

# KNOW YOUR NRD

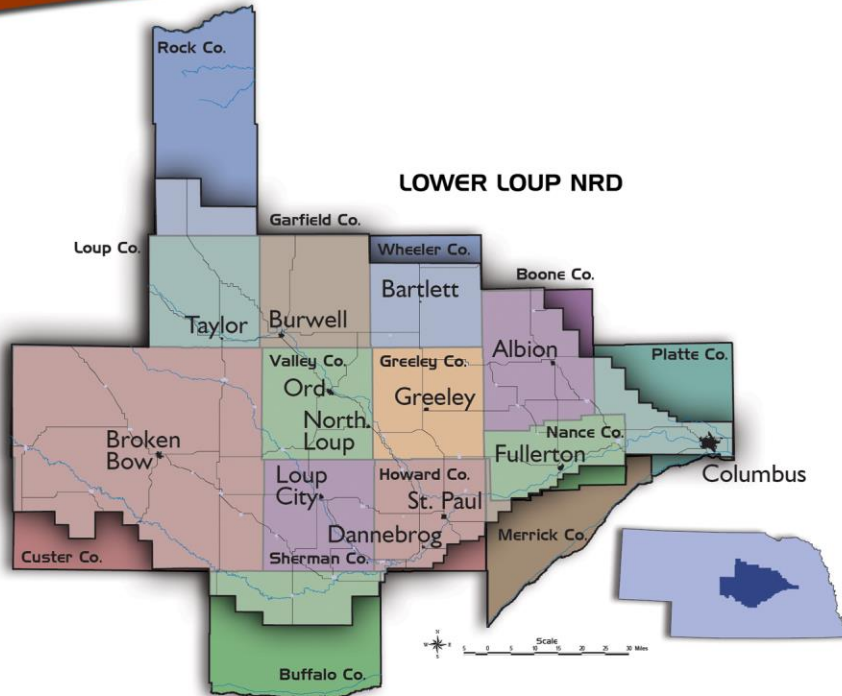


Nebraska's Natural Resources Districts  
Making the Good Life Better Since 1972

Summer/Fall 2016

## LLNRD QUICK FACTS:

- District Population: 68,746 (2010 Census)
- District Size in Acres: 5,070,720
- Encompasses 514 miles of rivers
- 11,453 Registered Irrigation Wells
- 1,218,249 Certified Irrigated Acres
- Planted over 12 million trees since 1972
- Distributed \$7.66 million in cost-share funding to landowners
- 2006 - Self-imposed moratorium on new high capacity irrigation wells
- 2008 - Self-imposed moratorium on expansion of irrigated acres
- 2009 - Lower Platte River Basin fully-appropriated designation reversed
- 2009 - Additional groundwater rules approved to allow limited irrigation development under LB-483



### Protecting Lives

#### High Nitrates Remain Issue

Nitrate levels above the federally designated maximum continue to plague an area of concern south of the Loup River in Nance and Platte Counties.

Designated as Water Quality Area 28 by the NRD, the area continues to see high nitrate levels in groundwater. A study commissioned by the NRD showed several factors affecting nitrate levels, including a shallow water table, sandy soils, high groundwater recharge rates, and individual management practices regarding nitrogen fertilizer application.

The NRD has implemented a mandatory water meter program for Area 28, so that producers can account for nitrates in the groundwater as part of their fertilizer application.

### Protecting Property

#### LLNRD, DNR Approve IMP

The Lower Loup NRD and the Nebraska Department of Natural Resources has approved a voluntary integrated management plan (IMP) for the district.

The goal of an integrated management plan is to ensure a balance between water supplies and uses to protect the rights of existing users of surface water and groundwater.

Groundwater is monitored and controlled by the NRD and surface water is monitored and controlled by DNR.

The plan was created with input from stakeholders throughout the LLNRD. Stakeholder members represented a variety of backgrounds and organizations with an interest in the future of water in the Loup River Basin.

### Protecting the Future

#### New Irrigated Acres Granted

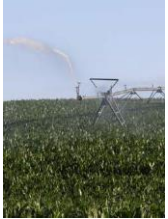
Applications for new irrigated acres in two sub-basins of the Lower Loup Natural Resources District have been accepted for 2017. The Lower Loup NRD Board of Directors voted to grant 2,000 acres of new irrigation development.

The decision came after a review of the Lower Platte River Basin Study showed surplus water supplies in the North Loup River and Beaver Creek sub-basins. The surplus means that new irrigation will not have a negative effect on current irrigation.

The new groundwater acres will mean the Nebraska Department of Natural Resources will also be allowed to grant new surface water irrigation in those basins at a ratio of one new surface water acre for every three new groundwater acres.

## NRD Flowmeter Program Is A Success

The Lower Loup NRD provides cost-share to irrigators interested in a better understanding of the water used to grow row crops. Funded in part by the Nebraska Environmental Trust, the program provides valuable data regarding annual irrigation across the NRD. The data is used in various modeling endeavors and provides for better analysis of groundwater use in the district. The program funding will expire at the end of 2016.



The NRD requires flowmeters on all irrigation sources with its Groundwater Quality Management Area 28. Increasing nitrate levels in Area 28 led to the decision to require the meters, which will give irrigators a means to measure and control the amount of nitrogen they are applying through irrigation water. Knowing this amount will allow the irrigator the opportunity to save on inputs and promote better groundwater quality by reducing the amount of fertilizer needed to grow a crop. The Lower Loup NRD is the first district to require flowmeters to address water quality concerns.

## Columbus Area Water Study

The Lower Loup Natural Resources District has completed its initial study of groundwater resources in and around the city of Columbus. The community is the most populated in the NRD and has a complex hydrology, so the NRD Board of Directors approved an assessment and the creation of a water model to provide for better long-term management of groundwater for the community.



An aerial electromagnetic survey of the area was completed in the summer of 2016. The data gathered will provide the Lower Loup NRD with detailed information regarding overall depth and potential layering throughout the area's aquifer.

## Recreation Areas Get Updates, Expansions



The Lower Loup Natural Resources District has completed a water quality and renovation project at Pibel Lake Recreation Area in southeast Wheeler County and initiated an expansion at Davis Creek Recreation Area in southeast Valley County.

The Pibel Lake updates included two new fishing piers, parking updates, a sediment trap for sediment and nutrients to improve water quality, flood damage repairs, and a new picnic shelter.

At Davis Creek Recreation Area, changes include 42 new camp sites with electrical hook-ups, landscaping, 2 new picnic shelters, a restroom/shower facility, and an additional restroom near the new camp sites. Three of the new campsites are ADA compliant and will have sidewalk access. Funding for a portion of the renovation project is from the US Bureau of Reclamation. Additional work being planned at Davis Creek include a new boat launch, RV cleanout facility, and a fish cleaning facility.

- Lower Loup and 6 other NRDs are coalition participants
- Coalition members represent the NRDs in the Platte, Elkhorn and Loup Rivers and Nebraska Department of Natural Resources
- Coalition created to discuss and make recommendations on water management in the basin

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The coalition is managed by a Board of Directors and gets input from two committees, one managerial and the other technical. The management committee is responsible for the administrative and financial affairs of the committee and the technical committee handles the scientific and technical components.

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The coalition is looking at groundwater inventories, surveys, studies, modeling, goals and objectives of groundwater management in the basin.

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