

Water Committee Meeting  
Wednesday, June 28, 2023 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. Acre Allocation Discussion

An update on allocations and how they are calculated.

From GW Rules and Regulations 6/15/2018

**Rule 4.2 Allocation**

The use of Groundwater for agricultural purposes from any water well for irrigation or for the benefit of any Irrigated Acre in the Special Quantity Subarea shall be subject to an Allocation. Allocations shall be based upon a 3 year Rolling Allocation. The Board shall establish the initial annual allocation when establishing the Quantity Subarea. The Board shall thereafter establish the Rolling Allocation by December 15 of each calendar year. The Rolling Allocation shall specify the total number of acre-inches of irrigation water per irrigated acre for the rolling term. If the Board fails to adopt a Rolling Allocation by December 15, the Rolling Allocation for the following rolling three year term shall be 27 acre-inches per irrigated acre in this Special Quantity Subarea (the equivalent of 9 acre-inches per year of the rolling term). Rolling Allocations for any and all wells may be amended, reduced, increased, or made subject to limitations or conditions by the Board upon notice and hearing.

Example attached.

Five producers from the SQS #2 area expressed their concern about the 27 inch rolling allocation. They felt the extra irrigation that was needed this year during May and June would curtail the amount of water needed to finish this year's crop if they are limited on water allocation.

Committee and staff discuss the options on the allocation or penalty clause. The committee felt changing boundaries and future allocations should be discussed this fall. The committee asked staff to discuss the options with Jovan.

A resolution was drafted.

2.A.2. Well Permit Program

2.A.2.a. Well Permits Approved

Wells Permits Approved: #

Landowner	Number of Wells	Number of New Irrigated Acres	Type of W
Norman Heldt	1	0	
The Nelson Blimp Co LLC	1	0	
Audra Jedlicka	1	0	
BEG LLC	1	0	
Sunny Lea Farms Partnership	1	0	
Ernest, Leo, & Francis Osantowski	1	0	

The total number of approved permits for 2023 is 24

Location of Approved Well Permits for 2023: Correct as of 6/28/2023

County	Irrigation - New	Irrigation - Replacement	Stock
Butler	0	5	
Colfax	1	4	
Dodge	1	0	
Boone	2	1	
Madison	0	0	
Platte	0	0	
Saunders	4	6	
<b>Total</b>	<b>8</b>	<b>16</b>	

### 2.A.3. Irrigation Runoff Complaint

The staff received 3 complaints and contacted the individuals.

### 2.A.4. Cost Share Programs

#### 2.A.4.a. Irrigation Well Sample Kits

Samples kits are being sent in by producers with only 1 sample result being received.

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

The technical group met on a Zoom call to discuss the database that was designed by HDR. The group discussed the issues and errors received when data was uploaded.

A brief discussion was held about adding new acres for the upcoming year. Lower Loup is planning on not giving out acres with Lower Elkhorn and Upper Loup Boards having discussions.

## 2.B. CHEMIGATION

For 2023, we have 642 renewals and 41 new permit applications for a current total of 683. Inspections for 114 renewals and 31 new permits have been completed.

## 2.C. GROUND WATER ENERGY LEVELS

## 2.D. GROUND WATER QUALITY SAMPLING

The staff has started sampling irrigation wells for nitrates and a few for pesticides. The areas that the LPNNRD is concentrating on this year are State-wide network wells, Schuyler-Richland Phase Area and Shell Creek.

At last month's Committee and Board meeting, staff informed the members that three communities, Lindsay, Newman Grove and Platte Center, had initially applied for a Source Water Protection Grant. At the June Board Meeting, staff informed the Board that Lindsay had withdrawn their application. The question was asked, as this area is showing increases in nitrate levels, what could be done to address the nitrate issue. Part of the Source Water Protection grant was going to assess nitrate and vulnerability for each community. The map attached shows the area that would be assessed for Platte Center and Newman Grove if the grants are approved. In 2019, LPN received a grant to do nitrate assessment and develop a nitrate tool to consider best management practices in the current Nitrogen Management Areas. If the grants are approved, the LRE firm proposes to fill in the gap for nitrate assessment and expand the nitrate tool through Shell Creek if the NRD is willing to complete the project for \$25,000. This tool would allow LPN staff to start education with producers throughout Shell Creek on the nitrate issue and what practices to consider. This amount is shown as a budget item on next year's budget.

## 3. GROUND WATER PROGRAMS

### 3.A. DECOMMISSIONED WELL PROGRAM

3.A.1. Well Estimates

# of wells that have been applied for in the 2022 fiscal year. This is the list of applicants that have applied for cost-share assistance and are waiting for a well driller to decommission the well or a bill to pay for the work that has been completed. A copy of the paid invoice is needed before reimbursement can occur.

Well Owner	Type of Well	Cost Share Estimate	County
Nick Schmit	Irrigation	\$1,000.00	Butler
Paul Thorson	Domestic	\$287.25	Saunders
Todd Went	Hand-dug	\$603.05	Colfax
Dorothy Juranek	Irrigation	\$1211.82	Butler
Dorothy Juranek	Irrigation	\$1211.82	Butler
Zoucha Farms LLC	Irrigation	\$1148.49	Colfax
Mike Wolf	Stock	\$916.73	Boone
Alan Rohwer	Irrigation	\$1675.69	Saunders
Michael Heldt	Irrigation	\$1710.00	Saunders
Aura Jedlicka	Irrigation	\$1172.54	Colfax
Osantowski Brothers	Irrigation	\$1122.29	Butler
Dean Vavricek	Irrigation	\$894.38	Colfax

3.A.2. Plugged Wells

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

There haven't been any invoices submitted to LPNNRD in the last month for reimbursement.

# of applicants/wells that have been reimbursed for decommissioning during the 2022 Fiscal Year: 10

Total amount reimbursed during the 2022 Fiscal Year: \$11,604.58

Well Owner	Type of Well	Cost Share Estimate	County

--	--	--	--

### 3.B. LOWER PLATTE NORTH NRD GROUND WATER STUDIES

#### 3.B.1. Phase Area Update

Invoice for Flow Meter Costshare by Gary Baumert for G-004227 in Section 17-17N-4E, Colfax County. This application was approved for \$1,000 through the WSF grant, with the grant paying 60%.

An invoice from LRE for \$7,266.75 for Hydrological Assessment per contract is attached.

Discussion on reporting dates to utilize the benefit of calculating nitrogen recommendations for producers prior to fertilizing. At the present time, the rules say December 15, when producers just enter their numbers after the crop season. To allow a more streamlined report, some changes would have to be made to the online reporting to allow a two-step process. Changes to this online reporting site:

- Modification of the report submission to allow users to submit annual reporting in two parts and NRD approval.
- Allow the reporting year field to pull data into the current report
- Estimated water use from previous year's data
- Ability for producers to print a PDF.

Some updates would occur on the NRD production side also.

A quote from Phoenix Webgroup is attached for \$17,270 to start the process. Staff discussed the quote and the reason for updating the database to prepare for the functionality of the 2-part report.

#### 3.B.2. Demonstrations Projects

NRD staff have been working with UNL on setting up numerous sites for irrigation, nitrate and manure management. Attached are pictures showing a zone map and the application of nitrogen on a manure field. The Board agreed to fund 2 applicator pumps for in-season fertilization. Staff and UNL have set up a site with Lanny Schmid and Joe Birkel with an invoice attached for 1 pump. The manure site is being funded by UNL by showing different rates of nitrogen with a manure base rate.

A proposal is attached from Bruno - Platte County Extension person for coring fields for nitrate leaching. He is working with Lower Loup and wants to add some fields in LPN District. Bruno was present at the Committee meeting to explain the process. He is planning on pursuing extra funding from Corn and Soybean Boards.

A field with irrometer sensors and remote reads is a project within SQS 2 to assist in irrigation management. An Invoice is attached from Klein sales on the equipment cost. This is part of the LPN soil moisture program for sensors.,

3.B.3. Lower Platte River Consortium

A meeting was held on June 8 to discuss current drought conditions. Attached is a presentation from the Drought Center. The plan is going on its 5-year review, so ideas were given by DNR on what updates might be considered. (attached)

3.C. MONITORING WELLS EQUIPMENT

Staff continues to discuss options with the METOs and In-Situ companies on the issues of equipment failures.

Attached is the invoice sent to METOs on what LPN staff feels was damaged because of the installation process.

Additional attachments show the process and cost of repairing the dataloggers.

Invoice Q-108476 from In-situ for \$3,253 is the current invoice to replace 3 dataloggers that were not repairable.

Staff went through the process of In-situ review and analysis of a datalogger and cable that can be repaired and the costs associated. Discussion by staff and committee on the pros and cons of fixing what there is or just moving on to the In-situ company with their remotes, which the datalogger are from the In-situ company. There is no guarantee that water is not already in the cable on the existing equipment, but going with In-situ will eliminate the need for repairing the cables with a male stripped and tinned 10-foot cable. The METOs company has indicated that they are not going to assist in repairing the spliced cables. The cost for the cable replacement plus other equipment is \$35,559 at the present time. To replace the METOs remote reading equipment with In-situ equipment would be about \$70,000. Utilizing In-situ would help with communication issues between 2 different companies. The committee discussed cutting the NRD losses now as the METOs equipment will need to be replaced in the future as they wear out. Some of the METOs equipment is going on 4 years with a normal lifespan of 7 years.

The staff have received a quote from In-Situ Company for equipment, replacing 15 old dataloggers and allowing the NRD to keep the current 6 weather stations for \$91,901.45. Subscription cost is included in the quote.

**Recommend paying the invoice to In-Situ for \$3,253 to replace three unrepairable data loggers.**

4. SURFACE WATER PROGRAMS

4.A. STATE LAKES, FOR THE WEEK OF

This week's beach Bacteria and Harmful Algal Bloom results are now posted on the NDEE web page ([Current Health Alerts and Sampling Results For This Week](#)).

There will be 3 beaches on "Health Alert" this week. When a lake exceeds 8 ppb of microcystin it will be placed on "Health Alert".

**Current Lakes on "Health Alert"**

Lake	County	Microcystin (ppb)	Sample Date
Willow Creek Reservoir	Pierce	11.34	06/20/2023
Pawnee Lake	Lancaster	9.77	06/19/2023
Kirkman's Cove Lake	Richardson	9.59	06/20/2023

A lake that is placed on "Health Alert" will remain under "Health Alert" status until it has tested below 8 ppb. If a lake is under a "Health Alert", signs will be posted recommending people avoid full body contact activities such as swimming, wading, skiing, jet skiing, etc.

We have 1 beach with *E.coli* testing above 235 colonies/100 ml.

### Lakes with High *E.coli* Bacteria

Lake	<i>E.coli</i> (mpn)	Sample Date
Fremont Lake No. 15 (SRA)	1120	06/19/2023

*E. coli* bacteria levels measured above 235 colonies/100 ml of sample are considered a higher risk for illness when swimming. Considering the more rapid changes in bacteria conditions, signs are not posted with these higher levels. Although, we want people to be aware of beach conditions and use their own judgment as to whether they use a listed water body.

This week, Willow Creek Reservoir in Pierce County, Pawnee Lake in Lancaster County, and Kirkman's Cove Lake in Richardson County will be placed on Health Alert. However, Bluestem Lake in Lancaster County has been removed from Health Alert this week. While under Health Alert we recommend avoiding activities that would bring you into extended contact with the water: swimming, skiing, etc.

Have a great weekend!

Justin Haas  
**State Lakes Coordinator**  
**Nebraska Department of Environment and Energy**  
P.O. Box 98922  
245 Fallbrook Blvd., Suite 100  
Lincoln, Nebraska 68509-8922  
Direct: 402-471-4224 | Main office: 402-471-2186  
<http://dee.ne.gov> | [Twitter](#) | [Facebook](#)

#### 4.B. Groundwater Budget

The groundwater portion of the budget was distributed.

#### 5. OTHER

5.A. COMMENTS FROM THE PUBLIC

Starting Allocation	Year 1 Use	Year 2 Use	Year 3 Available Allocation	Year 3 Actual Use	Year 4 Available Allocation	Year 4 Actual Use	Year 5 Available Allocation
27	4.52	7.58	$27 - 4.52 - 7.58 = 14.9$	10.26	$27 - 7.58 - 10.26 = 9.16$	3.85	$27 - 10.26 - 3.85 = 12.89$
27	11.25	9.58	$27 - 11.25 - 9.58 = 6.17$	6.00	$27 - 9.58 - 6 = 11.42$	7.85	$27 - 6 - 7.85 = 13.15$

Take the last 2 years and subtract from 27 will show what is available in the next season.

