

Water Committee Meeting  
Wednesday, May 31, 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. Complaint Discussion

At last month's Committee and Board Meeting, constituents from the District asked the District to discuss an issue located in Section 4-15N-1E in Butler County. Staff met with both parties and they agreed to attend the Water Committee meeting on May 31.

Both parties were present at the Committee meeting. After discussion on surveying the land, erosion issues and compliance review by NRCS, the parties were going to work together on solving the issue. They are supposed to keep NRD staff informed on the solutions decided by the parties.

Comments from Jovan Lausterer - LPNNRD legal representative on May 1, 2023:

The Variance Application includes conditions which includes the following language "the district may void an approved variance at any time if the Board finds good cause to do so." It is my opinion then that if the District believes that good cause may exist to void a variance then they would set the matter for hearing before the board, hold an administrative hearing with the owner being entitled to present its case, and the Board would vote on whether "good cause" exists to void the variance or not.

Furthermore, your stay management area adopted rules also have Section L, Rule 11 which allows the District to "cancel or void an approved variance at any time if the Board finds violation of the Districts rules and regulations..."

Finally, the Rule 10(4) suggests that you can place a variance up for renewal review. The rule is silent if this is required to be done at the outset or if the District could later implement a renewal on a variance. As such, one could argue that if you decide not to void the variance that the Board could place it up for annual renewal in order to keep monitoring the situation.

Jovan W. Lausterer

Pictures attached.

2.A.2. Variance Request in the Hydrologically Connected Area (Limited Development Area)

John Healy/Lonnie Kitt submitted an application last fall for expanded water use from an existing well in the NE 1/4 of S24-17-3E Colfax County. Currently, well G-035877 is used to flush an irrigation system that covers 225.1 acres. The main water source is the City of Schuyler lagoons. They would like to add another pivot irrigated system of 50 acres to the current system and continue to utilize the lagoon water.

The committee felt this would be a good cause variance but wanted to consider the amount of water being pumped by the irrigation well. Staff will contact John Healy to discuss the options.

The application scored 307.7 with limiting factors in stream depletion and saturated thickness, which is to be expected with applications this close to the river.

2.A.3. Variance with Allocation

Crucible Farms has submitted an application for a variance with an allocation in S1/2 SE1/4 Section 11-16N-2E, Butler County. The well G-169245 currently irrigates 39.16 acres in NE SE S11-16N-2E. He would like to add an additional 33.84 acres, which would increase the total acres to 73 acres. With the additional acres with a 27 inch rolling allocation, it would give Crucible Farms 14.48 acre inches over a 3 year period ending October 2026.

Attachments.

2.A.4. Well Permit Program

2.A.4.a. Well Permits Approved

Wells Permits Approved: #

Landowner	Number of Wells	Number of New Irrigated Acres	Type of Well

The total number of approved permits for 2022 is #

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

County	Irrigation - New	Irrigation - Replacement	Stock
Butler			
Colfax			
Dodge			
Boone			
Madison			
Platte			
Saunders			
<b>Total</b>			

2.A.5. Cost Share Programs

2.A.5.a. Flow Meter Maintenance Program

An Invoice for \$23,876 from Island Lawn & Snow per flow meter maintenance contract.

2.A.6. Bellwood Phase 2 Area

2023 is the twenty-first year for this Phase 2 Area.

Nitrate-nitrogen Range	Percent Nitrate-nitrogen 0 to 8.0 ppm	Percent Nitrate-nitrogen 8.01 to 10.00 ppm	Percent Nitrate-nitrogen 10.01 to 15 ppm	Percent Nitrate-nitrogen greater than 15 ppm
0 to 25 ppm	46.3% (44 of 95)	8.4% (8 of 95)	45.3% (43 of 95)	
0 to 25 ppm	47% (44 of 94)	15% (14 of 94)	38% (36 of 94)	
0 to 24 ppm	41% (29 of 71)	14% (10 of 71)	45% (32 of 71)	

	0 to 31 ppm	48% (48 of 100)	9% (9 of 100)	43% (43 of 100)	
	0 to 28 ppm	53.75% (43 of 80)	7.5% (6 of 80)	38.75% (31 of 80)	
	0 to 22 ppm	45.5% (41 of 90)	15.5% (14 of 90)	39% (35 of 90)	
	0 to 35.7 ppm	48.65% (54 of 111)	11.71% (13 of 111)	39.64% (44 of 111)	
	0 to 26.6 ppm	51% (56 of 110)	6% (7 of 110)	43% (47 of 110)	
	0 to 28.9 ppm	57% (61 of 107)	9% (10 of 107)	34% (36 of 107)	
	0 to 25.8 ppm	50% (53 of 107)	9% (10 of 107)	14% (44 of 107)	26%
	0 to 22.3 ppm	51% (55 of 108)	13% (14 of 108)	18% (39 of 108)	20%
	0 to 32.3 ppm	43% (31 of 72)	8% (6 of 72)	14% (35 of 72)	33%
	0 to 35.1 ppm	34% (25 of 74)	11% (8 of 74)	26% (41 of 74)	26%
	0 to 23.5 ppm	36% (27 of 74)	15% (11 of 74)	19% (36 of 74)	22%
	0 to 30.9 ppm	40% (25 of 63)	11% (7 of 63)	22% (31 of 63)	28%

	0 to 24.5 ppm	46% (22 of 48)	10% (5 of 48)	28% (21 of 48)	22%
	0 to 20.5 ppm	33.33% (20 of 60)	13.33% (8 of 60)	35% (21 of 60)	18.33% (11 of 60)
	0.12 to 27.7 ppm	40.6% (26 of 64)	15.6% (10 of 64)	25% (16 of 64)	18.8% (12 of 64)
	0.13 to 23.0 ppm	43.75% (28 of 64)	12.50% (8 of 64)	26.56% (17 of 64)	17.19% (11 of 64)

### 2.A.7. Richland - Schuyler Phase 3 Area

2023 is the eighth year of this Phase 3 Area. This Phase 3 area went into effect September 1, 2015. The 55 sections of this area first went into a Phase 2 Area in 2004. The ten sections that were in Phase 2 are now in Phase 3. As such, the 2020, 2021 and 2022 numbers (at bottom of table) are for 65 sections.

Year	Nitrate-nitrogen Range	Percent Nitrate-nitrogen 0 to 8.0 ppm	Percent Nitrate-nitrogen 8.01 to 10.00 ppm
2004	0 to 47 ppm	30% (42 of 139)	10% (14 of 139)
2005	0 to 120 ppm	31.3% (74 of 236)	10.2% (24 of 236)
2006	0 to 53 ppm	28% (50 of 181)	14% (26 of 181)
2007	0 to 99 ppm	32% (75 of 231)	10% (22 of 231)
2008	0 to 46 ppm	28% (53 of 190)	12% (23 of 190)
2009	0 to 57 ppm	33% (72 of 216)	6% (13 of 216)
2010	0 to 57.5 ppm	31% (70 of 229)	7% (15 of 229)
2011	0 to 65.8 ppm	28% (67 of 241)	9% (21 of 241)
2012	0 to 52.6 ppm	29% (70 of 241)	9% (21 of 241)
2013	0 to 94.0 ppm	25% (63 of 252)	9% (23 of 252)
2014	0 to 101.0 ppm	27% (68 of 251)	9% (22 of 251)
2015	0 to 53.3 ppm	23% (55 of 238)	12% (29 of 238)
2016	0 to 50.5 ppm	25% (58 of 228)	10% (22 of 228)
2017	0 to 53.4 ppm	25% (60 of 238)	6% (14 of 238)

2018	0 to 56.9 ppm	26.5% (50 of 189)	6.3% (12 of 189)
2019	0 to 39.4 ppm	25% (53 of 209)	11% (22 of 209)
2020	0 to 50.8 ppm	26% (69 of 261)	6% (15 of 261)
2021	0 to 43.0 ppm	25.5% (67 of 263)	8.4% (22 of 263)
2022	0 to 58.5 ppm	23.0% (57 of 248)	6.45% (16 of 248)

**2.B. CHEMIGATION**

For 2023 we have 425 renewals and 16 new permit applications for a current total of 441. Inspections for 0 renewal permits have been completed.

**2.C. GROUND WATER ENERGY LEVELS**

Attached are a couple of maps comparing 2021 to 2023 GWEL. Staff will continue to look at different ways of presenting the data.

**2.D. GROUND WATER QUALITY SAMPLING**

Information on results from wells sampled in the Mead area.

**3. GROUND WATER PROGRAMS**

**3.A. DECOMMISSIONED WELL PROGRAM**

**3.A.1. Well Estimates**

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

Well Owner	Type of Well	Cost Share Estimate	County

**3.A.2. Plugged Wells**

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

Well Owner	Type of Well	Cost Share Estimate	County

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

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

An invoice is attached for \$10,845.50 from LRE per contract for Geological Assessment.

Practices approved as of 5/26/2023:

- 54 water flow meters
- 2 Gravity to Pivot conversions
- 2 Gravity to SDI conversions
- 3 Cover Crop Applications
- 3 Soil Moisture Sensors

#### 3.B.2. TAPS PROGRAM

From Chuck Burr:

We have a TAPS participant from your NRD, Daniel Hilger. We were wondering if the Lower Platte North would consider being a sponsor for TAPS???

Most of the other NRD's that are sponsors contribute \$500 for 1 participant or \$1,000 for two or more participants. Sponsors logos are included on our website, on all presentations and in the annual Banquet Report. If you are interested, we can send an invoice.

Let me know if the Lower Platte North is interested in contributing.

Thanks for considering,

Chuck Burr  
Crops and Water Extension Educator  
Nebraska Extension  
402 W. State Farm Road  
North Platte, NE 69101  
308-696-6783  
[chuck.burr@unl.edu](mailto:chuck.burr@unl.edu)



What is TAPS:

The University of Nebraska Testing Ag Performance Solutions (UNL-TAPS) is an innovative program developed by University of Nebraska research and extension specialists and educators. Rather than the typical teacher and student paradigm, the program facilitates a number of interactive real-life farm management competitions. These competitions bring together UNL scientists and extension professionals, producers, industry leaders, agriculture students, government regulators and agency personnel to become part of a highly engaged network focused on evolving profitability and input-use efficiency. This low-risk environment offers participants the ability to test a large variety of strategies and technologies, as well as gives them access to a large dataset from the competitions at the end of the year. This program is supported by University of Nebraska extension, natural resources districts, non-profit organizations, industry leaders and financial industries to name a few.

**Mission Statement:** To fully engage agriculturalists, scientists, educators, students and industry in an innovative endeavor, to TAP into the University of Nebraska's potential to facilitate and create an environment for all stakeholders to work together in finding solutions through innovation, entrepreneurialism, technological adoption, new managerial applications, improved techniques, and cutting edge methodologies for Nebraska's future farm's, farm businesses, and farm families to maintain profitability, sustainability, and productivity.

### 3.B.3. Lower Platte River Consortium

Please give this month's episode a listen! (*Links below.*)

*"Dehvyne and Alexa chat with the Lower Platte Drought Consortium (LPDC) group: Jennifer Schellpeper from NeDNR, Amanda Grint from Papio Missouri River NRD, Paul Zillig from Lower Platte South NRD, Daryl Anderson from Lower Platte North NRD, Steve Owen from Lincoln Water, and Rick Kubat from Metropolitan Utilities District (MUD) of Omaha!  
Listen to learn more about this group's efforts regarding drought in the Lower Platte!"*

Listen here:

Podbean: <https://aroundthewatercoolerwithnednr.podbean.com/>

Spotify:

<https://open.spotify.com/show/2cFylo7XfcuYBrGXGdqTzS?si=18fe3932440c4eb7>

YouTube:

<https://www.youtube.com/playlist?list=PLQkcHwxqTsxtZPcALRELFxxUFobLY9aai>

Google Podcasts:

[https://podcasts.google.com/feed/aHR0cHM6Ly9mZWVklmBvZGJlYW4uY29tL0Fyb3VuZHRoZVdhZGVyY29vbGVyd2I0aE5IRE5SL2ZlZWQueG1s?sa=X&ved=0CACQrrcFahcKEwiA\\_tOHs\\_X9AhUAAAAAHQAAAAAQAg&pli=1](https://podcasts.google.com/feed/aHR0cHM6Ly9mZWVklmBvZGJlYW4uY29tL0Fyb3VuZHRoZVdhZGVyY29vbGVyd2I0aE5IRE5SL2ZlZWQueG1s?sa=X&ved=0CACQrrcFahcKEwiA_tOHs_X9AhUAAAAAHQAAAAAQAg&pli=1)

Thank you guys for working with us on this! You were awesome. ??

