

Operations Committee Meeting
Thursday, August 29, 2024 8:30 AM
Lower Platte North NRD Office
P.O. Box 126
Wahoo, NE 68066

1. UNFINISHED BUSINESS
We have nothing to consider for unfinished business.
2. WILD NE AND OTHER PROGRAMS
M.E. Collins has finished cleaning out the northern Catpaws on Wanhoo. The quantity of soil was just under 8,000 cu yds. We may move on to the southern Catpaws at a later date, as our contract is for 10,000 cu yds.
3. OPERATION & MAINTENANCE & OTHER ITEMS
The O & M crew has started our mowing circuit. We continue to cut, treat and shred problem areas with trees. We have some areas of Phragmites to spray also.
 - 3.A. Rehabilitaion of Cottonwood 21-A, NRCS & HDR
As presented last month, we are 60% complete on the rehabilitation study on Cottonwood 21-A. Two alternatives were presented at the previous board meeting. Alternative 3 - new spillway to the east, with 500 year flood protection, and a safer county road design. Alternative 4 - Modify existing A. Spillway (larger), continued 100 year flood protection, county road is modified and is still manipulated by road maintenance. Both alternatives are very similar in estimated cost and B/C ratio. Staff and Travis Hazard visited with both landowners in person.
 - 3.B. FEMA/NEMA Flood Damage Declaration
A declaration of disaster was declared by FEMA for Saunders County. We can now proceed with an application to repair our Lake Wanhoo damage. The District hired Houston Engineering to inspect the Wanhoo stilling basin pre-declaration. The District will request FEMA to include this cost, \$6,988, as part of the repair/rehabilitation. Our explanation to FEMA will be A) The item is available only from one source, meaning, Houston Engineering was the original designer and oversaw the construction of the previous repair. B) The public exigency or emergency for the requirement will not permit a delay resulting from publicizing a competitive solicitation. Meaning the District didn't know if or when a declaration would happen, and we needed immediate consultation from the designer rather than prolonging it by competitive solicitation.
 - 3.C. Wanhoo Basin Investigation for Damage
Mike Sotak, Houston Engineering, inspected the stilling basin on Monday, August 26th by walking and swimming. They will use a submersible sonar device on Monday, September 9. Mike didn't find anything alarming, such as scour holes or large pockets of missing rock. He found that some of the Gabian baskets attached to the sheet pile wall had some tears and a small portion of chain link fence covering

the baskets came loose. He will present their findings at our October Committee meeting. Attached are a couple of blueprints of the basin design.

3.D. Rawhide Ditch 8, Brand Request

As mentioned previously, Kirk Brand would like a 24" CMP replaced that drains the county road ditch and his field into Rawhide Ditch 8. Heimann asked three contractors for labor quotes and received two; Grefe Excavating, \$2,950 and Thompson Construction, \$3,000.

A 30" x 60' CMP with a 1' band costs \$3,887.00. A 36" x 60' CMP with a 1' band is \$4,664.50. This doesn't include a flap gate for each and a 2' band would increase the price.

Mr. Brand would pay 50% of the cost.

The committee would like Mr. Brand to present his case at the next Operations Committee meeting.

3.E. No-Till Grass Drill, Schuyler Co-op

Schuyler Co-op sent a check for \$1,147.45 for the period of January – July. They have also requested to get out of our drill rental agreement because the drill is worn out and has continual maintenance & repairs. This drill is 16 years old. The Co-op will continue renting the drill through the Fall.

Since the Committee meeting, we have been informed that Schuyler Co-op has ordered a new drill for themselves. We will have to discuss our options as to what to do with our worn-out grass drill next month.

3.F. Equipment Sold on On-Line Auction

We had Sanderson On-Online Auction sell some equipment. The Bobcat trencher attachment sold for \$4,025, Bobcat backhoe \$6,050, Kawaski ATV \$1,750, 40 gallon fuel tank with a bad pump \$130 for a total of \$11,955.00.

The District netted \$10,998.60.

3.G. Wanahoo Dam Inspection

The Dept. of Natural Resources Dam Safety and Nebraska Dept. of Transportation did an inspection of the Wanahoo Dam on August 22nd. NDOT primarily inspects the principal spillway. They didn't find any deficiencies in the concrete structures, weir, floors, conduits, etc.

Dam safety will send the District a written report at a later date. From the inspection, we have some conduit joints that need sealing just as we did back in 2019. For the most part, the work from 2019 is holding up very well. Heimann contacted the company who performed the work.

3.H. Carl Sousek Water Line Request

Carl Sousek of Prague has failing wells on his farmstead. He lives 1 1/2 miles west of Czechland Lake. A well driller punched 11 holes in the ground trying to locate water. They found water just under a half mile SE of his farmstead below the Cottonwood 6--B dam, on the other side of the creek channel. He has a choice to bore a water line under a deep creek bed or run the water line at the toe of the dam over the dam's outlet pipe. NDNR Dam Safety does not want the water line over or under the outlet pipe even though the line would be encased and valves on each end. Since the District deals with water, dams and wells, would we consider assisting Mr. Sousek in some way to get his water line under the creek bed? See attached aerial photo.

The Committee would like Mr. Sousek to look into an NRCS EQIP program called Small Scale and Urban Ag for running his water line.

4. ROCK AND JETTY

We have not received any applications or payment requests.

5. LAKE WANAHOO

5.A. Lake Wanahoo Permit Sales

For the month of July, the District received \$8,190.50 in annual park permit revenue. The year by year break down is listed below.

Month	Monthly Total	YTD
July 2024	\$8,190.50	\$63,501.50
July 2023	\$6,055.00	\$66,550.00
July 2022	\$6,292.50	\$68,545.00
July 2021	\$6,430.00	\$79,337.50
July 2020	\$7,332.50	\$87,587.50
July 2019	\$7,925.00	\$70,725.00

5.B. Lake Wanahoo Camping Revenue

For the month of July, the District received \$17,268.00 in camping revenue. The year by year comparison is below.

July 2024	\$17,268.00	\$76,056.95
July 2023	\$21,176.94	\$83,169.40
July 2022	\$18,175.50	\$78,417.83
July 2021	\$15,326.94	\$82,512.73
July 2020	\$12,615.36	\$87,645.40
July 2019	\$18,046.00	\$60,916.46

5.C. Wanahoo Camping

We are continuing to look into 50 AMP upgrades to campsites as the demand for them has increased. We could potentially upgrade up to 20 sites to have 50,30,20 AMP pedestals.

5.D. Education Building

The Clint Johannes Education Building at Lake Wanahoo was rented 22 times in August with 1 NRD event. Revenue for the month was \$1,760.

6. INFORMATION AND EDUCATION

6.A. Information

6.A.1. Radio & eAds

The KTIC radio ads and Wahoo newspaper e-ads during August featured all three recreation areas and will continue through September. The ads are attached.

6.A.2. Analytics

The LPNNRD Facebook and X pages, along with the website are some of the fastest ways to get information out to the public. Facebook and X posts range from 12 -18 posts per month. If you are on Facebook or X, please like, follow, share, or retweet the Lower Platte North NRD posts!

Total reach/impressions show how many people saw the post/tweet. Engagements include likes, comments, shares/retweets and link clicks.

August had a total of 18 posts.

Followers for August	Total	Increase/Decrease
Facebook	1,635	Up .43%
X	451	-

Posts included:

- Upcoming variance request deadlines
- NRD Recreation Exploration
- Groundwater Management Plan meetings
- Sentinel’s Sunset Seminar
- Upcoming Envirothon Field Day
- Board Meeting/budget hearing reminders
- Phragmites control reminder

W E B S I T E	Users	Traffic Channel Changes	Top Pages	Devices
August	1,686	Organic -25.31% Direct -40.23% Referral -35.48% Social -55.17%	Lake Wanahoo Home Czechland Outdoor Recreation Downloads	Mobile 63% Desktop 35.6% Tablet 1.4%
July	2,396	Organic -13.66% Direct 17.39% Referral -4.71% Social -50.85%	Lake Wanahoo Home Czechland Outdoor Recreation Downloads	Mobile 57% Desktop 41.5% Tablet 1.5%
June	2,895	Organic 19.25% Direct 15.94% Referral 98.82% Social -54.24%	Lake Wanahoo Home Czechland Flood Damage Reduction Staff	Mobile 57% Desktop 41.5% Tablet 1.5%

Traffic channels: organic traffic means they use a search engine then choose an option that includes lpnnrd.org, direct traffic means they type in lpnnrd.org directly (or have it bookmarked), and referral traffic is any other traffic not from a search engine or social (such as a link from another site). As of mid-

September changes for traffic channels and devices will show increase or decrease for the month.

Referral clicks from: NARD's website 21, visitnebraska.com 10, Wahoo newspaper website (LPNNRD digital ad) 0.

Clicks from Facebook: 9.

Clicks from Twitter: 0.

6.B. Education

7. RURAL WATER SYSTEMS

7.A. Rural Water Operations

The RWD continues to work on the lead service line inventory (LSLI) which is due 10/18 to EPA.

The new meter reading hardware and software have all be ordered and should be here soon.

NDEE notified all PWS within Area 1 (Colon RWD) that they have not been able to fill the Drinking Water Field Representative position vacated by the retirement of Tim Thares. This will put a backlog on sanitary surveys (amongst other duties of position) within the area. The Colon RWD was due for a review this year.

7.B. Colon System

Routine monthly sampling completed, meters read and bills to be mailed 8/31.

7.C. Bruno System

Elliott submitted an application to NeDOT for ROW occupation for the proposed new service hookup along Highway 12B and is still waiting for review.

Routine monthly sampling completed, meters read and bills to be mailed 8/31.

7.D. Other

8. Long Range Plan

Attached is a copy of the first draft of the long range plan. Please read this document and discuss any changes requested.

A motion will be needed at Board Meeting to approve the attached Long Range Plan.

