

Operations Committee Meeting  
Thursday, September 2, 2021 8:30 AM  
Lower Platte North NRD Office  
P.O. Box 126  
Wahoo, NE 68066

1. UNFINISHED BUSINESS

We have no unfinished business to consider.

2. WILD NE AND OTHER PROGRAMS

In July, it was mentioned that Staff and Game & Parks would like to pursue a NAWCA Grant through Ducks Unlimited for the renovation/development of the wetland on the Wanahoo property just west of the dirt burrow site. DU will be applying for the grant to the Fish & Wildlife Service in February with the rankings come out in May. The NAWCA grant would cover 50%, NRD 40% and potentially G & P 10%. Funds could be available in late 2022. If the May ranking is favorable, we can also apply for a NET grant to assist in this project. A letter of support maybe requested of the District in January.

3. OPERATION & MAINTENANCE & OTHER ITEMS

The O & M staff has started the mowing circuit. We have just finished the Rawhide Ditch system. We will move to Ames and Cotterell Levees.

We continue to go over watershed dams after rainfall events and annual inspections. We have sprayed Phragmites along Clear Creek Levee, five dams and on Wanahoo property.

A. Wanahoo Stilling Basin - (FEMA)

We are currently waiting for Valley Corp to provide us with a Water Management/Dewatering Plan for the basin project. Their sub-contractor Griffin Dewatering did a pump test on one relief well on August 13. Their report (attached) recommends a system of 6 deep wells capable of pumping significantly more volumes of water. A well profile from Griffin is also attached. We do not know how they plan to proceed.

We may not be able to proceed immediately until FEMA give us direction. We need to know if this plan is part of the original contract or if this is a change of scope.

Attached find FYRA invoice 022-064 in the amount of \$12,713.36 for services through July 23, 2021 and invoice 022-066 in the amount of \$2,501.25 for services through August 13, 2021.

B. Wahoo Creek Watershed Water Quality Plan Phase II (Czechland Lake)

Saunders County Hwy Dept. has completed the Railroad Ave/Czechland shoreline project. (see attached pictures) Staff is asking for invoices from Saunders County with the hope of approving this at the September Board meeting. Mountford will forward the needed invoices and information to NEDEE 319 for reimbursement. The Projects Committee will handle this item.

C. No-Till Grass Drill Revenue

Schuyler Coop rented the grass drill to 9 cooperators for \$1,155.50 of revenue of

which \$577.75 was sent to the District. This revenue period is for the first half of the year.

D. Wanahoo Dirt Sales

Wanahoo Dirt Sales via M.E. Collins

To date in 2021, we have received \$14,062.85. The total since June 2012 is \$281,140.85.

The agreement shall renew automatically for an additional two-year term unless written notice is given by either party on or before July 1st of the final year of the term. If renewal occurs then this agreement shall terminate automatically as of December 31, 2021.

E. Czechland Camping Revenue

For 2021 the camping revenue at Czechland Lake is \$11,082.00.

4. ROCK AND JETTY

We have received a request for payment from Don Medinger for Platte River bank stabilization in Butler County. The invoice amount is \$8,975.00. The District can reimburse at 50% or up to \$4,000.00. The District can pick up the rest at the end of the fiscal year if funds still exist.

5. LAKE WANAHOO

A. Lake Wanahoo Permit Sales

For the month of August, the District received \$2,700.00 in annual park permit revenue. Year to date, as of 8/17, annual permit and day pass revenue total equals \$93,411.84. The year by year breakdown for annual permits sold during the month of August is listed below. We are currently having some issues with our accounting software, but we'll have a more accurate total by the September 13th Board Meeting.

B. Month	C. Monthly Total	D. YTD Total
E. August 2021	F. 2,700.00	G. 82,282.50
H. August 2020	I. 5,035.00	J. 92,507.50
K. August 2019	L. 4,302.50	M. 79,612.50

N. Lake Wanahoo Camping Revenue

For the month of August as of 8/17, the District received \$7,093.94 in camping revenue at Lake Wanahoo. For the calendar year, as of 8/17, camping revenue totals \$87,304.76. A more accurate update will be provided by the September 13th Board Meeting.

O. Clint Johannes Education Building

During the month of August, the building was rented 16 times. This number includes 2 NRD-involved meetings. Revenue for month of \$1,120

6. INFORMATION AND EDUCATION

A. Information

1. Radio & eAds

The August KTIC Radio ad and Wahoo Newspaper e-Ad are attached. These ads featured the upcoming deadlines for variances - Restricted Development Areas: August 15, Hydrologically Connected Ares: September 15. Early September, the ads

will switch to cost-share assistance available to upgrade septic systems with open discharge in Shell Creek and Wahoo Creek Watersheds.

2. Analytics

**LPNNRD Website:** We continue to see traffic directed to our website from Game and Parks website, NARDs website and visitnebraska.com. Our top pages continue to remain nearly the same.

3. LPNNRD Website	4. # of Users	5. Top Pages/views	6. Viewing Device
7. <b>June 2021</b>	8. 1,601	9. Lake Wanhoo 1,305 Home 877 Czechland Lake 346 Outdoor Recreation 208 Downloads 147	10. Mobile 49.66% Desktop 47.66% Tablet 2.69%
11. <b>July 2021</b>	12. 1,623	13. Home 1,516 Lake Wanhoo 1,038 Czechland Lake 275 Outdoor Recreation 179 Downloads 153	14. Mobile 49.17% Desktop 47.87% Tablet 2.96%
15. <b>August 2021</b>	16. 1,368	17. Lake Wanhoo 970 Home 737 Czechland Lake 309 Downloads 180 Outdoor Recreation 171	18. Desktop 50.99% Mobile 46.24% Tablet 2.78%

19.

**Facebook:**

Our top posts for July on Facebook included the dedication ceremony and open house of the Clint Johannes Education Building pictures and press release, pictures of Newman Grove students taking samples on Shell Creek, August's coffee Lakeside event and upcoming variance deadlines. Sabatka added pictures of the Clint Johannes Education Building because we continue to get requests of wanting to see it - there were 8,454 views which contributes to the large jump in views and reach for August.

20. Facebook	21. Total Views	22. Total Reach	23. Followers
24. <b>June 2021</b>	25. 4,858	26. 4,627	27. 1,273
28. <b>July 2021</b>	29. 3,951	30. 3,801	31. 1,278
32. <b>August 2021</b>	33. 12,418	34. 12,326	35. 1,289

36.

**Twitter:**

Our top posts for July on Twitter included the dedication ceremony and open house of the Clint Johannes Education Building, Newman Grove students testing Shell Creek, reminder of board meeting and budget hearing, and the 2021-2022 school year education flyer.

We continue to see more traffic to our Twitter page.

37. Twitter	38. Impressions	39. Engagements	40. Followers
41. <b>June 2021</b>	42. 2,450	43. 83	44. 338
45. <b>July 2021</b>	46. 2,212	47. 42	48. 342
49. <b>August 2021</b>	50. 2,742	51. 104	52. 344

53. Viaduct

The Summer issue of the Viaduct has been shipped from the printer to area newspapers. It went out in some of the area newspapers the week of 8/23 and 8/30. Due to Labor Day holiday and a two-week requirement for some newspapers, the remainder will go out the week of 9/6. It was also sent out to email subscribers on Monday, August 30.

54. Long Range Plan

Attached is the first draft of the Long Range Plan. Please review this and address any changes before September 13<sup>th</sup>. A final draft will be prepared by board meeting and board approval will be requested.

## B. Education

Education flyer for the 2021-22 school year is attached. Land Judging and Range Judging contests have been canceled for 2021.

### 1. Past Events

- August 5th: went up to Newman Grove where we got to watch the students do some shell creek water sampling.
- August 8th: Rain Barrel Day. 8 attendees learned about issues facing our watershed, why it's important to harvest rainwater, and then they all made a rainbarrel and took it home that day.
- August 11th: attended the Nebraska R3 (recruit, retain, reactivate) Summit in Lincoln.
- August 12th: Coffee, Lakeside on Bats of Nebraska. 10 attendees learned about bats: anatomy, common misconceptions, the species found in our state, and how to be bat friendly.
- August 19th: Gave a presentation to the Rotary Club about the NRD and what we are busy doing.
- August 31st: Attended the state fair and ran the crumpled watershed activity booth. Elementary to middle school aged kids stopped at the booth and learned what a watershed is and then made a model of one.
- September 1st: District Greenhand Day in Columbus for FFA students. Presenting on NRD's, nitrates, and water testing; expecting roughly 50 kids during our 4 sessions.

### 2. Future Events

- September 7th: Coffee, Lakeside talking about Lake Ecosystems (what is a fish kill and why it happens, spring and fall turnover, etc.).
- September 8th: Classroom visits at Newman Grove and Schuyler high school talking about nitrates and running through the water testing kits in preparation for test your well nights.
- September 9th: Fremont middle school outdoor day. Stations the NRD will be running include: tree planting, drone flying, lake ecosystems, and wildlife CSI. Roughly 350 kids will attend the day.
- September 10th: Region V outdoor day at Lake Wanahoo. 150-200 attendees will be at the lake taking boat rides with Live Well Go Fish, playing disc golf, and going on nature hikes.
- September 15th: Prairie Discovery Day at the Wachiska prairie in Yutan. Fourth graders from DC West Elementary will attend to learn about prairie ecosystems.
- September 20th: East Butler high school classroom visit to discuss careers in natural resources and prairie ecosystems.
- September 22nd: Test your well nights at both Newman Grove and Columbus Lakeview.
- September 27th: East Butler middle school classroom visit to discuss prairie ecosystems.

- Planning dates for St. Wenceslaus pre-k program and with Wahoo Middle School for Survival club.

## 7. RURAL WATER SYSTEMS

### A. Colon System

Meters read, bills mailed 8/31, routine monthly sampling completed.

### B. Bruno System

On August 8th the RWD was notified by Butler county landfill personnel of an apparent leak at the new 2" service connection. Gottschalk was able to get to the line and locate the cause of the leak; a gasket became dislodged at the flanged joint of the meter. The issue was temporarily resolved by closing the upstream valve for the meter. The gasket has been replaced (picture) and service has been restored.

The Bruno RWD was contacted by David City Utilities about our water purchase agreement expiring. Apparently, it expired 3/31/21. David City requests that we sign a new agreement. Attached is the original agreement and, per Jovan's advice, a Second Amendment to the original agreement.

Meters read, bills mailed 8/31, routine monthly sampling completed.

### C. Other

8/23/21

## Wanahoo Lake Spillway Riprap Replacement Wahoo, Nebraska

### Griffin Pump Test Analysis

Griffin performed a pump test on August 13, 2021 as per agreement with the Contractor. The test involved installing a submersible pump in Pressure Relief Well 36 and pumping the well at a Contractor designated 150 GPM. Wells 39-37 and 35-33 were then measured for drawdown for a total of 8 hours. Griffin has analyzed the data and presents the following generalized results:

Maximum Drawdown			Pumping Well 36	Maximum Drawdown		
Well 39	Well 38	Well 37		Well 35	Well 34	Well 33
0.55 ft	0.42 ft	0.12 ft	150 GPM	0.06 ft	0.03 ft	0.01 ft

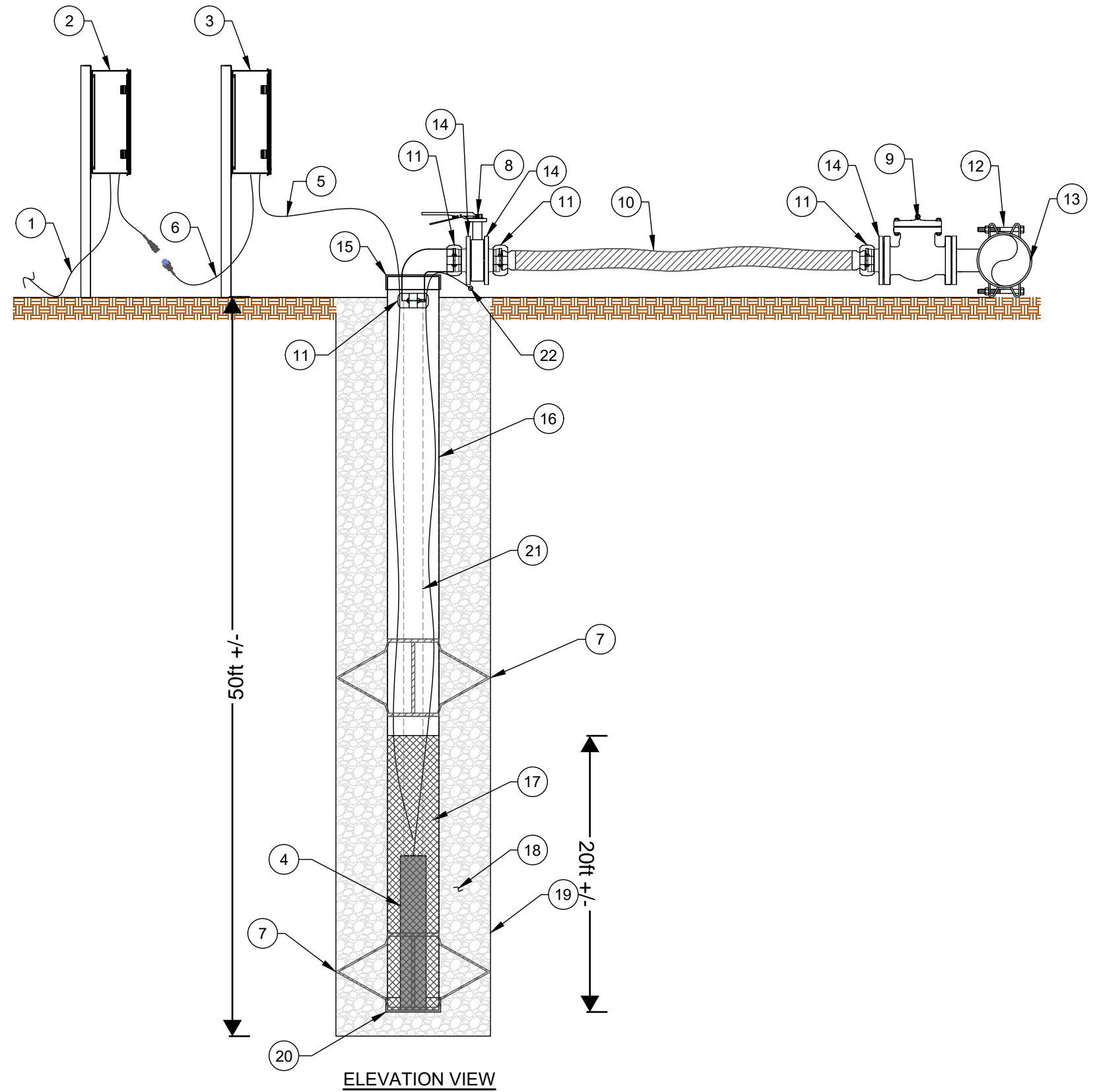
After reviewing this data and the pump test methodology, Griffin has reached the following conclusions:

- 1) The geology of the area has high hydraulic conductivity, resulting in significant dewatering flows being necessary for stable excavation.
- 2) The outlet channel likely has a significant influence on the groundwater in the area, as shown by the negligible drawdown in the wells adjacent to the channel and the inverse drawdown curve as you move away from the pumping well to the west.
- 3) With pumping rates of only 150 GPM maximum at each pressure relief well and the increasing distance of the wells from the channel, it is Griffin's opinion that pumping from the pressure relief wells will be insufficient to achieve the necessary drawdown at the spillway channel.

