Water Committee Meeting
Wednesday, July 31, 2024 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. Variance Request in the Hydrologically Connected Area (Limited Development Area)
The deadline for filing an application is September 15.

2.A.2. Variance Requests in the Non-Hydrologically Connected Area (Normal Development Area)
The deadline for filing an application is August 15.

2.A.3. Variance Requests in the Restricted Development Areas

2.A.4. Well Permit Program

2.A.4.a. Well Permit Application
Judy Zimmerman applied for a well permit in the NE NE S36-T16N-1E, Butler County. Presently, they irrigate 132 acres and want to irrigate more efficiently as this is an L-shaped field, by adding a well to the northern part of the quarter as shown on the map. Part of the field is a pivot with the other part flood irrigation. They will not be increasing irrigated acres. This parcel is located 2 miles south of Bellwood in the HCA area (blue).

2.A.5. Groundwater Management Plan
Attached is the updated contract for $35,000 including the additional tasks for the Groundwater Management Plan. This amount was approved to include in the budget at the July board meeting.

Attached is the July invoice for $7,375.38 for updating the plan under the current contract.

2.A.6. Nitrate Assessment Project
Per contract, the invoice is attached for $7,802.50 for the nitrate assessment of Shell Creek.
Bob Meduna commented that there might be a spike in nitrates in the groundwater in the future because of the excess rainfall received.

2.A.7. Cost Share Programs

2.A.7.a. Irrigation Well Sample Kits

167 kits have been sent to producers, but few samples have come back from the lab.

2.A.8. Bellwood Phase 2 Area

2024 is the twenty-second 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 pf 64)	26.56% (17 of 64)	17.19% (11 of 64)
	0 to 19.8 ppm	50.8% (32 of 63)	15.9% (10 of 63)	20.6% (13 of 63)	12.7% (8 of 63)

2.A.9. Richland - Schuyler Phase 3 Area

2024 is the ninth 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)
2023	0 to 46.5 ppm	26% (68 of 263)	6% (17 of 263)
2024			

2.A.10. Voluntrary IMP Update

An V-IMP update will be given at the August 28th Water Committee from NeDNR and NRD staff.

2.B. CHEMIGATION

For 2024 we have 653 renewals and 54 new permit applications for a current total of 707. Inspections for 115 renewal permits and 54 new permits have been completed as of July 31, 2024.

A monthly report is attached.

2.C. GROUND WATER QUALITY SAMPLING

The staff started water sampling the week of July 22nd after a wet June. As of July 31, 41 of the 53 statewide water sample sites have now been sampled.

2.D. Domestic Well Water Treatment Policy

Attached is a revised version of the policy. Please take the time to review.

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

Eric gave an update on METOs equipment and what they are proposing. Hopefully, a proposal will be available by the Board Meeting.

3.B.1. Phase Area Update

Invoices have been received and ready for payment for the following:

3 Flow Meters - Oehlrich Farms Inc - $3,000
1 Flow Meter - Keith Novak - $1,000
1 Flow Meter - A & M Farms LLC - $1,000
6 Flow Meters - Melvin Bailey - $6,000
13 Flow Meters - RDC Farms - $13,000
2 Flow Meter - Larry Kohler - $2,000
1 Flow Meter - Gary Wachel - $1,000
1 Flow Meter - John Healy - $1,000

The total cost-share for July is $28,000 with $16,800 being reimbursed from the WSF grant.

3.B.2. Nitrogen Variable Rate Demonstration Project

Please join us at a Sunset Seminar.

- Bellwood, NE, Wednesday, 8/7
  - Frommy's Pizza & Bar

This seminar will provide more information on LPNNRD demonstration sites. An invoice is attached for $603 to handle the second year of subscription costs on last year's site to show the results for 3 years.

We are once again excited to present our Sunset Seminars! This year's Seminars will include presentations on N-Time and the chance to hear from The Combine and affiliated companies. Following the presentations, there will be an open Q&A session.
Each seminar will be hosted by a current customer or trial partner, providing insights into their experiences with N-Time.

Complimentary dinner and drinks will be provided at each event.

2024 Sunset Seminar Locations

*****All Sunset Seminars start at 5:30 P.M.*****

E, Tuesday, 8/6
ent Center
, Wednesday, 8/7
za & Bar
Thursday, 8/8
Coop
uesday, 8/13
g
E, Thursday, 8/15

Additional location information & agenda to come. For questions, reach out to Shane Forney: shane.forney@sentinelfertigation.com or at (531) 893-1559.

Register Today

3.B.3. GMDA

LPN staff attended the GMDA conference in Omaha from July 18–19. Topics included Lincoln and Omaha water systems, modeling, GIS and court decisions. (presentation attached)

GMDA winter conference will be held February 25-27, 2025 in Temecula, CA.

3.B.4. Lower Platte River Consortium

Lower Platte River Drought Contingency Plan Trigger Updates

Platte River near Ashland flow: Between July 1-24, daily mean discharge at Ashland varied between 21,700 cfs and 4,700 cfs (no drought category). Peak instantaneous flow was 26,900 cfs.

Palmer Drought Severity Index (PDSI) value at Ashland, NE: -3.29 as of July 24th, 2024 (Severe Drought according to the LPRDCP)

Highlights from the Central Region Climate & Drought Outlook webinar during July 2024:

- Seasonal Outlooks (August - October 2024): Temperature outlook is leaning to above average chance of warm conditions, and leaning below average precipitation.
- Crop Conditions in Nebraska as of July 21, 2024:
  - Corn: 76% silking, 75% good to excellent conditions

- Soybeans: 83% blooming, 74% good to excellent conditions

- Topsoil Moisture Conditions in Nebraska as of July 21, 2024: 26% short to very short, 62% adequate, and 12% surplus.
- El Niño-Southern Oscillation (ENSO) Outlook: Currently heading into neutral to La Niña conditions throughout the remainder of the year.

3.C. Budget

Review of this year's groundwater budget.

4. SURFACE WATER PROGRAMS

4.A. STATE LAKES, FOR THE WEEK OF

Fremont Lake No. 9 (SRA) is under a "Health Alert" for Microcystin. A sample was taken from Czechland the week of July 29.

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).

Rockford Lake (SRA), Fremont Lake No. 9 (SRA), and Bluestem Lake will be on Health Alert this week. Maple Creek Recreational Area Lake in Colfax County will be removed from Health Alert.
There will be **3** beaches on Health Alert this week.

Current Lakes on "Health Alert"

Lake	County	Microcystin (ppb)	Sample Date
Rockford Lake (SRA)	**Gage**	**>35**	**7/22/2024**
Fremont Lake No. 9 (SRA)	**Dodge**	**11.71**	**7/22/2024**
Bluestem Lake	**Lancaster**	**19.09**	**7/22/2024**

When a lake exceeds 8 ppb of microcystin it will be placed on Health Alert. 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.
There is **1** beach with *E.coli* testing above 235 colonies/100 ml.

Lakes with High *E.coli* Bacteria

Lake	County	*E.coli* (MPN)	Sample Date
Kirkman's Cove Lake	**Richardson**	**387**	**7/22/2024**

When *E. coli* bacteria levels test above 235 colonies/100 ml a Health Alert is not issued. However, conditions are at a higher risk to human health 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 waterbody.
Have a good day!

Justin Haas
State Lakes Coordinator
Nebraska Department of Environment and Energy
P.O. Box 98922
245 Fallbrook Blvd., Suite 100
Lincoln, NE 68509-8922
Direct: 402-471-4224 | Main Office: 402-471-2186
http://dee.ne.gov

4.B. Streamgages and Groundwater Gage

Staff are working with USGS to renew our streamgages and groundwater gage agreement for: Shell Creek near Columbus, Wahoo Creek at Ashland, and the Mead groundwater well. Historically, these agreements have been annually. Staff prefer longer agreements for time and budgeting reasons. Is the committee supportive of a 3 year or 5 year agreement? This agreement is currently at $19,010 per year.
The Committee suggested reaching out to USGS about a 5-year agreement.

5. OTHER

A question was asked about groundwater recharge areas and wetlands, and should we determine whether a program in our district would be beneficial?

Eric and Kelly met with other NRD managers with Governor Pillen. The governor is pushing for "real time" monitoring and meters on every withdrawal. The concern is consumptive use, and would they tax the water?

