

Water Committee Meeting
 Wednesday, June 1, 2022 6:00 PM
 Lower Platte North NRD Office
 P.O. Box 126
 Wahoo, NE 68066

1. UNFINISHED BUSINESS

2. REGULATORY

2.A. GROUND WATER MANAGEMENT AREA

2.A.1. Irrigated Acre Transfer

Attached is a checklist of documents received by NRD staff for Jamie and Cathy Yindrick's irrigated acre transfer request. They are transferring irrigated acres to Section 2-16-3E, Butler County from Section 13-16N-2E, Butler County and Section 9-15N-4E, Butler County. The total acres on the new tract would be 142 acres. Jamie commented that well G-149371 located in Section 13 will be decommissioned after the acres are transferred. If there are more acres from Section 13 than needed, LPNNRD will get credit for the V-IMP allotment of water.

The Committee felt that all the documents shown on the list met the requirements of the irrigated acre transfer policy.

2.A.2. Well Permit Program

2.A.2.a. Well Permits Approved

2.A.2.b. Wells Permits Approved: #

2.A.2.c. Lan downer	2.A.2.d. N umber of Wells	2.A.2.e. Nu mber of New Irrigated Acres
2.A.2.i. LaR ose Preister	2.A.2.j. 1	2.A.2.k. 0
2.A.2.o. Paul a Mares	2.A.2.p. 1	2.A.2.q. 0
2.A.2.u.	2.A.2.v.	2.A.2.w.
2.A.2.aa.	2.A.2.bb.	2.A.2.cc.
2.A.2.gg.	2.A.2.hh.	2.A.2.ii.

2.A.2.mm.

- 2.A.2.nn.
- 2.A.2.oo.
- 2.A.2.pp.
- 2.A.2.qq.
- 2.A.2.rr.
- 2.A.2.ss. The total number of approved permits for 2022 is #

Location of Approved Well Permits for 2022: Correct as of #####

2.A.2.tt. County	Co	2.A.2.uu. Irrigation - New	2.A.2.vv. Irrigation - Replacement	
2.A.2.bbb. tler	Bu	2.A.2.ccc.	2.A.2.ddd.	
2.A.2.jjj. lfax	Co	2.A.2.kkk.	2.A.2.lll.	
2.A.2.rrr. dge	Do	2.A.2.sss.	2.A.2.ttt.	
2.A.2.zzz. one	Bo	2.A.2.aaaa.	2.A.2.bbbb.	
2.A.2.hhhh. adison	M	2.A.2.iiii.	2.A.2.jjjj.	
2.A.2.pppp. atte	Pl	2.A.2.qqqq.	2.A.2.rrrr.	
2.A.2.xxxx. unders	Sa	2.A.2.yyyy.	2.A.2.zzzz.	
2.A.2.ffff. tal	To	2.A.2.ggggg.	2.A.2.hhhhh.	

2.A.3. Cost Share Programs

2.A.4. Hydrogeology Framework Project

Attached is an invoice from Papio-Missouri River NRD for \$20,433.40 for the completion of this joint project per contract. Staff have been utilizing this data for well permits and the irrigated acre transfer.

2.A.5. LPNNRD Operator Certification

Letters were sent to 409 producers on May 25 notifying them that their certification had expired. Options were given to them in the letter.

Producers have been calling the office. How does the Committee want to handle these situations?

- Claims Coop/Agronomist does the fertilizing and they have the certification number.
- Someone in a family has certification number for numerous operations.
- Agronomist has a certification number that works for large farms.

2.A.6. Lower Platte River Basin Water Management Plan Coalition (LPRBC)
The technical group is planning a meeting on June 28.

2.B. CHEMIGATION

For 2022, as of 6/1/22, we have 637 renewals and 21 new permit applications for a current total of 658. Inspections for one new permit and seven renewal inspections have been completed. One inspection did not pass thus far.

2.C. LIVESTOCK WASTE PERMITS

2.D. The LPNNRD has received # 1 livestock permit applications from DEQ since the last Water Committee meeting.

The Board did past a motion to stay neutral on livestock facilities and the NRD responsibility is with the permitting of high capacity wells. Manure application is usually treated as any commercial fertilizer, which soil sampling and manure analysis should be conducted and handled by NDEE.

2.E. Name	2.F. Livestock	2.G. Type of Permit	2.H. Legal Description
2.J. Beller Feedlot Inc	2.K. cattle	2.L. modification	2.M. SW 13-20-4
2.O.	2.P.	2.Q.	2.R.
2.T.	2.U.	2.V.	2.W.
2.Y.	2.Z.	2.AA.	2.BB.

Description of permit application
Modification on feeding operation.

3. GROUND WATER PROGRAMS

3.A. DECOMMISSIONED WELL PROGRAM

3.A.1. Well Estimates

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

3.A.3. Well Owner	3.A.4. Type of Well	3.A.5. Cost Share Estimate	3.A.6. County
3.A.7.	3.A.8.	3.A.9.	3.A.10.
3.A.11.	3.A.12.	3.A.13.	3.A.14.
3.A.15.	3.A.16.	3.A.17.	3.A.18.

3.A.19. Plugged Wells

3.A.20. 4 wells have been plugged, reviewed, and ready for cost share payment approval this month.

3.A.21. Well Owner	3.A.22. Type of Well	3.A.23. Cost Share Estimate	3.A.24. County
3.A.25. Mark Treptow	3.A.26. Irrigation	3.A.27. \$892.50	3.A.28.
3.A.29. Nicholas Lee Schmit	3.A.30. Irrigation	3.A.31. \$1,000.00	3.A.32.
3.A.33. Dwaine J. Schmit	3.A.34. Irrigation	3.A.35. \$1,000.00	3.A.36.
3.A.37. Gillwell Foundation	3.A.38. Domestic	3.A.39. \$744.75	3.A.40.

3.B. LOWER PLATTE NORTH NRD GROUND WATER STUDIES

3.B.1. Phase Area Update

Nat Oehlrich planted 100 acres of soybeans in the Richland-Schuyler phase area with a PH level on this field at a little over 8. The field is in N1/2 SE1/4 Section 20-17N-2E, just south of Richland. The motion that was passed at the February Board meeting was to approve a cost-share incentive for iron chlorosis chemistry on soybeans at \$15/acre, with the total cost-share fund limited to \$3,000 for the current fiscal year. Staff is working with Nat for a field day during the week of August 15.

Payment to Nat Oehrich would be \$100 x \$15/ acre for \$1,500. Attached is an invoice for the cost of the product but it does not include application.

Staff is in the process of assembling a grant or grants for best management practices and hydrological assessment per last Board meeting.

3.B.2. Lower Platte River Consortium

Attached is some information provided at the last meeting from the Drought Center.

3.C. NEW MONITORING WELLS

As of Wednesday 6/1/2022 with the deadline on 5/26, the NRD has received quotes from 4 companies.

Bids from the 4 companies are shown (numbers used -160 feet well, 143 feet of casing, and 20 feet of screen)

- Dvorak Well - North Bend - \$12,105
- Downey Drilling Inc - Lexington - \$20,525
- Layne Christensen Company - Valley - \$23,639
- Sargent Drilling - Geneva - \$28,619

3.D. (Bids attached)

3.E. Groundwater Age Dating Project

Lower Loup NRD reached out for a joint project to use tracers for determining the age of the groundwater. The area that is being proposed is the higher nitrate areas from Columbus to Schuyler. Some other samples could be taken from Schuyler to Fremont. Tracers that will be used are tritium, tritium-helium and sulfur hexafluoride. USGS will be conducting the work on this project at a total cost of \$404,000. The NRDs share would be \$88,000 if a NET grant is received. This would be funded over 3 fiscal years with year one budget set at \$5,000 for LPN. Fiscal Year 2, LPN commitments would be \$13,500 and FY3 \$8,500. The total commitment would be \$44,000.

The purpose of this project:

- Make more informed decisions of groundwater-quality management
- Communication with area residents and producers on the influence of legacy nitrate and its effects on groundwater quality.
- Methods used in this study may be applied to other areas.
- Recharge rates on when contaminates can potentially reach the groundwater.

3.F. Attached is the proposal along with a figure showing the results from Lower Loup NRD previous study. If the Committee would like to recommend the Board to participate in this project, USGS would submit a NET Grant with LPN committing \$44,000 for local match.

3.G. Groundwater Modeling Project

Staff have met with PMRNRD and LPS on a joint groundwater modeling project. Other potential financial partners are NeDNR, MUD and Lincoln Water System. The estimated cost could be around \$1,000,000 with a WSF grant paying 60% of the cost.

Purpose of the GW modeling project:

- To assist in determining the Hydrological Connected Area (10/50 area) for the District by the end of the next 5-year water increment
- To develop a more accurate stream depletion factor, which is used in variance scoring.
- To develop a dashboard for staff to run a model for well permit applications to show the potential effects of additional wells and/or acres.

3.H. Staff has placed \$50,000 as a placeholder in the budget. Paul Woodward (PMRNRD) reached out to JEO to write a WSF grant. The total cost to write the grant by JEO would be \$8,000 with LPN share \$2,666.66.

Staff will provide additional resources and information at the June Water Committee Meeting.

3.I. Text Message for Reminders

Staff has been reviewing different options for contacting producers to remind them of deadlines or upcoming events.

Groundwater deadlines:

- Water Use Reports
- Phase Area Reports
- Expired Nitrogen Certification/Chemigation licenses
- Upcoming Nitrogen Certification Classes/ Chemigation Classes.
- Chemigation Renewals; Chemigation Inspections

3.J. There are around 1000 producers involved in the above programs with 50% needing reminders. As the NRD moves forward on online reporting, producers could get reminders that they can enter their data online.

Postage for Water Dept mailings in FY 21 was \$1,552.31 that was sent out for reminders and reports. This did not include envelopes and stuffing of letters. Staff also heard from producers that they received their letter 30 days after it was sent.

Software to set up a mass texting process could range from \$450 - \$1,000 per year. People will have the option to opt out and some producers will still get a letter or postcard. Staff have been asking producers at Certification meetings if they could be contacted by text message, with a majority saying Yes.

The committee felt that staff should utilize this option for communication with producers.

4. SURFACE WATER PROGRAMS

4.A. STATE LAKES, FOR THE WEEK OF

As of 5/27/2022, no lakes in the state are on "Health Alert" from NDEE.

5. OTHER

5.A. Proposed Groundwater Budget 2022-23

Attached for review is the proposed GW budget.

5.B. COMMENTS FROM THE PUBLIC

Irrigation Acre Transfer Checklist

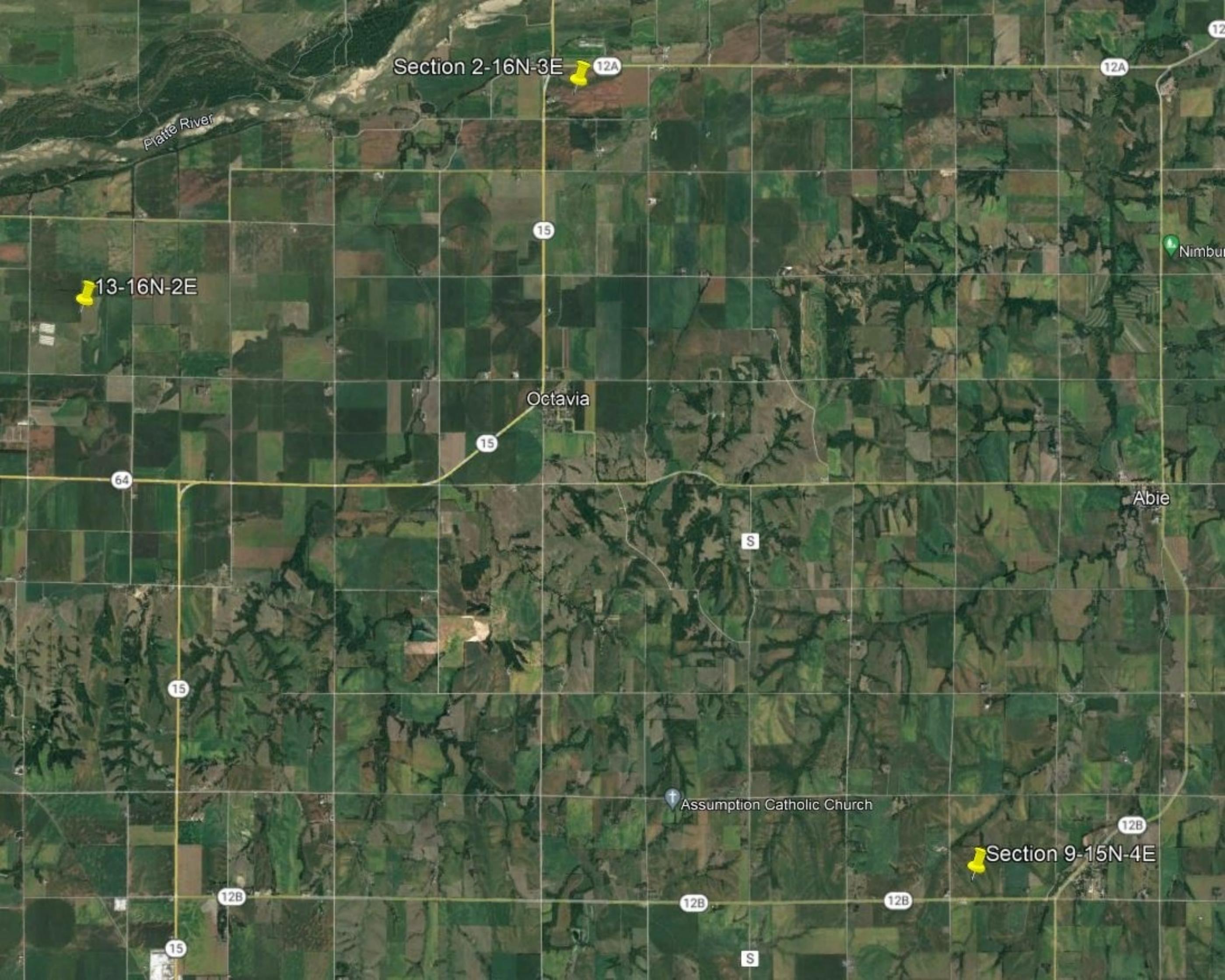
Date 5/25/2022

Person Applying Jamie and Cathy Yindrick as tenant for David and Jerry Proskovec owners

