

Water Committee Meeting
 Thursday, February 27, 2020 7:30 AM
 Lower Platte North NRD Office
 P.O. Box 126
 Wahoo, NE 68066

1. UNFINISHED BUSINESS

2. REGULATORY

A. GROUND WATER MANAGEMENT AREA

1. Variance Requests Acre Expansion with Allocation

The District has received two new variance applications for expanded acres with an allocation.

Richard Brock

Legal Description: NW 1/4 NW 1/4 S33-T19N-R1W Platte County (SQS#2)

Well Reg #: G-167076

Previous Acres: 141.54

New Acres: 24.70

Three Year Allocation Amount: 3821.58 Acre Inches (27*141.54)

Ranking Score: 461.7

Dayle Alswager

Legal Description: E 1/2 NW 1/4 S8-T18N-R1W Platte County (SQS #2)

Well Reg #: G-042995

Previous Acres: 199.17

New Acres: 49.88

Three Year Allocation Amount: 5377.59 (27*199.17)

Ranking Score: 386.5

2. Well Permit Program

a. Well Permits Approved

b. Wells Permits Approved: 1

c. Landowner	d. Number of Wells	e. Number of New Irrigated Acres	f. Type
--------------	--------------------	----------------------------------	---------

b	c	dd	e	f	gg	h	i
j	k	l	m	nn	oo	p	q
r	s	t	u	vv	ww	x	y
z	aa	bbb	c	ddd	ee	ff	gg
hh	i	jj	k	ll	mmm	nn	o

pppp.

3. Public Water Supply Well Permit

City of Lincoln Well Permit - for a well that was decommissioned because of the flood. The permit says replacement, but might need to treat it as a new well.

Committee would like to see documentation that a model has been ran recently as this is a Class 4 well permit.

4. Special Quantity Subareas

Gravity to Pivot Conversion in 2015? The hearing was held in 2015 with acres being certified in 2014. Meters and Allocations started in 2016.

Staff will investigate further to verify.

5. Lower Platte River Basin Water Management Plan Coalition (LPRBC)

Technical meeting was held on March 2 and Managers meeting on March 4.

Staff submitted the District's V-IMP report for review at these meetings. At the technical meeting the choice was evaluation of the allotments for 2021 utilizing current data with the Missouri-Trib model or waiting on adding the AEM flights to the model and extending out another 3 - 5 years keeping the current allotment issued in 2016. No unanimous decision came from the technical committee and managers on what direction the group will decide to pursue. At this time the LPNNRD has 1379.3 allowable acre feet remaining. This allotment is divided 50/50 for surface and groundwater projects.

6. Voluntary Integrated Water Management Plan - LPNNRD

Report is due March 1

7. Cost Share Programs

a. Acre Addition

Nat Oehlich is wanting to add a pivot to a gravity irrigated field. The pivot will potential increase his acres.

Committee proposed to Mr. Oehlich the option expanding with an allocation and submitting a variance to allow the additional acres.

8. LPNNRD Operator Certification

Staff and Committee discussed the comments from nitrogen certification class held in Schuyler. The meeting was held on February 26 with Dan Snow, Maratha Roades, Cover Crop Panel and Breakout Session.

Attendees at the class gave good comments and ideas in the breakout sessions. The data presented by Dan Snow was preliminary but did show livestock waste applications could be a contributing source of nitrate contamination.

More discussion will be held at the next Water Committee when staff will have the producers comments and answers organized.

a. Nutrient Management

3. GROUND WATER PROGRAMS

A. DECOMMISSIONED WELL PROGRAM

1. Well Estimates

2. # new wells has been reviewed and approved for decommissioning since the last Committee meeting.

3. Well Owner	4. Type of Well	5. Cost Share Estimate	6. County
7. Line Rider LLC	8. Irrigation	9. \$637.62	10. Colfax
11. Justin Lee	12. Stock	13. \$503.44	14. Boone
15. Jordan A. Jisa	16. Domestic	17. \$508.92	18. Butler
19. Walter Bohaty	20. Irrigation	21. \$1,000.00	22. Butler
23. Walter Bohaty	24. Irrigation	25. \$1,000.00	26. Butler
27. J & E Plasek Family LLC	28. Hand-dug	29. \$885.00	30. Butler
31. Yindrick Farms LLC	32. Irrigation	33. \$743.62	34. Butler
35. Yindrick Farms LLC	36. Irrigation	37. \$562.20	38. Butler
39. Yindrick Farms LLC	40. Irrigation	41. \$753.84	42. Butler
43. Yindrick Farms LLC	44. Irrigation	45. \$753.84	46. Butler
47. Yindrick Farms LLC	48. Irrigation	49. \$840.23	50. Butler
51. Yindrick Farms LLC	52. Irrigation	53. \$569.03	54. Butler
55. Yindrick Farms LLC	56. Irrigation	57. \$572.42	58. Butler

59.