ENGINEER'S SEAL



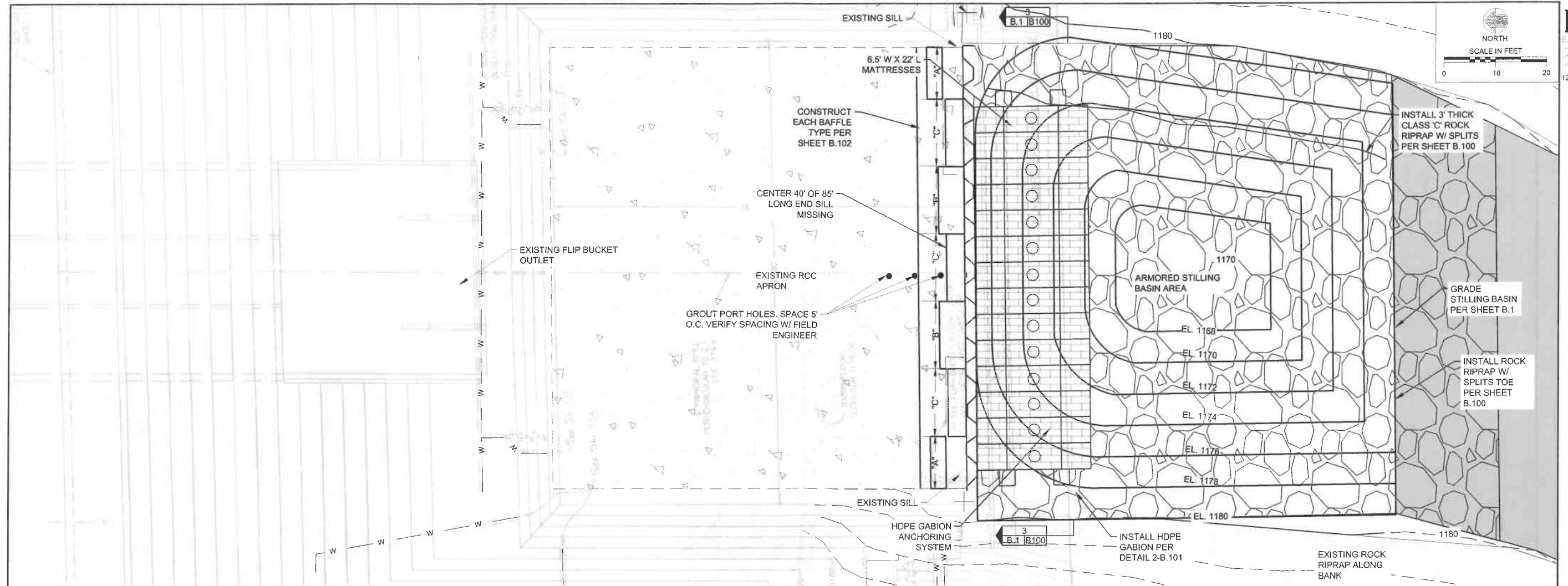
REVISIONS

NO.	DATE

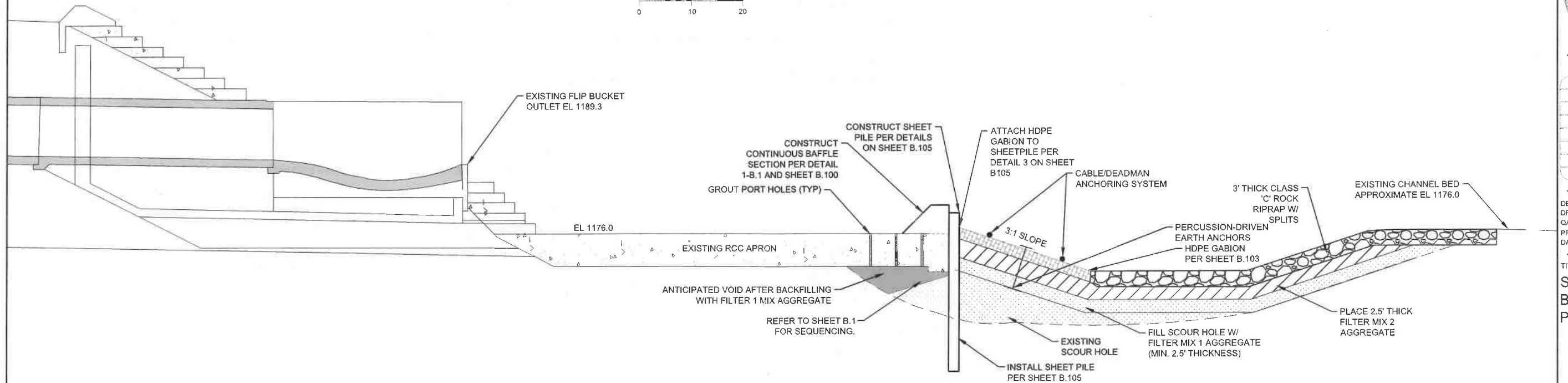
DESIGNED BY: MKS
DRAWN BY: MRJ
QA / QC BY: MKS
PROJECT NO.: 022-19-01
DATE: 07.01.2020

TITLE
**STILLING BASIN
PLAN-PROFILE**

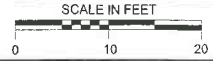
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WANAHOO STILLING BASIN PLAN VIEW



WANAHOO STILLING BASIN CENTERLINE PROFILE VIEW



ENGINEER'S SEAL



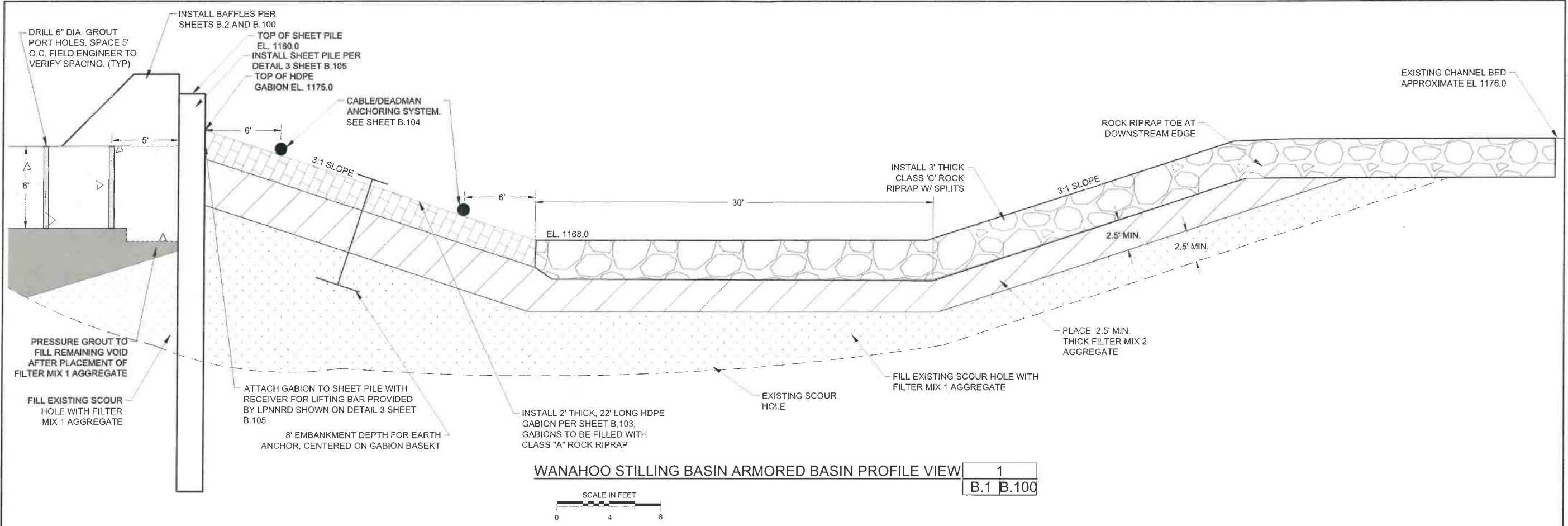
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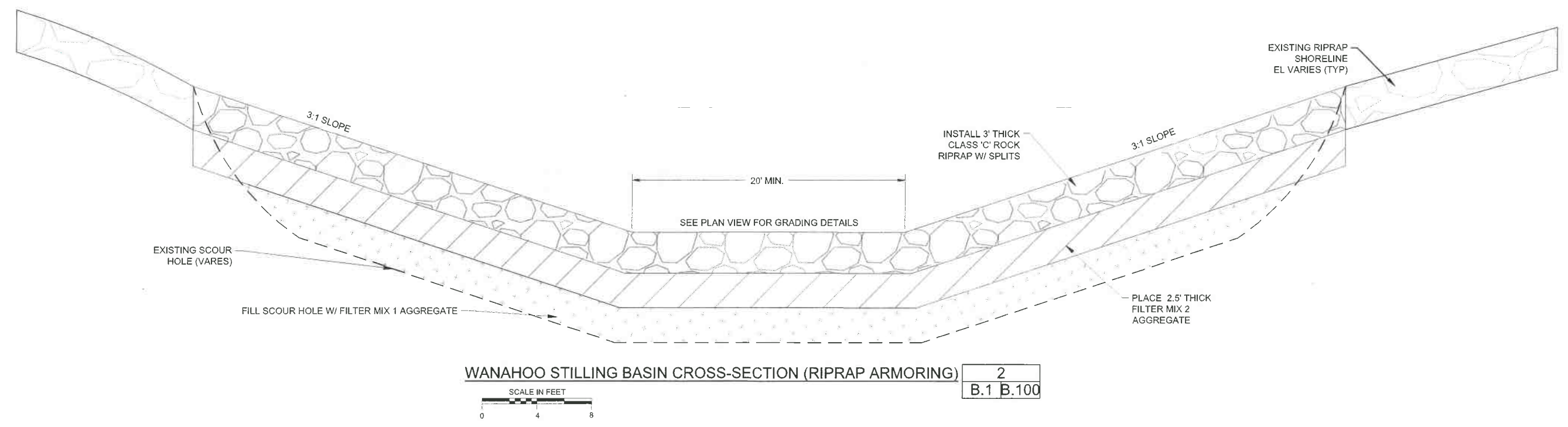
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TITLE
STILLING
BASIN
DETAILS