Documents

- Transfer Application Information
 - David and Jerry Proskovec Receiving Irrigated Acres (NW1/4 S2-16N-3E, Butler County Octavia Sub-Area Aquifer)
 - John and Kim Kobza Providing Irrigated Acres (Pt W1/2 SW1/4 S13-16N-2E, Butler County, Octavia Sub-Area Aquifer)
 - Jamie and Cathy Yindrick Providing Irrigated Acres (S1/2 SW1/4 S9-15N-4E, Butler County, Prague Sub-Area Aquifer Region, SQS #1)
- \$300 Fee Submitted
 - Certified acres form from LPNNRD with map
- Application between landowners
 - Jamie and Cathy Yindrick Family Trust to David A Proskovec and Jerry W Proskovec for 74.63 acres.
- Application between landowners
 - John and Kim Kobza to David A Proskovec and Jerry W Proskovec for 73.17 (only 68 acres are planned to be used)
- FSA Maps of tracts
 - Section 2-16N-3E
 - Section 9-15N-4E
 - Section 13-16N-2E
- FSA records
 - Section 9-15N-4E Farm Number 6348, Tract 741 (2011-2021)
 - Section 2-16N-2E Farm Number 6003, Tract 225 (2011-2021)
- Letter from Bank on lien
 - Letter from Bank of Valley serving notice that they do not have issue with moving water rights for Kobza Poultry, LLC.
- Assessor Records
 - Section 9—15-4E Butler County
 - Section 2-16N-3E Butler County
 - Section 13-16N-2E Butler County
- Trusts and Deeds
 - Jamie and Cathy Yindrick Family Trust
 - Warranty Deed - Jamie and Cathy Yindrick
 - Warranty Deed – David A Proskovec and Jerry Proskovec

- Warranty Deed – John and Kim Kobza



Section 2-16N-3E

12A

12A

Platte River

15

Nimbur

13-16N-2E

Octavia

15

64

Abie

S

15

Assumption Catholic Church

12B

Section 9-15N-4E

12B

12B

12B

15

S

Papio-Missouri River Natural Resources District

INVOICE

8901 S. 154th St (402) 444-6222
Omaha, NE 68138

SOLD TO:
Lower Platte North NRD
Attn: Daryl Andersen
511 Commercial Park Road
Wahoo, NE 68066-0126
402-443-4675

INVOICE NUMBER | 2
INVOICE DATE | 5/13/2022

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
0.452	Reimbursement of PROJECT costs paid to Leonard Rice Engineering Per Interlocal Agreement December 16, 2020 P-MRNRD Account # 01 05 3120 191	\$ 45,200.00	\$20,433.40
SUBTOTAL			\$20,433.40
			PAY THIS AMOUNT

DIRECT ALL INQUIRIES TO:
Paul Woodward, Groundwater Management Engineer
402-3115-1772
pwoodward@papionrd.org

MAKE ALL CHECKS PAYABLE TO:
Papio-Missouri River NRD
Attn: Accounts Receivable
8901 S. 154th St
Omaha, NE 68138

THANK YOU FOR YOUR BUSINESS!

Budget Update
 Papio Missouri NRD and Lower Platte North NRD
 LRE Project No. 504301 - Hydrogeologic Assessment
 Services through April 25, 2022

Task No.	Phase Name	Budget	2/5/2021	3/16/2021	4/5/2021	5/3/2021	6/7/2021	7/15/2021	7/30/1931	9/13/1931	10/5/2021	11/9/2021	12/2/2021	1/7/2022	2/8/2022	3/11/2022	4/14/2022	5/3/2022
1	PM and Meetings	\$22,500	invoice 16095	invoice 16397	invoice 16352	invoice 16759	Invoice 16964	Invoice 17303	Invoice 17443	Invoice 17723	Invoice 17974	Invoice 18261	Invoice 18462	Invoice 18833	Invoice 19023	Invoice 19364	Invoice 19574	Invoice 19725
			\$4,464.75	\$843.75	\$2,475.00	\$4,387.50	\$0.00	\$1,462.50	\$450.00	\$1,462.50	\$1,631.25	\$2,081.25	\$2,081.25	\$450.00	\$1,462.50	\$281.25	\$675.00	\$450.00
2	Obtain and Review Existing Geologic and AEM Data	\$114,700	\$9,196.25	\$20,471.25	\$20,922.50	\$8,202.50	\$11,077.50	\$10,226.25	\$12,720.00	\$11,312.50	\$5,996.25	\$14,606.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3	Create the Framework	\$75,000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,824.00	\$7,802.50	\$20,935.00	\$15,046.25	\$0.00	\$0.00	\$0.00	\$0.00
4	Deliverables	\$64,470	\$0.00	\$0.00	\$0.00	\$0.00	\$2,640.00	\$4,743.75	\$6,228.75	\$1,155.00	\$8,887.50	\$12,532.50	\$12,978.75	\$14,627.25	\$0.00	\$1,492.50	\$4,042.50	\$6,234.11
	Subconsultant	\$29,330	\$0.00	\$0.00	\$3,740.00	\$2,816.00	\$2,912.26	\$0.00	\$0.00	\$3,722.13	\$352.00	\$264.00	\$396.00	\$0.00	\$2,923.75	\$0.00	\$0.00	\$0.00
	Sequent Leapfrog User Fee	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$915.64	\$0.00	\$1,450.66	\$1,526.06	\$0.00	\$0.00	\$0.00
	Total Invoice Amount	\$306,000	\$13,661.00	\$21,315.00	\$27,137.50	\$15,406.00	\$16,629.76	\$16,432.50	\$19,398.75	\$17,652.13	\$19,691.00	\$38,202.14	\$36,391.00	\$31,574.16	\$5,912.31	\$1,773.75	\$4,717.50	\$6,684.11
Budget Remaining		\$306,000.00	\$292,339.00	\$271,024.00	\$243,886.50	\$228,480.50	\$211,850.74	\$195,418.24	\$176,019.49	\$158,367.36	\$138,676.36	\$100,474.22	\$64,083.22	\$32,509.06	\$26,596.75	\$24,823.00	\$20,105.50	\$13,421.39

Total Billings (through April 25, 2022)
\$24,658.50
\$124,731.25
\$46,607.75
\$75,562.61
\$17,126.14
\$3,892.36
\$292,578.61

NDNR \$ 26,000.00
 WSF \$159,947.17
 Papio \$63,598.04
 LPNNRD \$43,033.40 \$20,433.40

CHEMIGATION - June 2022

TOTAL CHEMIGATION APPLICATIONS IN 2021 (710)

NEW CHEMIGATION APPLICATIONS - 19

(1) Boone (5) Butler (2) Colfax (1) Dodge (0) Madison (3) Platte (7) Saunders

RENEWALS: 617

BOONE COUNTY - 46
BUTLER COUNTY - 80
COLFAX COUNTY - 56
DODGE COUNTY - 122
MADISON COUNTY - 6
PLATTE COUNTY - 93
SAUNDERS COUNTY - 214

RENEWAL INSPECTIONS: 0

(0) Boone (0) Butler (0) Colfax (0) Dodge (0) Madison (0) Platte (0) Saunders

NEW INSPECTIONS: 1

(0) Boone (0) Butler (0) Colfax (0) Dodge (0) Madison (0) Platte (1) Saunders

NEW CANCELLATIONS: 6

(0) Boone (0) Butler (6) Colfax (0) Dodge (0) Madison (0) Platte (0) Saunders

EMERGENCY: 0

ORIG.



38789

SCHUYLER COOPERATIVE ASSN.
GAS - OIL • FERTIZLIZER • CHEMICALS • FEED

1303 G Street
Schuyler, Nebraska 68661
Phone: 402-352-2554

Acct. # _____ S. S. # _____ Date 5-14-22

Name Nate Oentrich

Address _____

Sold By	Cash	Prepay	Charge	On Acct.	Mdse Ret'd	Paid Out	Booking
<u>OK</u>			<u>(X)</u>				
CODE	QTY.	DESCRIPTION			PRICE	AMOUNT	
	<u>30</u>	<u>gals Soy Green</u>			<u>\$ 37.50</u>		
		<u>Liquid</u>				<u>\$ 1125 -</u>	
		<u>2x2 1/2</u>					
		Sales Tax					

If all previous invoices are paid you may deduct \$ _____ cash discount
if paid on or before: _____

THANK YOU.



Weather Update

Lower Platte Drought Consortium Meeting
6 May, 2022

MARTHA D SHULSKI
MSHULSKI3@UNL.EDU
402-472-6711

SCHOOL OF NATURAL
RESOURCES
UNIVERSITY OF NEBRASKA
LINCOLN

Current drought (USDM)

Drought

- **93%** in drought.
- **62%** in severe to extreme drought.

U.S. Drought Monitor Nebraska

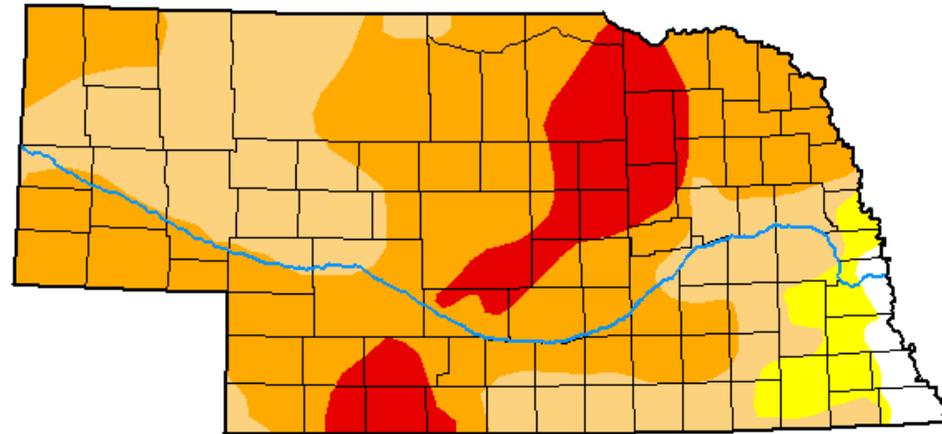
May 3, 2022

(Released Thursday, May 5, 2022)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	1.93	98.07	93.62	61.78	11.93	0.00
Last Week <i>04-26-2022</i>	0.95	99.05	96.41	75.59	22.13	0.00
3 Months Ago <i>02-01-2022</i>	8.31	91.69	38.09	13.28	0.00	0.00
Start of Calendar Year <i>01-04-2022</i>	18.24	81.76	34.54	13.10	2.91	0.00
Start of Water Year <i>09-28-2021</i>	14.89	85.11	42.20	15.71	0.72	0.00
One Year Ago <i>05-04-2021</i>	39.64	60.36	21.26	0.00	0.00	0.00



Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought

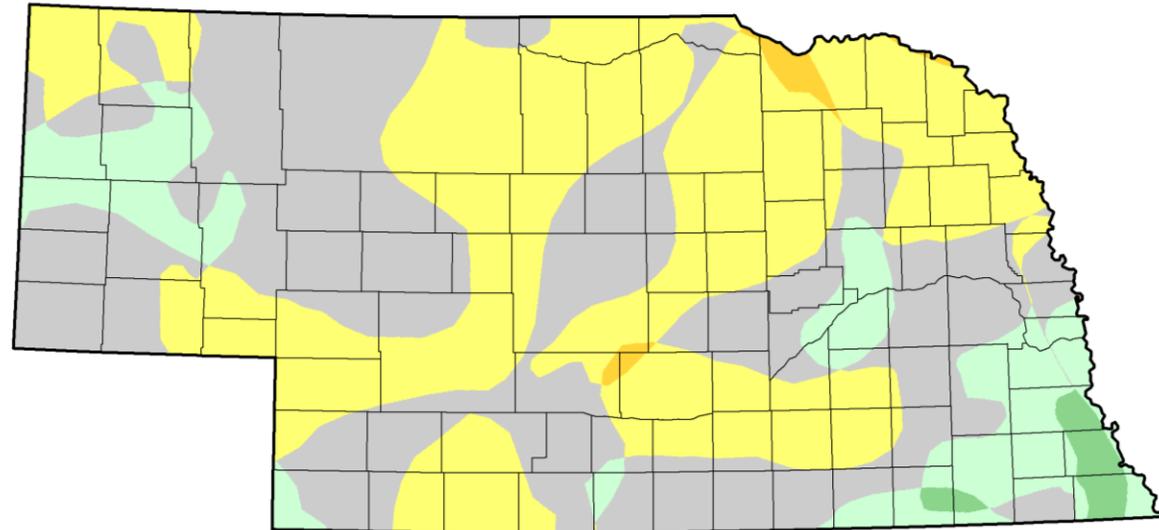
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Drought changes

Perspective

- Degrations for most of the past 8 weeks.
- Recent precipitation has resulted in improvements.

