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Lower Platte North Natural Resources District
Winter 2022-2023

Accomplishments in Shell Creek Watershed Accelerate Future Projects

The Shell Creek Watershed covers over 300,000 acres in portions of Boone, Madison, Platte, and Colfax counties in the Lower Platte North Natural Resources District. In 1999, a group of landowners and producers interested in reducing flooding and increasing water quality created the Shell Creek Watershed Improvement Group (SCWIG). Over the last two decades, SCWIG has received numerous state and federal grants that have enabled them to guide hundreds of voluntary conservation projects with landowners throughout the watershed. As a result of the conservation efforts and improved land treatments in the watershed, Nebraska officially delisted Shell Creek for its Atrazine water quality impairment in 2018. Anecdotal evidence indicates that flood reduction efforts are also a success with a study

currently underway by the University of Nebraska.

Stakeholders in the watershed know any achievement gained can be an achievement lost. Work continues to further improve stream resilience against atrazine contamination, to increase efforts to resolve impairment of recreation use due to E. coli bacteria, and to reduce flooding. Grant funds to assist landowners with conservation work for the next three years are in various stages of the approval process through the Nebraska Environmental Trust and the Nebraska Department of Environment and Energy.

Priority practices targeted for cropland include: grassed waterways, terraces with underground outlets, cover crops, no-till, and irrigation management (in community wellhead protection areas). *continued on page 3*

NRDs Join Walk To Unlock Nebraska

Walk To Unlock Nebraska was created with the idea of combining academic enrichment and physical activity for kindergarten through eighth grade students. Teachers and educators across the state can sign-up their classroom to log miles and travel virtually through the state.

Four routes will be completed in 2023 that include a Northern trail, Central trail, Southern trail and Eastern trail. In the fall of 2022, after hearing a presentation about this new project, Nebraska's Natural Resources Districts became involved to help promote NRDs' content and recreation areas. Some of the stops along the trails include NRD recreation areas or nearby systems. The Eastern Sprint Trail is currently being developed and

includes Lake Wanahoo NRD Recreation Area. Lower Platte North NRD staff provided photos, videos, lake ecosystems and ecology lessons, and additional activities that educators can print and provide to students.



Walk to Unlock Nebraska trails map

Multiple partners have collaborated with this project including the Nebraska Department of Education, Nebraska Farm Bureau Foundation, Nebraska Game and Parks, Nebraska Tourism, Midwest Dairy, History Nebraska, and Nebraska Public Media. Walk To Unlock Nebraska can be used by after-school programs, youth clubs, summer camps, or an activity for families to do together. For more information about

Walk To Unlock Nebraska, or to sign up your group, visit <https://walk2unlock.ne.gov/>.

Lower Platte North NRD Board & Staff

Board Member.....	Subdistrict
Lon Olson, Fremont	1
Kelly Thompson, Fremont	1
Frank Pollard, Fremont	2
Bill Saeger, Fremont	2
Dave Saalfeld, North Bend	3
Vacant	3
Chris Yosten, Schuyler	4
Matt Bailey, Schuyler	4
Mark Seier, Newman Grove	5
David Lawrence, Columbus	5
Joe Birkel, David City	6
Robert Hilger, David City	6
Ryan Engel, Fremont	7
Ryan Sabatka, Weston	7
Jerry Johnson, Wahoo	8
Alex Kavan, Wahoo	8
Duane Johnson, Mead	9
Robert Meduna, Wahoo (Secretary)	9
Thomas McKnight, Fremont	at large

Staff Member.....	Position
Sydney Abbott	Education Coordinator
Daryl Andersen	Water Resources Manager
Tyler Benal	Water Resources Specialist
Jill Breunig	Bookkeeping Dept. Head/ Admin. Assistant
Will Brueggemann	Water Resources Specialist
Ryan Chapman	Assistant Manager
Duke Dokulil	O & M Technician
Sean Elliott	Projects/Rural Water Manager
Noah Franzen	Water Resources Technician
Eric Gottschalk	General Manager
Bob Heimann	O & M Manager
Dave Moore	O & M Technician
Russell Oaklund	Lead Water Resources Specialist
Dave Odvody	Recreation Facilitator
Chris Poole	Grants/GIS Dept. Head
Karen Rezac	Dept./Admin Assistant
Lacey Sabatka	Information Coordinator
Bret Schomer	Wanahoo Recreation Supervisor/ Water Resources Specialist

