Operations Committee Meeting
Thursday, April 27, 2023 8:30 AM
Lower Platte North NRD Office
P.O. Box 126
Wahoo, NE 68066

1. UNFINISHED BUSINESS
   There is no unfinished business.
2. WILD NE AND OTHER PROGRAMS
   Wanahoo Wetland Restoration - Ducks Unlimited plans to finish the survey on the Wanahoo Wetland area this Spring. They mentioned the start of construction this Fall. We hope to burn this area this Spring. After the burn and the cattails emerge, we may do a herbicide treatment on the area. This may reduce the vegetation load when digging out the wetland.
3. OPERATION & MAINTENANCE & OTHER ITEMS
   The O & M crew continues to cut & treat trees on all of our properties. We have packaged and delivered trees and started planting.
   We have 12 sites to plant.
   3.A. Wanahoo Stilling Basin - (FEMA)
   M.E. Collins finished the grading, clean up and seeding below the Wanahoo dam. We had a final walk through with Collins, Houston Engineering and NRD staff on Thursday, April 13.
   A final pay application #05 worth $34,888.23 will be made to M.E. Collins (attached).
   A final invoice from Houston was received for $2,130.59. The total contract fee was $164,440.00, we used $134,592.82. Summary attached.
   We can now file and report all our expenses for the Wanahoo Dam repair to FEMA/NEMA.
   3.B. Wanahoo Relief Well Reconditioning
   Bids from Well Drillers for the reconditioning of 22 relief wells on the Wanahoo dam over the next three years were due Wednesday, April 26th at 4:00 pm. We received one bid from Rieschick Drilling Co. of Falls City, (attached). The bid for 2023 for 10 wells is $105,600, the bid for 2024 for 7 wells is $87,348, and 2025 for 5 wells is $72,893. The three-year total is $265,841.00.

   We received an invoice from Olsson for Geotechnical Exploration for $1,323.00 as part of our Dam Instrumentation Monitoring.
   3.C. Rehabilatation of Cottonwood 21-A NRCS Contract
   The agreement to create a Supplemental Watershed Plan - Environmental Assessment for Cottonwood 21-A flood control dam has been approved and is fully executed within ezFedGrants.
   The District is currently advertising for RFP's from engineering firms. RFP requests have been sent to engineering firms and are due Friday, May 19 at 4:00 pm.and will be presented at the June 1st Operations Committee meeting.

3.D. FEMA Funding for Equipment

We received news that FEMA has approved our request to purchase equipment using the Dan Wolfe Jetty funding that wasn't used for lack of a sponsor. The equipment for purchase is for use on our project sites that were damaged by the 2019 flood. Funding may be at a 95% cost-share rate.

Equipment on the list: JD 6155 M tractor, JD FC15R Flex wing mower, Ford F-350 chassis 4 x4 SD Super Cab pick-up, Circle D SD flat bed, Klute Dump trailer, Generator, Mule 4010 w/ accessories purchased, Stihl Chainsaws (2) purchased, Bobcat T771 ordered, Stihl pole saw purchased, JD 1550 mower ordered, Klute single axle trailer, Land Pride grading scraper, Land Pride box scraper purchase.

3.E. Wanahoo Hay Bids

We are asking for bids to hay approximately 124 acres of Wanahoo property. Bids are due May 4 for approval at the May 8th Board meeting.

Bids were received from 7 individuals and opened on May 5. The list of bidders and their bids are attached. The high bids are underlined.

4. ROCK AND JETTY

We have not received any applications or requests for payment.

5. LAKE WANAHOO

5.A. Lake Wanahoo Weir Buoy Repair

During the week of April 10th, Heimann noticed that the central buoy at the labyrinth weir had shifted to the west. After investigation, the east anchor line in the lake had broken. At that point, Heimann ordered new buoys for the west line as they were worn and sinking and was in the process of ordering new cable for the anchor lines. On Sunday, April 16th, there were high winds out of the northwest. The stress on the remaining cables was too much and the west anchor cable broke, sending several buoys into the weir and breaking the west buoy cable.

New buoys and cable have been purchased and delivered. Staff has begun building the new cable sections. We are also trying to convert the coordinates of the concrete anchors from the original Wanahoo plans and contact a diver to connect the cables.

Current costs are as follows:
11 buoys from Worthington Waterway Barriers - $3,089.76 (attached)
815' - 1/2" galvanized cable from Ed's Wire and Rigging - $1,450.31

We will be able to repair the damage as soon as we find a diver. In the meantime, staff have installed warning signs at the boat ramp saying that the area near the overflow is dangerous and that they should stay back 50 feet.

5.B. Lake Wanahoo Annual Permit Sales

For the month of March, the District received $4355.00 in annual park permit revenue. The year by year break down of annual permit sales is listed below.

Month	Monthly Total	YTD
March 2023	$4355.00	$23847.50

Month	Monthly Total	YTD
March 2022	$5720.00	$27427.50
March 2021	$9980.00	$34917.50
March 2020	$5357.50	$27542.50
March 2019	$4455.00	$29090.00

5.C. Lake Wanahoo Camping Revenue

For the month of March, the District received $4754.57 in camping revenue. The year by year comparison is listed below.

Month	Month Total	YTD
March 2023	$4754.57	$13052.47
March 2022	$5232.26	$12380.84
March 2021	$10462.19	$21402.81
March 2020	$2369.23	$6860.05
March 2019	$2119.08	$6093.08

5.D. Clint Johannes Education Building

During the month of April, the building was rented 20 times with 3 NRD events. Revenue for the month was $1,275.

6. INFORMATION AND EDUCATION

6.A. Information

6.A.1. Radio & eAds

April's KTIC radio ad featured chemigation permit applications due by June 1 along with prices. This will continue through May.

April's Wahoo Newspaper e-ad featured an ad for all 3 recreation areas. May will feature the chemigation permit application information. Ad sizes have changed so there are now 4 size options. The two smaller options feature the LPNNRD logo, and the two larger options feature the monthly ads similar to what we have done in the past (two new larger sizes attached).

6.A.2. Analytics

The LPNNRD Facebook/Twitter pages, and the website are the fastest and low-cost ways to get information out to the public. Tracking analytics are a way to see if people are seeing the information and what ways seem to be most effective. If you are on Facebook or Twitter, please like, follow, share, or retweet the Lower Platte North NRD posts!

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

FACEBOOK	Total Reach	Engagements	Followers
April 1-25	6,135	399	1,458
March 2023	5,403	5,791	1,450
February 2023	8,800	9,065	1,435
January 2023	3,663	100	1,427

TWITTER	Total impressions	Engagements	Followers
April 1-25	1,140	56	400
March 2023	1,906	94	399
February 2023	4,044	213	397
January 2023	1,954	95	391
December	2,570	102	388

Top Posts on Facebook and Twitter:

- Summer internship opportunities
- Learn to fish flyer
- Shell Creek Watershed student monitoring group tour in Lincoln
- NRD Recreation Exploration
- All about bees flyer

WEBSITE	Users	Traffic Channel	Top Pages	Devices
April	1,517	Organic 68.8% Direct 18.4%	Lake Wanahoo Home Czechland Lake	Mobile 58.40% Desktop 40.34% Tablet 1.25%

1-25		Referral 10.9% Social 1.9%	Downloads Outdoor Recreation	
March 2023	1,662	Organic 64.6% Direct 21.9% Referral 10.7% Social 2.7%	Lake Wanahoo Home Czechland Lake Downloads Forestry	Mobile 49.34% Desktop 47.71% Tablet 2.95%
February 2023	1,446	Organic 63.2% Direct 21.8% Referral 7.7% Social 7.3%	Home Lake Wanahoo Downloads Forestry Nitrogen Certification	Mobile 49.45% Desktop 47.65% Tablet 2.90%
January 2023	1,614	Organic 67.9% Direct 20.8% Referral 8.3% Social 3%	Lake Wanahoo Home Forestry Czechland Lake Nitrogen Certification	Mobile 50.87% Desktop 47.15% Tablet 1.98%

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

Social clicks: 30 from Facebook, 1 from Twitter.
Referral clicks: 36 from NARD, 12 from Visit Nebraska, 8 from the ad on Wahoo Newspaper's site.

6.A.3. News Channel Nebraska Advertising

We are planning to film on May 9 with NCN for a video to feature all three recreation areas. Production cost is $175 for a :30 commercial with a 3-6 month commitment of airing the commercial. Additional $500 per month airing the commercial.

Proposed Ad Schedule

June	New Recreation Areas ad	$500
July	New Recreation Areas ad	$500
August	TBD	
September	TBD	

Promotional videos creation budget $3,000

TV Promotion budget $3,500

6.A.4. Red Thread Contract

Red Thread Creative designed the LPNNRD website in 2018. The majority of the updates on the website at this time are minimal, but in the event we need something beyond our in-house capabilities, they would like us to sign the attached contract for 2023. Upon request, Red Thread will perform maintenance and updates to the LPNNRD website at a mixed hourly rate of $180. An estimate will be provided and LPNNRD will need to approve before any changes will be made.