U.S. Drought Monitor Class Change - Nebraska
8 Week



May 3, 2022
compared to
March 8, 2022

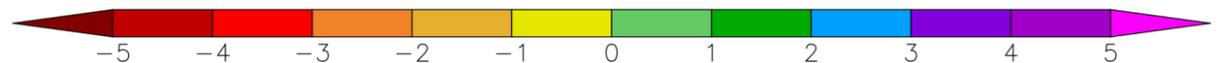
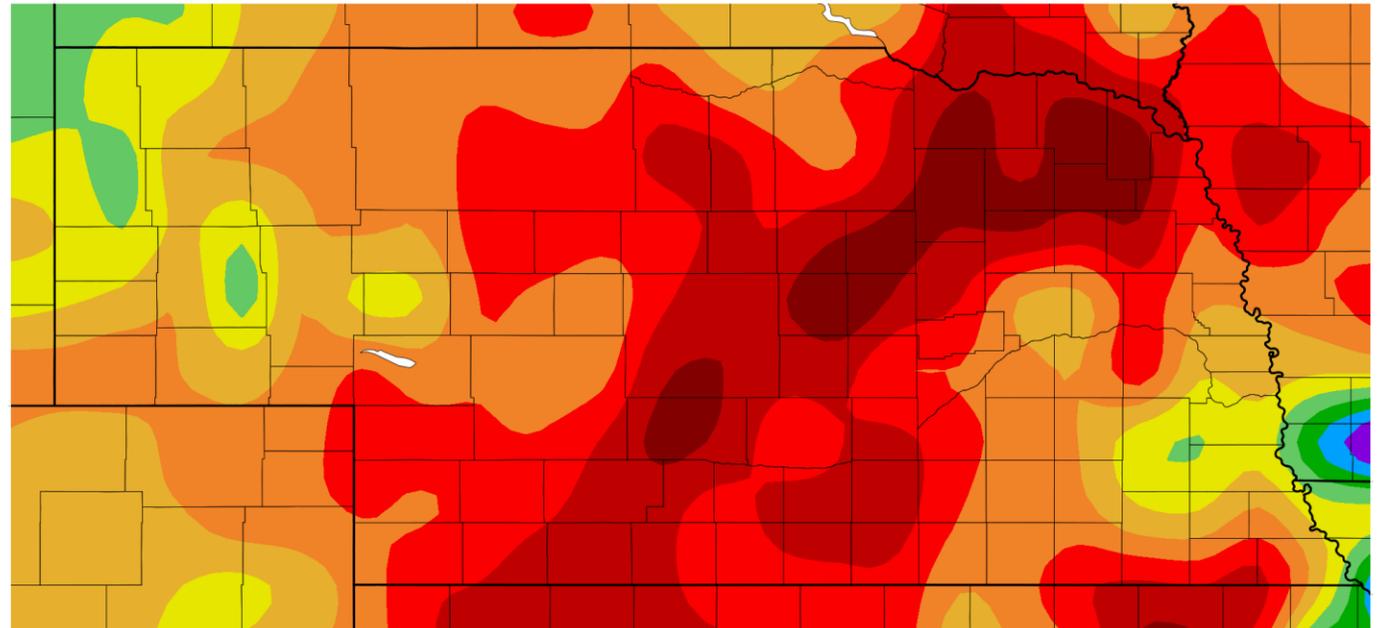
droughtmonitor.unl.edu



Water year precipitation

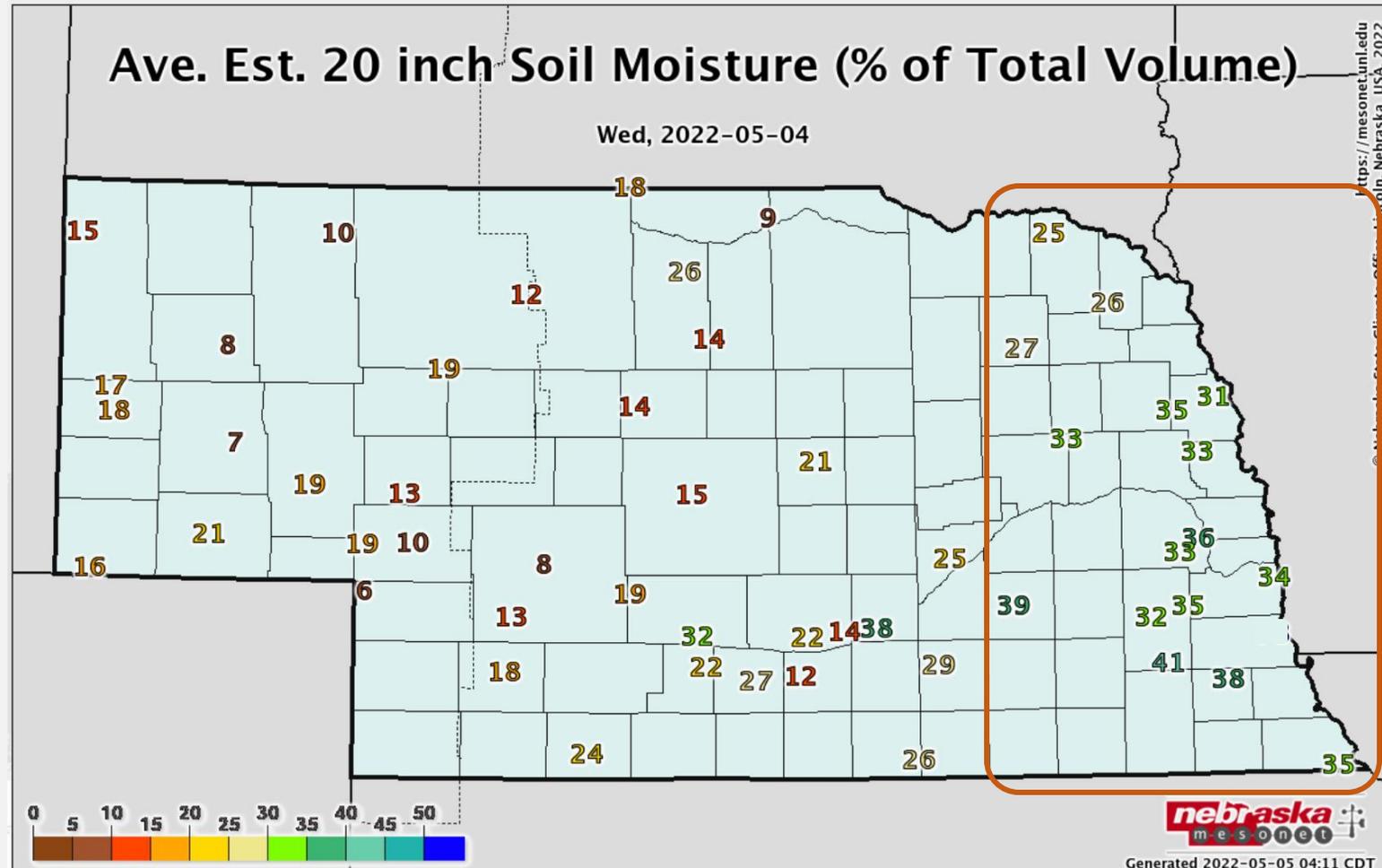
- Highest moisture deficits found from southwest to northeast at around 4 inches.

Departure from Normal Precipitation (in)
10/1/2021 – 5/4/2022



Soil moisture |

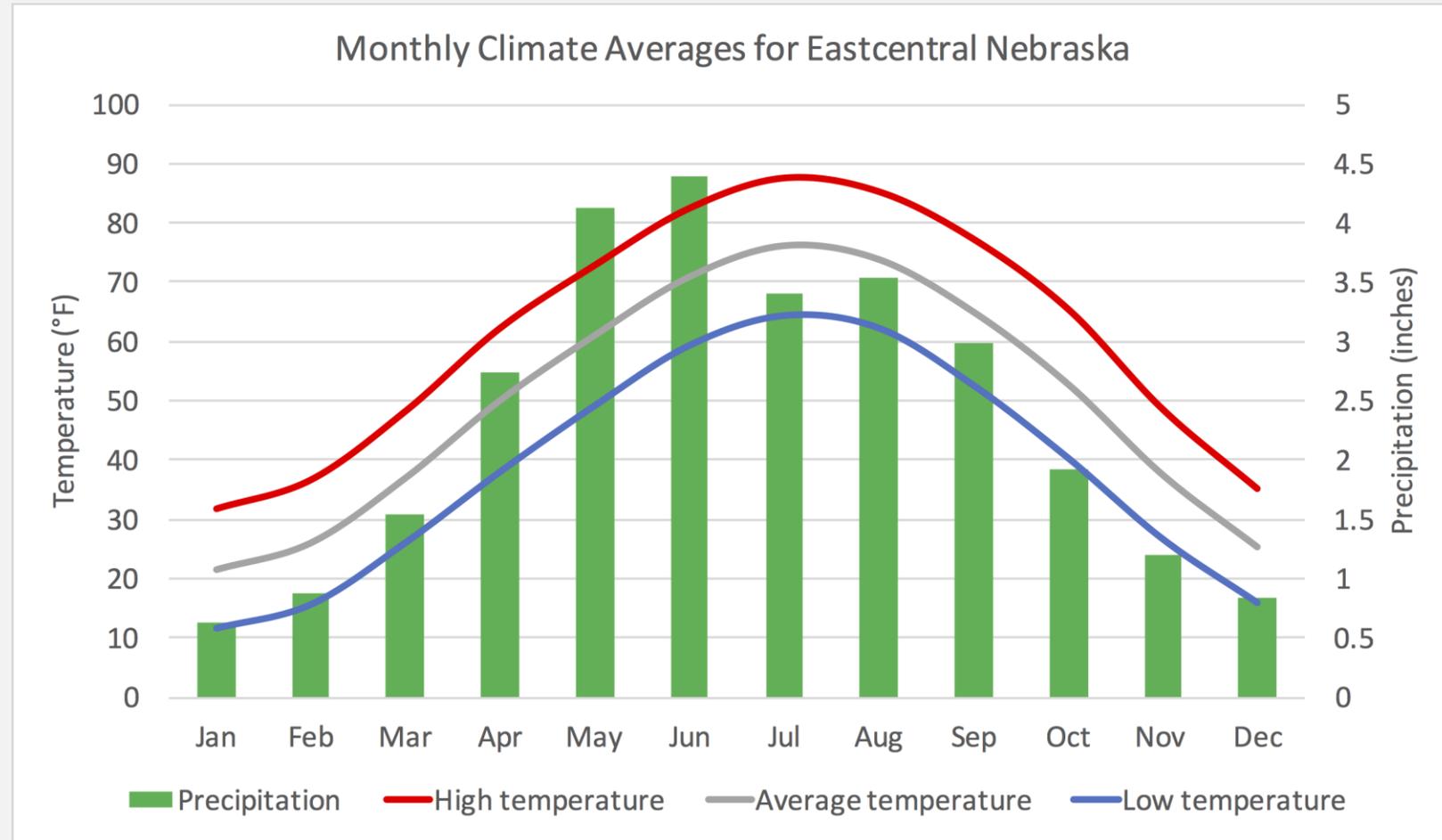
- Conditions are in good shape across eastern Nebraska through the soil profile.



Normal conditions

Climatology tells us

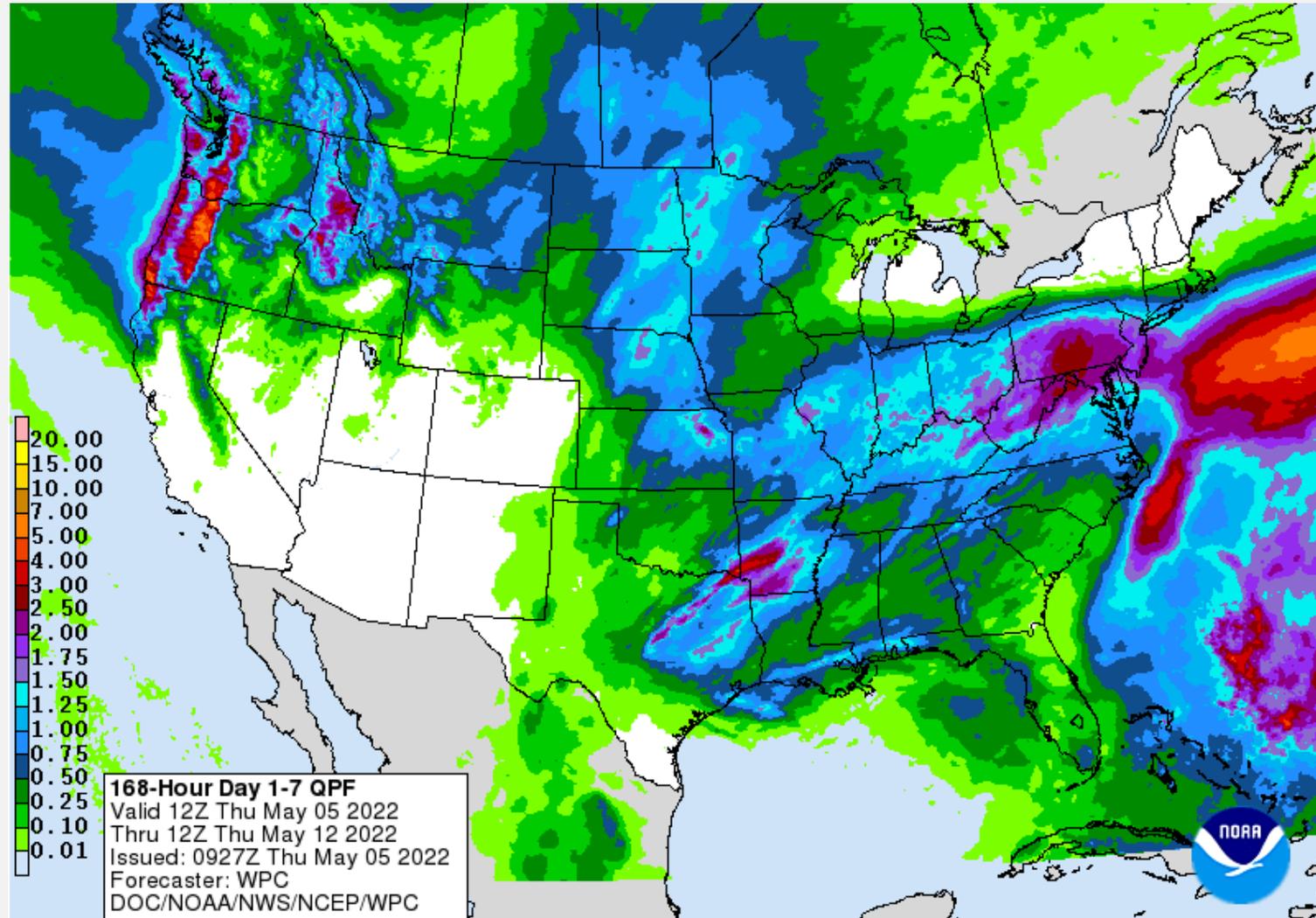
- May and June are the wettest months of the year (8").



