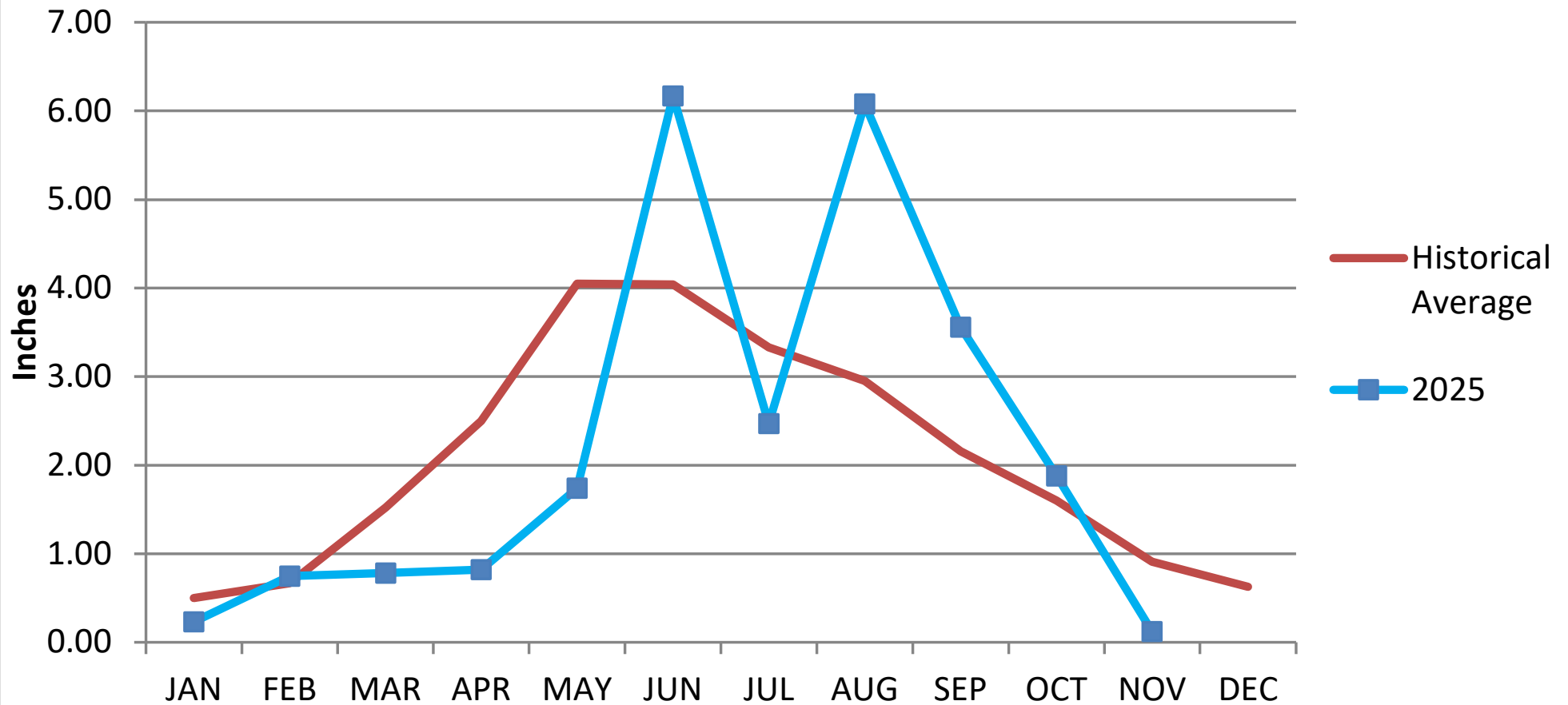


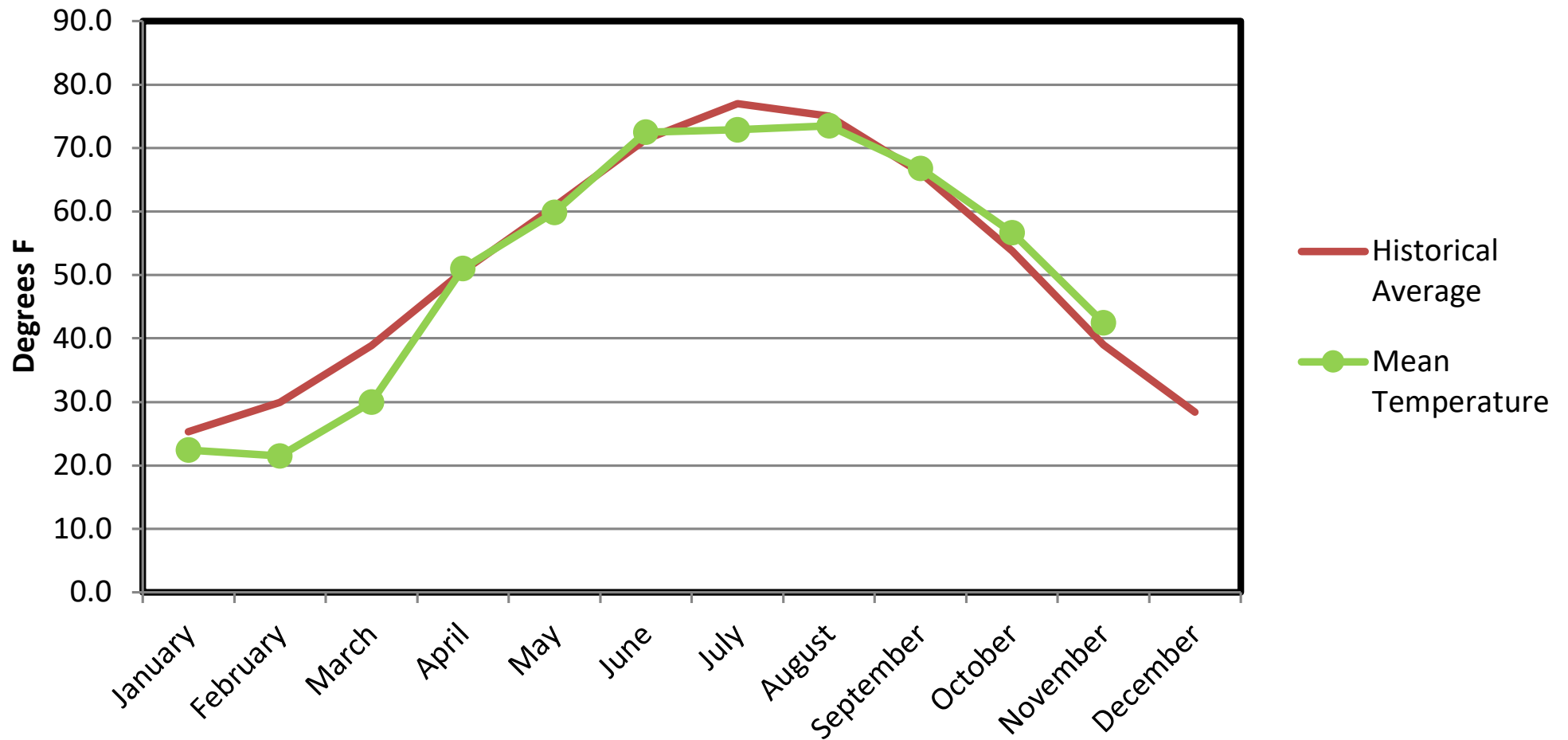
Tri-Basin NRD

Holdrege Monthly Precipitation - 2025



Tri-Basin NRD

Holdrege Monthly Mean Temperature - 2025



Tri-Basin NRD
1723 Burlington.
Holdrege, NE 68949



Phone: (308) 995-6688
Fax: (308) 995-6992
Email:
tribasin@tribasinnrd.org

Natural Resources District

November 2025 - Holdrege

Temperature: (°F)

* High: 81° (Recorded November 15)
* Low: 4° (Recorded November 30)

* Mean: 42.5° (Normal for November 39.2°)
Mean High: 55.5° (Normal: 51.5°)
Mean Low: 29.8° (Normal: 27.4°)

NOTES:

Precipitation for November 2025: .44"
(Normal for November: .82")
Precipitation for the year through November: 24.60"
(Normal for the year through November: 23.38")

NOTES: Fog noted 1 day
Trace noted 1 day
Rain noted 2 days

November 2024

Temperature:

High: 78°
Low: 3°
Mean: 36.2°

Precipitation:

For the month: .14"
For the year: 17.96"
Snow: "

(UJ-UZ)

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE

[illegible]