# CHEMIGATION - June 2023

## TOTAL CHEMIGATION APPLICATIONS IN 2022 (739)

### NEW CHEMIGATION APPLICATIONS - 41

(0) Boone (5) Butler (12) Colfax (5) Dodge (1) Madison (5) Platte (13) Saunders

### RENEWALS: 642

BOONE COUNTY - 49  
BUTLER COUNTY - 92  
COLFAX COUNTY - 71  
DODGE COUNTY - 116  
MADISON COUNTY - 7  
PLATTE COUNTY - 113  
SAUNDERS COUNTY - 194

### RENEWAL INSPECTIONS: 112

(18) Boone (12) Butler (11) Colfax (15) Dodge (0) Madison (0) Platte (56) Saunders

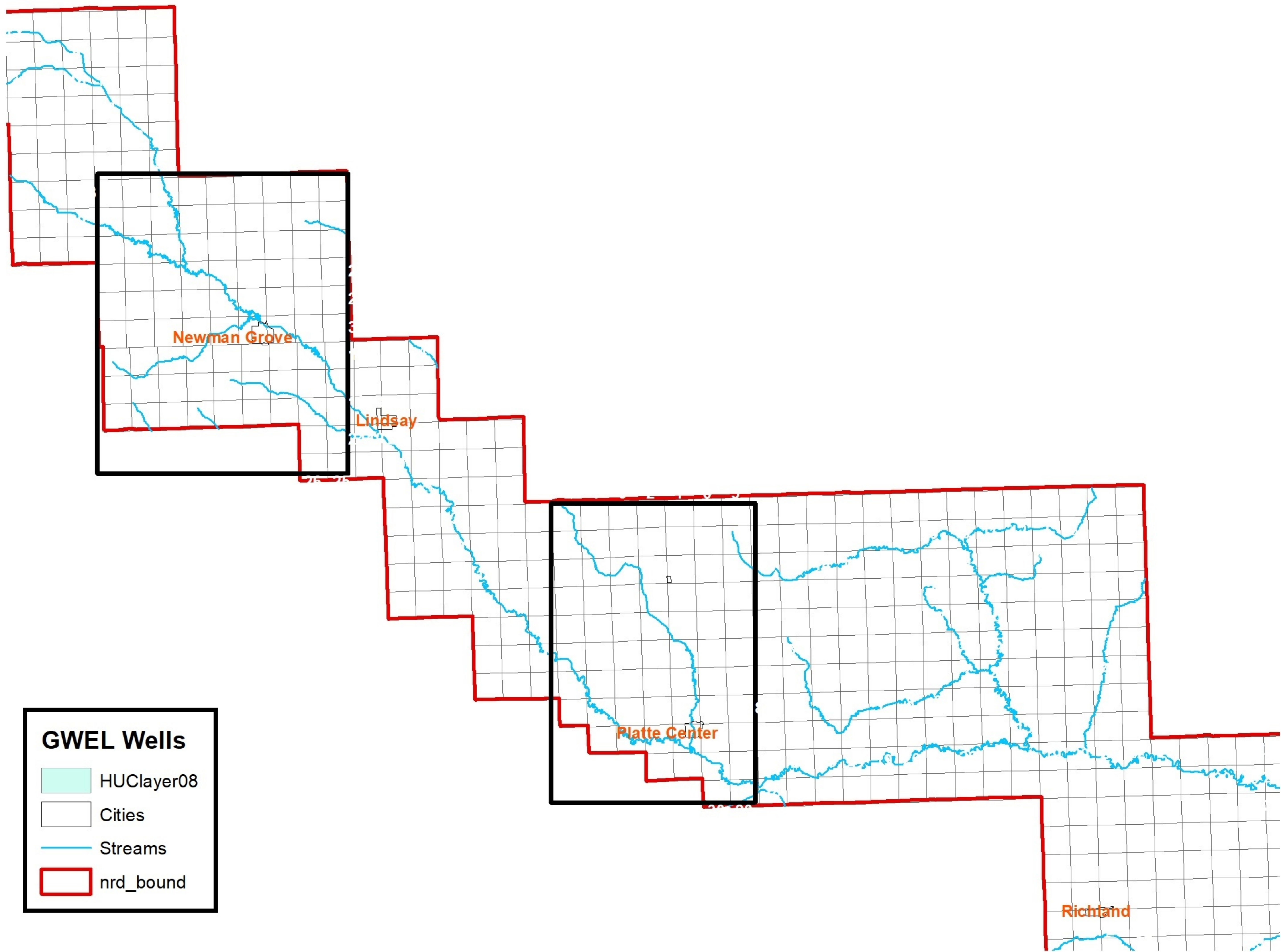
### NEW INSPECTIONS: 32

(0) Boone (0) Butler (12) Colfax (4) Dodge (1) Madison (3) Platte (12) Saunders

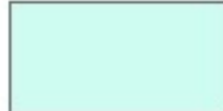


### NEW CANCELLATIONS: 0

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

### EMERGENCY: 0



### GWEL Wells

-  HUClayer08
-  Cities
-  Streams
-  nrd\_bound

Newman Grove

Lindsay

Platte Center

Richland



Daryl Andersen  
 Lower Platte North NRD  
 511 Commercial Park Road  
 Wahoo, NE 68066-0126

June 7, 2023  
 Project No: 5036LPN02  
 Invoice No: 23226

Project 5036LPN02 LPNNRD Hydrogeologic Assessment

**Professional Services through May 25, 2023.**

Task 01 Project Management and Meetings

**Professional Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Mohr, Jonathan	5.50	183.00	1,006.50	
Totals	5.50		1,006.50	
<b>Total Labor</b>				<b>1,006.50</b>
		<b>Total this Task</b>		<b>\$1,006.50</b>

Task 02 Hydrogeologic Assessment Framework

**Professional Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Hume, David	1.25	239.00	298.75	
Libra, Jon	10.25	136.00	1,394.00	
Mohr, Jonathan	3.50	183.00	640.50	
Totals	15.00		2,333.25	
<b>Total Labor</b>				<b>2,333.25</b>
		<b>Total this Task</b>		<b>\$2,333.25</b>

Task 03 Deliverables

**Professional Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Sopiwnik, Roscoe	21.00	187.00	3,927.00	
Totals	21.00		3,927.00	
<b>Total Labor</b>				<b>3,927.00</b>
		<b>Total this Task</b>		<b>\$3,927.00</b>
		<b>Total this Invoice</b>		<b>\$7,266.75</b>

---

Project	5036LPN02	LPNNRD Hydrogeologic Assessment	Invoice	23226
---------	-----------	---------------------------------	---------	-------

---

**Outstanding Invoices**

<b>Invoice Number</b>	<b>Date</b>	<b>Balance</b>
22874	5/8/2023	10,845.50
		<b>10,845.50</b>

<b>Total Now Due</b>	<b>\$18,112.25</b>
----------------------	--------------------

TERMS: Net 30 days. A finance charge of 1.5% per month is applied to past due amounts.

Vavco, LLC

DBA: Vavrina

PO Box 245

Clarkson, NE 68629

# Invoice

Date	Invoice #
5/31/2023	2059

Bill To
Bernadine Baumert / <i>GARY</i> P.O. Box 356 Howells, NE 68641

Ship To

P.O. Number	Terms	Ship	Project
	Net 30	4/3/2023	Jobber #1250 Pivot

Item Code	Description	Quantity	Price Each	U/M	Amount
	Install Flow Meter. Brad (Pivot)				
MC-M0308T22	8" Saddle Marathon, Includes: Canopy Boot & 2 Yr Warranty	1	1,793.00		1,793.00T
MC-FS108-3	8" Flow Straightener	1	459.00		459.00T
1300.3-Irrigatio...	Service Accessories	1	15.00		15.00
Reimb Group	Total Reimbursable Expenses(Labor)				90.00
<i>Pd CK# 5302</i>					
			<b>Sales Tax (0.0%)</b>		\$0.00
			<b>Total</b>		\$2,357.00



# CERTIFIED TEST REPORT

CUSTOMER: VAVCO LLC DBA VAVRINA INC  
MODEL NO: M0308  
METER SERIAL NO: 23-02615

## CONFIGURATION

METER INSIDE DIAMETER: 7.872  
METER OUTSIDE DIAMETER: 8  
TEST DATE: 3/22/2023  
TEST FACILITY: Volumetric  
IDEAL TEST CONSTANT: 3824

## CALIBRATION DATA

	<u>Tested TC</u>	<u>GPM</u>	<u>Accuracy</u>
1	3840	1572	100.4

CERTIFIED BY: Robert Galusha ID#: 176785 DATE: 3/23/2023

This calibration was performed on a gravimetric or volumetric test facility, traceable to the National Institute of Standards and Technology, USA. The estimated flow measurement uncertainty of the calibration facilities are:  
Gravimetric +/- 0.15%      Volumetric +/- 0.5%



3255 WEST STETSON AVENUE  
HEMET, CA 92545 USA  
PHONE (951) 652-6811 / FAX (951) 652-3078  
WEB SITE: <http://www.mccrometer.com> E-MAIL: [customerservice@mccrometer.com](mailto:customerservice@mccrometer.com)



23-02615



# **Lower Platte North NRD**

## **2023 Additions and Modifications (Adjusted)**

Jun 28, 2023

**Neil Johnson**

CEO

[njohnson@phoenixwebgroup.com](mailto:njohnson@phoenixwebgroup.com)

(w) 402.786.5111

## Overview & Purpose

The Lower Platte North NRD has requested several modifications and adjustments to their existing private site, as well as changes to the producer entry portal previously developed by Phoenix Web Group. This includes changes to almost every section of the private side (People, Variances, Quantity, Quality, Kits, etc.) and their respective CSVs.

Changes to the producer entry site include workflow changes to annual report submission. Chemigation form submission on the producer entry site will also be made disabled as a part of this project.

This document provides pricing for PWG to work with LPNNRD to accomplish these goals.

## Agreement Terms

By accepting this agreement, the customer will receive the following benefits in addition to deliverables enumerated within the Project Modules section.

### Bug-Free Guarantee

Software bugs, discovered within 30 days following completion of the project, as confirmed by PWG, will be covered in full by this quote and fixed or corrected.

### You Own the Code

PWG does not retain ownership of the solution developed for the customer. The customer is free to request a current copy of the source code at any time, and free to use it as they see fit. This is covered in greater detail in the Software Development Agreement.

### Continuing Support

When the solution has been deployed, the customer will be presented with options for continuing support of the product. In addition to continuing bug fixes, support plan options may include small changes, technical support, server monitoring/maintenance, and periodic reporting on key activities.

### Change Requests

Changes to the scope, value, or deliverables in this agreement will be managed with a formal change request, to be signed off by both the customer and PWG. Either party may initiate a request.

## Management Site Features

The LPNNRD would like to make the following adjustments to their existing private site. These changes affect various aspects of the site and would allow for a general streamlining of data entry, the ability to track additional information, and the improved presentation of information.

Also included is the adjustment of multiple fields to use selectable values instead of freeform text to allow for more consistent data entry and record keeping.

## People - \$1,040

The following data is to be added to the certifications CSV for both certifications and linked certifications:

- Add contact information to certifications CSV:
  - Address
  - Phone Number
  - Linked Person's Address
  - Linked Person's Phone Number

## Variances - \$1,580

In addition to improvements to the performance of the Variances CSV, the following changes and additions are to be made to Variances:

- Adjustment of CSV headers to match IMP report
  - Example to be provided by LPNNRD
- Removal of the WUR field from the edit page
- Addition of an Acre Ft Depletion field to the edit page

## Wells, Quantity, and Quality - \$3,200

Modifications are to be made to wells to streamline selection of aquifers and subareas. In addition, quantity graphs will be updated to display actual depth alongside elevation, and well properties are to be added to quality-related CSVs.

- Aquifer and Subarea inputs are to be changed to dropdowns:
  - Values are to be provided by LPNNRD
- Addition of a second Y axis to the right side of quantity graphs, which displays actual depth
- Addition of a selection to the index page to filter which GWM results are graphed
  - Spring, Fall, both
- Addition of the well's lat/long to the quality sheets and quality samples CSV
- Addition of the well's latitude and longitude to the Kits CSV

## Meters - \$2,100

Several changes are to be made to meters, including the origins of certain data and additional inputs.

