



LOWER PLATTE SOUTH natural resources district

Know Your NRD

to conserve, develop and manage water and land resources in a six county area of southeastern Nebraska

SPRING 2019



This recent stream stabilization project on Salt Creek at Pioneers Boulevard, in Wilderness Park, is part of the South Salt Creek Watershed Master Plan. To learn more about this interesting project and about the benefits of watershed master planning in Lincoln, see the article on page 6.



2019 JOURNEY

by NRD Board Chair Larry Ruth

The January meeting of the LPSNRD Board included members who are in the middle of their terms, members who were re-elected, and members who were elected to their first terms. Together we will work to fulfill our mission: Maintain a sustainable environment through the

conservation of land, water and wildlife.

We will continue to partner with other NRDs, cities, counties, and state and federal agencies in 2019. Over the years our greatest accomplishments have resulted from strong partnerships.

Some general items on our agenda will deal with ground water management, flooding, cost share programs, environmental education and recreation. Our activities will reflect the challenges to and needs of our environment. We will be assisted by information (including from UNL) relating to the effect of changes in Nebraska's climate, and how our NRD can help mitigate and adapt to those changes.

Take a look at our recently approved 2019 Master Plan (article herein) for a full review of our programs, and our goals and objectives for the next 10 years. It's our roadmap. Come join us on the journey.

Protecting Lives • Protecting Property • Protecting the Future

ORDER SEEDLINGS NOW

Sales of seedling trees and shrubs, which began November 1, are on a pace to equal last year's impressive mark of 42,000 sold. Forty varieties of bare-root conifers, deciduous trees and shrubs being offered were selected especially for use in windbreaks and as wildlife habitat, but have many more uses, too. Each species is sold in bundles of



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MASTER PLAN PROVIDES BIG PICTURE

To understand LPSNRD's overall direction in our management of natural resources, read our 2019 Master Plan. Each of Nebraska's 23 NRDs is required by state statute to update its Master Plan at least every ten years and the LPSNRD Board of Directors and staff finished the latest update in



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EMERALD, GREENWOOD AND PLEASANT DALE WATER QUALITY STUDIED

Soil samples are being collected this winter around public water supply wells in Emerald, Greenwood and Pleasant Dale. LPSNRD's routine water quality monitoring has detected elevated nitrate levels in



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EMERALD, GREENWOOD AND PLEASANT DALE WATER QUALITY STUDIED

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those three areas and soil sampling is the first step in verifying the elevated levels. This and other steps in a two-year verification process detailed in the district's Ground Water Management Plan could lead to the LPSNRD Board of Directors designating the areas around water supply wells for Emerald and Greenwood as Phase II ground water management areas. The area around the public water supply well for Pleasant Dale is already designated a Phase II ground water management area and the current verification process there could lead to a Phase III designation. These phases of management are proactive and have been established by LPSNRD to try to decrease the level of pollutants before they reach federal limits.



Some curious Shetland ponies dropped by as LPSNRD Water Resources Specialist Dick Ehrman (foreground) and a crew gathered soil samples in December.

Currently, there are eight designated Phase II areas in the district, including Lower Salt Creek, Valparaiso, Davey, Hickman, Pleasant Dale, Union, Weeping Water and Otoe County Rural Water District #3. A Phase II designation means at least 50% of wells in the district's monitoring network have tested at or above 50% of the federally established Maximum Contaminant Level (MCL) of a pollutant. The area around the Elmwood public water supply well is the only designated Phase III ground water management area, meaning 80% of wells in the district's monitoring network have tested at or above 80% of the MCL.

The pollutant of concern in all of these Phase II and Phase III areas is nitrate-nitrogen (nitrates). Excessive nitrate levels in water consumed by human infants can hinder the ability

of blood to carry oxygen and may be associated with other health concerns in adults. The decomposition of plants and animal wastes causes nitrates to occur naturally in the environment. People add nitrates to the environment by applying fertilizers. Under our Ground Water Rules and Regulations for Phase II and Phase III designations, LPSNRD is required to establish an advisory group of stakeholders within the area to assist in developing rules for the designated area, incentives (Phase II) or requirements (Phase III) to adopt best management practices and educational certification requirements. LPSNRD is encouraged that nitrate levels in several Phase II areas have tested below our Phase II trigger in recent years and, if the trend continues, those areas could be removed from the list of Phase II areas.



LEGISLATIVE WATCH

The NRD closely tracks Legislative bills that could affect how we preserve and protect natural resources. Some of the bills the LPSNRD Board of Directors support, oppose or are just watching involve climate change, soil health, property taxes, public hearings, cash reserve provisions, water rights and much more. Bills dealing with voting by mail and wildlife awareness through license plates also have our attention. In all, we have identified about 35 of the 749 bills introduced as having the potential to impact natural resources or NRD operations. We may lobby legislators on our own about these bills, or work along with Nebraska's 22 other NRDs through the Nebraska Association of Resources Districts to protect lives, property and the future.

