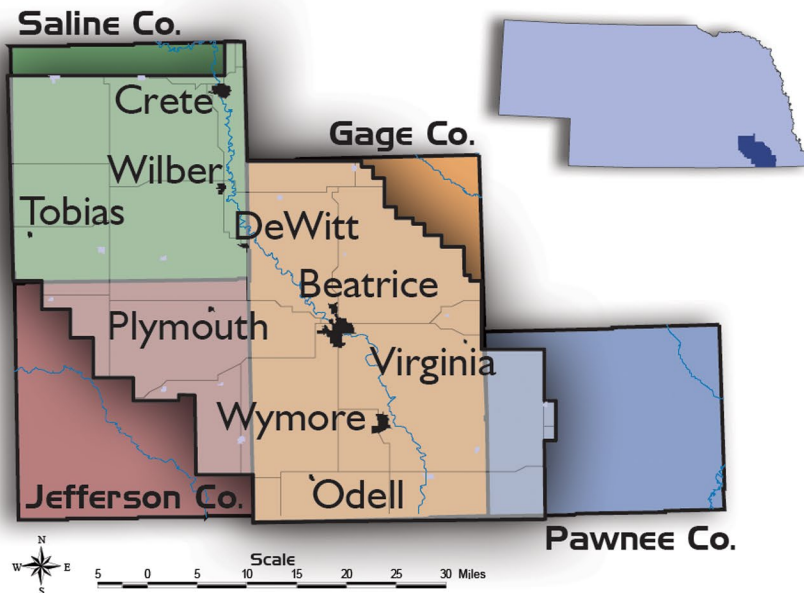




LOWER BIG BLUE NRD



LBBNRD QUICK FACTS:

Watershed Capital of Nebraska

*The Lower Big Blue NRD serves parts of Gage, Jefferson, Pawnee and Saline counties and encompasses over 1 million acres.

*277 dams control 364,313 acres and provide 98,007 acre-feet of flood control in 12 completed watersheds

*10 NRD Public Recreation and Wildlife Management Areas on 1,313 acres

*1,492,050 Seedlings Sold- 1973-2019

Protecting Lives

Water Quality:

The Lower Big Blue NRD (LBBNRD) tests domestic drinking water wells at no charge to rural residents of the district.

A water test for nitrates is highly recommended by the LBBNRD for households with infants, pregnant women, nursing mothers, or elderly people, as these groups are most susceptible to nitrate poisoning.

Without a test, nitrates in water are undetectable because they are colorless, odorless and tasteless.

The LBBNRD samples approximately 600 irrigation wells each year for nitrates and other chemicals.

In conjunction with the NDEQ, the LBBNRD collects surface water samples at public recreation areas and tests surface water samples during rainfall events.

Protecting Property

Flood Control:

As highlighted in the *Quick Facts* above, the Lower Big Blue NRD manages many flood control and grade stabilization structures, protecting 12 watersheds throughout the District. Many of these structures are 30 to 50 years old; therefore, maintenance of this important infrastructure is an ongoing focus of the district. The Lower Big Blue NRD is committed to finding the most efficient, cost effective and responsible solutions to maintenance challenges.



Left: LBBNRD employees guide a tube into place on a recent maintenance project.

Protecting the Future

Groundwater Monitoring:

In addition to revising and updating its Groundwater Management Plan in March 2014, the Lower Big Blue NRD has begun installing a network of dedicated monitoring wells throughout the District. The NRD has installed 44 new monitoring well sites equipped with data loggers and small pumps to provide better groundwater quantity and quality data. That data will, in turn, assist the District in managing and maintaining sustainable groundwater supplies, as well as provide local communities with better information to aide in managing their water supplies due to the locations of the monitoring wells. This project is just one example of how the LBBNRD is helping protect the District's natural resources for future generations.

An Innovative Approach

The Lower Big Blue NRD is responsible for the maintenance and upkeep of over 260 flood control and grade stabilization structures across the District. The Lower Big Blue NRD has considered and utilized various methods and products for combating the problems that come with aging structures. Very often, the culprit is oxidation, particularly on structures which employ a corrugated metal pipe (CMP) for the principal spillway. Generally, over the life of a dam, a CMP will begin to develop rust on the bottom side of the tube. Given enough time, pin holes may develop which ultimately turn into larger holes, and invariably, voids can begin to form under the principal spillway causing undercutting and potentially, failure of the dam to function properly. Beginning in the fall of 2017, the NRD installed Snap-Tite™ High-Density Polyethylene (HDPE) pipe in four of its structures. As the name implies, the pipe snaps together around a gasket, and can be fused to a new riser once inserted into the existing tube. Ventilation and grout pipe are installed alongside the new tube to inject grout into the voids which remain. This creates a solid bond between old CMP and new HDPE, extending the life of the structure well into the future. The process is less invasive and costs considerably less than the conventional methods of tube repair or replacement.



Nebraska's NRDs:

- Protect Lives and Property Through Flood Control
- Are viewed as a model of efficiency in groundwater management, soil conservation, flood control and recreation.

Formed in 1972, Nebraska's Natural Resources Districts are local government entities with broad responsibilities to protect our natural resources.

The Lower Big Blue NRD is governed by a 13-member board of directors elected by voters within the district. The board sets policy for the district and works with the staff to carry out the district's goals. LBBNRD staff work cooperatively with other local and state groups to promote good stewardship of natural resources in the district.

Major Nebraska river basins form the boundaries of the 23 NRDs. This system is unique to the State of Nebraska. The system allows Nebraska to effectively and efficiently manage natural resources through a watershed-based plan.

NRD's are largely funded through property taxes and make efficient use of those tax dollars; typically, a Natural Resources District receives 1% to 2% of all property taxes collected in a county.

NRDs help Nebraskans respond to natural resource challenges with local control and local solutions.

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