NRD/NRCS Field Office Assistant.....	County
Kimberly Piitz	Butler County
Kristin Miller	Colfax County
Jessica Marty	Dodge County
Marla Milliken	Saunders County

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LOWER PLATTE NORTH NRD

protecting lives | protecting property | protecting the future
402.443.4675 www.lpnrd.org

From the Desk of the General Manager

Exchange Program



Eric Gottschalk

would make on our lives. Since that day in 2002, Julia has been back to visit us multiple times and we have been fortunate to visit her 3 times. Over the past 20 years, her wonderful Reif family has become our family and Augsburg, Germany has become our 2nd hometown. Julia married Stefan Mack, a fine young German man, and the two have a beautiful son Michael (Michi).

It gets even better...on August 15, 2022, we welcomed our second exchange student from Augsburg. Amelie Tschauner, a sweet, smart, energetic and funny 16-year-old who JUST HAPPENS to be Julia's best friend, Anne and her husband Tim's oldest daughter! Amelie applied, interviewed and was awarded a German government grant which pays for her 10-month exchange student experience. Since arriving, Amelie has instantly and seamlessly fit into our little family and we are getting to know her and her family more every day. Our daughter, Anna (now 24), has been out of the house for 5 years, so having a high energy high school sophomore has been a transition for Susie and I but what an awesome transition it has been. We are so looking forward to the next 5½ months and all it holds for us to share and exchange.



Susie, Amelie, Eric

At the Lower Platte North NRD we too have an exchange program. Our dedicated professionals are ready and willing to exchange ideas, opportunities and potential cost-share funding for landowners and operators across our district. Conservation, preservation and restoration of our natural resources is an ever-evolving concept, developed and grown through the continuing exchange of ideas, goals and objectives. Stop in and visit with any of our talented and motivated staff to see what opportunities may be available to you.

What started out as an exchange program and exchange students has become so much more. We've exchanged our local foods, customs, and traditions but more than that, it has grown into relationships and the sharing of lives not limited by the 4,850 miles separating us. Relationships which will last my lifetime and beyond.

As in all families, we have shared our joys and our sorrows, together and from afar, each of these times made better because we had each other. Julia and Amelie, the Gottschalks will forever be blessed because the two of you, and your families, chose us as YOUR exchange family.

And by the way...Julia's son Michi...His middle name just happens to be Erik...not spelled exactly like mine, but hey, I'll take it just the same!



Left to right: Julia's Mom Hildegard, Eric, Susie, Julia's Husband Stefan, Julia's Father Edwin, Julia, (front) Anna, Julia's son Michi

continued from page 1 Priority practices targeted for livestock include: alternative water supply, exclusion fencing, prescribed grazing (cross fencing), and a vegetative treatment system demonstrations. Priority practices for streambed and streambank stabilization include: grade control structures, streambank stabilization, and filter/buffer strips.

Several urban demonstration projects are planned to include rain gardens, low impact landscaping, and irrigation management. Financial and technical assistance for septic system up-grades and well decommissioning will continue

throughout the watershed.

Funding is also planned to continue supporting the volunteer Shell Creek Watershed Monitoring Student Group conducted by Newman Grove High School, Lakeview High School, and Schuyler High School.

Once the funding is finalized, letters will go out to landowners in the watershed informing them of the many opportunities available. Landowners interested in conservation projects are encouraged to contact Bill Bos at the Columbus USDA-NRCS Office at (402) 564-0506 to see what opportunities may be available to you.