60. Plugged Wells

61. # wells have been plugged, reviewed, and ready for cost share payment approval this month.

62. Well Owner	63. Type of Well	64. Cost Share Estimate	65. County
66.	67.	68.	69.
70.	71.	72.	73.
74.	75.	76.	77.

78.

B. LOWER PLATTE NORTH NRD GROUND WATER STUDIES

1. Eastern Nebraska Water Resources Assessment (ENWRA)

Katie Cameron updated the Committee on the ENWRA budget and long-range plans. She discussed the need to extend the Geo-Cloud agreement to coincide with ENWRA interlocal agreement that expires in 2022. Katie is always available to evaluate the geological formation for well permitting. Staff has asked Katie numerous times to interpret the AEM information.

2. Lower Platte River Consortium

Copied from an email from Paul Zillig.

Please find attached the final LPR Drought Contingency Plan Financial Report. You'll notice we came in under budget with some funds remaining in the BOR, WSF, and the Consortium member accounts.

The BOR remaining funds (\$9,512) cannot be utilized for this and have been turned back to BOR.

The remaining WSF funds (\$10,768.31) can be utilized for the planned "table top" exercise, I'm working on what we need to do to get that approved.

The remaining Consortium Member funds (\$3,104.47) we could use for a portion of the table top exercise cost.

The table top exercise that we all expressed interest in doing, is now estimated to cost \$30,000. Jennifer has worked with John Engel to put together a good exercise and figure out a way to pay for it. NeDNR has agreed to contribute \$10k, a total of \$10,768.31 of WSF funding can hopefully be utilized, if we use the remaining \$3,104.47 of Consortium funding, that would leave us to come up with an additional \$6,200 or \$1,240 each (\$6,200 divided by 5 as NeDNR is already putting in \$10k). Let me know

your thoughts? I don't see us having a meeting between now and the time the LPSNRD Board would need to approve a contract with HDR (in mid April) so let me know if you think your group is ok with this and you wish for us to proceed with the table top exercise?

C. Phoenix Web Group

Phoenix Web Group is offering a service plan.

Staff recommended to the Committee to start with the silver plan and re-evaluate in a year if this is sufficient.

D. GROUND WATER QUALITY SAMPLING

E. Water Flow Meters

No discussion at Committee meeting.

- Is Status Quo good water management?
- Are Water Flow Meters and/or Allocations the right management tool?
- Is collecting good and accurate data a justification for flow meters?
- Is Water Flow Meters just the cost of doing business?
- Do we need grant money to proceed?
- Starting and Ending Date?

F. Total potential cost with producer cost-share is around 4 million dollars without check valves.

G. Flow Meter Approved List Update

Lonnie Nunnenkamp from Seametrics gave an update to the Committee on the Seametrics - Magmeter AG2000 that is on the LPN approved flow meter list..

4. OTHER

A. COMMENTS FROM THE PUBLIC

**LOWER PLATTE RIVER DROUGHT CONTINGENCY PLAN
FINANCIAL REPORT
January 08, 2020**

PROJECT BUDGET SUMMARY

TASK 100 – Project Administration	\$27,351
TASK 200 – Data Review & Conveyance Forecasting Tool Design	\$165,446
TASK 300 – Review & Develop Mitigation/Response Actions	\$102,631
TASK 400 – Plan Document	\$68,489
TASK 500 – Public Outreach	\$36,077
TASK 600 – Data Collection	\$39,991
TASK 700 – Supplemental Data Collection	\$24,341
TASK 800 – Conveyance Forecasting Tool Enhancements	<u>\$85,638</u>
	\$551,000

