

SOIL & WATER CONSERVATION

In partnership with the Nebraska Natural Resources Conservation Service, the NRD's Soil & Water Conservation Program provided cost-share funds to landowners to construct terraces, waterways, and a variety of other conservation measures.

WATER QUALITY & QUANTITY

The NRD continued its efforts to safeguard vital groundwater resources through quality and quantity monitoring programs, irrigated acre certification, nitrogen and water conservation training classes, abandoned well plugging, chemigation system inspections, and more.

RURAL WATER SYSTEMS

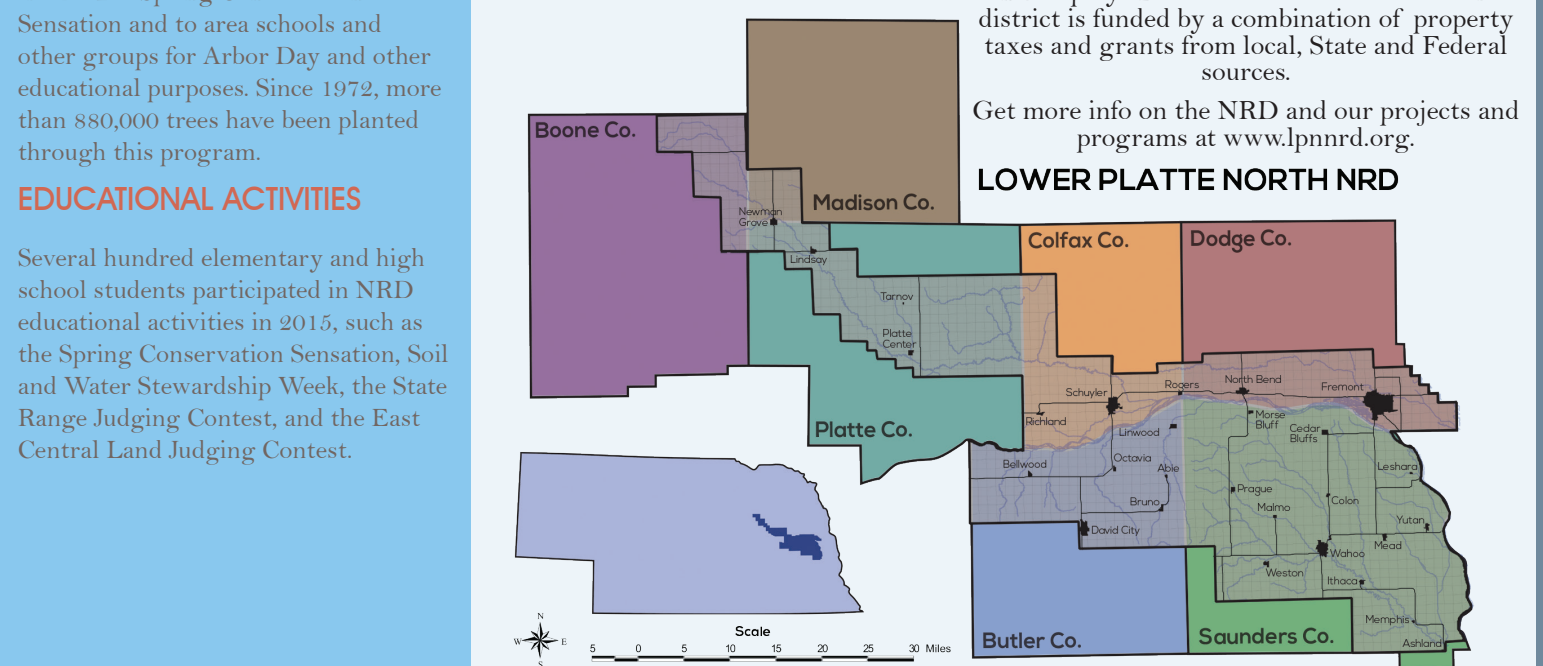
The NRD's rural water systems - one connecting Bruno and David City and the other connecting Colon and Wahoo - finished their tenth year of operation in 2015, providing Bruno and Colon residents with safe, clean drinking water.

