



LOWER PLATTE SOUTH
natural resources district

**Know
Your
NRD**

“Protecting natural resources for future generations.”

SUMMER 2019



MEET THE NRD CONSERVATION COACH

LUCAS JANIKE, who will be a student at Lincoln’s Lefler Middle School, this fall, is the star of LPSNRD’s newest television messages to increase awareness of our education, flood control and water conservation activities. Follow “The Conservation Coach” as he uses his contagious enthusiasm and vast environmental knowledge to educate his parents on our Facebook and Instagram pages and on Lincoln TV this summer!

Protecting Lives • Protecting Property • Protecting the Future

PARTNERSHIPS IMPORTANT IN FLOOD PROTECTION

by LPSNRD Board Chair Larry Ruth



March flooding in Nebraska, which was amplified by heavy ice stored in rivers, frozen ground, snow cover and 1-3 inches of rainfall, has renewed public interest in LPSNRD flood management and this is the first in a series of newsletter articles. Most of the damage from March flooding in our district was isolated along the Platte and Missouri Rivers. The Lied

Platte River Bridge, near South Bend, sustained damage and is expected to remain closed, at least until the end of the year. Lincoln well fields and the Western Sarpy Clear Creek Levee, near the National Guard Camp at Ashland, also sustained damage. Branched Oak Lake reached its highest water level ever recorded and the City of Plattsmouth continues repair work on its wells and wastewater system.



Plattsmouth’s wastewater treatment plant lost power due to March flooding. The city was still assessing flood damage in May.

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This hand-dug well (30 inches in diameter and 33 feet deep), on property owned by Mark Nutzman, in Otoe County, was decommissioned last November.

1,000TH WELL SEALED

LPSNRD has cost-shared with landowners to decommission wells since 1991, recognizing the importance of protecting ground water quality and the public. If not properly decommissioned, abandoned wells can serve as a direct route for contaminants into the aquifer. In February, after 27 years, we hit a milestone; our 1,000th well!

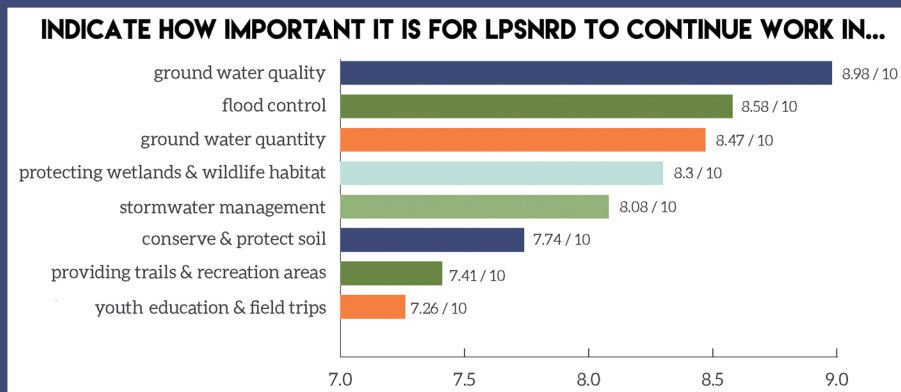
Powell Properties and Management LLC recently bought property in Malcolm, then learned from the village a well on their new property would have to be decommissioned or filled and sealed, since the well was no longer being used. A contractor licensed to decommission wells was hired and in February, the well became our one-thousandth

decommissioned well. Reimbursements under our Well Decommissioning Program vary, depending on the location, depth and diameter of the well and what materials and procedures were necessary to decommission the well properly. Because the Powell Properties well was within the designated community water system protection area for Malcolm, the reimbursement was for 100% of the cost. Typically, the program covers 75% of costs. Dawn Powell said she was impressed with the efficiency of the program. Landowners with wells they no longer intend to use should contact LPSNRD, in Lincoln, at 402-476-2729 or visit LPSNRD.org and click on Programs, Landowner Cost-Share, then Ground Water.