ORDER SEEDLINGS NOW

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25 seedlings (except when ordering packages) and the price per plant is \$0.85 for 75 or fewer and \$0.80 for 100 or more. Specialized packages of five species in bundles of 10 each are also available for \$55.00 per package. All 23 of Nebraska's NRDs combine their orders to get a great price.



One bundle of 25 conifer seedlings.

Seedlings can be ordered online at LPSNRD.org and our website, updated in 2018, has a completely new and helpful ordering module. A printed order form/brochure is also available on the website or orders can be submitted in person at the LPSNRD office, 3125 Portia Street, in Lincoln. The ordering deadline is March 22, 2019, but LPSNRD Forester Jay Seaton said, "Ordering early is best, because we always run out of a few species." Seedlings will be delivered to the LPSNRD office in early or mid-April and stored in LPSNRD's tree cooler until picked up by the landowner in April or May.

According to Seaton, seedlings have a better rate of survival if planted immediately after they are picked up from the tree cooler.

Seaton will host a tree-planting workshop, open to the public, on Friday, March 1, 2019, from 9:00 AM to noon at the LPSNRD office, 3125 Portia Street, in Lincoln. An instructional seedling planting video is available at LPSNRD.org. Click on Programs, then Trees, or go directly to our YouTube page.



CAREER ACADEMY WINS!

Congratulations to the land judging team from Lincoln Public School's Career Academy on winning the East Central Region Land Judging Contest, held in October. The team went on to finish in the top half at the state contest later that month. From left: Jenifer Velazquez-Perfecto, North Star; Wade Saddler, Lincoln High; Isaiah Knuth, East High; Alex Polzin, East High.

BOLTE, SVOBODA THANKED FOR SERVICE



Dick Bolte (left) and Ron Svoboda chose not to seek re-election to the LPSNRD Board of Directors in November and their combined 38 years of service were celebrated by the board December 12.

NEW ENGINEER

New District Engineer Jared Nelson joined the LPSNRD team in November. He and his wife, Sara, live in Lincoln and have a daughter and a son. Jared is a UNL graduate, with a degree in Civil Engineering, has worked in private consulting and, most recently, as an engineer with City of Lincoln Watershed Management. Welcome, Jared!



MASTER PLAN PROVIDES BIG PICTURE

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It devotes most of its pages to examining our current programs and activities and identifies the district's future needs, goals and objectives. Assistant General Manager David Potter said, "The long range Master Plan provides background information, examines current programs, identifies changes in our district, and helps determine our direction forward in protecting and managing our natural resources."

The district population, which includes parts of six southeastern Nebraska counties, is increasing by about 4,200 people per year and the Master Plan forecasts several needs as a result:

- Provide more water for domestic use
- Additional water quality protection
- Additional stream stabilization as more areas are urbanized
- Protection of agricultural land
- Adaptation to changes in climate

The plan recognizes a need to keep encouraging the latest best management practices for soil and water conservation. It also calls for more innovative financing of LPSNRD operations and projects, given current limitations on property tax rates.

Most of the land in the district (currently 57.7%) is cropland. That is not expected to change much in the next ten years, but the Master Plan does predict some adjustments in land use. Urbanization is expected around Lincoln's perimeter and along Platte River bluffs in Cass County.



LPSNRD's Vision is to "Protect our natural resources for future generations." Learn more about our Direction Forward in the 2019 Master Plan.

Mining and recreational uses of land are also expected to increase.

The Master Plan also comes with a Vision Statement; something LPSNRD has not had in the past. A vision statement summarizes what an organization is trying to accomplish. Our Vision Statement is:

"Protecting our natural resources for future generations."

We also have a new Mission Statement, which describes how we intend to make the vision happen:

"Maintain a sustainable environment through the conservation of land, water and wildlife."

The newly updated Master Plan is available at LPSNRD.org/Publications/Plans.

VOTERS ELECT TWO NEW DIRECTORS

All eleven of the incumbent candidates for seats on the LPSNRD Board were successful in November and two new directors earned seats on the 21-member board. Luke Peterson (Subdistrict 7) and Tom Green (Subdistrict 8) officially became new directors on January 4. Both were elected after Dick Bolte and Ron Svoboda did not seek re-election. Directors serve four-year terms, with 10 or 11 seats typically elected every two years.

Re-elected incumbents were Gary Hellerich (Subdistrict 1), Mark Spangler (Subdistrict 2), Vern Barrett (Subdistrict 3), Larry Ruth (Subdistrict 4), Bruce Johnson (Subdistrict 5), Deborah Eagan (Subdistrict 6), Anthony Schutz (two-year term, Subdistrict 6), Dan Steinkruger (two-year-term, Subdistrict 8), Robert Andersen (Subdistrict 9), Karen Amen (Subdistrict 10) and At-Large Director David Landis.