Nebraska Legislature Committee Approves \$22 Million Project for Wahoo Creek Watershed

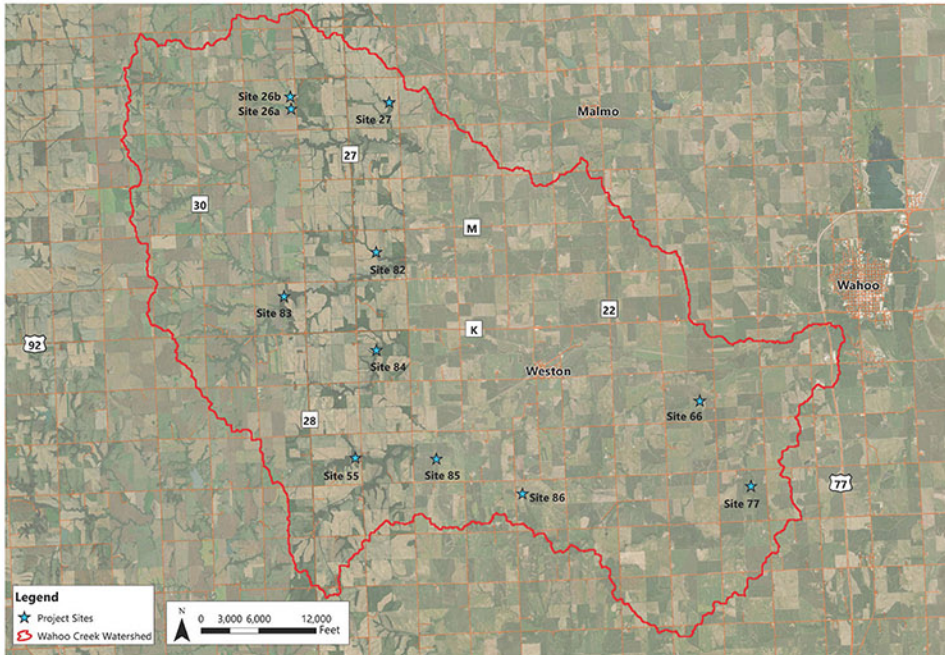
A large portion of Saunders County will soon be part of a flood reduction project that has been in progress for years. In 1998, the Lower Platte North NRD, the U.S. Department of Agriculture, and the Natural Resources Conservation Service (NRCS) developed the Wahoo Creek Watershed Plan and Environmental Impact Statement to develop a strategy for floodwater management and water quality improvement throughout the Wahoo Creek Watershed. The plan was revisited in 2013 to encourage water quality and reduce

pollution levels in the watershed. The plan has since gone through extensive public review, engineering analysis and environmental analysis.

Early last year, the Lower Platte North NRD was informed the Nebraska Legislature committee, Statewide Tourism and Recreational Water Access and Resource Sustainability Special Committee (also known as the STAR WARS committee) approved the \$22 million flood reduction project for the Wahoo Creek Watershed.

Three of the ten dam sites have previously secured funding prior to 2022 and are continuing forward with the plan. With the help of this additional funding, the remaining dams will continue forward in finalizing the structure designs and permitting process with the engineering firm, Olsson. Olsson will coordinate with landowners throughout the design process.

After many years of planning, Eric Gottschalk, Lower Platte North NRD General Manager, stated it is satisfying to see all the components come together for an estimated completion by the end of 2026. The final project could decrease flooding by as much as 34%. A final copy of the Wahoo Creek Watershed Plan is available on the Watersheds page of the LPNNRD website at lpnnrd.org.



Now Accepting Trees and Shrubs for Spring Delivery

Trees and shrubs provide numerous benefits! From improving air and water quality to protecting livestock and crops – trees also provide shade and protection from wind, reducing heating and cooling costs, and provide essential habitats for wildlife.

The Lower Platte North NRD has over three dozen different species of bare root trees and shrubs available to choose from! Handplant trees and shrubs are \$1.25 per tree or shrub, and must be purchased in multiples of 25 per species. If you



are looking to upgrade a windbreak, consider contacting the NRD to help develop a tree plan free of charge. The tree plan will determine how many trees or shrubs you will need, the best location for your planting and the species that fit your specific needs. For a complete list of species available, please visit our website at www.lpnnrd.org/projects-and-programs/forestry or call the NRD office at 402-443-4675. Orders can be placed online, by mail, or at the NRD office in Wahoo.