Fourth Quarter 2025 Grand Island Stream Gauge Data

	Oct Act	Oct Tar	Well Run	Nov Act	Nov Tar	Well Run	Dec Act	Dec Tar	Well Run
1	310	1800		390	1800			1000	
2	298	1800		349	1800			1000	
3	264	1800		466	1800			1000	
4	242	1800		752	1800			1000	
5	221	1800		362	1800			1000	
6	202	1800		376	1800			1000	
7	249	1800		989	1800			1000	
8	286	1800		1320	1800			1000	
9	242	1800		1220	1800			1000	
10	405	1800		533	1800			1000	
11	482	1800		376	1800			1000	
12	499	1800		298	1800			1000	
13	516	1800		1030	1800			1000	
14	336	1800		1160	1800			1000	
15	450	1800		1180	1800			1000	
16	970	1800		1360	1000			1000	
17	1050	1800		1440	1000			1000	
18	1010	1800		1160	1000			1000	
19	1140	1800		499	1000			1000	
20	482	1800		420	1000			1000	
21	420	1800		390	1000			1000	
22	298	1800		362	1000			1000	
23	362	1800		678	1000			1000	
24	947	1800		829	1000			1000	
25	642	1800		907	1000			1000	
26	625	1800		551	1000			1000	
27	1050	1800		499	1000			1000	
28	1340	1800		450	1000			1000	
29	1690	1800		2190	1000			1000	
30	714	1800			1000			1000	
31	466	1800			1000			1000	