- Removal of Area and Sub-Area inputs
  - This information will be from the well instead (seen under well info)
- Adjustment of the CSV to load Area and Sub-Area from well
- Adjustment of the Edit page to pull meter lat/long from the well
  - This value should be read-only
- Addition of a Stream Depletion Factor field
  - To the Edit page and CSV

## Chemigations - \$625

This includes modifications to how the permit application PDF is generated.

- When generating a chemigation permit application pdf, the following are to be populated from existing data: acres, received date, last inspected, as well as inspection information

## Field Map - \$1,560

A new layer is to be added to the field map:

- Addition of a boundaries layer for the LPNNRD district, as well as management areas
  - Shape data is to be provided and maintained by LPNNRD

## Producer Entry Site Features

Several changes are to be made to the producer entry site to improve the annual report workflow. In addition, links to external resources are to be added. Chemigation form submission is to be removed as part of this project, but users will still be able to view their chemigation data through the site.

## Annual Reports - \$7,165

Changes are to be made to the annual reports to allow for more streamlined reporting based on an added report year value, as well as the ability to submit reports as part of a two-step process, among other minor changes.

- Modification of the report submission workflow to allow users to submit annual reports in two parts
  - To include instructions to submit the first part of the report by April 1st
  - To include the ability for NRD personnel to review and approve the first part of the report
- Addition of a Report Year field to streamline the process of pulling in data for the current report and displaying and filtering submitted reports
- Estimated water use is to be pulled in from the previous year's data, if available
- Ability to generate a PDF of this report to print

## Project Timeline

The Project Manager will work with the customer to establish realistic expectations of project deadlines that meet customer needs.

Updates are to be posted to a beta environment for review on a weekly basis, and client feedback is expected within a week of each update. Feedback outside of this window may result in additional change requests.

## Pricing

<b>People</b>	<b>\$1,040</b>
<b>Variances</b>	<b>\$1,580</b>
<b>Wells, Quantity, and Quality</b>	<b>\$3,200</b>
<b>Meters</b>	<b>\$2,100</b>
<b>Chemigations</b>	<b>\$625</b>
<b>Field Map</b>	<b>\$1,560</b>
<b>Producer Entry - Annual Reports</b>	<b>\$7,165</b>
<b>Total for All</b>	<b>\$17,270 +/- 10%</b>

### Payment Terms

An initial deposit of 50% will be due at signing. 50% of the amount will be invoiced upon code completion, when the project is turned over for final review.

### Sample Fee Schedule

Beginning of Project – \$8,635

Code Completion – \$8,635

## Phoenix Web Group

We're a group of engineering-minded individuals from all walks of life, brought together by our passion for creative problem solving. The inner math-and-puzzle-loving geek within each of us thrives on developing innovative solutions to tackle your toughest challenges. We feel fortunate that we can honestly say we love what we do, and it's what we'd be doing for fun anyway.

Beginning in 1987, when we made our start in the Equities and Agriculture verticals, we've expanded PWG to broad-range of industries including Commodities, Finance, Transportation, Telecommunications, Retail, Education, and more. Clients from the smallest start-ups to the largest Fortune 500 companies rely on our solutions to simplify their tasks and give them an edge on igniting their potential.

## Notes

Work will begin upon receipt of first payment. Payment is due upon receipt of invoice; past due invoices will trigger the halt of work and are subject to interest.

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

**This quote will expire after a time period of 30 days from the date printed on the cover sheet.**

**Bruno P Lena**

**Water and Integrated Cropping Systems – Nebraska Extension.**

**Idea**

Collect soil sample for nitrate and ammonium nitrate every foot up to 6 feet. It could be corn on corn fields, or corn-soybean fields. Ideally selecting fields that represent well the standards for crop management of the region. Will do it every year for a multi-year data collection in the same fields.

Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Nitrogen management		Any Spring Anhydrous			Starter, side dress (urea or liquid)					Any fall anhydrous +		
Soil sampling			Beginning season soil sampling							End season soil sampling		
Water input	Off season rainfall/snowfall		Daily data of irrigation and rainfall						Off season rainfall/snowfall			

**Why?**

I lot has been discussed about nitrate in the ground water, but I don't believe we have a strong and robust dataset that allows determining the actual amount of nitrate at multiple soil layers. If we can identify the main source of nitrate leaching by accounting for the nitrate balance through multiple soil samples at different crop management, we could potentially use the same data to support any regulations for nitrate use in the future.

There is very little information that relates in-season weather conditions (mainly rainfall patterns) and irrigation schedule with nitrate leaching. By collecting the amount of nitrate in the soil before and after the growing season, and understanding the changes in soil water storage, we can pinpoint (1) if was there any nitrate leaching and (2) what was the main source of leaching (irrigation, rainfall, excessive amount of nitrogen?).

Another outcome is to check for the actual nitrogen use efficiency:

$$\text{Nitrate balance} = \text{"Beginning season"} + \text{"applied"} - \text{"end season"}$$

Use yield data to run the balance (what actually was used and leached – if any).

**Ask for growers**

To provide irrigation amounts and dates, and rainfall amounts and dates during the growing season. Also nitrogen management. This will allow me to run a daily water balance method and find the source of potential nitrogen leaching.

## **Growers**

Bill Luckey – 3 miles northeast Columbus - Will be invited to participate.

Ryan Loseke – 10 miles north Columbus - Will be invited to participate.

Cindy and John Schure – Humphrey area (They use soil moisture sensor) – Will be invited to participate.

Brent Melliger – West Richland – is onboard.

DJ Mottl – West North Bend – is onboard.

## **Estimated costs**

Per sampling profile (6 cores – one every foot - \$5.5 each sample) = \$33.00

Per grower (two profiles at one corn field and two profiles at one soybean field) = \$132.00

Shipping cost next deliver day by 10:30am (per 20 lb) = \$45.00

Per grower + shipping cost = \$177.00

All 5 growers = \$855.00

Collection twice a year (before and after the growing season) = \$1770.00

## **UNL contribution**

Travel expense + soil sampling + time to analyze the data and publish articles.

Data will be shared with NRD whenever available from the lab. A report to LPN NRD will be given in December after the end of the season data collection is analyzed. It will include the raw data and some preliminary discussion about the data analyzed.

## **UNL contribution**

Travel/mileage expense + time spent collecting the soil sampling, analyzing the data, and publishing/sharing findings in extension articles.

## **Final remarks**

I am really interested in expanding this proposal for and treat it as a long-term nitrate levels (3-5 years minimum) assessment. Therefore, I expect to renew this proposal for the next years until I find other sources to cover the cost of this project. Either way, the data will be openly available for LPN NRD, the farmer community, and to the public. I will put together extension articles and use the information to engage farmers to improve their nitrogen management.

**Klein Sales & Service - Jason Klein**

12929 N Blvd  
Osceola, NE 68651  
402-366-9098  
jk9098@gmail.com  
kleinsales.com

**BILL TO**

Lower Platte North  
511 Commercial Park Rd  
PO Box 126  
Wahoo, NE 68066

**INVOICE #** 19336

**DATE** 06/05/2023

**DUE DATE** 07/01/2023

---

DESCRIPTION	QTY	RATE	AMOUNT
IRROcloud sensor monitor includes first year subscription Retail \$925 ****ship direct	1	786.00	786.00
Watermark Sensor 15ft lead with pvc pipe- 1,2,3 foot Retail \$55 Daryl to pickup	3	47.50	142.50

Thank you for your business!

---

SUBTOTAL	928.50
TAX	0.00
TOTAL	928.50
BALANCE DUE	<b>\$928.50</b>

# Invoice



Invoice number C94A0788-0001  
Date of issue May 9, 2023  
Date due June 8, 2023

Sentinel Fertigation, Inc.  
+1 531-530-7672  
dev@sentinelfertigation.com

**Bill to**  
Lower Platte North NRD  
PO Box 126  
511 Commercial Park Road  
Wahoo, Nebraska 68066  
United States  
+1 402-443-4675  
dandersen@lpnrd.org

**\$9,750.00 due June 8, 2023**

[Pay online](#)

Thank you for your business!

Description	Qty	Unit price (excl. tax)	Amount (excl. tax)
N-Time™ + ReflexConnect 480 Gold data plan	1	\$9,750.00	\$9,750.00
Subtotal			\$9,750.00
Total			\$9,750.00
<b>Amount due</b>			<b>\$9,750.00</b>

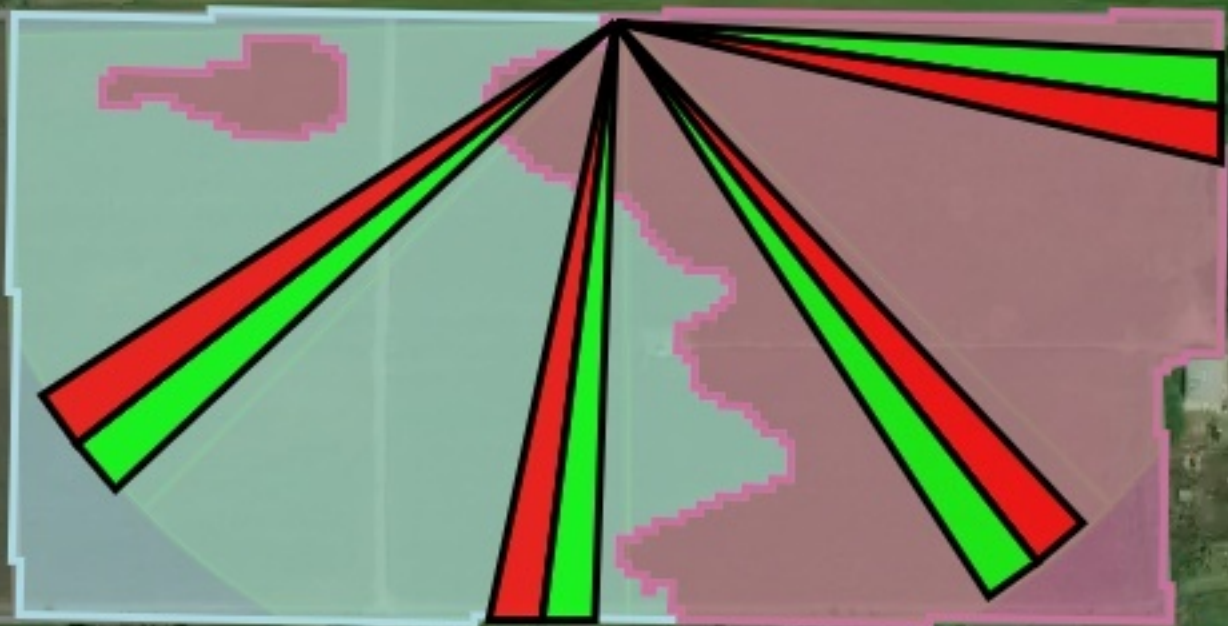
**Pay with ACH or wire transfer**

Bank transfers, also known as ACH payments, can take up to five business days. To pay via ACH, transfer funds using the following bank information.