6.A.5. Summer Viaduct Printing

First Edition Printing, Gerry Tyler Wahoo/ Omaha	$4,800	Plus shipping	Has printed the Viaduct quite a few times (most recently)
Larry Graham, Lincoln (has printed viaduct and brochures for LPNNRD before)	$3,850	Plus shipping	Will be contracted through PrintCo Graphics who has produced the Winter Viaduct in the past
Publication Printing, Waterloo	$3586.97	Plus shipping. Approximately $600	Referred to through NARD

6.B. Education

6.B.1. Past Events

- **April 5th:** All about bees event. Presenters from Great Plains Master Bee Keeping and Country Road Bees discussed beekeeping and producing varietal honeys. Honey tasting and a talk over backyard habitat for native bees ended the night. 22 adults and 3 children attended. ***Pictures attached.***

- **April 6th**: Coffee Lakeside: Paula Hoppe was our guest speaker and discussed waterfowl identification. 9 adults attended.
- **April 10th:** Students involved in the Shell Creek Watershed Project came to Lincoln for a tour that included: NDEE surface lab; water sciences lab; backyard farmer garden tour; plant growth research greenhouse; and Assurity center/antelope creek/JEO. ***Pictures attached.***
- **April 11th:** Presentation at the Senior Citizen Center on the power of nature-based play and why people of all ages should be spending more time outdoors. 5 adults attended.
- **April 18th:** Survival Club - Campfire starting. Postponed due to state testing.
- **April 19th:** Wahoo Second graders learned about pollinators, plants, and pollination. 77 kids attended. ***Pictures attached.***
- **April 20th:** Fremont Eco-fair for area 4th graders brought in over 400 kids. We talked about pollinators and how important they are. ***Pictures attached.***
- **April 21st:** Wahoo kindergarten classes learned about Earth Day by learning how to recycle. 78 kids attended. ***Pictures attached.***
- **April 23rd:** Community Fishing Event at Lake Wanahoo brought in 5 different families (15 kids and 7 adults). The weather was perfect but water temperatures were still a little cold. 1 carp was caught. ***Pictures attached.***
- **April 26th:**
    - Birding at Sanders County Medical Center Long Term Care. Residents learned about local birds and discussed birding tips and tricks. 8 residents attended.
    - CEO student interview for next school year. Most years, we host a senior from Wahoo High School who is interested in the natural resources field, for the full semester. The students will be interviewed by the business or organization they have chosen prior to starting the internship.
    - Test Your Well Night, Lakeview. Kids tested 10 water samples with a few that were over 10ppm.

6.B.2. Future Events

- **May 3rd:** Spring Conservation Sensation. Area 5th and 6th graders attend a one-day event learning about all things natural resources. 301 students from 8 schools will be at Lake Wanahoo.
- **May 8th & 9th**: St. Wenceslaus Pre-K classroom will be out to the lake for their end of the year field trip.
- **May 10th**: Classroom visits for Richland and Fisher Schools near Schuyler.
- **May 11th**: Coffee Lakeside: Foraging for wild foods.
- **May 11th:** Survival club.
- **May 15th:** Aquinas Catholic classroom visit - owl pellets.

- **May 16th:** East Butler at Lake Wanahoo.
- **May 18th**: Wahoo 1st grade field trip at Lake Wanahoo.

7. RURAL WATER SYSTEMS

Attached are an informational brochure and survey that will be going out with the bills this month:

Backflow/Cross connection brochure highlights what a cross connection is and how they can negatively affect public water supply.

Cross connection surveys are completed on a semi-annual basis.

7.A. Colon System

RWD responded to 23 locate requests; most of these were for OPPD utility pole replacement within Colon.

Routine monthly sampling completed, meters read and bills to be mailed 5/1.

7.B. Bruno System

RWD responded to 2 locate requests.

Routine monthly sampling completed, meters read and bills to be mailed 5/1.

7.C. Other

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

Contractor's Application for Payment No. 5

	Application Period: 03/27/2023 Through 04/13/2023	Application Date:	4/14/2023
To: (Owner) Lower Platte North Natural Resources District	From : (Contractor) ME Collins Contracting Co., Inc.	Via (Engineer):	Houston Engineering
Project: Lake Wanahoo Apron Overlay	Contract:		
Owner's Contract No.:	Contractor's Project No.:	Engineer's Project No.:	022-22-01

Application For Payment

Change Order Summary

Approved Change Orders

Number	Additions	Deductions
001	$44,358.91	
002	$46,448.24	
TOTALS	$90,807.15	
NET CHANGE BY CHANGE ORDERS	**$90,807.15**	

1. ORIGINAL CONTRACT PRICE		**$452,487.40**
2. Net change by Change Order		**$90,807.15**
3. Current Contract Price (Line 1 ± 2)		**$543,294.55**
4. TOTAL COMPLETED AND STORED TO DATE (Column F total on Progress Estimates)		**$543,294.55**
5. RETAINAGE*:		
a. X $ 543,294.55 **Work Completed**		
b. X $ - **Stored Material**		
c. Total Retainage (Line 5.a + Line 5.b)		
6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5.c)		**$543,294.55**
7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application)		**$508,406.32**
8. AMOUNT DUE THIS APPLICATION		**$34,888.23**
9. BALANCE TO FINISH, PLUS RETAINAGE (Column H total on Progress Estimates + Line 5.c above)		**$0.00**

*The project contract specifies a 10% retainage on all work completed to date. As of Payment Application 04, the Owner has approved a reduction of the retainage to 5%.

Contractor's Certification

The undersigned Contractor certifies, to the best of its knowledge, the following:
(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;
(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all Liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such Liens, security interest, or encumbrances); and
(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

Contractor Signature

By: Date: 4-14-23

Payment of: $ $34,888.23
(Line 8 or other - attach explanation of the other amount)

is recommended by: Houston Engineering (Engineer) 4/14/2023 (Date)

Payment of: $ _____
(Line 8 or other - attach explanation of the other amount)

is approved by: _____ (Owner) _____ (Date)

Approved by: _____ Funding or Financing Entity (if applicable) _____ (Date)

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Progress Estimate

Contractor's Application

For (Contract): Lake Wanahoo Apron Overlay

Application Number: 5

Application Period: 03/27/2023 Through 04/13/2023

Application Date: 4/14/2023

A					B	C1	C2	C3	D	E	F	G	H
Item		Contract Information				Estimated Quantity Installed this Pay Application Period	Previous Quantity Installed	Total Quantity Installed	Value of Work Installed to Date	Materials Presently Stored (not in C)	Total Completed and Stored to Date (D + E)	% (F / B)	Balance to Finish (B - F)
Bid Item No.	Description	Item Quantity	Units	Unit Price	Total Value of Item ($)								
1.001	MOBILIZATION	1	LS	$ 41,632.00	$ 41,632.00		1	1	$41,632.00		$41,632.00	100.0%	
1.002	WATER HANDLING	1	LS	$ 14,433.00	$ 14,433.00		1	1	$14,433.00		$14,433.00	100.0%	
1.003	RCC GRINDING/REMOVAL	175	CY	$ 746.00	$ 130,550.00		175	175	$130,550.00		$130,550.00	100.0%	
1.004	BASIN CLEANING AND PREPARATION	1	LS	$ 11,555.00	$ 11,555.00		1	1	$11,555.00		$11,555.00	100.0%	
1.005	SET ANCHORS	169	EA	$ 78.00	$ 13,182.00		169	169	$13,182.00		$13,182.00	100.0%	
1.006	CLASS 6000 CONCRETE	221.2	CY	$ 596.78	$ 132,007.74		221.2	221.2	$132,007.74		$132,007.74	100.0%	
1.007	FIBER REINFORCEMENT - ALTERNATIVE B	10215	LBS	$ 6.00	$ 61,290.00		10215	10215	$61,290.00		$61,290.00	100.0%	
1.008	STEEL REINFORCEMENT - ALTERNATIVE B	17032	LBS	$ 2.20	$ 37,470.40		17032.00	17032	$37,470.40		$37,470.40	100.0%	
1.009	LONGITUDINAL/TRANSVERSE JOINTS (INCLUDING WATERSTOPS)	225.6	LF	$ 30.00	$ 6,768.00		225.6	225.6	$6,768.00		$6,768.00	100.0%	
1.010	PERIMETER WATERSTOPS	310.5	LF	$ 135.00	$ 41,917.50		310.5	310.5	$41,917.50		$41,917.50	100.0%	
1.011	SEEDING	1	LS	$8,130.00	$ 8,130.00	1		1	$8,130.00		$8,130.00	100.0%	
1.012	RE-MOBILIZATION	1	LS	$ 11,200.00	$ 11,200.00		1	1	$11,200.00		$11,200.00	100.0%	
1.013	BAFFLE PLATE REMOVAL AND REPLACEMENT	86.5	LF	$383.34	$ 33,158.91		86.5	86.5	$33,158.91		$33,158.91	100.0%	
	Totals				**$ 543,294.55**				**$543,294.55**		**$543,294.55**	**100.00%**	**$ -**

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INVOICE

HOUSTON engineering, inc.