TREE PLANTING

The NRD sold approximately 17,000 and planted 7,900 trees in 2015. The district also donated approximately 1,200 tree seedlings to students at the NRD's Spring Conservation Sensation and to area schools and other groups for Arbor Day and other educational purposes. Since 1972, more than 880,000 trees have been planted through this program.

EDUCATIONAL ACTIVITIES

Several hundred elementary and high school students participated in NRD educational activities in 2015, such as the Spring Conservation Sensation, Soil and Water Stewardship Week, the State Range Judging Contest, and the East Central Land Judging Contest.



Lake Wanahoo Changes continued from Page 4

Benches

Two Eagle Scouts from the Wahoo Community, Seth Varner and Max Hohn, are working on park bench projects at Lake Wanahoo. Their projects include securing sponsorships for funding, assembling the benches, forming and pouring concrete pads for each bench, and planting trees. Together, the two scouts will install seven benches and three trees in the park. The anticipated completion of both projects is July 16th.



LPNNRD O & M Specialist, Duke Dokulil, and several Eagle Scouts with one of the completed bench projects led by Max Hohn.

Future Plans

The Wahoo Trail is expected to be complete later this summer! The portion of the trail on the face of the dam has been surfaced and is completed. The highly anticipated trail will extend from Cook's Park to Lake Wanahoo State Recreation Area.

Future potential plans for Lake Wanahoo State Recreation Area are being discussed, include an RV Dump Station. The RV Dump Station has entered the planning stages and is expected to be complete by December 1st, 2016.

ABOUT THE LOWER PLATTE NORTH NRD

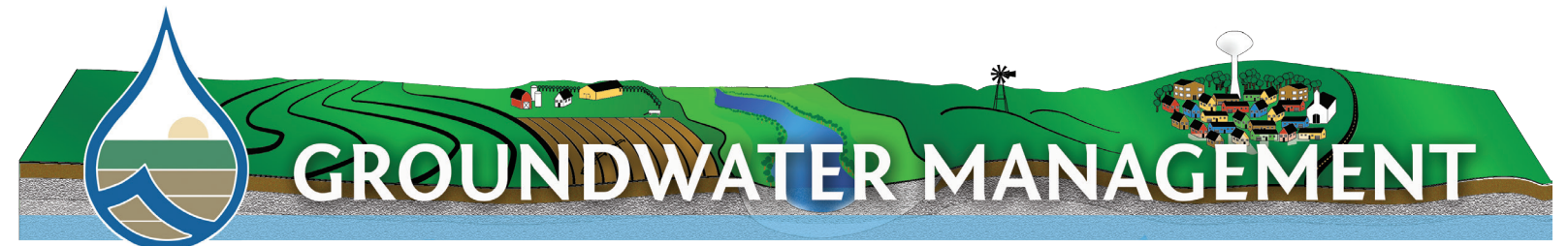
The Lower Platte North Natural Resources District, based in Wahoo, covers parts of seven counties in east-central Nebraska. There are 23 NRDs in Nebraska, charged with developing and protecting the state's natural resources.

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 21 full-time staff members. 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.

LOWER PLATTE NORTH NRD



GROUNDWATER MANAGEMENT

Larry Angle
LPNNRD Water Resources Manager

There are four aquifer regions within the Lower Platte North NRD: Platte Valley, Todd Valley, Shell Creek watershed, and the Uplands of Butler and Saunders Counties. These four regions see a wide variety of ground water level changes due to differences in topography, geology, weather patterns, ground water demand due to pumping, time span involved, etc.