Fourth Quarter 2025 Overtaon Stream Gauge Data

		Oct Tar	Well Rur	Nov Act	Nov Tar	Well Rur	Dec Act	Dec Tar	Well Run
1	247	1800		797	1800		329	1000	
2	238	1800		1420	1800		1930	1000	
3	265	1800		255	1800		2000	1000	
4	247	1800		696	1800			1000	
5	247	1800		1490	1800			1000	
6	213	1800		7050	1800			1000	
7	516	1800		2030	1800			1000	
8	531	1800		445	1800			1000	
9	791	1800		358	1800			1000	
10	1860	1800		324	1800			1000	
11	733	1800		1980	1800			1000	
12	546	1800		2070	1800			1000	
13	733	1800		2050	1800			1000	
14	1980	1800		1980	1800			1000	
15	1960	1800		1790	1800			1000	
16	2020	1800		1930	1000			1000	
17	1980	1800		380	1000			1000	
18	369	1800		345	1000			1000	
19	432	1800		292	1000			1000	
20	346	1800		313	1000			1000	
21	749	1800		1900	1000			1000	
22	1490	1800		1970	1000			1000	
23	458	1800		1950	1000			1000	
24	891	1800		374	1000			1000	
25	1550	1800		340	1000			1000	
26	1640	1800		288	1000			1000	
27	2140	1800		1510	1000			1000	
28	562	1800		2030	1000			1000	
29	406	1800		2020	1000			1000	
30	346	1800		2000	1000			1000	
31	324	1800						1000	



Twin Valley Weed Management Area

20 N. Webster St. – Suite 115

Red Cloud, NE 68970

Phone: (402) 746-3560

Board of Directors

Tri-Basin Natural Resources District
1723 N Burlington St.
Holdrege, NE 68949

Dear Tri-Basin NRD Board of Directors,

I am writing on behalf of the Twin Valley Weed Management Area (TVWMA) to respectfully request financial support for invasive species control efforts within the Tri-Basin NRD region. As you know, invasive plant species such as **Phragmites**, *Sericea Lespedeza*, and Saltcedar continue to spread along waterways, riparian corridors, and rangelands, threatening native habitat, reducing biodiversity, and increasing long-term management costs for landowners and local governments.

Over the past six months, TVWMA county members have conducted extensive *Phragmites* control work along both the Republican River and the Little Blue River, as well as on multiple upland sites throughout the management area. These coordinated treatments have successfully reduced several high-priority infestations and prevented further spread into sensitive riparian systems. Continued support is essential to maintain this momentum and ensure that the gains made this season are not lost to reinfestation.

TVWMA remains committed to coordinated, cost-effective, multi-county management strategies that protect natural resources across jurisdictional boundaries. With the support of partners such as the Tri-Basin NRD, we have made considerable progress in reducing infestations, improving landowner engagement, and implementing integrated management practices. However, ongoing funding is crucial to sustain these efforts.

For the upcoming **2026 season**, we are requesting **financial assistance** to support the following priority activities:

- Targeted herbicide treatments on high-priority riparian and upland sites
- Mechanical control and follow-up monitoring
- Landowner outreach and cost-share coordination
- Mapping, data collection, and reporting
- Early detection and rapid response to new infestations

Investing in invasive species control now reduces long-term management costs, protects water quality, and enhances the ecological resilience of the region. Continued collaboration between

FIRST AMENDMENT TO NeDNR CONTRACT #1237

WHEREAS, the Nebraska Department of Water, Energy, and Environment and the South Platte Natural Resources District, North Platte Natural Resources District, Twin Platte Natural Resources District, and Tri-Basin Natural Resources District collectively referred to as "Parties" entered into NeDNR Contract #1237 on January 29, 2021, for the purpose of establishing an Acreage Reserve Program (ARP) for the Upper Platte River Basin; and

WHEREAS, pursuant to Section IX.B. of NeDNR Contract #1237, amendments to the agreement shall only be made by written agreement between the Parties; and

WHEREAS, the Parties desire to amend NeDNR Contract #1237 to update agency references, establish a new term for the ARP, and clarify that any Appropriator Agreements associated with the ARP will be for a term of up to thirty (30) years.