Precipitation outlook (5-12 May)

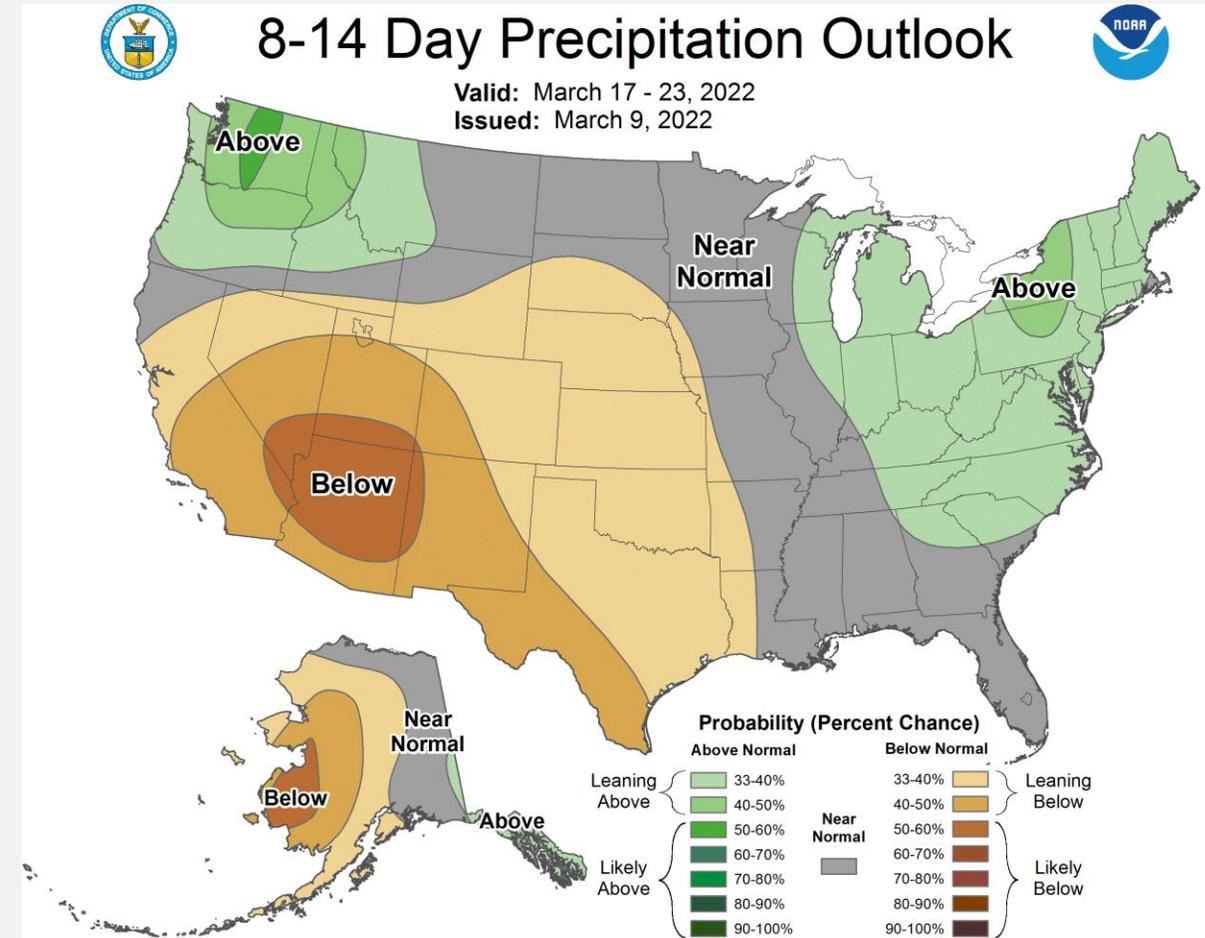
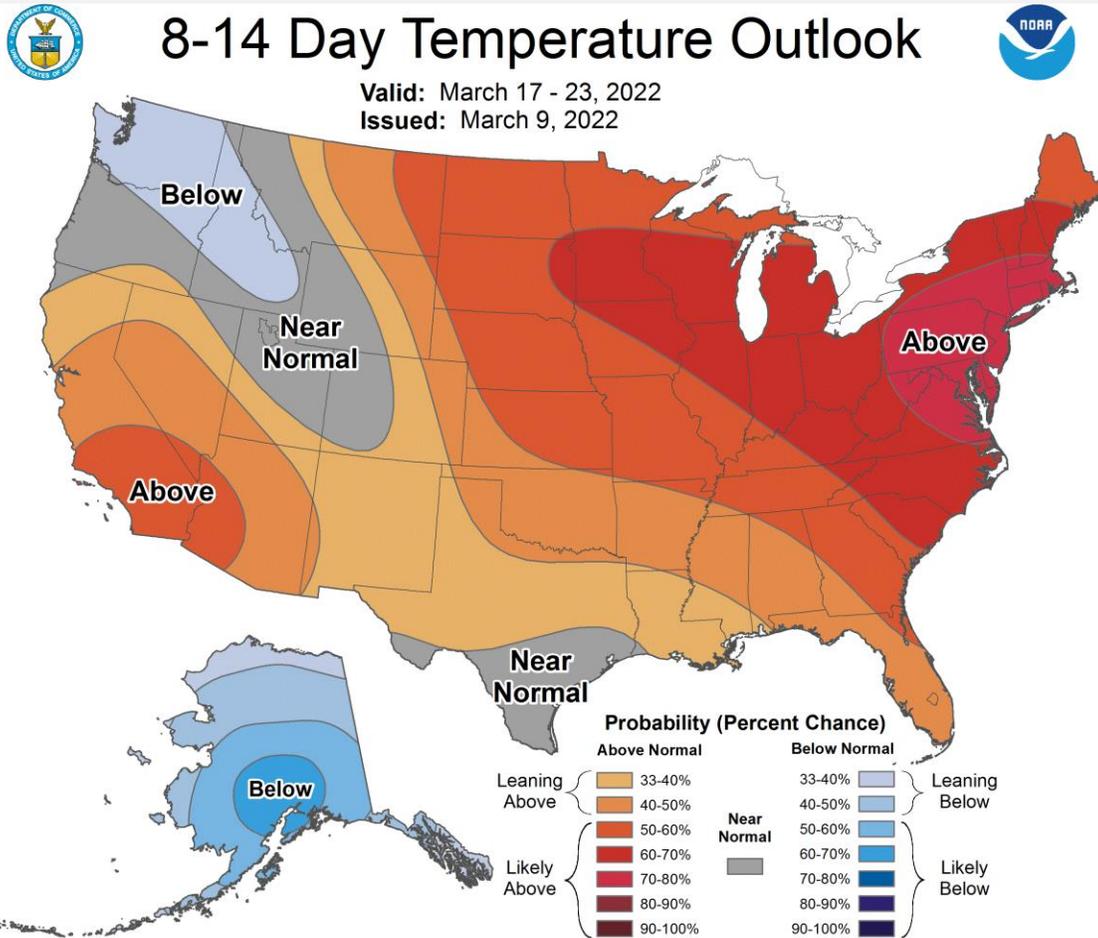
NEBRASKA STATE
CLIMATE OFFICE

- Continuation of the wet pattern.
- Potential for an inch moisture over the next week.



Short-term outlook (March 17 – 23)

- Likely transition back to warmer and drier than normal conditions.



May climate outlook

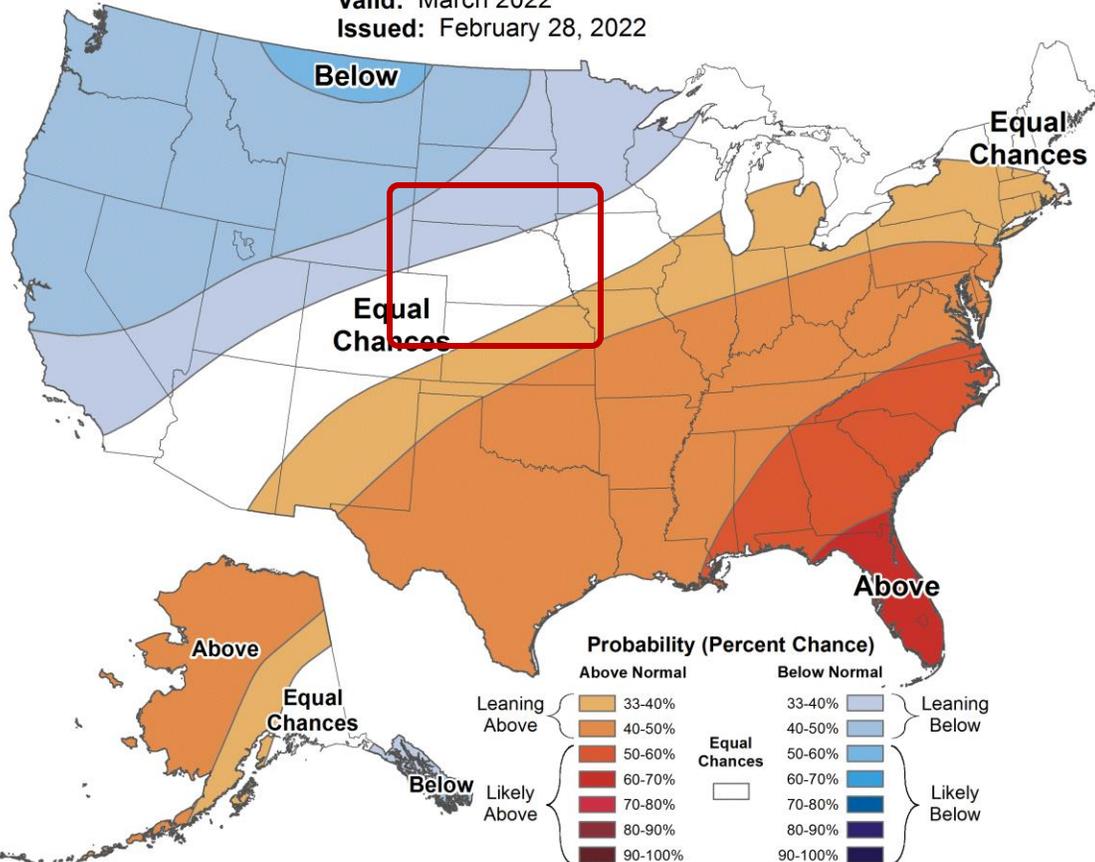
- Below normal temperature probabilities edging into NW Nebraska. Above normal in far southeast, along with wetter than normal pattern.