**Dehvyne Ashmore - C.L.S.S.Y.B.**

Administrative Programs Officer I | Director's Support Division

**Nebraska Department of Natural Resources**  
245 Fallbrook Blvd., Suite 201  
Lincoln, Nebraska 68521-6729

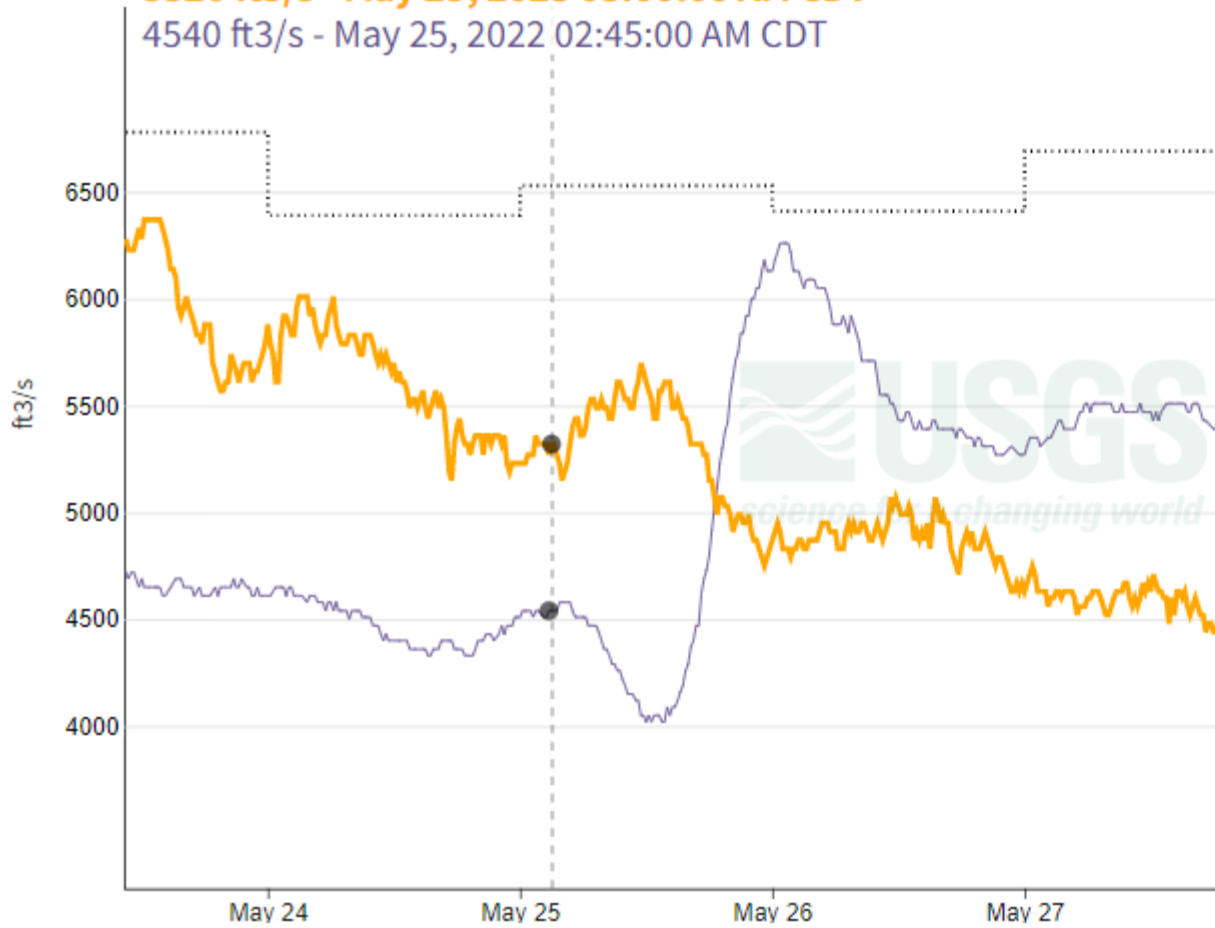
# Platte River Near Ashland, M

May 23, 2023 - May 30, 2023

Streamflow, ft<sup>3</sup>/s ⓘ

5320 ft<sup>3</sup>/s - May 25, 2023 03:00:00 AM CDT

4540 ft<sup>3</sup>/s - May 25, 2022 02:45:00 AM CDT



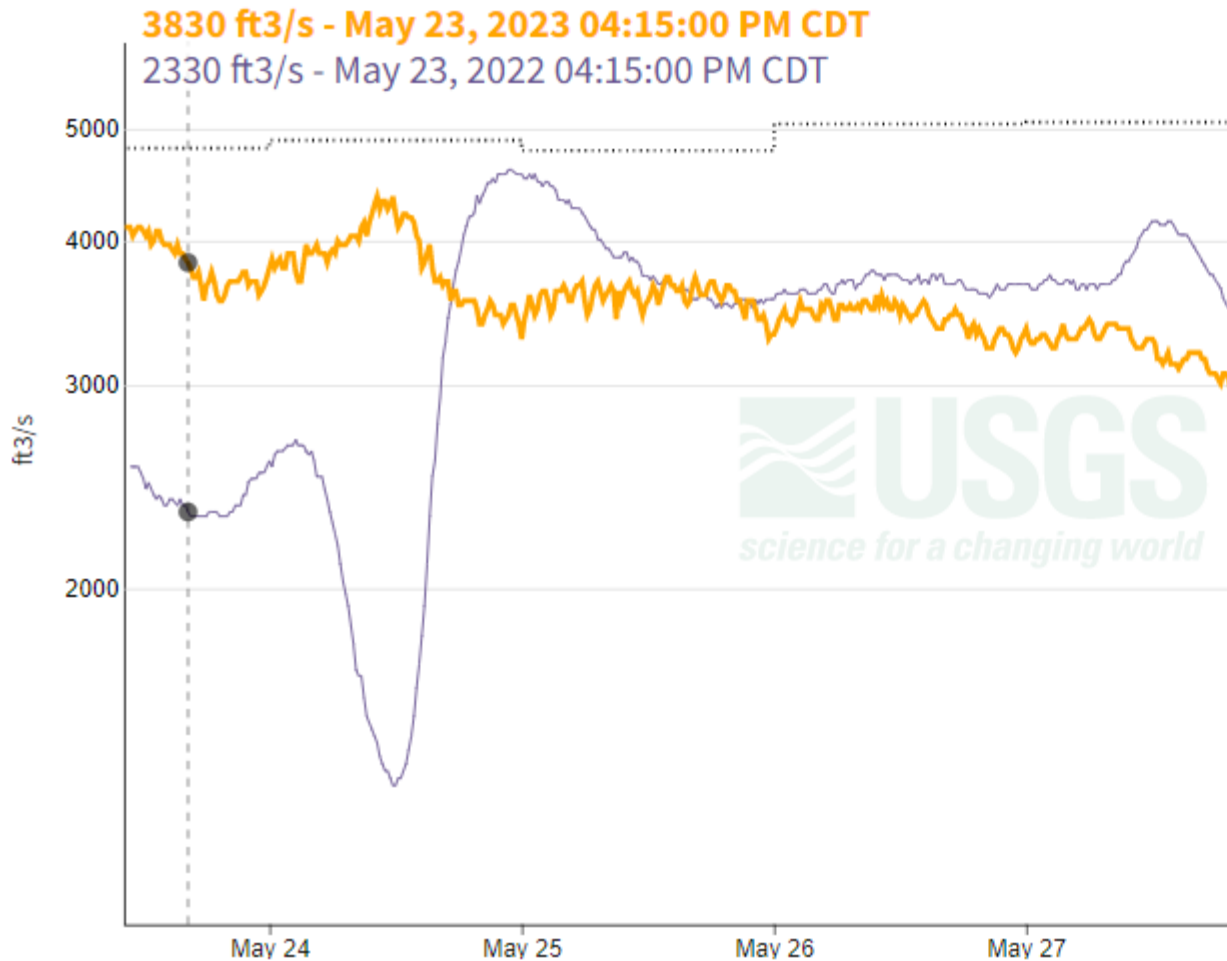
To zoom, click graph and scroll

	Value	Status
● Latest value	3930 ft <sup>3</sup> /s	Provisional
● Selected	5320 ft <sup>3</sup> /s	Provisional
● Compare	4540 ft <sup>3</sup> /s	Approved
● Median		

# Platte River at North Bend, N

May 23, 2023 - May 30, 2023

Streamflow, ft<sup>3</sup>/s ⓘ



To zoom, click graph and scroll

	Value	Status
● Latest value	2860 ft <sup>3</sup> /s	Provisional
● Selected	3830 ft <sup>3</sup> /s	Provisional
● Compare	2330 ft <sup>3</sup> /s	Approved
● Median		

3.C. NEW MONITORING WELLS

Discussion on data loggers in the LPN monitoring wells. The staff explained the different options for the Committee to consider. Attached are quotes from January 2020.

Staff will obtain additional information for the board meeting.

3.D. Source Water Protection

Three communities have applied for a Source Water Protection Grant through NDEE. The communities are Lindsay, Newman Grove and Platte Center. If the grants are approved, they will be updating their Wellhead Protection Maps, increase education and water sampling. The LPN will be assisting in the education, water sampling efforts and well decommissioning as part of the in-kind match.

Since the committee meeting, Lindsay has decided not to pursue a Source Water Protection Grant.

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](#)).

Good news for Memorial Day Weekend! There will be **NO** 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
NONE !!!			

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 <i>E.coli</i> Bacteria		
Lake	<i>E.coli</i> (mpn)	Sample Date
Lake Minatare	665	5/22/23

*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.

Little to report this week, which is a good thing! Lake Minatare was the only lake that tested high for *E.coli*. Looks like weather across the state is

shaping up to be perfect this weekend. So, head out to your favor lake and enjoy your holiday 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

5. GMDA Conference  
GMDA conference is being held in Santa Fe. Agenda attached.
  6. OTHER
- 6.A. COMMENTS FROM THE PUBLIC

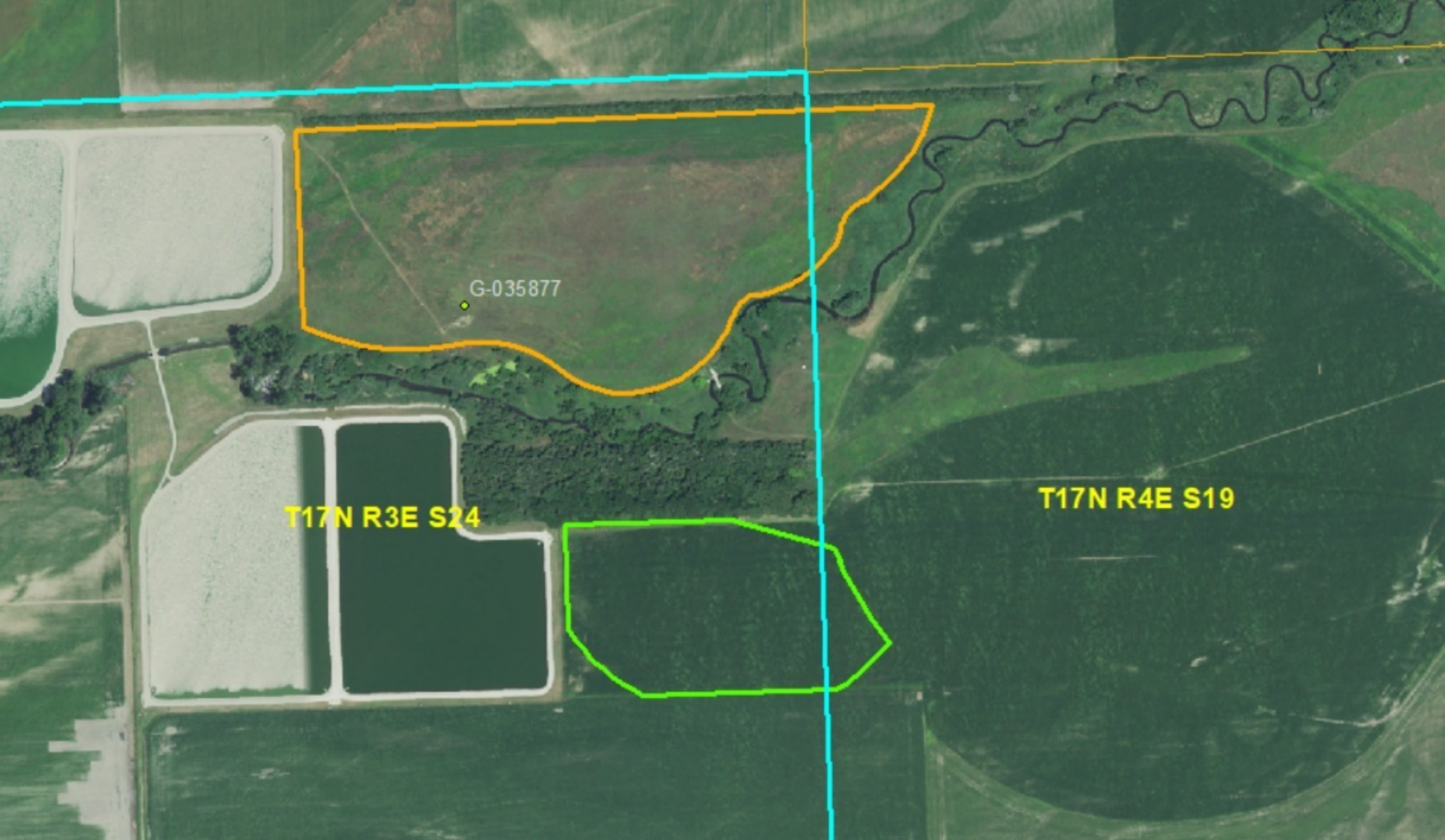












G-035877

T17N R3E S24

T17N R4E S19

# VARIANCE REQUEST FOR EXPANDED WATER USE FROM EXISTING WELL IN A STAY MANAGEMENT AREA OF THE LOWER PLATTE NORTH NRD (LPNNRD)