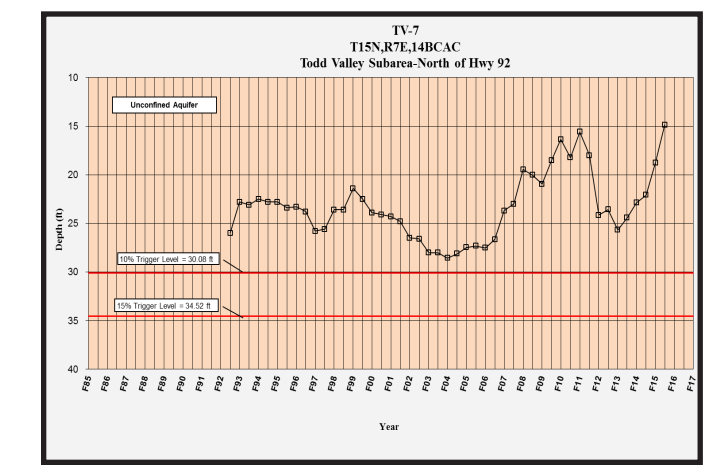
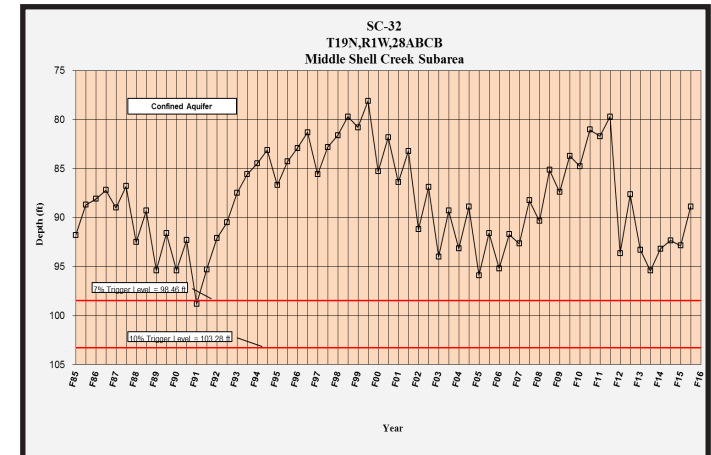
The Platte Valley has shallow aquifers generally less than 15 feet deep and water in the Platte River has a strong influence on recharge to these aquifers. Wells generally within a couple of miles of the river have been stable for over 30 years and this includes the recent droughts of 2000 to 2006 and 2012. However, the farther you are from the river the weaker this hydrologic connection and therefore we see more fluctuations in ground water levels.

The Todd Valley is probably the best aquifer in our District. Depth to the ground water is 20 to 60 feet depending if you are in the

northern part of the valley vs. the southern portion. But it is due to the aquifer thickness, or the amount of water in storage, that makes this a very good aquifer. We have seen declines in the aquifer during droughts but slow rises during wetter conditions.

The Shell Creek watershed has a much wider variation in conditions that can affect long term ground water levels. This varies from shallow aquifers of less than 20 feet to over 200 feet to water. Several of these aquifers have multiple clay layers over the aquifer which means they operate under artesian pressure. This can result in wide swings in the ground water energy level even during a single year. During the one year drought of 2012 we saw ground water energy levels drop 60 feet in mid-summer due to the dry conditions and heavy pumping. Yet in the fall when the wells turned off, artesian pressure (and the ground water energy level) started to return. In some aquifers over a 30 year period we are seeing some declines while other subareas are more stable.

While comparing ground water levels from one year to the next is interesting, it's only when you compare them over long periods of time do you get a true picture of changes in the aquifer. For more information on ground water quality or quantity, please contact the Lower Platte North NRD at 402-443-4675 or lpnnrd@lpnnrd.org or visit our website at www.lpnrd.org.



