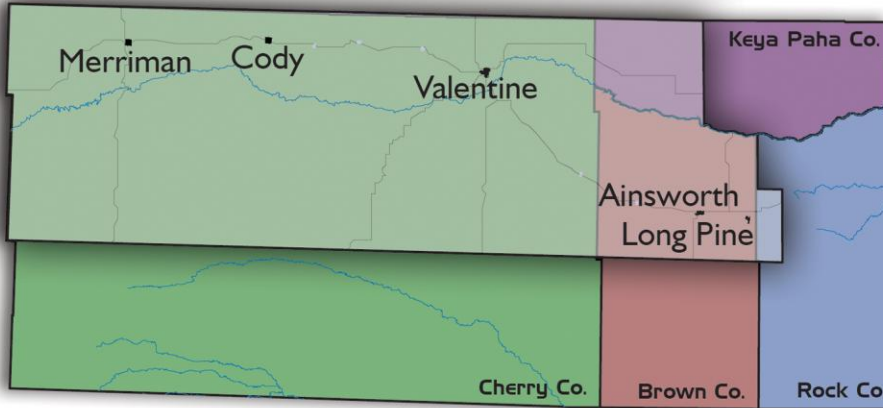
# KNOW YOUR NRD



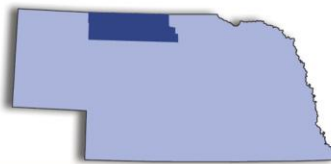
**MIDDLE NIOBRARA**  
Natural Resources District  
Valentine, NE

Summer/Fall 2009

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



MIDDLE NIOBRARA NRD



### Water Quality Facts (FY 2008)

- 172 nitrate samples
- 352 total chemigation permits
- 145 chemigation inspections

### Water Quantity Facts

- 421 registered domestic wells
- 96 monitoring wells
- 903 certified active irrigation wells
- 126,265 certified irrigated acres

### Land Improvement Facts

- 1,777,029 trees sold since 1985
- 42,857 trees sold in FY 2009

## Protecting Lives

To protect water from nitrate contamination and water level declines, the Middle Niobrara Natural Resources District (MNNRD) adopted a groundwater management plan on July 1, 1996. Even though most of the district has an absence of pollutants, the sandy soils have a high potential for groundwater contamination. The MNNRD conducts Nitrogen Management Certification classes to help maintain the near pristine conditions. Long term trends show an average decrease in nitrate levels.

The MNNRD also monitors groundwater levels in wells throughout the district each spring and fall. Long term static water levels show an average increase of 2.81 feet since the early 1970's.

## Protecting Property

Since 1972 the MNNRD has been proactively monitoring and managing groundwater. In October 2007 the Nebraska Department of Natural Resources (NDNR) issued the 2008 Annual Evaluation of Availability of Hydrologically Connected Water Supplies report. The report preliminarily determined that the Niobrara River Basin between the Mirage Flats diversion dam in Dawes County and NPPD's Spencer Hydropower facility near Spencer is fully appropriated meaning current water uses are in balance with the hydrologic stability of the basin. Within a month of the NDNR preliminary fully appropriated basin determination, the MNNRD board adopted new rules to help protect future water rights by requiring the certification of

## Protecting the Future

existing water uses. Certification includes irrigated acres as well as other water uses such as livestock operations, municipal, and industrial uses. In addition, the MNNRD developed a stakeholders group to assist in developing an Integrated Management Plan (IMP) for future management of the Niobrara River basin.

The final determination came on January 25th, 2008.

### **SNAKE FALLS**



### Aquifer Pump Test

To help reveal the connectivity between groundwater pumping and surface water flows, the MNNRD has been approved for \$173,000 from the Nebraska Environmental Trust to conduct an aquifer pump test. Installation of the wells is planned for August and the test will be conducted in October.

### PLUM CREEK



### ELM Project

To help provide a regional groundwater flow model that could be used to evaluate surface water/groundwater interaction for water management decisions that are based on sound science, the MNNRD is a partner in the Elkhorn-Loup Modeling (ELM) project. This project is a study of surface water and groundwater resources in the Elkhorn River basin upstream of Norfolk, Nebraska and the Loup River basin upstream of Columbus, Nebraska. The study will also assist the nine NRDs, the U.S. Geological Survey, the University of Nebraska Conservation and Survey Division, and the Nebraska Department of Natural Resources by characterizing the groundwater system.



### Tree Program

To encourage tree planting, the MNNRD makes low-cost tree and shrub seedlings available to landowners. Cost share programs, project design, weed barrier, drip irrigation and planting services are available as well.

Trees are planted throughout the district for livestock and homestead protection from the sun and wind, reducing soil erosion, flood control, wildlife habitat, reducing atmospheric carbon dioxide, aesthetic value, and as a “living snow fence”. This year over 42,000 trees were planted.



- Protects lives through water testing
- Are leaders in groundwater management
- Uses taxpayer dollars efficiently

Nebraska's system of local natural resources management is unique in the United States. Unlike most states which have districts based on counties, Nebraska's 23 Natural Resources Districts are based on river basin boundaries which enables Nebraska to manage resources on a watershed basis. While all NRDs share a common set of responsibilities, each district is autonomous, governed by a locally-elected Board of Directors. Each district sets its priorities and develops programs to best serve local needs. Since being created in 1972, NRDs have experienced tremendous growth in the responsibilities given to them by state statute, especially in protecting groundwater.

The NRDs are partially funded by property taxes and make very efficient use of those tax dollars. A typical NRD collects only 1 to 2 percent of all property taxes collected in a county. In the MNNRD this amounts to less than a penny a day per resident, or just over a penny per acre of land in the MNNRD.

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