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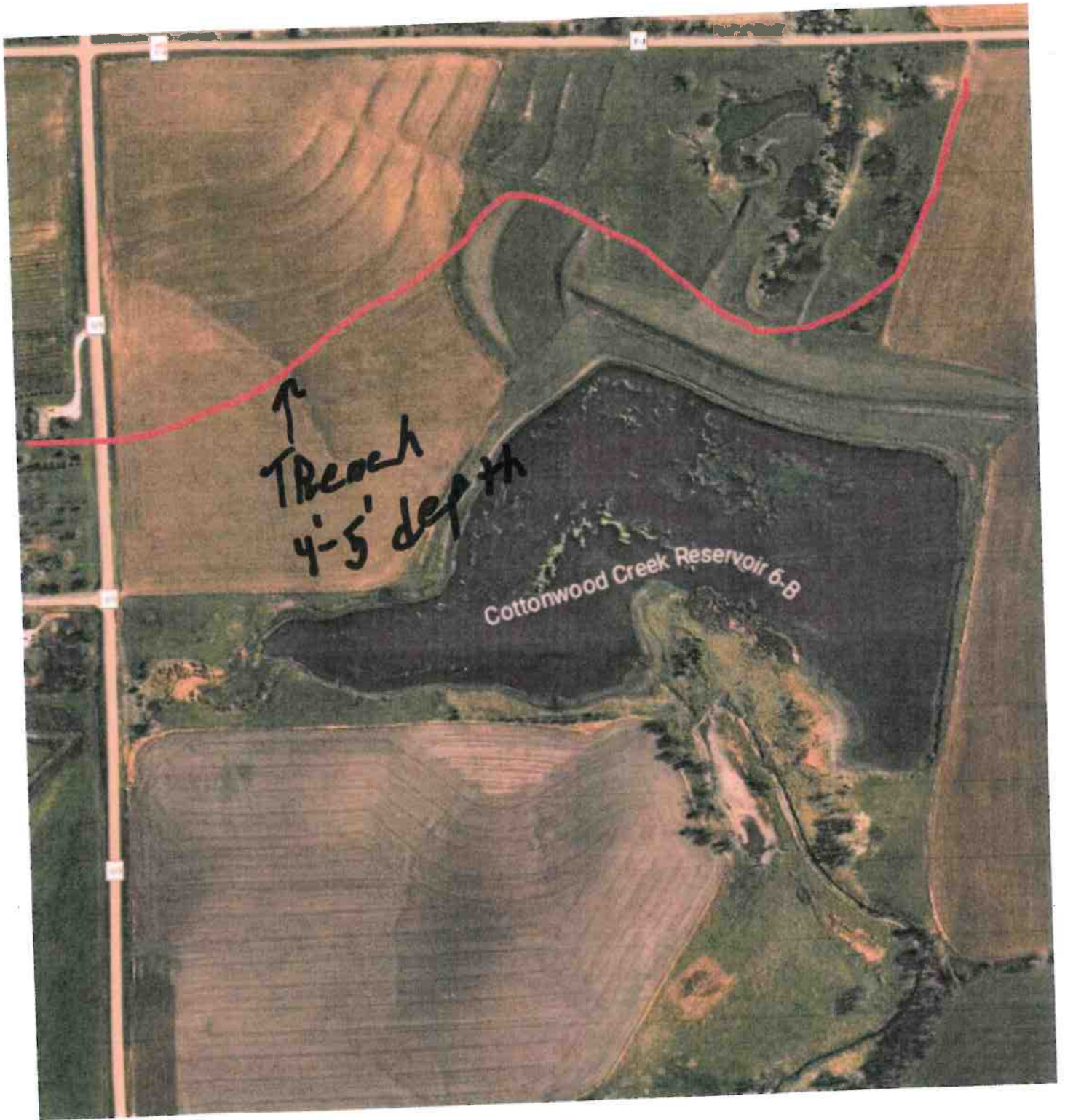
WANAHOO STILLING BASIN ARMORED BASIN PROFILE VIEW 1
B.1 B.100



WANAHOO STILLING BASIN CROSS-SECTION (RIPRAP ARMORING) 2
B.1 B.100

2 in line
H₂O

Carl Sousek
443-7934



Rediscover the Outdoors

Relax and enjoy a weekend getaway at one of three recreation areas near you! Czechland Lake near Prague, Homestead Lake near Bruno, or Lake Wanahoo near Wahoo.



LOWER PLATTE NORTH
Natural Resources District

Rediscover the Outdoors

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LOWER PLATTE NORTH
Natural Resources District

Introduction

The Lower Platte North Natural Resources District (LPNNRD) is one of 23 Natural Resources Districts created in 1969 with the passage of LB 1357 by the Nebraska Unicameral. Since its formation in 1972, the LPNNRD has been assisting people in the Lower Platte River Basin in the development and protection of our soil and water resources. Nebraska Statutes require that Natural Resources Districts develop a Long Range Implementation Plan. The purpose of this plan is to summarize accomplishments by LPNNRD during fiscal year 2023 (July 1, 2023 to June 30, 2024). It will show activities for the current year and the next five years. The plan serves as an implementation tool of the district's Master Plan, which is updated every ten years. This Long Range Implementation Plan was approved by the LPNNRD Board of Directors on date.

Authority and Responsibilities

The Natural Resources Districts have been given statutory responsibility outlined in Sections 2-3229, R.R.S. 1943. In this section it states that "The purposes of the Natural Resources Districts shall be to develop and execute, through the exercise of powers and authorities contained in this act, plans, facilities, works and programs relating to: (1) erosion prevention and control, (2) prevention of damages from flood water and sediment, (3) flood prevention and control, (4) soil conservation, (5) water supply for any beneficial uses, (6) development, management, utilization, and conservation of groundwater and surface water, (7) pollution control, (8) solid waste disposal and sanitary drainage, (9) drainage improvement and channel rectification, (10) development and management of fish and wildlife habitat, (11) development and management of recreational and park facilities, and (12) forestry and range management."

Description of the District

Lower Platte North NRD programs and projects are available to meet the goal of properly developing our water and related land resources.

The Lower Platte North Natural Resources District is located in the Lower Platte River Basin in eastern Nebraska and includes 1,031,000 acres of land. A portion of Saunders, Butler, Platte, Dodge, Colfax, Boone, and Madison Counties are within the district (see Appendix A), which includes twenty-eight cities, towns, and villages. Besides the Platte River, other notable tributaries in the district include: Bone Creek, Clear Creek, Duck Creek, Elm Creek, Loseke Creek, Rawhide Creek, Sand Creek, Shell Creek, Silver Creek, Skull Creek, Taylor Creek, and Wahoo Creek.

The population of the district is approximately 65,000, of which about half is rural and half urban. The Lower Platte North NRD is financed by a tax levy which may be up to four and one-half cents per \$100 valuation for general purposes and another one cent for water programs. The FY 2024 tax levy is 0.025767 cents per \$100 valuation.

Governing Body

The Lower Platte North Natural Resources District (LPNNRD) is governed by a 19-member Board of Directors (see Table 1). The directors are elected at the general election for a term of four years, with half of the members up for election every two years.

The district is divided into nine (9) subdistricts. Two board members are elected from each of the nine subdistricts, and one board member is elected at large every four years.

Table 1. Lower Platte North Natural Resources District Board of Directors

Sub-District 1	Lon Olson
Sub-District 1	Kelly Thompson
Sub-District 2	John Goldsberry
Sub-District 2	Bill Saeger
Sub-District 3	Dave Saalfeld
Sub-District 3	Andrew Tonnies
Sub-District 4	Chris Yosten
Sub-District 4	Matt Bailey
Sub-District 5	Mark Seier
Sub-District 5	David Lawrence
Sub-District 6	Joe Birkel
Sub-District 6	Robert Hilger
Sub-District 7	Ryan Engel
Sub-District 7	Ryan Sabatka
Sub-District 8	Jerry Johnson
Sub-District 8	Vacant
Sub-District 9	Duane Johnson
Sub-District 9	Bob Meduna Jr.
At Large	Thomas McKnight

The district operates by a set of bylaws which are kept on file at the district headquarters at Wahoo, Nebraska.

One of the great natural resources of Nebraska is the Platte River. It is the feature that attracted early settlers to our state and guided the wagon trails. Today, we look at the Platte River differently. It is a water source for agriculture and cities like Fremont, Lincoln, and Omaha, a haven for wildlife, and a place for recreation. Issues surrounding the Platte are a top priority at the LPNNRD, since approximately 72 miles of the river flow directly through, or border, the district.

Ice Jam Agreement

In 1994, the LPNNRD entered into an agreement with the Papio-Missouri River NRD, Lower Platte South NRD, and Cass, Douglas, Sarpy and Saunders Counties to more effectively deal with ice jams and their resulting flood damages along the Lower Platte River. This area of concern is primarily from Fremont, Nebraska to the mouth of the Platte River. This group has pooled funds of \$150,000 to retain a contractor to use explosives when needed, to remove ice jams in a timely manner.

During the winter of 2023-2024, there were no ice issues of concern on the lower Platte River.

Rock & Jetty Program

This program was developed to offer cost-share assistance to landowners to construct erosion control devices for stream bank stabilization and to assist Dike and Drainage Districts with maintenance of dikes along the Platte and Elkhorn rivers and perennial streams. In FY23, \$15,000 was budgeted for projects on rivers & streams. We assisted four cooperators on maintenance projects in FY 23-24 at a cost of \$13,107.55.

