

KNOW YOUR NRD

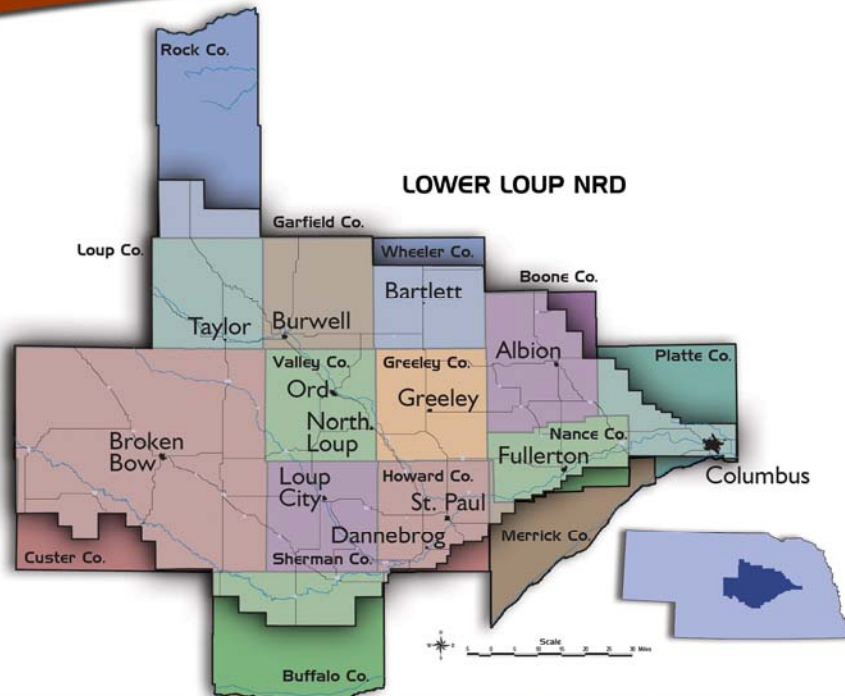


Nebraska's Natural Resources Districts
Making the Good Life Better Since 1972

Summer/Fall 2011

LLNRD QUICK FACTS:

- District Population: 68,746 (2010 Census)
- District Size in Acres: 5,070,720
- Encompasses 514 miles of rivers
- 10,792 Registered Irrigation Wells
- 1,196,133 Certified Irrigated Acres
- Planted nearly 12 million trees since 1972
- Distributed \$7.2 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

Protecting Property

Protecting the Future

Budget Cuts Impact ELM

Funding for the third phase of the Elkhorn-Loup Modeling (ELM) Project, which is creating a groundwater model that will aid NRDs in the Loup and Elkhorn River Basins in managing that resource, has been impacted by state budget cuts.

The ELM project lost about 50% of the original funding slated to come from the state's Integrated Water Management Program. NRD officials say the funding loss means that some geophysical work to determine the depth of aquifer will be postponed or cut from the project.

The ELM model is now being used by the Lower Loup NRD to assess current and future impacts of groundwater pumping on surface and groundwater availability.

New Irrigation Granted

The Lower Loup NRD will accept applications for 3,000 new irrigated acres in September, 2011. The new irrigation is part of 10,000 acres allowed over four years under LB-483, passed by the Nebraska Legislature.

Each application will be reviewed and ranked by NRD staff using criteria adopted by the NRD's Board of Directors. That criteria includes soil type, irrigation density, stream depletion factors, and other criteria.

There will be 3,000 acres of potential irrigation available for possible distribution in 2013, the final year that new acres could be granted. The NRD Board of Directors will determine if any or all these acres will be granted sometime in 2012.

High Nitrates Are Studied

Nitrate levels in Area 28, a groundwater quality area south of the Loup River in Nance and Platte Counties, may have been impacted by above average rainfall in 2010. The area is the focus of an aquifer study as NRD officials work to determine causes for high nitrate levels.

NRD officials said that it appeared that nitrate levels in groundwater increased while the nitrate levels in the soil appeared to be decreasing. Above average rainfall may have leached more fertilizer through the soil and into the groundwater.

The NRD is funding a study of Area 28 to develop a better understanding of the aquifer's composition, its layers, and geomorphology.

ELKHORN-LOUP MODELING (ELM) STUDY

NRD Flow Meter Program Enters Second Year

Funding for a Lower Loup NRD program providing cost-share for flow meters has been granted for the second of three years by the Nebraska Environmental Trust. The cost-share is being offered to select irrigators in the Lower Loup Natural Resources District as part of the "Irrigation Monitoring Program."

Data gathered through the program will increase the understanding of groundwater irrigation occurring in the District. A flow meter will provide the producer and the NRD with information on the amount of groundwater utilized for irrigation. The NRD is utilizing grant funds to purchase pressure transducers and data loggers for deployment in some sites. This equipment will help determine the impact of pumping on groundwater levels. The program will provide data for the Elkhorn-Loup Modeling (ELM) Study.



- Lower Loup and 7 other NRDs are study participants
- USGS and UNL Conservation and Survey Division are compiling data
- Grant funding received for Phase III work

Natural Resources Education



for students and teachers.

The Lower Loup Natural Resources District supports a variety of educational opportunities for students of all ages. The NRD hosts the annual North Central Envirothon contest in Columbus, as well as Land Judging and Range Judging contests across the District. The Lower Loup NRD joins other agencies to present an annual Environmental Festival for elementary students and makes yearly presentations at the Children's Groundwater Festival at Grand Island. The District also provides a number of scholarships to camps and contests

The ELM Study is focused on the availability of the groundwater resource, the effect of man's uses on the groundwater resource, and the interaction of groundwater and surface water.

Primary concerns of the study are the effect of groundwater withdrawal on the availability of surface water and the long-term effects of withdrawal on the groundwater resource.

NRD Provides Assistance In Wake Of Flooding

The Lower Loup Natural Resources District Board of Directors has approved financial assistance to two irrigation districts for repairs to water diversion structures damaged by flooding in 2010.

The North Loup River Public Power and Irrigation District will receive ten percent of the local costs, not to exceed \$400,000, to replace the Taylor Dam on the North Loup River. The Middle Loup Public Power and Irrigation District will receive ten percent of the local costs, not to exceed \$253,200, to rebuild part of the Sargent Diversion Dam on the Middle Loup River.

The ELM Study covers approximately 29,800 square miles and will characterize the groundwater system within the study area and provide a regional groundwater flow model.

Illegal Irrigation Penalty Established

Irrigators who violate the Lower Loup Natural Resources District regulations prohibiting the irrigation of uncertified acres will face the loss of twice as many acres the following crop year. That penalty was approved by the NRD's Board of Directors. The NRD Board defined a violator as the landowner and/or the operator of the acres on which the violation occurred. In the event of a repeat violation on the same tract or another tract, the matter would go to District Court or the violator would face a stricter penalty of the loss of four times the irrigated acres.

Find out more about Nebraska's NRDs at www.llnrd.org or www.nrdnet.org

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