SURVEY SAYS: GROUND WATER IS TOP CONCERN

Ground water quality (90%), ground water quantity (84%) and flood control (86%) are the biggest natural resource concerns in the district and LPSNRD should continue its work in those areas. That is one conclusion we've drawn from results of our 2019 Public Awareness Survey, conducted online in late March. The survey, allowed constituent feedback on natural resources and LPSNRD programs and projects. It was completed by 827 people from all six counties in the district, who accessed and completed the survey through our Facebook or Instagram accounts, emails, ads or our website. After ground water and flood control, respondents said preserving wetlands and wildlife (83%), stormwater management (81%) and protecting soil (77%) are also important.

In addition, the survey asked respondents how they use various media to gather information about LPSNRD. Our



Facebook and Instagram accounts were most popular among respondents, along with our website, this newsletter and our radio and television advertising. Results of the survey will help guide LPSNRD's program and project activities in the future. A sincere "THANK YOU" to those who responded. A summary of the survey results and complete results are available at LPSNRD.org.

GROUND WATER REVIEW

Every year LPSNRD staff summarizes ground water quality and quantity data in a single report. Our annual ground water management plan review is organized to make it easy to find the latest ground water quality and quantity data about a specific part of the district or to find information about our ground water programs and projects.



The 2018 review was presented to the LPSNRD Board in April and here are some highlights:

- 222 well samples were tested for the presence of nitrates. Nitrates occur naturally in ground water. At low levels, they are not a health concern, but fertilizer applied to the land surface can increase nitrate levels in ground water and put people, especially infants, at risk.
- Samples from wells in the Ashland and Raymond areas, which are not phase two ground water management areas, tested above phase two triggers for nitrates. Verification studies may be implemented to confirm those test results.
- Nitrate levels in the Pleasant Dale area exceeded the phase three trigger. A verification study was initiated in 2018.
- Steady or slightly lower nitrate levels were detected in several phase two ground water management areas, including Lower Salt Creek, Hickman, Sprague and Union. Procedures may be implemented to suspend phase two designations for some or all of these areas.

- 273 water level measurements were made in 137 wells during the spring and fall of 2018. 60% of those wells had less available ground water than the previous year and 40% had more. (See the ground water reservoir table below for Spring 2019 levels.)

LPSNRD's three phases of ground water management are explained in the annual review, which is available at LPSNRD.org; click on Programs, Ground Water, then Monitoring. Besides well monitoring results from throughout the district, our Annual Review also contains information about the district's diverse geology, well permitting, well decommissioning, chemigation, ground water cost-sharing programs, educational activities such as "Test Your Well Nights" at schools and much more.

Ground Water Reservoir	Spring '18 to Spring '19
Crete-Princeton-Adams	+1.33
Dwight-Valparaiso	+1.94
Lower Salt Creek (Lincoln/Ashland)	+1.62
Missouri River	+7.10
Platte River	+1.47
Remaining Area	+1.22