NOW THEREFORE, the Parties hereby mutually agree to extend the following amendments:

- All references to the Nebraska Department of Natural Resources ("NeDNR") are hereby changed to the Nebraska Department of Water, Energy, and Environment ("DWEE").
- II. GENERAL PROVISIONS, second paragraph is changed to: "Upon signing an Appropriator Agreement, surface water appropriators shall have sufficient cause for nonuse for up to thirty (30) years and shall not be subject to cancellation proceedings by the DWEE while they remain in the Program."
- IV. TERM is changed to: "The ARP shall begin upon the date that the last Party signs this Agreement and continue thereafter for a period of ninety-nine (99) years from the date this Agreement is executed. The term of the ARP may be extended upon written agreement by all of the Parties."
- V. ARP ELEMENTS.
 - o A. Enrollment., third sentence is changed to: "Upon enrollment, those surface water appropriations identified in the Appropriator Agreement shall have a sufficient cause for nonuse for up to thirty (30) years and shall not be subject to cancellation proceedings by the DWEE while they remain in the Program."
 - o E. Termination., is changed to: "Appropriators may terminate their participation in the ARP according to the terms of their Appropriation Agreement. Subsequent to termination, if an appropriator desires to re-enroll in the ARP, and if the ARP has not been terminated, any new Appropriator Agreement that is executed between DWEE and the appropriator may not extend beyond the thirty (30) year term of the original Appropriator Agreement."
- VIII. WITHDRAWAL TERMINATION. C. is changed to: "Upon withdrawal by an NRD or termination of the Agreement, any subsequent development of an acreage reserve program by any Party may not extend beyond thirty (30) years from January 29, 2021, which is the date of the establishment of this ARP."

Except as expressly set forth herein, all other terms and conditions of NeDNR Contract #1237 shall remain unchanged and in full force and effect. Additionally, the effective date of this First Amendment shall be the date of the signature last affixed hereto.

IN WITNESS WHEREOF, the Parties to this First Amendment, through their duly authorized representatives, have executed this First Amendment on the dates set forth below.

South Platte Natural Resources District

By: Galen Wittrock, General Manager
South Platte Natural Resources District
511 Parkland Dr.
Sidney, NE 69162

Date: _____

North Platte Natural Resources District

By: Scott Schaneman, General Manager
North Platte Natural Resources District
100547 Airport Rd.
Scottsbluff, NE 69361

Date: _____

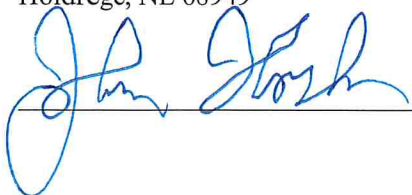
Twin Platte Natural Resources District

By: Kent O. Miller, General Manager
Twin Platte Natural Resources District
2031 East Philip Ave.
North Platte, NE 69103

Date: _____

Tri-Basin Natural Resources District

By: John Thorburn, General Manager
Tri-Basin Natural Resources District
1723 Burlington St.
Holdrege, NE 68949



Date: 12/5/25

AGREEMENT FOR OPERATATION OF AUGMENATION WELL

Pursuant to the Nebraska Interlocal Cooperation Act, Neb. Rev. Stat. §13-801 et.seq., Tri-Basin Natural Resources District ("TBNRD") and Lower Republican Natural Resources District ("LRNRD"), both parties being political subdivisions of the State of Nebraska, hereby enter into this Agreement for Operation of Augmentation Well ("Agreement"), as follows:

1. WELL OPERATION: TBNRD has right and authority to operate an augmentation well registered with the Nebraska Department of Water Energy and Environment as G-179201, and located on land owned by Don Holen Farms, Ltd., hereinafter referred to as "Turkey Creek Augmentation Well." TBNRD agrees to operate Turkey Creek Augmentation Well to discharge groundwater produced from that well into Turkey Creek for augmentation purposes, a beneficial use. TBNRD shall operate the Turkey Creek Augmentation Well as practicable on the dates and times requested by LRNRD. TBNRD shall meter the well and determine the volume of water withdrawn. LRNRD shall have access to the Turkey Creek Augmentation Well at all hours of normal business operations to inspect the well and observe its operation.
2. NOTICE AND COMPENSATION: At the end of the Agreement Term, TBNRD shall provide notice and confirmation to LRNRD of the dates and times that the Turkey Creek Augmentation Well was in operation and the volume of water pumped. LRNRD shall compensate TBNRD for the cost of operation of the Turkey Creek Augmentation Well in the amount of fifty-four dollars (\$54.00) an acre-foot of water pumped. LRNRD shall make payment to TBNRD on or before December 31 of each year this Agreement operates.
3. REPAIRS: In the event the augmentation well, the well pump, or associated works breaks down during its operation in performance of this Agreement, LRNRD agrees to pay for all reasonable and proper repair costs incurred to restore the well, the pump, or associated works to operating condition.
4. LIABILITY AND INDEMNIFICATION: Parties agree to share equally any liability for claims or causes of action that arise from the discharge of

groundwater into Turkey Creek or impacts to surrounding groundwater wells allegedly caused by the operation of the Turkey Creek Augmentation Well.