PAYMENTS

<u>Date</u>	<u>Payment</u>	<u>Total</u>
February 27, 2017	\$17,238.30	\$17,238.30
March 8, 2017	\$10,747.26	\$27,985.56
April 13, 2017	\$11,801.94	\$39,787.50
April 28, 2017	\$10,982.49	\$50,769.99
June 28, 2017	\$ 5,767.45	\$56,547.54
June 29, 2017	\$33,532.57	\$90,070.11
July 31, 2017	\$24,515.01	\$114,585.12
Sept 1, 2017	\$31,411.72	\$145,996.84
Sept 27, 2017	\$41,348.05	\$187,344.89
Oct 27, 2017	\$22,315.56	\$209,660.45
Nov 30, 2017	\$36,569.13	\$246,229.58
Jan 8, 2018	\$12,538.75	\$258,768.33
Jan 25, 2018	\$10,913.65	\$269,681.98
March 5, 2018	\$9,330.17	\$279,012.15
April 2, 2018	\$15,378.07	\$294,390.22
May 14, 2018	\$9,451.52	\$303,841.74
June 21, 2018	\$33,527.24	\$337,378.98
July 25, 2018	\$24,113.78	\$361,492.76
August, 27, 2018	\$31,328.61	\$392,821.37
October 5, 2018	\$17,497.65	\$410,319.02
October 22, 2018	\$17,102.22	\$427,421.24
November 21, 2018	\$19,652.95	\$447,074.19
December 24, 2018	\$20,993.62	\$468,067.81
February 1, 2019	\$17,563.00	\$485,630.81
March 8, 2019	\$18,532.45	\$504,163.26
March 29, 2019	\$8,420.11	\$512,583.37
May 8, 2019	\$11,145.55	\$523,728.92
November 20, 2019	\$1,228.80	\$524,957.72

PROJECT CONTRIBUTION SUMMARY

	<u>Funds Committed and Reimbursed</u>		
	<u>Committed \$</u>	<u>Reimb Earned</u>	<u>Reimb Recieved</u>
US Bureau of Reclamation (remaining/returned \$9,512.00)	\$200,000	\$190,488.00	\$190,488.00
Nebraska Water Sustainability Fund (remaining \$10,768.31)	\$195,000	\$184,231.69	\$184,231.69
Consortium Members (\$26,000 each) (remaining \$3,104.47)	\$156,000	\$152,895.53	\$156,000.00

Reimbursements Received

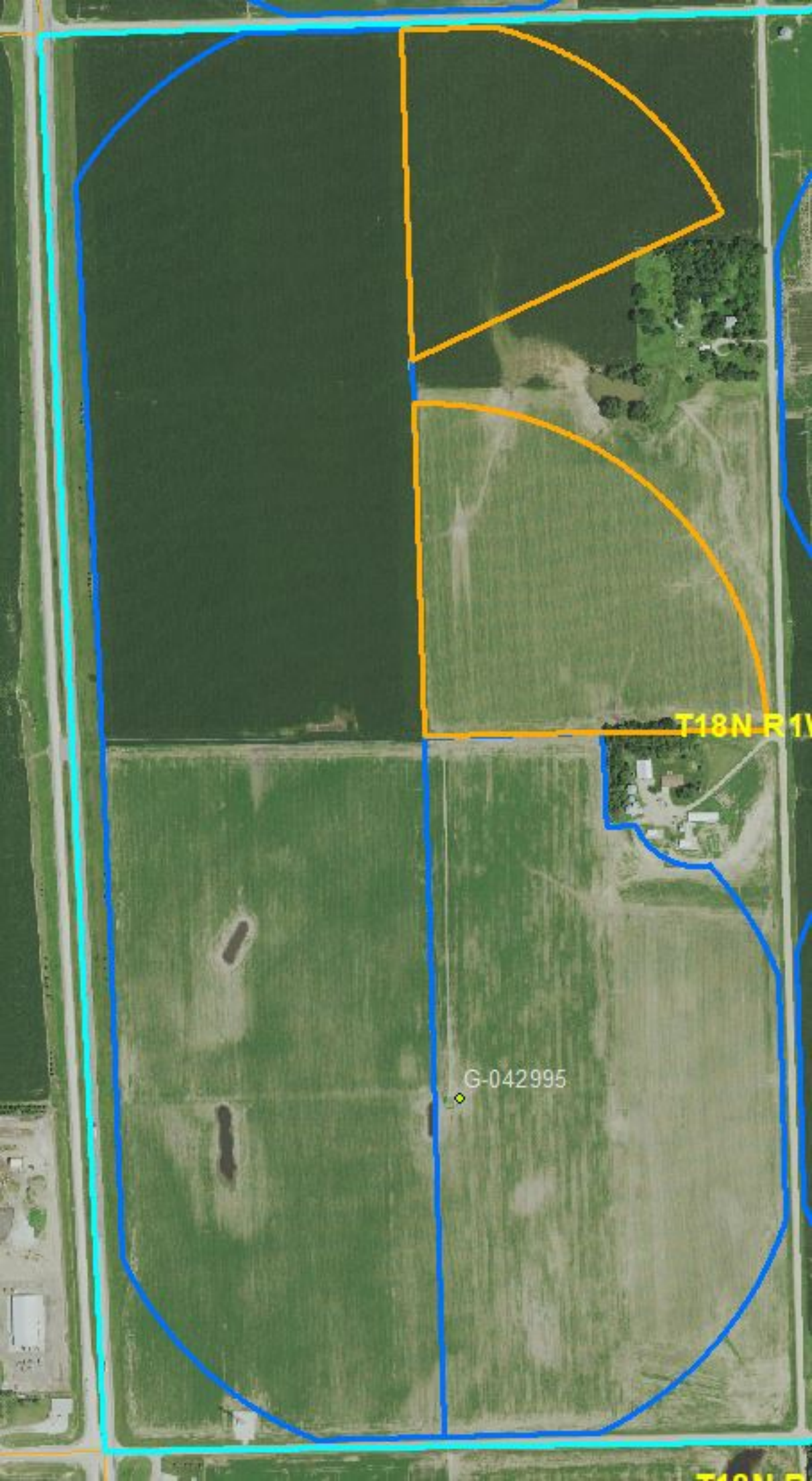
DNR, MUD, Lincoln/LWS, PMR NRD, LPN NRD, & LPS NRD (\$26,000 ea.)