It has also been brought to Griffin's attention that the work performed in the channel will be limited to a seven-day window of lowered lake level that will allow the channel to be free of running water at the time of construction. Use of a wellpoint system would require installation of the points within the channel during construction, likely resulting in a delay to excavation activities.

In line with these conclusions and increased understanding of the site conditions, Griffin recommends an alternative dewatering strategy of deep wells installed in immediate proximity to the channel. The wells would be installed outside of the excavation prior to excavation commencement and would be prepared for operation once drawdown would be needed. Calculations based on the pump test data and current groundwater elevations indicate a system of 6 deep wells that are capable of pumping significantly higher volumes of water should be sufficient.

MATERIAL LIST			
BELOW LIST IS TYPICAL; MATERIAL SUBSTITUTIONS MADE AS APPROPRIATE			
NO.	QTY.	U.O.M	EQUIPMENT
1	1	EA	ELECTRICAL DISTRIBUTION CABLE (BY OTHERS)
2	1	EA	JUNCTION BOX w/ 30AMP WEATHER TIGHT TWISTLOCK CONNECTOR (BY OTHERS)
3	1	EA	PUMP CONTROL BOX
4	1	EA	SUBMERSIBLE TURBINE PUMP (7.5HP, 460V, 3 PHASE)
5	1	EA	PUMP CABLE
6	1	EA	PIGTAIL w/ 30AMP WEATAHER TIGHT TWISTLOCK PLUG- TO CONNECT CONTROL BOX TO JUNCTION BOX
7	-	EA	CENTRALIZER (AS REQUIRED)
8	1	EA	BUTTERFLY VALVE, SUPPORTED TO PREVENT EXCESS WEIGHT ON ELBOW
9	1	EA	FLANGED CHECK VALVE
10	1	LF	HOSE,
11	4	EA	COUPLING
12	1	EA	STEEL TAPPING SLEEVE
13	1	EA	DISCHARGE PIPE
14	3	EA	FLANGE X GROOVE ADAPTER
15	1	EA	WELL CAP,
16	1	EA	PVC CASING (12")
17	1	EA	WELLSCREEN (12")
18	1	EA	WELLPACK (Pea Gravel or similar)
19	1	EA	BOREHOLE (32")
20	1	EA	PVC BOTTOM CAP
21	1	EA	RISER PIPE-
22	1	EA	SAFETY CABLE FOR PUMP RETRIEVAL



**Griffin Dewatering L.L.C.**  
  
 5306 CLINTON DRIVE  
 HOUSTON, TX 77020  
 TEL: (713) 676-8000  
 FAX: (713) 676-8080  
 E MAIL: griffin@griffindewatering.com  
 WEBSITE: www.griffindewatering.com

REV.	DESCRIPTION	DATE	BY	APPVD.
This drawing is the property of Griffin Dewatering Corporation and its associated companies and is intended only for its sole or authorized use. It may contain proprietary, public or authorized third party information. Any alteration of this drawing is prohibited, without the express, written consent of an authorized representative of Griffin Dewatering Corporation.				

**TYPICAL DEWATERING WELL DETAIL**

TYPICAL DEWATERING WELLS  
w/6" AND LARGER DISCHARGE

DRAWN: DW  
 SCALE: N.T.S.  
 DATE: 09/01/2021  
 DWG: 02



**FYRA Engineering, LLC**  
12702 Westport Parkway, Suite 300  
Omaha, NE 68138  
402-502-7131

Lower Platte North NRD  
Bob Heimann  
511 Commerical Park Road  
Wahoo, NE 68066

**Invoice number:** 022-066  
**Date:** 08/23/2021

**Project:** 022-19-01 LAKE WANAHOO DAM  
SPILLING BASIN REHABILITATION

For Services Through August 13, 2021

<b>CONSTRUCTION OBSERVATION</b>			
	Hours	Rate	Billed
<b>Principal Engineer</b>			
Michael Sotak	10.25	\$225.00	\$2,306.25
<b>Student Intern</b>			
Trevor Sotak	3.00	\$65.00	\$195.00
<b>Phase subtotal</b>			<b>\$2,501.25</b>

<b>Invoice total</b>	<b>\$2,501.25</b>
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**Make all checks payable to:**  
FYRA Engineering, LLC  
12702 Westport Parkway, Suite 300  
Omaha, NE 68138



**INVOICE SUMMARY**

Description	Contracted Fee	Previously Billed	This Invoice	Total To Date	% Complete
Project Kickoff Meeting	\$8,323.00	\$8,153.70	\$0.00	\$8,153.70	97.97
Preliminary Design Report	\$14,312.00	\$16,661.75	\$0.00	\$16,661.75	116.42
Report Delivery	\$2,544.00	\$1,691.00	\$0.00	\$1,691.00	66.47
Project Management	\$9,601.00	\$8,486.75	\$0.00	\$8,486.75	88.39
Final Design	\$41,928.00	\$60,467.00	\$0.00	\$60,467.00	144.22
Permitting	\$12,064.00	\$1,860.00	\$0.00	\$1,860.00	15.42
Bidding	\$9,428.00	\$1,005.85	\$0.00	\$1,005.85	10.67
Construction Observation	\$80,664.00	\$87,112.56	\$2,501.25	\$89,613.81	111.10
Out of Scope Work	\$0.00	\$6,138.75	\$0.00	\$6,138.75	0.00
<b>Total</b>	<b>\$178,864.00</b>	<b>\$191,577.36</b>	<b>\$2,501.25</b>	<b>\$194,078.61</b>	<b>108.51</b>

**Aging Summary**

Invoice Number	Invoice Date	Outstanding	Current	Over 30	Over 60	Over 90	Over 120
022-064	07/26/2021	12,713.36	12,713.36				
022-066	08/23/2021	2,501.25	2,501.25				
	<b>Total</b>	<b>15,214.61</b>	<b>15,214.61</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>



**FYRA Engineering, LLC**  
 12702 Westport Parkway, Suite 300  
 Omaha, NE 68138  
 402-502-7131

Lower Platte North NRD  
 Bob Heimann  
 511 Commerical Park Road  
 Wahoo, NE 68066

**Invoice number:** 022-064  
**Date:** 07/26/2021

**Project:** 022-19-01 LAKE WANAHOO DAM  
 SPILLING BASIN REHABILITATION

For Services Through July 23, 2021

**PROJECT MANAGEMENT**

	Hours	Rate	Billed
<b>Admin Executive</b>			
Ann Stratton	1.25	\$80.00	\$100.00

**CONSTRUCTION OBSERVATION**

	Date rec'd	Hours	Rate	Billed
<b>Engineer Intern</b>	8/2/21			
Eric Suing	Approved by <i>BSH</i>	42.50	\$110.00	\$4,675.00
<b>Principal Engineer</b>	Date approved 8-2-21			
Michael Sotak	<i>8/3/21</i>	30.25	\$225.00	\$6,806.25
<b>Senior H&amp;H Engineer</b>	Expense acct _____			
Robert Gregalunas	Funding source _____	2.50	\$205.00	\$512.50
<b>Student Intern</b>	% (amount) _____			
Trevor Sotak	Income acct _____	2.25	\$65.00	\$146.25
<b>PROJECT EXPENSES</b>				Billed
FYRA Survey Equipment Usage Hours				\$62.50
Personal Vehicle Project Travel Miles				\$79.35
FYRA Vehicle Usage- Miles				\$331.51
			<b>Phase subtotal</b>	<b>\$12,613.36</b>

**Invoice total \$12,713.36**

**Make all checks payable to:**  
 FYRA Engineering, LLC  
 12702 Westport Parkway, Suite 300  
 Omaha, NE 68138



**INVOICE SUMMARY**

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Project Kickoff Meeting	\$8,323.00	\$8,153.70	\$0.00	\$8,153.70	97.97
Preliminary Design Report	\$14,312.00	\$16,661.75	\$0.00	\$16,661.75	116.42
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Project Management	\$9,601.00	\$8,386.75	\$100.00	\$8,486.75	88.39
Final Design	\$41,928.00	\$60,467.00	\$0.00	\$60,467.00	144.22
Permitting	\$12,064.00	\$1,860.00	\$0.00	\$1,860.00	15.42
Bidding	\$9,428.00	\$1,005.85	\$0.00	\$1,005.85	10.67
Construction Observation	\$80,664.00	\$74,499.20	\$12,613.36	\$87,112.56	107.99
Out of Scope Work	\$0.00	\$6,138.75	\$0.00	\$6,138.75	0.00
<b>Total</b>	<b>\$178,864.00</b>	<b>\$178,864.00</b>	<b>\$12,713.36</b>	<b>\$191,577.36</b>	<b>107.11</b>

**Aging Summary**

Invoice Number	Invoice Date	Outstanding	Current	Over 30	Over 60	Over 90	Over 120
022-064	07/26/2021	12,713.36	12,713.36				
	<b>Total</b>	<b>12,713.36</b>	<b>12,713.36</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>





# VARIANCE REQUESTS

Variance requests for new and expanded irrigated acres in Restricted Development Areas and Non-Hydrologically Connected Areas are due by **August 15**. Hydrologically Connected Areas are due by **September 15**. For more information visit [lpnrd.org](http://lpnrd.org) or call 402-443-4675



**LOWER PLATTE NORTH**  
Natural Resources District

# Cost-Share Program

The NRD is offering a voluntary program to landowners in Shell Creek and Wahoo Creek watersheds for cost-share assistance to upgrade septic systems with open discharge. Contact Columbus NRCS for Shell Creek 402-564-0506. Contact LPNNRD for Wahoo Creek 402-443-4675



**LOWER PLATTE NORTH**  
Natural Resources District

# Long Range Plan - DRAFT

## FY2022

### 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 North 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 during fiscal year 2021 (July 1, 2021 to June 30, 2022) and planned District activities for fiscal year 2022. There are also objectives for a five-year period from fiscal years 2023 to 2027. The plan serves as an implementation tool of the district's Master Plan, which is updated every ten years.

### 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."

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

### Description of the District

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 Wahoo Creek, Skull Creek, Bone Creek, Loseke Creek, Taylor Creek, Shell Creek, Elm Creek, Clear Creek, Rawhide Creek, Silver Creek, Sand Creek, and Duck Creek.

The population of the district is approximately 62,000, 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 2022 tax levy is .033457 cents per \$100 valuation.

### **Governing Body**

The Lower Platte North Natural Resources District (LPNNRD) is governed by a 19-member Board of Directors. 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.

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

### **FY 2021 Platte River Basin Activities**

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 at least \$150,000 to retain an explosives contractor to use explosives when needed, to remove ice jams in a timely manner.

During the winter of 2020-21, the explosives contractor was put on stand-by.

### **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 FY21, \$25,000 is budgeted for projects on rivers & streams. We assisted a couple landowners on maintenance projects in FY 20-21 at a cost of \$3,170.

### **FY 2022 Platte River Basin Objectives**

- Administer \$25,000 in the Rock & Jetty Program to assist with priority stream bank stabilization for cooperators sustaining damage from the March 2019 flooding. This includes assisting cooperators with meeting the regulations of the Clean Water Act and 404 permits.
- As a member of the Joint Water Management Advisory Board, provide leadership and assistance to move forward with exploring flood reduction solutions for the lower one-third of Dodge County within the District.
- Support the Lower Platte Weed Management Area financially and technically in controlling noxious and invasive weeds.
- Support the Nebraska Land Trust in acquiring easements for the protection and preservation of quality lands.

### **FY 2023-2027 Long Range Platte River Basin Objectives**

- Continue to budget cost-share funds for priority bank stabilization along the Platte and Elkhorn rivers and other perennial streams in the district.
- Continue to be an active member on the Joint Water Management Advisory Board.
- Promote riparian buffer zones along the Platte River and other perennial streams.
- Continue to explore new, innovative and cost-effective ways to protect against stream bank erosion.
- Provide education on stream bank protection and regulations.
- Support and budget annually, as needed, for the Ice Jam Agreement Fund.
- Keep up to date on Clean Water Act and Endangered Species Act regulations.
- Continue to participate with the City of Fremont to study potential nonstructural measures to reduce flooding and economic losses from the Lower Platte River.

- Work with 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 to initiate floodplain management planning to promote wise floodplain development.
- Assist dike and drainage districts within the LPNNRD to properly repair and maintain levy projects.
- Budget annually as needed to support the Lower Platte Weed Management group in controlling noxious weeds.

## **FY 2021 Ground & Surface Water Activities**

One of the Lower Platte North NRD's major responsibilities is to conserve and protect our ground and surface water supplies. 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**

LPNNRD implemented a District-wide Groundwater Management Area (GWMA) on January 1, 1997, to address both water quality and quantity concerns. This action was based on data gathered since 1985 indicating where groundwater quality conditions have deteriorated beyond those established as health standards, such as nitrate nitrogen. On that date, groundwater quality Phase I (education) regulations became effective for the entire District. One primary rule in Phase I 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. Since that time, advanced Phase areas have been determined by trigger levels listed in the rules and regulations of the GWMA. The District has two Phase groundwater quality control areas, those being Bellwood and Richland/Schuyler. The Bellwood Phase 2 Area was established in 2003. This area covers approximately 30 square miles in the western portion of the Platte Valley in Butler County and includes the town of Bellwood. In 2015 nitrate levels decreased to a point that the trigger levels were not being achieved, so this area was decreased to 20 square miles. The Richland/Schuyler Phase 2 Area was established in 2004. In 2015 this area was raised to Phase 3 because of the rising nitrates. This area covers approximately 55 square miles in the Platte Valley of Colfax County and includes the towns of Richland and Schuyler. In 2015, 10 additional sections north of the Richland/Schuyler Area became a Phase 2 area and in 2020 raised to Phase 3. Elevated nitrate-nitrogen levels continue to be the major

concern in both Phase areas. Emphasis on awareness is a priority to the District with numerous grants being considered.