Wahoo Creek Watershed Water Quality Plan Phase II
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Memorials Available at Lake Wanahoo
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Fluctuating Groundwater Levels
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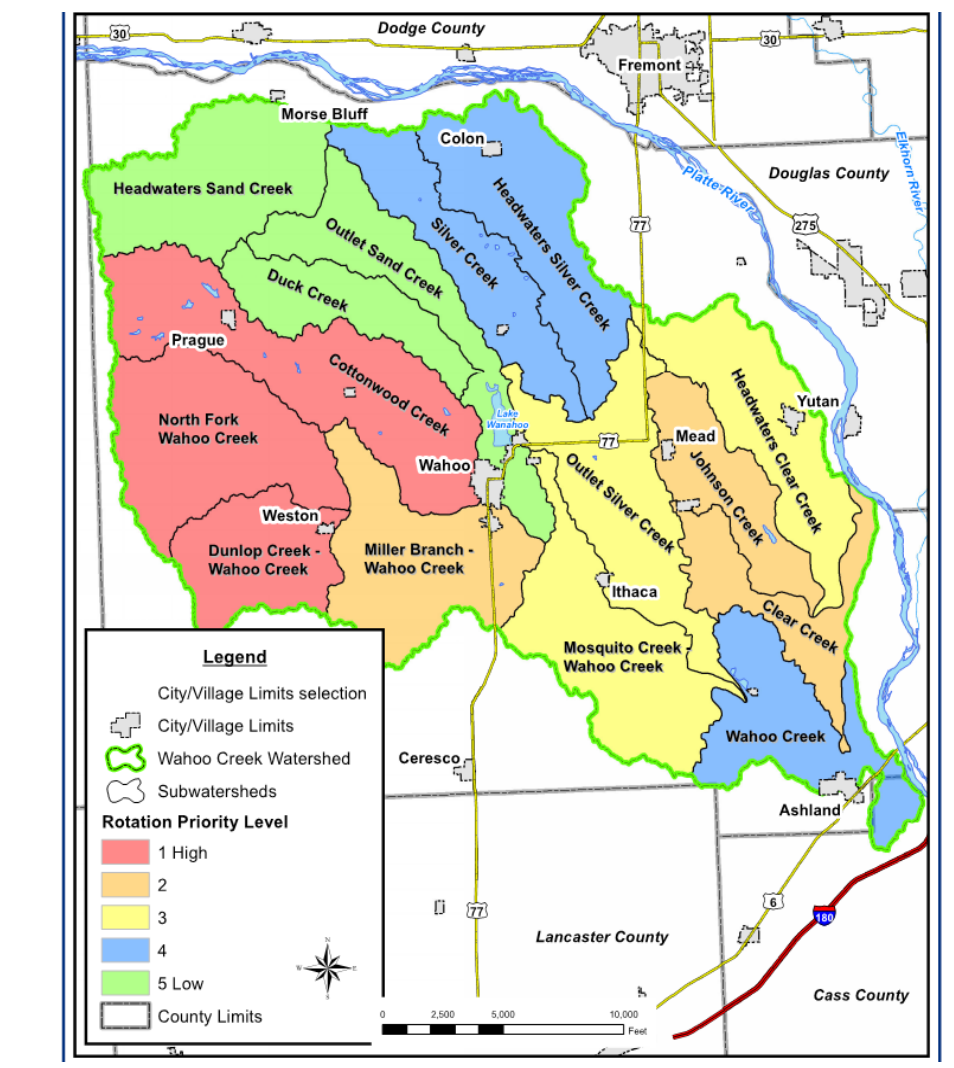
2015 Annual Report
Pages 4-5

New Funding Increases Opportunities
Wahoo Creek Watershed Water Quality Plan Enters Phase II

The Lower Platte North NRD has received additional grant funding through Nebraska Environmental Trust and NDEQ for Phase II of the Wahoo Creek Watershed Water Quality Plan. Environmental Trust has provided \$106,000 in funds to support conservation projects in the Wahoo Creek Watershed. Additional funding is provided by NDEQ for \$168,215. This funding will compliment special EQIP Water Quality Initiative funding through NRCS.

The duration of Phase II is September 2016 to December 2018 and includes the four sub-watersheds of Cottonwood Creek, North Fork of Wahoo Creek, Dunlop Creek, and Miller Branch.