Remit to:
1401 21st Ave N, Fargo, ND 58102
Phone: 701.237.5065
Fed Tax ID: 45-0314557
Interest of 1%/month applied to past due invoices

Lower Platte North NRD
511 Commercial Park Road
Wahoo, NE 68066

Invoice Number:	64769
Date:	April 26, 2023
Project Number:	022-22-01
P.O. Number:	x

Lower Platte North NRD Wanahoo Apron Overlay

For Professional Services Rendered Through: April 22, 2023

Task 6 Construction Phase			
	Hours	Rate	Billed
Principal Engineer Sotak, Michael K.	4.00	255.00	$1,020.00
Project Engineer Miller, Ethan D.	5.75	170.00	$977.50
PROJECT EXPENSES			
			Billed
Personal Vehicle Mileage			$133.09
Phase subtotal			$2,130.59

Invoice Total $2,130.59

Make all checks payable to:
Houston Engineering, Inc.
1401 21st Ave N
Fargo, ND 58102

Invoice Summary

Description	Contracted Fee	Previously Billed	This Invoice	Total To Date	% Complete
Task 1 Project Management	$11,600.00	$7,663.75	$0.00	$7,663.75	66.07%
Task 2 Site Testing/Investigation	$6,740.00	$4,404.56	$0.00	$4,404.56	65.35%
Task 3 Final Design	$53,370.00	$51,283.50	$0.00	$51,283.50	96.09%
Task 4 Permitting	$5,240.00	$0.00	$0.00	$0.00	0.00%
Task 5 Bid Phase	$8,720.00	$8,501.63	$0.00	$8,501.63	97.50%
Task 6 Construction Phase	$78,770.00	$60,608.79	$2,130.59	$62,739.38	79.65%
Total	**$164,440.00**	**$132,462.23**	**$2,130.59**	**$134,592.82**	**81.85%**

Aging Summary

Invoice	Date	0 - 30	31 - 60	61-90	Over 90	Balance
Total						

Make all checks payable to:
Houston Engineering, Inc.
1401 21st Ave N
Fargo, ND 58102

Bid Price:	**2023**	**2024**	**2025**
Mobilization	$ 12000.00	$ 12000.00	$ 11,000.00
Airlift Cleaning and Pumping Per/Well	$ 9360.00	$ 10764.00	$ 12378.60
Hours/well planned for cleaning 2 hrs/well			
Totals	$ 105,600.00	$ 87348.00	$ 72893.00
Grand Total for all 3 years $ 265,841.00	10,560/well 10	$12,478.29 7	14,578.60/well 5
Additional Airlift Cleaning Per/Hour (if needed)	$ 780.00	$ 897.00	$ 1031.55
Additional Pumping Per/Hour (if needed)	$ 660.00	$ 759.00	$ 872.85

Please send your sealed bid to Lower Platte North NRD, PO Box 126, Wahoo, NE 68066 by 4:00 pm, Wednesday, April 26, 2023.

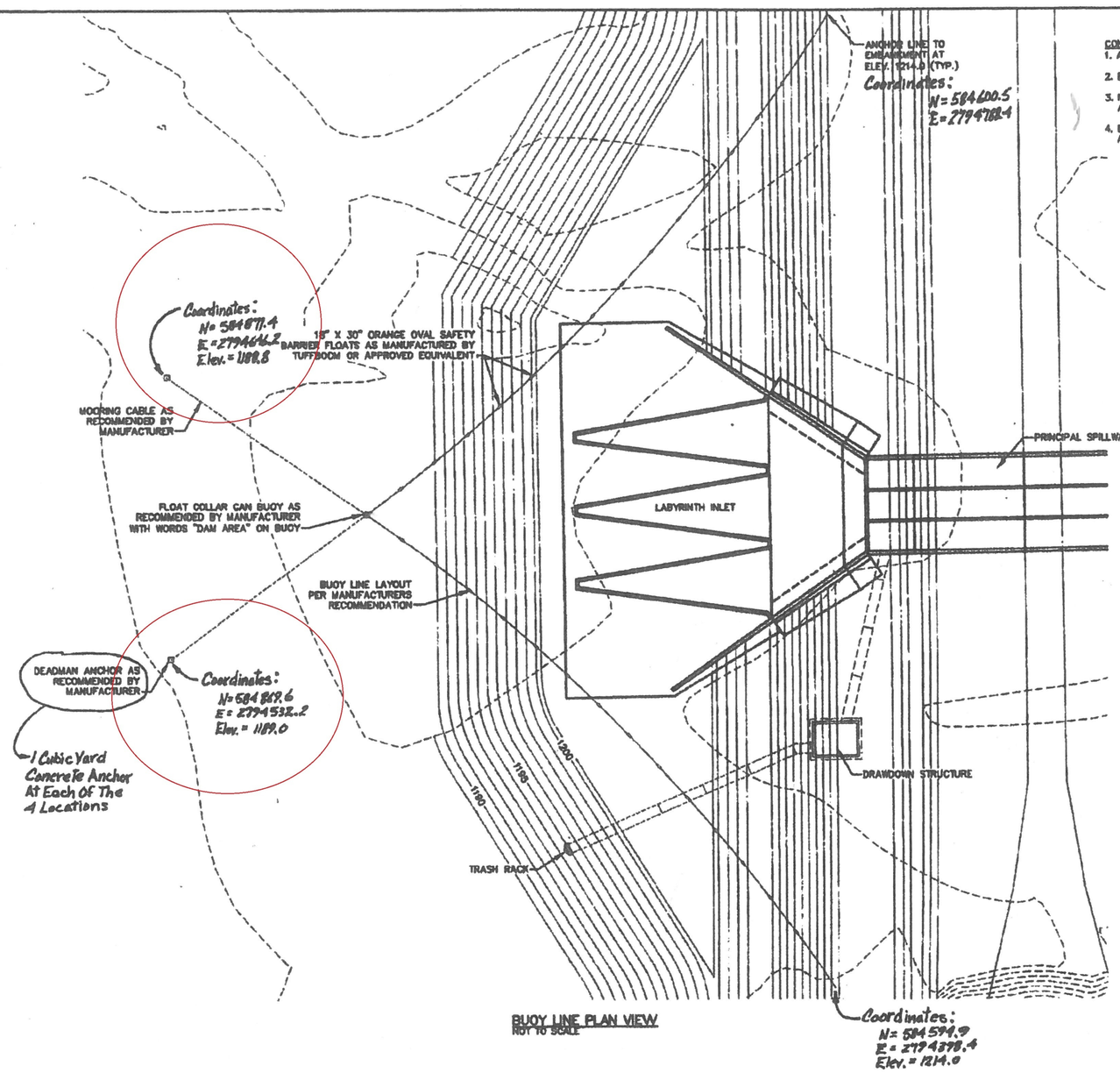
Rieschick Drilling Company
70656 649 Ave.
Falls City, NE 68355
(402) 245-2015 Office
(402) 801-1452 Andrew cell
By: Kathy Rieschick, President

Wanahoo Hay Bids 2023

Bid for Areas on Wanahoo

Name Bidder	Wildlife "A"	Wildlife "B"	Wildlife "C"	Wildlife "D"	Rec. Area "E"
Meduna Family Farms	$106	$106	$106	$106	$106
Dan Kadavy	$118.50	$118.50	$118.50	$118.50	
Matt Sillivan	$158		$158	$158	$158
Ken Cejka	$88				$93
Clint Ratkovec	$95.50	$95.50	$95.50	$95.50	$95.50
David Nelson				$80	
Lazy J Cattle & Hay	$81.30	$81.30	$81.30	$81.30	$81.30

High Bids for the areas are Underlined.