5. TERM: This Agreement shall terminate on December 31, 2026, unless the Parties hereto agree to extend this Agreement in writing. Any future extension/s shall be limited to one year.
6. APPLICABLE LAW AND SEVERABILITY: This Agreement is governed by the laws of the State of Nebraska. If for any reason whatsoever, any of the provisions of this Agreement shall be held or deemed invalid, unenforceable, or otherwise inoperative, the remaining sections shall continue in full force and effect as if agreed to without the inoperative provisions.
7. NO ASSIGNMENT: The rights and liabilities of the Parties under this Agreement may not be assigned by one party without the prior written consent of the other party to this Agreement.

**Tri-Basin Natural Resources District
("TBNRD")**

By: John Johnson
Title: Manager
Date: 12/8/25

**Lower Republican Natural Resources
District ("LRNRD")**

By: John R. S. J.
Title: General Manager
Date: December 8, 2025

NEBRASKA

Good Life. Great Resources.

DEPT. OF WATER, ENERGY, AND ENVIRONMENT



Jim Pillen, Governor

November 18, 2025

Derik Bohr
B & B Cattle Co. Inc.
11175 739 Rd
Holdrege, NE 68949

RE: B & B Cattle Co. Concentrated Animal Feeding Operation
NDEE ID: 63502
Program ID: NEG021053
Subject: **NPDES General Permit for Operations Confining Cattle**
Permit Coverage Application No. NEG021053
SE 1/4, Section 25, Township 07N, Range 19W, Phelps County
Consultant: Settje Agri-Services and Engineering, Inc.

Dear Mr. Bohr:

The Nebraska Department of Water, Energy, and Environment (Department) hereby issues coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Concentrated Animal Feeding Operations (CAFOs) Confining Cattle (NEG021000) to your operation. This General Permit becomes effective April 1, 2026 and will expire on March 31, 2030. It may be modified or reissued to reflect regulatory changes.

Coverage under this NPDES General Permit is for the number of livestock waste control facilities (LWCF) and the number of livestock listed below:

Type of LWCF	No. Each Type
Holding Pond	1
Debris Basin	3
Diversion	1

Species	Number of Head
Feeder Cattle	4,900

Open Lot Area: 27.0 acres
Total Drainage Area: 38.2 acres

Your CAFO shall be operated and maintained according to the approved application, this NPDES General Permit, the site-specific permit terms in Attachment 1 to this letter and the requirements in Title 130, *Livestock Waste Control Regulations*. Please review this permit carefully as you are responsible for your operation's compliance with all permit requirements. Copies of the General Permit and of your Request for Coverage are enclosed for your records. A copy of both documents must be kept on-site at your operation.

This General Permit contains specific recordkeeping, monitoring, operating, maintenance and inspection requirements. Department staff will conduct periodic inspections of your operation to review compliance with permit conditions.

The Permittee, authorized representative, or an employee of the operation is required to obtain land application training within 180 days of receiving permit coverage, unless one of these persons satisfactorily completed such training within the past five (5) years. **Department records indicate your current training is valid until November 14, 2028.** Additional training must be completed every five (5) years.

Approval by the Department is required prior to making any changes or modifications from the approved application to the design or operation of the LWCF. **A new application with a \$200 fee is required for any major modification.**

The Department's issuance of coverage under this NPDES General Permit does not relieve you of other duties and responsibilities under the Nebraska Environmental Protection Act, the amended Nebraska Livestock Waste Management Act or Title 130. In addition, this permit does not remove your responsibility to comply with any Natural Resources District, county or local zoning regulations.

If you have any questions, please contact your inspector or myself at (402) 471-0282.

Sincerely,

A handwritten signature in black ink, appearing to read 'BEdeal', is positioned above the typed name.

Brad Edeal, Supervisor
Livestock & Agriculture Section
Inspection & Compliance Division
brad.edeal@nebraska.gov

Enclosures

cc: Settje Agri-Services and Engineering, Inc.

ATTACHMENT 1
SITE-SPECIFIC PERMIT TERMS OF THE NUTRIENT MANAGEMENT PLAN

PERMIT TERM
1. Ensure adequate storage of manure, litter, and process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities.
2. Ensure proper management of mortalities.
3. Ensure clean water is diverted.
4. Prevent direct contact of animals with waters of the State.
5. Ensure chemicals and other contaminants are properly handled onsite.
6. Site-specific conservation practices are implemented, including as appropriate, buffers or equivalent practices to control runoff of pollutants to waters of the State.
7. Site-specific setback maps not included in #6 above.
8. Ensure specific records are maintained as required in Part II, Section E, Table A.
<p>9. Implement protocols to land apply manure, litter, and process wastewater to ensure agricultural utilization of the nutrients in the manure, litter, and process wastewater using the narrative rate approach:</p> <ul style="list-style-type: none"> • Fields available for land application • Timing limitations for land application • Nitrogen & phosphorus transport risk assessment result • Planned crops or other usage • Alternative crops • Realistic annual crop yield goal • Total N & P recommendations per crop • Narrative rate approach methodology, to account for: <ul style="list-style-type: none"> ○ Soil test results; ○ Credits for plant available N in the field; ○ Amount of N & P in the manure, litter, and process wastewater to be applied; ○ Consideration of multi-year P application; ○ Accounting for all other additions of plant available N & P to the field; ○ Form and source of manure, litter, & process wastewater; ○ Timing and method of land application; ○ Volatilization of nitrogen and mineralization of organic nitrogen. • Maximum amount of N & P from all sources
10. Ensure protocols for appropriate testing of manure, litter, process wastewater, and soil are followed.