5.A. COMMENTS FROM THE PUBLIC

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

DNR & NRD USE ONLY		
Permit No. _____	Date Approved/Denied _____	NRD Representative _____
Permit Type: New, Replacement or Late	Date Received _____	Paid: Cash or Check ~~Cash~~
Date Post-inspected _____	Registration No. _____	Updated Form: June 2022

Wemhoff 19005 450 -

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

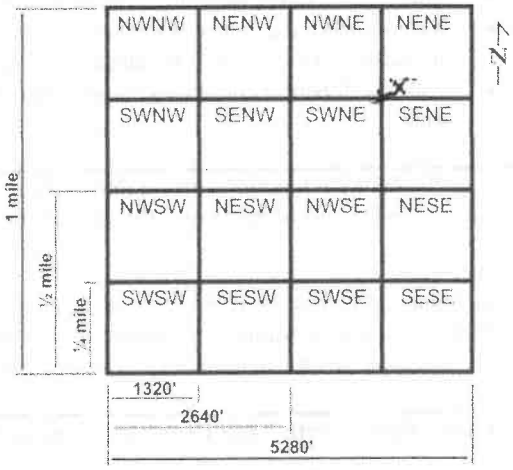
1. NAME AND ADDRESS OF **LAND OWNER:**
Judy Zimmerman
681 40 Road
Bellwood NE 68624
Phone: _____

NAME AND ADDRESS OF **CONTACT:** Wemhoff MFG
Wayne C Wemhoff
PO Box 806
Col NE 68602-0806
Phone: 402 564-2970 402 942-3745

2. PURPOSE OF NEW WATER WELL (indicate one):
X Irrigation (Complete section A)
__ Livestock (Complete section C)
__ Industrial (Complete section E)
__ Recovery or Remediation (Complete section G)
__ Other (specify) _____ (Complete section H)
__ Dewatering (Over 30 days, Complete section B)
__ Domestic (Irr. on one acre or larger, Complete section D)
__ Public Water Supply (Complete section F)

3. IDENTIFY LOCATION OF PROPOSED WELL:
A. Butler County, NE ¼ of the NE ¼ of Section 36, Township 16 North, Range 1 East/West. (circle one)

B. The box at the right represents one square mile, (section). Indicate with an "X", the proposed location of the well. Outline the proposed water use area. If the water is to be used outside the above written legal description, give legal description of water use area,
NE ¼ of the NE ¼ of Section 36,
Township 16 North, Range 1 East/West.



C. The well will be located 1300 feet from the North/South section line, and will be 1300 feet from the East/West section line. Or enter Lat. / Long.
Latitude Degree _____ Minute _____ Second _____
Longitude Degree _____ Minute _____ Second _____

4. REPLACEMENT AND ABANDONED WELL INFORMATION:
A. Is this a replacement well? __ Yes, X No If yes, fill out the rest of this section.
B. Registration number of well to be replaced: _____
C. Well to be replaced was last operated (month/year): _____
D. Replacement well is _____ feet from original well.
E. Decommissioning of Original well on (month/day/year): _____
F. If water use is for irrigation, list the number of acres watered by the original well: _____
G. If water use is for irrigation, will replacement well, water the same tract of land as the decommissioned well? __ Yes, __ No: If No, list the number of additional acres _____ and legal description ____ ¼ of the ____ ¼ of Section ____, Township ____ North, Range ____ East/West. (circle one)

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

5. **SPECIFICATIONS OF INTENDED WELL AND PUMP:**
   A. Approximate date when construction will begin (month/day/year): Fall 2023
   B. Expected total well depth: 200 feet.
   C. Well Casing Diameter: 16 inches.
   D. Pump Column Diameter: 8 inches.
   E. Estimated pumping capacity: 1000 GPM.
   F. Expected total annual water use in Acre Inches / Year _____ or Total Gallons / Year _____
   G. The system is to be powered by __ Electric __ Fuel
   H. Will the well be used in a system with other wells? __ Yes, X No. If Yes, How many _____
      List well registration number and legal description of each well in Section 6 below.
   I. Name of Well Driller: _____ (Please attach test hole log, if available.)

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

Chris Nicolai
253 47 RD
Bellwood, NE 68624
402-367-9203

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

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

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

Date 10-15-2023 Signature of Applicant _____
Signature of Well System Operator, if different than Applicant _____
NRD Certification Number of Landowner or Operator 5787 CO (Required for irrigation, livestock, domestic (with irrigation on one acre or more of land), industrial, and public water supply wells.)
Chris Nicolai 11/1/2023

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

File: WellPermit2008_050908.doc

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

WATER WELL PERMIT FOR IRRGATED ACRES GREATER THAN 160 ACRES IN SIZE OR TOTAL ANNUAL WATER USE BETWEEN 150 AND 300 ACRE FEET PER YEAR, PROVIDE INFORMATION REQUESTED ON PAGES 1, 2, AND 3. (CLASS 3 WELL PERMIT)

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10. WATER SOURCE INFORMATION:

In a TWO-mile radius around the water source location, provide the following information to the LPNNRD in both paper copy and electronically in Excel Spreadsheet (Microsoft) or Access Database (Microsoft) format.

A. List of all registered wells in this area giving registration number, well identification number, legal description, latitude / longitude or UTM coordinates in NAD 83, elevation in feet above mean sea level, and well log for each well.
B. List of all test holes in the area that have been published by Conservation and Survey Division of the University of Nebraska.
C. List of all surface water rights in this area giving appropriation number, priority date, legal description, use, status, current total acres (if applicable), and grant amount.

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11. WATER USE LOCATION INFORMATION:

In the location where the water will be used, provide the following information to the LPNNRD in both paper copy and electronically in Word (Microsoft) format.

A. Description of expanded water use including: latitude / longitude or UTM coordinates in NAD 83 of water use location and timeframe or schedule when water will be used.
B. Amount of water that will be reused or recycled at this new location.
C. Description of how water will be used at this new location, i.e. process water vs. cooling water, etc. and estimated total annual water use for each purpose.

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

WATER WELL PERMIT FOR TOTAL ANNUAL WATER USE EQUAL TO OR GREATER THAN 300 ACRE FEET PER YEAR, REGARDLESS OF NUMBER OF IRRIGATED ACRES, PROVIDE INFORMATION REQUESTED ON PAGES 1, 2, AND 4. (CLASS 4 WELL PERMIT)

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12. WATER SOURCE INFORMATION:

In a FIVE-mile radius around the water source location, provide the following information to the LPNNRD in both paper copy and electronically in Excel Spreadsheet (Microsoft) or Access Database (Microsoft) format.

A. List of all registered wells in this area giving registration number, well identification number, legal description, elevation in feet above mean sea level, latitude / longitude or UTM coordinates in NAD 83, and well log for each well.
B. List of all test holes in the area that have been published by Conservation and Survey Division of the University of Nebraska.
C. List of all surface water rights in this area giving appropriation number, priority date, legal description, use, status, current total acres (if applicable), and grant amount.

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13. WATER USE LOCATION INFORMATION:

In the location where the water will be used, provide the following information to the LPNNRD in both paper copy and electronically in Word (Microsoft) format.

A. Description of expanded water use including: latitude / longitude or UTM coordinates in NAD 83 of water use location and timeframe or schedule when water will be used.
B. Amount of water that will be reused or recycled at this new location.
C. Description of how water will be used at this new location, i.e. process water vs. cooling water, etc. and estimated total annual water use for each purpose.

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14. AQUIFER PUMP TEST:

In the location of the proposed water source a District approved aquifer pump test is to be performed to obtain geologic data that will be used in the ensuing ground water modeling effort. Data from the pump test is to be reported to the LPNNRD in both paper copy and electronically in Excel Spreadsheet (Microsoft) or Access Database (Microsoft) format.

A. Description of pumping well should include legal description of well, latitude / longitude or UTM coordinates in NAD 83, elevation of well in feet above mean sea level, total amount of water pumped, gallons per minute during pump test, duration of pump test, well construction, well log, water discharge location and method.
B. Description of each monitoring well should include legal description of well, latitude / longitude or UTM coordinates in NAD 83, spacing in feet and direction from pumping well, elevation of well in feet above mean sea level, well log, and well construction.
C. Depth to bedrock, bedrock material, and name of geologic formation.

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15. GROUNDWATER MODEL:

In a FIVE-mile radius of the location of the proposed water source a ground water model using MODFLOW software, or similar software approved by LPNNRD, is to be done. Data from the ground water model is to be reported to the LPNNRD in both paper copy and electronically using the appropriate software.