In June 2018, the District updated its Groundwater Rules and Regulations by adding a Phase Four under Water Quality and managing water by consumptive use or acre feet limitations. As of July 1, 2021, the District had 9155 registered active wells with 4586 irrigation wells and 206 wells in our GWEL network.

In Summer of 2012, the District saw mid-summer declines in the Bruno area and the uplands of Platte and Colfax Counties. These are now designated as the Butler-Saunders and Platte-Colfax Special Quantity Subareas. The District mandated water flow meters, rolling allocations and annual reports in these areas starting in 2016.

In 2012 seven NRD's agreed to develop a Lower Platte Basin plan, which is a cooperative agreement for the Basin Plan. This plan was approved in December of 2017 with each district assigned a depletion allotment within the Basin. The allotment is in 5-year increments starting in 2016 with a formula 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, with an annual report due to NDNR. The Coalition contracted with the Flatwater Group to analyze the data that will be used in the next 5-year allotment.

In 2016 the Lower Platte River Consortium, made up of the Lower Platte South NRD, the Lower Platte North NRD, the Papio-Missouri River NRD, Lincoln Water System (LWS), Metropolitan Utilities District (MUD), and the Nebraska Department of Natural Resources (DNR), embarked on an effort to develop a drought contingency plan to maintain/mitigate sustainable water supplies to the Lower Platte River during drought conditions. The final report was finalized in the Spring of 2020. The group is in the process of ranking the projects to be considered for supplying water into the Platte River.

Current rules and regulations of the GWMA are available at the LPNNRD headquarters in Wahoo and via the district website at [lpnnrd.org](http://lpnnrd.org).

### **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. Staff samples the same 53 wells each summer, weather permitting, to determine long term trends for nitrate-nitrogen. This is referred to as the Statewide Network. 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 2021 samples were collected from all 53 sites.

<b>Year</b>	<b>Nitrate-Nitrogen Range</b>	<b>% Nitrate-nitrogen 0-8.0 ppm</b>	<b>% Nitrate nitrogen 8.01-10.0 ppm</b>	<b>% Nitrate nitrogen &gt; 10 ppm</b>
<b>2021</b>	<b>0 - 23.1 ppm</b>	<b>69.8% (37 of 53)</b>	<b>7.6% (4 of 53)</b>	<b>22.6% (12 of 53)</b>

Samples for pesticide analysis were collected from seven of these sites (18%). 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 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 2021, the LPNNRD had 206 wells in the groundwater energy level 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 subareas within the District, 24 subareas are currently at Level 1 management, while the other 2 subareas still need additional information before these can be designated. 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 2020 and Spring of 2021 showed a decline from the previous year's measurement. This change was likely the effects of less rainfall in the summer months of June

through August 2020 and as a consequence more irrigation occurred. Spring readings in 2021 showed 87% of the wells measured had levels lower in Spring 2021 compared to Spring of 2020. There was a 4% rise in 7 wells from a year ago.

### **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 use chemigation, 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, administered by NDEE you must pass the Chemigation Certification test taught through UNL Water. There is an online test producers may take due to the recent COVID-19 protocols. The chemigation equipment must be properly equipped, inspected and approved by the NRD before applying any chemicals. The number of chemigation permits continues to slowly rise throughout the district due to chemigation's efficient application rate when the crops are in the most need of nutrients. In sandier soil types, chemigation is extremely effective due to the soil's incapability to hold essential nutrients in the root zone after heavy rainfall events.

<b>Chemigation Permits</b>	<b>Total</b>	<b>Renewal</b>	<b>New</b>	<b>Emergency</b>
<b>November 2020</b>	<b>748</b>	<b>695</b>	<b>53</b>	<b>0</b>
<b>November 2021</b>	<b>704</b>	<b>658</b>	<b>46</b>	<b>0</b>

In 2014, the Legislature approved changes to Title 195 that would allow individual NRDs to set chemigation fees. Chemigation fees for LPNNRD are: \$90 for a New permit, \$30 for a Renewal permit, and \$300 for an Emergency permit. New permits are to be inspected each year they are

permitted and renewal permits are to be inspected on a 3 year rotation. Failure to renew by June 1st of the following year the permit was obtained will cause the permit to lapse. If a renewal permit lapses and the producer decides to use chemigation as a practice of crop application the individual must obtain a new permit and an inspection is required.

### **Decommissioned (Abandoned) Wells**

Decommissioned (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 707 wells. Through this program in FY 20-21 , a total of \$13,510.62 was administered by LPNNRD for the plugging of 16 wells. The district will administer approximately \$15,000 of state and local funds to plug additional wells during the current fiscal year.

### **Flow Meter Maintenance Program/ Flow Meter 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.

In 2016, the district chose to contract with a private company through the bidding process. The company was scheduled to maintain the flow meters within the LPNNRD's SQS areas for the first four years. Since that was completed the District has chosen to open the flow meter maintenance program district wide in 2020. Maintenance on the flow meters will be performed once every four years. The district is in charge of the labor and site visit at each meter. Each

mechanical meter site visit is \$60 and each battery operated site visit is \$75. This maintenance includes the regular greasing of the mechanical meters and changing the batteries on the digitally read meters. Along with the regular maintenance the private company also ensures that the meter is not damaged from water or vibration. There are approximately 1,056 irrigation well flow meters that are getting routine maintenance once every four years.

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. Nearly 1,175 readings are recorded annually throughout the LPNNRD District. This Fiscal year the LPNNRD budgeted \$12,500 for the meter maintenance program.

### Registered Wells

The Nebraska Legislature declared that the 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 Water 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
<b>December 31, 1970</b>	<b>1,428</b>
<b>December 31, 1980</b>	<b>2,756</b>
<b>December 31, 1990</b>	<b>3,241</b>
<b>December 31, 2000</b>	<b>3,686</b>

<b>December 31, 2010</b>	<b>4,307</b>
<b>December 16, 2016</b>	<b>4,528</b>
<b>December 31, 2020</b>	<b>4,585</b>
<b>July 1, 2021</b>	<b>4,586</b>

### **Well Permits**

In May of 2008, the LPNDRD placed a flow meter and water reporting condition on well permits for all permits issued after that date. All well permits require well owners to install a flow meter and report their water use for the calendar year to the LPNDRD by December 15 of each year. This reporting requirement is effective the year the well is drilled and for each year thereafter, until the well is decommissioned. Summer of 2020 brought drier conditions and as wells were being pumped harder than the last 3 years, replacement well permit requests across the District have increased. As of August 1st, 2021, the District has issued 39 well permits with 8 new irrigation wells, 29 replacement irrigation wells, 2 municipal wells.

### **Special Studies**

The LPNDRD has done a number of studies within the District. The following is a list of studies that is currently being conducted within the District.

#### *Aquifer Vulnerability Mapping and Analysis*

The Lower Platte North has been working with UNL to collect and analyze data within the LPN Water Quality Management Areas. The first stage involved some intensive water sampling of irrigation wells for nitrates. A few samples were collected for isotope nitrate samples for the purpose of determining if the nitrates were organic or inorganic sources. This was followed-up with 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 this data, along with geological information to assist in determining vulnerability. This project will be wrapping up later in 2021 with informational meetings in the area.

#### *3D AEM Hydrogeologic Framework and Assessment*

Papio-Missouri River NRD, NeDNR and LPN started a study in January 2021 to assess AEM survey information, well logs and other geological information. The data will be used to characterize different geological layers and assign variables such as hydraulic conductivity. This data could be used in a groundwater model to better understand, assess and forecast groundwater flow within the geographical areas. This study should be completed in January 2022.

#### *Lower Platte River Consortium Study*

Municipal wellfields in the Lower Platte River Basin depend on the Platte River to recharge the groundwater for their use. This study looked at long term water supplies in the Lower Platte River Basin, and the ability to enhance streamflow, especially in drought conditions, to sustain these municipal water systems. Sustaining water in the river would also provide a benefit to wildlife and agriculture by lessening the likelihood of a 'call' on the river. Due to different hydrologic conditions in the Platte River, such as gaining and losing segments, siting of future reservoirs, groundwater storage projects, etc. becomes important in order to most effectively move water to a desired location downstream. The plan was completed in Spring 2020 with the group now in the process of conducting a desktop exercise on determining which projects are feasible.

#### *Eastern Nebraska Water 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. It has opened several questions concerning bedrock aquifers both in water quantity and water quality such as salinity. New flights were conducted in the summer of 2018 with the final report received in summer 2019. A study is being conducted in the Platte-Colfax Area (SQS#2) utilizing the AEM, additional data loggers and other geologic logs to determine the relationship between confining and unconfining layers along with determining drawdown levels for management decisions. The flights and the results can be found on the ENWRA website at ([www.enwra.org](http://www.enwra.org)).

#### *Elkhorn Loup Model*

The Elkhorn-Loup Model (ELM) project is a study of surface water and groundwater resources in the Elkhorn River basin upstream of Norfolk, Nebraska and the Loup River basin upstream of Columbus, Nebraska. Parts of this basin overlap and cover portions of upper Shell Creek.

### **Certifying Acres**

In July 2009, the District signed a contract with GIS workshop to develop a database of county assessor records as the preliminary step to certifying irrigated acres. Using these records, LPNNRD staff mailed out letters to landowners to verify irrigated ground. As of January 2021, the majority of the irrigation in the district has been catalogued. The District is still granting new

irrigation development. Those new acres are not entered into the certification database until such time as they show up on aerial photography and can be accurately modeled. In March of 2021, the District went through all the approved new irrigations and modeled out all those that had yet to be counted. Acre certification provides a true 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. Tours and open houses are conducted on an annual basis.

### **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 City of Ashland, with assistance from LPSNRD, has conducted some investigations within its wellhead management area in 2019-2020. An open house is planned for Ashland in August 2021. The Cities of David City and Wahoo are in the process of re-evaluating their wellhead management areas along with decommissioning wells within these areas.

### **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. Both systems are greater than 10 years old and repairs/replacements of meters is expected to take up RWD staff's time in 202-22 as a number of meters and components are showing the signs of wearing out.

### **Geographic Information System (GIS) and Global Positioning System (GPS)**

LPNNRD has used Geographic Information System (GIS) technology since 1996. GIS is an automated system combining database information and maps. Features on a map, created with GIS technology contain attribute or feature descriptions that are referenced by location. The data used by a GIS system consists of Vector and Raster Data. Vector data consists of point (wells), line (roads) and polygon data (irrigation boundaries); with Raster data consisting of pixels, where each pixel on the screen corresponds to a data point. Raster data includes aerial photography and elevation data such as LidAR (a highly accurate elevation dataset). The District has incorporated the use of GIS into most district functions, including the certification of irrigated acres, maintenance, project planning and modelling 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 entered into an agreement with Phoenix Web Group to create a robust, relational database. GIS will be the backbone of this database and will allow LPNNRD to quickly, and efficiently, look up any information pertaining to any project or cost share that has been completed for any constituent with land in LPNNRD.

The Global Positioning System (GPS) relies on 28 NAVSTAR satellites, which provide world wide positioning and navigation information around the clock. Receivers acquire signals from satellites to determine precise locations on earth. The data obtained from taking GPS positions can be downloaded and mapped with GIS, making the two technologies complementary. LPNNRD partnered with NRCS on the purchase of a sub-centimeter GPS base station. This allows NRCS and NRD staff to quickly and efficiently perform a variety of tasks in the field with survey level precision.

### **FY 2022 Ground and Surface Water Objectives**

- Continue to monitor changes in groundwater levels and quality in the district.

- Continue with LPNNRD Groundwater Management Area (GWMA) programs to help avoid the Lower Platte Basin being designated “fully appropriated.”
- Continue to implement Voluntary Integrated Water Management Plan (V-IMP) for the District and basin-wide plan. Utilize acre feet allotments assigned to the District for the benefit of the basin.
- As part of the GWMA, continue with LPNNRD certification classes, demonstration plots, generation of maps indicating problem areas, and evolving the development of a master database.
- Continue to cooperate with the United States Geological Survey (USGS) in monitoring groundwater levels at two sites.
- Continue to cooperate with the United States Geological Survey (USGS) in monitoring surface water levels at four sites and one site for contamination evaluation.
- Use the Subarea Delineation Study to identify ‘small pocket aquifers’ in the Swedeburg, Prague, Yutan, and Yutan South subareas. Review other aquifer subareas to determine if Stay Management Areas are justified in other portions of our District.
- Continue sampling of approximately 53 wells in our District that are part of the Nebraska State-wide Network.
- Continue to monitor the Phase Areas in Richland-Schuyler and Bellwood for nitrate and elevate these areas as needed.
- Implement extensive sampling of soil and water in the Phase Areas for the purpose of identifying workable best management practices for curbing the rising nitrate trend.
- Administer \$15,000 of state and local cost-share funds to decommission abandoned water wells, and provide 100% cost-share assistance within Wellhead Protection Areas to communities that are actively doing projects within it’s management area.
- 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.
- Continue with the District’s Well Permitting Program and Variance Process throughout the District.

- Continue to review water use reports submitted to the LPNNRD as part of the well permitting process from new and replacement wells.
- Provide information and education on water conservation and safe disposal of farm and household chemicals.
- Continue to site registered and unregistered wells in the district using GPS.
- Promote and sponsor “Spring Conservation Sensation”
- Provide information on Integrated Pest Management in news releases and the “Viaduct” newsletter to encourage reduced use of pesticides.
- Support and promote urban water conservation and chemical disposal throughout the District.
- Assist in organizing the annual NRD Water Programs Conference held each year to update the NRD’s on activity of State and Federal Agencies, new research and Legislative issues.
- Continue to install flow meters on irrigation wells that are part of our Ground Water Energy Level (GWEL) Network.
- Expand the GWEL network to monitor aquifer sub-areas as designated in the 2009 Subarea Delineation Study. This will be done by incorporating additional high capacity wells and the drilling of new monitoring wells.
- Continue to monitor clean up efforts by the COE at the Former Ordnance Plant at Mead, Nebraska.
- 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.
- Continue to monitor clean up efforts by the University of Nebraska at the ARDC facilities east of Ithaca, Nebraska.
- Maintain transducers placed in District monitoring wells to record changes in groundwater energy levels and to start the process of installing real-time remote reads.
- Declare Level 2 or Level 3 Management areas as warranted caused by declining groundwater energy levels in 50% or more of the monitoring wells reaching their trigger levels after three consecutive spring readings.
- Review livestock permits from DEQ.