Groundwater Management

Flow Meters Provide Invaluable Data During Drought

Since 2008, the Lower Platte North NRD has implemented the requirement of installing a District-approved flow meter on any new or replacement well. Thereafter in 2012, the District also required the installation of a flow meter on any expansion of acres from an existing well. Producers are required to report annual water usage by December 15th each year.

To correctly measure the water flow coming from the well the water flow needs to be laminar (straight) and non-jetting. All flow meter installations need to be away from any obstructions that may alter the flow. The flow meter needs to be installed away from any bends or valves that could cause jetting. To avoid water jetting and non-accurate measurements, the following installation requirements are necessary: without any water flow straightening apparatus the flow meter needs to be installed 10 pipe diameters upstream and 1 pipe diameter downstream from any bend in the pipe, and/or any valves such as a backflow preventer valve. With bolt-in straightening vanes installed, the upstream distance is reduced to 5 pipe diameters and 1 pipe diameter downstream. With an inline pipe flow straightener, the upstream distance is reduced to 1.5 pipe diameters and 1 pipe diameter downstream. If the flow meter is installed on the pivot and not near the well it is required to have these distances for laminar flow. If the flow meter is installed too close to an engine-driven wellhead,

flow meter could be susceptible to vibration damage, and relocation may be required. If the flow meter is installed on the vertical/riser part of the pivot the flow meter needs to be suited/calibrated for that type of installation.



Flow meter

This pumping information is invaluable to the District to know what has been pumped during years of extended drought. It is vital that the LPNNRD keeps track of this going forward into the future. In order to know the volume of water within our aquifer systems, it is important to know the water being extracted.

A producer with a District-approved flow meter has the option to participate in the flow meter maintenance program. Routine meter maintenance will ensure that the meter is reading accurately and can prolong the lifespan of the meter. Accurate flow meter readings are not only essential to know the volume of water pumped annually throughout the district but also essential to the producer to know what was precisely applied to their crops. The flow meters are maintained once every four years. The Lower Platte North NRD has a contract with Tri-City Meters Inc. for flow meter maintenance and repairs.

A list of approved flow meters and additional specifications can be found on our website at <https://lpnnrd.org/projects-and-programs/water-management/water-quantity/> or by calling the NRD at 402-443-4675.

2023 Nitrogen Certification & Water Management Classes

One of the primary requirements of the LPNNRD's Groundwater Management Area is that all operators of irrigation, municipal, and industrial well systems, as well as operators who use any type of fertilizer (commercial or organic) in production agriculture, are required to obtain LPNNRD certification. The LPNNRD holds Nitrogen certification classes throughout the District each year. The classes cover several topics including Nitrogen management and application, water quality, water conservation and more. The classes are free and last approximately two hours.

Date and Time

Tuesday, January 31 at 10:00 a.m.
Thursday, February 2 at 1:00 p.m.
Thursday, February 9 at 9:00 a.m.
Tuesday, February 14 at 10:00 a.m.
Wednesday, February 15 at 1:00 p.m.
Tuesday, February 21 at 1:00 p.m.
Monday, February 27 at 10:00 a.m.
Tuesday, March 14 at 6:00 p.m.
Thursday, March 23 at 6:00 p.m.

Location

Eastern NE Research and Extension Center near Ithaca
Ag Park (upstairs) in Columbus
Eastern NE Research and Extension Center near Ithaca (Soil Health Conference)
Butler County Event Center in David City (Butler County Ag Expo)
Lindsay Village Office
Butler County Event Center in David City
Dodge County Extension Office in Fremont
Eastern NE Research and Extension Center near Ithaca
Ag Park (upstairs) in Columbus



LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT

Annual Report

2022

New Faces

The Lower Platte North NRD welcomed a few new employees this year.