*with Allocation*



Updated Form: August 2012

**NRD USE ONLY**

Date Received 5/31/2023 Paid: Cash or Check 7907 7500  
 Initial Review by NRD Representative QA  
 Certified Acres \_\_\_\_\_ by NRD Representative \_\_\_\_\_  
 Date of Water Committee Recommendation to the NRD Board \_\_\_\_\_  
 Date NRD Board issues Conditional Approval or Denial of Variance Request \_\_\_\_\_  
 Date of Approved Variance \_\_\_\_\_ by NRD Representative \_\_\_\_\_

**ALL APPLICANTS SEEKING A VARIANCE MUST COMPLETE PAGES 1 AND 2. (CLASS 1-4 VARIANCE)**  
**VARIANCE REQUESTS FOR IRRIGATED ACRES GREATER THAN 160 ACRES IN SIZE OR TOTAL ANNUAL WATER USE BETWEEN 150 AND 300 ACRE FEET PER YEAR MUST COMPLETE PAGES 1, 2, AND 3. (CLASS 3 VARIANCE)**  
**VARIANCE REQUESTS FOR TOTAL ANNUAL WATER USE EQUAL TO OR GREATER THAN 300 ACRE FEET PER YEAR, REGARDLESS OF NUMBER OF IRRIGATION ACRES, MUST COMPLETE PAGES 1, 2, AND 4. (CLASS 4 VARIANCE)**

**1. NAME AND ADDRESS OF APPLICANT:**

Crucible Farms  
11411 23rd Road  
Bellwood NE 68624

Home Phone: (402) - 538 - 2624  
 Cell Phone: (402) - 367 - 2039  
 Landowner Name: \_\_\_\_\_  
 (if other than applicant)

**2. PURPOSE OF EXPANDED WATER USE (indicate one or more):**

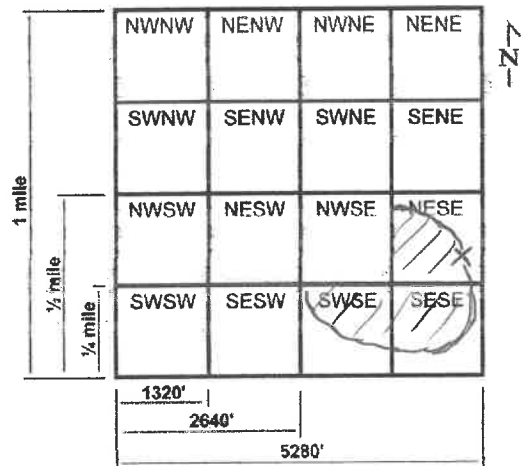
- Irrigation
- Livestock
- Industrial
- Recovery or Remediation
- Dewatering (Over 30 days)
- Domestic (Irrigation on one acre or larger)
- Public Water Supply
- Other (specify) \_\_\_\_\_

**3. LOCATION OF PROPOSED EXPANDED WATER USE:**

A. Butler County, S 1/2 of the SE 1/4 of Section 11, Township 16 North, Range 2E East/West. (circle one)

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

C. List the number of new irrigated acres 26.5  
 D. List the number of previously irrigated acres 38



**4. WATER SOURCE (fill out one or more water source categories as needed, continued on page 2):**

A. Surface Water:  
 Legal Description of water source \_\_\_\_\_ County, \_\_\_\_\_ 1/4 of the \_\_\_\_\_ 1/4 of Section \_\_\_\_\_, Township \_\_\_\_\_ North, Range \_\_\_\_\_ East/West. (circle one)  
 Name of river, stream, lake, or other water body \_\_\_\_\_

Dept. of National Resources Surface Water Permit # \_\_\_\_\_  
Total annual amount of consumptive water use to be delivered to proposed location in  
Acre-Inches / Year \_\_\_\_\_ or Total Gallons / Year \_\_\_\_\_

4. **WATER SOURCE, CONTINUED:**

B. Ground Water:

Legal Description of well Butler County, NE 1/4 of the SE 1/4 of Section 11,  
Township 16 North, Range 2 East/West. (circle one) Well Registration Number \_\_\_\_\_  
Will the well be used in a system with other wells? \_\_\_ Yes,  No. If Yes, How many \_\_\_\_\_  
Attach list of well registration number and legal description for each well.  
Total annual amount of consumptive water use to be delivered to proposed location in  
Acre Inches / Year 8.11 or Total Gallons / Year \_\_\_\_\_

C. Reuse Water:

Legal Description of water source: \_\_\_\_\_ County, \_\_\_ 1/4 of the \_\_\_ 1/4 of Section \_\_\_\_\_,  
Township \_\_\_ North, Range \_\_\_ East/West. (circle one)  
Landowner and Address of person(s) providing reuse water \_\_\_\_\_

Original water source of this reuse water: \_\_\_ Ground Water, \_\_\_ Surface Water, mark all that apply.  
Total annual amount of consumptive water use to be delivered to proposed location in  
Acre Inches / Year \_\_\_\_\_ or Total Gallons / Year \_\_\_\_\_

- Attach information from the operation you will be using as a source of reuse water. List amount of intake water used by this operation, description of water use within the operation, and the amount discharged.

5. **OFFSET WATER USE:** WILL BE CONVERTING 38 A of Gravity to low Pressure PIVOT

A. Will proposed new water use be offset by retiring water use in this same aquifer system? \_\_\_ Yes,  No  
B. If Yes, give legal description of that offsetting water use: \_\_\_\_\_ County, \_\_\_ 1/4 of the \_\_\_ 1/4  
of Section \_\_\_\_\_, Township \_\_\_ North, Range \_\_\_ East/West. (circle one)  
C. Landowner and Address of person(s) providing offset water \_\_\_\_\_

D. If using offset from irrigation, list number of acres at this 'offset' location \_\_\_\_\_  
E. Original water source of this offset water: \_\_\_ Ground Water, \_\_\_ Surface Water, \_\_\_ Reuse Water, mark all that apply.  
F. Total annual amount of consumptive water use to be retired at this 'offset' location in  
Acre Inches / Year \_\_\_\_\_ or Total Gallons / Year \_\_\_\_\_

- Please provide flow records for the last five years from this 'offset' location.

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

- Attach current tax assessor records including map, parcel number, and current land use such as irrigated acres.
- Attach aerial photo showing location of water source(s) and area water or reuse water is to be used.
- All expanded water uses must install a District approved flow meter and report water pumped annually to the LPNNRD by January 31<sup>st</sup> of the following year.
- Additional variance conditions maybe required for approval by the Lower Platte North NRD.
- Variances will be reviewed annually.

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

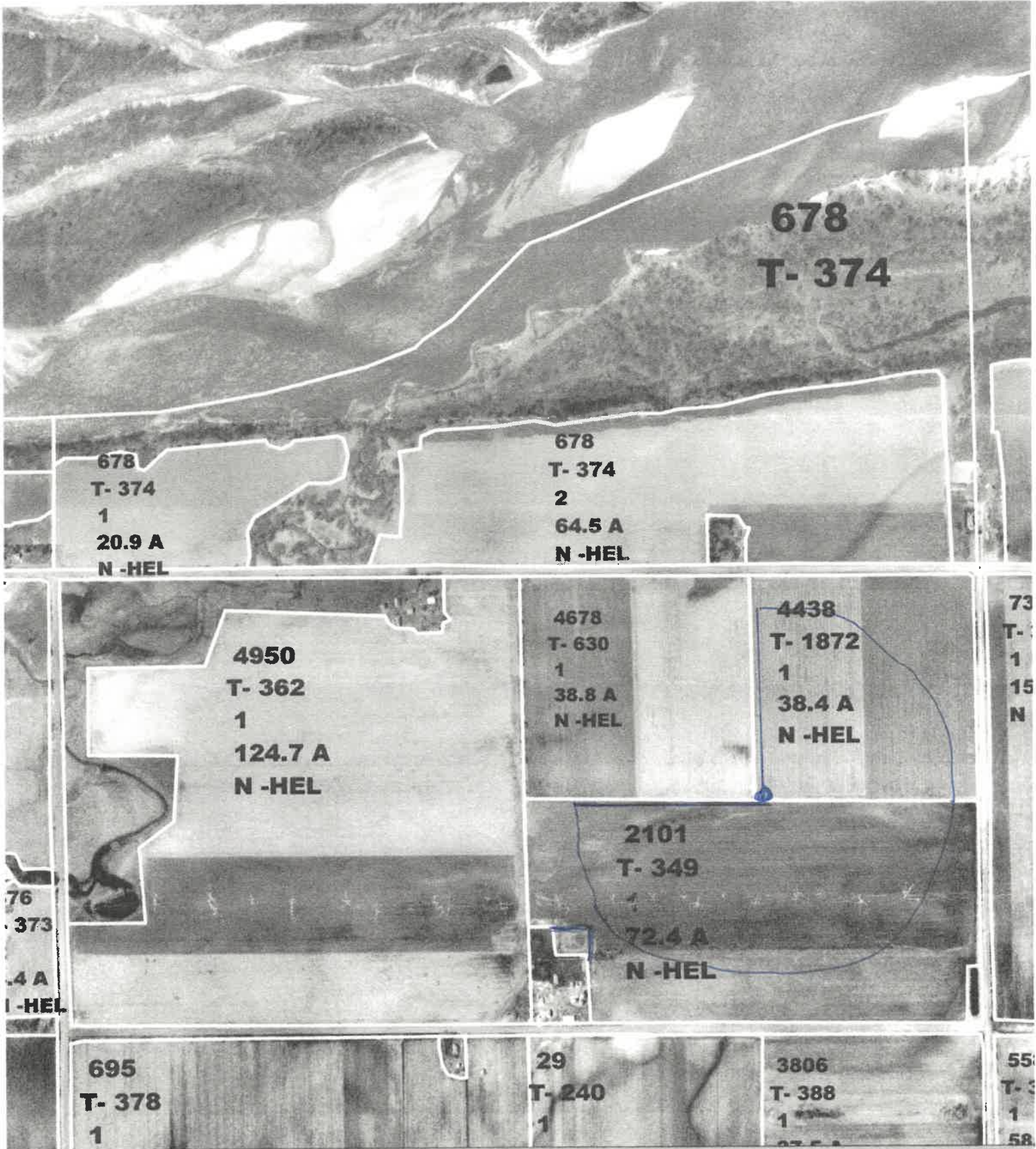
Date 4 March 2022 Signature of Applicant [Signature]  
Signature of Well System Operator, if different than Applicant \_\_\_\_\_  
NRD Certification Number of Landowner or Operator \_\_\_\_\_ (Required for irrigation, livestock, domestic (with irrigation on one acre or more of land), industrial, and public water supply wells.)

8. If needed, Signature of Landowner providing Reuse Water \_\_\_\_\_  
Date \_\_\_\_\_

If needed, Signature of Landowner providing Offset Water \_\_\_\_\_  
Date \_\_\_\_\_

9. Lower Platte North NRD Use Only.

Comments by District Representative.