Bank name WELLS FARGO BANK, N.A.  
Routing number 121000248  
Account number 40630163662664840  
SWIFT code WFBIUS6S





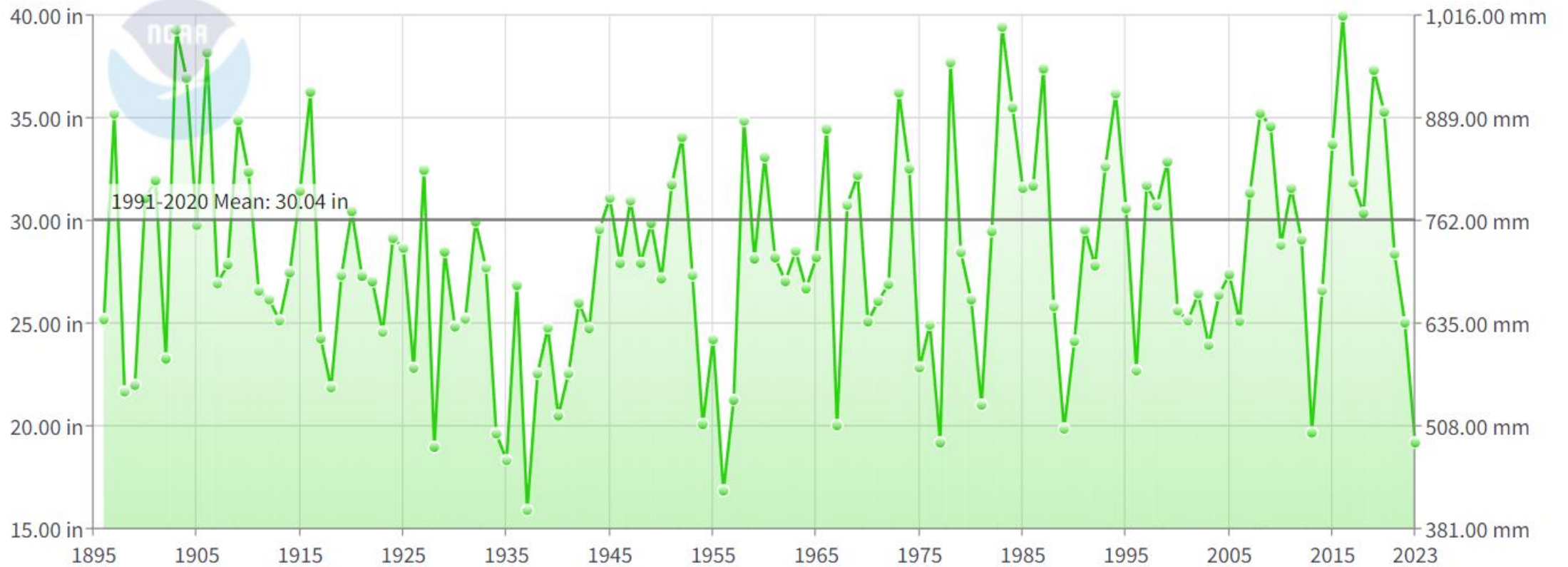


# Weather Update (8 June, 2023)

NEBRASKA STATE  
CLIMATE OFFICE

## Nebraska, Climate Division 6 Precipitation

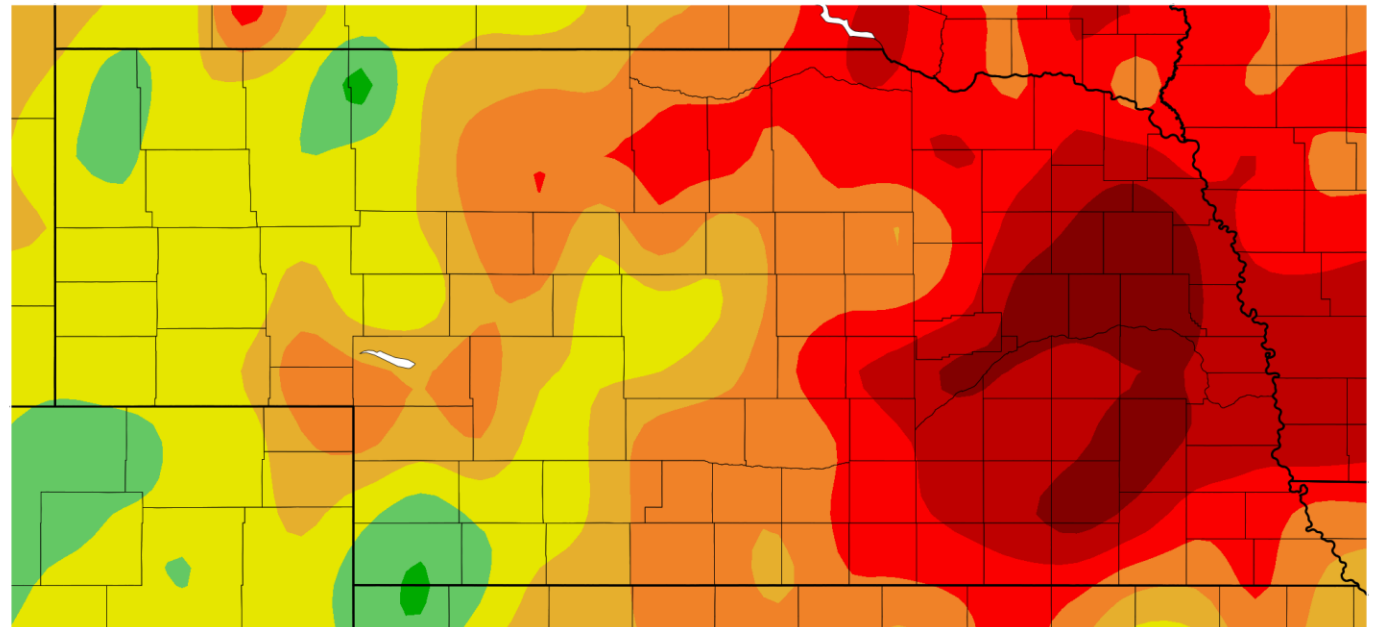
May-April



# 12-month moisture conditions

- **9" or worse deficits for eastern Nebraska.**
- **> 15" deficits for a significant swath in the east.**

Departure from Normal Precipitation (in)  
6/6/2022 – 6/5/2023

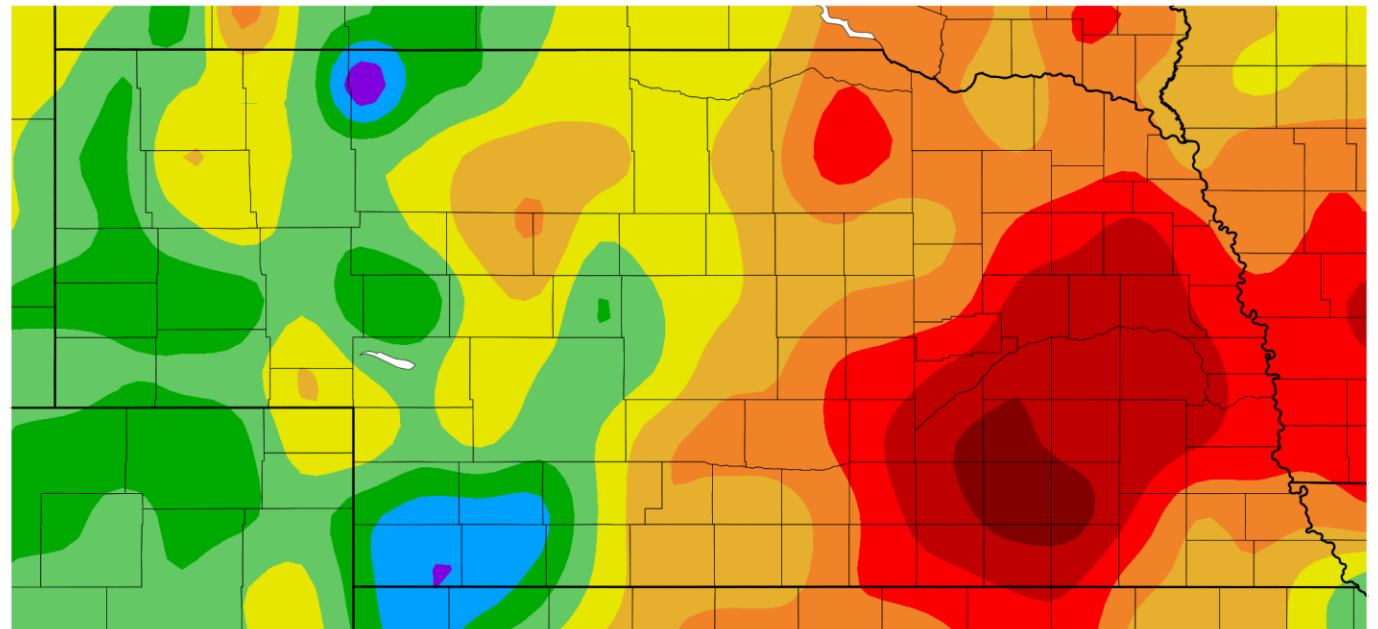


# Water year moisture conditions

NEBRASKA STATE  
CLIMATE OFFICE

- **6 - 10" deficits for eastern Nebraska going back to last October.**

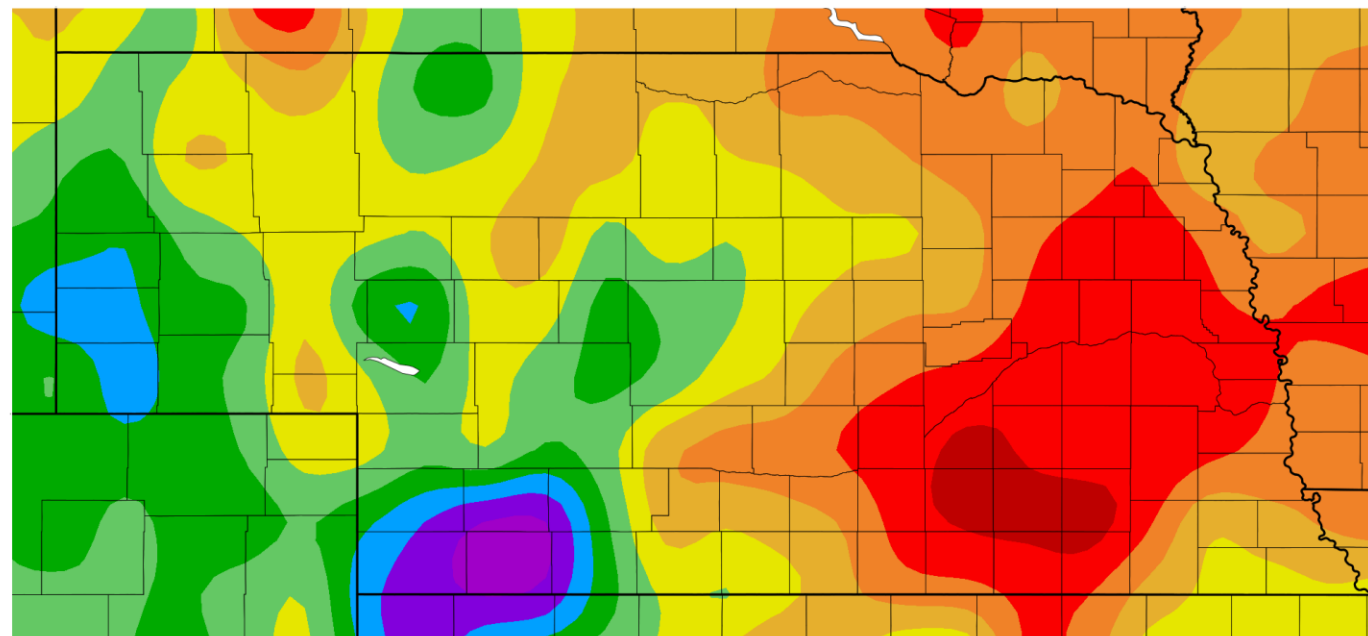
Departure from Normal Precipitation (in)  
10/1/2022 - 6/5/2023



# Recent conditions

- **60 day moisture conditions for eastern Nebraska show strong deficits, during our historically 'wetter' time of year.**