US Bureau of Rec/BOR (\$190,488.00)

1. \$14,771.00 (9/20/2017);
2. \$92,344.64 (6/27/2018);
3. \$43,729.14 (11/1/2018);
4. \$39,643.22 (1/08/2020).

NDNR – WSF (\$184,231.69)

1. \$90,339.47 (5/2/2018);
2. \$1,374.82 (5/16/2018);
3. \$41,132.33 (10/30/2018);
4. \$51,385.07 (01/07/2020).



T18N R11

G-042995

T18N R



G-167076

T19N R1W S33



PWG SUPPORT PLAN, OPTIONS, and PRICING for LPNRD

Overview & Purpose

Once a solution has been moved into Production, PWG typically offers a set of options for transitioning the relationships from active development to supporting the application and providing expert advice.

This document defines the terms we use when describing these agreements and presents three plan options made up of these terms.

	Platinum	Gold	Silver	No Plan
Annual Price	\$8,000	\$4,500	\$2,500	--
Call/Email (No Charge)	✓	✓	✓	✓
Periodic Server Maintenance	Monthly	Monthly	Quarterly	--
Maximum Initial Response Time	1 hour	4 hours	6 hours	2 days
Incidents Hours Per Month	15	5	3	0
Additional Incident Price Per Hour	\$100	\$150	\$165	\$250
Bug Fixes Included	✓	✓	✓	Not included

Agreement Terms

Annual Price

The annual cost is defined for each tier. The support contract will begin the 1st of the month following receipt of payment.

Call / Email (No Charge)

You won't be charged for a phone call unless you specifically request that we help diagnose a production issue. Support calls and emails will be addressed during business hours, Monday through Friday, 8:00am – 5:00pm Central Time. Support calls and emails must be addressed to the following:

PHONE: (402) 786-5111

EMAIL: nrdsupport@phoenixwebgroup.com

Maximum Initial Response Time

Upon receiving a request to help diagnose a production issue, this is the maximum amount of time that will pass before we make an initial review of the situation and inform you of preliminary findings OR notify you that a full diagnosis will require additional time. If a request is made after business hours, it will be addressed the following business day within the given time frame included in the plan.

Periodic Server Maintenance

PWG will monitor server performance continuously with automated tools. Once a month, the server will be logged into, reviewed, and software updates will be installed as necessary.

Incident Hours per month; Additional Incident Price Per Hours

Incidents per month indicate the number of requests for production issues included in the plan. Requests over this limit will be priced per incident.

A support incident is defined as an isolated support/help issue and the reasonable effort needed to address it.

If a reported issue can be broken down into subordinate issues, each subordinate issue shall be considered a separate incident.