A. Model should list boundary conditions used, grid size, include all high capacity wells in modeled area, streams and rivers in the modeled area, expected recharge rates, location and flow amounts, hydrologic conductivity and transmissivity values used.
B. At least one iteration, reviewed and approved by LPNNRD, should model steady state conditions over a five-year period with a no flow boundary, and little or no recharge to simulate drought conditions.

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

PURPOSE OF WELL

IRRIGATION WELLS (SECTION A)

A. How many acres will be irrigated? 80 acres
B. Crops to be planted: Corn Beans Crop rotation schedule _____
C. Type of irrigation system. X Center Pivot, __ Gravity, __ Other (specify) _____
D. The irrigation system is to be powered by X Electric __ Fuel
E. Expected total annual consumptive water use in Acre Inches / Year _____ or
Total Gallons / Year _____
F. Will Fertilizer, Chemicals or Animal waste be applied through the system? __ Yes, X No

DEWATERING WELLS OVER 30 DAYS (SECTION B)

A. Purpose of dewatering well, such as installation of building foundation, etc. _____
_____
B. Expected total number of days the dewatering well will be in use _____
C. Approximate dates (month/day/year) in operation: Start _____ End _____
D. Legal description of water discharge location: ____ ¼ of the ____ ¼ of Section ____, Township ____North, Range ____ East/West and name of river, stream or water body _____
E. Will discharge water be used for another purpose, such as livestock, irrigation, etc.? __ Yes, __ No
If Yes, list purpose, location and expected total amount of water use in acre-inches / year or total gallons / year.
_____
_____

LIVESTOCK WELLS (SECTION C)

A. Name of facility _____
B. Type of Livestock: ___ Feeder Cattle, ___ Dairy Cattle, ___ Swine over 55 lbs., ___ Swine under 55 lbs., ___ Sheep, ___ Poultry, ___ Horses
C. Average number of livestock per year _____ and average weight per animal _____ lbs.
D. Peak number of livestock _____ and time of year _____
E. Is facility approved by Nebraska Department of Environmental Quality? __ Yes, __ No. If Yes, list NDEQ certification IIS number _____ If No, complete the rest of this section.
F. Type of facility: ___ Open lot, ___ Covered Building
G. If facility is Open lot, list soil type _____
H. Estimated depth to ground water under feedlot _____ ft.
I. Describe manure collection system of feedlot _____
_____
J. Name and distance of nearest surface watercourse from feedlot _____
K. For each manure land application site, list legal description and size in acres, method of application, and distance from feedlot operation. _____
_____
_____

DOMESTIC WELLS WITH IRRIGATION ON ONE ACRE OR MORE (SECTION D)

A. Check all that apply:
a. Water use: ___ Lawn and number of acres to be irrigated _____ acres.
b. Water use: ___ Commercial garden and number of acres to be irrigated _____ acres.
c. Water use: ___ Tree Farm and number of acres to be irrigated _____ acres.
d. Water use: ___ Type of livestock _____ and number _____
B. Type of irrigation system. __ Sprinkler, __ Drip Tape, __ Other (specify) _____
C. If applicable, give Street address and town _____
_____

* One acre equals 43,560 square feet.

INDUSTRIAL AND COMMERCIAL WELLS (SECTION E)

A. Name of facility _____
B. Products produced by facility _____
C. In Section 6 or on a separate sheet of paper, list well registration number and legal description of current wells supplying water to this facility.
D. In Section 6 or on a separate sheet of paper, provide a short description how water is used within the facility and the expected annual amount of water for each use. For example: "The manufacturing plant will use 45% of total annual water use, or 1.45 million gallons per year, for electroplating of galvanized pipe and the remaining 55% of total annual water use, or 1.77 million gallons per year, will be used for non-contact cooling water throughout the plant".
E. Will any of the used water or waste water from this facility be re-used for another purpose? __ Yes, __ No.
If Yes, list purpose, location and expected total amount of water use in acre-inches / year or total gallons / year.
_____
_____

PUBLIC WATER SUPPLY WELLS (SECTION F)

A. On a separate sheet of paper, list the well registration numbers and legal description of current wells supplying water to this community.
B. Attach a list of the five largest industrial water users that your community supplies water to, and the total annual amount of water supplied to each of these industries for the last five years.
C. For these same industries list the total annual amount of water returned to the community as waste water for each of the last five years.
D. Will waste water be used for another purpose, such as livestock, irrigation, etc.? __ Yes, __ No
If Yes, list purpose, location and expected total amount of water use in acre-inches / year or total gallons / year.
_____
_____
E. Attach a list of the golf courses that the community supplies water to and list the location and number of acres for each one.

RECOVERY OR REMEDIATION WELLS (SECTION G)

A. Reason for recovery or remediation well, i.e. leaking underground storage tank. _____
_____
B. Contaminates of concern _____
C. Treatment method of contaminates _____
D. Approximate dates (month/day/year) in operation: Start _____ End _____
E. Legal description of water discharge location: ____ ¼ of the ____ ¼ of Section ____, Township ____North, Range ____ East/West and name of river, stream or water body _____
F. Will cleanup water be used for another purpose, such as livestock, irrigation, etc.? __ Yes, __ No
If Yes, list purpose, location and expected total amount of water use in acre-inches / year or total gallons / year.
_____
_____

OTHER WELLS (SECTION H)

A. Purpose of water use _____
B. Will the well be used for one calendar year or less? __ Yes, __ No
    a. If Yes, list approximate dates (month/day/year) the well will be in operation: Start _____ End _____
    b. If No, list the approximate dates (months) or seasons of the calendar year that well is expected to be in peak or highest use. _____
C. Legal description of water discharge location: ____ ¼ of the ____ ¼ of Section ____, Township ____North, Range ____ East/West and name of river, stream or water body _____

This form must be completed in full and accompanied by a non-refundable $50.00 filing fee (payable to the Lower Platte North Natural Resources District). In addition, for Class 3 well permits an added fee of $250.00 is required for District review. For Class 4 well permits an added fee of $500.00 is required for District review. Forward this application and filing fees to:

Lower Platte North Natural Resources District
P.O. Box 126
Wahoo, NE 68066
Phone: (402) 443-4675

Please take the time and fill out the information correctly. The District will return an incomplete or defective application, with 60 days being allowed for resubmission. The District shall issue all permits with conditions attached, or denied not later than 30 days after receipt of a complete and properly prepared application.

WATER WELL PERMIT RESTRICTIONS

1. A well permit is required prior to the construction of a water well. If construction of a water well is commenced prior to obtaining a permit, a late permit must be completed and accompanied by a $250.00 application fee. Construction or operation of a new water well without an approved water well permit shall result in the District issuing a 'cease and desist order' against further construction or use of that water well.
2. An irrigation well shall not be constructed within 1000 feet of any registered industrial or public water supply well or within 600 feet of a registered irrigation well; A public water supply well shall not be constructed within 1000 feet of any registered irrigation, industrial or other public water supplier's well; An industrial well shall not be constructed within 1000 feet of any registered irrigation, industrial or public water supply well pursuant to §46-609 and §46-651. These spacing restrictions shall not apply to water wells owned by the same person. Any person may apply to the Nebraska Department of Natural Resources for a special permit to drill a water well without regard to the spacing requirements pursuant to §46-653. The District may adopt stricter well spacing requirements based on different aquifer subareas. Check with the District office if you have any questions.
3. This permit does not register the well with the Department of Natural Resources. All wells are required to be registered by the well driller with the Nebraska Department of Natural Resources within 60 days after the well is completed.
4. A replacement water well is one, which replaces an abandoned water well that has been operated within the last three years, and is constructed to water the same tract of land as the abandoned water well that is being replaced. A replacement water well must be pumping from a comparable aquifer and yield approximately the same gallons per minute and total annual water uses as the original water well it is replacing. As of January 1, 1997, both new and replacement wells need a permit from the Lower Platte North Natural Resources District.
5. Consumptive water use in acre-inches is determined from the Department of Natural Resources (DNR) Net Corn Crop Irrigation Requirement map or a similar map produced by the University of Nebraska.
6. If the well is being replaced it must be properly abandoned according to state guidelines. A copy of these guidelines is available from the Lower Platte North NRD.
7. If the water well is not constructed within a one-year period from the date of approval, a new permit is needed.
8. Water wells may not be drilled within 50 feet of a stream bank without first obtaining a surface water right for that water withdrawal from the Department of Natural Resources pursuant to §46-637.
9. Any person who, on or after January 1, 1997, commences or causes construction of such a well for which the required permit has not been obtained, or who knowingly furnishes false information regarding such a permit, shall be guilty of a Class IV misdemeanor pursuant to §46-602.01 and §46-613.02.
10. Permits are not required for test holes or temporary dewatering wells (30 days or less). Permits are needed for water wells designed to pump 50 gallons per minute or less in Level 3 and Stay management areas.
11. Tax assessor records submitted with water well permit must include map, parcel number and an accurate account of current land use, such as irrigated acres.
12. With the well permit application, submit an aerial photograph with markings to show the location of the water source(s) and the location of where the water is to be used.
13. Any person, who knowingly furnishes false information regarding a water well permit, shall be subject to the imposition of penalties imposed through the controls adopted by the District pursuant to §46-746.
14. All new or replacement water wells must install a District approved flow meter and report water pumped annually in acre-inches per year or total gallons per year on LPNNRD approved forms by January 31st of each following year.
15. If multiple water sources are used, landowner must supply flow records from each water source in acre-inches per year or total gallons per year on LPNNRD approved forms by January 31st of each following year.
16. Water well permit applications require that the applicant or operator of irrigation, livestock, domestic (with irrigation on one acre or more of land), industrial, and public water supply wells by NRD certified.