Platte River Basin Long Range Objectives

- For the current year and the next 5 years administer \$15,000 - \$20,000 for the Bank Stabilization Program to cost-share on priority stream bank stabilization for cooperators on the Platte and Elkhorn Rivers and Perennial streams. Promote riparian buffer zones along the Platte River and other perennial streams This includes assisting cooperators with meeting the regulations of the Clean Water Act through section 404 permits.
- Keep up to date on Clean Water Act and Endangered Species Act regulations.
- Continue as a member of the Joint Water Management Advisory Board, provide leadership and assistance to move forward with exploring flood reduction solutions within Dodge County.
- Continue to participate with the City of Fremont and Dodge County to study potential nonstructural measures to reduce flooding and economic losses from the Lower Platte River.
- Assist the City of Schuyler as they evaluate the need for future federal funding for completing structural and non-structural approaches to reduce flooding and economic losses from the Platte River through the LPNNRD District-Wide Hazard Mitigation Plan.
- Encourage cities and counties within the District to initiate floodplain management planning to promote wise floodplain development.
- Continue to partner & support the Ice Jam Agreement in potentially protecting against ice jams on the Platte River and budget annually, as needed, for the Ice Jam Agreement Fund.
- Assist dike and drainage districts within the LPNNRD to properly repair and maintain levy projects.
- Provide support financially and technically to the Lower Platte Weed Management Area in controlling noxious and invasive weeds.
- Support the Nebraska Land Trust in acquiring easements for the protection and preservation of quality lands throughout Nebraska.
- Continue to support the Lower Platte River Corridor Alliance as an active voting member.

One of the Lower Platte North NRD's major responsibilities is to conserve and protect our ground and surface water resources. To accomplish this goal, the Lower Platte North continues to participate in water quality studies, ground water level monitoring, and water resource educational activities.

Groundwater Management Area

Current rules and regulations and the Groundwater Management Plan (GWMP) are available at the LPNNRD headquarters in Wahoo and on the district website at www.lpnnrd.org.

LPNNRD implemented a District-wide Groundwater Management Area (GWMA) on January 1, 1997, to address both water quality and quantity concerns.

- Spring of 2024 LPN started the process of updating its GWMP.
- In 1997, groundwater quality Phase I (education) regulations became effective for the entire District.

One primary rule in Phase 1 requires certification for fertilizer and water use.

- The District has developed a groundwater program emphasizing a protection-based approach rather than a reactive, corrective approach.
- The District has two Phase groundwater quality control areas, those being Bellwood in 2003 and Richland/Schuyler in 2004.
- A grant was received from the Water Sustainability Fund in November 2022.
- This grant conducted a geological assessment to go with the AEM flights along with offering cost-share for best management practices in the Schuyler - Richland Phase Area.
- In July 2023 a second WSF grant with LLNRD and USGS were approved to determine nitrate legacy from Richland to Fremont.

In June 2018, the District updated its Groundwater Rules and Regulations

- A Phase Four was added for Water Quality
- Water Quantity will manage water by consumptive use or acre feet limitations.
- As of July 1, 2023, the District had 9477 registered active wells with 4625 irrigation wells and 212 wells in the GWEL network.

There are two designated Special Quantity Subareas in Butler-Saunders Counties and Platte-Colfax Counties. The District mandated water flow meters, rolling allocations and annual reports in these areas starting in 2016.

A Lower Platte Basin plan with 7 NRDs and NeDNR was developed starting in 2017.

- An allotment formula in 5-year increments was implemented to determine the acre feet used for new water uses.
- The District completed its V-IMP in June of 2018 by adding an additional rule of requiring municipalities to report yearly water use
- The group updated the plan for next 5-years in 2022 with new allotments until 2027.

A Consortium for drought consideration was developed In 2016, made up of the 3 NRDs, Lincoln Water System (LWS), Metropolitan Utilities District (MUD), and the Nebraska Department of Natural Resources (NeDNR).

- A drought contingency plan was developed to maintain/mitigate sustainable water supplies to the Lower Platte River during drought conditions.
- Projects continue to be considered for supplying water into the Platte River

- A 5-year update will be completed in 2024.

Ground Water Quality Sampling

The Lower Platte North NRD continues efforts to develop a ground water quality inventory. The District has been divided into four primary aquifer regions: Todd Valley, Platte Valley, Shell Creek and the Uplands, and further divided into 26 subareas. These subareas are rotated for water quality sampling throughout the District. Staff samples the same wells called the Statewide Network each summer, weather permitting, to determine long term trends for nitrate-nitrogen. The data collected is provided to the Nebraska Department of Environment and Energy (NDEE). NDEE in turn provides this to the Nebraska Legislature on an annual basis.

In 2023 samples were collected from 52 sites.

Year	Nitrate-Nitrogen Range	% Nitrate-nitrogen 0-8.0 ppm	% Nitrate nitrogen 8.01-10.0 ppm	% Nitrate nitrogen > 10 ppm
2023	0 - 20.6 ppm	67% (35 of 52)	12% (6 of 52)	21% (11 of 52)

Samples for pesticide analysis were collected from ten of these sites (19%). The pesticide analysis was for a suite of 25 parameters, and all results were less than reporting level.

Ground Water Energy Level Monitoring Network

One of the responsibilities of the NRDs in the State is to monitor fluctuations in groundwater levels. With the help of area cooperators, a ground water energy level (GWEL) monitoring network has been established in the LPNNRD. This monitoring network has been established to obtain a better understanding of the groundwater levels throughout the District. As of Spring 2024, the LPNNRD had 212 wells in the GWEL monitoring network. These wells are monitored each spring and fall, with selected wells also measured in late August.

The LPNNRD compares the latest spring reading to the 1987 base-year to determine if a subarea needs to be declared a Level 2 or Level 3 groundwater management area. Level 2 and 3 management areas require flow meters on wells, annual reporting of water use, and establishment of acre-inch allocations. For the 26 sub-areas within the District, 19 subareas are currently at Level 1 management, while the other 2 sub-areas still need additional information before these can be designated. Sub-Areas along the Elkhorn and Platte Rivers are showing some of the wells reaching Level 2 and 3 management. The District prefers at least three years of data before the subarea can be designated as a Level 1, 2, or 3 management area.

Fall readings in 2023 and Spring of 2024 showed a decline from the previous year's measurement. This change was the continuing lack of moisture in the last 2 years. Spring readings in 2024 showed a 1.17 feet lower of the wells measured compared to Spring of 2023. Each aquifer sub area showed a decline from the previous year.

Chemigation

Chemigation is the act of injecting chemicals into the water line of an irrigation system that is then applied onto the crops. It is considered to be one of the most efficient ways of applying essential nutrients in times when the crop is uptaking the most amount of nitrogen through its

growing stages. In order to chemigate, a licensed permit holder must obtain a permit through the Lower Platte North NRD. Special equipment must be installed to protect Nebraska’s groundwater from possible back-flow of chemicals into the groundwater source. To obtain this permit, which is administered through NDEE, you must pass the Chemigation Certification test. This test is conveyed and taught through the University of Nebraska-Lincoln’s certification program. There is an online test option available to producers. The chemigation equipment must be properly equipped, inspected and approved by the NRD before applying any chemicals.

Chemigation Permits	Total	Renewal	New	Emergency
July 2023	704	643	61	0
July 2024	708	652	56	0

In 2014, the Legislature approved changes to Title 195 that would allow individual NRDs to set chemigation fees. Chemigation fees for LPNNRD are as follows: \$90 for a New permit, \$30 for a Renewal permit, and \$300 for an Emergency permit. Inspections are required on equipment for new permits. Renewal permits are inspected on a three-year rotation. Failure to renew by June 1st of the following year will cause the permit to lapse. If a renewal permit lapses, the producer must obtain a new permit and an inspection is required.

Decommissioned (Abandoned) Wells

Abandoned wells are a health and safety concern and have been ruled as illegal by the Nebraska Legislature. A well not used for three consecutive years or one which is no longer useful is considered to be abandoned and needs to be properly decommissioned.

The Lower Platte North NRD offers up to 75% cost share assistance to landowners to properly decommission abandoned water wells. In addition, the district will assist with up to 75% of the cost for pump and obstruction removal on domestic and stock wells. To receive cost share assistance, the actual decommissioning must be performed by a certified well driller or pump installer. The landowner has six months from the time of application to accomplish this task unless good cause is shown.

Since 1992 the district has administered local and state cost-share dollars to decommission 749 wells. Through this program in FY 23-24, a total of \$15,117.00 was administered by LPNNRD for the plugging of 15 wells.

Flow Meter Maintenance Program/Readings

Since 2008, the LPNNRD 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. 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, we need to know the water that is being extracted.

Along with the irrigation wells, the LPNNRD also records meter readings from all of the municipality wells within the District including MUD, Lincoln and Fremont. Livestock wells and commercial wells are required to report if the well was drilled after the 2012 requirement date. Over 1,200

readings are recorded annually throughout the LPNNRD District. The district provides funding for meter maintenance on approximately 1,150 irrigation well flow meters that are getting routine maintenance once every four years.

Registered Wells and Well Permits

The Nebraska Legislature declared that conservation and the beneficial use of ground water are essential to the future well-being of the State. State Law requires that all water wells in the State of Nebraska be registered with the Department of Natural Resources. Wells that are not registered are illegal and should be registered as soon as possible. A breakdown by decade from 1970 to present shows the growth of active irrigation wells in the District.

*Table of Active Irrigation Wells within LPNNRD
compiled by Completion Date*

Date	Number of Active Irrigation Wells in the District
December 31, 1970	1,428
December 31, 1980	2,756
December 31, 1990	3,241
December 31, 2000	3,686
December 31, 2010	4,307
December 31, 2020	4,554
July 1, 2024	4,625

From July 1st, 2023 to July 1st, 2024, the District has issued 33 well permits with 30 for new and replacement irrigation wells.

Special Studies

The LPNNRD has done a number of studies within the District. The following is a summary of studies that are currently being conducted within the District.

Aquifer Vulnerability Mapping and Analysis

- To collect and analyze data within the LPN Water Quality Management Areas for nitrates and source of nitrate.
- Vadose soil sampling analysis to assist in determining the amount of nitrates in soil and pore water present in the unsaturated zones above the water table.
- A nitrate tool was developed utilizing the data, along with geological information to assist in determining vulnerability.
- Age dating of groundwater was conducted in 2023 with results at the end of 2024.
- The analysis is now being conducted in the Shell Creek Aquifer Region

3D Airborne Electromagnetic (AEM) Hydrogeologic Framework and Assessment

- Papio-Missouri River NRD, NeDNR and LPNNRD started a study in January 2021 to assess AEM survey information, well logs, and other geological information.
- The data is available for staff to characterize different geological layers and assign variables such as hydraulic conductivity.
- This data is being utilized for groundwater modeling to better understand, assess, and forecast groundwater. Completion of the groundwater model for the Lower Platte River Basin is planned for early 2025.