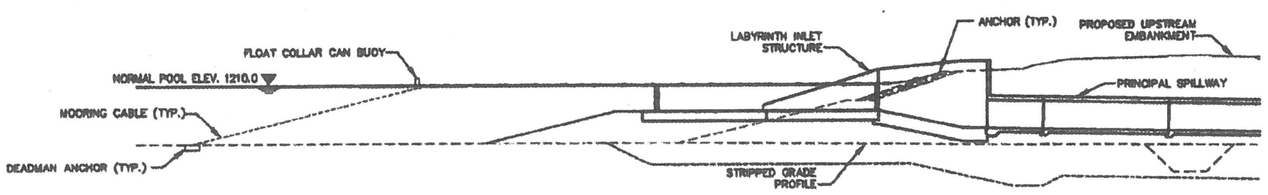


BUOY LINE PLAN VIEW
NOT TO SCALE

CONSTRUCTION NOTES:

1. ANCHOR BUOY LINE AS PER MANUFACTURER'S APPROVED PRODUCT SUBMITTAL.
2. BUOY LINE TO REMAIN VISIBLE IN RESERVOIR UP TO ELEVATION. 1216.0
3. NO MORE THAN TWENTY FEET OF OPEN WATER BETWEEN BARRIER FLOATS AND CAN BUOY AT NORMAL POOL ELEVATION.
4. ENGINEER TO REVIEW ALL SHOP DRAWINGS FOR BUOY SYSTEM MATERIALS AND ANCHORING MECHANISMS PRIOR TO ORDERING PRODUCT AND INSTALLATION.

Note: Coordinates Are NAD 27 (per Sh. 0.2).



BUOY LINE PROFILE
NOT TO SCALE

OLSSON ASSOCIATES
2535 South Third Street, Suite 140
Omaha, NE 68108-5879
TEL 402-341-1116
FAX 402-341-5895
www.olssonassociates.com

REV. NO.	DATE	REVISIONS DESCRIPTION
1	July 9, 2008	Change to Buoy Line

REVISIONS

BUOY LINE

LAKE WANAHOO DAM
LOWER PLATTE NORTH NRD
WAHOO, NEBRASKA

2008

drawn by: BMM
checked by: RCM
approved by: MKS
QA/QC by: BMM
project no.: 2008-1048
drawing no.: 101884-1.15
date: JULY 2008

SHEET
1.15

DWG: F:\Projects\2005\1884\Wahoo\Dam Embankment\Preliminary Sheets\1.12 Labyrinth Inlet Structure P & P.dwg USER: dstein
DATE: Jul 17, 2008 4:42pm XREFS: X-OAB

WORTHINGTON
Waterway Barriers

Quote Issued To:

Bob Heimann
Operations & Maintenance Manager
Lower Platte North NRD
PO Box 126
Wahoo, NE 68066
Tel: 402-443-4675
Email: bheimann@lpnnrd.org

Shipping Address

Lower Platte North NRD
511 Commercial Park Road
Wahoo, NE 68066

Quote Nbr	Quote Date	Quote Expiration	Payment Terms	Project Reference
MW230412-2	4/13/23	5/13/23	Net 30 Days	Lake Wanahoo

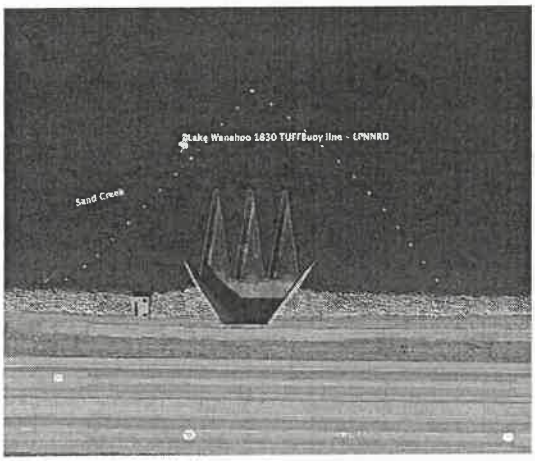
Boom or Buoy Graphics	Shoreline Safety Signage	Boom or Buoy Color	Engineering/Design Services
No Safety Graphics	Safety Signs Not Requested	Safety Orange	Engineering/Design not requested

Worthington Products, Inc. STANDARD TERMS AND CONDITIONS OF SALES AND DELIVERY, REV 1119 apply to this quotation.

Currency: USD

Line No.	Description	Qty	Unit Price	Total Price
1	T1830/PT - Oval 18"x30", 2" HDPE pipe	11	245.10	2,696.10

Not included in this quote: Offloading, installation, hardware, engineering, anchors & anchor design



	SUB-TOTAL before shipping & taxes (USD):	2,696.10
Shipping/Freight	*FOB Dest / Prepay & Add*	393.66
	TOTAL before taxes (USD): $	3,089.76

Sales Tax Additional. Will be added to final invoice

SHIPPING NOTICE: FREIGHT PRICING VALID FOR 14-DAYS FROM DATE OF QUOTE. RATES IN EFFECT WILL BE APPLIED AT TIME OF SHIPMENT.

QUESTIONS? We're here to help.

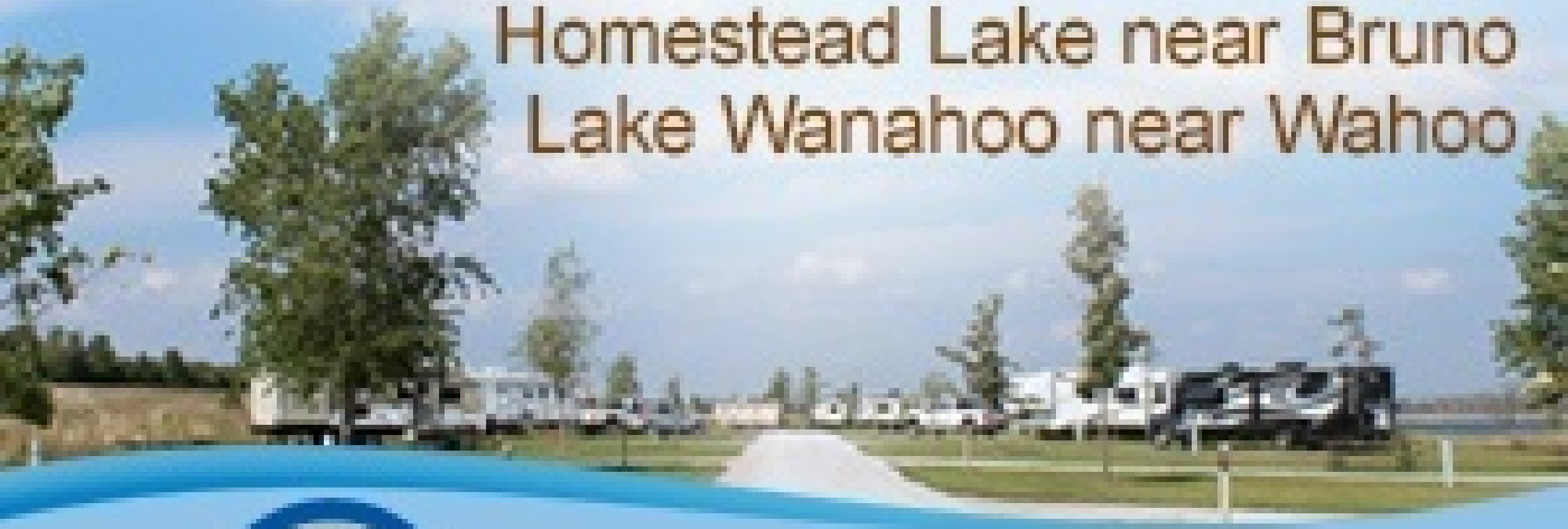
Your personal contact: **Val Gardner**
Phone: **T: (801) 678-7655**
Email: **val@tuffboom.com**

Comments:

Lead Time 1-2 Weeks, Transit Time 3-5 Days

Rediscover the Outdoors

Visit one or all of the
LPNNRD Recreation Areas—
Czechland Lake near Prague
Homestead Lake near Bruno
Lake Wanahoo near Wahoo



LOWER PLATTE NORTH
Natural Resources District

CHEMIGATION PERMIT APPLICATIONS

Producers who are certified to chemigate crops must have a valid permit with the NRD by **June 1st**. Visit lpnnrd.org/downloads to download a permit application or call 402-443-4675.

LOWER PLATTE NORTH
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LOWER PLATTE NORTH
Natural Resources District

RED THREAD CREATIVE LLC: ADVERTISING CONTRACT

1. **Parties.** This agreement (this "Agreement") is entered into by the following parties:

Red Thread Creative LLC ("redthread")
201 North 7th Street
Suite 208
Lincoln, NE 68508

Lower Platte North Natural Resources District ("Client")
511 Commercial Park Rd
Wahoo, NE 68066

2. **Services.** redthread will provide the services described in **Schedule A** (the "Services") on a non-exclusive basis to Client in accordance with the terms of this Agreement.

3. **Fees.** In consideration of the provision of the Services and the rights granted to Client under this Agreement, Client agrees to pay redthread at the rate and in the manner set forth in **Schedule B.**

4. **License to Certain Client Intellectual Property.** Subject to and in accordance with the terms and conditions of this Agreement, Client grants redthread and its independent contractors a limited, non-exclusive, royalty-free, non-transferable and non-sublicensable, license to Client's intellectual property to the extent reasonably necessary to perform the Services. Any use by redthread or any representative of redthread of any of Client's trademarks and all goodwill associated therewith shall inure to the benefit of Client.