New additions, new features, or changes to the original, contracted product(s) or corrections to erroneous supplied data are NOT considered incidents.

Bug Fixes Included

An Incident that results in the discovery of a new software bug, as confirmed by PWG, will be covered by the price of the diagnostic call. This covers code-based issues only and does not include issues caused by incorrectly entered data.

Additional Issues

An Incident not covered by the Bug Fix plan option will be quoted a price and timeline and submitted to the customer for approval. Once payment is received, work will begin to repair the issue.

Quote Terms

This quote will expire after a time period of 30 days from the date stated above.

Notes

The support contract will begin the 1st of the month following receipt of payment and will continue for one year.

The customer is responsible for paying applicable taxes in addition to the prices above.

Support Plan Options. Please selected one of the following plans:

(Please initial your plan choice)

____Platinum

____Gold

____Silver

____No Support Plan at this time

Signature: _____

Title: _____

Date: _____

PWG Signature: _____

Title: _____

Date: _____



February 25, 2020

Mr. Daryl Andersen
Lower Platte North Natural Resources District
P.O. Box 126
Wahoo, NE 68066

RE: Lincoln Water System
North Well Field 2019 Flood Restoration – Well 56-7A
NRD Water Well Permit

Dear Mr. Andersen,

Enclosed for your review is the completed application for an NRD permit to construct Replacement Well 56-7A within Lincoln Water System's North Well Field. The NRD review check in the amount of \$50 is also included. Please let us know if there is any additional information we can provide, and do not hesitate to reach out with any questions. We look forward to working with the Lower Platte North NRD on this project.

Very truly yours,
HDR Engineering, Inc.

A handwritten signature in black ink that reads "Teresa C. Konda". The signature is fluid and cursive.

Teresa C. Konda, P.E.
Project Manager

CC Steve Owen, LWS

**APPLICATION FOR A PERMIT TO CONSTRUCT A WATER WELL
IN THE LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT**

DNR & NRD USE ONLY			
Permit No. _____	Date Approved/Denied _____	NRD Representative _____	
Permit Type: New, Replacement or Late _____	Date Received _____	Paid: Cash or Check _____	
Date Post-inspected _____	Registration No. _____	Updated Form May 2008	

ALL APPLICANTS SEEKING A WATER WELL PERMIT MUST COMPLETE PAGES 1 AND 2, AND THE APPROPRIATE SECTION BASED ON THE PURPOSE OF THE WELL. (CLASS 1 - 4 WELL PERMIT)
 WATER WELL PERMITS FOR IRRIGATED ACRES GREATER THAN 160 ACRES IN SIZE OR TOTAL ANNUAL WATER USE BETWEEN 150 AND 300 ACRE FEET PER YEAR MUST COMPLETE PAGES 1, 2, AND 3, AND THE APPROPRIATE SECTION BASED ON THE PURPOSE OF THE WELL. (CLASS 3 WELL PERMIT)
 WATER WELL PERMITS FOR TOTAL ANNUAL WATER USE EQUAL TO OR GREATER THAN 300 ACRE FEET PER YEAR, REGARDLESS OF NUMBER OF IRRIGATION ACRES, MUST COMPLETE PAGES 1, 2, AND 4, AND THE APPROPRIATE SECTION BASED ON THE PURPOSE OF THE WELL. (CLASS 4 WELL PERMIT)

1. NAME AND ADDRESS OF <u>LAND OWNER</u>: <u>Steve Owen</u> <u>2021 North 27th Street</u> <u>Lincoln, NE 68503</u> Phone: <u>402-441-5925</u>	NAME AND ADDRESS OF <u>CONTACT</u>: <u>Teresa Konda</u> <u>1917 South 67th Street</u> <u>Omaha, NE 68106</u> Phone: <u>402-926-7063</u>
--	--