Departure from Normal Precipitation (in)  
4/7/2023 – 6/5/2023



# Current U.S. drought conditions

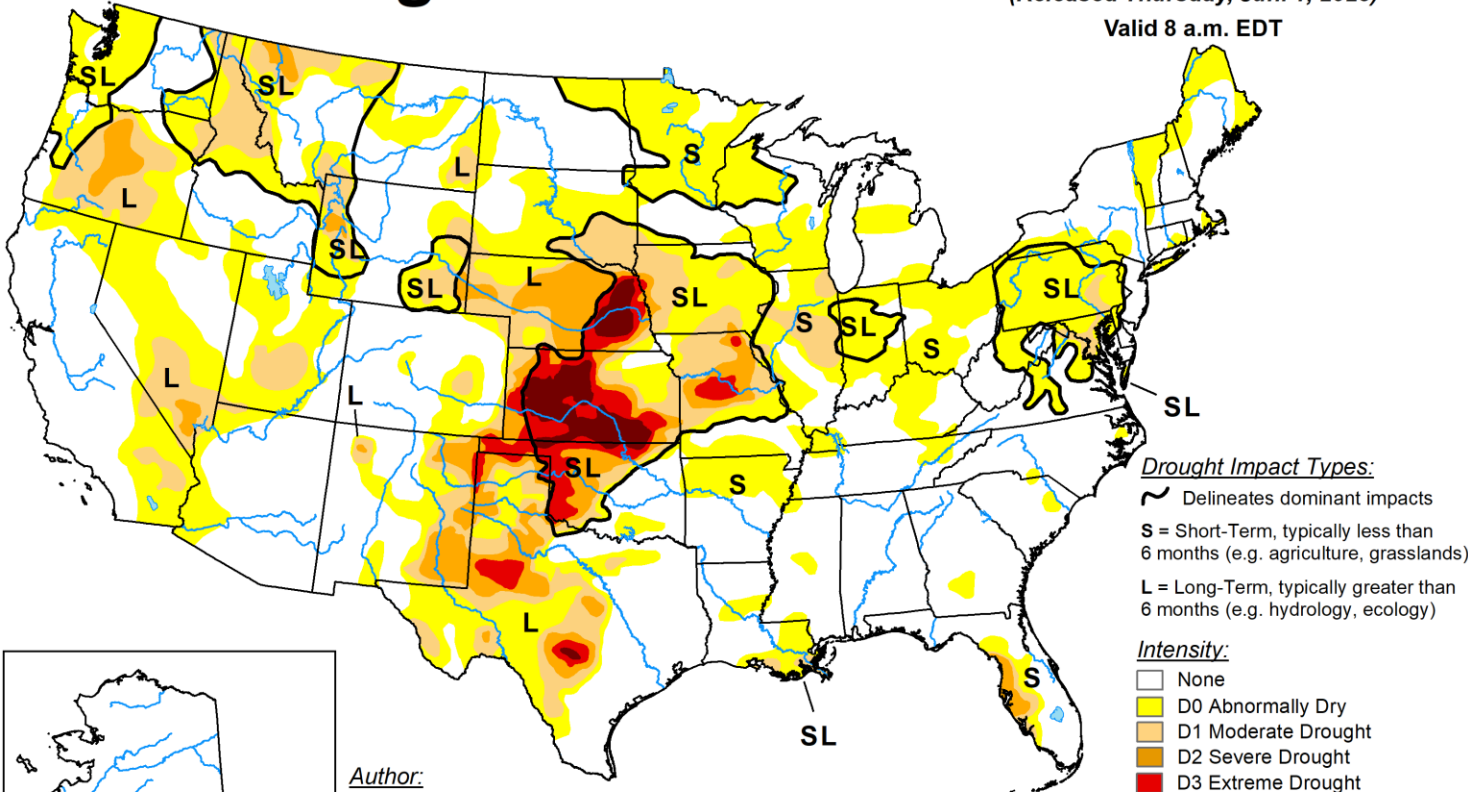
NEBRASKA STATE  
CLIMATE OFFICE

## U.S. Drought Monitor

May 30, 2023

(Released Thursday, Jun. 1, 2023)

Valid 8 a.m. EDT



- **Central and southern Plains are currently in worst of the country's drought conditions.**

Author:  
Richard Heim  
NCEI/NOAA

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>



[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

Source: <https://droughtmonitor.unl.edu/maps/>

# Nebraska drought conditions

## U.S. Drought Monitor Nebraska

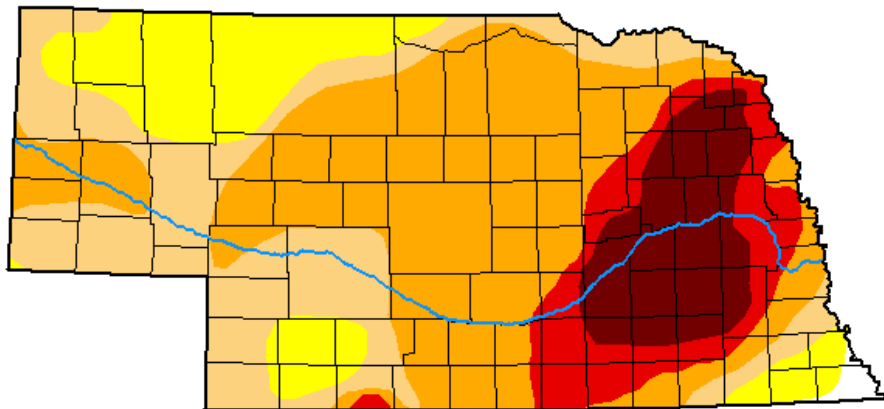
**May 30, 2023**

(Released Thursday, Jun. 1, 2023)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	0.60	99.40	84.41	60.36	20.51	10.86
<b>Last Week</b> 05-23-2023	0.59	99.41	86.82	71.08	18.59	6.92
<b>3 Months Ago</b> 02-28-2023	0.26	99.74	98.39	77.07	40.07	6.12
<b>Start of Calendar Year</b> 01-03-2023	0.00	100.00	99.78	83.95	46.30	12.35
<b>Start of Water Year</b> 09-27-2022	0.00	100.00	94.94	74.27	30.52	10.50
<b>One Year Ago</b> 05-31-2022	5.80	94.20	88.38	44.69	4.95	0.00



Intensity:

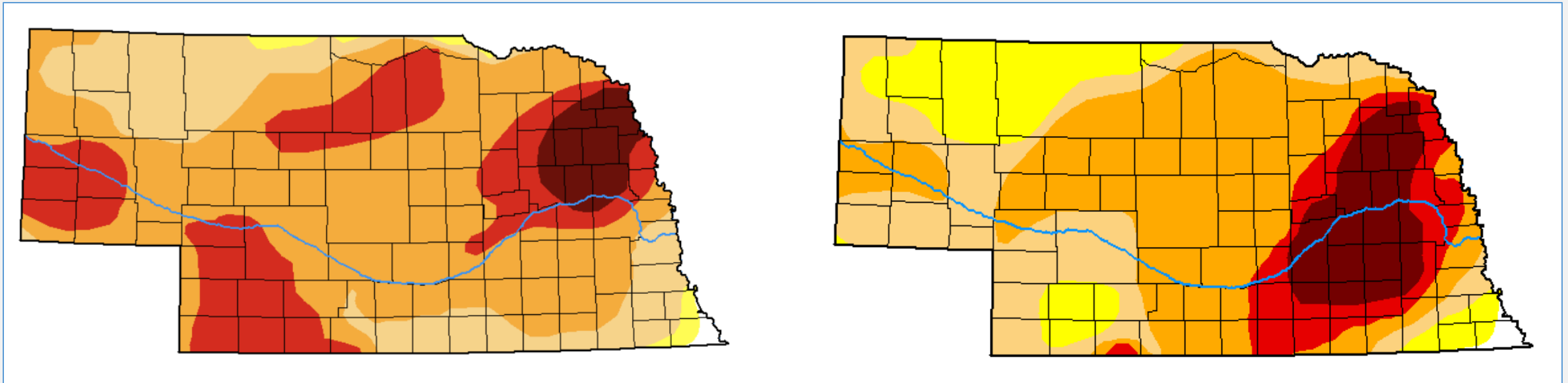
None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought

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>

- **Moderate to exceptional drought covers the Lower Platte region.**

# Drought conditions - change

- **Drought comparison from the previous weather update to this update shows *worsening*, with expansion of *D3 and D4*.**

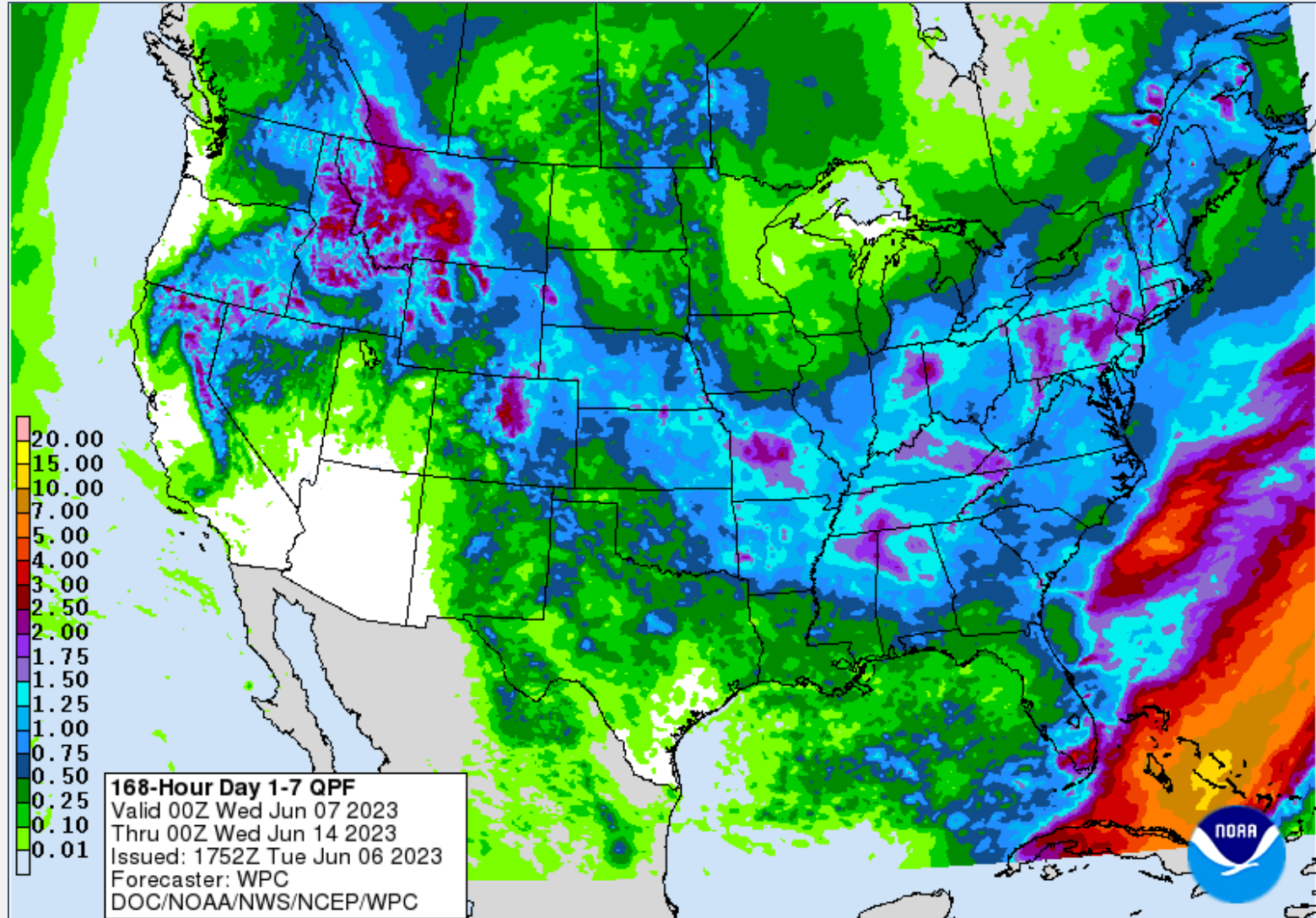


April 11, 2023

June 8, 2022

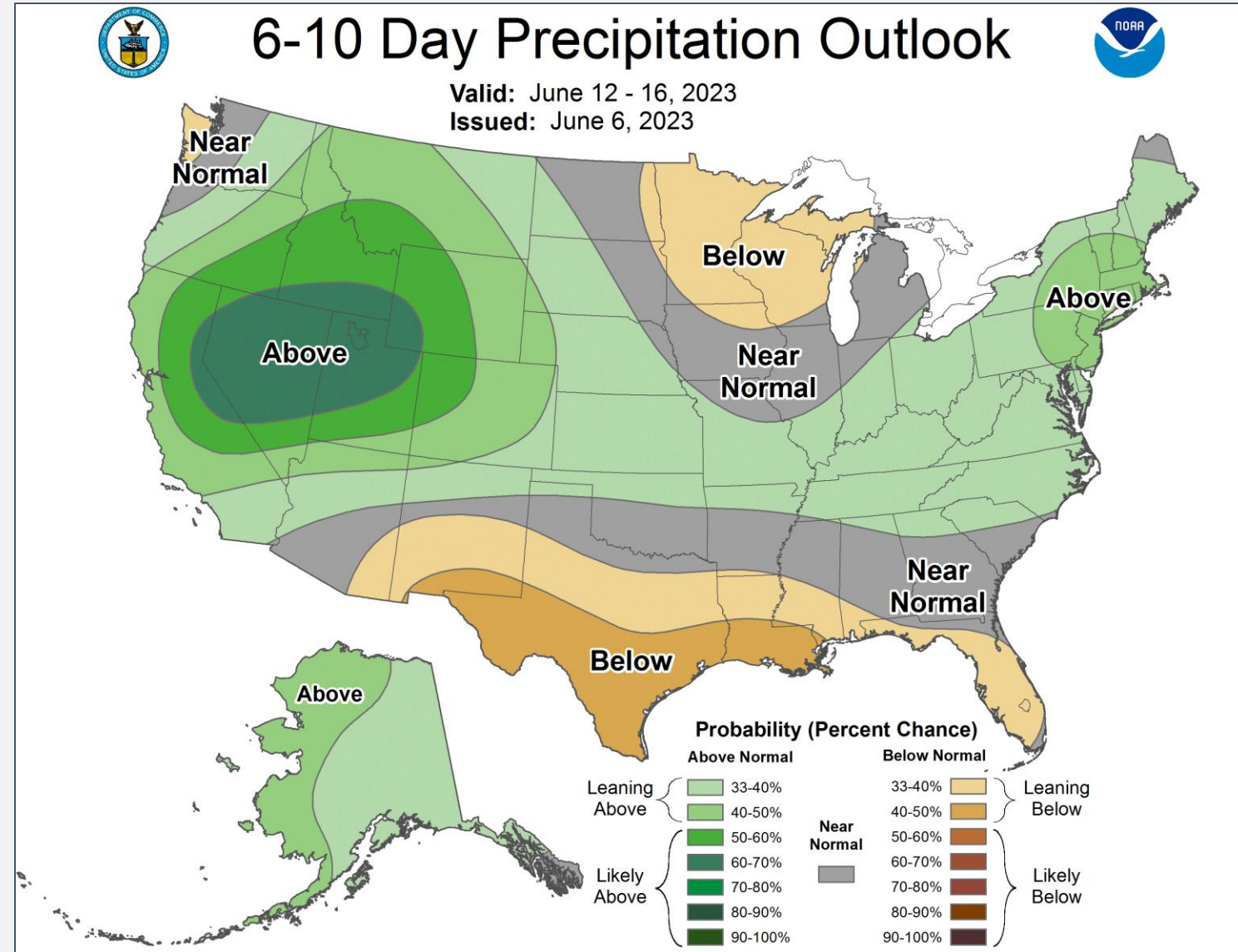
# Looking forward

- **Potential for seasonal precipitation amounts (about an inch) over the next seven day period.**