Monthly Temperature Outlook



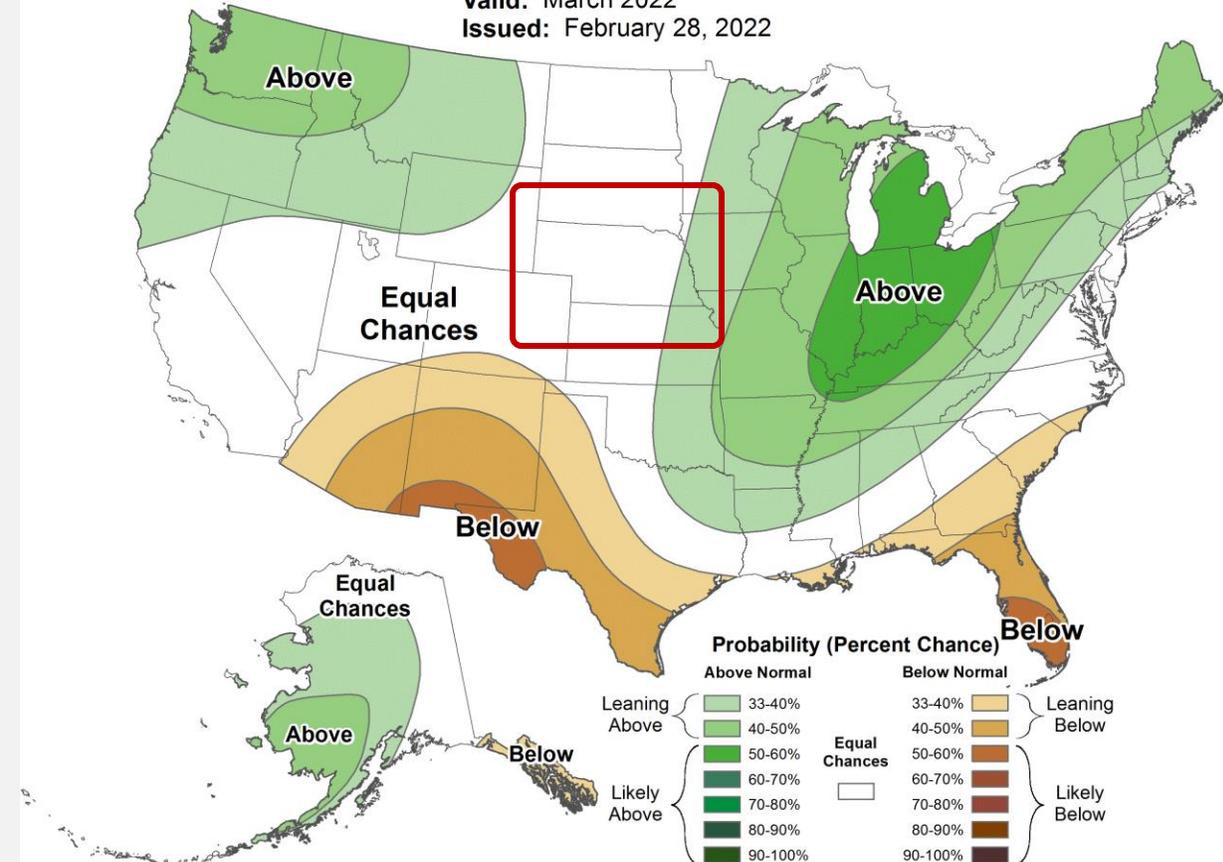
Valid: March 2022
Issued: February 28, 2022



Monthly Precipitation Outlook

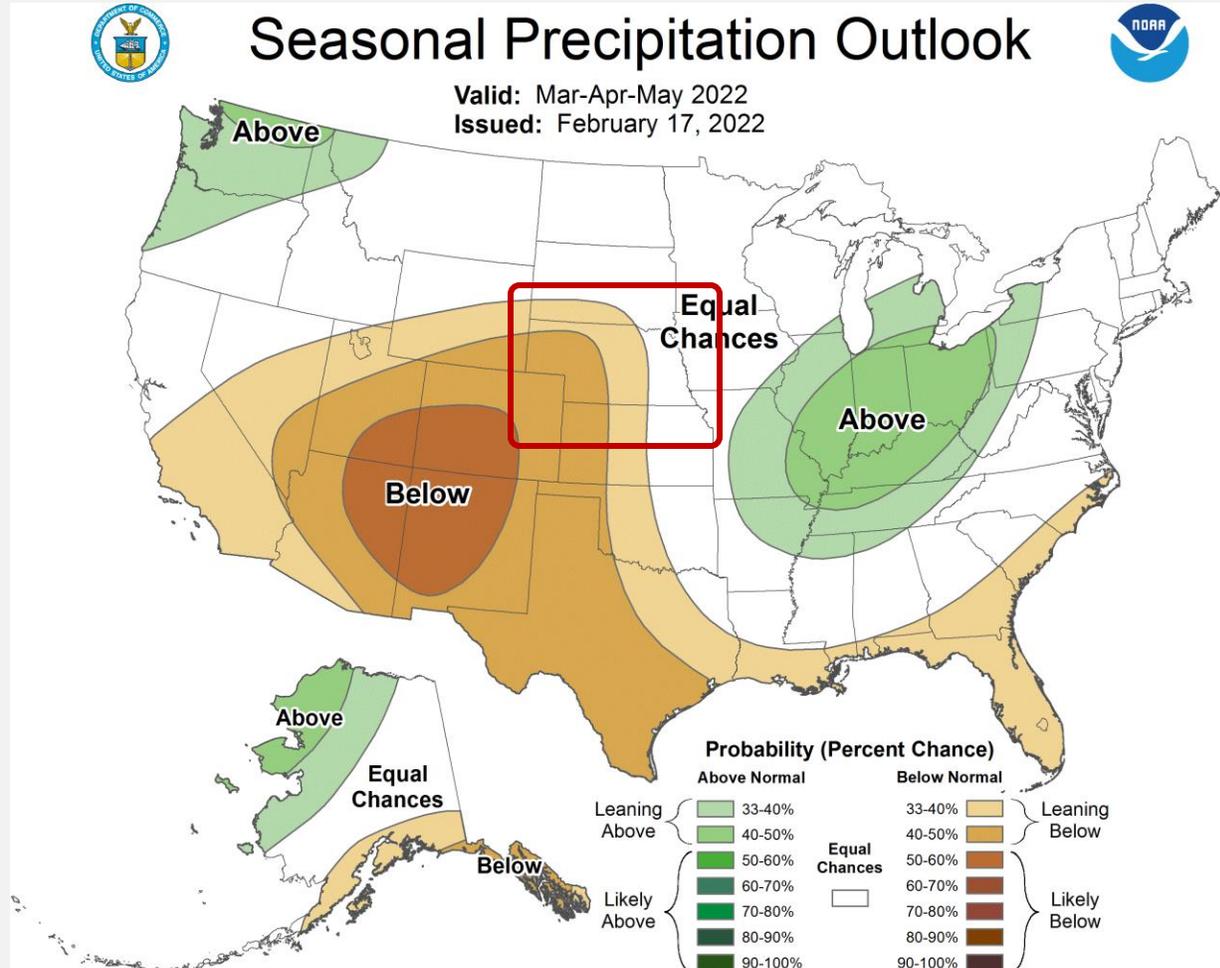
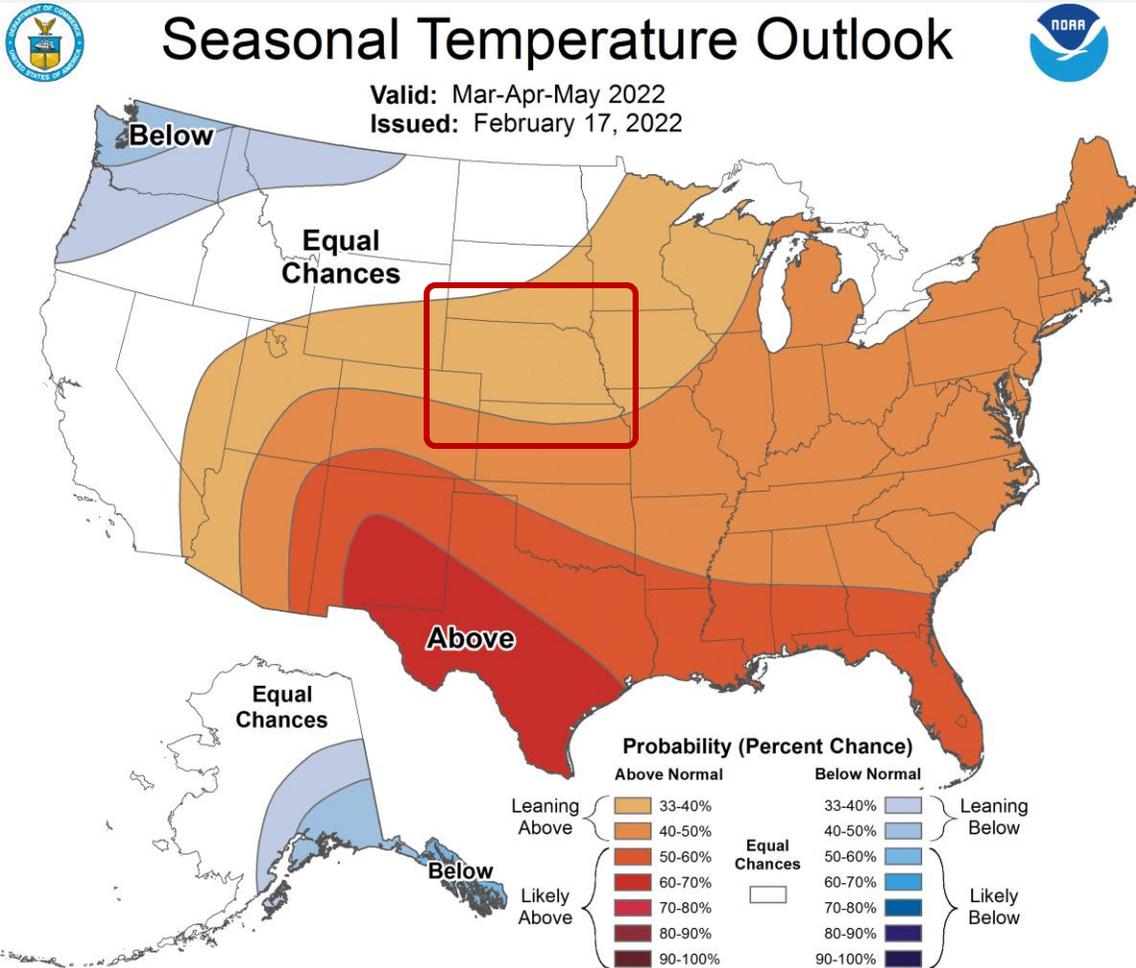


Valid: March 2022
Issued: February 28, 2022



Seasonal outlook (Mar – May)

- Increased chances for warmer than normal across Nebraska. Dryness signal for western two-thirds of the state.



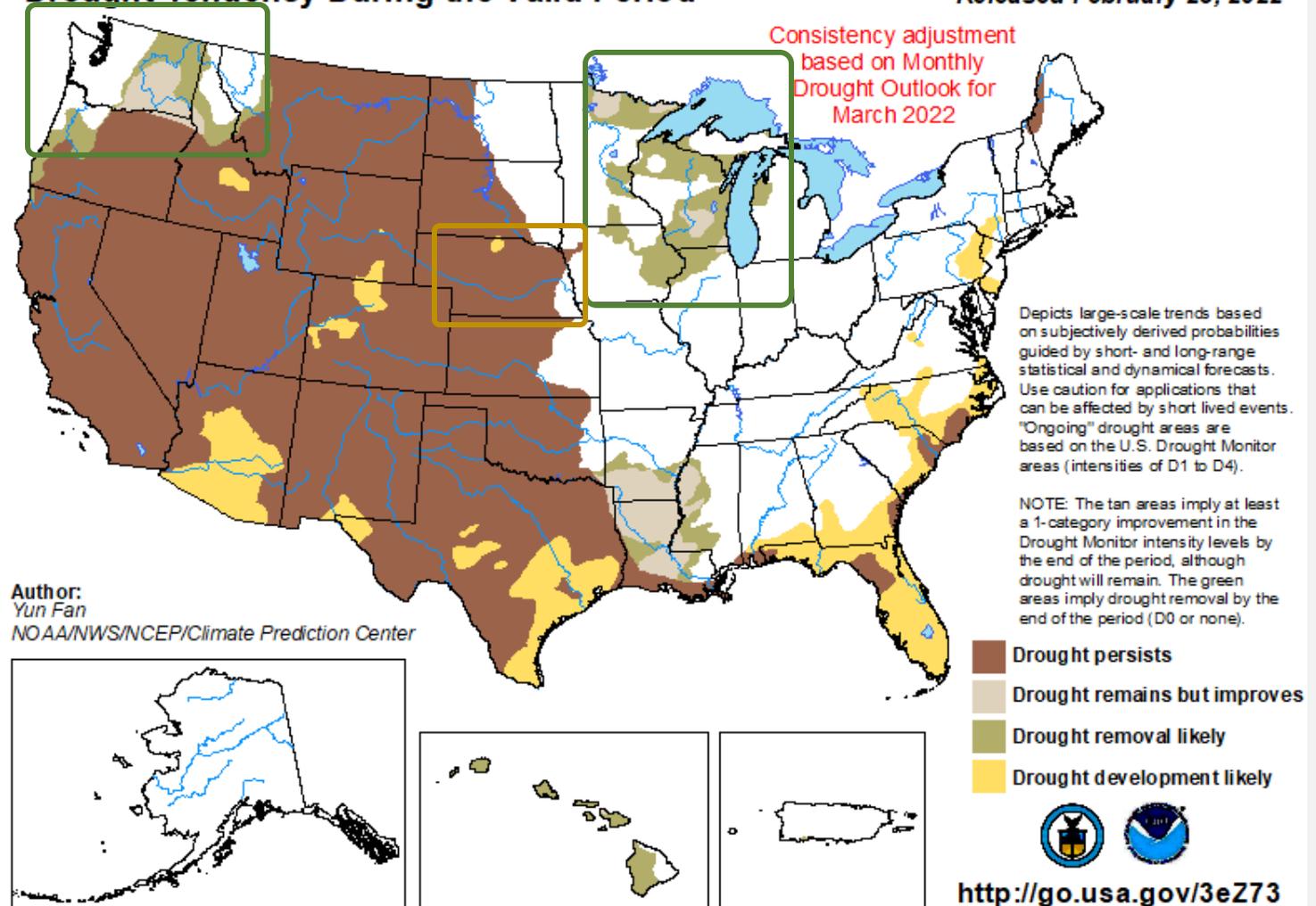
Drought outlook (Mar – May)

NEBRASKA STATE
CLIMATE OFFICE

- Two main areas of improvement associated with wet signal.
- Drought persistence across the west and in Nebraska. Eastern edge could remain drought-free.