United States Department of Agriculture

T-16-N R-2-E  
Section 11

Farm Service Agency



**Butler County**

February 11, 2004

1993 Digital Orthophotography - Not to Scale

# TAX STATEMENT

**Property Description**

11 16 2 NE1/4SE1/4 40.17 AC

Acres: 40.170  
S-T-R 11-16-2

SAVANNAH

CRUCIBLE FARMS INC  
1141 43 1/2 RD  
BELLWOOD, NE 68624

Pay taxes online at: [butler.gworks.com](http://butler.gworks.com)

Description	Tax Rate	Prior Tax	Current Tax
BUTLER COUNTY	0.17805200	414.60	409.42
AG. SOCIETY	0.01000000	22.80	22.99
DAVID CITY 56	0.76514000	1,752.03	1,759.36
ESU #7	0.01500000	34.21	34.49
CENTRAL COMM COLL	0.09027200	209.40	207.57
SAVANNAH TOWNSHIP	0.07365500	164.65	169.36
BELLWOOD #5	0.03459900	79.81	79.56
LOWER PLATTE NORT	0.03140400	76.28	72.21
56 K8 QUALITY PUR	0.01830800	42.94	42.10
56 9-12 QUALITY P	0.00104400	2.14	2.40
<b>Tax Credit</b>		<b>-294.30</b>	<b>-294.08</b>
<b>Totals</b>	<b>1.21747400</b>	<b>2,504.56</b>	<b>2,505.38</b>

## BUTLER COUNTY

TAX YEAR	2022
STATEMENT	1324
TAX TYPE	Real Estate
PARCEL ID	0120043169

Total Taxes Due	2,505.38	12/31/2022
1st Half Delinquent	1,252.69	05/01/2023
2nd Half Delinquent	1,252.69	09/01/2023

	Value	Tax Amount
Total	229,940	2,799.46
Homestead Credit	0	0.00
Non-Ag Tax Credit	0	0.00
Ag-Land Tax Credit	229,940	-294.08
Unused Tax Credit		0.00
Taxable	229,940	2,505.38
Penalty		0.00
<b>NET AMOUNT DUE</b>		<b>2,505.38</b>



Parcel ID 0120043169  
District ID 251  
District Name 56 F5 LPN

### MESSAGES

IMPORTANT: Examine the notice before payment. The treasurer is not responsible for payments on the wrong property.

# TAX STATEMENT

**Property Description**

11 16 2 PT S1/2SE1/4 73.71 AC

Acres: 73.710

S-T-R 11-16-2

SAVANNAH

CRUCIBLE FARMS INC  
1141 43 1/2 RD  
BELLWOOD, NE 68624

Pay taxes online at: [butler.gworks.com](http://butler.gworks.com)

## BUTLER COUNTY

TAX YEAR	2022
STATEMENT	1325
TAX TYPE	Real Estate
PARCEL ID	0120043183

Total Taxes Due	3,707.68	12/31/2022
1st Half Delinquent	1,853.84	05/01/2023
2nd Half Delinquent	1,853.84	09/01/2023

	Value	Tax Amount
Total	340,285	4,142.88
Homestead Credit	0	0.00
Non-Ag Tax Credit	0	0.00
Ag-Land Tax Credit	340,285	-435.20
Unused Tax Credit		0.00
Taxable	340,285	3,707.68
Penalty		0.00
<b>NET AMOUNT DUE</b>		<b>3,707.68</b>

Description	Tax Rate	Prior Tax	Current Tax
BUTLER COUNTY	0.17805200	612.29	605.88
AG. SOCIETY	0.01000000	33.68	34.03
DAVID CITY 56	0.76514000	2,587.36	2,603.66
ESU #7	0.01500000	50.51	51.04
CENTRAL COMM COLL	0.09027200	309.23	307.18
SAVANNAH TOWNSHIP	0.07365500	243.16	250.64
BELLWOOD #5	0.03459900	117.87	117.74
LOWER PLATTE NORT	0.03140400	112.65	106.86
56 K8 QUALITY PUR	0.01830800	63.41	62.30
56 9-12 QUALITY P	0.00104400	3.16	3.55
Tax Credit		-434.60	-435.20
<b>Totals</b>	<b>1.21747400</b>	<b>3,698.72</b>	<b>3,707.68</b>



Parcel ID 0120043183  
District ID 251  
District Name 56 F5 LPN

### MESSAGES

IMPORTANT: Examine the notice before payment. The treasurer is not responsible for payments on the wrong property.



Parcel Information	
<b>Parcel ID:</b>	120043183
<b>Map Number</b>	N/A
<b>State Geo Code</b>	2643-11-4-00000-000-3183
<b>Cadastral #</b>	N/A
<b>Images</b>	
<b>Current Owner:</b>	CRUCIBLE FARMS INC 1141 43 1/2 RD BELLWOOD, NE 68624
<b>Situs Address:</b>	SAVANNAH
<b>Tax District:</b>	251
<b>School District:</b>	DAVID CITY 56, 12-0056
<b>Account Type:</b>	Agricultural
<b>Legal Description:</b>	11 16 2 11 16 2 PT S1/2SE1/4 73.71 AC
<b>Lot Width:</b>	N/A
<b>Lot Depth:</b>	N/A
<b>Total Lot Size:</b>	N/A

**\* Disclaimer: This legal description should not be used to prepare legal documents.**

Assessed Values				
Year	Total	Land	Outbuilding	Dwelling
2022	\$340,285	\$340,285	\$0	\$0
2021	\$336,765	\$336,765	\$0	\$0
2020	\$336,765	\$336,765	\$0	\$0
2019	\$339,930	\$339,930	\$0	\$0
2018	\$368,870	\$368,870	\$0	\$0

Yearly Tax Information		
Year	Amount	Levy
2022	\$3,707.68	1.217474

2022 Tax Levy	
Description	Rate
CENTRAL COMM COLLEGE	0.09027200
BUTLER COUNTY	0.17805200
AG. SOCIETY	0.01000000
E.S.U.#7	0.01500000
BELLWOOD #5	0.03459900
SAVANNAH TOWNSHIP	0.07365500
DAVID CITY 56	0.76514000
LOWER PLATTE NORTH	0.03140400
56 K8 QUALITY PURPOSE	0.01830800
56 9-12 QUALITY PURPOSE	0.00104400



Agricultural Land Information					
Soil Symbol	Landuse	LVG	Unit Value	Acres	Total Value
3518	DRY	2D1	\$4,750.00	7.370	\$35,010.00
3537	DRY	2D1	\$4,750.00	3.870	\$18,385.00
3775	DRY	1D1	\$5,450.00	7.910	\$43,110.00
7891	DRY	2D1	\$4,750.00	51.240	\$243,390.00
RD	ROAD	RD	\$0.00	2.670	\$0.00
Pg	WASTE	5W	\$600.00	0.650	\$390.00
<b>Total:</b>				73.71	\$340,285.00

5 Year Sales History
No previous sales information is available (for the past 5 years).

Property Classification			
<b>Status:</b>	Unimproved	<b>Location:</b>	Rural
<b>Property Class:</b>	Agricultural	<b>City Size:</b>	No Population
<b>Zoning:</b>	N/A	<b>Lot Size:</b>	40.01-160.00 ac.

Residential Datasheet			
<b>Zoning:</b>	N/A	<b>Quality:</b>	
<b>Year Built:</b>	0	<b>Condition:</b>	N/A
<b>Exterior 1:</b>	N/A	<b>Style 1:</b>	N/A
<b>Exterior 2:</b>	N/A	<b>Style 2:</b>	N/A
<b>Bedrooms:</b>	N/A	<b>Bathrooms:</b>	0.00
<b>Plumbing Fixtures:</b>	N/A	<b>Heating/Cooling:</b>	
<b>Basement Size:</b>	0 sq. ft	<b>Min Finish:</b>	0 sq. ft
<b>Base Area:</b>	0 sq. ft	<b>Part Finish:</b>	0 sq. ft
<b>Total Area:</b>	0 sq. ft	<b>Roof Type:</b>	N/A

Well Number	Status	Longitude	Well Driller License Number	Series	Well Depth	Address
194584 Well ID: 9614 w Details w Scans	I A	Butler Lower Platte North 16N 2E 11 SWSW <a href="#">Map It</a>	2/18/1957 8/10/1957 ---	120 1050 gpm 9 ft 60 ft PRO	8 in --- 82 ft	Crucible Farms Inc OwnerID: 60761 1141 Road 43½ Bellwood NE 68624
196359 Well ID: 112982 w Details w Scans	D A	Butler Lower Platte North 16N 2E 11 NESW 2500S 1940W <a href="#">Map It</a>	4/7/1998 6/4/1998 ---	--- 30 gpm 13 ft 18 ft PRO	4 in 20 ft 30 ft	Crucible Farms Inc OwnerID: 60761 1141 Road 43½ Bellwood NE 68624
194551 Well ID: 221819 w Details w Scans	S I	Butler Lower Platte North 16N 2E 11 NESE 1558S 141E <a href="#">Map It</a> 41° 22' 14.300" -97° 9' 26.020"	5/23/1967 10/9/2013 ---	--- 25 gpm 7 ft 80 ft PRO	6 in 80 ft 91 ft	Crucible Farms Inc OwnerID: 60761 1141 Road 43½ Bellwood NE 68624
181269 Well ID: 246123 w Details w Scans	D A	Butler Lower Platte North 16N 2E 11 SENW 1588N 2687E <a href="#">Map It</a> 41° 22' 35.740" -97° 9' 59.200"	11/4/2016 12/9/2016 147873696331083 39221	--- 10 gpm 5.5 ft 14 ft PRO	1.25 in 14 ft 16 ft	Joel & Susan Engel OwnerID: 16712 243 Road 8A Schuyler NE 68661
169245 Well ID: 268829 N-0221799 w Details w Scans	I A	Butler Lower Platte North 16N 2E 11 NESE 1558S 141E <a href="#">Map It</a> 41° 22' 14.300" -97° 9' 26.200"	3/2/2022 5/16/2022 1 165270702519825 39581	38 600 gpm 78 ft 84 ft PRO	8.62 in 90 ft 95 ft	Crucible Farms Inc OwnerID: 60761 1141 Road 43½ Bellwood NE 68624
194882 Well ID: 269714 w Details w Scans	D A	Butler Lower Platte North 16N 2E 11 SENE 2159N 62E <a href="#">Map It</a>	4/8/2022 7/8/2022 165480579624079 -----	--- 15 gpm 6 ft 6 ft PRO	1.25 in 20 ft 25 ft	Cottonwood Valley Farms LLC OwnerID: 89546 1197 34 RD David City NE 68632



May 31, 2023  
12:57 PM

- Parcels
- Sections

DISCLAIMER: This map is not intended for conveyances, nor is it a legal survey. The information is presented on a best-efforts basis, and should not be relied upon for making financial, survey, legal or other commitments.

1:13,111



Tri City Meters, Inc.  
 210 E. Front St.  
 P O Box 126  
 Alda, NE. 68810



# SALES INVOICE

Date	Invoice #
5/9/2023	18688

Please Remit Payment to: P.O. Box 126 Alda, NE. 68810-0126

Bill To:

Ship To:

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

P.O. No.	Terms	Ship Date	Ship Via
	Due on receipt	1/19/2023	

Item	Quantity	Description	Rate	Amount
LPNRD Meter Ser...	310	2022 Meter Service Meter Service work in LPNRD Mechanical Meters	60.00	18,600.00
LPNRD Meter Ser...	41	Meter Service work in LPNRD Electronic Meters Senninger	75.00	3,075.00
LPNRD Meter Ser...	5	Meter Service work in LPNRD Electronic Meters SeaMetrics	55.00	275.00
SI7400-0011	82	Batteries f/ Signet 8150	18.00	1,476.00
Sea31126-00	5	SeaMetric Battery Pack 7.2V for AG2000	90.00	450.00
<b>Total</b>				\$23,876.00

Payment Terms: - Invoice amount shall be due and payable in thirty (30) days from invoice date.  
 - Interest at 1.5 percent per month shall be accrued on any unpaid past due balance.

This Invoice is Subject to the Policies, Terms, and Conditions Set Forth on the Reverse Side.