Tom Green (left) and Luke Peterson are the newest LPSNRD Board members.

A map of LPSNRD subdistricts is available at LPSNRD.org/ about, then click on Maps, then the Sub-Districts map.

DEADMANS RUN PROJECT BEGINS

Lincoln's Deadmans Run Flood Reduction Project, to remove about 500 homes and businesses from the 100-year floodplain, is officially in the design phase. After three years of public input and planning, the U.S. Army Corps of Engineers (Corps) completed their study in 2018 and approved a Project Partnership Agreement in December. The Corps hopes to complete the design by the end of 2019.

The flood reduction project will benefit properties in an area between North 33rd and 48th streets, just north of UNL's East Campus. The Corps has committed \$10 million to parts of the project covered in the Section 205 Plan, which includes:

- Widening the main Deadmans Run channel from Cornhusker Highway, upstream to 48th Street

- Constructing a concrete flume in the channel, west of 33rd Street, under two railroad bridges
- Relocating a street access
- Planting trees and native grasses throughout the project area

Additionally, the City of Lincoln and LPSNRD are responsible for the replacement of three bridges (at 33rd, 38th & 48th streets) and a new stormwater detention basin on the west end of Fleming Fields, as part of the project. The \$10 million commitment by the Corps leaves the City and LPSNRD to split the remaining \$15 million of the \$25 million total cost. The Corps expects to complete the project by 2023.



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

DROUGHT CONTINGENCY PLAN PROPOSED

Since 2016, the Lower Platte River Consortium (Consortium) has worked to develop a drought contingency plan for the basin. The Consortium is made up of the Lower Platte South, Lower Platte North, and Papio-Missouri River NRDs, the Nebraska Department of Natural Resources, Lincoln Water System, and Metropolitan Utilities District of Omaha.

The lower Platte River and tributaries serve approximately 80 percent of Nebraska's population, thousands of businesses and industries, includes more than 2 million irrigated acres and provides stream flows for threatened and endangered species. The six water management agencies that comprise the Consortium worked together to develop regional solutions to improve the water supply reliability and drought resiliency of the lower Platte River.

The plan:

- details water demands and supplies in the basin
- assesses drought vulnerability and existing drought monitoring
- offers possible drought management and mitigation measures
- sets guidelines for plan implementation and public outreach

The plan, which evaluates 11 different potential mitigation measures, will be reviewed this spring by the Federal Bureau of Reclamation and a final plan is expected later this year. The Consortium will consider future studies and annual updates to the plan.



HIDDEN BOULDERS STABILIZE STREAM

Boulders are popular landscape amenities. LPSNRD and the City of Lincoln recently purchased some nice ones; some are four feet in diameter, or more; and promptly buried them, until they're barely visible along the bottom of Salt Creek at Pioneer's Boulevard, in southwest Lincoln. Erosion there was making the channel wider and deeper and undermining bridge supports.

The quartzite boulders, mined in South Dakota, are extremely dense and resistant to erosion. The largest ones span the

bottom of the channel in an arch shape, to protect the integrity of the stream. The remaining smaller boulders help protect the creek bank further downstream.

The project is part of the South Salt Creek Watershed Master Plan, which identified needed stream stability projects in the watershed. Similar master plans are being used to protect 14 other Lincoln watersheds. Several master plan projects are jointly completed each year by the City of Lincoln and LPSNRD.

HARD COPY OR EMAIL

Our printed newsletter is inserted into district newspapers and distributed to nearly every household in the district each February, June and October. You can get it earlier by subscribing to our FREE electronic version. We'll send you a link to each new issue, via email. The electronic version includes the same content as the printed, plus it has great web links to help you learn more about how the NRD protects lives, property and the future. Just visit our newsletter subscription page, at LPSNRD.org/publications, to sign up. The NRD will not share your email address.

NRD PROJECT UPDATE

56th & Morton Streets Flood Reduction Project: widen drainage channel to protect homes and businesses. Grading completed. Bridge work to begin in the spring. \$3.8 million project; 75% federal/25% LPSNRD & City of Lincoln.

Upper Salt Creek Watershed Dam 18-5 Rehabilitation: principal spillway pipe replacement one mile south of Hickman. Engineering and design by FYRA. Farabee was contractor. Completed. \$53,000.

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

South Salt Creek Watershed Project #2: stream stability project through Lincoln's Irvingdale Park, near 22nd & Van Dorn. Completed. \$440,000; 50% LPSNRD/50% City of Lincoln.

Ashland Community Assistance Projects: design of bank and drainage repairs (two projects) along Salt Creek at Silver Street. Cost of design approx. \$15,000 for both projects; 50% Ashland/50% LPSNRD

City of Plattsmouth Lincoln Avenue Drainage Project: Community Assistance Program project to improve drainage. Completed. Approx. cost (design & construction) \$100,000; 50% Plattsmouth, 50% LPSNRD.