5. **Representations and Warranties**. Client represents and warrants that it has full right, power, and authority to enter into this Agreement. Client further represents and warrants that any information provided by Client to redthread, including any information contained in any materials provided by Client to redthread, is true and correct. Client further represents and warrants that the provision or grant of any licenses, rights, or materials hereunder by Client to redthread do not, and will not, violate any right of, or conflict with, or violate any contract with or commitment made to, any person or entity, and that no consent or authorization from any third party is required. redthread represents and warrants that it has full right, power, and authority to enter into this Agreement. redthread further represents and warrants that any information provided by redthread to Client, including any information contained in any materials provided by redthread to Client, is true and correct. redthread further represents and warrants that the provision or grant of any licenses, rights, or materials hereunder by redthread to Client do not, and will not, violate any right of, or conflict with, or violate any contract with or commitment made to, any person or entity, and that no consent or authorization from any third party is required.

6. **Ownership of and License to Deliverables.** Ownership and title to all intellectual property rights in the materials delivered to or prepared on behalf of Client by redthread (the "Deliverables") shall be as set forth below. Deliverables shall include, without limitation, whether finished or unfinished and whether used by Client or not, all advertising, marketing, promotion and merchandising materials, copy, storyboards, concepts, ideas, trademarks, trade names, domain names, logos, slogans, taglines, inventions, discoveries, website style, content, structure and look and feel, internet portals, press releases, research, videos, presentations and proposals, artwork, videos, telephone numbers for use by Client's consumers, and original music and lyrics, to the extent the same are actually delivered to and/or prepared on behalf of Client.

a. Upon payment in full, Client shall be the owner of all right, title and interest in and to the Deliverables, including all intellectual property therein. Any Deliverables that may qualify as "works made for hire" as defined in the Copyright Act (17 U.S.C. § 101), are hereby deemed owned by Client as "works made for hire." To the extent that any of the Deliverables do not constitute a "work made for hire," redthread hereby irrevocably assigns to Client, in each case without additional consideration, all right, title, and interest throughout the world in and to the Deliverables.

b. Except for the rights and licenses expressly granted in this Agreement, redthread retains all rights under its intellectual property (the "redthread Retained Intellectual Property"), including without limitation all rights to redthread trademarks, trade names, and goodwill, and no rights shall be deemed granted by redthread to Client by implication, estoppel, or otherwise. Without limiting the foregoing, the redthread Retained Intellectual Property shall include all materials owned by redthread prior to, or independent from, the performance of Services under this Agreement, and all methodologies, software, applications, processes or procedures used, created, or developed by redthread in the general conduct of its business, excluding the Deliverables.

c. Upon payment in full and the transfer of rights in the Deliverables to Client, Client shall grant redthread a perpetual, irrevocable, limited, royalty-free, non-transferable, non-sublicensable, worldwide license to use the Deliverables and any intellectual property therein for the purpose of promoting redthread's services and business.

d. Upon payment in full, redthread hereby grants Client a perpetual, irrevocable, limited, royalty-free, non-transferable, non-sublicensable, worldwide license to use, perform, display, execute, reproduce, distribute, transmit, modify (including to create derivative works), import, make, have made, sell, offer to sell and otherwise exploit redthread Retained Intellectual Property solely to the extent incorporated in, combined with, or otherwise necessary for the use of the Deliverables. All other rights in and to redthread Retained Intellectual Property are expressly reserved by redthread.

e. Notwithstanding anything herein to the contrary, Client's ownership of the Deliverables shall be subject to (a) the rights of third parties whose materials or services are contained in the Deliverables with Client's prior knowledge (e.g., stock footage, photos, music, software, etc.) and used under a license or other permission granted to redthread or Client, and (b) the rights of redthread to the redthread Retained Intellectual Property.

7. Confidentiality and Nondisparagement.

a. Definition. "Confidential Information" means all nonpublic, confidential or proprietary information which is disclosed and/or furnished at any time by one Party (the "Disclosing Party") to the other Party (the "Receiving Party"), either directly or indirectly, in any manner, including visual and oral, and includes without limitation the following: (i) the existence and terms of this Agreement; (ii) all designs, drawings, technical specifications, processes, techniques, technical data, samples, components parts, trade secrets, strategies, reports, data, research and product development plans, development and other intellectual property; (iii) software, source codes, computer systems and equipment, bids, proposals and the prices and other terms thereof; (iv) financial information, cost of materials and pricing information, customer lists and contacts, suppliers, distributors and agents; (v) business inventions, business ideas, plant layout, manufacturing processes; (vi) copyrights, patent claims, derivative and reverse-engineered works, products, product cycles, technology, operations, assets, know-how, concepts, ideas, data, designs, "look and feel" design elements, specifications, inventions, algorithms, formulae, processes, techniques, systems and improvements; and (vii) all notes, analyses, compilations, studies, interpretations or other documents prepared by the Receiving Party that contain, reflect or are based upon, in whole or in part, information furnished by or on behalf of Disclosing Party. "Confidential Information" does not include information disclosed and/or furnished to Receiving Party (a) that is generally known to the public other than as a result of disclosure by Receiving Party; or (b) which is or has been independently developed by the Receiving Party without violation of Receiving Party's obligations under this Agreement.

b. Nondisclosure of Confidential Information. Receiving Party shall keep the Confidential Information secret and confidential as long as Receiving Party retains possession or control of the same, or until such information is no longer Confidential Information under Section 7 above. Receiving Party may disclose the Confidential Information only on a need-to-know basis to (a) any person to whom Disclosing Party has given its prior written consent, and (b) the Receiving Party's personnel or the personnel of an Affiliate of the Receiving Party (collectively, the "Representatives") who are advised of the confidentiality obligations that attach to the Confidential Information, and (c) pursuant to a valid subpoena or order issued by a court of competent jurisdiction or by a governmental body, provided that Receiving Party immediately notifies Disclosing Party thereof. The Receiving Party shall be responsible for the compliance with the obligations set forth herein by any of its Representatives. "Affiliate" of a Party means an entity directly or indirectly through one or more intermediaries Controlling or Controlled by or under direct or indirect common Control with the Party. "Control" means the direct or indirect ownership of at least fifty percent (50%) of the voting rights (or their equivalent) of an entity or the rights to exercise management control.

c. Procedure to Protect. Receiving Party shall maintain a policy and procedure to protect the Confidential Information with reasonable care and in accordance with prudent business practices and shall use at least the same degree of care to protect the Confidential Information that Receiving Party uses to protect its own confidential information of a similar type. Receiving Party will notify Disclosing Party immediately on discovery of any unauthorized use or disclosure of Confidential Information or any other breach of this Agreement by Receiving Party. Receiving Party will cooperate with Disclosing Party in every reasonable way to help regain possession of the Confidential Information and prevent its further unauthorized use or disclosure.

d. Use of Confidential Information. Receiving Party shall use Disclosing Party's Confidential Information only for the purpose of establishing, evaluating, and/or continuing a business relationship with Disclosing Party and for purposes directly and exclusively related to the reason for delivery of the Confidential Information and for no other use or purpose. Each Party consents and agrees that the Receiving Party may disclose and discuss the Disclosing Party's Confidential Information with third parties who have executed a similar non-disclosure agreement.

e. Rights to Confidential Information. Disclosing Party is entitled to protect, and Receiving Party shall develop no rights in, the Confidential Information disclosed by the Disclosing Party. Receiving Party explicitly agrees that all Confidential

Information disclosed is being received subject to Disclosing Party's rights as an owner, licensee, possessor or controller of the Confidential Information and, further, subject to all relevant intellectual and/or proprietary property rights of Disclosing Party, including the relevant laws governing patents, trademarks, copyrights, trade secrets and unfair competition. Nothing in this Agreement shall be construed as granting or conferring upon Receiving Party or any Representative, expressly, impliedly, or otherwise, any license or other right under any patents, trademarks or other intellectual and/or proprietary rights which Disclosing Party or any of its Affiliates now owns or may acquire after this Agreement takes effect.

f. Nondisparagement. redthread agrees to not make any voluntary statement, or make any untrue statement which foreseeably will, harm or damage the reputation of Client or its successors, affiliates, assigns, officers, directors, shareholders, members, agents or employees.