U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for March 1 - May 31, 2022
Released February 28, 2022



Summer outlook (Jun-Jul-Aug)

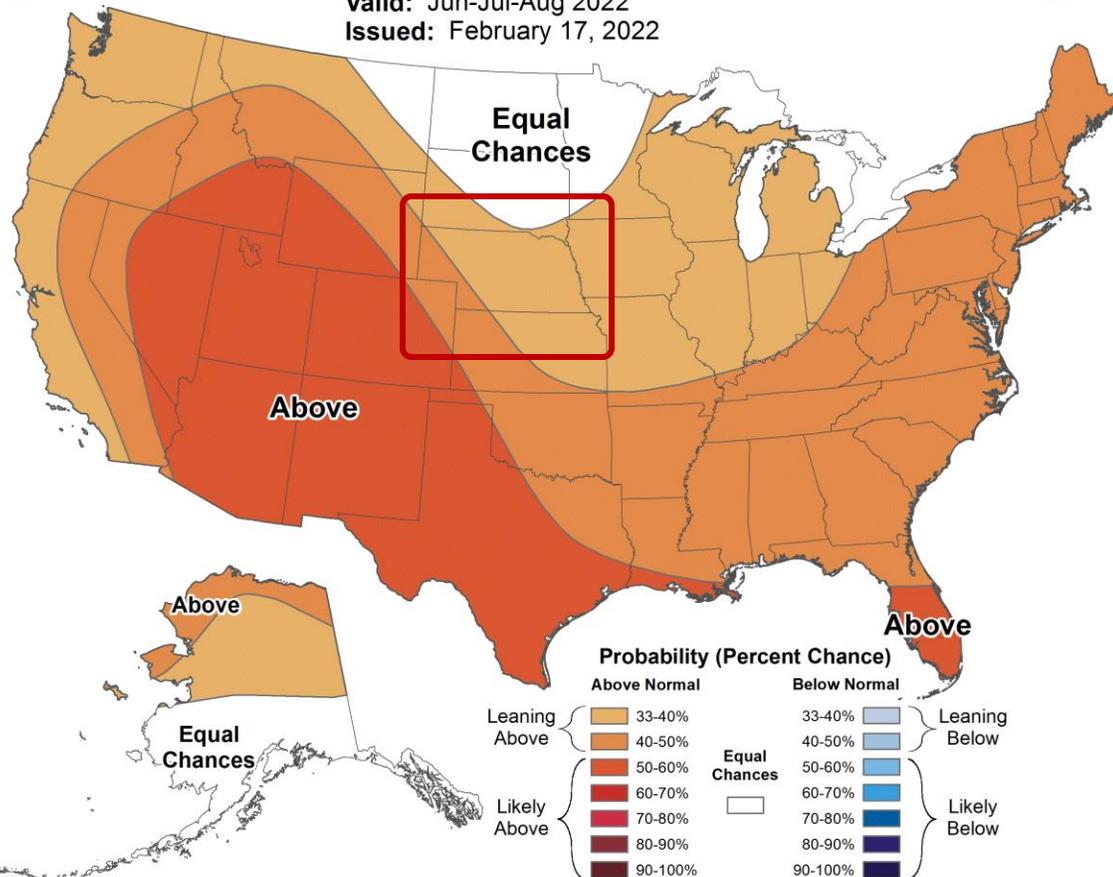
- Continuation of spring signal: Increased chances for warmer than normal across Nebraska. Dryness signal for western two-thirds of the state.



Seasonal Temperature Outlook



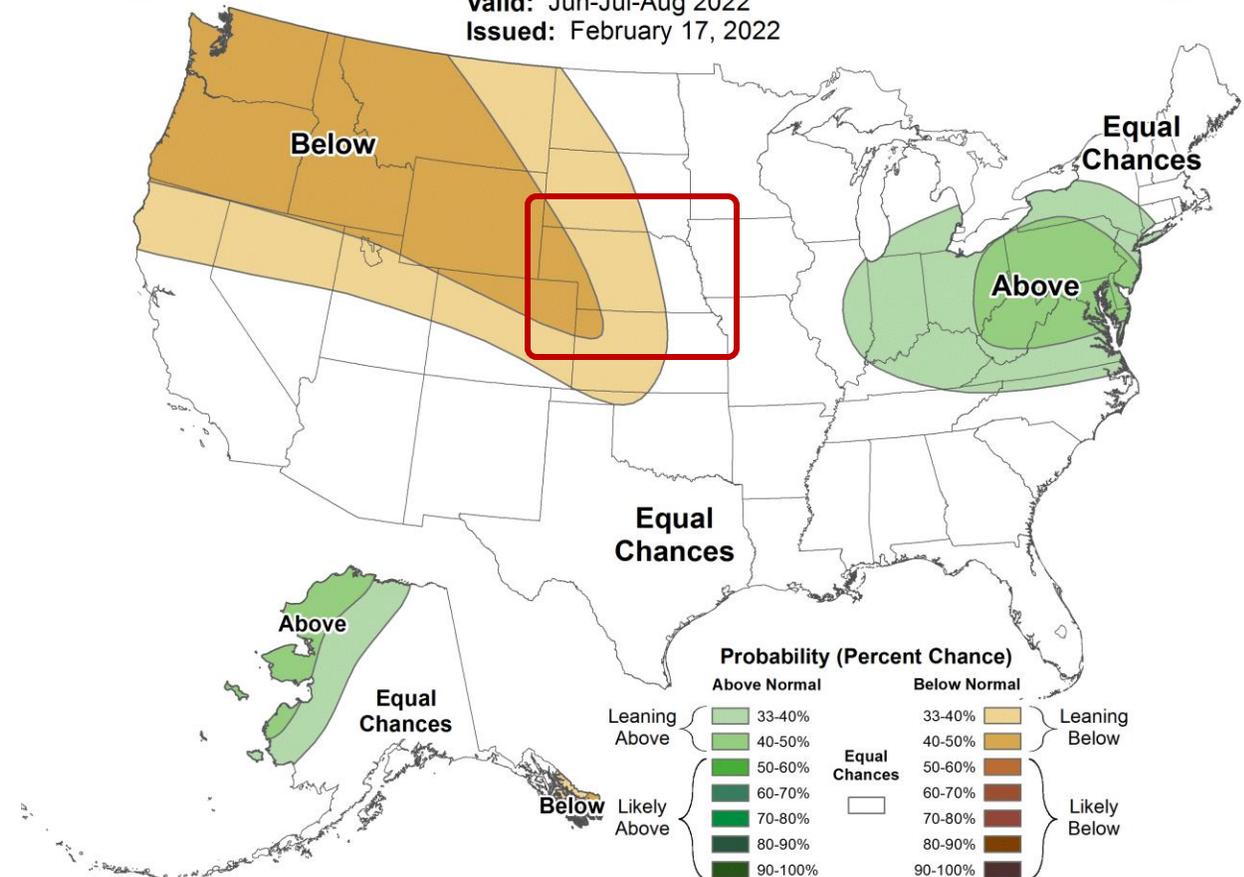
Valid: Jun-Jul-Aug 2022
Issued: February 17, 2022



Seasonal Precipitation Outlook



Valid: Jun-Jul-Aug 2022
Issued: February 17, 2022





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MESONET.UNL.EDU

E | NSCO.UNL.EDU

P | 402.472.5206

 @MSHULSKI3



LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT
511 COMMERCIAL PARK ROAD, P. O. BOX 126
WAHOO, NEBRASKA 68066-0126

FOR
MONITORING WELL CONSTRUCTION
LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT

I/We, the undersigned, having carefully examined all the specifications and special conditions of this proposal, and fully understanding the types and qualities required, hereby propose to supply the following item(s) and/or services, certifying that each of these meets all the specifications and conditions requested, except as noted and that all prices stated include all cost such as, but not limited to equipment, supplies, services, labor, manufacturing, packing, crating, insurance, transportation, delivery, installation, training, service under warranty, etc. **FOB Lower Platte North Natural Resources District, 511 Commercial Park Road, P. O. Box 126, Wahoo, NE 68066-0126** (hereinafter referred to as "LPNNRD"). It is further understood and agreed that project start and completion dates are critical in this contract. The successful Bidder agrees to start this project between June 15 and December 15, 2022 and will continue as scheduled until the well is drilled, constructed, developed and the site restored according to the terms of this contract or as determined by LPNNRD. The period of performance will not exceed 90 working days or January 15, 2023. LPNNRD may assess a penalty of \$100 per day after February 1, 2023 for failure to complete installation of the monitoring well and the site restored to near pre-construction conditions unless a good cause can be shown.

SEE ALL ATTACHED PROPOSAL SPECIFICATION PAGES

All questions regarding this bid, including those of a technical nature, are to be directed to Daryl Andersen or Russell Oaklund, phone (402) 443-4675, email dandersen@lpnnrd.org.

*******IMPORTANT CONTRACTOR INFORMATION - MUST BE COMPLETED BELOW*******

Payment Terms: 100 % 60 Days. Amendments Received No. — Through — Acknowledged.

Are You Incorporated? yes . 61-1502241
Federal Identification Number

Dvorak Well Inc
Firm Name

Steven J Dvorak
By (Please Type Your Name)

1260 Foothill rd
Address

Steven J Dvorak
Signature

North Bend Ne 68649
City and State Zip

Owner
Title

5-17-22 402-652-8342
Date Area Code/ Phone #

402-652-8342
Area Code/Fax #

INDEX

**SPECIFICATIONS FOR DRILLING AND
INSTALLATION OF MONITORING WELLS..... Pages 5 - 9**

PROPOSAL PAGE Page 10

**ATTACHMENT #1
TEST HOLE AND WELL DEPTH ESTIMATES..... Page 11**

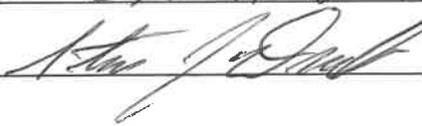
**ATTACHMENT #2
AERIAL PHOTO, Section 2, Page 11**

**ATTACHMENT #2
TEST HOLE INFORMATION..... Page 12**

**ATTACHMENT #3
MONITORING WELL SCHMETIC..... Page 13**

PROPOSAL PAGE

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT/PRICE</u>
A.	Monitoring Well Drilling and Construction	Price Per Linear Foot	\$ <u>40.00</u>
B.	Threaded and Flush Joint PVC		
	1. Plain Casing 4" ID Price Per	Linear Foot	\$ <u>15.00</u>
	2. Slotted Screen 4" ID Price Per (0.010 SLOT or 0.25)	Linear Foot	\$ <u>18.00</u>
C.	Well Development	Price Per Well	\$ <u>1,450</u>
D.	Protective Casing Installation and Pad	Price Per Well	\$ <u>1,750</u>

COMPANY: Dvorak Well Inc.
ADDRESS: 1260 Foothill Rd
TOWN: North Bend
PRINTED NAME: Steven J Dvorak
SIGNATURE: 

Commencement of Project:

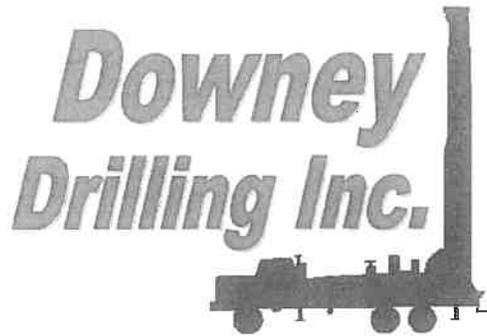
All work can start by June 15, 2022 and will continue as agreed upon by LPNNRD and the contracted driller (“Cooperative Agreement”). Within five days of completion of monitoring well construction the drilling sites are to be restored to a condition determined by LPNNRD.

Upon award of the contract a drilling schedule will be mutually agreed upon by the LPNNRD Representative and the Contractor.

Period of Performance:

The period of performance shall not exceed 90 working days or February 1, 2022. LPNNRD may assess a penalty of \$100 per day after February 1, 2022 for failure to complete installation of these monitoring wells and the sites restored to near pre-construction conditions unless a good cause can be shown.

CORPORATE
75471 ROAD 435
LEXINGTON, NE 68850
308-324-2303



3210 ANTELOPE AVE. STE D
KEARNEY, NE 68847
308-237-9283

525 INDUSTRIAL DR
GARDEN CITY, KS 67846
620-277-7971

LOWER PLATTE NORTH NRD

**MONITORING WELL
CONSTRUCTION**

INVITATION # LPN NRD – RS 2022 (1)

LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT
511 COMMERCIAL PARK ROAD, P. O. BOX 126
WAHOO, NEBRASKA 68066-0126

**FOR
MONITORING WELL CONSTRUCTION
LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT**

I/We, the undersigned, having carefully examined all the specifications and special conditions of this proposal, and fully understanding the types and qualities required, hereby propose to supply the following item(s) and/or services, certifying that each of these meets all the specifications and conditions requested, except as noted and that all prices stated include all cost such as, but not limited to equipment, supplies, services, labor, manufacturing, packing, crating, insurance, transportation, delivery, installation, training, service under warranty, etc. **FOB Lower Platte North Natural Resources District, 511 Commercial Park Road, P. O. Box 126, Wahoo, NE 68066-0126** (hereinafter referred to as "LPNNRD"). It is further understood and agreed that project start and completion dates are critical in this contract. The successful Bidder agrees to start this project between June 15 and December 15, 2022 and will continue as scheduled until the well is drilled, constructed, developed and the site restored according to the terms of this contract or as determined by LPNNRD. The period of performance will not exceed 90 working days or January 15, 2023. LPNNRD may assess a penalty of \$100 per day after February 1, 2023 for failure to complete installation of the monitoring well and the site restored to near pre-construction conditions unless a good cause can be shown.