- Investigate irrigation runoff and groundwater management area complaints as needed.
- Expand the NeRain program within our District.
- Continue to be a sponsor member of the Elkhorn – Loup Model (ELM)
- Continue groundwater studies with the University and NDNR in the SQS areas. Study will focus on confined and unconfined aquifers and drawdowns within these areas.
- Communicate with well drillers and pump installers on water concerns within the District.
- Continue to assist the Eastern Nebraska Water Resources Assessment (ENWRA) with the use of AEM (Airborne Electromagnetic) to study the eastern glaciated portions of Nebraska to provide a geologic framework map.
- Improve irrigation efficiency by working with UNL Extension on the Nebraska Agricultural Water Management Network (NAWMN) to install Watermark sensors and ET gauges with producers each year in our District.
- Continue with the process of updating Irrigated Acre Certification within the District.
- Continue working on projects identified within the Shell Creek Watershed Water Quality Plan.
- Update water quality objectives as identified in the Wahoo Creek Watershed and the Shell Creek Watershed Water Quality Plans.
- To increase producer participation in online reporting for entering their data to improve efficiency and quality of data.
- To complete the process of developing a hydro-geological framework utilizing AEM data, boreholes and other geological information.
- To utilize the real-time water level measurement network in Special Quantity Areas for in-season management decisions.

**FY 2023-2027 Long Range Ground and Surface Water Objectives**

- Continue groundwater quality sampling throughout the LPNNRD, both the State-wide network and intensive sampling of selected regional aquifers.
- 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 & IV boundaries for the Groundwater Quality Management Areas.
- To educate the need for check valves in protecting the aquifer from contamination.
- 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.
- Continue to use GPS to site registered and unregistered wells within the district.
- If necessary, designate Level II and III boundaries within the district to manage declining groundwater levels.
- If necessary, designate new Special Quantity Subareas (SQS) within the district to manage mid summer declines of groundwater energy levels in aquifers that operate under large pressure swings.
- Continue measurement of ground water energy levels in the district.
- Develop a groundwater model for each sub-area. Additional information on water use from all wells will be needed for accurate information.
- Continued partnership with the Eastern Nebraska Water Resources Assessment (ENWRA) and apply information to the glaciated portions of our District.
- Additional studies to identify vulnerable aquifers and modify GWMA rules and regulations to protect these aquifers and their long term sustainability. Continue geophysical work, installation of monitoring wells and test holes to better define these vulnerable sub-areas. Additional AEM flights with  $\frac{1}{4}$  to  $\frac{1}{2}$  mile spacing would gratefully assist in defining such areas. Eventually cover the entire District with these detailed AEM investigations.
- 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. This could develop into three dimensional management where aquifers at different depths are treated by a separate set of rules for each one. This could become very complex but will likely be the only way to sustain the use of these aquifers far into the future.

- Install precipitation gauges near monitoring wells in important sub-areas.
- Utilize the completed Lower Platte River Consortium Study for possible locations for recharge and reservoir sites to better convey water downstream to municipal wellfields.
- Complete water quality objectives as identified in the Watershed Quality Plans.
- Continue to update the Groundwater Management Plan to include Integrated Management of surface and ground water. It may be necessary to install additional surface water gauging sites coupled with nearby groundwater monitoring wells as tools for integrated water management.
- Expand the GWEL network to have continuous recording monitoring wells in each sub-area to better manage the resource with the ability for remote real-time readings. This is especially important in confined aquifers.
- Continue to update the certification of irrigated acres
- Continue to assist District communities who have difficulties with water quality and quantity by helping determine rural water system feasibility.
- Keep the Saunders County Rural Water System study as an alternative in the event of changing federal regulations governing municipal water supplies.
- Update the Platte Valley modeling efforts using MODFLOW software. This information will be used to further define the 10/50 boundary line.
- Keep abreast of updates and new iterations of the Elkhorn – Loup Model (ELM) to determine which areas in the Shell Creek watershed are in hydrologic connection with the Elkhorn or Loup River basins.

In summary the LPNNRD needs to focus on six areas in the next five years:

1. Using information from the AEM flights and test holes, establish a monitoring well network in these confined aquifers to record continuous ground water energy levels. It is midsummer declines (late July to mid-August) when large drops in aquifer pressure can cause some wells to run low on water. Map locations of potential recharge sites. More

flights, test holes and/or monitoring wells might be necessary in areas to provide the necessary information.

2. Establish ground water management rules to better address confined aquifers. This could involve comparing spring to summer ground water energy levels and comparing this to the potentiometric aquifer thickness and the depth of bedrock. The current management rules for unconfined aquifers should be adequate for future conditions. These controls are based on three consecutive spring readings at or below their trigger levels in at least 50% of the GWEL wells in a given subarea.
3. AEM flights have given a new interest in bedrock aquifers such as the Dakota formation. Monitoring wells in selected areas are needed to determine the water quality and quantity of these bedrock aquifers. Also are these bedrock aquifers in hydrologic connection to any overlying aquifers? If this is the case and new high capacity wells are being established in these bedrock aquifers then management should shift focus to the more vulnerable aquifer to sustain long term viability of both aquifers. If these bedrock aquifers are isolated from the overlying aquifer then “three dimensional management” where wells are managed differently due to their depth may be in order. This could get complex but management needs to take the chemical and physical characteristics of the aquifer in account. For example, what is the salinity of the groundwater and is the bedrock aquifer cemented, unconsolidated, sandstone, limestone, or shale.
4. Horizontal wells. In the immediate future horizontal high capacity irrigation water wells will likely be established in thin aquifers to increase well output or yield. On the plus side, these could replace several vertical wells that are used in series and therefore be a cost savings to the well owner. On the negative side these could quickly dry up thin aquifers less than 20 feet in thickness and affect nearby wells. How do you manage such a system? At the least you could require 600 feet spacing from any point of the lateral to a neighbor’s well but again this may not provide much protection in thin aquifers such as the area immediately west of Fremont. Other management options would be to restrict the number of acres irrigated, restrict the length and direction of the laterals, restrict well output such as limit the gallons per minute, establish water allocation, install monitoring wells such as near the end of the laterals to track groundwater levels, etc.
5. Integrated Water Management. Siting of potential recharge sites, storage reservoirs (both surface and groundwater), and potential water reuse projects to enhance the water supply in the District. Additional monitoring wells, streamflow gauging, and precipitation sites will likely be necessary. Effects of climate change will also need to be considered as part of integrated water management.

## **Soil Conservation**

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.

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 farmers for installation of land treatment practices. LPNNRD staff also worked with NRCS staff to utilize Farm Bill Programs to repair erosion problems.

## **FY 2021 Soil Conservation Activities**

### **Soil and Water Conservation Programs (SWCP)**

Under Soil and Water Conservation Programs (SWCP), the LPNNRD administered \$83,029.99 of state funds and \$11,513.56 of local funds for land treatment practices during fiscal year 2021 in cooperation with 13 different landowner projects. In addition, 9 Buffer Strip contracts were administered with \$ 15,008 in state funds.

For fiscal year 2022, \$85,024.81 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.

### **Wahoo Creek Water Quality Land Treatment Efforts**

Wahoo Creek in Saunders County, Nebraska, has resided on the Environmental Protection Agency's (EPA) Section 319 list of impaired water bodies. 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 will complete another update in 2021. 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 requirement of containing "Nine Elements" of an effective watershed 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, NDEQ and the Natural Resource Conservation Service (NRCS) identified four Wahoo Creek sub-watersheds as Water Quality Initiative (WQI) areas to receive special EQIP and EPA 319 funding for landowners to complete conservation practices to help achieve the numerous identified water quality goals.

Approximately \$32,185 of 319 Grant Funds in FY 2021 were spent in the Wahoo Creek watershed. These cost-share monies helped construct practices including approximately 7,000 linear feet of terraces, 3,000 linear feet of tile outlets. The Wahoo Creek Grant also included

approximately 157 acres in the Lands for Conservation program that helps generate Summer work in the watershed.

We are now completing Wahoo Creek Watershed Water Quality Plan Phase II Part B, which has combining \$200,000 of EPA 319 funds and \$90,000 of Nebraska Environmental Trust Funds along with other federal, state and local funds for completing numerous water quality BMP's. For example, septic systems that are over 30 years old or have an open discharge are eligible for up to \$4,800 of cost-share assistance to bring the system up to EPA/NDEE code. To accomplish water quality goals, as outlined in the EPA Water Quality Watershed Plan, is to continue this partnership effort for many years to come. Another major effort that will be completed in the fall of 2021, is the Railroad Road/ Czechland Lake Shoreline Stabilization Project. This is a cooperative effort between LPNNRD and Saunders County.

### **Shell Creek Watershed EPA Section 319 Water Quality Improvement 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. The designated beneficial uses (Primary Contact Recreation and Aquatic Life) of some segments of Shell Creek are impaired by elevated levels of Escherichia coli (E. coli) bacteria, selenium, Atrazine and excessive erosion from storm water flow.

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 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. Efforts are underway on the plan update to be completed by the end of 2021.

Over the past 20 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 watershed in the nation to be delisted for atrazine contamination in FY 2018.

In FY 2021, in cooperation with Colfax County, Shell Creek Channel and Bank Stabilization Project near Schuyler north of the Union Pacific Railroad bridge replacement near Colfax County Road 15 was completed. Completion of Shell Creek Channel Improvement and Bank Stabilization will occur south of the railroad bridge to the Platte River will occur in the fall of 2021. In addition, a large Wetland Project was completed in December 2020, in cooperation with a private Platte County landowner. There are over \$390,000 of EPA 319 grant funds and approximately \$14,000 of NET funds remaining to assist with other Shell Creek Watershed projects.

## **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 FY 20 the district received no formal complaints, but one verbal and some minor drainage issues.

## **FY 2022 Soil Conservation 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 the Dunlap Creek, North Branch and Miller Branch of Wahoo Creek, along with Cottonwood Creek Watershed and Shell Creek Watershed, to reduce erosion and improve water quality.
- Continue encouraging the implementation of summer conservation construction utilizing federal funding within the Wahoo Creek Watershed through the Lands for Conservation program; for FY22 the NRD has approved \$43,050.00 for the set aside of 210 acres.
- Administer \$85,024.81 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 Conservationist, at the LPNNRD Recognition Banquet.
- 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 (SWIG), EPA/NDEE and NET toward continuing implementation of Best Management Practices in the Shell Creek Environmental Enhancement Plan Implementation.
- Work with NRCS, NDEQ, NET, and 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 local landowner groups form advising steering committees in the Wahoo and Bone/Skull Creek Watersheds.
- 

### **FY 2023-2027 Soil Conservation Long Range Objectives**

- Maintain existing land treatment practices and programs.
- Continue to work with all counties in the district to reduce roadside erosion.
- Administer the NDEQ/EPA 319 Grant Program to improve water quality throughout Wahoo Creek, Shell Creek priority watersheds.
- Begin implementing Best Management Practices under NDEQ/EPA Corridor Alliance Watershed Water Quality Plan.
- 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.

### **FY 2021 Flood Control and Damage Reduction Activities**

Watershed projects have been completed in five of eleven sub-watersheds (see Appendix E) in the LPNNRD to help reduce floodwater and provide grade stabilization. These completed projects include Bellwood, Clear Creek, Cottonwood Creek, Sand and Duck Creek and Swedeburg watersheds, along with Rawhide Creek. Current high priority flood reduction areas include Shell Creek, Wahoo Creek, Skull Creek and Bone Creek watersheds. On federal and state projects where the LPNNRD acts as project sponsor, the district obtains land rights and mitigates for loss

of trees, wildlife habitats and fences destroyed by project construction. The LPNNRD 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**

In 2017, the Natural Resource Conservation Service (NRCS) approved \$1.5 million under their Regional Conservation Partnership Program (RCPP) to assist with planning, design and construction of three Wahoo Creek flood reduction dams, sites 26a, 26b & 27. These dam sites were originally identified as potential projects in the NRCS Wahoo Creek Watershed Plan completed in 1998. The total estimated cost to complete the three dams is \$4.1 million. In addition to RCPP funding, there is another \$2.3 million of state funds approved through the Nebraska Department of Natural Resources Water Sustainability Fund, leaving \$1.5 million needed from local sources. An RCPP agreement with NRCS was approved in September 2017 to accomplish planning, design, permits and construction of the project.

In the fall of 2017, NRCS approved additional funding for the Wahoo Creek Watershed under the federal Watershed Flood Prevention Operations Program (WFPO), historically referred to as P.L. 566. LPNNRD then entered into a three year agreement with NRCS to use federal funds for watershed planning to include sites 26a, 26b, 27 plus an additional seven remaining Wahoo Creek Watershed flood reduction dam sites (55, 66, 77, 82,, 84, 85 & 86). FYRA Engineering has been assisting LPNNRD with completing the Wahoo Creek Watershed plan which will be submitted to NRCS for approval in the fall of 2021. After watershed plan approval, LPNNRD has hired Olsson (Engineering) for completing the design, permitting, bid letting and construction oversight for dam sites 26a., 26b. & 27, along with designing the other seven dams.

After the watershed plan is approved, dam designs will be completed in 2022- 2023. After the first 3 dams are underway, it is anticipated that future federal and state assistance through the federal WFPO program and the state Water Sustainability Fund will be provided to assist with future construction of the remaining seven additional dams

### **Operation and Maintenance**

District staff completed inspections on 45 watershed structures and special projects in the NRD in FY 20/21. These inspections help detect problems before they become serious. Also during the 2020 fiscal year, noxious weeds and volunteer trees were sprayed on 45 dams, Clear Creek Levee and the Rawhide Ditch System. Annual maintenance activities such as removing debris, repairing fences and unplugging risers were completed at many of the dam locations.

### **Army Corps of Engineers 205 and GI Flood Studies**

Over the past few 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. This effort will continue in FY 2022.

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 good job in maintaining the levee.