8. Indemnification. Client shall release, defend, indemnify, and hold redthread and its parent, affiliates, subsidiaries, officers, directors, agents, owners, employees, trustees, successors, and assigns harmless with respect to any claims, actions, causes of action, damages, fines, expenses, court costs, attorney fees, damages or judgments suffered by redthread or its agents, resulting from or attributable to any breach of Client's or its agent's responsibilities under this Agreement, any breach of the representations and warranties herein, willful misconduct, and all negligent acts or omissions of Client or its agents. redthread shall release, defend, indemnify, and hold Client and its parent, affiliates, subsidiaries, officers, directors, agents, owners, employees, trustees, successors, and assigns harmless with respect to any claims, actions, causes of action, damages, fines, expenses, court costs, attorney fees, damages or judgments suffered by Client or its agents, resulting from or attributable to any breach of redthread's or its agent's responsibilities under this Agreement, any breach of the representations and warranties herein, willful misconduct, and all negligent acts or omissions of redthread or its agents.

9. Limitation on Liability. In no event will redthread be liable to Client or to any third party for any loss of use, revenue, profit or loss of data or for any consequential, incidental, indirect, exemplary, special or punitive damages whether arising out of breach of contract, tort (including negligence), or otherwise, regardless of whether such damage was foreseeable and whether redthread has been advised of the possibility of such damages. In no event will redthread's liability arising out of or related to this agreement, whether arising out of or related to breach of contract, tort (including negligence), or otherwise, exceed the aggregate amounts paid to redthread pursuant to this agreement.

10. Term; Termination. This Agreement shall commence as of the date it is signed by both parties (the "Effective Date"). The term of this Agreement shall be until delivery of the Deliverables by redthread and payment in full by Client of all accrued fees and expenses set forth in **Schedule B**. If either party breaches its obligations under this Agreement, the non-breaching party shall give the breaching party written notice of such breach and the opportunity to cure such breach for a period of fifteen (15) days after delivery of the notice of breach with respect to a monetary breach, or thirty (30) business days after delivery of the notice of breach with respect to a non-monetary breach. Notwithstanding the foregoing, a party may terminate this Agreement with immediate effect on written notice to the other party if the other party becomes insolvent, dissolves, liquidates, files a petition for bankruptcy or commences or has commenced against it proceedings relating to bankruptcy, receivership, reorganization, or assignment for the benefit of creditors. The expiration or termination of this Agreement, for any reason, shall not release either party from any obligation or liability to the other party, including any payment and delivery obligation that has already accrued hereunder.

11. Independent Contractors. redthread may retain third parties ("Independent Contractors") to furnish services to it in connection with the performance of its obligations hereunder. redthread may permit such Independent Contractors to have access to Confidential Information, but only to the extent and insofar as reasonably required in connection with the performance of redthread's obligations under this Agreement.

12. Compliance with Laws. In the performance of this Agreement, each party shall make commercially reasonable efforts to comply with all applicable governmental laws, statutes, ordinances, rules, regulations, orders, and other requirements. In the event that the other party's assistance is necessary to achieve such compliance, the party shall promptly notify such other party. In the event that Client is aware of any regulations known and applicable to the advertisement or marketing of Client's business, products or services, Client shall inform redthread.

13. Copyright and Trademark. Client is responsible for any copyright or trademark issues related to the creation and use of the Deliverables by Client. Client shall be solely responsible for any trademark or copyright searches pertaining to the Deliverables unless otherwise contracted. redthread will not knowingly copy other rightfully trademarked or copyrighted material.

14. **Force Majeure**. redthread shall not be liable or responsible to Client, nor be deemed to have defaulted under or breached this Agreement, for any failure or delay in fulfilling or performing any term of this Agreement (except for any obligations to make payments to the other Party under this Agreement), when and to the extent such failure or delay is caused by or results from acts beyond the affected Party's reasonable control, including, without limitation: (a) acts of God; (b) flood, fire or explosion; (c) acts of war; (d) actions, embargoes or blockades in effect on or after the date of this Agreement; (e) national or regional emergency; (f) compliance with any law or governmental order, rule, regulation or direction, or any action taken by a governmental authority. Notwithstanding anything in this Agreement to the contrary, Client may terminate this Agreement if such failure or delay continues for a period of sixty (60) days or more.

15. **Entire Agreement.** This Agreement, including the related schedules attached hereto, constitutes the sole and entire agreement of the parties with respect to the subject matter contained herein and therein, and supersedes all prior and contemporaneous understandings, agreements, representations and warranties, both written and oral, with respect to such subject matter.

16. **Severability**. If any term or provision of this Agreement is invalid, illegal, or unenforceable in any jurisdiction, such invalidity, illegality, or unenforceability shall not affect any other term or provision of this Agreement or invalidate or render unenforceable such term or provision in any other jurisdiction. Terms or provisions deemed invalid, illegal, or unenforceable shall be reformed to effectuate the intent of the parties to the maximum extent permitted by applicable law.

17. **Assignment**. Neither this Agreement nor any of the rights, interests, or obligations hereunder shall be assigned by any of the parties hereto without the prior written consent of the other party, which consent shall not be unreasonably withheld, conditioned, or delayed. Subject to the preceding sentence, this Agreement will be binding upon, inure to the benefit of, and be enforceable by the parties and their respective successors and assigns.

18. **Amendment**. This Agreement may only be amended or modified by a writing signed by authorized representatives of both parties.

19. **Waiver**. No waiver under this Agreement is effective unless it is in writing and signed by the party waiving its right.

20. **Relationship of Parties.** Nothing in this Agreement creates any agency, joint venture, partnership or other form of joint enterprise, employment or fiduciary relationship between the parties. redthread is an independent contractor pursuant to this Agreement. Neither party has any express or implied right or authority to assume or create any obligations on behalf of or in the name of the other party or to bind the other party to any contract, agreement, or undertaking with any third party.

21. **Governing Law; Forum**. All matters arising out of or relating to this Agreement are governed by and construed in accordance with the internal laws of the State of Nebraska without giving effect to any choice or conflict of law provision or rule that would cause the application of the laws of any jurisdiction other than those of the State of Nebraska. Any legal suit, action, or proceeding arising out of or relating to this Agreement shall be instituted in the federal courts of the United States of America or the courts of the State of Nebraska in each case located in the City of Lincoln and County of Nebraska, and each party irrevocably submits to the exclusive jurisdiction of such courts in any such suit, action, or proceeding.

22. **Survival**. Provisions of this Agreement, which by their nature should apply beyond their terms, will remain in force after any termination or expiration of this Agreement, including without limitation Section 6, Section 7, Section 8, Section 9, and Section 21.

[Signature page follows]

In witness whereof, the parties hereto have executed this Agreement as of the date first written above.

Red Thread Creative LLC

By: Rhett Muller

Name: Rhett Muller

Title: Partner | COO

Date: 4-12-2023

Lower Platte North Natural Resources District

By:_____

Name:_____

Title:_____

Date:_____

Schedule A: Services

redthread agrees to provide the following services:

1. 2023 Hourly Web Maintenance

Deliverable: Upon request, redthread will perform maintenance and updates to the LPNNRD website at a mixed hourly rate of $180. redthread will provide an estimate and seek approval before completing any web maintenance.

redthread will provide (upon request):
- Web design
- Web development
- Web organization

you will provide:
- All maintenance/update requests and estimate approvals
- Any pre-existing/new content, including copy, photos/videos, graphics, etc.

Schedule B: Compensation and Payment

1. **Compensation.** Client agrees to be billed and pay redthread at an hourly rate of **$180/hr** for the services set forth in **Schedule A**, as follows:

2. **Expenses.** Expenses outlined in **Schedule A** are included in the Compensation. In addition to the Compensation described above, Client agrees to pay redthread for all out-of-pocket expenses incurred by redthread in connection with the performance of the Services, if they are not included in the services set forth in **Schedule A**.

3. **Invoices.** redthread will issue monthly invoices for the accrued amount of hourly work completed. Client shall pay all properly invoiced amounts due to redthread within thirty (30) days after Client's receipt of such invoice (the "Payment Date"). redthread will send out invoices on the 7th of each month or the nearest weekday if the 7th falls on a weekend or holiday.