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*******IMPORTANT CONTRACTOR INFORMATION - MUST BE COMPLETED BELOW*******

Payment Terms: 0 % 30 Days. Amendments Received No. Through Acknowledged.

Are You Incorporated? Yes . 20-2843282
Federal Identification Number

Downey Drilling Inc. Brent Downey
Firm Name By (Please Type Your Name)

Po Box 278 Brent Downey
Address Signature

Lexington NE 68850 VP
City and State Zip Title

5-26-22 308-324-2303 308-324-4825
Date Area Code/ Phone # Area Code/Fax #

PROPOSAL PAGE

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT/PRICE</u>
A.	Monitoring Well Drilling and Construction <i>Includes Mobilization</i>	Price Per Linear Foot	\$ <u>85.00</u>
B.	Threaded and Flush Joint PVC		
	1. Plain Casing 4" ID Price Per	Linear Foot	\$ <u>25.00</u>
	2. Slotted Screen 4" ID Price Per (0.010 SLOT or 0.25)	Linear Foot	\$ <u>30.00</u>
C.	Well Development	Price Per Well	\$ <u>1500.00</u>
D.	Protective Casing Installation and Pad	Price Per Well	\$ <u>1250.00</u>

COMPANY: Downey Drilling Inc

ADDRESS: PO Box 278

TOWN: Lexington NE 68950

PRINTED NAME: Brent Downey

SIGNATURE: Brent Downey

LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT
511 COMMERCIAL PARK ROAD, P. O. BOX 126
WAHOO, NEBRASKA 68066-0126

FOR
MONITORING WELL CONSTRUCTION
LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT

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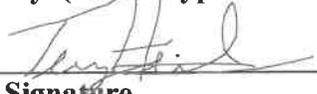
Payment Terms: 100 % 30 Days. **Amendments Received No.** **Through** **Acknowledged.**

Are You Incorporated? Yes . 48-0920712
Federal Identification Number

Layne Christensen Company
Firm Name

Terry Heiliger
By (Please Type Your Name)

4601 N 252nd Street
Address


Signature

Valley, NE 68064
City and State **Zip**

Area Manager
Title

May 25, 2022 402-359-2042
Date **Area Code/ Phone #**

402-359-2310
Area Code/Fax #

PROPOSAL PAGE

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT/PRICE</u>
A.	Monitoring Well Drilling and Construction	Price Per (160') Linear Foot	(\$91.00/LF) \$ <u>14,560.00</u>
B.	Threaded and Flush Joint PVC		
	1. Plain Casing 4" ID Price Per	(143') Linear Foot	(\$15.00/LF) \$ <u>2,145.00</u>
	2. Slotted Screen 4" ID Price Per (0.010 SLOT or 0.25)	(20') Linear Foot	(\$27.00/LF) \$ <u>540.00</u>
C.	Well Development	(1) Price Per Well	\$ <u>3,271.00</u>
D.	Protective Casing Installation and Pad	(1) Price Per Well	\$ <u>3,123.00</u>
		EST. TOTAL	\$ <u>23,639.00</u>

COMPANY: Layne Christensen Company

ADDRESS: 4601 N 252nd Street

TOWN: Valley, NE 68064

PRINTED NAME: Terry Heiliger, Area Manager

SIGNATURE: 

LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT
511 COMMERCIAL PARK ROAD, P. O. BOX 126
WAHOO, NEBRASKA 68066-0126

FOR
MONITORING WELL CONSTRUCTION
LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT

I/We, the undersigned, having carefully examined all the specifications and special conditions of this proposal, and fully understanding the types and qualities required, hereby propose to supply the following item(s) and/or services, certifying that each of these meets all the specifications and conditions requested, except as noted and that all prices stated include all cost such as, but not limited to equipment, supplies, services, labor, manufacturing, packing, crating, insurance, transportation, delivery, installation, training, service under warranty, etc. **FOB Lower Platte North Natural Resources District, 511 Commercial Park Road, P. O. Box 126, Wahoo, NE 68066-0126** (hereinafter referred to as "LPNNRD"). It is further understood and agreed that project start and completion dates are critical in this contract. The successful Bidder agrees to start this project between June 15 and December 15, 2022 and will continue as scheduled until the well is drilled, constructed, developed and the site restored according to the terms of this contract or as determined by LPNNRD. The period of performance will not exceed 90 working days or January 15, 2023. LPNNRD may assess a penalty of \$100 per day after February 1, 2023 for failure to complete installation of the monitoring well and the site restored to near pre-construction conditions unless a good cause can be shown.

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*******IMPORTANT CONTRACTOR INFORMATION – MUST BE COMPLETED BELOW*******

Payment Terms: ___% 30 Days. **Amendments Received No.** ___ **Through** ___ **Acknowledged.**

Are You Incorporated? Yes. 47-0402215
Federal Identification Number

Charles Sargent Irrigation, Inc dba Sargent Drilling

Firm Name

PO Box 367

Address

Geneva, NE

68361

City and State

Zip

05/26/2022

402-759-3902

Date

Area Code/ Phone #

Nathan Jacobson

By (Please Type Your Name)

Signature

Area Manager

Title

402-759-4960

Area Code/Fax #

PROPOSAL PAGE

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT/PRICE</u>
A.	Monitoring Well Drilling and Construction	Price Per Linear Foot	\$ <u>105.10</u>
B.	Threaded and Flush Joint PVC		
	1. Plain Casing 4" ID Price Per	Linear Foot	\$ <u>21.70</u>
	2. Slotted Screen 4" ID Price Per (0.010 SLOT or 0.25)	Linear Foot	\$ <u>55.00</u>
C.	Well Development	Price Per Well	\$ <u>5,000.00</u>
D.	Protective Casing Installation and Pad	Price Per Well	\$ <u>2,600.00</u>

COMPANY: Charles Sargent Irrigation, Inc dba Sargent Drilling

ADDRESS: PO Box 367

TOWN: Geneva, NE 68361

PRINTED NAME: Nathan Jacobson

SIGNATURE: 

CHARLES SARGENT IRRIGATION, INC.

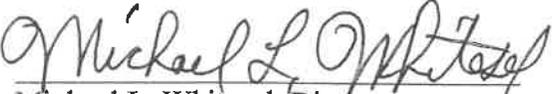
Special Meeting of the Board of Directors

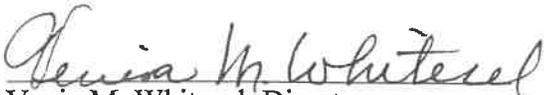
A Special Meeting of the Board of Directors of Charles Sargent Irrigation, Inc. was held on November 16, 2009. The undersigned, being all of the members of the Board of Directors of Charles Sargent Irrigation, Inc., a Nebraska corporation (the "Corporation"), hereby consent to the adoption of the following resolution and declare it to be in full force and effect as if adopted at a regular or annual meeting of the Board of Directors of the Corporation pursuant to the Business Corporation Act of the State of Nebraska:

D-2009-1

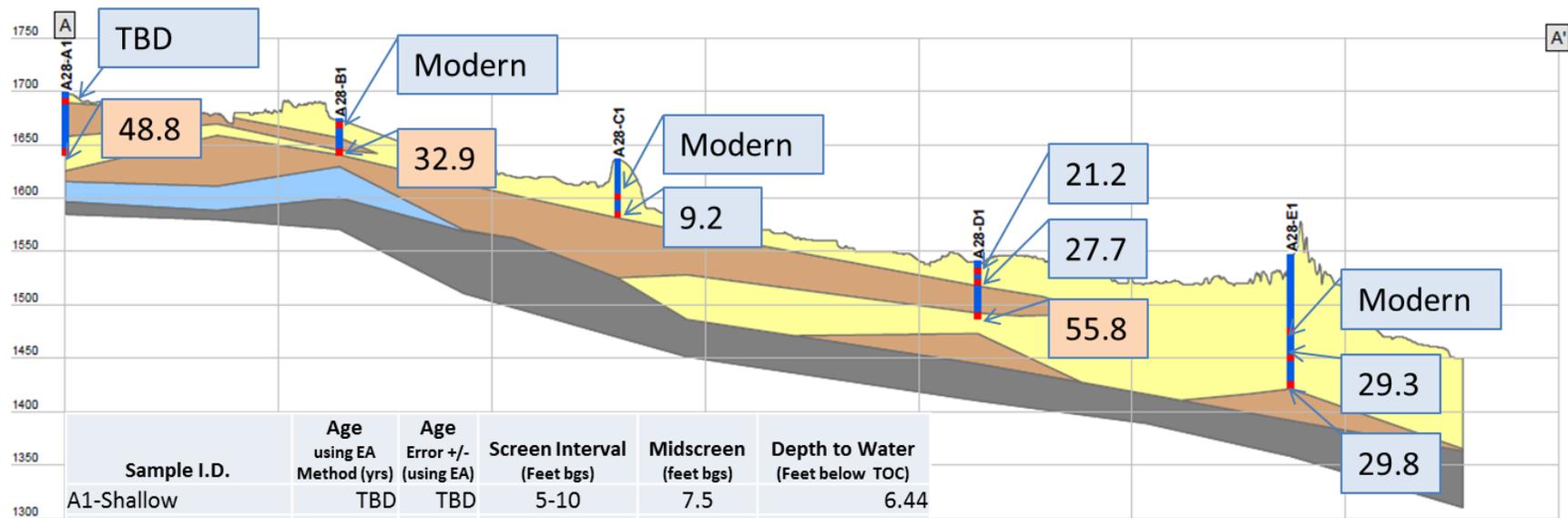
BE IT RESOLVED, by the Board of Directors of the Corporation, that Nathan Jacobson, the Area Manager of the Corporation in Geneva, Nebraska, be and is hereby authorized to negotiate and execute contracts and other documents or instruments relating thereto on behalf of the Corporation.

Dated this 16th day of November, 2009.


Michael L. Whitesel, Director


Venia M. Whitesel, Director


Dianna L. Whitesel, Director



Sample I.D.	Age using EA Method (yrs)	Age Error +/- (using EA)	Screen Interval (Feet bgs)	Midscreen (feet bgs)	Depth to Water (Feet below TOC)
A1-Shallow	TBD	TBD	5-10	7.5	6.44
A1-Deep	48.8	0.6	53-58	55.5	8.16
B1-Shallow	-7.0	1.3	4-9	6.5	7.2
B1-Deep	32.9	10.3	29-34	31.5	6.9
C1-Shallow	0.1	0.7	32-37	34.5	37.72
C1-Deep	9.2	3.0	49-54	51.5	38.11
D1-Shallow	21.2	0.5	7-12	9.5	6.86
D1-Medium	27.7	0.5	18-23	20.5	6.54
D1-Deep	55.8	23.1	49-54	51.5	6.64
E1-Shallow	0.6	0.5	70-75	72.5	73.57
E1-Medium	29.3	2.8	95-100	97.5	73.03
E1-Deep	29.8	2.8	120-125	122.5	73.51

Examining the influence of legacy nitrate on groundwater quality in Platte, Colfax, and Dodge Counties, Nebraska

Chris Hobza, P.G. and Mikaela Cherry, PhD

Background and Problem

Nitrate concentrations in groundwater in Platte and Colfax Counties often exceed the Environmental Protection Agency Maximum Contaminant Level of 10 milligrams per liter (U.S. Environmental Protection Agency, 2018). Area 30, which is in the Lower Loup NRD (LLNRD) is located east of Columbus, where the median concentration of nitrate has increased to over 20 mg/L from 1990 to present (2022; Tylr Naprstek, written commun. 2022). To the east, in the Lower Platte North NRD (LPNNRD), the median groundwater nitrate concentration between the towns of Richland and Schuyler is nearly 15 mg/L (Daryl Andersen, written commun., 2022). The elevated nitrate concentrations are likely the result of groundwater irrigated row-crop and livestock production in an area with permeable soils and shallow depths to water.

The LLNRD and the LPNNRD are actively managing groundwater quality to reduce the amount of nitrate entering the groundwater system. Current (2022) rules and regulations dictate the timing and amount of fertilizer that can be applied within their management areas. However, there is often a substantial lag time between when fertilizer or animal waste is applied to land surface to when groundwater quality is negatively impacted. As such, the current nitrate concentration does not necessarily reflect the effects of current nutrient management practices on groundwater quality. Determining the nitrate concentration and the age of groundwater can assist in developing a history of nitrate loading to the groundwater system and assess the effectiveness of current nitrate management strategies to address management goals.

Objectives and Scope

The focus of this study is to estimate nitrate concentration and age of groundwater in selected areas of Platte, Colfax, and Dodge Counties. Specific objectives are listed below:

1. Determine the nitrate concentration and age of groundwater. Summary of approach: Sample approximately 24 monitoring and domestic wells and analyze environmental tracer and other supporting geochemical data. Groundwater age distributions will be determined using Tracer LPM (Jurgens and others, 2012). The nitrate history of the study area will be described using the estimated age and nitrate concentration of groundwater. Discrete water-quality sample data, including environmental tracer results will be stored in the USGS National Water Information System (NWIS) database.
2. Assess the groundwater vulnerability of different locations within the study area. Summary of approach: Estimates of groundwater age, along with supporting hydrogeologic information will be used to estimate groundwater recharge rates using an approach described in Steele and others (2014). Higher rates of groundwater recharge for a given area is linked to increased vulnerability of groundwater to surface contamination. Furthermore, the calculated susceptibility index (Solder and others, 2020) provides a quantitative estimate of susceptibility of a well to land surface contamination and can identify which areas may need more intensive management.
3. Examine natural processes that can reduce nitrate concentrations. Summary of approach: Examine aquifer geochemistry to determine the role of denitrification, which is a microbially mediated natural attenuation process. The role of mixing and dilution with surface water will be assessed by comparing water-level elevations of groundwater in wells with surface-water features (for ex. Loup Power Canal or Platte River) and examining stable isotope sample data.