Lower Platte River Consortium Study

- This study looked at long term water supplies in the Lower Platte River Basin, and the ability to enhance streamflow, especially in drought conditions.
- Sustaining water in the river would also provide a benefit to wildlife and agriculture by lessening the likelihood of a 'call' on the river.
- The plan was completed in Spring 2020 with the group now in the process considering the options from the plan to determine the feasibility of projects.

Eastern Nebraska Resources Assessment

- LPNNRD is a partner in the Eastern Nebraska Water Resources Assessment (ENWRA).
- The ENWRA study has been utilizing Airborne Electromagnetic (AEM) over eastern Nebraska to better model the geology of the glaciated portion of the State.
- The flights and the results can be found on the ENWRA website at (www.enwra.org).

Certifying Acres

In July 2009, the District signed a contract with gWorks (formerly GIS Workshop) to develop a database of county assessor records as the preliminary step to certifying irrigated acres. As of January 2022, the majority of the irrigation in the district has been cataloged. The District is still granting new irrigation development with verification by aerial photography and accurately modeled before entering into the database. Acre certification provides an inventory of the irrigation needs of the District, which is an important part of present and future groundwater management and planning. In addition to cataloging irrigated acres, LPNNRD staff have been actively working with the Nebraska Department of Natural Resources (NeDNR), as well as local landowners, to bring all irrigation wells in LPNNRD into compliance with Nebraska Revised Statute 46-602 (7).

Nebraska Ordnance Plant Water Pollution Clean Up at Mead

During the 1940s, 1950s and 1960s, an Army Ordnance Plant near Mead was used to assemble bombs and served as an early Atlas Missile ICBM site. Over time, the soil and groundwater at the plant site became polluted with various explosive residues and solvents. The cleanup has been divided into three basic project areas: Soils (OU1), Ground Water (OU2), and Building contamination (OU3). This area has been under study by the Army Corps of Engineers (COE) since 1988. An open house was held by the Corp, May 2024, with annual tours and open houses conducted regularly.

Wellhead Protection Program

The LPNNRD implemented a wellhead protection program in FY 2001. The goal of the program is to minimize potential polluting activities on the land surrounding a community's public water supply well(s). The District has identified 22 communities with public supply wells and they have been encouraged to become involved in the program. The Communities of Newman Grove and Platte Center received a Source Water Protection Grants to re-evaluate and approve their wellhead management areas. The LPN is working with these communities along with assessing the nitrate issues along the Shell Creek Region.

Rural Water Districts

In recent years, the District has worked with communities who have had difficulties with water quality and quantity by forming two rural water systems. The Butler County system linked the village of Bruno in 2006, who was having water quality and quantity problems, to David City. Also in 2006, the Saunders County system linked the village of Colon, who was experiencing water quality concerns, to Wahoo. The LPNNRD operates both of these systems. The District

purchases water from the larger communities and delivers it to the smaller communities; RW staff manage and maintain Colon's system and billing while Bruno manages their infrastructure and household billing. Both systems are designed to serve rural customers along each service route. Combined, the two systems serve over 135 households in Saunders and Butler Counties. To address fiscal concerns both RWDs have implemented a phased rate increase strategy to more diligently manage the financial standings of both districts. The District has been in contact with several other communities and anticipates several more communities and rural customers to be serviced by rural water systems in the future as rural communities face an increased burden at providing adequate quantity, and quality, water while maintaining aging infrastructure. Both systems are greater than 10 years old and repairs/replacements of meters is expected to take up RWD staff's time in 2024-25 as a number of meters and components are nearing the end of their expected service life.

The Environmental Protection Agency (EPA) revised the Lead and Copper Rule in 2022 and required all PWS to submit a lead service line inventory. This inventory takes into account all water service line from transmission main to first service connection within households. This has required multiple contacts with homeowners and will be a living document to be updated in perpetuity.

Geographic Information System (GIS)

The District has incorporated the use of Geographic Information System (GIS) technology into most district functions, including the certification of irrigated acres, maintenance, project planning, modeling of groundwater availability, and the movement of contaminants such as nitrates through the soil profile. In addition to in-house GIS activities, LPNNRD GIS staff assist a variety of partners, including projecting FSA aerial photography into Nebraska State Plane Feet coordinates for NeDNR, custom authoring of maps for the Nebraska Land Trust, coordination of helicopter flight lines for invasive species control with the Lower Platte Weed Management Area, and helping other NRDs with GIS questions as they emerge.

LPNNRD's database allows for quick and efficient lookup of any information pertaining to any project or cost share that has been completed for any constituent with land in LPNNRD.

As drone technology continues to evolve, LPNNRD has added a SkyDio2 Autonomous Drone to its inventory.

Ground and Surface Water Long Range Objectives

- Continue groundwater quality sampling throughout the LPNNRD, both the State-wide network and intensive sampling of selected regional aquifers. To work with other agencies on assessing legacy nitrate.
- Continue water quality education programs based on the goals and objectives of the LPNNRD Groundwater Management Area, which includes LPNNRD certification classes for landowners, municipal, and industrial water users.
- If needed, designate further Phase II, III, and IV boundaries for the Groundwater Quality Management Areas.
- Continue with nitrogen application demonstrations and participate with demonstrations on integrated pest management and sustainable agriculture.
- Assist in the proper decommissioning of water wells in the district by administering state and local cost-share funds to decommission abandoned water wells.
- Continue measurement of ground water energy levels in the district and if necessary designate

new Special Quantity Subareas (SQS).

- Continue to cooperate with the United States Geological Survey (USGS) in monitoring surface water levels and the Eastern Nebraska Water Resources Assessment (ENWRA) for groundwater geological assessment including AEM flights.
- Maintain a multi-agency groundwater energy level monitoring network in the Wann Basin of the Platte Valley north of Ashland to pool information from different agencies collecting water level data. This information is being used by the COE and MUD to refine their groundwater modeling efforts.
- Continue to implement the Chemigation Program to inspect safety equipment on permitted irrigation systems in the district. Educate the need for check valves in protecting the aquifer from contamination.
- To finish the development of a groundwater model to assist in management for each sub-area. Additional information on water use from all wells will be needed for accurate information. Initiate additional studies to identify vulnerable aquifers and modify GWMA rules and regulations to protect these aquifers and their long term sustainability.
- Continue using AEM (airborne electromagnetic) information to analyze bedrock aquifers both in water quantity and water quality. Test holes and monitoring wells will have to be installed and sampled to determine these as a possible source of usable groundwater. New management strategies need to be developed for these aquifers such as summer trigger levels for confined bedrock aquifers, especially if these are hydrologically isolated from overlying alluvial aquifers.
- Utilize the completed Lower Platte River Consortium Study for possible locations for recharge and reservoir sites to better convey water downstream in the watershed.
- Continue to update the Groundwater Management Plan to include Integrated Management of surface and ground water and to consider drought concerns.
- Expand the GWEL network wells in criteria subareas and to have continuous recording monitoring and real-time reads wells in each sub-area to better manage the resource.
- Continue to assist District communities who have difficulties with water quality and quantity by helping determine rural water system feasibility including the Saunders County Rural Water System study. .
- Keep abreast of updates and new iterations of neighboring NRD studies.
- Continue working on projects identified and keeping updating quality objectives in the Watershed Quality Plan. Partner with state agencies in conducting these projects.
- Continue with the District's Well Permitting Program and Variance Process throughout the District. Utilize submitted water use data in this process and identify registered and unregistered wells.
- Provide information and education on water conservation, integrated pest management and safe disposal of farm and household chemicals.
- Assist in working with NRD's on activity of State and Federal Agencies, new research, and Legislative issues.
- Continue to install flow meters on irrigation wells that are required by GWMP and obtain grants for cost share for water flow meters,
- Continue with the process of updating the certification of irrigated acres and encourage producer participation in online reporting for entering their data to improve efficiency and quality of data.
- Continue to monitor clean up efforts by the COE at the Former Ordnance Plant at Mead, Nebraska and any other clean up efforts. To work with the COE to establish spacing requirements for future high capacity irrigation, industrial, and/or municipal wells that are requesting to be installed near known contaminant plumes from the Former Ordnance Plant

near Mead, so these wells will not interfere with the COE's clean up efforts.

- Review livestock permits from NDEE.
- Investigate irrigation runoff and groundwater management area complaints as needed.
- Continue to provide equipment and data for localized weather throughout the District.
- Communicate with well drillers and pump installers on water concerns within the District.
- Improve irrigation and nitrogen efficiency by working with UNL Extension and other agencies

In response to the Erosion and Sediment Control Act (LB 474), passed in 1986, the Natural Resources Commission developed the Nebraska Soil and Water Conservation Strategy. This strategy outlines a course of action for efficiently conserving and managing the state's natural resources. A number of significant rain events in 2024 caused an increase in erosion/sedimentation complaints. No violations were filed.

The Lower Platte North NRD administers the Erosion and Sediment Act and has patterned its local program after the state strategy. The district administers state and local cost-share funds through Soil and Water Conservation Programs (SWCP) to offer incentives to producers for installation of land treatment practices. LPNNRD staff also worked with NRCS staff to utilize Farm Bill Programs to repair erosion problems.

Soil and Water Conservation Programs (SWCP)

Under Soil and Water Conservation Programs (SWCP), the LPNNRD allocated \$83,029.99 of state funds (Dept. Natural Resources) for land treatment practices during fiscal year 2024 in cooperation with 12 different landowner projects. In addition, two new Buffer Strip contracts were administered with \$9,587.23 in state funds.

For fiscal year 2025, \$83,058.36 of state funds (from the Nebraska Department of Natural Resources) and \$25,000 of local funds will be allocated for soil and water conservation practices through the LPNNRD Lands for Conservation Program (LFC). The LFC program offers landowners a per/acre payment to set aside production ground to allow for summer construction. This lessens the burden on the fall construction season allowing more conservation work to be implemented.