Noah Franzen joined the LPNNRD staff as a Water Resources Technician in the Spring of 2022. He is a familiar face to the district as he completed two internships with LPNNRD in the Summers of 2018 and 2019. Noah recently graduated from the University of Nebraska-Lincoln with a bachelor's degree in Fisheries and Wildlife. He lives in Lincoln and enjoys spending time hunting and fishing.



Noah Franzen

The LPNNRD welcomed **Ryan Chapman** as the new

Assistant Manager in June. He previously worked at the Nebraska Department of Environment and Energy since 2009 in various roles including Water Planning Section Supervisor and Wellhead Protection Program Coordinator. Ryan holds a bachelor's degree in Agricultural Sciences and Natural Resources from the University of Nebraska-Lincoln, and bachelor's and master's degrees in Landscape Architecture from Iowa State University. Ryan is a North Bend native and currently lives in Omaha with his wife and three children.



Ryan Chapman

Jessica Marty is the new Dodge County Field Office Assistant in the Fremont NRCS office. She was born and raised just outside of Fremont and graduated from Cedar Bluffs Public Schools. Jessica currently resides in Fremont with her husband of seven years, four-year-old daughter Kendyll, and their dog Brady (who is named after her husband's favorite quarterback, Tom Brady). She enjoys spending time with family and friends, traveling to new places, and her fair share of sports especially football and volleyball.



Jessica Marty

FISCAL YEAR 2022 - IN BRIEF

SOIL & WATER CONSERVATION

In partnership with the Nebraska Natural Resources Conservation Service, the NRD's Soil & Water Conservation Program continued to provide cost-share funds to landowners to construct terraces, waterways, and a variety of other conservation measures. The LPNNRD allocated \$93,652 for conservation work under the Nebraska Soil and Water Conservation Program for FY23. We have also utilized grant funds and local funds in partnership with the Shell Creek Watershed Improvement Group for a number of special projects. One of those projects was the Shell Creek benching Union

Pacific Railroad (UPRR) bridge replacement project that was a partnership between LPNNRD, Colfax County and UPRR.

WATER QUALITY & QUANTITY

The NRD continued its efforts to safeguard vital groundwater resources through quality and quantity monitoring programs, irrigated acre certification, nitrogen certification and water management classes, abandoned well plugging, chemigation system inspections, and more. In the last two years, the district has done extensive soil and water sampling to help in the management of contaminants in the groundwater. Evaluation of these results are

available and will be discussed at the winter NRD programs. Real-time monitoring equipment from weather stations, water level data loggers and soil moisture sensors have been installed district-wide with public viewing available online. Both of these projects received grant funding from the Nebraska Environmental Trust and the Bureau of Reclamation.

RURAL WATER SYSTEMS

The NRD's rural water systems - one connecting Bruno and David City and the other connecting Colon and Wahoo - finished their 17th year of operation in FY2022, providing Bruno and Colon residents with safe, clean

FY2022 – IN BRIEF

continued

drinking water. The LPNNRD RWDs continue to provide stable water service to our two systems. Along with dealing with aging infrastructure, the big challenge is keeping the utility service economically feasible for both customer and utility.

TREE PLANTING

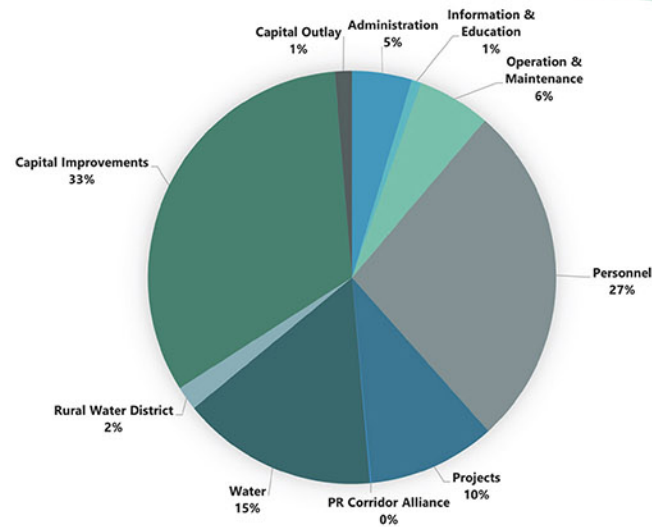
The NRD ordered 17,075 trees this year, with 5,900 of those planted by the district. The NRD also donated 925 trees for educational events throughout the district. Since 1972, more than 922,075 trees have been planted through this program.