Approach

This proposed study will focus on determining the nitrate concentration and groundwater age in monitoring and domestic wells selected by the LPNNRD and LLNRD in Platte, Colfax, and Dodge Counties. Young tracers, such as tritium, tritium-helium, and sulfur hexafluoride will be sampled because they are well suited to determine the age of groundwater in unconfined aquifers. Groundwater will also be sampled for major ions, trace elements, dissolved gases, noble gases, and stable isotopes to provide additional geochemical information to support age tracer interpretations. The groundwater age distribution will be determined through geochemical modeling using the Tracer LPM workbook (Jurgens and others, 2012). The age distribution will be used to determine the susceptibility index (Solder and others, 2020) for each sample. The susceptibility index provides a quantitative estimate of susceptibility of a well to land surface contamination and can identify which areas may need more intensive management. In many locations, groundwater recharge can be calculated to assess the effect of irrigation and other land uses on the rates of water movement from the land surface to the aquifer. The calculated recharge, which describes the rate of movement from the land surface to the aquifer can also be used to communicate to stakeholders when the effects of current management strategies can be realized at different locations and depths within the aquifer. Groundwater level information, either from repeated manual measurements or recorded by transducers will be used to determine vertical groundwater gradients and the influence of surface water, which will be useful in age tracer interpretation.

Potential outcomes of the study

The information provided by this project will enable water resource managers to assess the effectiveness of current nitrate management strategies to address management goals, communicate the concept of legacy nitrate to area residents, and assess nitrate loading history within the study area. Potential study outcomes are given below:

1. Make more informed decisions on groundwater-quality management. The results and interpretations provided by this study will allow groundwater managers to examine the efficacy of current nitrate management strategy and determine if areas may need more stringent nitrate management.
2. Communication with area residents and producers on the influence of legacy nitrate and its effects on groundwater quality. The concept of groundwater age is intuitive, and the results of this project will allow groundwater managers to effectively communicate when current nitrate management strategies may produce a noticeable effect on groundwater nitrate concentrations.
3. Methods used in this study may be applied to other areas of Nebraska experiencing similar groundwater quality problems. The results, data, and lessons learned from this study will be shared with the Department of Environment and Energy, other NRDs, and water managers at meetings and conferences.

Products

The results of the study will be published as an online USGS Scientific Investigations Report. Availability of an online report helps disseminate the results of the investigations to a broad audience and enables water managers and users to gain access to this information in a timely manner. All products will adhere to the USGS Fundamental Science Practices including peer review and to all other USGS standards for scientific integrity and quality. The Scientific Investigations Report will include interpretations based on environmental tracer and geochemical data. All water-quality data collected as part of this project will be archived in the USGS NWIS database (<http://waterdata.usgs.gov/ne/nwis/nwis>).

Quality Assurance/Quality Control

Quality assurance procedures will be used to guide data collection activities to ensure the collection of consistent, defensible, high-quality data. To the extent possible, data will be collected and analyzed according to standard and accepted protocols. The proposed groundwater sampling will follow the field procedures of the USGS National Field Manual (U.S. Geological Survey, variously dated). Analytical procedures will follow the protocols of the corresponding laboratories, but laboratory performance will be evaluated through the collection of quality-control samples as well as the assessment of laboratory-specific quality assurance information in accordance with Office of Water Quality Technical Memorandum 2007.01. This study will collect four quality control samples (two blanks and two replicates). USGS fundamental science practices will be used throughout the study. Provisional data will be made available, but final data will go through a review process prior to approval. The report produced from this study will follow the comprehensive peer-review process mandated by the USGS fundamental science practices prior to its release.

Project timeline

Activity	FFY 2023		FFY 2024				FFY 2025			
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Well selection	X									
Groundwater sampling and data review		X	X							
Laboratory analyses			X	X	X					
Environmental tracer analysis and geochemical modeling				X	X	X	X			
Quality assurance and report production					X	X	X	X	X	X

[FFY; Federal Fiscal Year, October 1 through September 30.]

Project budget

Activity	FFY2023	FFY2024	FFY2025	TOTAL
Well selection	\$10,000	\$0	\$0	\$10,000
Groundwater sampling and data review	\$69,000	\$10,000	\$0	\$79,000
Laboratory analyses	\$67,000		\$0	\$67,000
Environmental tracer analysis and geochemical modeling	\$0	\$126,000	\$52,000	\$178,000
Quality assurance and report production	\$0	\$25,000	\$45,000	\$70,000
TOTALS	\$146,000	\$161,000	\$97,000	\$404,000
Nebraska Environmental Trust				
	\$74,000	\$82,000	\$46,000	\$202,000
USGS Cooperative Matching Funds				
	\$28,000	\$52,000	\$34,000	\$114,000
Project sponsors (LLNRD and LPNDRD)				
	\$44,000	\$27,000	\$17,000	\$88,000

[FFY; Federal Fiscal Year, October 1 through September 30.]

Activity	NRDFY2023	NRDFY2024	NRDFY2025	NRDFY2026	TOTAL
Well selection	\$10,000	\$0	\$0		\$10,000
Groundwater sampling and data review		\$69,000	\$10,000	\$0	\$79,000
Laboratory analyses		\$67,000		\$0	\$67,000
Environmental tracer analysis and geochemical modeling	\$0	\$126,000	\$42,000	\$10,000	\$178,000
Quality assurance and report production	\$0	\$25,000	\$30,000	\$15,000	\$70,000
TOTALS	\$10,000	\$287,000	\$82,000	\$25,000	\$404,000

[NRDFY, NRD fiscal year, July 1 through June 30.]

References:

Jurgens, B.C., Böhlke, J.K., and Eberts, S.M., 2012, TracerLPM (version 1)—An Excel workbook for interpreting groundwater age distributions from environmental tracer data: U.S. Geological Survey Techniques and Methods Report 4–F3, 60 p. [Also available at <https://pubs.usgs.gov/tm/4-f3/>.]

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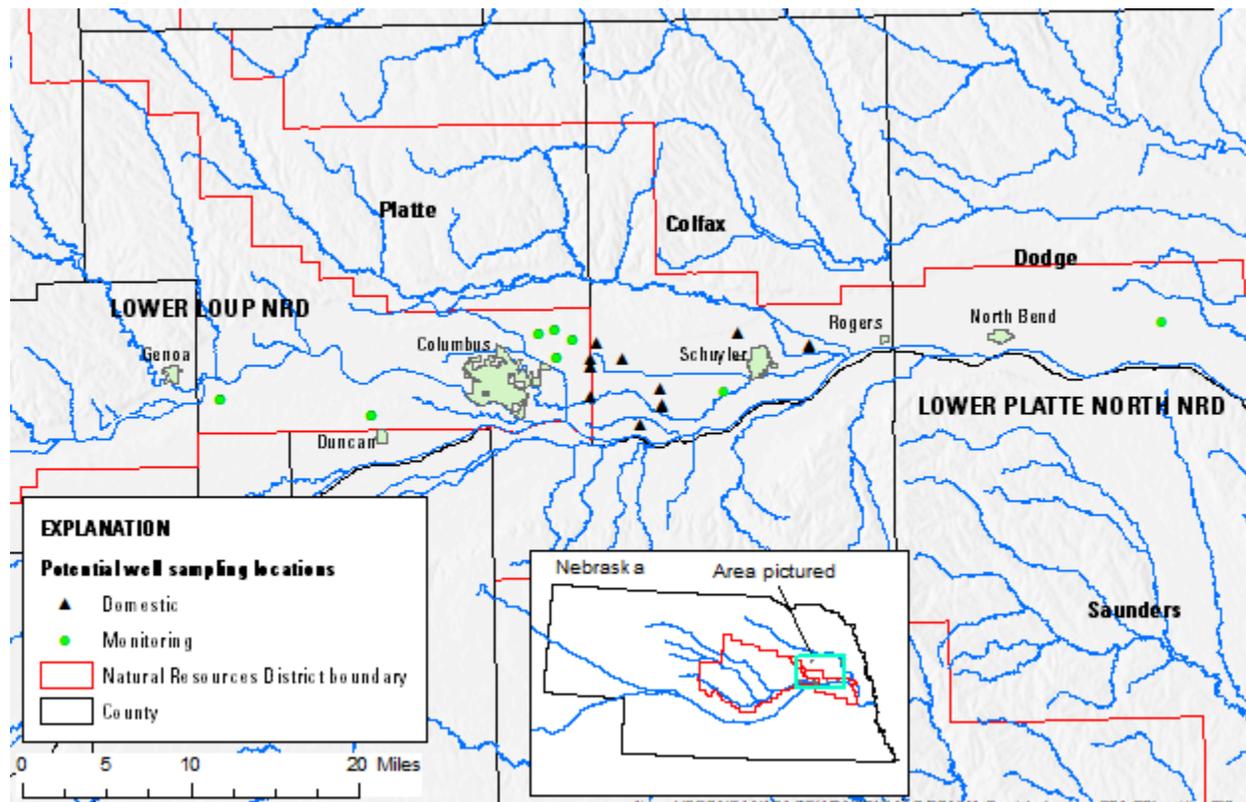


Figure 1. Study area map. Note: in the Lower Loup NRD multiple monitoring wells are collocated at each monitoring well sampling location.

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SMS Opt-in Widget	✓	✓	✓
Landline Enabled Texting	✓	✓	✓

WATER PROGRAMS BUDGET										
22-23 BUDGET (Proposed) For planning next's year budget										
		(FY22-23)				(FY21-22)				
Account		(FY22-23)	(FY22-23)	Budget &	(FY22-23)	(FY21-22)	(FY21-22)	Budget &	(FY21-22)	(FY21-22)
Number	Program	Budget	Capital Improv.	Equipment	Reimbursements	Budget	Capital Improv.	Equipment	Expenses	Reimbursements
					as 4/22/2022					
6	WATER PROGRAMS BUDGET	389,300	50,000	439,300	23,000	314,200	120,000	434,200	121,760	0
100	Ground Water Management Area	44,600	0			33,100	0		28,608	
	101 Cost Share	10,000			5,000	7,500			6,047	
	102 Inform. and Ed.	500			0	2,000			0	
	103 NRD Cert. Classes	2,000			0	1,000			2,081	
	104 Permits	100			0	100			0	
	105 Other								0	
	106 Integrated Man. Plan						0		0	
	107 Water Cons. Classes								0	
	110 Basin Wide Plan	10,000			0	10,000			7,500	
	111 Flow Meter Maintenance	22,000			1,000	12,500			12,980	
200	Ground Water Programs	147,500	50,000			181,150	75,000		27,619	
	201 Decommissioned Wells	19,000			2,500	15,000			8,327	
	202 GIS	0			0	0				
	203 GW Levels & Flow Meters	1,000			0	1,000				
	204 GW Quality Program	15,000			0	15,000			8,137	
	205 Mead-NOP	100			0	250				
	206 Monitoring Wells & Equipment	25,000	50,000		5,000	25,000	75,000		5,715	
	207 Registered Wells	0			0	0			0	
	208 Vadose Zone Samp.	0			0	0			0	
	209 Other	4,000			0	6,000			5,440	
	210 GW Sinking Fund	75,000			0	100,000			0	
	211 CMAT	0			0	0	0		0	
	212 GW Monitoring Equipment Dakota wells	0			0	10,500			0	
	213 Membership and Subscriptions	8,400			0	8,400			5,390	
300	Regulatory	1,750	0			1,750	0		69	
	301 Chemigation	1,000			0	1,000	0		69	
	302 Irrigation Runoff	750			0	750			0	
	303 Other	0			0	0			0	
400	Surface Water Programs	17,700	0			17,700	0		17,340	
	401 Platte River Ice Mont	0			0	0			0	
	402 Prec. Gauging Network	0			0	0			0	
	403 Stream Flow (USGS)	17,700			0	17,700			17,340	
	404 Other	0			0	0			0	
	405 Ne-Rain Network	0			0	0			0	
500	Special Projects	177,750	0			80,500	45,000		48,123	
	501 GW Subarea	0			0	0				
	502 Shell Creek WQ Proj.	0			0	0				
	503 Test Holes	5,000			4,500	5,000			0	
	504 ENWRA dues	30,000			0	35,000			25,050	
	505 Saturated Thick. Map	0			0	0				
	506 Hydrological Interpretation	0	0		0	0	30,000		20,433	
	507 ELM	0			0	0				
	512 AEM flights in selected subareas	0			0	0				
	513 GW elevation Wann Subarea	0			0	0				
	514 Tile drain study	0			0	0				
	514 Update Farm Precess medet	0			0	0				
	515 SENSE program	0			0	0				
	516 Platte-Elkhorn Int. Water Mon.	0			0	0				
	518 Lower Platte Consortium	250			0	3,000				
	500 Master Database (Phoenix)	7,500	0		5,000	0	15,000			
	NET Grant 2019-20	0			0	37,500			2,640	
	WaterSmart Grant	0			0	0			0	
	Phase Area BMP and Hydro Assessment	80,000			0					
	Water Modeling	50,000			0					
	Age Dating	5,000			0					
600	Wellhead Protection	0				0			0	
	601 Field Support	0			0	0			0	
	602 Information Education	0			0	0			0	
	603 Training	0			0	0			0	
	604 Other	0			0	0			0	

kits

water sampling

ENWRA reimbursement

Well head Protection Wells

not including Leshara

contract approved May 2022