**** Landowners must list new irrigated acres with the County Assessor, update the DNR well registration, and comply with any additional conditions within 90 days of LPNNRD approval of this water well permit. LPNNRD staff may perform a site visit to verify information provided in the well permit application. ****

Approved List of Propeller Flow Meters
Lower Platte North Natural Resources District (LPNNRD)
Effective: April 11, 2022

Approved List of Propeller Flow Meters and Required Conditions

LPNNRD requirements for all propeller flow meters:

- Anti-reverse flow feature to prevent backflow.
- Follow manufactures installation recommendations taking into account in-pipe jetting or non-jetting flow conditions. (Correct installation of the flow meter is critical to getting an accurate reading. Most meters require a straight pipe before and after the flow meter that is at least equivalent to five times the pipe diameter in order to obtain an accurate flow measurement. Doing the installation correctly the first time saves money in the long run).
- Straightening vanes are required according to manufacturer's installation recommendations for in-pipe jetting or non-jetting flow conditions.
- Meter must be positioned to ensure water totally fills the pipe, such as a level pipe or positioned on a riser.
- Meter must be configured: to inside and outside diameter of the pipe, material of the pipe, meter used that will operate within minimum and maximum output flow rates of the well, horizontal or vertical installations, and unobstructed straight run distance upstream and downstream of meter and in most cases straightening vanes (or other flow straightener) will be necessary.
- Meter totalizes flow in acre inches and flow meter dial is in gallons per minute.
- A flow meter must be dedicated to each individual well. (Exceptions will be made if several wells are used to provide enough water to operate a single irrigation system such as a pivot or gated pipe. In these situations a flow meter placed at the central location where all water can be metered is acceptable).

Manufacturer	Model	Notes
McCrometer	McPropeller	All propeller models
Sparling	Propeller saddle meter	Model 312 propeller meter
Geyser	Saddle meter	All propeller models for Farmland Irrigation

LPNNRD prefers the following added features for all propeller flow meters:

- Over-run bearing (or extra bearing) for smother operation and to extend life of the meter
- Canopy cover to protect meter

LPNNRD will inspect systems for proper installation of flow meters

Section 36 - 16 - 1 Butler

Irrigated Acres - 132

July 23, 2024

Daryl Andersen
Water Department Manager
Lower Platte North Natural Resources District
511 Commercial Park Road
Wahoo, NE 68066

RE: Groundwater Management Plan Update – Project Modification No. 1
Subareas Delineation, Spring/Fall Well Review, Quantity Trigger Evaluation, and Safe-Yield Thresholds

Dear Daryl,

The Lower Platte North Natural Resources District (LPNNRD) is currently working with LRE Water to update the Groundwater Management Plan (GWMP) (Project). LRE Water is providing you with the following proposal and agreement to add additional tasks to the original agreement executed on February 1, 2024. These tasks were presented to the Water Committee on May 29, 2024, and the Board of Directors on June 10, 2024. LRE Water understands that this agreement will be considered and approved at the August 12, 2024, Board of Directors meeting.

Project Understanding

After LRE Water began working on the GWMP update and reviewed available data, several recommendations were provided to LPNNRD staff at a technical group meeting held on April 25, 2024. It was determined by staff that it would be most beneficial to address several of these recommendations now as the GWMP document was being prepared, rather than after the GWMP update is complete. Four recommendations were prioritized and include:

1) Review and refine subareas;
2) Review and standardize spring/fall water level hydrographs;
3) Additional review of quantity triggers used in the rules and regulations, and;
4) Provide language describing potential methodologies or protocols for evaluating; permit applications for future well sites.

LRE Water is providing the following agreement to incorporate the following recommendations into the current effort. Assuming these actions proceed early in August 2024, the schedule for the GWMP update will remain as planned with a final deliverable to LPNNRD by the end of 2024. Items 1 and 2 above are referenced as Task 5 and Task 6, respectively, and items 3 and 4 are merged into one task, referenced as Task 7 below. After the agreement is executed, LRE Water will amend the original project number, 5036LPN03, to include the additional services sequentially after the existing tasks.

1. SCOPE OF SERVICES

To complete the Project, LRE Water will complete the following tasks described below. Time for project management was not included, as these additional tasks will be managed through the existing agreement.

Task 5 –Review and Refine Subarea Delineations

The current subareas were delineated by Olsson in the March 2009 LPNNRD Hydrogeologic Evaluation and Subarea Delineation Study. The subareas were delineated based on local hydrogeologic conditions and depositional characteristics. To meet the objectives of the task, and possible modifications of delineated subareas across the LPNNRD, LRE Water is proposing to complete a high-level review of the current subareas based upon 3D Airborne Electromagnetic (AEM) and hydrogeologic data collected after the March 2009 study.

Subareas will be utilized to manage water quantity (LPNNRD Control Areas) but could also be used to define areas for water quality studies (LPNNRD Phase Areas); however, as discussed at the April 25th meeting, the delineated Control Areas and Phase Areas may cross or be smaller than subarea boundaries.

Activities that will be completed under this task are as follows.

- Review available hydrogeologic data to validate or modify the subareas, and potentially adjust the boundaries originally proposed in 2009. Subareas will be designated by Public Land Survey System sections for easy geographical references. Major data sources include:
    - Hydrogeologic Assessment (LRE, 2023)
    - 3D AEM Hydrogeologic Framework (LRE, 2022)
    - Water Resources Inventory Report (Olsson, 2015)
    - Hydrogeologic Evaluation and Sub Area Delineation report (Olsson, 2009)
- Provide a GIS shapefile and map of draft subareas to LPNNRD staff for an internal review. LRE Water will make one round of edits and produce a draft-final subarea delineation.

- Provide a shapefile and map for LPNNRD staff to share with the Board of Directors. The purpose is to apply local knowledge of the aquifers to ensure the subareas are as representative of local conditions as possible.
- Integrate the final subareas into the GWMP update.

Cost: $8,000

Task 6 – Review Spring/Fall Wells and Standardize Hydrographs

Currently, LPNNRD staff obtain spring and fall water levels from approximately 200 wells district-wide to help determine changes in water levels. A review of each well (lithology, well screened interval and depth) and how accurately it represents the aquifer and local pumping influences has not been completed. LRE Water will provide a review of the well log and determine if the well is adequate for use in making water resource management decisions and add more detail on standardized hydrographs that could be updated annually by in-house by staff as water level data is collected.

- Deliver consistent hydrographs for up to 200 wells used for spring/fall water levels using the district's existing water level/well hydrograph Excel spreadsheets. The spreadsheets provided by the district will include the current baseline and existing trigger or Control Levels used by the district. The consistency will be met by applying the same vertical and horizontal scales on each graph. It is understood that not all wells can be compared equally and regional adjustments may be necessary (e.g. smaller vertical scale for the Platte River region as compared to deeper wells within the Shell Creek, Todd Valley, and Upland regions).
- Determine if geologic and well construction information that is available for each well is sufficient for use in the monitoring network.
- Add details to each hydrograph such as: subarea, registration number, map of location, well depth, screened interval, number of high capacity wells within 1mile, and lithologic description (example attached). Make recommendations for adding other wells for use in the spring/fall monitoring network.