Central Nebraska Public Power board approves 2026 budget

Kearney Hub

12/4/2025

The Central Nebraska Public Power and Irrigation Board of Director's approved its budget for the 2026 fiscal year at its monthly meeting Monday.

The 2026 ^{budget} beginning in January anticipates total revenues from various business operations, including \$13.1 million from the sale of hydroelectric power. \$4.8 million from irrigation delivery service and \$1.58 million from lake lot lease fees, CNPPID said in a news release.

Additionally revenue from grants related to the E65 siphon project and a potential irrigation automation project were also included in the budget.

Anticipated standard operations and maintenance expenditures for the district in 2026 totaled nearly \$22 million.

A number of large capital expenditures were included in the budget as well.

Those included \$15 million toward the E65 siphon project and \$3 million for the initial phase of a lateral automation project.

Among the other large capital projects that are budgeted include provisions for a concrete bridge replacement for \$3 million, \$800,888 for continued Kingsley Dam refacing engineering and studies and \$450,000 for FERC boundary land acquisition.

Prior to finalizing the budget, the board took action on approving the irrigation water rates for the 2026 season.

The board voted to increase the rate by 2.5% for the 2026 season. The rate for a base allotment of 9 inches will be \$44.96, which is \$1.10 increase from the previous year.

The board-approved increase is 0.8% below the regional; rate of inflation of 3.3% as reported by the U.S. Bureau of Labor Statistics over the past year.

The new rate of \$1.56 per acre /inch above the base allotment was also approved. Rates for non-incremental price program 12-inch contracts is set at \$49.66 per acre and \$59.07 for 18-inch contracts.

Also at Monday's board meeting:

- The board approved of a 3.3% increase CPI increase to the district wage scales starting in 2026.
- Directors gave staff authorization to conduct necessary replat and lease updates to the extension of Lots 11-25 in the Northeast Cove Area at Johnson Lake and to sell leasehold interests of \$2 per square foot.
- Directors approved a construction work order in advance of a potential land purchase for an area near the CNPPID Supply Canal Diversion Dam which will aid in district in its operations. A finalized contract will be need approval from the board.
- Tyler Thulin reported that Lake McConaughy's elevation as 3,227 feet, or 47% of maximum volume. Current inflows are around 1,150 cubic feet per second and outflows are around 500 cfs to meet the FERC diversion requirements. Thulin said outlaws increased since the committee meeting as Nebraska Public Power District began taking water into their system again after being down for maintenance.
- Thulin also said water elevations at all district lakes will be lowered to their normal winter operation levels

More nuclear energy in Nebraska? Power utilities explore options

Neal Frankiln, Lincoln Journal Star, Kearney Hub

12/4/2025

Nebraska's largest power utilities are launching an effort to explore new sources of nuclear energy in the Cornhusker State.

The Great Plains New Nuclear Consortium will explore the feasibility of building new reactors in the state to deploy 1,000 and 2,000 megawatts of new nuclear energy.

Lincoln Electric Systems , Nebraska Public Power District, Omaha Public Power District and the Grand River Authority in Oklahoma have signed on to the effort according to a joint new release.

Emeka Anyanwu, CEO of Lincoln Electric System, said in the new release that the partnership shows local utilities working together for the long-term good of communities.

"We're committed to thoughtful planning that puts people first and ensures our customers benefit from innovation, resilience and shared value." Anyanwu said.

The consortium will focus on feasibility studies, site evaluations and technology assessments. At this point, the organization hasn't made any construction or investment decisions.

Nebraska has some existing nuclear facilities like NPPD's Cooper Nuclear Station in Brownville, which produces about 800 megawatts of electricity.

The consortium is evaluating a number of options, including small modular reactors – a smaller kind of reactor with reduced fuel requirements that produces a small amount of energy, according to the International Atomic Energy Agency .

The new consortium will be directed by a steering committee led by NPPD and will include representatives from each utility.

Nuclear technology is a dependable and resilient energy source, said Tom Kent, NPPD president and CEO.

“Public power utilities have a strong tradition of collaboration, and this consortium strengthens that legacy as we work together to meet the region’s growing energy demands,” Kent said/

Nebraska’s power utilities have been looking for new sources of energy to fulfill those demands.

LES has worked to add capacity, starting a project to add two natural gas combustion turbines at its Terry Bundy Generating Station north of Lincoln to add 100 megawatts of capacity. The utility has also contracted with Central Nebraska Public Power to route power from the Jeffrey Hydropower plant near Brady

Lincoln’s power utility also added 432 megawatts of wind energy capacity through an agreement with Google to help support the company’s upcoming data center in Northwest Lincoln.