Phone #	Fax #	E-mail
308-379-2013	308-382-1811	tricitymeters@gmail.com

# CHEMIGATION - May 2023

## TOTAL CHEMIGATION APPLICATIONS IN 2022 (739)

### NEW CHEMIGATION APPLICATIONS - 16

(0) Boone (0) Butler (4) Colfax (5) Dodge (0) Madison (1) Platte (6) Saunders

### RENEWALS: 425

BOONE COUNTY - 42  
BUTLER COUNTY - 36  
COLFAX COUNTY - 42  
DODGE COUNTY - 87  
MADISON COUNTY - 7  
PLATTE COUNTY - 85  
SAUNDERS COUNTY - 126

### RENEWAL INSPECTIONS: 0

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

### NEW INSPECTIONS: 0

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

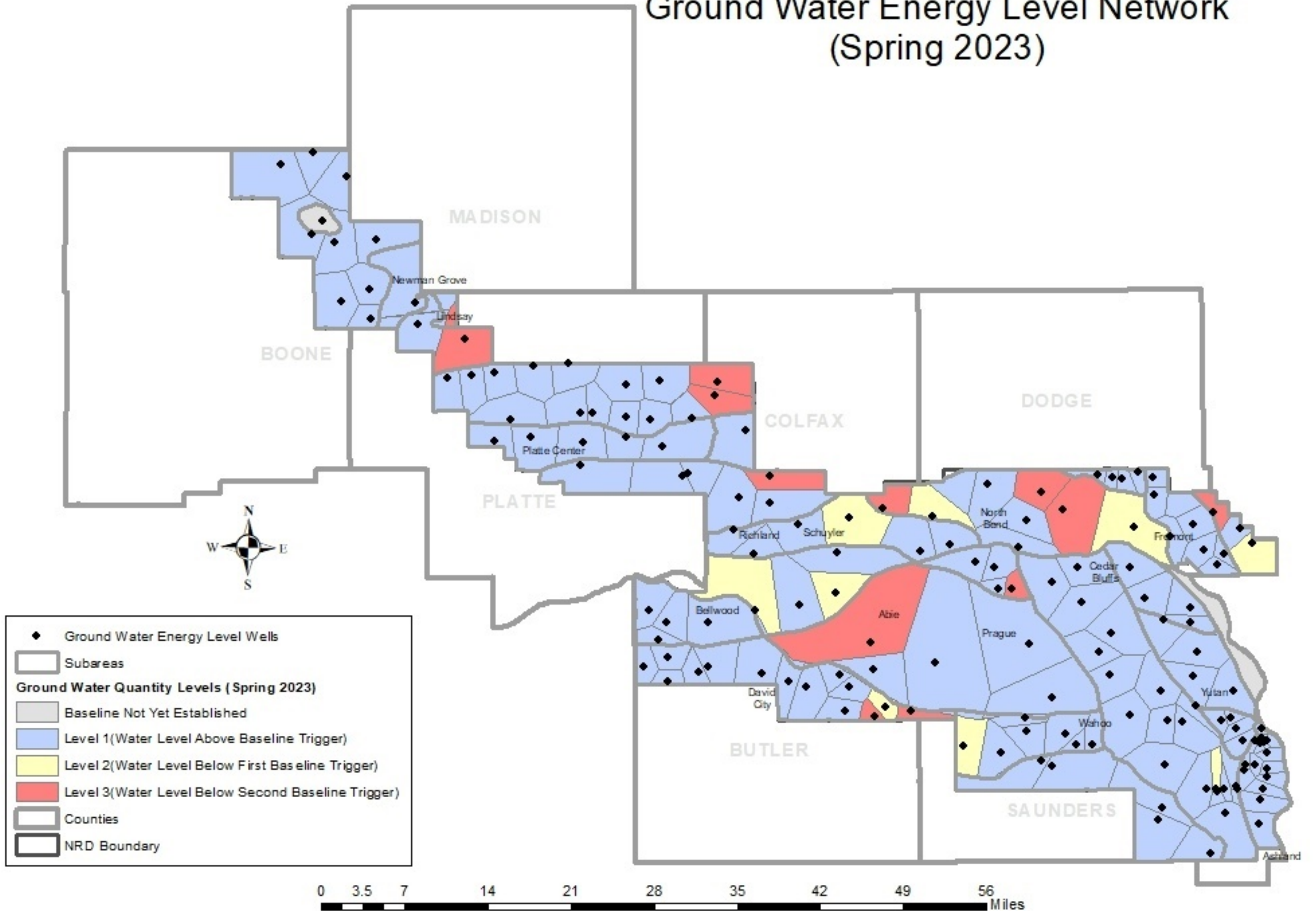
### NEW CANCELLATIONS: 0

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

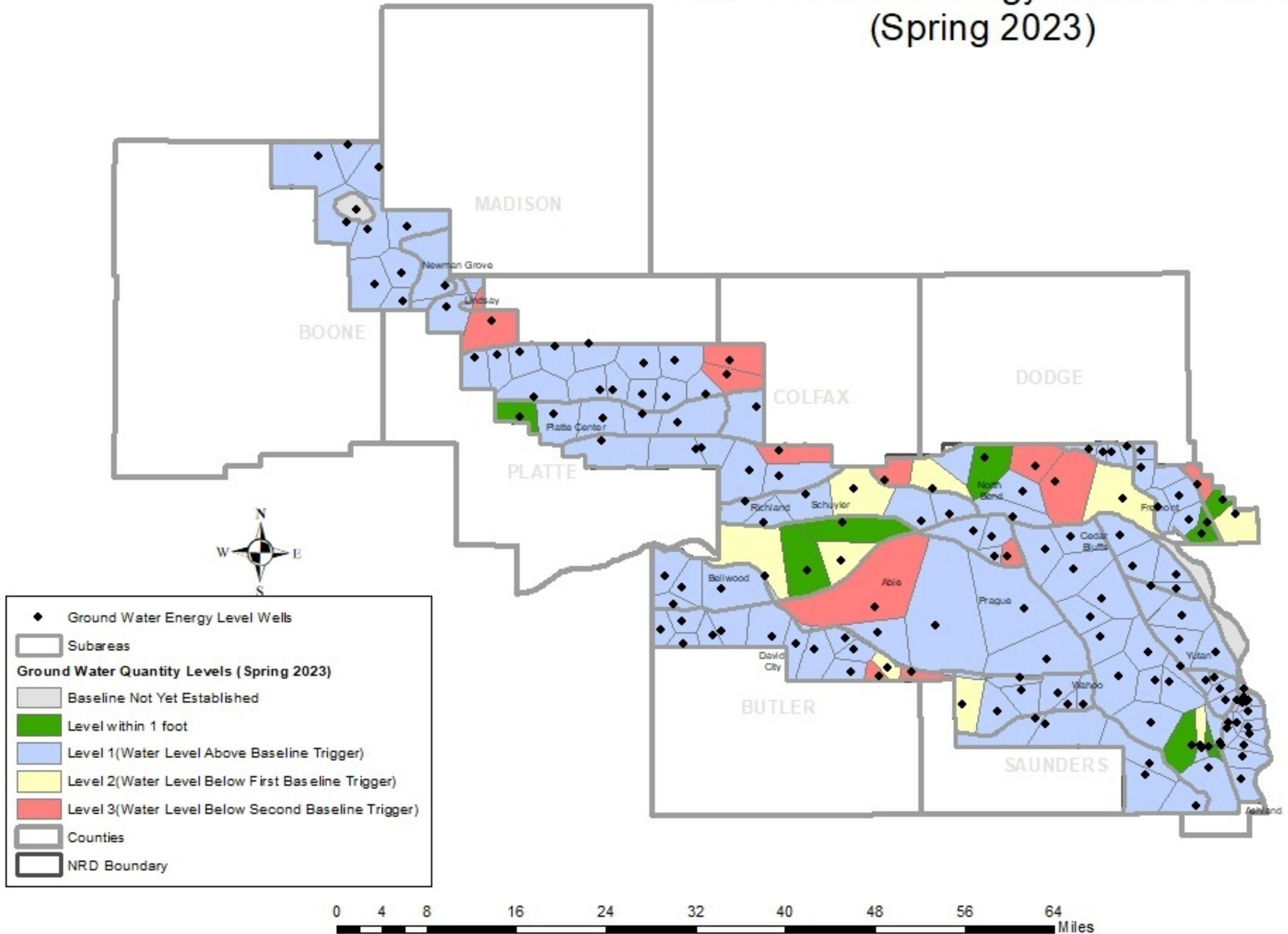
### EMERGENCY: 0



# Lower Platte North Natural Resources District Ground Water Energy Level Network (Spring 2023)



# Lower Platte North Natural Resources District Ground Water Energy Level Network (Spring 2023)



Lab_ID_Str	Sample_ID	Collection_Date	6-Chloronicotinic acid	6-Chloronicotinic aldehyde	6-Chloro-N-methylnicotinamide
22-6048	WELL #12 UNL	8/3/2022	0.000	0.000	0.000
22-6050	WELL #12 UNL DUP	8/3/2022	0.000	0.000	0.000
22-6051	WELL #10 UNL	8/3/2022	0.000	0.000	0.000
22-6052	WELL #10 UNL DUP	8/3/2022	0.000	0.000	0.000
22-6053	G-179794 DEEP	8/3/2022	0.000	0.000	0.000
22-6054	G-179794 DEEP DUP	8/3/2022	0.000	0.000	0.000
22-6055	G-179795 SHALLOW	8/3/2022	0.000	0.000	0.000
22-6056	G-179795 SHALLOW DUP	8/3/2022	0.000	0.000	0.000
22-6057	G-179193 INTERMEDIATE	8/3/2022	0.000	0.000	0.000
22-6058	G-179193 INTERMEDIATE DUP	8/3/2022	0.000	0.000	0.000
22-6059	KEISER SOUTH - SHALLOW	8/3/2022	0.000	0.000	0.000
22-6271	BRABEC 2022	8/8/2022	0.000	0.000	0.000
22-6273	BRABEC 2022 DUP	8/8/2022	0.000	0.000	0.000
22-6274	HANSON 2022	8/8/2022	0.000	0.000	0.000
22-6275	HANSON 2022 DUP	8/8/2022	0.000	0.000	0.000
22-6276	FRAHM 2022	8/8/2022	0.000	0.000	0.000
22-6277	FRAHM 2022 DUP	8/8/2022	0.000	0.000	0.000

Method Detection Limits (ug/L)=>	0.006	0.007	0.009
----------------------------------	-------	-------	-------

Acetamidrid	Azoxystrobin	Clothianidin	Dimethoate	Dinotefuran	Imidacloprid	Imidacloprid desnitro	Imidacloprid olefin	Imidacloprid urea
0.000	0.004	0.001	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.002	0.007	0.000	0.000	0.000	0.000	0.000	0.000
0.006	0.014	0.001	0.006	0.006	0.006	0.006	0.012	0.008

Indoxacarb	Metalaxyl	Picoxystrobin	Pyraclostrobin	Sulfoxaflor	Thiacloprid	Thiamethoxam	Thiamethoxam urea	Trifloxystrobin
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000
0.004	0.006	0.010	0.008	0.004	0.006	0.004	0.008	0.006

Batch	%Dimoxystrobin	%Nitenpyram	%Terbutylazine	Analysis Date	Protocol	Project
W22763	2.63	113.55	36.17	9/16/2022	20_02_01	21_BarS_AltEn_MEAD_L
W22763	12.99	86.06	43.40	9/16/2022	20_02_01	21_BarS_AltEn_MEAD_L
W22763	17.66	74.80	51.78	9/16/2022	20_02_01	21_BarS_AltEn_MEAD_L
W22763	10.67	81.19	43.76	9/16/2022	20_02_01	21_BarS_AltEn_MEAD_L
W22763	2.64	95.24	18.08	9/16/2022	20_02_01	21_BarS_AltEn_MEAD_L
W22763	5.68	75.85	27.25	9/16/2022	20_02_01	21_BarS_AltEn_MEAD_L
W22763	23.58	71.54	54.49	9/16/2022	20_02_01	21_BarS_AltEn_MEAD_L
W22763	13.15	89.71	50.42	9/16/2022	20_02_01	21_BarS_AltEn_MEAD_L
W22763	5.19	85.01	25.24	9/16/2022	20_02_01	21_BarS_AltEn_MEAD_L
W22763	22.32	84.41	53.41	9/16/2022	20_02_01	21_BarS_AltEn_MEAD_L
W22763	1.40	156.57	17.89	9/16/2022	20_02_01	21_BarS_AltEn_MEAD_L
W22795	22.24	71.69	49.75	9/29/2022	20_02_01	21_BarS_AltEn_MEAD_L
W22795	11.13	85.39	42.08	9/29/2022	20_02_01	21_BarS_AltEn_MEAD_L
W22795	18.30	80.59	47.00	9/29/2022	20_02_01	21_BarS_AltEn_MEAD_L
W22795	15.65	124.17	44.61	9/29/2022	20_02_01	21_BarS_AltEn_MEAD_L
W22795	23.83	107.40	70.86	9/29/2022	20_02_01	21_BarS_AltEn_MEAD_L
W22795	14.63	96.77	45.45	9/29/2022	20_02_01	21_BarS_AltEn_MEAD_L

long	lat
-96.5007	41.17123
-96.4895	41.16117
-96.5214	41.16804
-96.5215	41.1681
-96.5214	41.16814
-96.3962	41.13265
-96.4469	41.13206
-96.4304	41.13183
-96.4174	41.13161

**Drinking Water and Groundwater Program****White Paper-Rule Development**

Comments on this White Paper may be sent to:

[DNR140GroundwaterQualityStandards@wisconsin.gov](mailto:DNR140GroundwaterQualityStandards@wisconsin.gov)

**ISSUE**

Recommendations for state creating groundwater quality standards in ch. NR 140 for the pesticide and pesticide metabolites: Clothianidin, Dacthal metabolites MTP (monomethyl tetrachloroterephthalic acid) and TPA (tetrachloroterephthalic acid), Glyphosate, Glyphosate metabolite AMPA (aminomethylphosphonic acid), Imidacloprid, Isoxaflutole, Isoxaflutole DKN (diketonitrile), Isoxaflutole BA (benzoic acid), Sulfentrazone, Thiamethoxam and Thien carbazone-methyl.