Cost: $20,000

Task 7 – Quantity Trigger & Well Interference Evaluation Protocols

Two specific elements of the current Rules and Regulations will be reviewed. LRE Water will provide recommendations that may include language for consideration by the staff and Board for incorporation into the Rules and Regulations after the GWMP update is complete. The two elements include the quantity trigger procedure and evaluating a

protocol for evaluation of new wells in areas that may potentially cause interference issues.

Task 7A - Quantity Trigger Evaluation

Methods currently used by LPNNRD staff to evaluate quantity triggers (i.e., Control Level in the rules) were established in the late-1980s. Since that time there has been minimal updating or detailed review of these procedures. Task 7A, utilizing information from Task 6, will allow LRE Water to review current protocols and provide recommendations for potentially updating the triggers, or procedure for reviewing the triggers, as part of the GWMP update.

- Perform a literature review of similar water quantity trigger policies (e.g. other NRDs, national references, etc.).
- Provide recommendations and direction for modifications of triggers for unconfined and confined aquifers.
- Provide language for consideration for incorporation into LPNNRD's Rules and Regulations. The addition of this language will be a recommendation in the updated GWMP.

Task 7B – Protocols for Evaluating New Well Permit Application Establishing Safe-Yield Thresholds

Many well permit reviews often raise questions about the potential for the new well to cause interference to existing water users. This tasks will describe a process for obtaining crucial data to support decisions on new wells within questionable areas prior to considering a variance request. This process will assist the LPNRD and the applicant with the information necessary to address uncertainties related to well yield and potential interference.

- Complete a high-level review of the district's existing well scoring protocol.
- Provide language describing possible protocol for the LPNNRD to consider during their review and evaluation of water use permit applications. Possible outcomes from these evaluations could require a site-specific desktop assessment, or potentially drilling a test hole, installing a test well, performing an aquifer pumping test, completing a hydrogeologic assessment report, and utilizing a refined numerical groundwater model.
- Describe a stepwise approach for the permit application evaluation process and recommended methods for conducting an aquifer pumping test to support permit decisions.

Cost: $7,000

2. PAYMENT

The estimated time and materials fee for the modification to the Project outlined above will not exceed $35,000 unless the LPNNRD approves exceedance, and the estimated distribution of compensation is outlined in the table below. This modification brings the total contract, originally set at $54,000, to $89,000. LRE Water expenses include mileage, lodging, meals, and equipment rental.

SCHEDULE AND COST ESTIMATE MODIFICATION NO. 1

TASK NO.	TASK NAME	COST
5	Subarea Delineation	$ 8,000
6	Review Spring/Fall Wells & Standardize Hydrographs	$20,000
7	Quantity Trigger Evaluation & Safe-Yield Thresholds	$ 7,000
	TOTAL	**$35,000**

Invoices are submitted routinely, but no more frequent than monthly, for time and expenses incurred. Terms of payment are net 30 days. Overdue accounts are subject to an interest charge of 1.5 percent per month and services will stop whenever payment is overdue more than 75 days.

Payments for our services, like other professional services, are based on the actual time spent on your behalf and are measured by standard hourly rates in effect at the time the services are performed. For those assigned to your team, those rates currently range from $200–$280 for principals; $10–$260 for engineers, hydrologists, and environmental scientists; and $80-$155 for data processing, technicians and IT support. Individuals are assigned to a project based on the type of services involved and the experience and expertise of the individual.

Routine expenses such as telephone and copies are included in the rates above. Outside expenses such as laboratory analysis, obtaining aerial photos, or other special services incurred directly in connection with the project are billed at cost plus 5 percent to cover handling and administration. Reimbursable expenses billed at cost include airfares, automobile rental, and other travel or per diem costs. Subconsultants to LRE Water are billed at cost plus 10 percent.

The scope described under Part 1 represents our estimate of the services required based on the information provided. As the project proceeds and additional facts are discovered, it may be necessary to perform additional services and some items described may not be

needed. For these reasons, LRE Water can provide only an estimate of the time and cost of completing the services.

3. LIMITATION OF LIABILITY AND CONSEQUENTIAL DAMAGES

In recognition of the relative risks and benefits of the project to both the LPNNRD and LRE Water, the risks have been allocated such that LPNNRD agrees, to the fullest extent permitted by law, to limit the liability of LRE Water and its officers, employees, and sub-consultants, to LPNNRD and all of LPNNRD's contractors and consultants, for any and all claims, losses, costs, damages of any nature whatsoever; or claims expenses from any cause or causes, including attorneys' fees and costs and expert witness fees and costs, so that the total aggregate liability of LRE Water to LPNNRD shall not exceed the total amount of $50,000 or the total fees billed to this Project, whichever is less. It is intended that this limitation apply to any and all liability or cause of action however alleged or arising, unless otherwise prohibited by law.

Notwithstanding anything to the contrary herein, in no event shall either Party hereto be liable to the other for any special, indirect, incidental, exemplary, or punitive damages, including without limitation, loss of profits, loss of business opportunity or loss of prospective revenue, arising out of this Agreement, however same may be caused. This Section shall survive the expiration or termination of this Agreement.

4. SPECIAL SERVICES

Services in addition to those described under Part 1 will be performed or obtained for the client's account upon request and approval at rates currently in effect. Special services may include, but are not limited to, expert testimony, appearances at public meetings, soil investigations, topographic and land surveys, including establishment of boundaries, well drilling, well and aquifer testing, electric logging, water quality sampling and analysis, preparation of construction drawings and specifications, material testing, data management, environmental permitting, and regulatory compliance.

5. INSURANCE

LRE Water maintains the following insurance:

1. Commercial General Liability
2. Automobile Liability
3. Workers' Compensation and Employer's Liability
4. Professional Liability Insurance

6. ANTI-DISCRIMINATION

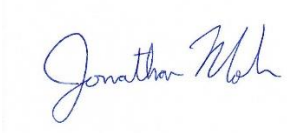
LRE Water, its officers, directors, employees and subconsultants, hereby incorporate the requirements of 41 C.F.R. § 60-1.4(a) and 29 C.F.R. § 471, Appendix A to Subpart A, if applicable. LRE Water, its officers, directors, employees and subconsultants shall also abide by the requirements of 41 CFR 60-300.5(a) and 41 CFR 60-741.5(a), if applicable. These regulations prohibit discrimination against qualified protected veterans and qualified individuals with disabilities and require affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified protected veterans and qualified individuals with disabilities.

Acceptance of this proposal and authorization to proceed with the services can be indicated by signing one copy and returning it to us for our files. The terms of this proposal will be honored for a period of 30 days.

LRE Water appreciate the opportunity to assist you with this Project and if you have any questions or concerns about the services offered in the proposal, please call us at 402-416-4667.

Thank you for providing us with the opportunity to present this agreement to the LPNNRD.
Sincerely,

LRE WATER



Jonathan Mohr
Project Manager

For: LPNNRD

By: _____
Authorized Signature/Title

Reviewed by:

Dave Hume, PG
VP of Midwest Operations

Date: _____

Date: 7/15/2024

JDM

CONNECTING WATER TO LIFE

July 15, 2024
Invoice No: 27047

Invoice Total: $7,375.38

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

Please Remit To:
LRE Water
1221 Auraria Pkwy
Denver, CO 80204
(303) 455-9589
billing@LREwater.com

Invoice Email: dandersen@lpnnrd.org
Project No.: 5036LPN03
Project Name: LPNNRD GW Management Plan

Professional Services through June 25, 2024

Task 02 Stakeholder Involvement

Professional Personnel

	Hours	Rate	Amount	
Libra, Jon	4.75	143.00	679.25	
Mohr, Jonathan	25.00	195.00	4,875.00	
Totals	29.75		5,554.25	
Total Labor				**$5,554.25**

Reimbursable Expenses

Mohr, Jonathan			253.63	
Total Reimbursables			**253.63**	**$253.63**
		Total this Task		**$5,807.88**

Task 03 Plan Development

Professional Personnel

	Hours	Rate	Amount	
Hume, David	6.00	245.00	1,470.00	
Mohr, Jonathan	.50	195.00	97.50	
Totals	6.50		1,567.50	
Total Labor				**$1,567.50**
		Total this Task		**$1,567.50**
		Total this Invoice		**$7,375.38**