Meanwhile, NPPD is planning a 694-megawatt natural gas station in Southern Lancaster County.

OPPD had planned to retire some of its natural gas energy generation facilities and convert its coal plants to natural gas. But in the face of rising energy demands, the utility is reconsidering those plans.

The formation of the consortium comes as NPPD is also working to finalize a nuclear feasibility study funded by the Legislature and the Nebraska Department of Economic Development.

“While there is important work ahead, the siting feasibility study positions us proactively as the consortium begins exploring opportunities to deploy this technology within Nebraska,” Kent said in the news release.

Nebraska climate Report Gives Dire Warning

Dan Crisler, Omaha World Herald, Kearney Hub

12/1/2025

Groundwater levels, Precipitation patterns will be disrupted

By the end of this Century, extremely hot days across Nebraska will be more common, extremely cold days will be rarer and groundwater levels and seasonal precipitation patterns will be disrupted, according to a climate change impact analysis report authored by Nebraska higher education professors and climate experts.

The more than 300- page report, recently published by the Nebraska State Climate Office through the University of Nebraska-Lincoln, also said by 2050 annual temperatures across Nebraska are expected to rise by five of six degrees Fahrenheit compared to measurements from 1950 to 2014. Those temperatures could rise as much 11 ½ degrees by the end of the century.

Those annual temperatures will surpass Nebraska's highest annual temperatures of 52.7 degrees recorded during the Dust Bowl in 1934, said Ross Dixon, an assistant professor in the Department of Earth and Atmospheric Sciences at UNL, and one of more than 20 leads authors of the climate report.

The temperature projections were based on 23 models projecting possible future greenhouse gas emissions conditions, Dixon as "business as usual" - and moderate-emissions scenarios that would require countries to tamp down their emissions from current levels. '

"In terms of temperature, the models produce a really consistent story," Dixon said, adding all of the models show temperatures will rise.

If greenhouse gas emissions remain high, Nebraskans could experience more than 50 days of temperatures reaching at least 100 degrees per year by the end of the century. Extremely warm nights in which temperatures remain above 70 degrees are expected to increase "more than tenfold," the report states.

"By 2050, we may be experiencing summers that are closer to what they currently have in Tulsa, Oklahoma, or Springfield, Missouri," said Eric Hunt, an assistant extension educator of Agriculture Meteorology and Climate Resilience for the University of Nebraska -Lincoln Extension and another lead author of the report.

"By 2100, it's a little closer to what you experience maybe like in Dallas or Shreveport, Louisiana. That's not to say it's going to be 100 degrees every day but it's going to be pretty hot."

Extremely cold days are projected to become far less common. The report estimates that the number of days when the temperature stays below 0 degrees will drop from 20 to no more than 1 per week per year.

“We will still always have cold in winter. It’s just that truly sustained, long winters are probably going to be fewer and further between,” Hunt said. “Snow cover will become more and more erratic here.”

The report said the effects of climate change will be felt in many ways across Nebraska and the world. The adverse effects will particularly affect agriculture and marginalized populations. Climate change will also substantially disrupt the surface and groundwater supply with intense droughts.

The report said the changing climate will add even more stress to Nebraska’s soybean and corn crops. With potentially heavier rains in the spring combined with summer drought, crop yields could be lowered. Corn yields alone, according to one study cited in the report, could decline by 12 % in the Midwest by mid-century and up to 40% by the end of the century.

The report noted soybean yield projections were mixed with some models projecting increased yields by the mid-century and significant decrease by the end of the century. The decrease in cold days means pests will more likely survive during the winter and growing season could last longer.

As Nebraska and the world continue to warm, the report notes some groups of people and regions will be more adversely affected than others. Hunt said places like the Persian Gulf in the Middle East, India and coastal Texas could become “borderline uninhabitable’ by the end of the century barring significant technological advances.

Climate Justice

Although climate change is touching every facet of the globe, not everyone will be equally affected.

In Nebraska, as well as the rest of the world, the people that are and will be most adversely impacted are those with limited financial means according to Ryan Wishart, an assistant sociology professor at Creighton University and lead author on the climate report. Meanwhile, those who leave higher carbon footprints tend to have more financial means.

In the U.S., according to the climate report, 40% of emissions are associated with the income sources of the richest tenth of households. The richest 1% contribute 15% to 17% of total emissions – more than the bottom 50% of households combined.

Higher earners tend to consume more, Wishart said, leading to bigger carbon footprints. For the highest earners, he said, consumption may come in the form of maintaining large homes or heating private swimming pools.

Private air travel and longer commutes are also factors, Wishart added.

The report shows suburban households in the Omaha and Lincoln areas have the highest average carbon footprints in the state while households in the city centers of Omaha and Lincoln have the lowest average carbon footprint. Households in some parts of rural Nebraska also have low carbon footprints, according to the map.