Water quality standards are categorized as "impaired" due levels of E. coli bacteria higher than Nebraska's Surface Water Quality Standards. Flood control is an additional concern to the Wahoo Creek Watershed. In 1998, the Lower Platte North NRD, the U.S. Department of Agriculture, and the Natural Resources Conservation Service



Lower Platte North NRD
Board & Staff

Board Member.....	Subdistrict
Lon Olson, Fremont (Vice Chair)	1
Bob Clausen, Fremont.....	1
Frank Pollard, Fremont.....	2
Fred Hagerbaumer, Fremont.....	2
Dave Saalfeld, North Bend.....	3
Larry Fiala, North Bend.....	3
Terry Sobota, Schuyler.....	4
Matt Bailey, Schuyler.....	4
Mark Seier, Newman Grove.....	5
John Hannah, Columbus (Chair).....	5
Joe Birkel, David City (Secretary).....	6
Robert Hilger, David City (Treasurer).....	6
Donald Kavan, Morse Bluff.....	7
Ronald Sabatka, Weston.....	7
Jim McDermott, Colon.....	8
Jim Gibney, Wahoo.....	8
Don Veskerna, Ashland.....	9
Robert Meduna, Wahoo.....	9
Gene Ruzicka, North Bend.....	at large

Staff Member.....	Position
Larry Angle.....	Water Resources Manager
Kelly Bartek.....	NRD/NRCS Technician
Tyler Benal.....	Operation/Maintenance/Rural Water Specialist
Jill Breunig.....	Administrative Manager
Cassi Deerson.....	Accountant
Duke Dokulil.....	Operation/Maintenance Specialist
Eric Gottschalk.....	Rural Water Manager/Projects Coordinator
Bob Heimann.....	Operation/Maintenance Manager
John Miyoshi.....	General Manager
Tom Mountford.....	Assistant Manager
Mike Murren.....	Large Projects Coordinator
Russell Oaklund.....	Water Resources Specialist
Dave Odvody.....	Recreation Facilitator
Mitch O'Reilly.....	Operation/Maintenance Specialist
Chris Poole.....	GIS Specialist
Karen Rezac.....	Secretary/Bookkeeper
Bret Schomer.....	Water Resources Specialist
Desirae TePoel.....	Information/Education Specialist

NRD/NRCS Secretaries.....	County
Susie Leu.....	Butler County
Patty Holmberg.....	Colfax County
Jenny Campbell.....	Dodge County
Marla Milliken.....	Saunders County

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Phase II Opportunities continued from Page 1

(NRCS) developed the Wahoo Creek Watershed Plan and Environmental Impact Statement to develop strategy for floodwater management and water quality improvement through the Wahoo Creek watershed. The plan was updated in 2013 to develop potential projects in the sub-watersheds with best management practices that are designed to reduce pollution levels that encourage water quality standards to be met.

The Wahoo Creek Watershed Water Quality Management Plan designated seven goals to protect and enhance water quality of all water resources in the Wahoo Creek Watershed. These goals are defined as:

- Remove streams from the 303(d) list
- Reduce stream bank and stream-bed erosion
- Reduce field and gully erosion
- Reduce nutrient runoff from agricultural lands
- Protect or enhance the aquatic habitat found throughout the watershed
- Restore impaired water bodies and protect current and future water bodies and special re-

- source areas from water quality degradation
- Continue information, education, and public outreach programs

Various programs and practices have been designated as best management practices under Phase II of the plan. This includes the development of three potential wet detention basins, the stabilization of a grade control site in Dunlop Creek sub-watershed, encouragement of offering alternative watering sources for livestock, conversion to no-till practices, implementation of terraces, creation of buffer strips, crop production deferment, septic system upgrades, well abandonments, and various other practices.

The additional funds from the Environmental Trust grant will provide more opportunities for cost-share assistance on various water quality and pollutant reduction projects in the Wahoo Creek Watershed. To have a project approved through a cost-share program, please contact the NRCS office at (402) 443-4106.

New Faces at the LPNNRD

Director

Subdistrict 4 has new representation with the addition of Terry Sobota to the Lower Platte North NRD Board of Directors. Terry currently lives in Schuyler and has been farming in the district since 1990. Along with no-tilling and cover crop farming practices, Terry utilizes a manure management plan based on soil tests for his 9,600 hog operation. Terry utilizes various conservation practices and brings extensive agricultural experience to the LPNNRD Board of Directors.



Terry Sobota

Staff

Two new employees joined the Lower Platte North NRD in late 2015. Cassi Deerson joined the staff in October as the Accountant. She previously held payroll and accounting roles for Watts Electric Company. Cassi lives with her husband near Mead. In December, Desirae TePoel began her role as the Information and Education Specialist. Desirae is originally from Malmo and previously worked with Nebraska Extension and 4-H Youth & Development.