EDUCATIONAL ACTIVITIES

Over 1,500 youth, from preschool to college-level age and over 370 adults have participated in educational activities and programs during FY2022. Activities included classroom presentations, the LPNNRD's annual Spring Conservation Sensation, outdoor activities, field days, land and range judging competitions and more.

Annual Report

2022

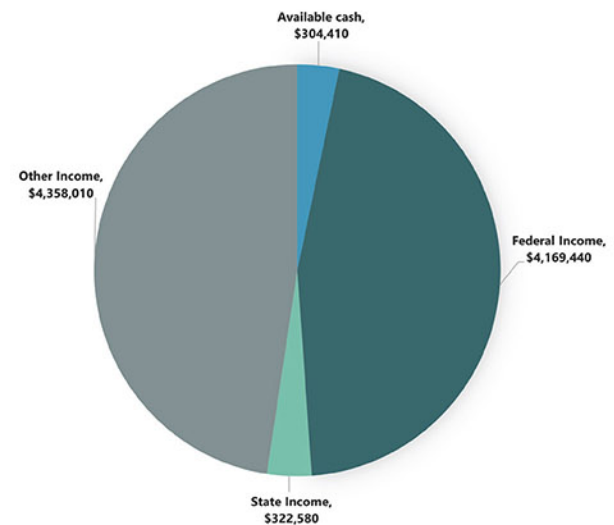


Lower Platte North NRD Projected Expenses for Fiscal Year 2023: \$7,396,481

The Lower Platte North NRD is funded by a combination of property taxes and grants from local, State and Federal sources. For fiscal year 2023 (July 1, 2022–June 30, 2023), the district's projected budget is \$7,396,481.

Lower Platte North NRD Projected Income for Fiscal Year 2023: \$9,154,440

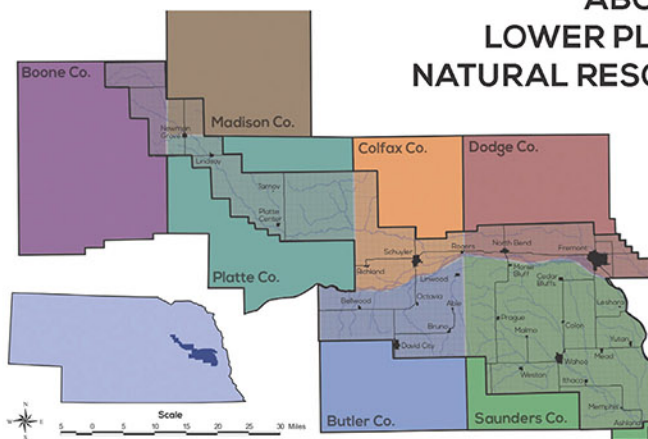
State statute allows NRDs a maximum property tax rate of 5.5 cents per \$100 of valuation. The Lower Platte North tax levy is 0.0314 cents per \$100 valuation for FY23, which equates to approximately \$47.10 in property tax for a \$150,000 home or farm, or \$2.51/acre for farm land valued at \$8,000/acre.



ABOUT THE LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT

The Lower Platte North Natural Resources District, based in Wahoo, covers parts of seven counties in east-central Nebraska. There are 23 NRDs in Nebraska, charged with developing and protecting the state's natural resources.

In pursuing this mission, the districts often partner



with landowners and other government agencies, such as the Natural Resources Conservation Service.

The Lower Platte North NRD is governed by 19 locally-elected directors from nine subdistricts, and employs 15 full-time staff members (see current NRD directors and staff on page 2). The district is funded by a combination of property taxes and grants from local, State and Federal sources.

Get more info on the NRD and our projects and programs at www.lpnrd.org.