2. PURPOSE OF NEW WATER WELL (indicate one):

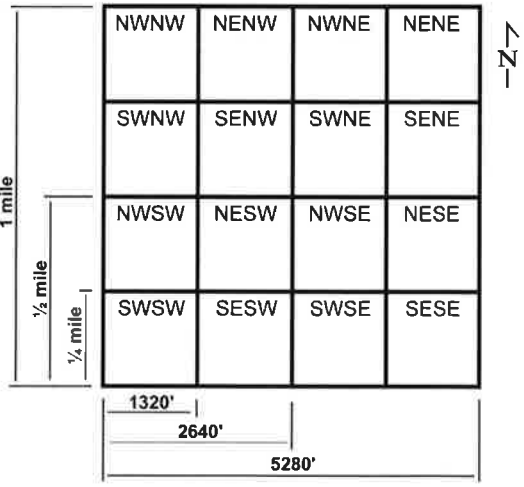
<input type="checkbox"/> Irrigation (Complete section A)	<input type="checkbox"/> Dewatering (Over 30 days, Complete section B)
<input type="checkbox"/> Livestock (Complete section C)	<input type="checkbox"/> Domestic (Irr. on one acre or larger, Complete section D)
<input type="checkbox"/> Industrial (Complete section E)	<input checked="" type="checkbox"/> Public Water Supply (Complete section F)
<input type="checkbox"/> Recovery or Remediation (Complete section G)	<i>Section F not included as discussed 2/21/20</i>
<input type="checkbox"/> Other (specify) _____	(Complete section H)

3. IDENTIFY LOCATION OF PROPOSED WELL:

A. Saunders County, NW 1/4 of the SW 1/4 of Section 18, Township 13 North, Range 10E East/West. (circle one)

B. The box at the right represents one square mile, (section). Indicate with an "X", the proposed location of the well. Outline the proposed water use area. If the water is to be used outside the above written legal description, give legal description of water use area, *City of Lincoln Public Water Supply* 1/4 of the 1/4 of Section _____, Township _____ North, Range _____ East/West.

C. The well will be located _____ feet from the North/South section line, and will be _____ feet from the East/West section line. Or enter Lat. / Long.
 Latitude Degree 41 Minute 05 Second 38.34
 Longitude Degree 96 Minute 20 Second 39.66



4. REPLACEMENT AND ABANDONED WELL INFORMATION:

A. Is this a replacement well? Yes, No. If yes, fill out the rest of this section.

B. Registration number of well to be replaced: A10367D

C. Well to be replaced was last operated (month/year): 03/2019

D. Replacement well is ~ 125 feet from original well.

E. Decommissioning of Original well on (month/day/year): 06/06/2019

F. If water use is for irrigation, list the number of acres watered by the original well: N/A

G. If water use is for irrigation, will replacement well, water the same tract of land as the decommissioned well?
 Yes, No: If No, list the number of additional acres _____ and legal description _____ 1/4 of the _____ 1/4 of Section _____, Township _____ North, Range _____ East/West. (circle one)

- A replacement water well must deliver water to the same tract of land as the original water well, pump from a comparable aquifer, and yield approximately the same gallons per minute and total annual water use as the original water well.

5. SPECIFICATIONS OF INTENDED WELL AND PUMP:

- A. Approximate date when construction will begin (month/day/year): 06/2020
- B. Expected total well depth: 87 feet.
- C. Well Casing Diameter: 36 inches.
- D. Pump Column Diameter: 12 inches.
- E. Estimated pumping capacity: 2,100 GPM.
- F. Expected total annual water use in Acre Inches / Year _____ or Total Gallons / Year up to 1,100 MG
- G. The system is to be powered by Electric Fuel
- H. Will the well be used in a system with other wells? Yes, No. If Yes, How many 40 vertical wells
List well registration number and legal description of each well in Section 6 below.
- I. Name of Well Driller: certified well driller TBD (Please attach test hole log, if available.)

6. List additional information requested in this Section or attached additional sheet.

Proposed well (56-7A) to replace original well 56-7 damaged beyond repair during March 2019 flooding. Original well 56-7 was abandoned by Layne Christensen Company in June 2019 in a regulatory compliant manner.

Proposed replacement well (56-7A) exceeds capacity of original well. LWS has a desire to reduce utilization of Well 56-8 (located ~1,000 FT north) due to periodic taste and odor complaints while in use.

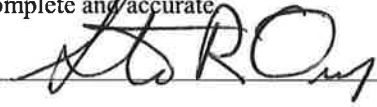
7. Addition information and requirements for Lower Platte North NRD review.

- Attach current tax assessor records including map, parcel number, and current land use such as irrigated acres.
- Attach aerial photo showing location of water source(s) and area water or reuse water is to be used.
- All new and replacement water wells must install a District approved flow meter and report water pumped annually to the LPNNRD by January 31st of the following year.
- Water well permit conditions maybe required for approval by the Lower Platte North NRD for each individual well.

8. I certify that I am familiar with the information contained in this application, and it's restrictions, rules and regulations and that to the best of my knowledge and belief such information is true, complete and accurate.