Wahoo Creek Water Quality Land Treatment Efforts

Wahoo Creek in Saunders County, Nebraska, has resided on the Environmental Protection Agency's (EPA) list of impaired water bodies for decades. To address the impaired status of Wahoo Creek, LPNNRD in partnership with the U.S. Environmental Protection Agency (EPA) and the Nebraska Department of Environment and Energy (NDEE) developed the Wahoo Creek Watershed Water Quality Management Plan in 2013. These plans are updated every 5 years and the District is in the process of completing another update. This plan identifies goals to reduce excess phosphorus, nitrogen, soil sediments, and *E. coli* bacteria in the Wahoo Creek Watershed. This plan meets the EPA's requirement of containing "Nine Elements" of an effective watershed management plan. The plan identifies water quality goals to protect and enhance the quality of all water resources within the Wahoo Creek. Sub-watersheds within the Wahoo Creek Watershed were prioritized for future water quality projects. LPNNRD in partnership with EPA, NDEE, and the Natural Resource Conservation Service (NRCS) identified four Wahoo Creek sub-watersheds as National Water Quality Initiative (NWQI) areas to receive special EQIP and EPA 319 funding for landowners to complete conservation practices to help achieve the numerous identified water quality goals.

The NRD and the local NRCS field office have moved forward with creating a partnership position for a Watershed liaison/Source Water Specialist to help implement BMPs that are inline with the shared agency's water quality mission.

Shell Creek Watershed Water Quality Land Treatment Efforts

Shell Creek is a major tributary of the Lower Platte River. Land use in the approximately 305,000 acre watershed is predominantly row crop agriculture. Portions of Shell Creek are on the Environmental Protection Agency's (EPA) impaired waters list. The most notable impairments include *E. coli* (bacteria) and Atrazine.

The Shell Creek Watershed Improvement Group (SCWIG) is a volunteer committee that formed in 1999 to lead local efforts to identify problems and to promote implementation of conservation practices to improve water quality in Shell Creek. This evolved into an advisory group to LPNNRD continuing to provide local leadership toward reducing erosion and water quality impairments in the watershed. A community-based planning approach was used to gather input from the citizens of the watershed for development of the Shell Creek Watershed Environmental Enhancement Plan that emphasizes combinations of practices that improve water quality.

Over the past 25 years, the Shell Creek Watershed has benefited with over \$2 million in EPA Section 319 funds combined with approximately \$4 million in partnering federal and local funds for assisting landowners in establishing Best Management Practices on their farms. These efforts resulted in Shell Creek becoming the first agricultural watershed in the nation to have a segment delisted for atrazine contamination in FY 2018.

In FY 2023, the NRD secured \$779,000 in grants from EPA/NDEE Section 319 and the Nebraska Environmental Trust (NET). These grant dollars matched with local funds are expected to yield over \$1.4 million of water quality work in the watershed over the next three years.

Erosion and Sediment Complaints

The LPNNRD responds to occasional erosion and sediment complaints. In most cases, these complaints are resolved before going through the formal complaint process. Many cases are drainage issues that are resolved between the District and landowners. During FY2022 NRD staff was subpoenaed on a case between two neighbors that could not be resolved amicably. The case has yet to be resolved as both parties continue to work together. The area received multiple, intense, rain events during the spring/summer of 2024. The NRD was contacted by multiple landowners with complaints. No violations were noted.

Soil Conservation Long Range Objectives

- Use technical assistance from the NRCS in the planning, design, construction, and maintenance of conservation measures applied to the land.
- Use Federal, state, and local funds to promote and implement land and water treatment projects in priority areas of Wahoo Creek Watershed to reduce erosion and improve water quality. The NRD plans to coordinate with local NRCS through the National Water Quality Initiative (NWQI), NDEE's 319 program, and local funding efforts to achieve the goal.
- Continue encouraging the implementation of summer conservation construction utilizing federal funding within the Wahoo Creek Watershed through the Lands for Conservation program
- Administer \$83,058.36 of State NSWCP funds and \$25,000 of local cost-share and grant funds to landowners for the construction of terraces, tile outlets, waterways, diversions, small dams, planting of permanent vegetation, and maintaining water quality.
- Continue to promote conservation tillage measures, pasture & range management, sustainable agriculture, and the Conservation Reserve Program (CRP), through news releases and the district's newsletter.
- Recognize the Outstanding Soil and Water Conservationists.
- Continue to assist landowners in resolving soil erosion and sediment complaints.
- Provide financial support and staff time to conservation education activities.
- Continue to work closely with locally-led conservation groups to promote soil and water conservation throughout the district.
- Partner with the Shell Creek Watershed Improvement Group (SCWIG), EPA/NDEE, NET, and

NRCS toward continuing implementation of Best Management Practices in the Shell Creek Environmental Enhancement Plan Implementation.

- Work with NRCS, NDEE, NET, Saunders County, and the Wahoo Creek locally led Steering Committee in pursuing additional federal and state funds to assist with land treatment practices as defined in water quality objectives in the Wahoo Creek Watershed Water Quality Plan.
- Assist with the formation of local landowner advisory steering committees in the Wahoo and Bone/Skull Creek Watersheds for planning soil & water conservation practices and flood reduction.
- Please combine current year objectives with the projected five year objectives.
- FY 2024-2028 Soil Conservation Long Range Objectives (Sean DONE, Ryan DONE)
- FY 2025-2029 Soil Conservation Long Range Objectives (Sean, Ryan) DONE
- Maintain existing land treatment practices and programs.
- Continue to work with all counties in the district to reduce roadside erosion.
- Administer NET and NDEE/EPA 319 Grant Programs to improve water quality throughout Wahoo Creek, Shell Creek, and the Lower Platte River Corridor Alliance priority watersheds.
- Look for new and innovative soil and water conservation methods.
- Partner with NRCS, UNL Extension, and landowners to improve all aspects of their water and soil quality.
- Continue to support the Land and Range Judging Contests.
- Continue targeting SWCP land treatment program funds for priority watersheds in the District.
- Use existing and new technology and GIS software programs for implementing and promoting soil conservation practices.
- Promote the use of and make available soil surveys and land use information.
- Continue to support Locally Led Landowner Groups to promote and implement soil and water conservation practices.

Projects have been completed in priority areas in the LPNNRD to help reduce flooding and provide grade stabilization. Projects have been completed in Bellwood, Clear Creek, Cottonwood Creek, Sand and Duck Creek, Swedeburg, and Rawhide Creek watersheds. Current high priority flood reduction areas include Bone Creek, Shell Creek, Skull Creek, and Wahoo Creek watersheds. On federal and state projects where the LPNNRD acts as project sponsor, the district obtains land rights and is also responsible for operation and maintenance activities on these projects after they are built.

The LPNNRD offers local assistance for the construction of small dams that can help counties and/or landowners protect county roads, control erosion, and provide water for livestock and wildlife.

Wahoo Creek Flood Reduction Efforts

The NRD is currently in the process of building nine flood reduction dams in Wahoo Creek watershed, estimated to cost \$19.7 million in 2020. Federal (WFPO) and state funds (JEDI) are expected to fund the entire project including planning, design, permitting, land rights, construction, and construction oversight. All necessary land rights, and permits have been acquired for first three sites. Construction will begin in Fall 2025 on sites: 26a, 26b, and 27. Construction is expected to begin in FY2026 on the remaining seven sites: 55, 66, 77, 84, 86, and 86. Completion of all nine dam sites is anticipated by the end of FY28.

Sand Creek Environmental Restoration Project (Lake Wanahoo)

With the invaluable assistance of numerous local, state, and federal partners, 2011 witnessed the completion of construction on Lake Wanahoo's earth embankment. The breakwater feature and the fisheries component were completed a few years prior to the embankment. Recreation components were completed for Lake Wanahoo in FY2011. Construction of seven upstream flood reduction/environmental enhancement structures were completed in FY12-14. In FY19, LPNNRD assumed Lake Wanahoo's recreation management responsibilities from the Nebraska Game and Parks Commission.

Operation and Maintenance

District staff complete annual inspections on 45 watershed structures and special projects in the District.. These inspections help detect problems before they become serious. Annually, noxious weeds and volunteer trees are sprayed, debris removed, fences repaired, on dams & Clear Creek Levee, and the Rawhide Ditch System, and risers unplugged on dams. The District is currently working with NRCS and a Engineer Consultant in the rehabilitation of dam Cottonwood 21-A.

Army Corps of Engineers 205 and GI Flood Studies

Over the past many years, the District has partnered with local entities and the US Army Corps of Engineers to study flood protection alternatives for their areas. In 2004, LPNNRD partnered with Fremont, Inglewood, and Dodge County to look at a potential levee project to remove areas from the Platte River 100-year ice induced floodplain. In FY 2017, the Fremont study evolved into a General Investigation (GI) Study which determined that there is not a feasible structural solution (levee) to the City of Fremont's flood threat from the Platte River. In 2018 the GI Study evolved back to a 205 Non-Structural Study for the City of Fremont and Dodge County. The Non-Structural effort will continue in FY 2025.

In 2005, LPNNRD entered into an interlocal agreement with the City of Schuyler to evaluate levee protection options to protect the city from flooding from the Platte River and Shell Creek. In FY

2012, the Schuyler 205 Study was completed and entered into the project design phase. In FY 2014 the design phase was completed and LPNNRD assisted Schuyler with obtaining needed land rights for the Shell Creek Levee portion of the project which began construction activities in the spring of 2014 and most construction activities were completed in the fall of 2015. LPNNRD continued to assist Schuyler in FY 2018 with closing out the project with the Army Corps of Engineers. Schuyler continues to do a great job in maintaining the levee.