**BACKGROUND**

This paper provides an overview of the Wisconsin Department of Health Services recommendations for groundwater quality standards for selected substances in Wisconsin Administrative Code chapter NR 140. Specifically, this paper addresses recommended groundwater quality standards for the pesticide and pesticide metabolites: Clothianidin, Dacthal metabolites MTP and TPA, Glyphosate, Glyphosate metabolite AMPA, Imidacloprid, Isoxaflutole, Isoxaflutole DKN, Isoxaflutole BA, Sulfentrazone, Thiamethoxam and Thien carbazone-methyl.

Wisconsin Statute chapter 160 establishes an administrative process for developing numerical state groundwater quality standards to be used as criteria for the protection of public health and welfare by all state groundwater regulatory programs. Chapter 160, Stats., directs the Department of Natural Resources (DNR) and the Department of Health Services (DHS) to use this administrative process to establish numeric groundwater quality standards for substances of public health or welfare concern, found in, or having a reasonable probability of being detected in, the groundwater resources of the state.

As part of a continuing commitment to protect public health, public welfare, and the environment, the DNR periodically updates groundwater quality standards in ch. NR 140, Wis. Adm. Code. The DNR requests that DHS review existing federal numbers and available toxicologic information and, as applicable under ch. 160 Stats., provide recommendations for new or revised groundwater quality standards for substances of public health concern. The DNR then proposes amendments to ch. NR 140, Wis. Adm. Code, to incorporate the DHS recommended standards into rule. Since its establishment in 1985, the Natural Resources Board has approved amendments to ch. NR 140 twelve times in order to revise existing standards, establish new standards and clarify rule language.

**SETTING NEW/REVISING EXISTING GROUNDWATER STANDARDS UNDER CHAPTER 160**

A list of substances which are detected in groundwater, or have a reasonable probability of entering groundwater, is compiled from one of two sources: 1) lists of substances submitted by state regulatory agencies (in accordance with s. 160.05(1), Stats.) related to facilities, activities and practices within their authority to regulate and which have been detected in, or have a reasonable probability of entering, the groundwater resources of the state; or 2) substances petitioned by any person (in accordance with s. 160.05(2), Stats.) to be added to the list.

DNR and DHS determine which substances on the priority list are of public health concern and which are of public welfare concern. In accordance with ss. 160.07 and 160.13, Stats., DHS develops recommendations for state groundwater quality standards for substances of public health concern. DNR

develops proposed groundwater quality standards for substances which are not health-related, but cause aesthetic or other effects. Scientific support documents for all recommended groundwater standards are prepared as part of the rulemaking process.

*Please note: to ensure full discussion of DG program's rule changes, information on recommended groundwater standards for Volatile Organic Compounds, Pesticides, Indicator Bacteria and PFAS/PFOS, substances have been divided among different meetings and white papers. This paper focuses on recommended updated groundwater quality standards for pesticides and pesticide metabolites.*

### **RECOMMENDATIONS FOR NEW AND REVISED GROUNDWATER QUALITY STANDARDS**

Recommended groundwater standards for incorporation into ch. NR 140 are organized by substance. A summary of information on how the recommended groundwater standard for each substance on the Cycle 10 list was established, and the method used by the DHS, is provided in a Scientific Support Document. The Scientific Support Documents for the recommended groundwater standards for substances described in this paper can be found on the DHS website at:

<https://www.dhs.wisconsin.gov/publications/p02434v.pdf> .

### **DEFINITIONS**

Enforcement standard: Level of a substance in groundwater that is used to protect public health or welfare and the level at which the sources of the substance might be regulated.

Preventive action limit: Level of a substance in groundwater that is used by regulatory agencies to determine when action may be needed so that levels do not reach or exceed the enforcement standard.

Federal number: A numerical expression of the concentration of a substance in water, established as:

- (a) A drinking water standard or maximum contaminant level, by the federal environmental protection agency;
- (b) A suggested no-adverse-response level, by the federal environmental protection agency; or
- (c) For oncogenic substances, a concentration based on a risk level determination by the federal environmental protection agency or a concentration based on a probability of risk model determined by the national academy of sciences.

Carcinogen: Cancer causing

Mutagenic: Causes DNA damage

Teratogenic: Causes birth defects

Interactive effects: Can affect the toxicity of another substance or its toxicity can be affected by another substance.

CAS RN: Chemical Abstracts Service (CAS) Registry Number (RN) is a chemical naming system that makes it easier to identify specific chemical substances.

### **UNITS**

1 nanogram per liter (ng/L) = 1 part per trillion (ppt), equivalent to one drop of a substance in an Olympic swimming pool.

1 microgram per liter (ug/L) = 1 part per billion (ppb), equivalent to one thousand drops of a substance in an Olympic swimming pool.

1 milligram per liter (mg/L) = 1 part per million (ppm), equivalent to one million drops of a substance in an Olympic swimming pool.

## **RECOMMENDATIONS FOR GROUNDWATER QUALITY STANDARDS FOR SELECTED PESTICIDES AND PESTICIDE METABOLITES**

### **Clothianidin**

Clothianidin is a neonicotinoid pesticide used to control a variety of indoor and outdoor insects. Neonicotinoids are broad spectrum insecticides used on agricultural fields, gardens, pets, and in homes. Neonicotinoid pesticides are similar to nicotine in their structure and are specifically designed to act on insect nicotine receptors resulting in paralysis and death.

Bayer CropScience was the original manufacturer of clothianidin. Other manufacturers include BASF, E.I. du Pont de Nemours and Company and Valent. Agricultural uses of clothianidin include seed treatments and spraying leaves to protect crops like corn, soybeans, snap beans, potatoes, grains (wheat, barley, and canola), and fruit. Residential and commercial uses include sprays and traps for control of bedbugs, ants, flies and other insects, and soil drenches for use on flowers, trees, and shrubs. Some common agricultural products containing clothianidin include Acceleron, Poncho-Votivo, and Prosper FX. Residential products include Crossfire Bedbug Concentrate, Raid Foaming Spray, and BioAdvanced Science Tree and Shrub Protect and Feed product.

The Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) has tested for clothianidin since 2008 and has detected it in 63 out of 1,504 private drinking wells tested, and in 256 samples collected from 40 monitoring wells installed near agricultural fields.

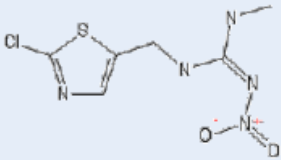
DHS recommends an enforcement standard of 1,000 µg/L for clothianidin based on the United States Environmental Protection Agency's (EPA's) chronic oral reference dose for clothianidin. DHS recommends that the NR 140 Preventive Action Limit for clothianidin be set at 20% of the enforcement standard because clothianidin has not been shown to have carcinogenic, mutagenic, teratogenic, or interactive effects.

### **Recommended Standards for Clothianidin:**

Enforcement Standard **1,000 µg/L (ppb)**

Preventive Action Limit **200 µg/L (ppb)**

### **Clothianidin Chemical Profile**

<b>Clothianidin</b>	
<b>Structure</b>	
<b>Chemical Symbol:</b>	C <sub>6</sub> H <sub>8</sub> ClN <sub>5</sub> O <sub>2</sub> S
<b>CAS Number:</b>	210880-92-5 (formerly 205510-53-8)
<b>Molar Mass:</b>	249.68 g/mol
<b>Synonyms:</b>	(E)-1-[(2-Chloro-1,3-thiazol-5-ylmethyl)]-3-methyl-2-nitroguanidine TI-435 V-10066

### **Dacthal metabolites MTP and TPA**

Monomethyl tetrachloroterephthalic acid (MTP) and tetrachloroterephthalic acid (TPA) are breakdown products of the herbicide dacthal. Dacthal is a pre-emergence herbicide used to control annual grasses and some broadleaf weeds in a variety of crops. In the environment, dacthal breaks down into MTP, which then breaks down into TPA.

Dacthal is an active ingredient used as an herbicide to control grasses and broadleaf weeds. American Vanguard Corporation (AMVAC) is the current manufacturer of dacthal. Products that contain dacthal are primarily applied to a variety of ornamental and turf plants, strawberries, and vegetables. Dacthal is the active ingredient in one product sold in Wisconsin, Dacthal Flowable Herbicide.

DATCP groundwater sampling has detected MTP and TPA in samples collected from monitoring wells installed near fields having known dacthal use. The highest combined concentration detected in samples collected from monitoring wells near fields with known dacthal use was 445 µg/L. Dacthal breakdown compounds were also detected in four private well samples collected by DATCP, but the parent compound dacthal was not detected. In private well samples, the highest combined concentration result was 8.5 µg/L.

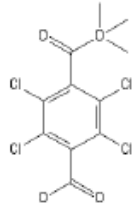
DHS recommends a combined enforcement standard of 70 µg/L for dacthal, MTP, and TPA. The recommended standard is based on the EPA's lifetime health advisory for dacthal, MTP, and TPA. Animal toxicity studies on MTP and TPA are limited, however dacthal has been studied extensively. Animals that ate large amounts of dacthal for long periods of time experienced liver, lung, kidney, and thyroid problems and some studies have shown that dacthal can cause carcinogenic effects in animals. The EPA considers dacthal a possible human carcinogen. DHS recommends that the NR 140 Preventive Action Limit for dacthal, MTP, and TPA be set at 10% of the enforcement standard because dacthal has been shown to have carcinogenic effects.

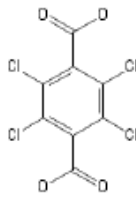
### **Recommended Standards for dacthal, MTP, and TPA combined:**

Enforcement Standard **70 µg/L (ppb)**

Preventive Action Limit **7 µg/L (ppb)**

**MTP and TPA Chemical Profiles**

<b>MTP</b>	
<b>Chemical Symbol:</b>	
<b>CAS Number:</b>	887-54-7
<b>Formula:</b>	$C_9H_4Cl_4O_4$
<b>Molar Mass:</b>	317.94 g/mol
<b>Synonyms:</b>	Monomethyl Tetrachloroterephthalic Acid Chlorthal-monomethyl

<b>TPA</b>	
<b>Chemical Symbol:</b>	
<b>CAS Number:</b>	2136-79-0
<b>Formula:</b>	$C_8H_2Cl_4O_4$
<b>Molar Mass:</b>	303.91 g/mol
<b>Synonyms:</b>	Tetrachloroterephthalic Acid Chlorthal

**Glyphosate**

Glyphosate is a broad-spectrum herbicidal active ingredient, applied to the leaves of plants to kill both broadleaves and grasses. It is used worldwide in agriculture, forestry, gardening, lawn-care, and for weed control in industrial areas. Glyphosate is also used for aquatic weed control. In the environment, glyphosate can degrade into aminomethylphosphonic acid (AMPA).

Glyphosate is a broad-spectrum herbicidal active ingredient, applied to the leaves of plants to kill both broadleaves and grasses. Monsanto was the original manufacturer of glyphosate, but there are currently numerous glyphosate products available from numerous companies. Glyphosate is the active ingredient in more than 200 products sold in Wisconsin. It is most commonly sold under the trade name Roundup® for both agriculture and non-agriculture uses.

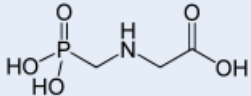
DHS recommends an enforcement standard of 10 mg/L for glyphosate based on the US Environmental Protection Agency (EPA) Office of Pesticide Program's draft oral reference dose for glyphosate. Studies in animals have shown that glyphosate can cause gastrointestinal effects and developmental effects. DHS recommends that the NR 140 Preventive Action Limit for glyphosate be set at 10% of the enforcement standard because glyphosate has been shown to cause mutagenic and teratogenic effects.