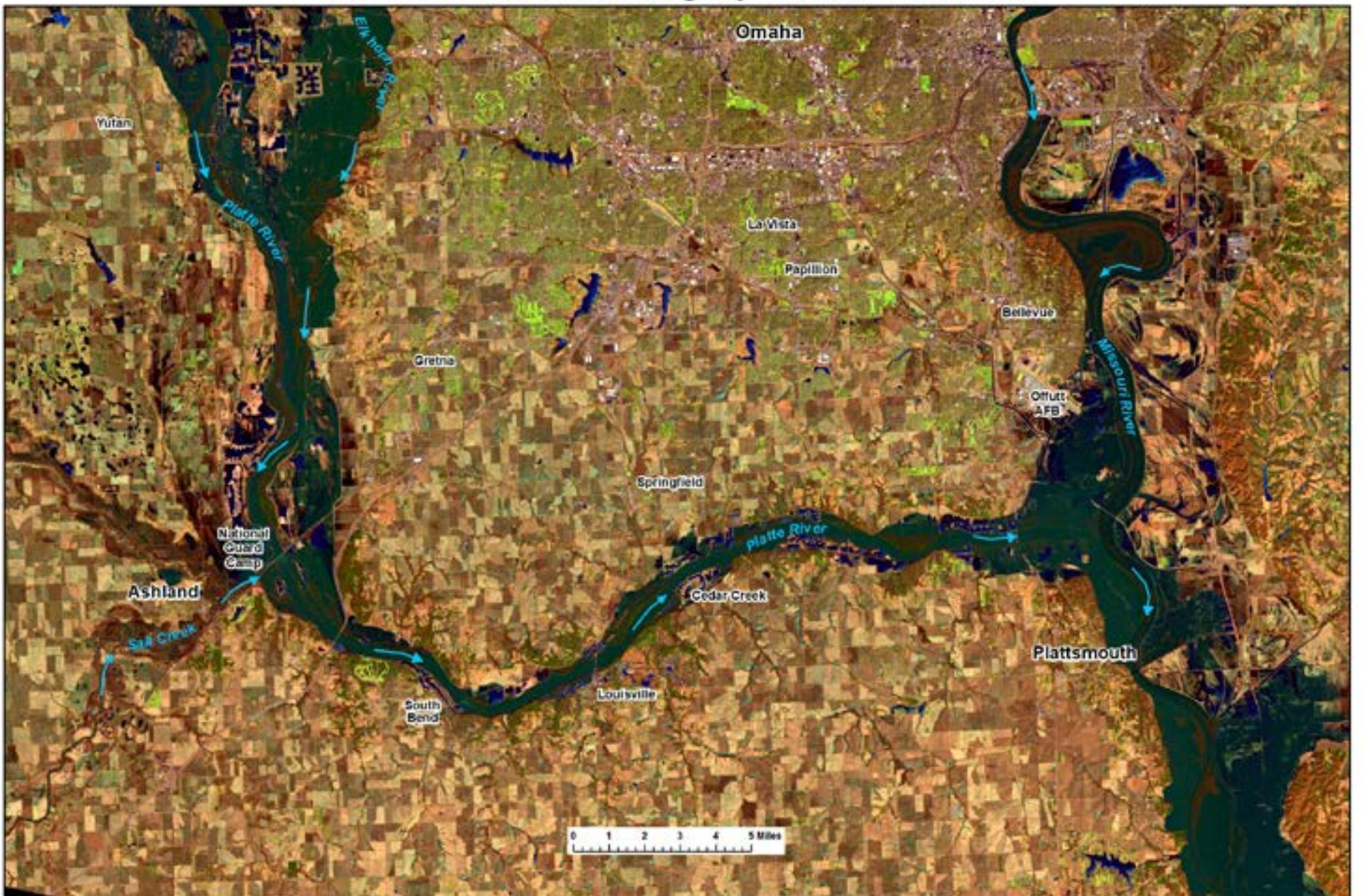
Figures are average gain or loss of water, in feet, for wells measured in that reservoir. A positive number indicates the average level has come up.

This chart shows the average ground water level in all five of the district's designated ground water reservoirs and the Remaining Area has increased, compared to a year ago. Learn more about ground water reservoirs at LPSNRD.org. Click on Programs.



NEBRASKA RIVERS SWELL

Flooding in March swelled the Platte, Missouri, and Elkhorn rivers and Salt Creek, as shown in the bottom satellite photo. The top photo was taken during normal flows.



NEXT WEEK IS BEST TIME FOR BUDGET INPUT



The LPSNRD Board of Directors will begin work on our Fiscal Year 2020 budget during its regular meeting on Wednesday, June 19, and the board will hear public budget ideas and suggestions. While the public will have several chances to offer input on the budget between now and the expected final consideration by the board in August, Board Treasurer Dan Steinkruger said, “The earlier someone approaches us with their suggestions, the more time we have to make any needed adjustments.” The initial budget draft is posted at LPSNRD.org, or phone LPSNRD for a copy.

Comments on the pending budget will be invited at the June, July and August monthly meetings of the board, as well as at the official public hearing on the budget earlier in August (see the schedule below). All monthly LPSNRD Board meetings are open to the public and Steinkruger said,

“The board appreciates public input on the management of our natural resources anytime, but especially during the annual budget process.”

BUDGET PUBLIC INPUT:

- **Wednesday, June 19, 6:00 PM** – Budget Public Input Session and Board of Directors Meeting
- **Wednesday, July 24, 7:00 PM** – Board of Directors Meeting and tentative budget approval
- **Thursday, August 15, 7:00 PM** – Public Hearings on Budget and certain property tax changes
- **Wednesday, August 21, 7:00 PM** – Board of Directors Meeting and budget approval

All meetings are at the LPSNRD office, 3125 Portia Street, Lincoln. Contact information is available at LPSNRD.org.