Flood Control and Damage Reduction Long Range Objectives

- Continue with accelerated land treatment efforts and flood reduction opportunities in identified priority watersheds, Shell Creek, Skull & Bone Creek and Wahoo Creek in the District.
- Budget staff time and funds to complete annual and/or biennial inspections and maintenance such as spray noxious weeds & cut and treat trees on 45 dams, Clear Creek Levee, and Rawhide ditch and other project sites.
- Develop a long term plan for Operation and Maintenance costs associated with large structures.
- Continue to be an active partner on the Joint Water Management Advisory Board to explore flood reduction and drainage solutions in portions of Dodge County City of Fremont and complete the Rawhide Watershed WFPO Planning efforts.
- Partner with the City of Fremont, Dodge County, and Papio-Missouri River NRD to fund operation and maintain established USGS cameras at 5 locations and 2 stage-only water gauges along the Lower Platte River.
- Partner with Dodge County and City of Fremont on FEMA Drainage Improvement Projects.
- Continue to educate Cities, Counties and public on watershed management and flood reduction and to accept and implement Floodplain Management Authorities.
- Cooperate with landowners and counties in evaluating small dam sites for cost-share throughout the district.
- Continue to partner with the Army Corps of Engineers, FEMA, City of Fremont, Englewood, and Dodge County on exploring non-structural opportunities for feasible flood control solutions and the Hazard Mitigation Plan Flood Resiliency study.
- Support the City of Schuyler for exploring non-structural opportunities for feasible flood control solutions from the Platte River through the LPNNRD District-wide Hazard Mitigation Plan.
- Work with Communities, Counties, and other entities on projects identified in our District-wide All Hazard Mitigation Plan.
- Commit funds and staff time to complete flood water control/reduction plan and complete easement acquisition for all ten Wahoo Creek Watershed flood reduction dam sites.
- Begin construction on Wahoo Creek Dam Sites 26a, 26b, and 27, complete engineering designs on Wahoo Creek Dam Sites 55, 66, 77, 82, 84, 85, 86 and have them completed by 2028.
- Continue to update LPNNRD's district-wide All Hazard Mitigation Plan and assist District Communities in evaluating future flood protection for their communities
- Partner with NRCS and hired HDR through the Dam Rehabilitation program to rehabilitate dam Cottonwood 21-A.

The district administers several programs designed to enhance the region's forest, range, and wildlife land, including the Tree Planting Program, Wildlife Habitat Programs with Nebraska Game & Parks and Pheasants Forever, SWCP Program, and Mitigation Program.

Tree Program

One of the most visible and popular programs offered by the LPNNRD is the district's tree planting program. As a direct result of this program, begun in 1973, an estimated 890,100 trees and shrubs have been planted in the district. Trees and shrubs may be obtained from the NRD for windbreaks, shelterbelts, wildlife habitat, woodlots, and Christmas tree plantings. Besides providing a planting service, the NRD also designs tree planting plans and offers technical advice on ground preparation for tree sites.

During the spring of 2024, 16,875 trees and shrubs were distributed to District residents. Of this total, 9,886 were planted by the NRD field crew at 10 sites.

Wildlife Programs

Lower Platte North continues to encourage landowners to set aside land for wildlife habitat by using Federal Programs and Programs provided by Nebraska Game & Parks and Pheasant Forever.

Community Forestry Program

In FY 2023-2024 LPNNRD donated 900 tree seedlings for the District's annual Spring Conservation Sensation; the Fremont EcoFair and Newman Grove School. The District budgets \$2,000 for Community tree development projects. The District did not assist a Community during the fiscal year.

Forestry, Range and Wildlife Habitat Long Range Objectives

- Plant and distribute conservation trees and shrubs through the district's Tree Planting Program with hopes of increasing the program each year..
- Continue to include tree planting as an eligible cost-share practice under the SWCP program.
- Offer trees and give staff presentations to elementary students across the district.
- Continue to promote Wildlife Habitat programs in cooperation with the Nebraska Game and Parks Commission and other partnering entities as opportunities arise.
- Assist cooperators with signing up for Wildlife Programs.
- Provide information and education on tree planting, woodland management, grassland management, and proper wildlife habitat enhancement through media, tours, and schools.
- Provide cost-sharing for the conversion of cropland to grassland through the SWCP program.
- Cooperate with Pheasant Forever Chapters to enhance wildlife habitat and establish windbreaks.

Czechland Lake Recreation Area

Czechland Lake Recreation Area is a multipurpose project located one mile north of Prague, Nebraska on Highway 79. Flood control, recreation, and education are the main benefits of the project. Located at a convenient distance from Omaha, Lincoln, Fremont, and Wahoo, the 85 surface acre lake is situated on 265 acres of public access land operated and maintained by the LPNNRD.

State park permits and fees are not required for entrance to the area. Czechland Lake has 11 electrical camper pads at an \$18/night fee for the use of a camping pad. There are also three non-electrical pads. A Nebraska Fishing License is required for anglers. The lake fishery is managed by the Nebraska Game and Parks Commission, which stocks and monitors fish populations.

Originally built as one of twelve floodwater structures in the Cottonwood Creek Watershed, Czechland Lake has developed into one of the area's most popular recreation spots. The reservoir and recreation area development was built at a total cost of \$1.8 million. Funding for the project was shared by the Nebraska Natural Resources Commission, Saunders County, USDA Natural Resources Conservation Service, and LPNNRD. Grant monies from the U.S. Environmental Protection Agency have been used to reduce nonpoint source pollution entering the lake and to provide educational resources.

The Czechland recreation area is extensively used each year generating between \$8,500 - \$10,000 in camping revenue. Mowing, trash removal, repair, and upkeep of park equipment, and thistle control kept LPNNRD park staff very busy during the spring and summer.

Homestead Lake (Skull Creek Site #55)

Construction was completed on Homestead Lake in 2001. The dam offers flood control for nearby communities, and has been developed for public recreation. Recreation facilities include a shelter, restroom, picnic areas, a boat ramp, and hunting areas. FY 2024 proved to be another very popular year for recreationists as the area was extensively used.

Lake Wanhoo

Work was completed on recreation facilities at Lake Wanhoo one mile north of Wahoo in FY 2012. Recreation facilities at the 1,600 acre site straddle the 662-acre lake, with camping and boating access on the west side and a day use area on the east. A rocky hiking/biking trail winds throughout the park, linking the east and west side recreation areas over a breakwater levee one mile north of the dam. Mowed trails north of the levee provide access to undeveloped areas set aside for wildlife habitat.

The camping area contains 75 camper pads, 54 tent camping sites, and 6 primitive cabins. All camper pads are equipped with electrical hookups and are rock surfaced. All sites have fire rings and picnic tables.

The recreation area offers access to two large boat ramps wide enough to accommodate four boats at a time. Boating on the entire lake is no-wake only.

The day use area on the east side of the lake has two large picnic shelters and two smaller ones, all offering scenic views of the lake. In FY 2017 a dump station for RV's was constructed on the east day use area as well as a disc golf course/nature educational trail.

Both the camping and day use areas provide excellent fishing access, with a total of seven fishing jetties. One jetty on each side has an attached handicapped pier. The lake was stocked with largemouth bass, bluegill, blue catfish, crappie, northern pike, and walleye beginning in 2008. Limited hunting opportunities will continue to be available at Lake Wanahoo through the Game & Parks Commission PATH Program, where adults can schedule a time to mentor a youth hunter at designated hunting sites north of the recreation area. An operation and maintenance plan was developed with the assistance of the Nebraska Game and Parks Commission and Pheasants Forever in FY 2014 which identified activities that were implemented in 2015 .

In FY 2019, LPNNRD assumed the responsibilities of administering Lake Wanahoo as a public recreation area from the Nebraska Games & Park Commission.

In FY 2020, the Clint Johannes Education Building was completed on the day use portion of the recreation area. This facility provides a protected outdoor education space for LPNNRD education activities, as well as a public rental facility for the public. Also in FY 2020, six new primitive cabins were installed in the primitive camping portion of the park to give visitors a unique alternative to tent camping.

Recreation Long Range Objectives

- Improve up to 20 additional sites with 50 amp service
- Continue to repair and replace damaged portions of the park from the May, 2024 storm event.
- FEMA has approved disaster relief funding for Saunders County, continuing work with FEMA to repair damages throughout Lake Wanahoo recreation Area.
- Continue to budget funds for maintenance, including grass mowing, tree trimming, grading roads, outhouse cleaning, trash removal, painting, and noxious weed control, at Lake Wanahoo, Czechland, and Homestead Lake Recreation Areas.
- Continue to improve our existing sites and evaluate the development of new outdoor public recreational opportunities as they arise.
- Design and install a 10-14 slip marina on the west side of the lake. Marina will enable campers with boats the opportunity to keep their boats on the water during their stay. Install a fish cleaning station also.
- Continue to assist NE Game & Parks and Pheasant Forever in developing new areas offering public access.

It is the general policy of the LPNNRD not to provide financial assistance for drainage improvement and channel rectification unless a project has public benefit and is sponsored by a County, City, Drainage District, or a group of landowners through an established Improvement Project Area. Under this policy, the district has cooperated on several projects that have provided public benefit.

Drainage Improvement and Channel Rectification Long Range Objectives

- Worked with Colfax County to complete new Shell Creek South Channel Improvement/Benching Projects.
- Partnered with Dodge County and Fremont to support drainage improvements east of Fremont through FEMA.
- Partnered with the North Bend Drainage District, Dodge County, and City of Fremont to support the drainage improvement project for the North Bend drainage ditch through FEMA.
- Continue to oversee the Rawhide Creek West Branch Project to ensure that landowners properly control vegetation.
- Continue providing assistance to Platte Center with stabilizing segments of Elm Creek.
- Evaluate potential technical and funding assistance to counties, cities, and other entities in the district that sponsor sound drainage and channel improvement projects.

Over 30 years ago, vast changes occurred in Nebraska's solid waste regulations. Landfills that weren't properly designed, operated, or sited were required to shut down, as were unauthorized dumps. In order for a landfill to operate, it must be approved by the State and receive a permit. If a permit is not issued, the landfill cannot legally operate. Currently, the only permitted landfill in the Lower Platte North NRD is a facility near David City.