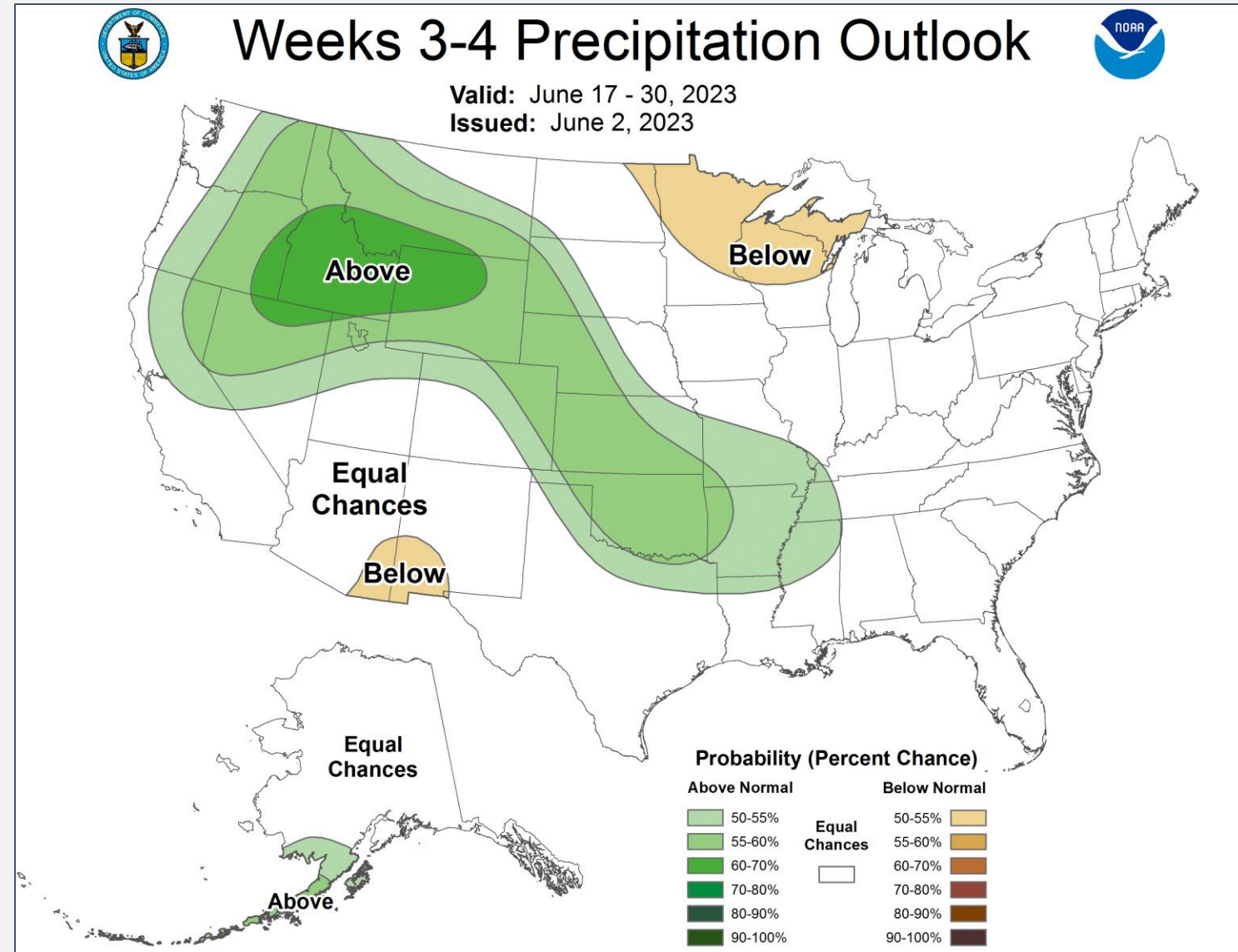
# Looking forward

- **Western U.S. wet signal stays in play for the week ending on June 16.**



# Looking forward

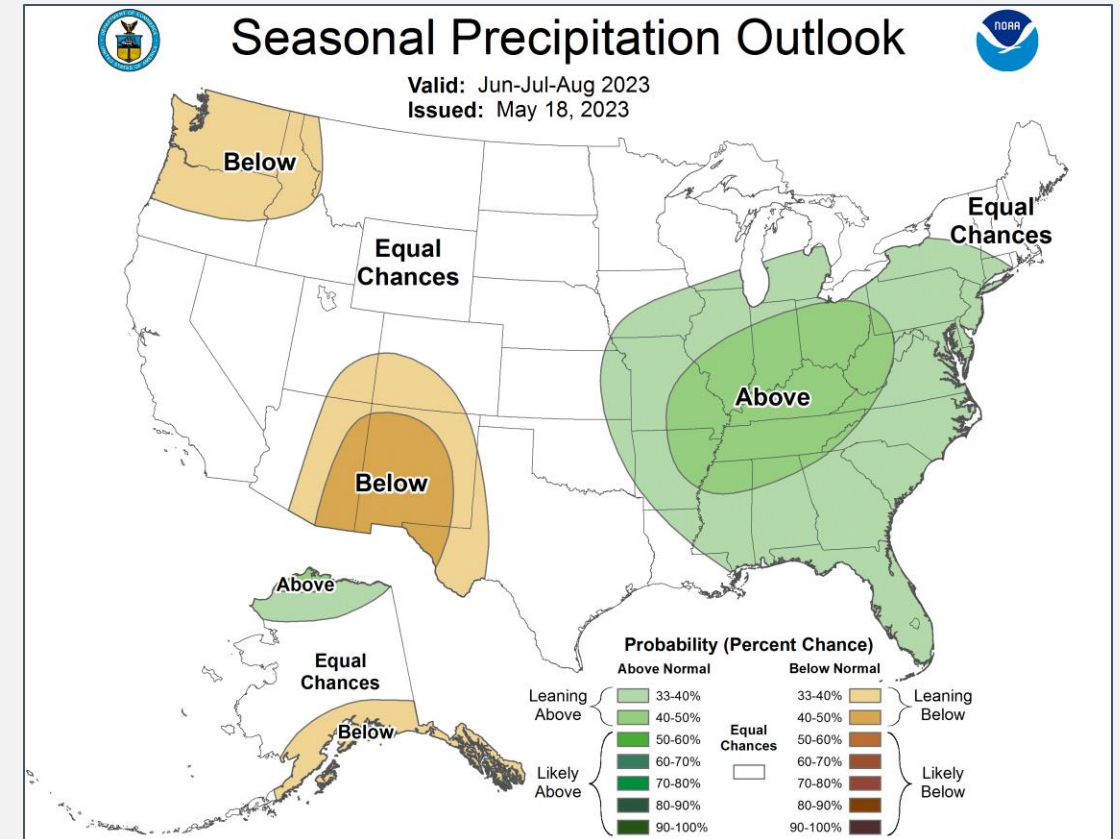
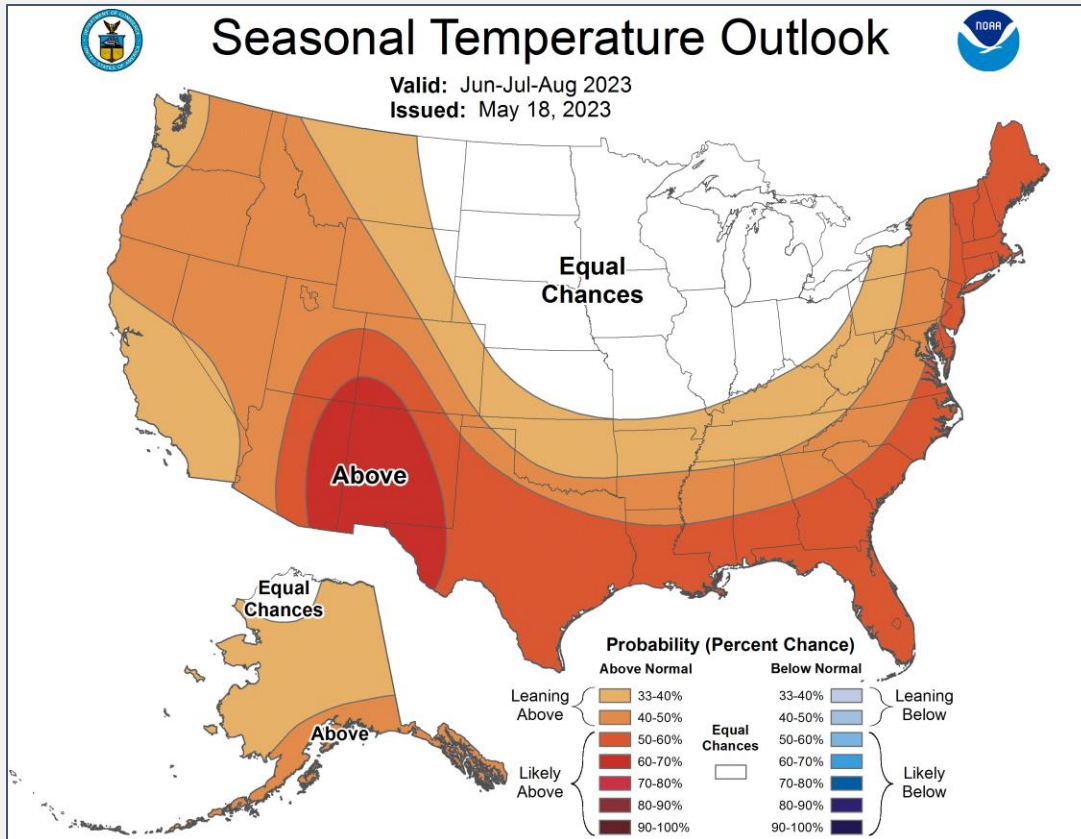
- **Western U.S. wet signal stays in play for the week ending on June 16, and the remainder of June.**





