

KNOW YOUR NRD

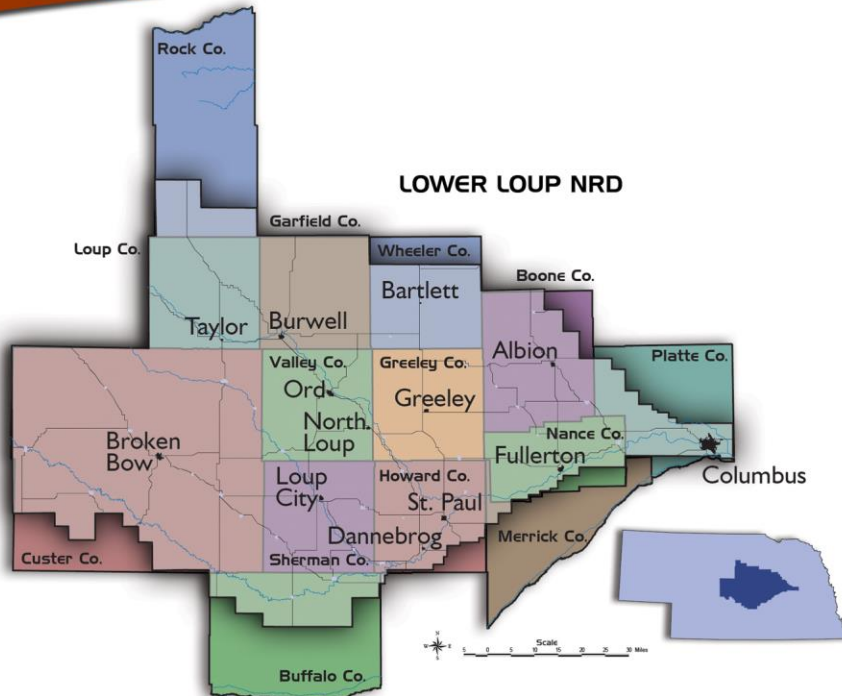


Nebraska's Natural Resources Districts
Making the Good Life Better Since 1972

Summer/Fall 2019

LLNRD QUICK FACTS:

- District Population: 68,746 (2010 Census)
- District Size in Acres: 5,070,720
- Encompasses 514 miles of rivers
- 11,544 Registered Irrigation Wells
- 1,222,090 Certified Irrigated Acres
- Planted over 12.1 million trees since 1972
- Distributed over \$12.2 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

Cover Crop Study Underway

The Lower Loup NRD and Central Platte NRD are collaborating to determine the potential impacts growing cover crops has on offseason groundwater recharge.

This multi-year study will measure deep percolation in the soil through the use of sensors on a field planted with a cover crop. A comparison will then be made to a field without cover crops throughout the offseason.

At the end of the three years, the data will be assessed and it will be determined if growing cover crops is justifiable conservation practice in areas that have groundwater declines.

The study will be the first of its kind in Nebraska and will help determine if the soil benefits of cover crops outweigh the effects on the aquifer and the extended irrigation season required to grow them.

Protecting Property

Groundwater Quality Sub-Area

The Lower Loup NRD has designated a township in northeast Wheeler County as its first Groundwater Quality Sub-Area.

Nitrate levels in groundwater have been well above the trigger levels set by the NRD for multiple years. That means farmers in Township 23N, Range 9W will now have to collect soil and water samples for analysis and submit annual reports on yields and fertilizer applications. A flowmeter requirement, covered by NRD cost-share, is also being implemented.

The NRD Board of Directors approved new groundwater management rules to address smaller areas with high nitrate levels within existing NRD Groundwater Quality Areas.

Protecting the Future

New Irrigated Acres Granted

Applications for new irrigated acres in three sub-basins of the Lower Loup Natural Resources District have been accepted for 2020. The Lower Loup NRD Board of Directors voted to grant 2,500 acres of new irrigation development.

The decision came after a review of the NRD's groundwater models showed surplus water supplies in the North Loup, Middle Loup, and the Plum Creek, Beaver Creek and lower portion of the Loup River sub-basins. The surplus means that there is available water for development.

The new groundwater acres will mean the Nebraska Department of Natural Resources will also be allowed to grant new surface water irrigation in the same basins.

Flowmeter Program Includes Municipal, Industrial Wells

The Lower Loup Natural Resources District (LLNRD) has received financial assistance from the Nebraska Environmental Trust to install flowmeters on municipal, commercial, industrial, and livestock wells, as well as additional irrigation systems.

With the passing of the voluntary Integrated Management Plan (IMP) by the LLNRD and the Nebraska Department of Natural Resources (NDNR), several goals were identified and approved to help monitor and protect the water supply in the future. The first goal is to develop and maintain a comprehensive inventory of the locations and sources of the District's current and future water supplies, water uses and outflows. Flowmeters will allow the NRD to accurately quantify various water uses to acquire data for the water budget, which is a primary objective of the IMP.

The District plans to administer a cost-share program that will combine Environmental Trust funds with matching funds from LLNRD to fund the purchase of 75 flowmeters over the next 3 years. These high-capacity wells are unmetered and would provide beneficial data to the LLNRD for the water budget.

Buffalo County Area Water Study

The Lower Loup Natural Resources District will undertake a study of groundwater resources in northern Buffalo County this fall. The aerial electromagnetic (AEM) survey will help uncover the complex hydrology of the area.



The data gathered will provide the Lower Loup NRD with detailed information regarding overall depth and potential layering throughout the area's aquifer. The LLNRD will be better equipped to assess the overall susceptibility of the groundwater resources within the area to impacts from contamination and increasing use and development.

Recreation Areas Get Updates, Expansions

The Lower Loup Natural Resources District continues its program of improvements at the NRD's two recreation area. The District has completed installation of new outlet pipes in the dam at Pibel Lake Recreation Area in southeast Wheeler County. The replacement came after the discovery of leaks in the old pipes which could compromise the integrity of the Pibel Lake Dam.

At Davis Creek Recreation Area, south of North Loup in Valley County, a new tent camping area has been completed. The new area includes cement picnic tables and fire rings at each camp site. The NRD expects completion of a project later this fall to create electrical hook-ups at the west (old) campgrounds. The 25 camp sites in the west camping area currently do not offer electrical service. A new electrical service distribution line will be installed to serve the old campground.

Lower Platte River Basin Coalition

- Lower Loup, 6 other NRDs and DNR are coalition participants
- Coalition members represent the Platte, Elkhorn and Loup River SubBasins
- Coalition created to discuss and make recommendations on water management in the basin

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.

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

Find out more about the coalition at
lprbc.nebraska.gov
Learn about Nebraska's NRDs at www.llnrd.org or www.nrdnet.org

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