Waste Disposal & Pollution Long Range Objectives

- Promote recycling efforts in the district through education programs, newsletters, and news releases.
- Participate in education efforts to promote the reduction of pollution to our air, water, and soil resources.
- Cooperate and be supportive of other group and agency pollution control efforts, education, and/or regulation.
- Assist and encourage all District communities in establishing collection locations for recyclable wastes.
- Assist District cities and counties in establishing pickup days for hazardous household and farmstead wastes as opportunities arise.
- Promote waste reduction efforts in the district through education and incentives.

A major responsibility of the LPNNRD is to keep the public aware of the district's various projects and programs, and to inform and educate children and adults about the wise use and management of our natural resources.

During fiscal year 2024, the Lower Platte North NRD conducted many activities to help residents learn the importance of our soil and water resources and to stay informed of issues and concerns regarding natural resources. Some of the highlights included the following.

Publications and Marketing

The NRD distributes two newsletters each fiscal year. The Winter issue of "The Viaduct" newsletter includes the Annual Report. In FY 2024, more than 23,000 copies of each newsletter were distributed in eight newspapers, emailed and mailed. Previous newsletters are available on the website at www.lpnrd.org/downloads.

Various brochures describing LPNNRD programs and services were updated as needed. These brochures are displayed in the office and distributed during NRD sponsored events and exhibit booths. Press releases are distributed to district newspapers, email lists and radio stations.

Numerous ads highlighting LPNNRD programs and upcoming deadlines air on KTIC Radio monthly, and digital ads are displayed on Wahoo newspaper's website monthly.

The NRD continues to maintain information and education outreach for the district through the use of social media outlets on Facebook, X, and YouTube. These outlets are maintained weekly and provide information along with photos and videos about the district's ongoing activities and events.

The NRD's website at www.lpnrd.org contains information on the district's projects and programs, along with staff information, board of directors information, as well as committee and board meeting minutes, and district publications. Online applications and registration forms for various projects and programs are also available. Additionally, online payment capabilities continue to allow customers to pay for trees, rural water bills, and Lake Wahoo permits.

Promotional videos have been created for the Water Department, Operations & Maintenance department, Projects department, Information and Education department, and the three LPNNRD recreation areas (Czechland Lake, Homestead Lake, and Lake Wahoo). These 30-second and 60-second videos are shown as educational purposes for presentations, on the LPNNRD website, commercials on area television stations, and featured on social media platforms. Past directors, current directors, and current staff have been featured in the videos. The commercials air on News Channel Nebraska and Nebraska Public Media throughout the year.

Education Programs

During FY 2024, the district continued with two year-long programs. The St. Wenceslaus Pre-kindergarten students learn about wildlife, trees, birds, soil and water conservation through books, pictures, stories, and hands-on activities. The students visited Lake Wahoo at the end of the year for a field trip filled with nature hikes, nature crafts, and disc golf. The district teamed up with Wahoo Public middle school students for the Survival Club program, making a total of three school years of the program. LPNNRD staff and other outdoor enthusiasts met monthly with students during the school year to learn about hiking, knot tying, 2-legged predators, 4-legged predators, fishing, first aid, foraging for wild foods, fire building and other outdoor survival skills.

The district continues to participate in the Career Exploration Opportunities (CEO) Program with Wahoo Public Schools. During the fall semester of 2023, LPNNRD staff hosted one high school senior and he rotated between each department to learn about the LPNNRD responsibilities.

The Clint Johannes Education Building is utilized for events of all kinds. Local teachers and other organizations will use it for their students and staff as a meeting space with a great view and amenities. The LPNNRD utilizes the building for educational events each month. The event, Coffee Lakeside, has impacted close to 100 people, who meet in the building once a month. Topics included wildflowers, fireflies, animal adaptations, fall activities, phenology, nature based play, lake ecosystems, water flower identification, fungi, and more. All other NRD related events are also hosted in the building or another location at Lake Wanahoo.

Additional events throughout the year included Wildflowers and Wine, Trivia and Game Night, Back to School Night, Community Fishing Event, and Nocturnal Nights. These events drew in participants of all ages with some returning and some new individuals. Staff also participated in the county-wide, Kid's Summer Institute, that ran all of June. Students participated in dip netting for macroinvertebrates; birding; disc golf; nature journaling; and wild about wildflowers.

The Lower Platte North NRD and Lower Platte South NRD rotate in hosting the East Central Land Judging Contest. Land Judging is a competition for high students that challenges them to gain a better understanding of soil structure and land evaluation. The Lower Platte North NRD works with local NRCS employees to choose a site location and help with site preparation. The Lower Platte North NRD staff and NRCS staff will assist in the preparation, contest monitoring, and scoring efforts during the contest.

The annual LPNNRD Spring Conservation Sensation was held on May 1st at Lake Wanahoo. Fifth and sixth grade students from Saunders, Butler, and Dodge Counties participated in various activities. Hands-on activities were presented by LPNNRD staff, additional personnel from various agencies and organizations, and volunteers to teach students about the environment, natural resources, tree planting, lake ecosystems, wildlife education and more. Nearly 300 students attended the event.

The third annual LPNNRD Natural Resources Camp was held at Lake Wanahoo. For one week, attendees learned how to fish, how to go birding, about the amphibians and reptiles of Nebraska, and insects, both macroinvertebrates they found in the lake and the land dwelling butterflies and moths.

Test Your Well Event is a program that partners with area FFA chapters to host public events, providing nitrate testing of water samples from private wells at no cost to the attendees. The district held 2 events in FY 2024.

District staff provided various presentations and activities during natural resources festivals, field days, out-of-school time programs, school classrooms, online activities on the LPNNRD website, and adult education events. As a result of the district's educational outreach efforts, there was interaction with approximately 3,504 youth and 326 adults in FY 2024.

Information & Education Long Range Objectives

- Publish the district newsletter "Viaduct" biannually in an electronic format and as a printed newspaper insert in 8 area newspapers.

- Send timely news releases to the local media on various LPNNRD programs, projects, and activities.
- Disperse pamphlets and other publications about LPNNRD programs.
- Update the district's website frequently.
- Provide a display at county fairs or agriculture events (up to five major counties) within the district.
- Continue information and education outreach for the district through the use of tools such as local radio stations, local TV stations, and social media outlets.
- Provide district elementary students with free trees, as requested, in the spring.
- Provide LPNNRD staff as requested to speak to community organizations and schools on NRD activities and environmental topics.
- Provide various education programs, events, and activities to area schools and out-of-school time programs.
- Host the East Central Region Land Judging Contest in the fall of 2024.
- Host the annual Spring Conservation Sensation in May 2025.
- Develop new programs and promotional projects to aid in outreach efforts of the district.
- Provide assistance and publications for the students involved in the Shell Creek Watershed Monitoring Program.
- Continue to provide a scholarship for graduating seniors in the Shell Creek Watershed Monitoring Program who plan to pursue higher education relating to science or natural resources.
- Search for new and effective ways to inform and educate the public on the NRD purpose and programs.
- Participate with the Information & Education (I&E) Staff Group to coordinate statewide I&E activities and produce statewide products.
- Increase participation in activities sponsored by other agencies relating to the NRD's responsibilities.
- Seek to have conservation/environmental education as a part of the school curriculum.
- Support environmental education activities and events throughout the district, and neighboring NRDs.
- Assist in the development of an outdoor classroom for a district school.
- Partner with district schools to host Test Your Well Events annually.

The staff of the Lower Platte North NRD includes 21 full-time and 11 part-time/seasonal employees. The NRD administers a full-time field technician, four field office assistants in Natural Resource Conservation Service county offices, and a Recreation Facilitator for Czechland & Homestead Lake Recreation Areas.

Included in the part-time positions, the district employs seasonal conservation technicians to assist in the layout of land treatment structures. There are seasonal summer employees hired to help with Lake Wanahoo, water sampling, tree planting, and maintenance of LPNNRD projects. Personnel positions and assigned responsibilities may increase in the future as increased project and program responsibilities increase.

Current staff as of September 1, 2024:

Sydney Abbott, Education Coordinator

Daryl Andersen, Water Resources Manager

Kaitlyn Barga, Wanahoo Recreation Supervisor/Water Resources Specialist

Brandon Beethe, Grants/GIS Coordinator

Jill Breunig, Bookkeeping Department Head/Administrative Assistant

Ryan Chapman, Assistant General Manager

Sean Elliott, Projects/Rural Water Manager

Carson Euse, Recreation Facilitator Czechland & Homestead Lakes

Eric Gottschalk, General Manager

Bob Heimann, Operations & Maintenance Manager

David Moore, Operations & Maintenance Technician

Russell Oaklund, Lead Water Resources Specialist

Karen Rezac, Department/Administrative Assistant

Lacey Sabatka, Information Coordinator

Jon Speichinger, Operations & Maintenance Technician

Jacob Stover, Water Resources Specialist

Staff Support for NRCS Offices:

Adam Brockman, Conservation Technician

Jessica Marty, NRD/NRCS Field Office Assistant (Dodge County)

Marla Milliken, NRD/NRCS Field Office Assistant (Saunders County)

Kristin Miller, NRD/NRCS Field Office Assistant (Colfax County)

Kimberly Piitz, NRD/NRCS Field Office Assistant (Butler County)

Funding required for the LPNNRD projects and programs for Fiscal Year 2025 requires a general operating budget of \$14,085,234 of which \$3,480,715 is required from the district's local tax levy. The FY 2025 tax levy of .025767 cents per \$100 actual valuation is required from District property. Projected expenses and income for FY 2022-2030 are shown in Appendix F.

A tax levy of .025767 means that an owner of a \$150,000 home will pay \$42.98 in NRD taxes in FY 2024. An owner of farm land valued at \$7,000 per acre will pay \$2.00 an acre/year to the NRD in FY 2025. The LPNNRD levy represents about two percent of the total property tax collected.

Although it is expected that the amount of revenue from all sources will fluctuate during the next few years, it is anticipated that the LPNNRD will operate at a mill levy between \$0.025 and \$0.055 per \$100 actual valuation as the District continues to assist with flood reduction project priorities and to address our responsibilities with groundwater water quality and quantity management.