“There are all kinds of different ways in which social factors are both driving climate change and determining who’s at risk,” Wishart said.

Wishart called for elected officials in Nebraska to authorize further research that could help in forming policies to reduce carbon emissions and protect those most vulnerable to climate change.

Dan DiLeo, an assistant professor and director of Creighton’s justice and peace studies program, framed climate change, and the need to address its impacts, as a moral issue. DiLeo’s perspective mirrors those of religious leaders, including those of every Roman Catholic pope dating back to John Paul II.

“Pope John Paul II in 1990 explicitly identified the greenhouse effect as having accelerated to crisis proportions, Pope Benedict XVI reiterated all the concerns about climate change as a moral issue,” DiLeo said/

Developed nations, including the United States, should take leading roles to address the impacts of climate change given they are the biggest sources for carbon emissions, DiLeo said.

Citing a 2024 United Nations Environmental Program study, DiLeo noted in the report the U.S. – despite containing just 4% of the world’s population – is responsible for 20% of carbon emissions between 1850 and 2022. That, DiLeo wrote, is more than China, India and at least five developed countries combined.

By taking steps to address the impact of climate change, DiLeo said Nebraskans and U.S. citizens would be upholding the religious ideal of sacrifice.

“Are we going to embrace a nationalism that says, ‘it’s all about us’ or are we willing to sacrifice?” DiLeo rhetorically asked.

The 2024 climate impact report is an update to a report that launched in 2014. Funding and authorization for the 2024 report came through Legislative Bill 1255 in the 2022 session of the Nebraska Legislature, LB 1255 was introduced by Nebraska Sen. Eliot Bostar and then-Nebraska Sen. current U.S. Rep. Mike Flood.

Nebraska rare earth mineral mine to break ground next year

Josh Reyes, Omaha World-Herald

Kearney Hub

12/8/2025

Elk Creek – The company behind the a long-awaited mine in southwest ^{east} Nebraska told a packed room of about 350 people Friday to expect to see work on the project start next year with a goal of extracting from the site in about 3 years.

NioCorp executives and Gov Pillen said that the project would not just be a major economic driver for the region and for Nebraska, but that it would also be essential to national security.

The company will extract niobium, scandium, titanium tetrachloride and magnetic rare ~~mentals~~ ^{metals}, all of which are used in aerospace and defense systems.

Scandium and niobium are used in ~~keys~~ ^{key} alloys ^{as} scandium is also a critical element of certain fuel cells. Both minerals are important in domestic manufacturing but are entirely imported from China.

“China is a foreign adversary,” Pillen said. “They are a foreign adversary. It’s important everybody in this room know what that means. The means they want to take us out. That means they are not friends.”

He said the U.S. needs to “stop buying crap from China because it’s a nickel cheaper.”

The governor said the minerals deposit in Nebraska is one of the best in the U.S., and mining it is going to have a massive impact, particularly in reducing reliance on China. Pillen has passed several bills in the Legislature seeking to limit the influence of China in Nebraska.

He said he “gets goose bumps” talking about the opportunities from building the mine.

NioCorp Chief Executive Mark Smith highlighted scandium mining, in particular, and said, “Nebraska is going to become the Saudi Arabia of

scandium because we're going to produce five times what the world has out there today."

NioCorp recently received permitting for the mine and surface-level processing facility and has set plans for traffic improvements around its site.

The total investment for the project is expected to be \$1.2 billion. The Export-Import Bank of the United States is slated to loan \$780 million for project, and the company has raised \$360 million, Smith said.

The project is expected to create 450 jobs at the mine and help more than 2,000 jobs in the region. Local and state governments expect \$608 million in new tax revenue over the initial 38-year life of the mine. Smith said there's enough ore in the deposit to sustain hundreds of years of mining.

The upcoming mine project has been in the works for about 13 years and drawn significant interest for residents of the area.

"We're excited about it because of the economic impact that it can have on this area. And I think that's going to be huge and something that this area needs – that all rural areas need," Lori Gottula said. Gottula lives less than 3 miles from the mine site on land that's been in her husband's family for 5 generations. She said relatives recall drilling as the 1960s and wondering what may come from the ground.

Gottula said some have had concerns about the mine increasing the local population and affecting the way of life everyone is used to, but she sees growth as opportunity and a way to bolster the local tax base.

Mark Shorr, an investor in the project from Lincoln, said he got involved years ago after reading news coverage about the mine. He's bullish about the mine's potential for economic development and drawing a good return for investors. The national security implications are important to him as well.

"We rely solely on foreign providers for these critical minerals that are needed by our defense industry and everything else," he said, adding that the project is a remedy to the issue.

Elk Creek has 70 residents, but vehicles occupied nearly every parking space in the village during the community meeting midday Friday. Niocorp held a second meeting after the workday worth about 250 attendees. U.S. Sen. Pete Ricketts spoke at the event.