### **FY 2022 Flood Control and Damage Reduction Objectives**

- Continue with accelerated land treatment efforts in identified priority watersheds in the District.
- Complete biennial inspections on 45 watershed structures; spray noxious weeds & cut and treat trees on 45 dams, Clear Creek Levee and Rawhide ditch; complete regular maintenance activities at all sites.
- Continue to be an active partner on the Joint Water Management Advisory Board to explore flood reduction and drainage solutions in the lower one-third of Dodge County within LPNNRD.
- Partner with the City of Fremont, Dodge County and Papio-Missouri River NRD to establish cameras and water sensors at five locations along the Platte River.
- Partner with Dodge County, City of Fremont, Dodge County, City of North Bend and the North Bend Drainage District toward an eventual FEMA Drainage Improvement Project.
- Partner with City of Fremont, Dodge County and the Fremont Rod & Gun Club on completing the Platte River Levee Breach Repair Project.
- Continue to educate the public on watershed management and flood reduction in LPNNRD newsletters, news releases and our website.
- 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.
- 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.
- Complete the Wahoo Creek Watershed Plan that identifies the future completion of ten flood water reduction dams.
- Complete engineering designs on Wahoo Creek Dam Sites 26a, 26b and 27.
- Begin engineering designs on Wahoo Creek Dam Sites 55, 66, 77, 82, 84, 85, 86.
- Commit funds and staff time toward seeking federal and state funds for constructing the remaining seven unfunded flood water control structures (sites 55, 66, 77, 82, 84, 85, 86) in the Wahoo Creek Watershed.
- Begin the process of updating LPNNRD's district-wide All Hazard Mitigation Plan.
  - Work with Dodge County and City of Fremont and other JWMAB members toward the completion of the Rawhide Watershed WFPO Planning effort

### **FY 2023-2027 Flood Control and Damage Reduction Long Range Objectives**

- Continue to commit funds and staff time toward obtaining additional funding for flood water control/reduction structures in the Wahoo Creek Watershed.
- Continue to budget staff time and funds to maintain and operate completed flood control structures that are sponsored by the LPNNRD.
- Continue to explore flood reduction opportunities for Shell Creek and Skull Creek Watersheds.
- Continue to encourage cities and counties in the district to accept and implement Floodplain Management Authorities.
- Assist Fremont, Inglewood and Dodge County with non-structural flood protection projects as identified by the Army Corps of Engineers study and the Hazard Mitigation Plan Flood Resiliency study.

- Assist Schuyler with non-structural Platte River flood protection project opportunities as they become available.
- Assist District Communities in evaluating future flood protection for their communities through updating the District's Hazard Mitigation Plan and assisting with identified projects.
- Construct Wahoo Creek flood water reduction dams 26a., 26.b and 27.
- Complete engineering designs for eight remaining Wahoo Creek Dam Sites 55, 66, 77, 82, 83, 84, 85 & 86.
- Commit funds and staff time toward obtaining federal and state funds for construction the ten flood water reduction dams in the Wahoo Creek Watershed.
  - Continue to work with JWMAB members on the numerous projects identified as flood reduction/drainage improvement projects.

## **FY 2021 Forestry, Range, Wildlife Habitat, Recreation & Drainage Activities**

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 Game & Parks and Pheasants Forever, SWCP Program, and Mitigation Program. The district also sponsors educational activities such as Range Judging and Land Judging contests, and other school-oriented activities.

### **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 862,750 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 plans and offers technical advice on ground preparation for tree sites.

During the spring of 2021, 6,215 trees and shrubs were distributed to District residents. Of this total, 5,245 were planted by the NRD field crew at 12 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. Programs such as Corners For Wildlife and Wild Nebraska.

The district assisted with one Corners for Wildlife payment in FY 20/21.

## **Community Forestry Program**

In FY 2020/21 LPNNRD donated 900 seedlings for children in Fremont, and Newman Grove and provided trees to Conservation Sensation and Fremont EcoFair for educational purposes. The District budgets \$2,000 for Community tree development projects. The District assisted the American Legion Post in Newman Grove with their RollCall Veterans Memorial for Community Forestry funding.

### **FY 2022 Forestry, Range and Wildlife Habitat Objectives**

- Plant and distribute conservation trees and shrubs through the district's Tree Planting Program.
- 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.
- Assist cooperators to sign up for Wildlife Programs.
- Cooperate with the Extension Service and the NRCS in obtaining tree orders from District residents.
- Recognize a cooperator for outstanding tree planting efforts at the Recognition Picnic/Banquet.
- 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.

### **FY 2023-2027 Forestry, Range and Wildlife Habitat Long Range Objectives**

- Sell as many trees and shrubs each year through the district's Tree Planting Program, and to plant as many trees and shrubs for qualified property owners.

- Provide information and education on tree planting, woodland management, grassland management, and proper wildlife habitat enhancement through the media, tours, and schools.
- Continue to administer Wildlife Habitat programs in cooperation with the Nebraska Game and Parks Commission and other partnering entities as opportunities arise.

## **FY 2021 Recreation Activities**

### **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. Catfish, Bluegill, Northern Pike and Largemouth Bass were initially stocked in Czechland Lake.

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 was used extensively during FY 21 generating approximately \$18,000 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 2021 proved to be another very popular year for recreators as the area was extensively used.

## Lake Wanahoo

Work was completed on recreation facilities at Lake Wanahoo 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, electrical, cabin and tent 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 FY17 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.

The Lake Wanahoo Recreation Area was opened to the public in spring 2012. 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 rentable event 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.

## **FY 2022 Recreation Objectives**

- 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 Lake and Homestead Lake Recreation Areas.
- LPNNRD will continue managing all recreation at the Lake Wanahoo recreation area.

## **FY 2023-2027 Recreation Long Range Objectives**

- Continue to evaluate the development of new outdoor public recreational opportunities as they arise.
- Continue to assist NE Game & Parks and Pheasant Forever in developing new areas offering public access.

## **Drainage Improvement and Channel Rectification**

### **FY 2022 Drainage Improvement & Channel Rectification Objectives**

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.

- Work with Colfax County to complete the Shell Creek South Channel Improvement/Benching Project
- In partnership with the North Bend Drainage District, Dodge County and City of Fremont, support the drainage improvement project assessment of the North Bend drainage ditch through FEMA.
- Continue to oversee the progress of the Rawhide Creek West Branch Project to ensure that landowners control vegetation on Rawhide Creek to help it stay clean.
- Provide continued assistance to Platte Center with stabilizing a segment of Elm Creek.
- Work with local landowners and Colfax County to improve Shell Creek flows east of Schuyler.

### **FY 2023-2027 Drainage Improvement & Channel Rectification Long Range Objectives**

- Evaluate potential technical and funding assistance to counties, cities and other entities in the district that sponsor sound drainage and channel improvement projects.

## **FY 2021 Waste Disposal & Pollution Objectives**

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.

### **FY 2022 Waste Disposal & Pollution 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.

### **FY 2023-2027 Waste Disposal & Pollution Long Range Objectives**

- 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.

## **FY 2021 Information & Education Activities**

A major responsibility of the Lower Platte North NRD 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 2021, 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:

### **Publications (Print and Digital)**

In FY 2012, the district switched distribution of “The Viaduct” newsletter from direct mail subscriptions to inserts in area newspapers. In FY 2021, more than 26,000 copies of the newsletter were distributed in area newspapers and via email.

Various brochures describing LPNNRD programs and services were updated as needed in FY 2021. These brochures are displayed in the office and distributed during LPNNRD sponsored events and exhibit booths. A Fact Sheet for use with the NARD’s public relations campaign at public events is updated yearly.

Press releases are distributed to district papers and radio stations. Numerous ads spotlighting different NRD programs and upcoming deadlines air on KTIC Radio throughout the year. Digital ads on the Wahoo newspaper website continued in FY 2021. In FY 2020, the LPNNRD began airing 30-second program commercials on News Channel Nebraska. The Lake Wanhoo commercial aired during the summer of FY 2020. In FY 2021, the LPNNRD aired the newly produced Projects video, and Operations and Maintenance video, along with the Lake Wanhoo video.

### **Website**

The NRD’s website at [www.lpnnrd.org](http://www.lpnnrd.org) contains information on nearly all of the district’s projects and programs, along with staff and director information, committee and board meeting minutes, and more. Online application and registration forms for various projects and programs are available as well. Online payment capabilities continue to allow customers to pay for trees, rural water bills, and Lake Wanhoo permits. In 2019, the district began tracking the activity on the website including which pages are viewed to help keep current information available online. The website continues to be updated to allow for different types of viewing devices -- desktop, mobile and tablet devices.

### **Video Promotion**

During FY 2018, the district worked with redthread to create a 1 minute and 30 second video that promotes the conservation efforts of the district. The video is very unique to the Lower Platte North NRD because no professional acting or voice talent was hired for the video. A past director, current director, and current staff are featured in the video. The children of a current employee and a current director were also featured in the video.

During FY 2019, redthread created a promotional video for the Lake Wanahoo NRD Recreation Area. With the need to bring nature and outdoor recreation to people during the pandemic, the commercial was featured in 30-second spots on News Channel Nebraska during the summer of 2020.

KLKN produced a video to promote LPNNRD's water conservation efforts. The video featured LPNNRD Water Department staff and various water quality and quantity efforts.

During FY 2020, redthread created a promotional video for the duties and responsibilities of the Operations & Maintenance department, and a video to promote the activities of the Projects department. The videos featured current staff, and the video was narrated by a current LPNNRD director.

The LPNNRD plans to create a video for the Information and Education department during FY 2022. This video will focus on the district's information outreach efforts and environmental education. Once completed, clips from the department videos will be combined to create another video that will feature all of the programs at the LPNNRD.

These videos are shown as commercials through area television stations, educational purposes for presentations and featured on social media platforms.

## **Education Programs**

During FY 2021 the district continued with two year-long programs. The St. Wenceslaus Pre-kindergarten students learn about wildlife, trees, birds, recycling and water conservation through books, pictures, stories, and hands-on activities. The students also came out to Lake Wanahoo at the end of the year for a field trip filled with nature hikes and disc golf. The district teamed up Wahoo Public 8<sup>th</sup> Grade students for the Survival Club program, making a total of three full school years of the program. LPNNRD staff and other outdoor enthusiasts meet 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. Towards the end of the school year, the Survival Club meets at Lake Wanahoo for a year-end campout to test their new outdoor skills. We did not hold the year-end campout but look forward to getting it back on the calendar in FY 2022.

The district continues to participate in the Career Exploration Opportunities (CEO) Program with Wahoo Public Schools. During the Spring semester of 2021, LPNNRD staff hosted one high school senior and he rotated between each department to learn about the LPNNRD responsibilities.

Since the completion of the Education Building on the East side of Lake Wanahoo, the LPNNRD staff has been able to hold events in conjunction with area teachers and students for hands-on education. LPNNRD staff started a monthly educational event called, Coffee, Lakeside

that has discussed topics such as April gardening activities, migratory birds of Lake Wanahoo, fishes of Nebraska, tall-grass prairies, bats of Nebraska, and lake ecosystems.

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 East Central Land Judging was postponed in FY 2021 due to the pandemic. The plan for FY 2022 is to have the Lower Platte South NRD host the land judging contest at a site to be determined and the staff at the Lower Platte North NRD to assist.

The annual LPNNRD Spring Conservation Sensation celebrated its 30th anniversary this year! 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.

The Outdoor Recreation Youth Workshop coordinated by the LPNNRD and Saunders County UNL-Extension was held at Lake Wanahoo. 4H students and other participants who attended learned a variety of outdoor recreation activities including how to kayak, how to play disc golf, how to start campfires, and they also had the opportunity to learn about owls by dissecting owl pellets. The other event coordinated between LPNNRD and Saunders County UNL-Extension is the Saunders County Youth Ag Tour, and due to low numbers, that was canceled.

“Test Your Well Night” is a program that partners with area FFA chapters to host public events, providing nitrate testing on water samples from private wells at no cost to the attendees. The district held an event with East Butler where over 50 water samples were collected and tested by the FFA students.

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 809 youth and 43 adults in FY 2021.

### **Awards, Contests, and Events**

The LPNNRD provided a display at the 2021 Butler County Fair. Most of the County Fairs in the District did not offer booth space due to the lingering effects of the pandemic. The LPNNRD plans to provide displays at up to five area county fairs, and agriculture related events in the district in the future.

The LPNNRD provided assistance through preparation and completion during the 2021 NCF-Envirothon Virtual Contest. Staff helped to prepare media and advertising, prepare

packages for contestants, and help with judging the oral presentations. The NCF-Envirothon was postponed from 2020 due to the pandemic, and for safety precautions, was held virtually in 2021.

In FY2021, LPNNRD directors voted to rename the Lake Wanahoo Education Building to honor a former influential LPNNRD director. In a unanimous vote, the building was renamed to the Clint Johannes Education Building at Lake Wanahoo. An open house and dedication ceremony was held in August 2021. The LPNNRD holds environmental education programs for all ages throughout the year at the building for special programs and events with area schools, and outside-of-school groups.

### **FY 2022 Information & Education Objectives**

- Publish the district newsletter “Viaduct” biannually in an electronic format and as a printed newspaper insert in 10 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.
- Continue to provide a display at county fairs (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 (Facebook, Twitter, YouTube, etc.).
- Continue with the annual awards and recognition program.
- 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.
- Provide assistance for the East Central Region Land Judging Contest in the fall of 2021, hosted by Lower Platte South NRD.
- Host the 31st Annual Spring Conservation Sensation in May 2022.

- Develop new programs and promotional projects to aid in outreach efforts of the district.
- Develop a video for the Information and Education department.
- Provide assistance and publications for the students involved in the Shell Creek Watershed Monitoring Program.

### **FY 2023-2027 Information & Education Long Range Objectives**

- Search for new and effective ways to inform and educate the public on the NRD purpose and programs.
- Participate with the Information & Education Staff Group to coordinate statewide I&E activities and produce statewide products.
- Increase participation in activities sponsored by other agencies related to NRD 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.
- Provide assistance for the East Central Region Land Judging Contest in the fall of 2022, hosted by Lower Platte South NRD.
- Assist in the development of an outdoor classroom for a district school.
- Partner with district schools to host “Test Your Well Night” events annually.

### **LPNNRD Staff**

The staff of the Lower Platte North NRD includes 17 full-time and part-time employees stationed at the district office in Wahoo. 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.