Outstanding Invoices

Number	Date	Balance
26357	5/17/2024	6,701.50
26692	6/19/2024	1,920.00
Total		**$8,621.50**

Total Now Due	**$15,996.88**

CONNECTING WATER TO LIFE

July 15, 2024
Invoice No: 27048

Invoice Total: $7,802.50

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

Please Remit To:
LRE Water
1221 Auraria Pkwy
Denver, CO 80204
(303) 455-9589
billing@LREwater.com

Invoice Email: dandersen@lpnnrd.org
Project No.: 5036LPN04
Project Name: LPNNRD Nitrate Assessment Project

Professional Services through June 25, 2024

Task 01 Risk Tool Expansion

Professional Personnel

	Hours	Rate	Amount	
Close, Kelly	2.50	250.00	625.00	
Fuentes Arias, Fabiana	8.50	180.00	1,530.00	
Sopiwnik, Roscoe	6.00	200.00	1,200.00	
Totals	17.00		3,355.00	
Total Labor				**$3,355.00**
		Total this Task		**$3,355.00**

Task 02 USC Groundwater Model

Professional Personnel

	Hours	Rate	Amount	
Bauer, Jacob	4.00	225.00	900.00	
Mohr, Jonathan	1.00	195.00	195.00	
Stokes, Scott	22.50	149.00	3,352.50	
Totals	27.50		4,447.50	
Total Labor				**$4,447.50**
		Total this Task		**$4,447.50**
		Total this Invoice		**$7,802.50**

Outstanding Invoices

Number	Date	Balance
26693	6/19/2024	9,189.16
Total		**$9,189.16**

Total Now Due	**$16,991.66**

CHEMIGATION - July 2024

TOTAL CHEMIGATION APPLICATIONS IN 2023 (700)

NEW CHEMIGATION APPLICATIONS - 54

(5) Boone (6) Butler (8) Colfax (3) Dodge (1) Madison (6) Platte (25) Saunders

RENEWALS: 653

BOONE COUNTY - 45
BUTLER COUNTY - 80
COLFAX COUNTY - 80
DODGE COUNTY - 120
MADISON COUNTY - 6
PLATTE COUNTY - 116
SAUNDERS COUNTY - 206

RENEWAL INSPECTIONS: 115

(4) Boone (28) Butler (16) Colfax (28) Dodge (4) Madison (16) Platte (19) Saunders

NEW INSPECTIONS: 54

(5) Boone (7) Butler (8) Colfax (3) Dodge (1) Madison (6) Platte (24) Saunders

NEW CANCELLATIONS: 1

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

EMERGENCY: 0

DOMESTIC WELL WATER TREATMENT SYSTEM COST-SHARE PROGRAM

Purpose: *This program is intended to assist with funding the installation of a water treatment system on eligible domestic wells.*

Eligible Participants: Active domestic wells within the Lower Platte North Natural Resources District (LPNNRD). Well must be sampled through the LPNNRD's domestic well sampling program, which utilizes the Nebraska State Laboratory. The cost-share program is for a one-time purchase of a water treatment system through this program.

Eligible Components:

- Equipment and installation costs for a water treatment system
- Registration cost of the domestic well up to $70.

In-Eligible Components:

- Maintenance costs and follow up sampling after initial sampling.
- Registration of illegal wells or equipment (i.e. sand point wells)

Requirements:

1. If the domestic well is not currently registered, the LPNNRD will assist in the paperwork along with the cost of registering the well.

2. Well owners must first apply for and utilize any other funding if available and eligible.

3. If ineligible for other funding, or funding is exhausted, well owners may apply for LPNNRD cost share program.

4. The sample results must be 8 ppm or greater for nitrate or test positive for other contaminates over the drinking water standards.

5. The application must be approved by the LPNNRD prior to the purchase and installation of the equipment.

6. Equipment must reduce nitrate to **less than 6** parts per million (mg/l) and be approved by the LPNNRD. For other contaminates the equipment must reduce the level to meet drinking water standards and be approved by the LPNNRD. Cost estimate from a licensed plumber must be submitted for the installation of a water treatment system certified by the American National Standards Institute.

7. Following installation, well owners are required to conduct one follow-up sample to verify the equipment is functioning correctly and send results to LPNNRD.

8. One year after installation a follow-up sample is required along with the option of allowing NRD staff to do an inspection of the water treatment unit at the location of the cost-share site.

9. The purpose of the cost share project is to assure the citizens acceptable drinking water. So, the cost shared water treatment unit must stay on site that the original cost-share was given.

8. After receiving water treatment system cost share, the domestic well is no longer eligible for the LPNNRD's water sampling cost-share program.

Cost-Share: 75% of the total cost, not to exceed $800. One time use program.

Reasons to register your well:

- What you get in return is over $300 in water testing for free! Testing your water, especially if you have a family drinking, bathing, and cooking with it, will give you peace of mind that the water is safe.
- Registering your well allows NRD staff to review locations when high capacity well permits are submitted. This might give you protection from potential infringements on your quality and quantity of water from new wells drilled in the future.
- Registering your well is easy and it opens the door to this program and others that may be offered by the LPNNRD in the future. The potential to save thousands of dollars and improve the quality of your drinking water makes this program WELL worth looking into,

Registration Cost for a well

Important! For single water wells which were completed before 2002 and are being registered by the well owner please review the bottom of the last page of the registration form for minimal information required. For single wells pumping 50 gallons per minute (gpm) or less the current registration fee is **$70**. For single wells pumping more than 50 gpm the current fee is **$110** and you may need a permit from your local Natural Resources District (District) before the well may be registered. Check with the District before submitting a registration form for wells pumping more than 50 gpm. For more detailed fee information and instructions on how to fill out a registration form please click the link below to download the companion instruction document. It is imperative that the geographic coordinates for the well location and the legal description required in section 3 of the form are accurate and consistent with each other.

Sentinel Fertigation, Inc.
2125 Transformation Dr. Suite 1000
Lincoln, NE 68508
+1 5318931559
sales@sentinelfertigation.com
www.sentinelfertigation.com

INVOICE

BILL TO
Daryl Andersen
Lower Platte North NRD
511 Commercial Park Rd
PO Box 126
Wahoo, NE 68066 US

SHIP TO
Daryl Andersen
Lower Platte North NRD
511 Commercial Park Rd
PO Box 126
Wahoo, NE 68066 US

INVOICE	1192
DATE	07/25/2024
TERMS	Net 30
DUE DATE	08/24/2024

ACCOUNT SUMMARY

05/03/2024	Balance Forward	10,803.88
	Other payments and credits after 05/03/2024 through 07/24/2024	-10,803.88
07/25/2024	Other invoices from this date	0.00
	New charges (details below)	603.00
	Total Amount Due	603.00

DATE	SKU	ACTIVITY	DESCRIPTION	QTY	RATE	AMOUNT
06/18/2024	S-000000000-NTA-00000-G	N-Time Advanced Grower	F7 - Meduna Farms - One-crop subscription to N-Time Advanced software.	52	0.00	0.00
07/25/2024	S-000000000-NTA-00000-G	N-Time Advanced Grower	Birkel - Micks - One-crop subscription to N-Time Advanced software.	67	9.00	603.00