**Recommended Standards for Glyphosate:**

Enforcement Standard **10 mg/L (ppm)**

Preventive Action Limit **1 mg/L (ppm)**

**Glyphosate Chemical Profile**

Glyphosate	
Structure:	
CAS Number:	1071-83-6
Formula:	C <sub>3</sub> H <sub>8</sub> NO <sub>5</sub> P
Molar Mass:	169.07 g/mol
Synonyms:	N-(phosphonomethyl)glycine

### **Glyphosate metabolite Aminomethylphosphonic acid (AMPA)**

Aminomethylphosphonic acid (AMPA) is the major breakdown product of glyphosate. Glyphosate is a post-emergence herbicide that is used worldwide in agriculture, forestry, gardening and lawn care, and for weed control in industrial areas. The chemical structure of AMPA is similar to that of glyphosate.

Glyphosate is a broad-spectrum herbicidal active ingredient, applied to the leaves of plants to kill both broadleaves and grasses. Monsanto was the original manufacturer of glyphosate, but there are currently numerous glyphosate products available from numerous companies. Glyphosate is the active ingredient in more than 200 products sold in Wisconsin. It is most commonly sold under the trade name Roundup® for both agriculture and non-agriculture uses.

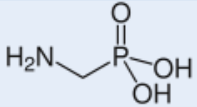
DHS recommends an enforcement standard of 10 mg/L for AMPA. The recommended standard is based on an animal study that found that AMPA caused hyperplasia in urinary tracts in rats. DHS recommends that the NR 140 Preventive Action Limit for AMPA be set at 20% of the enforcement standard because AMPA has not been shown to have carcinogenic, mutagenic, teratogenic, or interactive effects.

### **Recommended Standards for Aminomethylphosphonic acid (AMPA):**

Enforcement Standard **10 mg/L (ppm)**

Preventive Action Limit **2 mg/L (ppm)**

### **Aminomethylphosphonic acid (AMPA) Chemical Profile**

AMPA	
Structure:	
CAS Number:	1066-51-9
Formula:	CH <sub>6</sub> NO <sub>3</sub> P
Molar Mass:	111.04 g/mol
Synonyms:	AMeP Aminomethylphosphonic acid

### **Imidacloprid**

Imidacloprid is a neonicotinoid pesticide used to control a variety of indoor and outdoor insects. Neonicotinoids are broad spectrum insecticides used on agricultural fields, gardens, pets, and in homes. Neonicotinoid pesticides are similar to nicotine in their structure and are specifically designed to act on the nicotine receptors in insects, resulting in paralysis and death.

Imidacloprid is widely used in Wisconsin. The primary manufacturer is Bayer CropScience, but it is also manufactured by others. It is the active ingredient in a large number of insecticide products used to control soil insect pests, insects that feed on plant tissues, structures, and pets. Its largest volume of use is in agriculture products as seed treatments and spraying leaves for corn, soybeans, beans, potatoes, small grains, vegetables, fruit crops, and more. It is also used in non-agriculture products in pet and companion animal collars and sprays, in products for residential trees and ornamentals, and in products used in and around homes for ants, roaches and other household pests. Some common products that use imidacloprid include Admire®, Advantage®, Gaucho®, Imicide, Merit® and Premise®.

DATCP has tested for imidacloprid in groundwater since 2006. As of April 2019, imidacloprid was detected in 75 of 1,503 private wells tested, and in 208 samples from 40 monitoring wells installed near agricultural fields

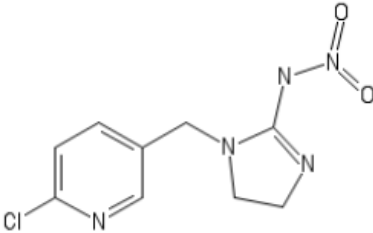
DHS recommends an enforcement standard of 0.2 µg/L for imidacloprid based on a study in 2017 that found that imidacloprid affected weight gain and glucose regulation in male mice. DHS recommends that the NR 140 Preventive Action Limit for imidacloprid be set at 10% of the enforcement standard because recent studies have shown that imidacloprid can cause mutagenic, teratogenic, and interactive effects at high levels.

#### **Recommended Standards:**

Enforcement Standard **0.2 µg/L (ppb)**

Preventive Action Limit **0.02 µg/L (ppb)**

#### **Imidacloprid Chemical Profile**

Imidacloprid	
<b>Chemical Symbol:</b>	
<b>CAS Number:</b>	138261-41-3
<b>Molar Mass:</b>	255.66 g/mol
<b>Synonyms:</b>	N-[1-[(6-Chloropyridin-3-yl)methyl]imidazolidin-2-ylidene]nitramide

#### **Isoxaflutole**

Isoxaflutole is a herbicide used to control certain broadleaf and grass weeds in field corn and soybeans. In the environment, isoxaflutole quickly breaks down into isoxaflutole diketonitrile (DKN). Isoxaflutole diketonitrile further breaks down into inactive benzoic acid derivatives.

Isoxaflutole is a low-use-rate herbicide currently used in Wisconsin for weed control on corn crops. It is manufactured by Bayer CropScience. Two restricted-use herbicide products containing isoxaflutole are currently sold in Wisconsin, Corvus Herbicide and Balance Flexx Herbicide.

Wisconsin, Minnesota, and Michigan have requested that Bayer CropScience complete isoxaflutole fate and toxicity studies due to the compound's rapid leaching potential and plant toxicity at low concentrations. In 2016, contingent on the manufacturer completing studies at several approved use locations, the Department of Agriculture, Trade and Consumer Protection (DATCP) approved limited-use of isoxaflutole in Wisconsin on corn crops.

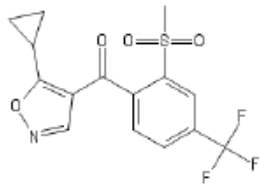
DHS recommends a combined enforcement standard of 3 µg/L for isoxaflutole and isoxaflutole diketonitrile (DKN). This standard recommendation is based on the US Environmental Protection Agency's (EPA's) cancer slope factor for isoxaflutole. Because of the possibility that isoxaflutole diketonitrile is contributing to the toxicity observed in animals dosed with isoxaflutole, DHS has recommended combined groundwater quality standards for isoxaflutole and isoxaflutole diketonitrile. DHS recommends that the NR 140 Preventive Action Limit for isoxaflutole and isoxaflutole diketonitrile be set at 10% of the enforcement standard as EPA has classified isoxaflutole as a likely human carcinogen and isoxaflutole diketonitrile likely contributes to these effects.

#### **Recommended Standards for isoxaflutole and isoxaflutole diketonitrile (DKN) combined:**

Enforcement Standard **3 µg/L (ppb)**

Preventive Action Limit **0.3 µg/L (ppb)**

#### **Isoxaflutole Chemical Profile**

<b>Isoxaflutole</b>	
Structure:	
IUPAC name:	5-cyclopropyl-4-(2-mesylyl-4-trifluoromethylbenzoyl) isoxazole
CAS Number:	141112-29-0
Formula:	C <sub>15</sub> H <sub>12</sub> F <sub>3</sub> NO <sub>4</sub> S
Molar Mass:	359.32 g/mol
Synonyms:	RPA 201772

#### **Isoxaflutole diketonitrile (DKN)**

Isoxaflutole diketonitrile (DKN) is a breakdown product of the herbicide isoxaflutole. Isoxaflutole diketonitrile is the active herbicide of the formulation and is used to control certain broadleaf and grass weeds in field corn and soybeans. In the environment, isoxaflutole quickly breaks down into isoxaflutole diketonitrile, which then further degrades into benzoic acid derivatives.

Isoxaflutole is a low-use-rate herbicide currently used in Wisconsin for weed control in corn. It is manufactured by Bayer CropScience. Two restricted-use herbicide products containing isoxaflutole are currently sold in Wisconsin, Corvus Herbicide and Balance Flexx Herbicide.

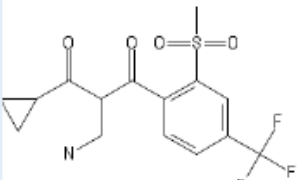
DHS recommends a combined enforcement standard of 3 µg/L for isoxaflutole and isoxaflutole diketonitrile. This standard recommendation is based on the US Environmental Protection Agency's (EPA's) cancer slope factor for isoxaflutole. Because of the possibility that isoxaflutole diketonitrile is contributing to the toxicity observed in animals dosed with isoxaflutole DHS has recommended combined groundwater quality standards for isoxaflutole and isoxaflutole diketonitrile. DHS recommends that the NR 140 Preventive Action Limit for isoxaflutole and isoxaflutole diketonitrile be set at 10% of the enforcement standard as EPA has classified isoxaflutole as a likely human carcinogen and isoxaflutole diketonitrile likely contributes to these effects.

**Recommended Standards for isoxaflutole and isoxaflutole diketonitrile (DKN) combined:**

Enforcement Standard **3 µg/L (ppb)**

Preventive Action Limit **0.3 µg/L (ppb)**

**Isoxaflutole diketonitrile (DKN) Chemical Profile**

Isoxaflutole Diketonitrile	
<b>Structure:</b>	
<b>IUPAC name:</b>	1-(2-mesylylsulfonyl-4-trifluoromethylphenyl)-2-cyano-3-cyclopropyl-propane-1,3-dione
<b>CAS Number:</b>	143701-75-1
<b>Formula:</b>	C <sub>15</sub> H <sub>12</sub> F <sub>3</sub> NO <sub>4</sub> S
<b>Molar Mass:</b>	359.32 g/mol
<b>Synonyms:</b>	RPA 202248

**Isoxaflutole benzoic acid (BA)**

Isoxaflutole benzoic acid (BA) is a breakdown product of the herbicide, isoxaflutole. Isoxaflutole is used to control certain broadleaf and grass weeds in field corn and soybeans. In the environment, isoxaflutole quickly breaks down into isoxaflutole diketonitrile (DKN), which then further degrades into benzoic acid derivatives, including Isoxaflutole benzoic acid.

Isoxaflutole is a low-use-rate herbicide currently used in Wisconsin for weed control in corn. It is manufactured by Bayer CropScience. Two restricted-use herbicide products containing isoxaflutole are currently sold in Wisconsin, Corvus Herbicide and Balance Flexx Herbicide.

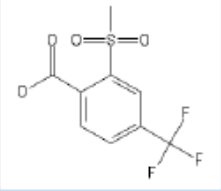
DHS recommends an enforcement standard of 800 µg/L for isoxaflutole benzoic acid (BA). The recommended standard is based on a study that found that isoxaflutole benzoic acid decreased weight gain and feed consumption in pregnant animals. DHS recommends that the NR 140 Preventive Action Limit for isoxaflutole benzoic acid be set at 20% of the enforcement standard because it has not been shown to cause mutagenic, teratogenic, or interactive effects.

**Recommended Standards for isoxaflutole benzoic acid (BA):**

Enforcement Standard **800 µg/L (ppb)**

Preventive Action Limit **160 µg/L (ppb)**

#### Isoxaflutole benzoic acid (BA) Chemical Profile

Isoxaflutole Benzoic Acid	
Structure:	
IUPAC name:	2-Methylsulfonyl-4-trifluoromethylbenzoic acid
CAS Number:	142994-06-7
Formula:	C <sub>9</sub> H <sub>7</sub> F <sub>3</sub> O <sub>4</sub> S
Molar Mass:	268.21 g/mol
Synonyms:	RPA 203328

#### Sulfentrazone

Sulfentrazone is an herbicide used to control a broad variety of weeds by inhibiting photosynthesis in plants. Sulfentrazone controls weeds by a process of membrane disruption commonly referred to as PPO inhibition. This process takes place when the roots of a treated plant take up the herbicide and then die after emerging from the treated soil into sunlight. Sulfentrazone pesticides are used on agricultural crops, Christmas tree farms, golf courses, seedling nurseries, landscape ornamentals, and non-crop use sites such as railroad tracks, highways, and residential/commercial turf.

Sulfentrazone is an herbicide active ingredient used to control broadleaf weeds, grasses, and sedges. FMC Corporation was the original manufacturer of sulfentrazone. Companies that also carry sulfentrazone products include Dow AgroSciences, Helm Agro US, and the Scotts Company. Sulfentrazone is the active ingredient in almost 100 products sold in Wisconsin including agricultural products sold under the Authority<sup>®</sup> trade name and residential-use products sold under the Spectracide, Scotts<sup>®</sup>, Gordon's, and Ortho<sup>®</sup> brands.

DATCP groundwater monitoring has detected sulfentrazone in a few monitoring well samples and one private well sample. Sulfentrazone concentrations in groundwater samples collected by DATCP have been relatively low.