Date 2/25/2020

Signature of Applicant



Signature of Well System Operator, if different than Applicant

NRD Certification Number of Landowner or Operator _____ (Required for irrigation, livestock, domestic (with irrigation on one acre or more of land), industrial, and public water supply wells.)

9. Lower Platte North NRD Use Only. Comments by District Representative.

Submit ORIGINAL to:
Department of Natural Resources
301 Centennial Mall South
P.O. Box 94676
Lincoln, Nebraska 68509-4676
Phone (402) 471 2363

June 2011 DNR DECO
This form **MUST** be printed/copied
as a **SINGLE** sided form

STATE OF NEBRASKA
DEPARTMENT OF NATURAL RESOURCES

This form is required to be filed
within **60 days** of decommissioning
of the water well.

NOTICE OF WATER WELL DECOMMISSIONING

FOR DEPARTMENT USE ONLY

Date Filed _____ Owner Code No. _____ Registration No. _____
_____-DEC____() _____ NRD
Well ID _____

1. Well Owner's First Name _____ Last Name _____

OR Company Name Lincoln Water System

Attention Name Steve Owen

Address 2021 N. 27th Street

City Lincoln

State NE.

Zip 68503

Telephone 402-441-7571

2. Contractor (if applicable) Layne Christensen Co. Inc. Telephone Number 402,359-2042

Address 4601 N. 252 nd Street

Contractor License No. 39627

City Valley

State NE.

Zip Code 68064

Drilling Firm: Kelly Well

Email: Out of business

3a. Well Registration No. A10367D

3b. Purpose of Well: Public Water System

3c. Date Well Last Operated: 3/17/19

3d. Date of Decommissioning: 6/6/19

3e. List complete well location: Legal **and** GPS Coordinates **MUST** be provided.

Is this location different than the DNR database location? Corrected Location

1. Well location: NE $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 18, Township 13 North, Range 10 E W Saunders County.

2. Latitude Degree: 41 Minute: 05 Second: 37 11 Longitude Degree: 96 Minute: 20 Second: 39 67 (NAD 83)

3. The well is 3,493 feet from the (N S) section line and 1215 feet from the (E W) section line.

3f. Location of Water Use: City of Lincoln, NE.

4. Actual Method for Decommissioning of Well

Placement Depth in Feet		Detailed Description of Material
From	To	
0	5	Fill Sand Dredged in After Flood
5	8	Cement
8	10	Bentonite Hole Plug
10	62	Sand Washed in From Flood

5a. Well Casing Size: 31" O.D.

5b. Bore Hole Diameter: 42"

I hereby certify that the information provided on this form is true and accurate to the best of my knowledge.

Layne Christensen
Contractor (**owner)

6/19/19
Date

* **Owner may sign on wells prior to 7/1/2001 or sandpoint or if well no longer exists and it is unknown when decommissioning occurred

**The Department reserves the right to request verification of information provided.
ORIGINAL form must be provided to the Department of Natural Resources.**

Layne Christensen Company
4601 N 252nd St.
Valley, NE 68064
(402) 359-2042 / 2310 Fax