Current staff as of September 1, 2021:

Sydney Abbott, **Education Coordinator**

Daryl Andersen, **Water Resources Manager**

Tyler Benal, **Water Resources Specialist**

Jill Breunig, **Bookkeeping Department Head/Administrative Assistant**

Will Brueggemann, **Water Resources Specialist**

Duke Dokulil, **Operations & Maintenance Technician**

Sean Elliott, **Projects/Rural Water Manager**

Eric Gottschalk, **General Manager**

Bob Heimann, **Operations & Maintenance Manager**

David Moore, **Operations & Maintenance Technician**

Tom Mountford, **Assistant General Manager**

Russell Oaklund, **Lead Water Resources Specialist**

Dave Odvody, **Recreation Facilitator**

Chris Poole, **Grants/GIS Department Head**

Karen Rezac, **Department/Administrative Assistant**

Lacey Sabatka, **Information Coordinator**

Bret Schomer, **Wanahoo Recreation Supervisor/Water Resources Specialist**

**Staff Support for NRCS Offices:**

Vacant, **Conservation Technician**

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

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

Luz Schafersman, **NRD/NRCS Field Office Assistant (Dodge County)**

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

Melissa Foreman, **Shell Creek Watershed (LPNNRD & SCWIG Volunteer)**

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

## **Financial**

### **FY 2022 Financial Objectives**

Funding required for the LPNNRD projects and programs for Fiscal Year 2021 requires a general operating budget of \$7,782,546 of which \$3,458,000 is required from the district's local tax levy. The

2022 tax levy of **.033457** cents per \$100 actual valuation is required from District property. Projected expenses and income for FY 2021-2026 are shown in Appendix F.

A tax levy of **.033457** means that an owner of a \$150,000 home will pay \$50.19 in NRD taxes in FY 2022. An owner of farm land valued at \$7,000 per acre will pay \$2.34 an acre/year to the NRD in FY 2022. The LPNNRD levy represents about two percent of the total property tax collected.

### **FY 2023-2027 Long Range Financial Objectives**

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 \$0.035 and \$0.055 per \$100 actual valuation as the District continues to assist with flood reduction project priorities and addresses our responsibilities with groundwater water quality and quantity management.



**LOWER PLATTE NORTH**  
Natural Resources District

# ENVIRONMENTAL EDUCATION

The Lower Platte North Natural Resources District offers a variety of hands-on activities, classroom presentations, field trip opportunities, career exploration and more for students to learn more about the environment and our natural resources!



## MARK YOUR CALENDARS!

**February (TBD) 2022**

Central Region Envirothon Contest

**April 22, 2022**

Earth Day

**April 24 - 30, 2022**

Soil and Water Stewardship Week

**April 29, 2022**

Arbor Day

**May 4, 2022**

Spring Conservation Sensation

Unfortunately, Regional and State Land Judging Contests and Range Judging Contests for 2021 have been canceled



## CONTACT

Sydney Abbott, LPNNRD Education Coordinator  
email: [sabbott@lpnnrd.org](mailto:sabbott@lpnnrd.org)  
Lacey Sabatka, LPNNRD Information Coordinator  
email: [lsabatka@lpnnrd.org](mailto:lsabatka@lpnnrd.org)

## WATER

### Water Works

Consider the many uses of water and the interdependence on water in your community.

**State Standard Compatible:** SC.K.7, SC.1.6, SC.2.7, SC.2.13, SC.3.7, SC.5.8, SC.5.13, SC.6.4, SC.6.13, SC.7.7, SC.7.8, SC.7.13, SC.HS.7, SC.HS.13, SC.HS.15

### Water Quantity

Examine aquifers and the importance of groundwater conservation.

**State Standard Compatible:** SC.K.7, SC.2.7, SC.2.13, SC.5.13, SC.6.13, SC.7.7, SC.7.13, SC.HS.7, SC.HS.13, SC.HS.15

### H2 Oh No!

Consider the importance of water quality. Use colorimeters to test the level of nitrates in water samples.

**State Standard Compatible:** SC.K.7, SC.2.7, SC.5.13, SC.6.13, SC.7.7, SC.7.13, SC.HS.7, SC.HS.13, SC.HS.15

### Watershed Mayhem

Discover water movement through a watershed.

**State Standard Compatible:** SC.4.4, SC.5.13, SC.6.13, SC.7.13, SC.7.14, SC.HS.7, SC.HS.13, SC.HS.14, SC.HS.15

## WILDLIFE

### Wildlife CSI

Be a detective and investigate various "critter scenes" to solve the mysteries left behind.

**State Standard Compatible:** SC.K.7, SC.1.6, SC.2.7, SC.3.7, SC.3.9, SC.4.6, SC.5.8, SC.6.9, SC.7.7, SC.7.8, SC.8.10

### Oh Deer & Carrying Capacity

Discover the fluctuations in wildlife populations based on limiting factors, carrying capacity, and habitat components.

**State Standard Compatible:** SC.K.7, SC.1.6, SC.2.7, SC.3.7, SC.3.9, SC.4.6, SC.5.8, SC.6.9, SC.7.7, SC.7.8, SC.8.10, SC.HS.7, SC.HS.9, SC.HS.10

### Habitats & Camouflage

Explore wildlife habitats and the importance of camouflage.

**State Standard Compatible:** SC.K.7, SC.1.6, SC.2.7, SC.3.7, SC.4.6, SC.7.7

## RECYCLE

### Recycle Relay

Determine recyclable vs. non-recyclable products.

**State Standard Compatible:** SC.K.7, SC.4.4, SC.7.7, SC.HS.7, SC.HS.15

## CAREER EXPLORATION

### Career Jeopardy

Explore various career opportunities in natural resources conservation and agriculture.

## POLLINATORS

### Flower Power

Discover how pollinators participate in the process of pollination.

**State Standard Compatible:** SC.K.7, SC.1.6, SC.2.7, SC.3.7, SC.3.9, SC.4.6, SC.6.9

## SOIL

### Don't Lose Ground

Investigate various scenarios of soil erosion and conservation practices.

**State Standard Compatible:** SC.2.13, SC.3.7, SC.5.13, SC.6.13, SC.7.13, SC.7.14, SC.HS.7, SC.HS.14, SC.HS.15

## GIS

### Geocaching

Utilize GPS and technology to explore geocaching on your very own treasure hunt!

**State Standard Compatible:** SC.8.2, SC.HS.2

## FORESTRY

### Tree Rings

Examine real tree rings to identify the stories they tell and create your own!

**State Standard Compatible:** SC.K.7, SC.1.6, SC.2.7, SC.2.13, SC.3.7, SC.3.9, SC.4.13, SC.5.8, SC.5.13, SC.6.9, SC.7.3, SC.7.7, SC.7.8, SC.7.13, SC.7.14, SC.8.14

### Trees, Leaves and More

Consider the many uses of trees and how they change through the seasons.

**State Standard Compatible:** SC.K.7, SC.1.6, SC.2.7, SC.2.13, SC.3.7, SC.3.9, SC.5.8, SC.6.9, SC.7.8

## FIELD TRIPS

**Lake Wanahoo NRD Recreation Area** (Wahoo, NE)

**Czechland Lake Recreation Area** (Prague, NE)

**Homestead Lake Recreation Area** (Bruno, NE)

Explore the recreation areas and learn more about the environment with hands on activities!

**Nature Education Trail & Disc Golf Course (Lake Wanahoo NRD Recreation Area)**

Learn about our natural resources and participate in one of the fastest growing sports today!

### Local Prairies

Clarence & Ruth Fertig Tallgrass Prairie, near Richland

Knott Tallgrass Prairie, near Yutan

Stanley & Jean Shavlik Prairie, near Linwood

Adrian & Gladys Blatny Prairie, near Linwood

Most activities are created using Project Learning Tree book, Project Wet book, Project Wild book, and Know Your Environment book. Most of these activities can be adjusted to fit into specific classrooms or groups.



INTERLOCAL AGREEMENT  
FOR  
WATER SUPPLY SERVICE FROM DAVID CITY, NEBRASKA  
TO BRUNO, NEBRASKA

This Interlocal Agreement For Water Supply Service From David City, Nebraska to Bruno, Nebraska, hereinafter referenced as "Agreement", is made and entered into between the VILLAGE OF BRUNO, NEBRASKA, a Nebraska Municipal Corporation, hereinafter referenced as "BRUNO"; the CITY OF DAVID CITY, NEBRASKA, a Nebraska Municipal Corporation, hereinafter referenced as "DAVID CITY"; and the LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT, a Nebraska Natural Resource District and political subdivision, hereinafter referenced as "LPNNRD".

WHEREAS, this Agreement comes within the terms and conditions of the "INTERLOCAL COOPERATION ACT", hereinafter referenced as "Act", pursuant to Sections 13-801 et. seq. of the R.R.S. of Nebraska Reissue 1997 and 2002 Cumulative Supplement, and,

WHEREAS, BRUNO, DAVID CITY, and LPNNRD are all each considered a "public agency" under the definition of terms contained in the Act, Section 13-803 R.R.S. of Nebraska Reissue 1997; and

WHEREAS, this Agreement and the parties hereto are acting and coming within the authority of the Act; derive their authority from the Act; it is the intention of the parties hereto to have this Agreement without the creation of a separate legal entity; and whenever possible, this Agreement shall be construed in conformity with the Act; and,

WHEREAS, BRUNO has owned, maintained and operated a municipal water supply system, but because of circumstances particular to BRUNO, has evaluated potential water supply options for its municipal water system; and,

WHEREAS, LPNNRD has provided the mechanism accessory for BRUNO to examine the hereinafter stated water supply option by providing the initial "Interlocal Cooperation Act Agreement" between LPNNRD and BRUNO, which was executed by them December 20, 2002; and,

WHEREAS, on January 2, 2003 LPNNRD entered into an Agreement with SYNDER ENGINEERING COMPANY, hereinafter referenced as "Company", for the purpose of evaluation of technical and financial feasibility of the hereinafter stated water supply option. The said Agreement being in a format required by U.S. Department of Agriculture Rural Development Form RD1942-19 with USDA-RD pending approval, and,

WHEREAS, LPNNRD during 2002 began a process of exploring potential interest of entities within Butler County, Nebraska, of which BRUNO and DAVID CITY are located, for the formation of a Rural Water District with possible consideration of utilization of the hereinafter stated under supply option as a key component; and,

WHEREAS, DAVID CITY completed a Water System Report in September, 2001 prepared by JACOBSON HELGOTH CONSULTANTS, hereinafter referenced as "Consultants". The said Report reviews the current assessment of DAVID CITY'S water supply and outlines a ten (10) year Capital Improvement Program to meet water supply, water distribution, and water storage requirements for DAVID CITY; and

WHEREAS, U.S.D.A. Rural Development has expressed significant support for BRUNO to review acceptable "long-term" regional solutions for its water supply; and

WHEREAS, BRUNO'S water supply options were based upon a February \_\_\_\_\_, 2003 Water Supply "STUDY" prepared by SNYDER ENGINEERING COMPANY and JACOBSON HELGOTH CONSULTANTS, hereinafter referenced as "Company and Consultants"; and

WHEREAS, it is understood that the Water Supply "STUDY" has reviewed two (2) options: First, the alternative of BRUNO constructing a new well, under treatment and under main system; and Second, as DAVID CITY to BRUNO water supply. Based upon this "STUDY", the DAVID CITY to BRUNO water supply option is the cost-effective option based upon life cycle costs and favorable funding of U.S.D.A. Rural Development.

WHEREAS, Company and Consultants has determined and recommended a water supply option involving water to be supplied by DAVID CITY to BRUNO; and,

WHEREAS, BRUNO and DAVID CITY concur in the aforesaid water supply option determined and recommended by Company and Consultants and concur with Company and

Consultants that the aforesaid water supply option to be the most cost effective solution to circumstances that have arisen for the water supply to BRUNO'S municipal water system; and,

WHEREAS, the purpose of this Agreement is to establish responsibilities, authorities, and constraints mutually agreeable to the parties hereto including, but not necessarily limited to the following:

- (A) BRUNO to proceed with the application process to U.S.D.A. Rural Development for funding for the DAVID CITY to BRUNO water supply option;
- (B) Plan for implementation of design and construction of the said project;
- (C) Provide for operation and maintenance of the said project;
- (D) Provide limitations for the said project, particularly for usage, but not limited thereto;
- (E) Provide terms of fee setting and collection of revenues;
- (F) Provide for other factors important to the parties hereto for the long-term operation of the said project.

NOW, THEREFORE, IN CONSIDERATION OF THE TERMS AND CONDITIONS STATED HEREIN, which the parties agree to be valuable consideration, the parties agree as follows, to-wit:

I

DURATION

The duration of this Agreement shall be for SEVENTEEN (17) years commencing on the date of execution of this Agreement. Further, the parties hereto upon mutual agreement to do so grant to each other two (2) FIFTEEN (15) year options to renew this Agreement with any modifications to this Agreement and renewal time being made in writing and executed by the parties hereto. The renewals MUST be exercised at least nine (9) months prior to the expiration of the respective term.

II

CUSTOMER STATUS

DAVID CITY will put BRUNO in a "customer status" as a water supply user with DAVID CITY. This "customer status" will be addressed by an appropriate Ordinance addressing the same for water rates charged to BRUNO by DAVID CITY. The term "customer status" will mean BRUNO will be treated as any customer within the city limits of DAVID CITY.

III

SUPPLY WATER

- (a) DAVID CITY will supply to BRUNO quality water as required to be supplied to all its customers and in such pressure and quantity as needed by BRUNO.
- (b) BRUNO WILL NOT "blend" its own water supply with the water supply provided by DAVID CITY and will do all it can to prevent its customers from doing the same with any private water supply they may have access.
- (c) BRUNO WILL require all its water supply customers to maintain in operating condition "backflow prevention devices" to prevent contamination of the water supply provided by DAVID CITY and will see that its customers comply with the Uniform Plumbing Code.
- (d) BRUNO WILL PROVIDE the necessary "backflow prevention devices" as needed at the "Master Meter Location", hereinafter referenced in Paragraph IV (d) or at such place or places agreed by the parties to be in the best interests of the parties to prevent backflow contamination.
- (e) In the event an emergency occurs associated with the water system, BRUNO would be allowed to "blend" its own water supply with the water supply provided by DAVID CITY. Such emergency occurrences would include but would not be necessarily limited to (1) lack of water supply from DAVID CITY, (2) fire incident within the village limits of BRUNO, or (3) breakdown of the water system in some way so that the water supply to BRUNO is endangered.

IV

RATES

- (a) The water supply rate to be charged to BRUNO will be set by DAVID CITY periodically as it sets its water supply user rates for its customers.
- (b) DAVID CITY will bill BRUNO monthly for its water supply. BRUNO will bill its water supply user customers within its Village Limits, will be responsible for setting such rates, and will be responsible for collection of the same. DAVID CITY will have no responsibility for collection of water supply user billings within the Village Limits of BRUNO.
- (c) BRUNO will promptly pay its monthly billed water supply rate/bill as any customer of DAVID CITY as per DAVID CITY'S billing to BRUNO.
- (d) DAVID CITY shall meter water at a "Master Meter Location" located at or near State Highway Spur 12B. Meter readings shall be performed by DAVID CITY Water Department personnel.