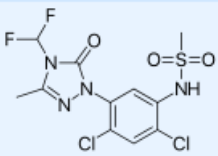
DHS recommends an enforcement standard of 1,000 µg/L for sulfentrazone based on the US Environmental Protection Agency's chronic oral reference dose for sulfentrazone. In laboratory animal studies, animals that ate large amounts of sulfentrazone for long periods of time experienced developmental and reproductive toxicity. DHS recommends that the NR 140 Groundwater Preventive Action Limit for sulfentrazone be set at 10% of the enforcement standard because sulfentrazone has been shown to have teratogenic effects.

#### Recommended Standards for Sulfentrazone:

Enforcement Standard **1,000 µg/L (ppb)**

Preventive Action Limit **100 µg/L (ppb)**

## Sulfentrazone Chemical Profile

Sulfentrazone	
<b>Structure:</b>	
<b>CAS Number:</b>	122836-35-5
<b>Formula:</b>	C <sub>11</sub> H <sub>10</sub> Cl <sub>2</sub> F <sub>2</sub> N <sub>4</sub> O <sub>3</sub> S
<b>Molar Mass:</b>	387.18 g/mol
<b>Synonyms:</b>	N-(2,4-Dichloro-5-[4-(difluoromethyl)-3-methyl-5-oxo-4,5-dihydro-1H-1,2,4-triazol-1-yl]phenyl) methanesulfonamide

## Thiamethoxam

Thiamethoxam is a neonicotinoid pesticide used to control a variety of indoor and outdoor insects. Neonicotinoids are broad spectrum insecticides used on agricultural fields, gardens, pets, and in homes. Neonicotinoid pesticides are similar to nicotine in their structure and are specifically designed to act on insect nicotine receptors resulting in paralysis and death.

Thiamethoxam is a neonicotinoid insecticide that is used widely in Wisconsin. Syngenta is the primary manufacturer of thiamethoxam. Thiamethoxam is the active ingredient in a variety of products used in agriculture to kill sucking and chewing insects that feed on roots, leaves, and other plant tissues. Common agricultural products containing thiamethoxam include Cruiser®, Cruiser Maxx®, Endigo®, Helix®, Platinum®, Avicta®, and Actara®. Commercial and residential products containing thiamethoxam include Tandem® Insecticide, Caravan™, Flagship®, Bonide® Rose Shield™ and Raid® Ant Gel.

DATCP groundwater sampling has shown thiamethoxam detected in 62 of 1,510 private drinking well samples, and in 226 samples collected from 45 monitoring wells installed near agricultural fields.

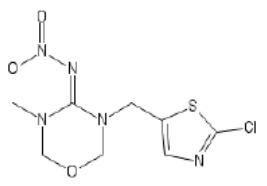
DHS recommends an enforcement standard of 100 µg/L for thiamethoxam based on the US Environmental Protection Agency's chronic oral reference dose for thiamethoxam. Animal studies show that animals that ate large amounts of thiamethoxam for long periods of time had problems with their liver, adrenal glands, and blood, and male animals had problems with their reproductive system. DHS recommends that the NR 140 Preventive Action Limit for thiamethoxam be set at 10% of the enforcement standard because thiamethoxam has been shown to have teratogenic effects.

### Recommended Standards for Thiamethoxam:

Enforcement Standard **100 µg/L (ppb)**

Preventive Action Limit **10 µg/L (ppb)**

## Thiamethoxam Chemical Profile

<b>Thiamethoxam</b>	
<b>Structure:</b>	
<b>CAS Number:</b>	153719-23-4
<b>Formula:</b>	C <sub>8</sub> H <sub>10</sub> ClN <sub>5</sub> O <sub>3</sub> S
<b>Molar Mass:</b>	291.71 g/mol
<b>Synonyms:</b>	3-(2-chloro-1,3-thiazol-5-ylmethyl)-5-methyl-1,3,5-oxadiazinan-4-ylidene(nitro)amine CGA 293343

### **Thiencarbazono-methyl**

Thiencarbazono-methyl is a triazolone herbicide used to control weeds on corn, wheat, turf, and garden plants. Triazolone pesticides work by blocking an enzyme needed for the development of chlorophyll in the plant.

In Wisconsin, agricultural use of thiencarbazono-methyl includes use on corn and wheat, and residential use on turf and ornamentals. Thiencarbazono-methyl is manufactured by Bayer AG. It is the active ingredient in seven products sold in Wisconsin, including agricultural use products: Capreno, Corvus, and Huskie Complete, and residential use product Tribute Total herbicide.

The WI Department of Agriculture, Trade and Consumer Protection (DATCP) has tested for thiencarbazono-methyl in groundwater. DATCP has not detected the compound in any private well samples, but it has been detected at field edge monitoring wells at relatively low concentrations.

DHS recommends an enforcement standard of 10 mg/L for thiencarbazono-methyl based on the United States Environmental Protection Agency's chronic oral reference dose for thiencarbazono-methyl. Health effects of thiencarbazono-methyl are based on laboratory animal studies. Animals that ate large amounts of thiencarbazono-methyl for long periods of time experienced problems with their kidney, bladder, and urinary tract. DHS recommends that the preventive action limit for thiencarbazono-methyl be set at 20% of the enforcement standard because thiencarbazono-methyl has not been shown to be carcinogenic, mutagenic, teratogenic, or interactive effects.

### **Recommended Standards for Thiencarbazono-methyl:**

Enforcement Standard **10 mg/L (ppm)**

Preventive Action Limit **2 mg/L (ppm)**

### **Thiencarbazono-methyl Chemical Profile**

<b>Thiocarbazone-methyl</b>	
<b>Structure:</b>	
<b>CAS Number:</b>	317815-83-1
<b>Formula:</b>	C <sub>12</sub> H <sub>14</sub> N <sub>4</sub> O <sub>7</sub> S <sub>2</sub>
<b>Molar Mass:</b>	390.385 g/mol
<b>Synonyms:</b>	Methyl 4-[(4,5-dihydro-3-methoxy-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl)-carbonylsulfamoyl]-5-methylthiophene-3-carboxylate

**AFFECTED RULE CHAPTERS**

Wisconsin Administrative Code chapter NR 140

**OTHER RELATED RULE REVISIONS**

None

**COMPARABLE FEDERAL AND STATE POLICIES**

The United States Environmental Protection Agency (US EPA) establishes health based drinking water maximum contaminant levels (MCLs), cancer risk levels and health advisories (HAs). Federal drinking water MCLs are established based on scientific risk assessments and, in some cases, economic and technological considerations. Cancer risk levels are established as the concentration of a chemical in drinking water that corresponds to a specific excess estimated lifetime cancer risk. Federal lifetime health advisories (LHAs) are developed based on an established health risk acceptable daily intake (ADI) level or reference dose (RfD).

The groundwater quality standards contained in ch. NR 140 are used in Wisconsin by state regulatory agencies as state groundwater protection standards. These standards are used as contamination site cleanup levels, design and management criteria for regulated activities and as minimum public health and welfare protection standards for contaminants in groundwater. The states surrounding Wisconsin: Minnesota, Michigan, Illinois and Iowa, also use groundwater protection values/levels/standards in their regulation of practices and activities that might impact the quality of groundwater resources. Groundwater protection quality standards are developed based on health risk assessments. Because states follow state specific health risk assessment methodologies, that use state specific health risk assessments and factors in calculating and developing their groundwater protection standards, different groundwater protection standard levels may be established for the same substance by different states.

**DISCUSSION OF POTENTIAL ECONOMIC IMPACTS**

Proposed revisions to ch. NR 140, Wis. Adm. Code are based on recommendations for health based groundwater quality standards provided by DHS. The standards recommended by DHS, for pesticide and pesticide metabolites, were developed in accordance with procedures and methodologies specified in ch. 160, Stats. The proposed revisions to NR 140 don't introduce new requirements that would likely

have a significant economic impact; however, impacts will be considered in further detail as the rule language is drafted.

**COMMENTS**

Section 281.12(1), Stats., grants the DNR the authority to carry out planning, management and regulatory programs necessary to protect, maintain and improve the quality and management of the waters of the state, ground and surface, public and private. Section 281.15, Stats., states that the Department shall promulgate rules setting standards of water quality, applicable to the waters of the state, that protect the public interest, including the protection of public health and welfare, and the present and prospective future use of such waters for public and private water systems. Section 281.19(1), Stats., grants the Department the authority to issue general orders and adopt rules applicable throughout the state for the construction, installation, use and operation of practicable and available systems, methods and means for preventing and abating pollution of the waters of the state.



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

May 8, 2023  
 Project No: 5036LPN02  
 Invoice No: 22874

Project 5036LPN02 LPNNRD Hydrogeologic Assessment

**Professional Services through April 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 \$1,006.50</b>

Task 02 Hydrogeologic Assessment Framework

**Professional Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Mohr, Jonathan	18.00	183.00	3,294.00	
Sopiwnik, Roscoe	15.50	187.00	2,898.50	
Totals	33.50		6,192.50	
<b>Total Labor</b>				<b>6,192.50</b>
				<b>Total this Task \$6,192.50</b>

Task 03 Deliverables

**Professional Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Sopiwnik, Roscoe	19.50	187.00	3,646.50	
Totals	19.50		3,646.50	
<b>Total Labor</b>				<b>3,646.50</b>
				<b>Total this Task \$3,646.50</b>
				<b>Total this Invoice \$10,845.50</b>

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Project	5036LPN02	LPNNRD Hydrogeologic Assessment	Invoice	22874
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**Outstanding Invoices**

<b>Invoice Number</b>	<b>Date</b>	<b>Balance</b>
22669	4/11/2023	10,357.40
		<b>10,357.40</b>

<b>Total Now Due</b>	<b>\$21,202.90</b>
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TERMS: Net 30 days. A finance charge of 1.5% per month is applied to past due amounts.

Quotes for Remote Sensing Equipment

Yearly  
 Equipment Training Subscription Discounts Totals

In-Situ	44,395.50	0.00	11,497.50		55,893.00			
Wellnet	115,568.00	7,500.00	28,020.00		143,588.00			
Ott	63,356.25	0.00	3,571.20		66,927.45	discounts is included in price		
Metos	33,100.00	0.00	2,170.00	4,312.59	30,958.34	will credit 3112.59 for in-situ		
						prober 3112.59		



# GMDA 2023 SUMMER CONFERENCE AGENDA

## SANTA FE, NM



MONDAY JULY 10 <sup>TH</sup>			
4:00 – 6:00 pm	<b>Registration</b>		
	<b>Reception - Hotel Santa Fe</b>		
TUESDAY JULY 11 <sup>TH</sup>			
	<b>Breakfast</b>		
7:30 – 8:30 am	Opening	Welcome	
8:30 – 8:45 am	Speaker	Mike Hammond, Water Taskforce	
8:45 – 9:45 am	Speaker	Rachel Hobbs, Water Data	
9:45 – 10:30 am	<b>Break</b>		
10:30 – 11:00 am	Speaker	Shoemaker, Groundwater Models	
11:00 am – 12:00 pm	<b>Lunch</b>		
12:00 – 1:30 pm	Speaker	Nat Chakerous, NM vs. TX	
1:30 – 2:25 pm	Speaker	John Longworth, Lower Rio Grande Groundwater	
2:25 – 3:20 pm	<b>Break</b>		
3:30 – 3:35 pm	Speaker	Bruce Thompson, Unconventional Groundwater Resources for NM	
3:35 – 4:10 pm			
4:10 -	<b>Dinner on your own</b>		
WEDNESDAY, JULY 12 <sup>TH</sup>			
	<b>Breakfast</b>		
7:30 – 8:30 am	Speaker	Adrian Oglesby, Legal Challenges to Managing Groundwater	
8:30 – 9:15 am	Speaker	Laila Sturgis, 3D Aquifer Mapping	
9:15 – 9:45 am	<b>Break</b>		
9:45 – 10:00 am	Speaker	Aron Balok, Heather Rice, Tyler Nyprstek, Groundwater Districts	
10:00 am – 12:00 pm			
12:00 – 1:30 pm	<b>Lunch</b>		
1:30 – 2:15 pm	Speaker	Michelle Hunter, Water Resources Manager/Interim Utilities Director	
2:15 – 2:45 pm	Speaker	Hannah or Frank, ISC Augmentation Wells	
2:45 – 3:00 pm	<b>Break</b>		
3:00 – 4:00 pm	<b>GMDA Board Meeting</b>		
4:00 -	<b>Dinner on your own</b>		
THURSDAY, JULY 13 <sup>TH</sup>			
	<b>Breakfast</b>		
7:30 – 8:30 am	Tour	Buckman Diversion	
8:30 – 11:30 am			
12:00 – 1:30 pm	<b>Lunch – Hotel Santa Fe</b>		