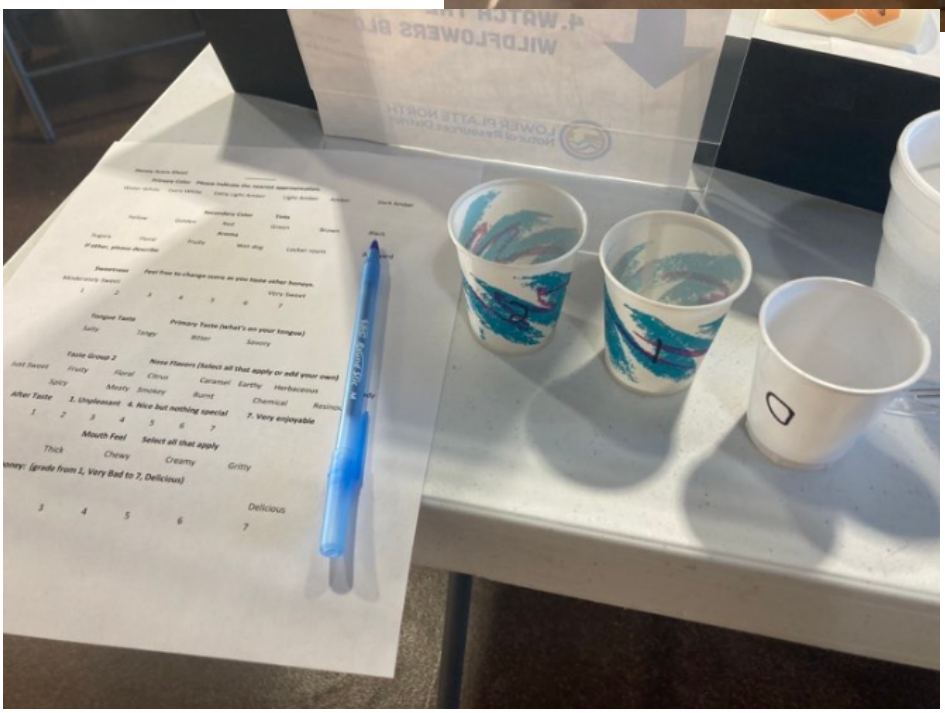
4. **Invoice Disputes.** Client shall notify redthread in writing of any dispute with an invoice within seven (7) days from Client's receipt of such invoice. Client will be deemed to have accepted all invoices for which redthread does not receive timely notification of dispute, and shall pay all undisputed amounts due under such invoices within the period set forth above. The parties shall seek to resolve all such disputes expeditiously and in good faith. Should negotiations fail to resolve the matter within thirty (30) days of notice of the dispute, the matter shall be settled by arbitration administered by the American Arbitration Association in accordance with its Commercial Arbitration Rules, and judgment on the award rendered by the arbitrator may be entered in any court having jurisdiction thereof.

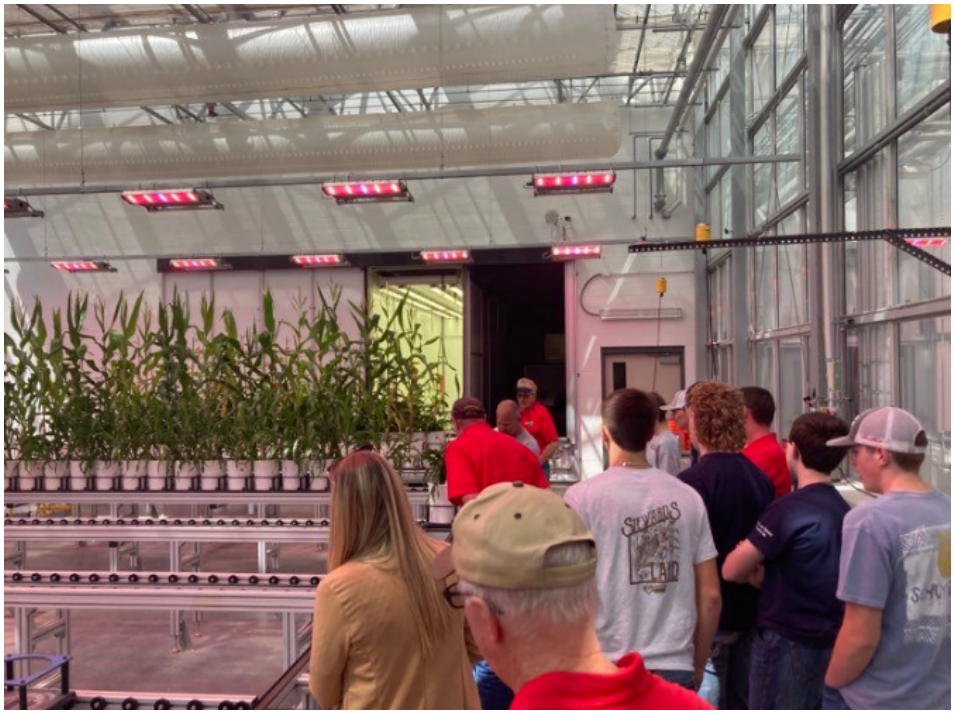
5. **Taxes.** All expenses payable by Client under this Agreement are exclusive of all sales, use, and excise taxes, and any other similar taxes, duties, and charges of any kind imposed by any governmental authority on such amounts. Client shall be responsible for any taxes applicable to the Services provided to Client.

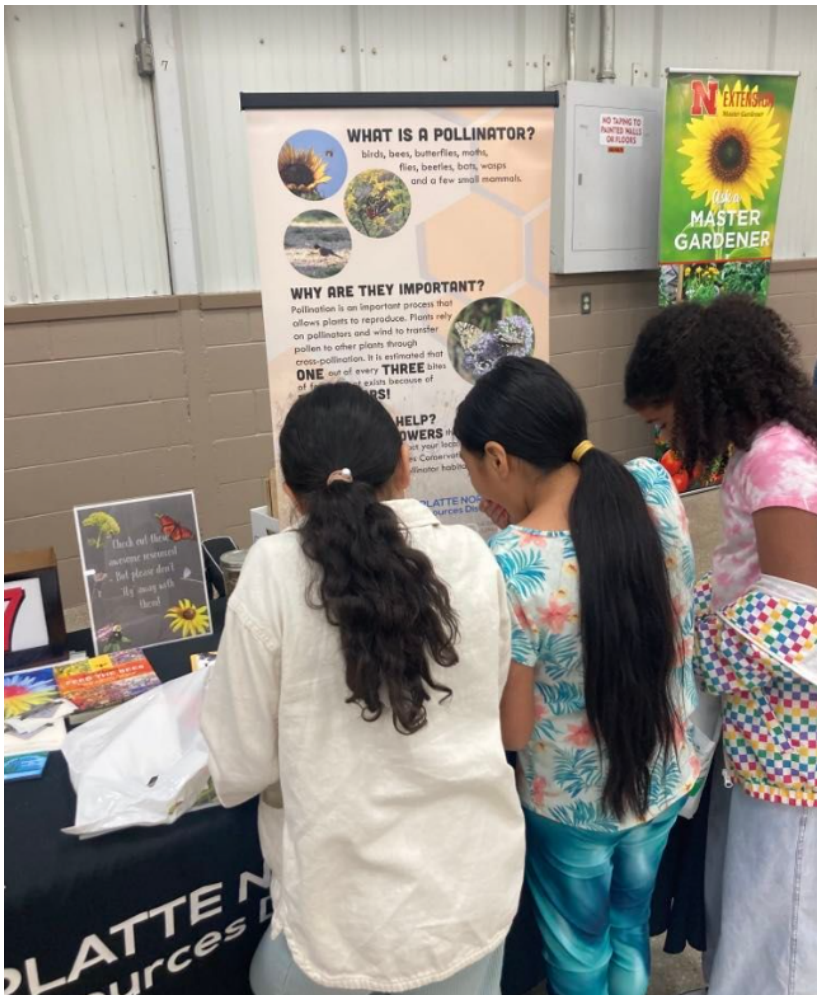
6. **Late Payments.** Except for invoiced payments that Client has disputed in accordance with Section 4 above, Client shall pay interest of 1.5%, or the maximum amount permitted by law, on all payments later than thirty (30) days from the Payment Date. All payments later than thirty (30) days from the Payment Date shall have interest compounded every thirty (30) days at the rate of 1.5%, or the maximum amount permitted by law.

LAKE
WANAHOO
Exploratory Seeksipping

LAKE
WANAHOO


Primary Taste (what's on your tongue)
Salty
Tangy
Bitter
Savory
Taste Group 2
Just Sweet
Fruity
Floral
Citrus
Caramel
Earthy
Herbaceous
Spicy
Meaty
Smokey
Burnt
Chemical
After Taste
1. Unpleasant
4. Nice but nothing special
7. Very enjoyable
Mouth Feel
Select all that apply
Thick
Chewy
Creamy
Gritty
(grade from 1, Very Bad to 7, Delicious)
Delicious
3
4
5
6
7




WHAT IS A POLLINATOR?
birds, bees, butterflies, moths, flies, beetles, bats, wasps and a few small mammals.
WHY ARE THEY IMPORTANT?
Pollination is an important process that allows plants to reproduce. Plants rely on pollinators and wind to transfer pollen to other plants through cross-pollination. It is estimated that ONE out of every THREE bites
NO TAPING TO PAINTED WALLS OR FLOORS
MASTER GARDENER

WHAT IS A POLLINATOR?
birds, bees, butterflies, moths, flies, beetles, bats, wasps and a few small mammals.
WHY ARE THEY IMPORTANT?
Pollination is an important process that allows plants to reproduce. Plants rely on pollinators and wind to transfer pollen to other plants through cross-pollination. It is estimated that ONE out of every THREE bites of food we eat exists because of POLLINATORS!
HOW CAN YOU HELP?
We can PLANT FLOWERS that provide food and create habitats. Contact your local Natural Resources District or Natural Resources Conservation Service to find out how you can create pollinator habitats near you.
LOWER PLATTE NORTH Natural Resources District
LET'S HELP THE POLLINATORS!
1. GRAB A COASTER.
2. PLANT UNDER A THIN LAYER OF SOIL.
3. WATER DAILY.
4. WATCH THE WILDFLOWERS BLOOM!
NO TAPING TO PAINTED WALLS OR FLOORS
The Life Cycles of Butterflies
Why should you plant native species?