F7 subscription covered with cost of Reflex pump Invoice #1128

SUBTOTAL	603.00
TAX	0.00
TOTAL	603.00
TOTAL OF NEW CHARGES	603.00
BALANCE DUE	**$603.00**

GMDA Summer Conference
Hotel Deco, Omaha, NE
July 17-19, 2024

Post-*Sackett* Developments &
Chevron Deference Upended

Wetlands as WOTUS or Not WOTUS

Michael & Chantell Sackett

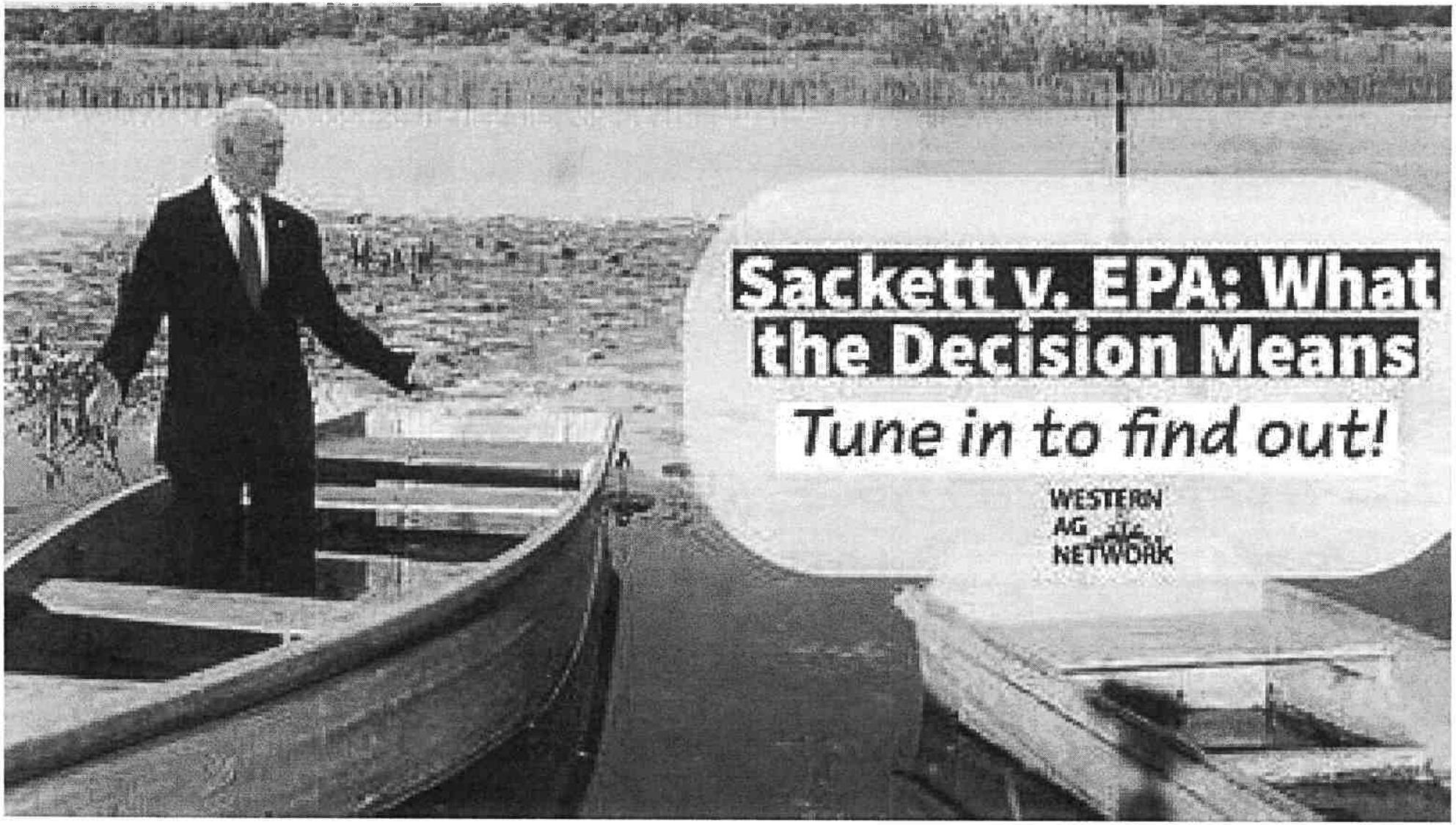
► 19 year battle to build a modest Idaho house on an empty lot 500 feet from the shores of Priest Lake


WETLANDS
DITCH
SACKETT PROPERTY
KALISPELL CREEK
ROW OF HOUSES
PRIEST LAKE

EPA: Stop work because lot contained wetlands protected by CWA - it fed into non-navigable creek that led to Priest Lake

SCOTUS Holding: Reversed.

The Clean Water Act extends only to wetlands that have a continuous surface connection with "waters of the United States", i.e., with a relatively permanent body of water connected to traditional interstate navigable waters, such as an ocean, river, stream or lake.

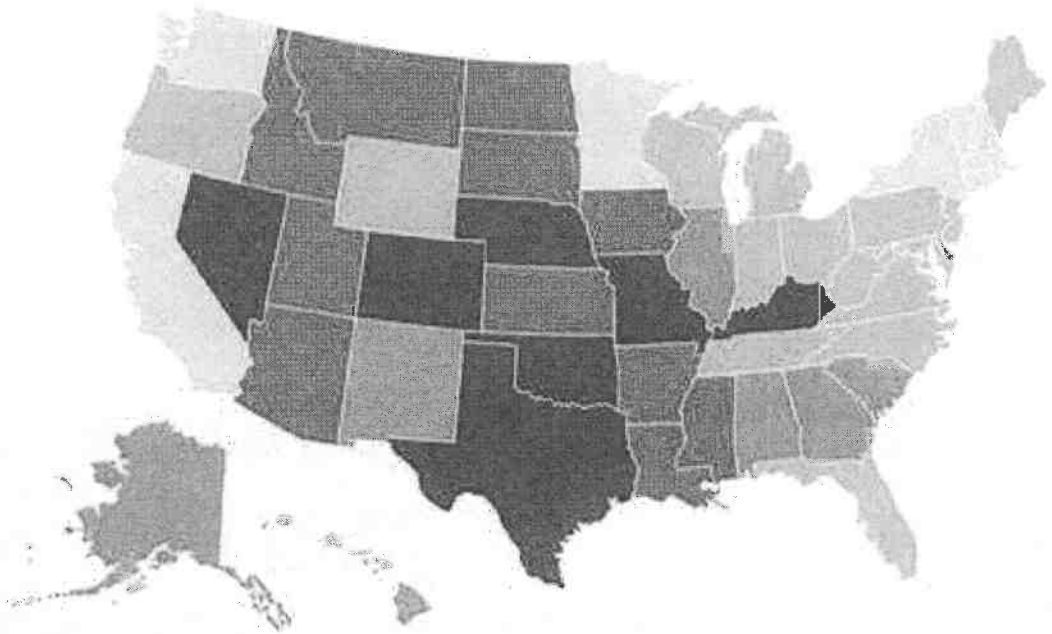

Sackett v. EPA: What the Decision Means
Tune in to find out!
WESTERN AG NETWORK

Sackett ruling:

1. returns the scope of CWA to original limits.
2. clear measuring stick for fairness and consistency by federal regulators: "continuous surface connection" with navigable waters, not mud puddles.
3. win for property rights, states rights, private economic interests and the constitutional separation of powers.
4. ended over 30 years of volleying over the jurisdictional reach of CWA.

From the critics:
1. SCOTUS appointing itself national decisionmaker on environmental policy.
2. 90 million acres of protected wetlands are now unprotected.
3. Deregulates over half of Nation's ecologically critical wetlands.

Wetlands Most in Danger After Sackett v. EPA SCOTUS Ruling



Little/No Protection — At Risk

**Scale based on state wetland protections and state legislative limits to clean water safeguards*

Role of State and Local Governments

1. Wetland protection now in the hands of state and local governments.
2. Win for anti-regulatory ideologies, catastrophic failure for environmentalists.
3. For states that tethered their regulatory programs to the federal, when federal jurisdiction shrinks, so will state jurisdiction.

Potential Negative Impacts of *Sackett*

- Narrowing of wetlands eligible for protection under CWA may result in many point sources no longer needing NPDES permits to operate as long as they do not discharge into the now-narrowed class of federal jurisdictional waters (=WOTUS)
- May compound unabated and unmonitored water pollution that is commonplace in environmental justice communities (including western states and tribal reservations), with overabundance of toxic polluters that will have legal precedence to proceed with largely unregulated pollution.
- In absence of federal protection for ephemeral streams, tribes may lose the tools and regulatory structure of CWA to protect diminishing rivers and streams from discharges, as newly unprotected waters disappear with development.