Desirae TePoel

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New Faces continued from Page 2

Interns

Jake Maslonka, Chris Smith, and Will Brueggemann are spending the summer interning with the Lower Platte North NRD. Jake Maslonka will be a senior at the University of Nebraska-Lincoln and is a Fisheries & Wildlife major with minors in Grassland Ecology and Biology. Jake's agricultural experience includes raising cattle near Lyons. Chris Smith is a sophomore at Doane University majoring in Political Science and Environmental Science with an emphasis in Policy Making and is minoring in Business Administration and Economics. Chris has a passion for natural resources and agriculture, and is the Washington County



From L to R: Will Brueggemann, Jake Maslonka, and Chris Smith

Champion Sunflower Grower. Will Brueggemann, a senior at the University of Nebraska-Lincoln, is majoring in Agriculture Economics with an emphasis in Marketing and minoring in Entrepreneurship. Will is originally from Omaha, but is excited to get back into his family history of agriculture.

Leave a Mark on Lake Wanhoo

Memorial Options Available

Interested in leaving your mark at Lake Wanhoo State Recreation Area? Consider purchasing a park bench or tree as a dedication or memorial! Park benches cost \$488 and are ordered through the Lower Platte North NRD. Alternative arrangements must be made to purchase trees, but LPNNRD approval of tree type and size is required. The Lower Platte North NRD Office has a map of available locations around Lake Wanhoo State Recreation Area to place your dedication or memorial.



Chemigation Requirements



Crops that are in need of an extra boost of nitrogen or chemicals can be fertilized through the process of Chemigation. Chemigation allows for the chemical application on specified areas to reach the best possible yields. This process is favorable later in the season when crop heights are out of range for typical ground ag-sprayers. Higher average rainfalls also increase the need for chemigation as soil nutrients are not retained.

In efforts to protect groundwater from possible contamination, an applicator chemigation license is required in order to chemigate crops. This license is issued by the Nebraska Department of Environmental Quality through UNL Extension. A nitrogen certification and chemigation permit are two additional requirements that are issued through the Lower Platte North NRD. Renewal deadlines for permits has passed, but new permits can be applied for at any time. Application fees are \$60 for new permits and \$30 for renewals.

Chemigation permits must be applied for annually and systems are inspected every 3 years by the NRD. Chemigation inspections will take place June through August. To set up a chemigation inspection appointment, please call the LPNNRD Office at (402) 443-4675.



Annual Report

2015

Wanhoo Sees Big Changes

Lake Wanhoo State Recreation Area Updates

Playground Addition

Two playground units were installed on the east and west side of the park in mid-May. The units were purchased partially with funds through a Natural Resources Development Fund. The playgrounds project is approximated at \$175,000. 60% of this project was funded through the NRDF Grant and 40% was funded by LPNNRD. The units assembled were purchased through Outdoor Recreation Products. The playgrounds also include crushed rubber mulch around the perimeter, created from recycled Nebraska tires. This rubber mulch was purchased with 50% funds from DEQ.



Top: Playground on the west side of Lake Wanhoo State Recreation Area. Left: Playground in the day use area on the east side of Lake Wanhoo. Bottom: Paved entry into the west side of the park.



Entrance Improvements

The assembly and installation of the units were part of the Community Playground Build on May 18th-20th. LPNNRD staff and community volunteers came together to construct the units. The Wahoo Chamber of Commerce provided assistance organizing lunches during the construction. Lunch sponsors included Bromm, Lindahl, Freeman-Caddy & Lausterer Law Office, Mike Murley-NP Dodge Real Estate, and the Wahoo Chamber of Commerce.

In early Spring, the west entrance to Lake Wanhoo State Recreation Area received a face lift as the entrance was paved from County Road 17 past the entry kiosk, and into the park. County Road 17 has also been paved from Highway 77/92 North to the Entrance. The pavement additions have improved road conditions and travel convenience.



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