V

WATER MAIN AND WATER LINE

In order to provide the water supply to BRUNO by DAVID CITY, the parties agree to the following:

- (a) BRUNO will construct, maintain, repair, and upkeep the line from DAVID CITY'S water tower wherever located to the State Highway Spur 12B connection; this line will be hereinafter referenced as the "Water Main". All costs will be that of BRUNO, including construction. DAVID CITY will have NO liability for the same.
- (b) BRUNO will construct, maintain, repair, and upkeep the line from the State Highway Spur 12B connect to BRUNO; this line will be hereinafter referenced as the "Water Line". All costs will be that of BRUNO, including construction. DAVID CITY will have NO liability for the same.

- (c) BRUNO will construct, maintain, repair, and upkeep the "Tap Ons" to the Water Line. All costs for the same will be that of BRUNO, including construction. DAVID CITY will have NO liability for the same.
- (d) DAVID CITY will construct, maintain, repair, and upkeep the "Tap Ons" to the Water Main. All costs for the same will be that of DAVID CITY. BRUNO will have NO liability for the same.
- (e) BRUNO shall retain full rights of ownership of the Water Main and Water Line. However, BRUNO will extend to DAVID CITY the EXCLUSIVE RIGHT TO PURCHASE the Water Main assets. The cost of purchase by DAVID CITY will be the actual cost of the Water Main part of the project contemplated in this Agreement, which includes but is not necessarily limited to construction costs, right-of-way acquisition costs, engineering costs, interest, and such documented related costs, LESS the proportionate share of all grants, subsidies, and monies paid on behalf of the project contemplated herein related to the Water Main part of the project herein.
- (f) DAVID CITY shall be paid an "allocated capital contribution" by BRUNO within one (1) year after completion of this project covered by this Agreement. The agreed "allocated capital contribution" will be the sum of SIXTY-FIVE THOUSAND DOLLARS (\$65,000.00) and shall be paid with interest accrued at the current U.S.D.A. Rural Development loan rate. This figure WILL BE ADJUSTED should DAVID CITY be able to establish the necessity for a larger "allocated capital contribution" that is accepted, approved, and calculated into the "grant" BRUNO will be receiving for the project contemplated herein.
- (g) LPNNRD or its appropriate assignee shall retain the right of first refusal for the opportunity to purchase assets of the Water Line. This right of first refusal to purchase opportunity shall exist for the Duration of this Agreement as contained in Paragraph I hereinbefore stated. The sale contemplated herein is SUBJECT to approval by DAVID CITY. This first refusal to purchase opportunity is further

LPN NRD  
Paid  
5/17/2006

extended to DAVID CITY should LPNNRD decide NOT to exercise this opportunity. The purchase contemplated herein would be the actual cost of the Water Line part of the said project, which includes but is not necessarily limited to construction costs, right-of-way acquisition costs, engineering costs, interest, and such documented related costs, LESS the proportionate share of all grants, subsidies, and monies paid on behalf of the said project related to the Water Line part of the project herein. This right of first refusal to purchase opportunity is available to LPNNRD and/or DAVID CITY should BRUNO desire to sell the Water Line or BRUNO abandon the Water Line during the duration of this Agreement and extension thereof. This opportunity contained herein is for the Water Line system itself and any water supply from DAVID CITY WOULD have to be renegotiated in the event the water supply would be expanded beyond what is contemplated in this Agreement, particularly a Rural Water District but not limited to such example.

- (h) This Agreement contemplates a specific location of the Water Main from the water tower DAVID CITY intends to build to State Highway Spur 12B. Should the alternate route prepared be used or a new alternate route be developed, adjustments in this Agreement will be made to address such route changes. Such change in Water Main route could change the "Master Meter Location"; could change who gets the revenue from the Water Main should Tap Ons/Hook Ups occur on the Water Main, such water supply revenue is contemplated to be that of BRUNO; or could result in DAVID CITY leasing the Water Main. The parties hereto understand that Addendums to this Agreement may be necessitated and agree to negotiate such Addendums if necessary as the location of the Water Main and/or Water Line occurs that are different from the locations contemplated herein.

VI

TAP ONS/HOOK UPS

The parties hereto anticipate so-called "Tap Ons/Hook Ups" which shall be referenced herein as "Tap Ons". The following are terms and conditions agreed to by the parties hereto related to Tap Ons, to-wit:

- (a) Tap Ons matters will be those involving the Water line ONLY and NOT the Water Main but will include those Tap Ons outside the Village Limits of BRUNO BUT NOT WITHIN IT'S ONE (1) MILE ZONING AUTHORITY OR DAVID CITY'S ONE (1) MILE ZONING AUTHORITY.
- (b) There is hereby created a "Tap Ons Committee", hereinafter referenced as "Committee" to address Tap Ons. The Committee will consist of the Mayor of DAVID CITY or the Mayor's designee, the City Administrator of DAVID CITY, the Water Department Head of DAVID CITY, the Chairman of the Board of Trustees of BRUNO or the Chairman's designee and two (2) members of the Board of Trustees of BRUNO. The Committee shall chose its Chairperson, Vice-Chairperson, and Secretary from among its members.
- (c) Tap Ons shall be prohibited to protect the integrity of the Water Line, unless approved by the Committee. Any Tap Ons will only be approved at designated valved Water Line cross or tee fittings.
- (d) The Committee will be responsible for approving Tap Ons.
- (e) The Committee will determine periodically the charges to Tap Ons for the following:
  - (1) Tap Reservation Fee, which shall be split 50/50 between BRUNO and DAVID CITY to assist with capital improvements.
  - (2) Tap Fee (when tap is made), which shall be paid solely to DAVID CITY to assist with capital improvements.

- (3) Meter and Usage Fee (Rates), which shall be paid solely to BRUNO. Such charges shall be adopted by Ordinances passed by BRUNO and DAVID CITY.
- (f) The Committee will set any capacity limits both in pressure and quantity of water.
- (g) The Tap Reservation Fee shall limit access to the Water Line water service for five (5) years from the date of payment of said fee. Cost of service from Tap to the users shall be borne by the user.
- (h) The Committee must approve any user's resale of water from the Water Line. The Committee shall determine if such resale is permitted and determine the same based upon the type of use, quantity to be used, and pressure demands, but the Committee IS NOT necessarily limited to such considerations. The purpose herein is to assure the integrity, quality, and quantity of the water supply in the Water Line and Water Main.
- (i) Any Tap Ons MUST install, maintain, and operate backflow prevention devices and comply with the Uniform Plumbing Code.
- (j) The fees and rates aforesaid to be charged Tap Ons between BRUNO and DAVID CITY will be determined by the Committee.

## VII

### INTERLOCAL COOPERATION ACT CONDITION

This Agreement made pursuant to the Interlocal Cooperation Act shall NOT relieve any party of any obligation or responsibility upon it by law EXCEPT to the extent of actual and timely performance by a joint board or other legal entity or administrative entity created by this Agreement or amendments thereto and made pursuant to the said Act, while performances may be offered in satisfaction of the obligation or responsibility. Reference Section 13-804(5) R.R.S. of Nebraska 2002 Cumulative Supplement.

## VIII

### AMENDMENTS TO AGREEMENT

Amendments to the original Agreement may be made and modifications made upon mutual agreement and consent by the parties hereto.

IX

BINDING EFFECT

This Agreement shall be binding upon the heirs, successors, assigns, and personal representatives of the parties hereto.

X

EFFECTIVE DATE

This Agreement shall become effective upon execution by all parties and approval of the project contemplated hereby BRUNO for consideration.

BRUNO:

DAVID CITY:

LPNNRD:

By: William R. Voboril  
Chairman of the Village  
Board of Trustees

By: Hygon Smith  
Mayor of the City

By: [Signature]  
General Manager

By: Donald A. Stara  
Village Clerk

By: Jean C. Kovar  
City Clerk

By: ~~\_\_\_\_\_~~

(Seal)

(Seal)



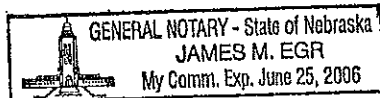
(Seal)

State of Nebraska )

) ss.

County of Butler )

The foregoing instrument was acknowledged before me on MARCH 8th, 2004 by WILLIAM R. VOBORIL, Chairman of the Village Board of Trustees and DONALD A. STARA, Village Clerk of Bruno, Nebraska a Nebraska Municipal Corporation, on behalf of the Village.



[Signature]  
Notary Public

State of Nebraska )  
 ) ss.  
County of Butler )

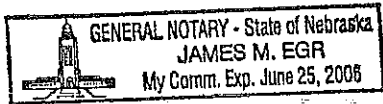
The foregoing instrument was acknowledged before me on August 18, 2003 by Stephen Smith, Mayor, and Joan E. Koval, City Clerk, of the City of David City Nebraska, a Nebraska Municipal Corporation, on behalf of the City.

Jamie L. Comte  
Notary Public



State of Nebraska )  
 ) ss.  
County of Butler )

The foregoing instrument was acknowledged before me on August 14th, 2003 by John R. Mivoski, as GENERAL MANAGER and \_\_\_\_\_, of the Lower Platte North Natural Resources District, a Nebraska Natural Resources District and political subdivision on behalf of the NRD.



John R. Mivoski  
Notary Public

REC'D AUG 26 2004

REC'D SEP 27 2004

FIRST ADDENDUM TO  
INTERLOCAL AGREEMENT FOR  
WATER SUPPLY SERVICE FROM DAVID CITY, NEBRASKA  
TO BRUNO, NEBRASKA

This First Addendum to Interlocal Agreement For Water Supply Service From David City, Nebraska to Bruno, Nebraska hereinafter referenced as "ADDENDUM I", is made and entered into between the VILLAGE OF BRUNO, NEBRASKA, a Nebraska Municipal Corporation, hereinafter referenced as "BRUNO"; the CITY OF DAVID CITY, NEBRASKA, a Nebraska Municipal Corporation, hereinafter referenced as "DAVID CITY"; and the LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT, a Nebraska Natural Resource District and political subdivision of the State of Nebraska, hereinafter referenced as "LPNNRD".

WHEREAS, BRUNO, DAVID CITY, and LPNNRD entered into an Interlocal Agreement For Water Supply Service From David City, Nebraska to Bruno, Nebraska executed by BRUNO March 8, 2004 executed by DAVID CITY August 18, 2003, and executed by LPNNRD August 14, 2003 with said Interlocal Agreement hereinafter being referenced as "AGREEMENT", with all its terminology references being incorporated herein; and,

WHEREAS, BRUNO has requested LPNNRD to purchase the WATER LINE after completion of the project involved in the AGREEMENT; and,

WHEREAS, DAVID CITY owns and operates a water supply distribution system with a capacity currently capable of serving the present customers of DAVID CITY; capable of serving the present water users of BRUNO; and capable of serving an estimated number of water users along the WATER LINE outside of the one (1) mile zoning authority of BRUNO and of DAVID CITY, said estimated number NOT to exceed THREE HUNDRED FIFTY SEVEN (357) in number; and,

WHEREAS, LPNNRD has expressed a desire and willingness to purchase the WATER LINE upon the condition that DAVID CITY allows for aforesaid estimated water connections so that LPNNRD can offset its purchase of the WATER LINE.

NOW, THEREFORE, IN CONSIDERATION OF THE TERMS AND CONDITIONS STATED HEREIN which the parties hereto agree to be valuable consideration, the parties hereto agree to the following amendments, changes, and addendums to the AGREEMENT, to-wit:

1. Paragraph II of the AGREEMENT will have LPNNRD substitute for the BRUNO references. Further, LPNNRD will put BRUNO in the same "customer status" it will have with DAVID CITY in said Paragraph II of the AGREEMENT.
2. All terms and conditions in Paragraph III of the AGREEMENT associated with BRUNO will apply in the same manner to and for LPNNRD as if LPNNRD was specifically listed. The terms and conditions in Paragraph III of the AGREEMENT will remain for BRUNO.
3. All terms and conditions in Paragraph IV of the AGREEMENT associated with BRUNO will apply in the same manner to and for LPNNRD as if LPNNRD was specifically listed, EXCEPT, the "MASTER METER LOCATION" will be located at or near DAVID CITY'S one (1) mile jurisdiction as set by DAVID CITY. The terms and conditions in Paragraph IV of the AGREEMENT will remain for BRUNO, EXCEPT LPNNRD will be billing BRUNO instead of DAVID CITY at or near a "Master Meter Location" to be determined by LPNNRD and BRUNO.
4. Paragraph V of the AGREEMENT is amended to read as follows:

V

WATER MAIN AND WATER LINE

In order to provide the water supply to LPNNRD by DAVID CITY, the parties agree to the following:

- (a) BRUNO will construct the line from DAVID CITY'S water tower, wherever located, to a route that has been determined ideal for all parties involved to a point that will be at or near DAVID CITY'S one (1) mile jurisdiction. This line will be hereinafter referenced as the "Water Main". All costs will be that of BRUNO, including but not limited to construction, easements, engineering, and lawyer fees. LPNNRD will maintain, repair, and upkeep the "Water Main" after construction is complete and ownership of the

"Water Main" has been transferred to LPNNRD. DAVID CITY will have NO liability for the same.

- (b) BRUNO will construct the line from DAVID CITY'S one (1) mile jurisdiction to connect to BRUNO. This line will be hereinafter referenced as the "Water Line". All cost will be that of BRUNO, including but not limited to construction, easements, engineering, and lawyer fees. LPNNRD will maintain, repair, and upkeep the "Water Line" after construction is completed and ownership of the "Water Line" has been transferred to LPNNRD. DAVID CITY will have NO liability for the same.
- (c) LPNNRD will construct, maintain, repair, and upkeep the "Tap Ons" to the "Water Line". All costs for the same will be that of LPNNRD, including construction. DAVID CITY will have NO liability for the same.
- (d) DAVID CITY will construct, maintain, repair, and upkeep the "Tap Ons" to the "Water Main". All cost for the same will be that of DAVID CITY, including construction. LPNNRD will have NO liability for the same.
- (e) BRUNO shall relinquish full rights of ownership of the "Water Main" and "Water Line" to LPNNRD for BRUNO'S actual cost after construction is complete for no more than \$164,000. Further, LPNNRD will pay any extra costs associated with the change of route less any grants all as per the letter of LPNNRD dated April 27, 2004 attached hereto, marked Exhibit "A", and incorporated herein by reference as if fully set forth. However, LPNNRD will extend to DAVID CITY the EXCLUSIVE RIGHT TO PURCHASE the "Water Main" assets. The costs of purchase by DAVID CITY will be the actual cost of the "Water Main" part of the project contemplated in the AGREEMENT and this ADDENDUM I, which includes but is not necessarily limited to construction costs, right-of-way acquisition costs, engineering costs,

interest, and such documented related costs, LESS the proportionate share of all grants, subsidies and monies paid on behalf of the project contemplated herein related to the "Water Main" part of the project herein.