PARTNERSHIPS IMPORTANT IN FLOOD PROTECTION

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To those who have lost property it has been devastating and LPSNRD, like many other groups, agencies and individuals, is doing all it can to help with recovery. LPSNRD joined the Papio-Missouri River NRD and Midwest Laboratories to offer free domestic well testing for flood victims. We also sent resources technician staff to assist in the review of applications by Cass County landowners for NRCSEmergency Conservation Program assistance in repairing damage to conservation measures such as terraces, grassed waterways and sediment basins. All of this and more is taking place while LPSNRD continues to assess damage to its own properties and projects.

LPSNRD has a long history of partnerships with local, state and federal agencies to protect people and property from flooding. Some of those partnership projects played a significant role in keeping March flood damage in Lincoln to a minimum. For example, in the Lincoln area there are 13 miles of levees protecting against Salt Creek flooding. These levees, along with ten upstream reservoirs, were built in the 1960s by the U.S. Army Corps of Engineers (Corps) and the levees are now maintained to federal standards by LPSNRD. We also own and operate 180 dams across the district to help manage flooding. Salt Creek, in Lincoln, reached the sixth highest water level recorded since the levees were built, but flooding was still avoided. In 2015, these same levees were nearly overtopped in several locations following much heavier rainfall in Lancaster County.

Much of Antelope Creek was improved in the last decade with local, state and federal funding. The project is not just a

beautiful linear park for bicycle riding and walking. It carries runoff through downtown Lincoln to Salt Creek, near UNL’s Innovation Campus (State Fair Park), and is already changing Antelope Creek’s history of significant flooding. Similar results are hoped for, as LPSNRD joins the City of Lincoln and the Corps in a \$25 million rehabilitation of the Deadmans Run watershed, between 48th Street and Cornhusker Highway. For more about the Deadmans Run project, see the story on page 7.



March flood damage to the Lied Platte River Bridge, near South Bend, is still being assessed and the bridge is expected to remain closed through 2019. There is also significant damage to the Mopac Trail, on the Papio-Missouri River NRD end of the bridge.

PARTNERS, PUBLIC CELEBRATE CORRIDOR PROJECT

Lincoln Mayor Chris Beutler and the Lincoln Parks Foundation invited the public to a celebration of the Prairie Corridor on Haines Branch project, on May 14th. The public and the three main partners in the multi-year project; The City of Lincoln, Audubon's Spring Creek Prairie and LPSNRD; gathered on Martin Prairie at Pioneers Park for festivities.

Board Chair Larry Ruth represented LPSNRD's involvement in creating a ten-mile prairie preservation corridor and trail between Lincoln's Pioneers Park and Spring Creek Prairie, south of Denton, with additional trail access to Conestoga Lake. Ruth told the crowd LPSNRD is proud to be part of the project and, "The Prairie Corridor on Haines Branch will give the public a chance to experience a natural prairie up close and become better educated about its history and environmental significance. They will also benefit from the recreational trail connections the Corridor will offer."

The three partners have been working together to acquire the corridor through a 20-year interlocal agreement approved in 2017. Acquisitions have been through conservation easements or fee title. LPSNRD involvement

has included development of the Stiefel Johnson Trailhead, a donated 11-acre site along State Spur 55-A/SW 84th, along the corridor. Landowners Harlan and Judith Stiefel donated the land. Trailhead development by LPSNRD will include parking, signage and some prairie restoration. LPSNRD has also played a role in other corridor acquisitions and easements.



LPSNRD Board member Karen Amen and husband Jim Goeke tour the Prairie Corridor on Haines Branch in a pedal cab, during the "Celebrate the Prairie Corridor" event, May 14, at Pioneers Park.

DEADMANS RUN DESIGN

After a federal green light last December, The Deadmans Run Flood Reduction Project is taking shape, on paper. Design of the \$25 million solution to flooding along the waterway, between Cornhusker Highway and 48th streets, just north of UNL's East Campus, is expected to take the rest of this year. Consultants have been chosen to design larger bridges over the Deadmans Run channel at 33rd and 48th streets and the installation of monitoring wells is expected soon at the site of a planned stormwater detention basin being developed, west of Fleming Fields, by LPSNRD.