TEST HOLE REPORT



OWNER: City of Lincoln
 JOB NO: 992602 DATE: 01/24/20
 CITY: Ashland STATE: NE

TEST HOLE	
NO: <u>1-2020</u>	
DRILLER: <u>Rusty Bowles</u>	

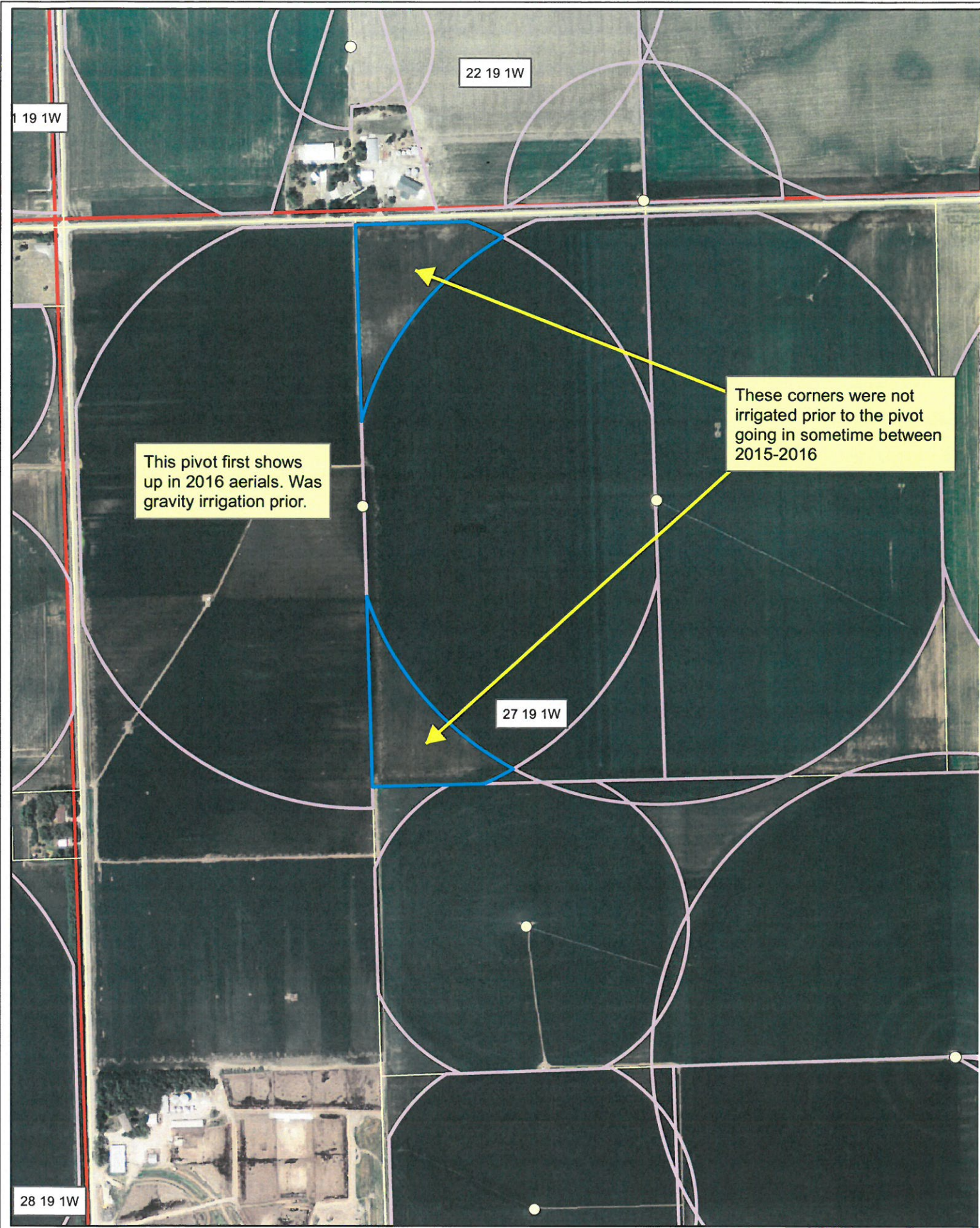
TEST HOLE LOCATION: 125' North of Abandoned Well 56-7 at Ashland Well Field

Distance and direction from permanent landmark or previous test hole.

FROM (FEET)	TO (FEET)	MARSH FUNNEL VISCOSITY (SEC)	MUD PIT LOSS (INCHES)	APPROXIMATE STATIC WATER LEVEL: _____
				FORMATION LOG
0	7			Sand Fill
7	15			Dark Brown Clay W/ Sand
15	37	33	6"	Brown Med/Coarse Sand W/Fines
37	41			Brown Fine/Med Sand
41	45	32	5"	Brown Fine/Med Sand W/Wood
45	52			Med/Coarse Sand W/Fines
52	54			Med/Coarse Sand W/Gravel
54	59	34	3"	Med/Coarse Sand & Gravel W/Boulders
59	67			Coarse/Med Sand & Gravel W/Fines
67	72	34	4"	Gray Coarse /Med Sand
72	73.5			Olive Brown Shaley Lime
73.5	74			Boulder
74	85	34	3"	Grey Med/ Coarse Sand W/Fines
85	87			Brown Sandy Clay
87				Limestone

SIZE MUD PIT: _____ LENGTH: _____ WIDTH: _____ DEPTH: _____

COMMENTS: Looks Good



- Pivot Points
- Pivots

Potential Pivot Problem in SOS 2

Map created by LPNNRD GIS Dept.
For questions regarding this map or
the packet please contact by phone
(402) 443-4675 or by email