# Summer climate outlook

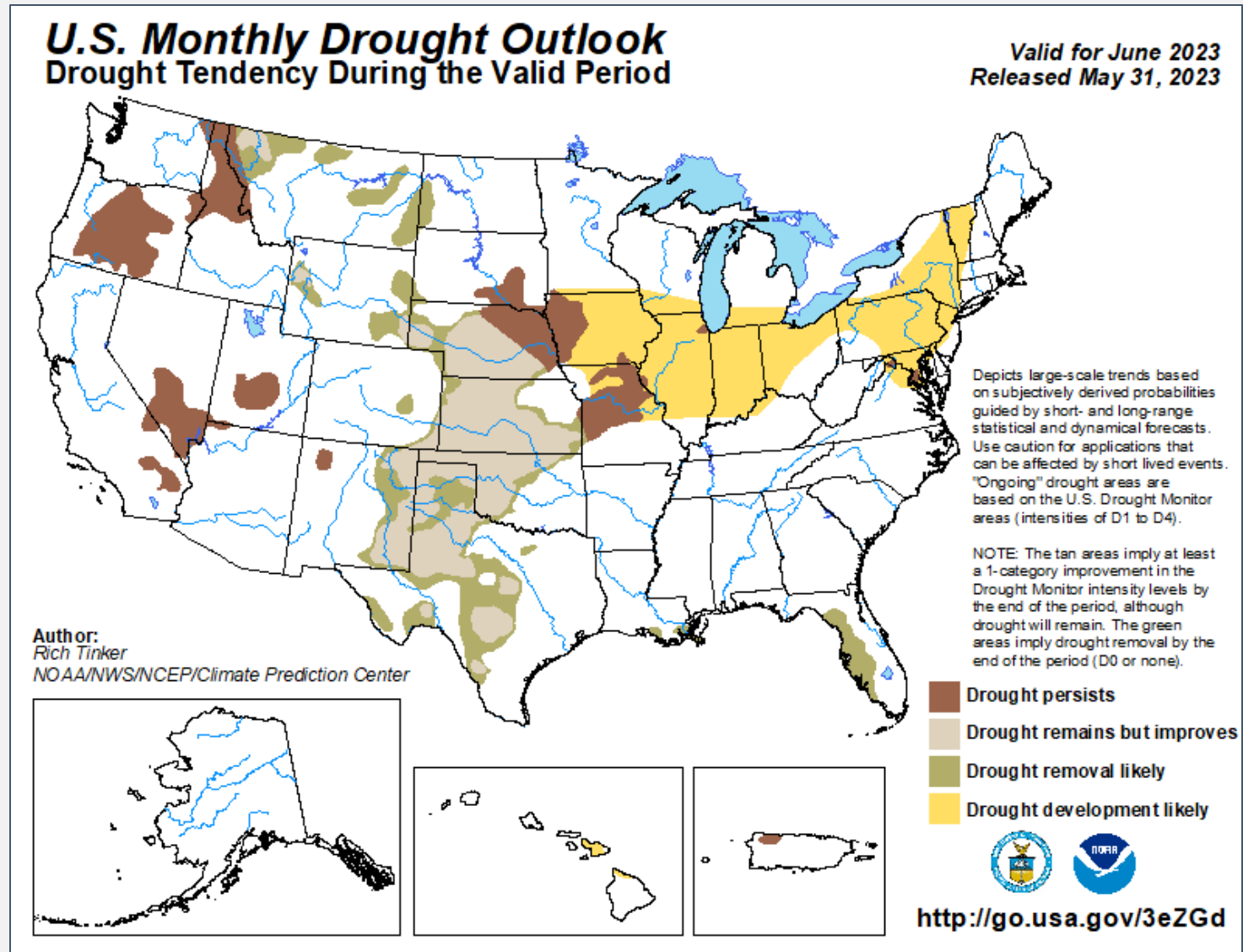
- **Wet signal in the western U.S. disappears. Eastern U.S. has higher probability of moisture. Not much guidance for temperatures. Equatorial Pacific not a specific driver.**



# Drought outlook (June)

NEBRASKA STATE  
CLIMATE OFFICE

- Given the warm signal in eastern Nebraska and little precipitation guidance, the June drought outlook is calling for persistence.
- Drought is also expected to develop to our east, much of this area is currently abnormally dry.



# Key Messages

- **Probability for wetter than normal summer in eastern Nebraska is not high.**
- **No significant drought improvements would be expected across LP region.**
- **Evaporative demand and irrigation needs likely to be higher than average for June.**
- **Moisture likely to consist of isolated pop-up convection rather than large-scale and widespread rain events.**

## Suggested Updates to Lower Platte Drought Contingency Plan

- Executive Summary will need to be updated to include any updates to the Plan.
  
- Update population figures with 2020 census data
  - population by cities in each subbasin pages 8-11
  - Population changes by county, Fig. 38-39 on p. 39
  - P. 45, population of Loup Public Power District's service area
- Update summary of Coalition Plan based on second increment p. 7
- Update Table 2, Minimum Daily Discharge at Duncan p.14
- Update new PRRIP increment p. 15, and changes to flow shortage numbers
- New Fig. 12 "Saturated Thickness of the High Plains Aquifer, 2009" if update exists p. 17
- Update Table 5 and Fig. 19, GW well development p. 23-24
- Update Fig.20 "2012 Estimated Municipal GW Demands by NRD" p. 25
- Update Fig. 29-35 on p.33-36, supply vs. demand
- Fig. 37, high capacity well development
- Vulnerability Assessment p. 41
  - Fig. 42, GW Level Changes p. 43
  - Fig. 43, Percent of Normal Precipitation p. 43
  - P. 45, update with new LWS water source
  - P. 46, update with results of MUD capacity analysis
  - P. 46, update 3.4.1.1 with any further infrastructure failures since 2012
  - P. 47, update drought effects on PRRIP species
  - Update Fig. 45 if available, "Observed and Projected Temperature Change"
- Update Section 4.3 "Historic Occurrences of Drought" if desired, p. 53-57
- Section 5.0 Drought Management
- Section 6.0: Operational and Administrative Framework
- Table A-1: has the Nebraska Drought Plan been updated since 2004?
- A-2 through A-26: have all the Consortium entities followed their individual drought monitoring and response action plans as described?
  - What response activities have been implemented?
  - Do any monitoring and response activities need to be changed based on problems that came up when they were implemented?
- D-1: Update section based on modeling progress



**Quote – Q-108476**

In-Situ, Inc.  
 221 E. Lincoln Avenue  
 Fort Collins, CO 80524  
 U.S.A.

Tel: (800) 446-7488  
 Fax: (970) 498-1598  
 Email: sales@in-situ.com  
 Web: www.in-situ.com

Issued By: Stephane Mary  
 Date: June 28, 2023  
 Quote Valid for 30 days

<b>Sales Manager</b> Stephane Mary	<b>Customer ID</b> 004961	<b>Payment Terms</b> NET 30 DAYS	<b>Shipping Method</b> FedEx Ground	<b>INCO Terms</b>	<b>Final Destination</b> United States Nebraska
---------------------------------------	------------------------------	-------------------------------------	--	-------------------	---

<b>Quote To:</b> Lower Platte North NRD P.O. BOX 126 Wahoo, Nebraska 68066 United States
<b>Attn:</b> Russell Oaklund roaklund@lpnrd.org 4024434675

<b>Ship To:</b> Lower Platte North NRD 511 COMMERCIAL PARK ROAD WAHOO, Nebraska 68066 United States
<b>Comments:</b>

<b>Equipment</b>								
Line	Product Description	Part Number	Unit of Sale	Qty.	Unit List Price	Total List Price	Disc.	Customer Total Price
1.	Level TROLL 500, Level Sensor Range - 70m, 231 ft (100 Psig)	0089030	Each	1	\$1,295.00	\$1,295.00	20.00%	\$1,036.00
2.	Level TROLL 500, Level Sensor Range - 11m, 35 ft (15 Psig)	0089010	Each	1	\$1,295.00	\$1,295.00	20.00%	\$1,036.00
3.	Level TROLL 500, Level Sensor Range - 21m, 69 ft (30 Psig)	0089020	Each	1	\$1,295.00	\$1,295.00	20.00%	\$1,036.00
<b>Subtotal:</b>								<b>\$3,108.00</b>

<b>Quote Total</b>		
<p><i>Tax is not normally quoted due to State &amp; local variability. If you need to have Tax included in this quotation, please contact us.</i></p> <p><i>If your organization is a tax-exempt entity, please email or fax a copy of your tax-exempt certificate to taxcerts@in-situ.com or fax to (970) 498-1598.</i></p> <p><i>Tax rates will be based on delivery address of the order.</i></p>		
	<b>Sales Tax:</b>	<b>\$0.00</b>
<p><i>For further information regarding the Warranty or Terms and Conditions, please refer to our website at <a href="http://in-situ.com/terms-conditions/">http://in-situ.com/terms-conditions/</a></i></p> <p><i>All quoted product &amp; service prices are in U.S. Dollars unless specifically noted otherwise.</i></p>		
	<b>Shipping:</b>	<b>\$145.00</b>
<b>Total Amount (Excludes Optional Items):</b>		<b>USD \$3,253.00</b>



In-Situ, Inc.  
221 E. Lincoln Avenue  
Fort Collins, CO 80524  
U.S.A.

Tel: (800) 446-7488  
Fax: (970) 498-1598  
Email: [sales@in-situ.com](mailto:sales@in-situ.com)  
Web: [www.in-situ.com](http://www.in-situ.com)

**Quote – Q-108476**

Issued By: Stephane Mary  
Date: June 28, 2023  
Quote Valid for 30 days

**Managing your data has never been this easy!**

Our intuitive [VuSitu Mobile App](#) allows you to view data from the field on your smartphone or tablet. For long-term or remote sites, integrate In-Situ instruments with our [wireless telemetry systems](#) and cloud-based [HydroVu Data Services](#) for real-time, decision-quality data. Ask your sales rep for more information.





**Quote – Q-109810**

In-Situ, Inc.  
221 E. Lincoln Avenue  
Fort Collins, CO 80524  
U.S.A.

Tel: (800) 446-7488  
Fax: (970) 498-1598  
Email: sales@in-situ.com  
Web: www.in-situ.com

Issued By: Tony Walker  
Date: July 7, 2023  
Quote Valid for 30 days

<b>Sales Manager</b> Stephane Mary	<b>Customer ID</b> 004961	<b>Payment Terms</b> NET 30 DAYS	<b>Shipping Method</b> FedEx Ground	<b>INCO Terms</b>	<b>Final Destination</b> United States Nebraska
---------------------------------------	------------------------------	-------------------------------------	--	-------------------	---

<b>Quote To:</b> Lower Platte North NRD P.O. BOX 126 Wahoo, Nebraska 68066 United States
<b>Attn:</b> Russell Oaklund roaklund@lpnrd.org 402-443-4675

<b>Ship To:</b> Lower Platte North NRD 511 COMMERCIAL PARK ROAD WAHOO, Nebraska 68066 United States
<b>Comments:</b>

Equipment								
Line	Product Description	Part Number	Unit of Sale	Qty.	Unit List Price	Total List Price	NE NRD Disc.	Customer Total Price
1.	VuLink CI (Global Cellular, does not include antenna)	0094840	Each	64	\$895.00	\$57,280.00	15.00%	\$48,688.00
2.	VuLink 4G/LTE/2G Cellular Antenna with 1.5m cable (IP67, recommended for VuLink CI)	0043630	Each	64	\$35.00	\$2,240.00	15.00%	\$1,904.00
3.	VuLink Lithium Battery Set (Lithium MnO2)	0103050	Each	64	\$80.00	\$5,120.00	15.00%	\$4,352.00
4.	MACE FloSeries3 - HydroMace XCi	850-367	Each	6	\$1,895.00	\$11,370.00	15.00%	\$9,664.50
5.	Provides an XCi device with the ability to control and log SDI-12 sensors.	850-368	Each	12	\$595.00	\$7,140.00	15.00%	\$6,069.00
6.	MACE FloSeries3 - WebComm Card w/ Antenna - 4G (Requires SIM card p/n 0084530 to connect to HydroVu)	850-422	Each	6	\$595.00	\$3,570.00	15.00%	\$3,034.50
7.	HydroVu SIM Card for MACE FloSeries3 WebComm Card - 2G/3G/4G	0084530	Each	6	\$37.00	\$222.00	15.00%	\$188.70
8.	MACE FloSeries3 - Solar Panel (12V/10W)	814-015	Each	6	\$335.00	\$2,010.00	15.00%	\$1,708.50
9.	MACE FloSeries3 - Mounting Kit - Device & Solar Panel (5W/10W)	850-302	Each	6	\$115.00	\$690.00	15.00%	\$586.50
10.	MACE FloSeries3 - USB External Comms Lead	850-363	Each	1	\$195.00	\$195.00	15.00%	\$165.75
11.	Level TROLL 500, Level Sensor Range - 11m, 35 ft (15 Psig) <i>Trade-in Discount for SP4000</i>	0089010	Each	15	\$1,295.00	\$19,425.00	20.00%	\$15,540.00
<b>Subtotal:</b>								<b>\$91,901.45</b>

Optional – Data Services								
Line	Product Description	Part Number	Unit of Sale	Qty.	Unit List Price	Total List Price	Disc.	Customer Total Price
12.	HydroVu Professional Prepaid Code (Months) Year 1	0102510	Each	840	\$20.00	\$16,800.00	50.00%	\$8,400.00
13.	HydroVu Professional Prepaid Code (Months) Year 2	0102510	Each	840	\$20.00	\$16,800.00	50.00%	\$8,400.00
14.	HydroVu Professional Prepaid Code (Months) Year 3	0102510	Each	840	\$20.00	\$16,800.00	50.00%	\$8,400.00
15.	HydroVu Professional Prepaid Code (Months) Year 4	0102510	Each	840	\$20.00	\$16,800.00	50.00%	\$8,400.00



**Quote – Q-109810**

In-Situ, Inc.  
221 E. Lincoln Avenue  
Fort Collins, CO 80524  
U.S.A.