What you can do to prevent cross connections and keep your drinking water safe.

1. **Check your faucets** to be sure that all faucet endpoints are above the flood level of the sink, tub, basin, or other apparatus they supply.

2. **Protect faucet extensions** by installing proper backflow prevention devices (i.e. hose bib vacuum breakers) on all faucets capable of having a hose or other extension attached.

3. **Check drain lines** (refrigerator drink dispensers, water softeners, heat exchangers, etc.) to be sure there is an adequate air gap between the drain line and the floor drain or sewer line into which they discharge.

4. **Never use unprotected faucets** to fill non-drinking water containers (i.e. water beds, wading pools, stock tanks, hot tubs, etc.)

Following these guide lines and using common sense will help to eliminate the possibility of you contaminating **your** drinking water, your **neighbor's** drinking water and your **community's** drinking water. This not only affects the residents of your community, but their visitors and those people who are passing through.

Quality On Tap!
Our Commitment Our Profession

BACKFLOW PREVENTION

AND

THE CUSTOMER

Helping Keep Our Water Safe !!

NEBRASKA
RURAL WATER ASSOCIATION

Nebraska's Safe Drinking Water Act requires water systems to implement an on-going cross connection control program. An important part of this program is public education. It is believed that a well-informed public will be more aware of the possibility of cross connections within their property and will take reasonable and sensible precautions to avoid creating cross connections on their property. This brochure is intended to explain what a cross connection is, what causes it, what some of the consequences can be, and how it can be prevented.

What is a cross connection?

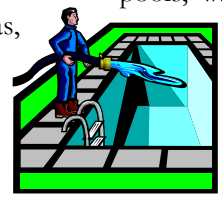
A cross connection occurs whenever there is an actual or potential physical connection between the public drinking water system and any possible source of contamination.

Sources of contamination can include both high hazard materials, which can cause illness or death, and low or non-hazardous materials which are mainly just a nuisance and can cause the water to look, taste or smell unpleasant. Although the high hazards are the primary concern in a cross connection control program, your water utility strives to provide both safe and good quality water to its customers. Whenever there is a loss of pressure in the public water supply, these cross connections can allow unsafe substances to enter the public water supply.

What causes cross connections?

Cross connections can be caused by both permanent and temporary "piping". An example of a cross connection being permanently piped in is the drain on a water softener. Many times these discharge lines are connected directly to the sewer line without any type of protection. Hot tub and whirlpool fill pipes and swimming pool and boiler make-up lines are other examples of permanently piped cross connections.

The most common example of a temporary piped cross connection is the common garden hose. It is estimated that 90% of all cross connections are caused by the inappropriate use of garden hoses. Garden hoses are frequently used to apply fertilizer and pesticides to lawns and gardens. They are also used to fill swimming pools, wash cars, and in rural areas, they are often used to fill stock tanks for watering cattle, horses, and other livestock.



Other temporary piping cross connections occur when hoses are used to fill waterbeds or are connected to utility sinks to fill wash tubs or mop buckets.

What are the consequences of cross connections?

The consequences of cross connections can range from something as simple as "dirty water" to something as severe as serious illness or even death. There are many recorded instances of non-hazardous contamination of public water supplies caused by cross connections. In one case, a line used for cleaning a distilling vat in a wine bottling company was left open, and an entire vat of wine flowed back into the public water system. Although this was not a health hazard, and most of the customers liked the water they drank, this cross connection could have had far deadlier results if it had been something other than wine in the vat.

There are many instances recorded where people have been made seriously ill or even died due to cross connections. There have been cases where dysentery, diarrhea, hepatitis and even polio have been contracted as a direct result of a cross connection.

How can cross connections be prevented?

The best way to prevent cross connections is for each customer to examine the plumbing on their premises and look for any permanent or temporary piped cross connections. Any time there is the possibility of a cross connection between the water supply and any hazardous or unknown substance, there should be an air gap between the faucet and the questionable use.

In cases where this is not possible, as with a garden hose, a proper backflow prevention device or assembly should be installed on the supply faucet. This will protect both the public water supply and the inhabitants of the building from contamination.

In situations where extremely high hazards exist in a building or location, it is sometimes necessary to contain that entire system from the public water supply with a backflow preventer to protect the public water supply from the substances being used on that site.

Cross-Connection Control Reporting Form

State law requires consumers of public water supplies to inspect their facilities not less than once every five years. Completing & returning this form fulfills that requirement!

Completion of this form is a condition of water service!

REPORTING FORM FOR THE WATER SYSTEM OF

_____

Customer Name _____

Customer Address _____

Account Number _____

	Yes	No
1. Underground lawn irrigation system?	☐	☐
If yes, is it protected by a testable backflow preventer?	☐	☐
2. Swimming pool or hot tub?	☐	☐
If yes, is it protected by a testable backflow preventer?	☐	☐
3. Photo, chemical, medical, or other lab facilities?	☐	☐
If yes, is it protected by a testable backflow preventer?	☐	☐
4. Private well or other source of water?	☐	☐
If yes, is it protected by a testable backflow preventer?	☐	☐
5. Boiler heat or water to air heat pump?	☐	☐
If yes, is it protected by a testable backflow preventer?	☐	☐
6. Garden hoses connected to possible contaminants?	☐	☐
If yes, is it protected by a hose bibb vacuum breaker?	☐	☐
7. Water softener?	☐	☐
If yes, is it protected by an air gap?	☐	☐
8. Booster Pump?	☐	☐
If yes, is it protected by a backflow preventer	☐	☐
If yes, does it have a low-pressure shut off switch?	☐	☐

If you have any questions please contact_____ at _____

Signature: _____ Date:_____

Thank you,
This form will help prevent the
accidental contamination of
our drinking water

Failure to complete and return this form puts your water system in violation of State Health Department Regulation Title 179.

Your local water supplier, in compliance with the Safe Drinking Water Act of 1974 and the amendment to the Safe Drinking Water Act of 1986, enacted an ordinance which provides for a program preventing backflow and backsiphonage into the public water supply system.

WHAT IS A CROSS-CONNECTION?

A plumbing cross-connection is defined as a connection between a public water supply and a source of contamination or pollution. In other words, a cross-connection makes it possible for contaminating material to enter into the drinking water supply when the pressure of the polluted source is greater than the pressure of the water supply. This can result in either a backsiphonage or backflow (a reversal in the normal direction of water flow).

EXAMPLE

In August, 1978, a professional exterminator was treating a church located in a small town in South Carolina for termites. The highly toxic insecticide, chlordane, was being mixed with water in small buckets. Garden hoses were left submerged in the buckets while the mixing was being accomplished. At the same time, workers came by to disconnect the parsonage water line from the church to install a separate water meter for the parsonage. In the process, the water was shut off in the area of the church building. As the remaining water in the lines was used by residents in the area, the church experienced a negative pressure. The chlordane was quickly siphoned into the water lines within the church and became mixed with the Kool-Aid being prepared by women for the vacation bible school. Approximately a dozen children and three adults experienced dizziness and nausea. Fortunately, none required hospitalization.

Hopefully, your local water system will never have a backflow problem that could endanger the welfare of its citizens. However, because potential backflow problems exist, it is important for YOUR HEALTH AND SAFETY to complete the following survey and return it to _____ within_____ days. If you have any questions, contact _____ at_____.

FAILURE TO DO SO MAY RESULT IN LOSS OF SERVICE

ATTENTION
ALL WATER USERS

UNDER NEBRASKA DEPARTMENT OF
HEALTH & HUMAN SERVICES
REGULATIONS TITLE 179 CHAPTER 22
YOUR LOCAL WATER UTILITY IS REQUIRED
TO CONDUCT AN ON-GOING PROGRAM
FOR THE DETECTION AND ELIMINATION
OF CROSS-CONNECTIONS

YOUR LOCAL UTILITY IS CONDUCTING
THIS SURVEY TO ASSIST CUSTOMERS
IN REPORTING POTENTIAL
BACKFLOW HAZARDS
AND TO COMPLY WITH
THIS REGULATION

THIS MUST BE DONE AT LEAST
EVERY FIVE YEARS

This survey was conducted by your water system 5 years ago. If you completed this survey at your current residence at that time, and there have been no plumbing changes, sign below and return this survey. The last survey is still on file.

*Signature*_____

*Date*_____