In another development, District Engineer Jared Nelson said the UNL Engineering College has been approached about building a scale physical model to simulate the effects of a concrete flume planned for construction under BNSF

and OL&B Railroad tracks, west of 33rd Street. A concrete flume would speed the flow of water and convey more floodwaters under the existing railroad bridges, which would in turn, reduce flooding impacts upstream. Nelson said the flume model would be about 65 feet in length, and would flow up to 2000 gallons per minute in order to simulate different flume configurations and results. If funding is approved, Nelson expects construction of the model to begin in September, and the results will aid the Corps with final design of the planned flume.

The Deadmans Run Flood Reduction Project will remove about 500 homes and businesses from the 100-year floodplain.

MEET EVAN, OUR NEW RESOURCES TECHNICIAN



Evan Sisel became LPSNRD's newest full-time resources technician upon his graduation from UNL in May. Evan farms with his family in the Bee area and has worked part-time for LPSNRD since January. He works out of the Lancaster County NRCS Office to help district landowners with projects like installing terraces, grass waterways, sediment basins and other best management practices that help improve surface water quality by limiting soil erosion. Evan works along with LPSNRD's two other resources technicians, Cindy Spillinek (Cass County) and John Albert (Lancaster County) and

USDA/NRCS technicians to survey, design and layout projects for landowners. They also help landowners with applications, plans and cost-share assistance from LPSNRD. Approximately 300 landowners make conservation improvements to their land each year, using LPSNRD cost-sharing. Our annual cost-sharing totals about \$1.5 million. Welcome Evan!

NRD Board of Directors

Here are your LPSNRD Board representatives. The Board meets regularly on the third Wednesday of each month at the NRD office in Lincoln. More information is available at lpsnrd.org; click on About Us.

Subdistrict

- 1 Don Jacobson, W Lincoln
Gary Hellerich, Valparaiso
- 2 Sarah Wilson, Waverly
Mark Spangler, Murray
- 3 Mike DeKalb, NE Lincoln
Vern Barrett, Ceresco
- 4 Larry Ruth, Walton
Gary Aldridge, SE Lincoln
- 5 Greg Osborn, W Lincoln
Bruce Johnson, W Lincoln
- 6 Anthony Schutz, NW Lincoln
Deborah Eagan, NW Lincoln
- 7 Chelsea Johnson, NE Lincoln
Luke Peterson, NE Lincoln
- 8 Dan Steinkruger, SE Lincoln
Tom Green, SE Lincoln
- 9 Milt Schmidt, SE Lincoln
Bob Andersen, SE Lincoln
- 10 Ray Stevens, S Lincoln
Karen Amen, S Lincoln

At-large

David Landis, Lincoln

DIGITAL & PRINTED

"Know Your NRD" is published three times yearly, in February, June and October and is available in hard copy (as a newspaper insert) or digitally. The digital version includes web links about our programs and projects. It's a great tool you can use to help us maintain a sustainable environment through the conservation of land, water and wildlife. To receive an emailed link to digital versions, visit our subscription page at LPSNRD.org and click on Publications. Like us on Facebook and follow us on Instagram to keep even more up-to-date on LPSNRD programs and projects.

LPSNRD PROJECT UPDATE

56th & Morton Streets Flood Reduction Project: widen drainage channel to protect businesses. Bridge work has begun. \$3.8 million project cost. 75% federal/25% LPSNRD & City of Lincoln.

Antelope Creek at 40th Street Repairs: repair damage from 2015 flooding. 75% federal funding approved. Design phase by Olsson. Approval of federal 404 Permit will determine start of work. Approximate project cost, \$1.9 million,

Ashland Community Assistance Projects: cost-sharing on drainage improvements and bank stabilization

(two projects), near Silver Street Bridge, over Salt Creek, in Ashland. High Plains Enterprises, of Martell, has construction contract for both projects. Drainage work completion was expected in early June. Completion of bank stabilization is expected in the fall.

South Salt Creek Project #4: watershed master plan project with City of Lincoln and Lancaster County at Old Cheney Road. Project includes Salt Creek channel improvements, bridge protection and installation of a trunk sewer line. Design and permitting completed. Bidding schedule to be determined.