Tel: (800) 446-7488  
Fax: (970) 498-1598  
Email: sales@in-situ.com  
Web: www.in-situ.com

Issued By: Tony Walker  
Date: July 7, 2023  
Quote Valid for 30 days

16.	HydroVu Professional Prepaid Code (Months) Year 5	0102510	Each	840	\$20.00	\$16,800.00	50.00%	\$8,400.00
<b>Subtotal:</b>								<b>\$42,000.00</b>

**Quote Total**

*Tax is not normally quoted due to State & local variability. If you need to have Tax included in this quotation, please contact us.  
If your organization is a tax-exempt entity, please email or fax a copy of your tax-exempt certificate to taxcerts@in-situ.com or fax to (970) 498-1598.  
Tax rates will be based on delivery address of the order.*

**Sales Tax:            \$0.00**

*For further information regarding the Warranty or Terms and Conditions, please refer to our website at <http://in-situ.com/terms-conditions/>*

*All quoted product & service prices are in U.S. Dollars unless specifically noted otherwise.*

**Shipping:**

**Total Amount (Excludes Optional Items):            USD    \$91,901.45**



In-Situ, Inc.  
221 E. Lincoln Avenue  
Fort Collins, CO 80524  
U.S.A.

Tel: (800) 446-7488  
Fax: (970) 498-1598  
Email: [sales@in-situ.com](mailto:sales@in-situ.com)  
Web: [www.in-situ.com](http://www.in-situ.com)

**Quote – Q-109810**

Issued By: Tony Walker  
Date: July 7, 2023  
Quote Valid for 30 days

**Managing your data has never been this easy!**

Our intuitive [VuSitu Mobile App](#) allows you to view data from the field on your smartphone or tablet. For long-term or remote sites, integrate In-Situ instruments with our [wireless telemetry systems](#) and cloud-based [HydroVu Data Services](#) for real-time, decision-quality data. Ask your sales rep for more information.





**In-Situ, Inc.**  
221 E. Lincoln Ave

Fort Collins  
Colorado  
80524  
Telephone: 970 498 1500  
Telephone: 1-800-446-7488  
Facsimile: 970 498 1598



GSA No: GS-24F-0045M

Tax ID: 83-0245889

**Account No. 004961**

---

LOWER PLATTE NORTH NRD NE  
511 COMMERCIAL PARK ROAD  
P.O. BOX 126  
WAHOO  
NE - United States  
68066

MR. LARRY ANGLE  
402-443-4675

**Test Certificate No. 0000024342**

Tuesday, June 20, 2023

**Test Type:** Level Troll  
**Serial No.** 686476

**Test Date:** 6/12/2023  
**Overall Result:** FAIL  
**Linked to RMA:** 0005021817

Test	Units	Result Description	Result
Visual Inspection	O-Rings		PASS
Visual Inspection	Lemo Connector		PASS
Visual Inspection	Sensor Face		PASS
Visual Inspection	Welds		PASS
Service Buddy - Communication	Before Reset		FAIL
Service Buddy - Communication	After Reset		FAIL
Service Buddy - Communication	With External Power		FAIL
Service Buddy	Extract Data (# of Logs)	1	PASS
Internal Inspection			PASS

**Memo:**

**In-Situ, Inc.**  
 221 E. Lincoln Ave  
 Fort Collins, Colorado 80524

Telephone: 970 498 1500  
 Telephone: 1-800-446-7488  
 Facsimile: 970 498 1598



GSA No: GS-24F-0045M

Tax ID: 83-0245889

**RMA Estimate**

**Billing Address**

**Shipping Address**

**Account No 004961**

LOWER PLATTE NORTH NRD  
 NE  
 511 COMMERCIAL PARK ROAD  
 P.O. BOX 126  
 WAHOO  
 NE - United States  
 68066

LOWER PLATTE NORTH NRD NE  
 511 COMMERCIAL PARK ROAD  
 P.O. BOX 126  
 WAHOO  
 NE - United States  
 68066  
 402-443-4675

**RMA Number** 0005021817  
**Estimate Date** 6/20/2023  
**Purchase Order** xxxx0717  
**Payment Terms** NET 30 DAYS

402-443-4675

**Ordered By**

**Serial Number: 686476, LEVEL TROLL 500, 30PSIG**

**Required Parts**

Item Number	Description	Quantity	Price	Discount	Line Total
S100100S	Instrument evaluation Functional and analytical checks	1.00	90.00	0.0%	90.00
S100400S	Level TROLL data extraction Includes resoldering memory chip and extracting logs	1.00	75.00	0.0%	75.00
P0089020S	LEVEL TROLL 500, 30PSIG	1.00	1,295.00	0.0%	1,295.00

**Totals:**

Does not include tax or shipping

**Total**

**1,460.00**

**In-Situ, Inc.**  
221 E. Lincoln Ave  
Fort Collins, Colorado 80524

Telephone: 970 498 1500  
Telephone: 1-800-446-7488  
Facsimile: 970 498 1598



GSA No: GS-24F-0045M

Tax ID: 83-0245889

**RMA Estimate**

**Billing Address**

**Shipping Address**

**Account No 004961**

LOWER PLATTE NORTH NRD  
NE  
511 COMMERCIAL PARK ROAD  
P.O. BOX 126  
WAHOO  
NE - United States  
68066

LOWER PLATTE NORTH NRD NE  
511 COMMERCIAL PARK ROAD  
P.O. BOX 126  
WAHOO  
NE - United States  
68066  
402-443-4675

**RMA Number** 0005021817  
**Estimate Date** 6/20/2023  
**Purchase Order** xxxx0717  
**Payment Terms** NET 30 DAYS

402-443-4675

**Ordered By**

**Serial Number: 686476, LEVEL TROLL 500, 30PSIG**

The equipment listed below was received and evaluated by In-Situ for repairs. The required repair fees for this equipment have exceeded the pre-authorization limit of \$350.00. Your authorization is required before the necessary repairs can be executed. If a response is not received within 15 working days, the equipment may be shipped back with no repairs and the evaluation fee billed to your account.

If possible, please respond within five working days of your receipt of this letter.

To Authorize repairs, or if there are any questions about the repair estimate, please contact a Service Representative via telephone at 1-800-446-7488 Option 3, or fax at (970) 498-1598, or email at Service@in-situ.com. Please have your RMA Number available.

All parts and labor charges are per a standard flat rate. All necessary parts and labor are covered under this flat rate. Completed repairs are invoiced on the date the shipment is returned. All payments are net 30 days. The warranty period for repairs is 90 days. Repair pricing does not include return shipment charges or tax. At our discretion we may use factory-refurbished materials in the repair of all product lines. Each RMA entails a mandatory cleaning and evaluation fee. Cleaning and evaluation is required to produce an accurate repair quotation; this fee is mandatory and not negotiable, regardless of whether or not the total needed repairs are accepted or declined.

**To follow-up on the status of an existing RMA or for more details on standard service procedures, please contact a Service Representative at 1-800-446-7488 Option 3 or Service@in-situ.com.**

**In-Situ, Inc.**  
221 E. Lincoln Ave

Fort Collins  
Colorado  
80524  
Telephone: 970 498 1500  
Telephone: 1-800-446-7488  
Facsimile: 970 498 1598



GSA No: GS-24F-0045M Tax ID: 83-0245889

**Account No. 004961**

---

LOWER PLATTE NORTH NRD NE  
511 COMMERCIAL PARK ROAD  
P.O. BOX 126  
WAHOO  
NE - United States  
68066

MR. LARRY ANGLE  
402-443-4675

**Test Certificate No. 0000024489**

Tuesday, June 20, 2023

**Test Type:** Twist Lock Cable  
**Serial No.** 204970

**Test Date:** 6/17/2023  
**Overall Result:** FAIL  
**Linked to RMA:** 0005021818

Test	Units	Result Description	Result
Visual Inspection	Cable Damage	Cut near Uphole end	FAIL
Visual Inspection	Connectors		PASS
Vent Maintenance	Blow Out Vent Tube		PASS

**Memo:**

**In-Situ, Inc.**  
 221 E. Lincoln Ave  
 Fort Collins, Colorado 80524

Telephone: 970 498 1500  
 Telephone: 1-800-446-7488  
 Facsimile: 970 498 1598



GSA No: GS-24F-0045M

Tax ID: 83-0245889

**RMA Estimate**

**Billing Address**

**Shipping Address**

Account No 004961			
LOWER PLATTE NORTH NRD NE 511 COMMERCIAL PARK ROAD P.O. BOX 126 WAHOO NE - United States 68066  402-443-4675	LOWER PLATTE NORTH NRD NE 511 COMMERCIAL PARK ROAD P.O. BOX 126 WAHOO NE - United States 68066 402-443-4675	<b>RMA Number</b>	0005021818
		<b>Estimate Date</b>	6/20/2023
		<b>Purchase Order</b>	xxxx0717
		<b>Payment Terms</b>	NET 30 DAYS
<b>Ordered By</b>			

**Serial Number: 204970, Rugged Twist Lock Cable**

**Required Parts**

Item Number	Description	Quantity	Price	Discount	Line Total
S100120S	Cable evaluation Visual inspections of cable termination & functional checks	1.00	75.00	0.0%	75.00
S103011S	Twist-Lock connector replacement Includes removal and replacement of one connector	1.00	195.00	0.0%	195.00

<b>Totals:</b>	
Does not include tax or shipping	<b>Total                    270.00</b>

**In-Situ, Inc.**  
221 E. Lincoln Ave  
Fort Collins, Colorado 80524

Telephone: 970 498 1500  
Telephone: 1-800-446-7488  
Facsimile: 970 498 1598



GSA No: GS-24F-0045M

Tax ID: 83-0245889

**RMA Estimate**

**Billing Address**

**Shipping Address**

**Account No 004961**

LOWER PLATTE NORTH NRD  
NE  
511 COMMERCIAL PARK ROAD  
P.O. BOX 126  
WAHOO  
NE - United States  
68066

LOWER PLATTE NORTH NRD NE  
511 COMMERCIAL PARK ROAD  
P.O. BOX 126  
WAHOO  
NE - United States  
68066  
402-443-4675

**RMA Number** 0005021818  
**Estimate Date** 6/20/2023  
**Purchase Order** xxxx0717  
**Payment Terms** NET 30 DAYS

402-443-4675

**Ordered By**

**Serial Number: 204970, Rugged Twist Lock Cable**

The equipment listed below was received and evaluated by In-Situ for repairs. The required repair fees for this equipment have exceeded the pre-authorization limit of \$350.00. Your authorization is required before the necessary repairs can be executed. If a response is not received within 15 working days, the equipment may be shipped back with no repairs and the evaluation fee billed to your account.

If possible, please respond within five working days of your receipt of this letter.

To Authorize repairs, or if there are any questions about the repair estimate, please contact a Service Representative via telephone at 1-800-446-7488 Option 3, or fax at (970) 498-1598, or email at Service@in-situ.com. Please have your RMA Number available.

All parts and labor charges are per a standard flat rate. All necessary parts and labor are covered under this flat rate. Completed repairs are invoiced on the date the shipment is returned. All payments are net 30 days. The warranty period for repairs is 90 days. Repair pricing does not include return shipment charges or tax. At our discretion we may use factory-refurbished materials in the repair of all product lines. Each RMA entails a mandatory cleaning and evaluation fee. Cleaning and evaluation is required to produce an accurate repair quotation; this fee is mandatory and not negotiable, regardless of whether or not the total needed repairs are accepted or declined.

**To follow-up on the status of an existing RMA or for more details on standard service procedures, please contact a Service Representative at 1-800-446-7488 Option 3 or Service@in-situ.com.**