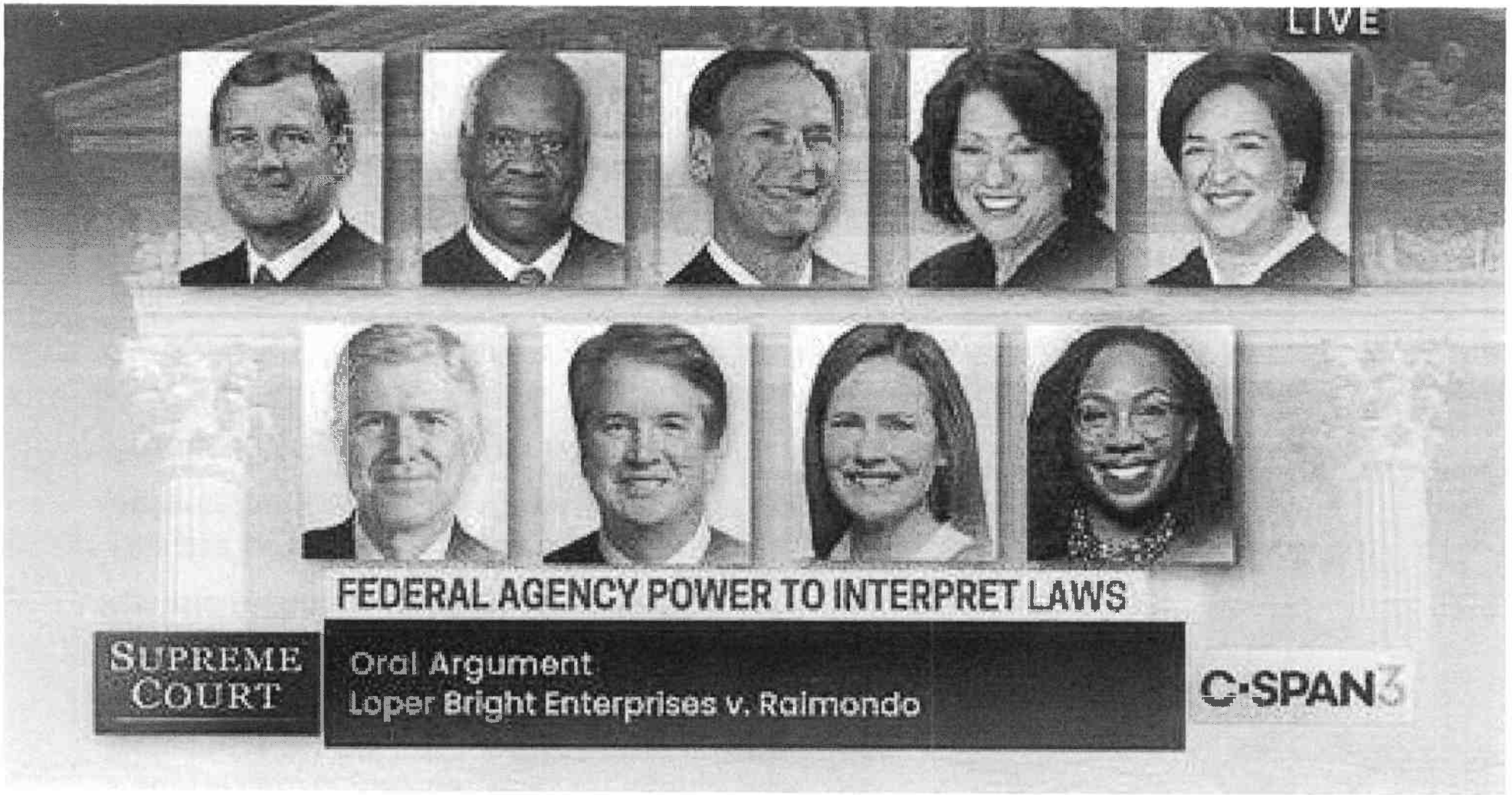
Loper Bright Enterprises v. Raimondo

- The case that overruled *Chevron* deference: Article III Courts may not defer to an agency's interpretation of the law
- *Chevron* deference was the latitude federal judges gave agencies over how to interpret the statutes they administered when disputes arose. Such deference is now eliminated.
- For 40 years Courts were required to determine if Congress had directly addressed the specific matter, and if so, that interpretation had to be followed. If the statute was silent or ambiguous, Courts would defer to the agency's interpretation if it was a permissible interpretation of the statute
- Now under *Loper*, the federal judiciary must exercise independent judgment in interpreting statutes and deciding whether an agency has acted within statutory authority

chevron

Practical impact of *Chevron* deference

- Chevron framework significantly shaped administrative law
- Gave executive branch significant influence over how to administer legislation
- Resulted in changes in interpretations between presidential administrations, even when statutory text and congressional intent was unchanged
- Protected many agency interpretations from being reversed by courts


LIVE
FEDERAL AGENCY POWER TO INTERPRET LAWS
SUPREME COURT
Oral Argument
Loper Bright Enterprises v. Raimondo
C-SPAN3

Impact of *Loper*

- Returns to the general rule in effect since ***Marbury v. Madison*** that courts "say what the law is"
- Federal courts, not agencies, shall decide all questions of law
- Federal courts may consider an agency's perspective or position, but must not defer to it simply because a statute is ambiguous
- Federal courts must exercise their independent judgment in deciding whether an agency has acted within its statutory authority. "Congress expects courts to handle technical statutory questions."
- Has the potential to impact all federal agency actions, including investigations, enforcement actions, adjudications and appeals.
- Predicted to put the administrative branch into a state of "convulsive shock"

Impact on Prior Decisions

- *Loper* does not overrule prior decisions where a court relied on *Chevron* doctrine to uphold an agency rule or order.
- *Loper* may provide a new basis for challenging old decisions or rules, whether through new administrative proceedings or new judicial challenges.
- Where some statutes expressly delegate interpretive power to agencies for select statutory text or statutes give agencies flexibility to adopt appropriate or reasonable requirements, "courts must respect such express Congressional delegation while ensuring that the agency act within it.

Weakening of Federal Agency Power

- Dissenting Justices: this is chipping away at the powers of federal agencies to issue regulations in environment, worker safety and consumer protection
- *Loper* is part of the war on the administrative state and will cause a massive shock to the legal system by casting doubt on long-standing interpretations of law
- *Loper* has staggering implications because it will lead to a flood of lawsuits that could cripple federal agencies, diverting technical decision-making authority further from agencies with expertise and experience in discerning the goals, aspirations, intent and statutory language used by Congress in its enactments.
- Coupled with *Loper*'s elimination of *Chevron* deference, this approach hamstrings the role of experts in environmental science and policy to interpret, implement and enforce regulations for rapidly changing environmental conditions, with paralyzing effects.

Texas v. New Mexico and Colorado
No. 141 (U.S. June 21, 2024)

- Proposed water-sharing settlement between Texas, New Mexico and Colorado was rejected by Supreme Court because it would have disposed of United States' Rio Grande Compact claims without its consent.
- The federal government had concerns about New Mexico water use on the Rio Grande from which Colorado also draws.
- "Having acknowledged those interests and having allowed the United States to intervene to assert them, we cannot now allow Texas and New Mexico to leave the United States up the river without a paddle." Associate Justice Ketanji Brown for 5-4 majority.

Gorsuch for the dissenting Justices

- This ruling "defies 100 years of this Court's water law jurisprudence."
- It sets a precedent for the federal government to intervene in water conflicts between states and will allow for the potential increase of federal involvement in interstate water management.
- Cautions that intervention in this case has ended up "federalizing an interstate dispute."

Background Principles of the Case

- The United States has its own distinctively federal interests in the Compact's operations and its own valid claims under the 1938 Compact.
- The United Statesw' position was that New Mexico's increase in groundwater pumping violated its compact duties and that it was siphoning off water below the reservoir in ways that the downstream contracts did not anticipate.
- Court approval of the consent decree between Texas, New Mexico and Colorado cannot dispose of valid claims of the United States as nonconsenting intervenor.

Federal Government's Qualms with New Mexico's groundwater pumping

- Does not pose only an intrastate dispute between the United and New Mexico that is better left to existing litigation in state courts.
- Different compacts divide state and federal authority differently, and here the Compact trumps state water laws in operating its federal Reclamation projects.
- This is true even though "an essential attribute of state sovereignty" is the "power to control navigation, fishing and other public uses of water," and even though there is a "consistent thread of continued deference to state water law by Congress", as shown in the history of the relationship between the federal government and the states.

Cooperative Federalism & Equitable Apportionment

- Congress has specifically directed federal reclamation projects to "follow state law as to water rights" unless that law conflicts with some other explicit congressional directive.
- Cooperative federalism is an aspect of congressional water policy by which an interstate water rights compact necessarily binds the government as it would "any other appropriator in the state."
- The doctrine of equitable apportionment was developed based on the notion that "states have an equal right to make a reasonable use of a shared water resource." *Mississippi v. Tennessee*, 595 U.S. 15, 24 (2021). See also *Kansas v. Colorado*, 206 U.S. 46 (1907).
- Few rules in water law are more settled that that federal reclamation projects must comply with any compact, state water law or consent decree term "not inconsistent with clear congressional directives respecting the project." California v. US, 438 U.S. 643 (1978)