- (f) DAVID CITY shall be paid an "allocated capital contribution" by BRUNO within one (1) year after completion of this project covered by this AGREEMENT. The agreed "allocated capital contribution" will be the sum of SIXTY-FIVE THOUSAND DOLLARS (\$65,000.00) and shall be paid with interest accrued at the current U.S.D.A. Rural Development loan rate.

- 5. Paragraph VI of the AGREEMENT is amended to read as follows:

VI

TAP ONS/HOOK UPS

The parties hereto anticipate so-called, "Tap Ons/Hook Ups" which shall be referenced herein as "Tap On Units". The following are terms and conditions agreed to by the parties hereto related to "Tap On Units", to-wit:

- (a) "Tap On Units" matters will be those involving the "Water Line" after the "Master Meter Location". There will be the possibility to have a total of FOUR HUNDRED FIFTY-SEVEN (457) "Tap On Unit" certificates. ONE HUNDRED (100) of these will go to BRUNO and LPNNRD will be responsible for the remaining THREE HUNDRED FIFTY-SEVEN (357) "Tap On Units".
- (b) There is hereby created a "Tap Ons Committee", hereinafter referenced as "Committee" to address Tap Ons. The Committee will consist of the Mayor of DAVID CITY or the Mayor's designee, the City Administrator of DAVID CITY, the Water Department Head of DAVID CITY, and three (3) members appointed by LPNNRD. These three (3) members can be but are not limited to LPNNRD Board Members, LPNNRD Staff, and

residents living within the project area. The Committee shall choose its Chairperson, Vice-Chairperson, and Secretary from among its members.

- (c) To protect the integrity of the "Water Line", Tap Ons must be approved by the Committee. Any Tap On will only be approved at designated valved "Water Line" cross or tee fittings.
- (d) The Committee will be responsible for approving Tap Ons. The Committee will also be responsible for determining how many "Tap On Units" will be used for different connections such as domestic, commercial, agricultural.
- (e) The Committee will determine periodically the charges to Tap Ons for the following:
  - I. Tap Reservation Fee, which will go 100% to LPNNRD.
  - II. Once said loan for investment has been paid off, DAVID CITY and the LPNNRD Water Entity Board, hereinafter referenced, will split the tap fee 50% to LPNNRD and 50% to DAVID CITY.
- (f) The Committee will set any individual user capacity limits both in pressure and quantity of water.
- (g) The Tap Reservation Fee shall limit access to the "Water Line" water service for five (5) years from the date of payment of said fee. Cost of service from the Tap to the users shall be borne by the user.
- (h) The Committee must approve any user's resale of water for the "Water Line". The Committee shall determine if such resale is permitted and determine the same based upon the type of use, quantity to be used, and pressure demands, but the Committee is not necessarily limited to such considerations. The purpose herein is to assure the integrity, quality, and quantity of the water supply in the "Water Line" and "Water Main".

- (i) Any Tap Ons MUST install, maintain, and operate backflow prevention devices and comply with the Uniform Plumbing Code.
- (j) The fees and rates aforesaid to be charged Tap Ons after the "Master Meter" will be determined by LPNNRD.

6. The Agreement will have added the following:

XI

WATER ENTITY BOARD

The LPNNRD Board will be forming a Water Entity Board to run and manage the "Water Line" between DAVID CITY and BRUNO under the following terms and conditions:

- (a) This Water Entity Board will consist of five (5) members, four (4) being appointed by the elected officials of the LPNNRD Board and one (1) being appointed by the Mayor of DAVID CITY.
- (b) The Water Entity Board will set water rates for rural customers; these rates include cost of water plus operation and maintenance cost and transmission lost cost.
- (c) It will be the responsibility of the Water Entity Board to pay all bills that the Water Entity Board incurs.
- (d) It will be the responsibility of the Water Entity Board to set an annual budget.
- (e) It will be the responsibility of the Water Entity Board to hire or contract with any party to work or perform maintenance on the "Water Line".
- (f) It will be the responsibility of the Water Entity Board to insure the overall stability and welfare of the system.
- (g) It will be the responsibility of the Water Entity Board to review the Tap Ons Committee's recommendations.

- (h) It will be the responsibility of the Water Entity Board to develop the rules and regulations of the newly formed Water Entity Board.

XII

REGULATORY AGENCIES

This Agreement is subject to such rules, regulations or laws as may be applicable to similar agreements in this State. DAVID CITY and LPNNRD will collaborate in obtaining such permits, certificates, or other instruments as may be required to comply therewith.

XIII

FINANCING

The construction of the water supply distribution system by BRUNO and/or LPNNRD is being financed by a loan made or insured by, and a grant from, the United States of America, acting through the Rural Development of the United States Department of Agriculture, and the provisions hereof pertaining to the undertakings of BRUNO and LPNNRD are conditioned upon approval, in writing, of the State Director of the U.S.D.A. Rural Development.

XIV

ASSIGNMENT

This Agreement may be assigned by BRUNO and/or LPNNRD to the United States of America or any agent thereof as collateral security for any loans made or to be made to BRUNO and/or LPNNRD in financing the construction, extension or repair and maintenance of the water supply of BRUNO and/or LPNNRD. Except as above stated, this Agreement shall not be sublet or assigned by either of the parties hereto without the express written consent of the other party.

XV

SUCCESSORS

In the event of any occurrence rendering DAVID CITY, BRUNO, or LPNNRD incapable of performing under this Agreement, any successor of the said parties, whether the result of legal process, assignment, or otherwise, shall be bound to each and every term, covenant and condition of this Agreement during the term thereof and shall assume all rights and liabilities of parties hereunder.

XVI

DEFAULT

Time is of the essence of this Agreement. If BRUNO and/or LPNNRD fail to pay any amounts due under the terms of this Agreement for a period exceeding Sixty (60) days, or if BRUNO and/or LPNNRD fail to perform any of the other terms, covenants, and conditions of this Agreement, or if BRUNO and/or LPNNRD abandon the project, DAVID CITY shall have the right, after giving Fifteen (15) days advance written notice to the Treasurer of BRUNO and/or LPNNRD, Water Entity Board herein, and to U.S.D.A. Rural Development with its principal office located at 100 Centennial Mall North, Room 308, Federal Building, Lincoln, Lancaster County, Nebraska, and said defect remaining, to discontinue and to declare this Agreement terminated.

In addition thereto, DAVID CITY shall have the right to take such intermediate steps without complete discontinuance or termination of this Agreement, including but not limited to the right of discontinuing the furnishing of water service, so long as any part of the amount due remains unpaid. Such a discontinuance of water service shall not relieve BRUNO and/or LPNNRD of liability for any minimum charge during the time water service is so discontinued.

The rights given hereto herein to DAVID CITY shall be cumulative and in addition to all other remedies available to DAVID CITY, either at law or in equity, and as otherwise provided in this Agreement, for the breach of any other provisions of this Agreement.

XVII

SPECIAL AGREEMENT - METER TEST

Either party at any time may request a meter test. Said meter test shall be conducted by DAVID CITY or its agent or engineer. In the event a test is requested by DAVID CITY, BRUNO and/or LPNNRD shall be notified in advance of the date and time of the test and may have a representative present at such test. In the event BRUNO and/or LPNNRD demands a meter test and said meter, after testing, shows to be accurate within TWO PER CENT (2%) BRUNO and/or LPNNRD shall bear the cost of such test. If meter inaccuracy exceeds TWO

PER CENT (2%) to the detriment of BRUNO and/or LPNNRD, then DAVID CITY shall bear the costs of such test.

XVIII

GOVERNING LAW

The situs of the Agreement shall be the State of Nebraska, and this agreement shall be interpreted and enforced in accordance with the laws of such state.

XIX

NO PARTNERSHIP

It is hereby acknowledged that there is no partnership between DAVID CITY, BRUNO, and/or LPNNRD, which would extend DAVID CITY'S liability to any claim of damage from BRUNO and/or LPNNRD or one of it's rural water users.

- 7. All terms and conditions of the AGREEMENT not otherwise amended by this ADDENDUM I shall remain in full force and effect.
- 8. This ADDENDUM I shall be binding upon the heirs, successors, assigns, and personal representatives of the parties hereto.
- 9. This ADDENDUM I shall become effective upon execution by all parties hereto.

BRUNO:

DAVID CITY:

LPNNRD:

By: William R. Vobornil  
Chairman of the Village  
Board of Trustees

By: Stephane  
Mayor of the City

By: Sean Johnson  
Chairperson of the Board

By: Donald A. Stara  
Village Clerk

By: Josie E. Kovar  
City Clerk

By: John  
General Manager

(Seal)

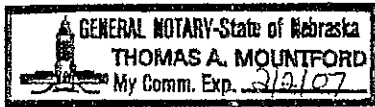
(Seal)



(Seal)

State of Nebraska )  
 ) ss.  
County of ~~Butler~~ )

The foregoing instrument was acknowledged before me on August 20, 2004 by William R. Voboril, Chairman of the Village Board of Trustees and Donald A. Stara, Village Clerk of Bruno, Nebraska a Nebraska Municipal Corporation, on behalf of the Village.



Thomas A. Mountford  
Notary Public

State of Nebraska )  
 ) ss.  
County of Butler )

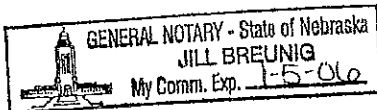
The foregoing instrument was acknowledged before me on JUNE 9<sup>th</sup>, 2004 by STEPHEN SMITH, Mayor, and JOHN E. KUPPER, City Clerk, of the City of David City Nebraska, a Nebraska Municipal Corporation, on behalf of the City.

John E. Kupper  
Notary Public

State of Nebraska )  
 ) ss.  
County of ~~Butler~~ SANDERS )

The foregoing instrument was acknowledged before me on JUNE 14, 2004 by DEAN JOHNSON, Chairperson of the Board, and JOHN R. MIYOSHI as General Manager of the Lower Platte North Natural Resources District, a Nebraska Natural Resources District and political subdivision on behalf of the NRD.

Jill Breunig  
Notary Public



FIRST AMENDMENT  
to the  
INTERLOCAL AGREEMENT  
FOR  
WATER SUPPLY SERVICE FROM DAVID CITY, NEBRASKA  
TO BRUNO, NEBRASKA

THIS AMENDED AGREEMENT ("Amended Agreement") is made and entered into by and among the VILLAGE OF BRUNO, Nebraska, a Municipal Corporation, hereinafter referenced as "BRUNO"; the CITY OF DAVID CITY, NEBRASKA, a Nebraska Municipal Corporation, hereinafter referenced as "David City"; and the LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT, a Nebraska Natural Resource District and political subdivision of the State of Nebraska, hereinafter referenced as "LPNNRD".

WHEREAS, BRUNO, DAVID CITY, AND LPNNRD entered into an Interlocal Agreement For Water Supply Service From David City, Nebraska to Bruno, Nebraska executed by Bruno March 8, 2004, executed by David City August 18, 2003, and executed by LPNNRD August 14, 2003 and the First Addendum to Interlocal Agreement For Water Supply Service From David City, Nebraska to Bruno, Nebraska executed by Bruno August 20, 2004, executed by David City June 9, 2004, and executed by LPNNRD on June 14, 2004 with said Interlocal Agreement and First Addendum to Interlocal Agreement hereinafter referenced as "Agreements", with all its terminology references being incorporated herein; and,

NOW, THEREFORE, IN CONSIDERATION OF THE TERMS AND CONDITIONS STATE HEREIN which the parties hereto agree to be valuable consideration, the parties hereto agree to the following amendments, changes, and addendums to the Agreements, to wit:

1. Paragraph V of the Agreements is to be amended as follows:

- Items (a), (b), and (f) will have LPNNRD substitute for the Bruno references.
- Item (e) is amended to read as follows:

(e) LPNNRD will extend to David City the EXCLUSIVE RIGHT TO PURCHASE the "Water Main" assets. The costs of purchase by David City will be the actual cost of the "Water Main" part of the project contemplated in the Agreements and this Amended Agreement, which includes but is not necessarily limited to construction costs, right-of-way acquisition costs, engineering costs, interest, and such documented related costs, LESS the proportionate share of all grants, subsidies, and monies paid on behalf of the project contemplated herein related to the "Water Main" part of the project herein.

- An Item (g) will be added to read as follows:

BRUNO agrees to pay an agreed cost, a connection fee to connect to the LPNNRD's water supply system, the sum of \$575,391.39, which shall cover any and all costs of the seller for installation of the metering equipment and "Water Main" and Water Line". Bruno will assign all easements and professional service contracts related to the development of this water supply system over to LPNNRD. LPNNRD agrees to assume the remaining financial obligations and liabilities of these easements and contracts as agreed upon by Bruno and LPNNRD. Above and beyond these fees, Bruno will have no further liability upon assignment.

BRUNO and the LPNNRD will enter into a separate "WATER PURCHASE CONTRACT", which will outline the terms and conditions of the sale and purchase of water between LPNNRD and BRUNO. All the covenants contained in such Water Purchase Contract, will govern the sale and purchase of water between LPNNRD and BRUNO. Any section, paragraph, clause or provision of the Agreements or Amended Agreement which are in conflict or inconsistent with the terms, conditions and covenants contained in the Water Purchase Agreement, are hereby canceled, rescinded, and repealed.

2. Governing Law. This agreement in all respects shall be governed by and conform with the provisions of the Interlocal Cooperation Act (Neb. Rev. Stat. 13-801 et seq.)

IN WITNESS WHEREOF, the parties have set their hand by their respective chairpersons upon the date shown by each and this Amended Agreement shall become fully binding upon all participants on the last date of the last party to execute this agreement.

BRUNO:

DAVID CITY:

LPNNRD:

By: William Volant  
Chairman of the  
Board

By: John S. [Signature]  
Mayor of the City

By: Ant Johannes  
Chairperson of the Board

By: Donald A. Stara  
Village Clerk

By: Joan Kvar  
City Clerk

By: [Signature]  
General Manager

(SEAL)

(SEAL)

