



INDUSTRIAL COMMISSION OF NORTH DAKOTA

Kelly Armstrong
Governor

Drew H. Wrigley
Attorney General

Doug Goehring
Agriculture Commissioner

Tuesday, November 25, 2025

Governor's Conference Room or Microsoft Teams – 9:00 am

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*** Industrial Commission members will hold a media availability immediately following the conclusion of the meeting to discuss and answer questions about two new agriculture relief initiatives up for commission approval: the 2026 Farm Financial Stability Loan Program and the 2026 Grain Inventory Loan Program. Bank of North Dakota President and CEO Don Morgan also will attend the media availability, which will be broadcast on the NDIC meeting link.***

I. Roll Call and Pledge of Allegiance

(approximately 9:00 am)

II. Department of Mineral Resources – Nathan Anderson, Ed Murphy, Clint Boyd, Mark Bohrer

A. Geological Survey Q3 Quarterly Report – Ed Murphy (Attachment 1)

B. **Consideration of approval of the following orders – Mark Bohrer:**

- i. **Order 34956 in Case 32201** – In the matter of a hearing called on a motion of the Commission to consider amendments to the "General Rules and Regulations for the Conservation of Crude Oil and Natural Gas" and "Geological Storage of Carbon Dioxide" codified as articles 43-02-03 and 43-05-01 North Dakota Administrative Code (Attachment 2)
- ii. **Order 35034 in Case 32279** – regarding application of Phoenix Operating LLC for order amending applicable orders for South Meadow-Bakken Pool, authorize up to four wells to be drilled on 1280 acre spacing unit, and other relief as may be appropriate (Attachment 3)

- iii. **Order 34860 in Case 32171** – regarding application of Continental Resources for an order for the Hanson-Bakken Pool and/or South Meadow-Bakken Pool to create two overlapping 2560 acre spacing units, authorizing the drilling of up to 5 wells on each unit, and further relief as appropriate (Attachment 4)
- iv. **Order 34355 in Case 31623** – regarding petition of Cobra Oil & Gas for an order providing for the unitized management, operation, and further development of the Bull Moose-Duperow unit area, approval of unit agreement and operating agreement, approval of plan of operation, vacating applicable spacing orders, and further relief as appropriate (Attachment 5)
- v. **Order 34356 in Case 31624** – regarding application of Cobra Oil and Gas for order of Commission determining the plan of unitization for the Bull Moose-Duperow Unit Area has been ratified or approved by owners of interest pursuant to applicable statutes and rules of Commission (Attachment 6)
- C. **Consideration of Approval of 2026 DMR Hearing Schedule** (Attachment 7)
- D. Other DMR Business

(approximately 10:00 am)

III. North Dakota Pipeline Authority – Justin Kringstad

- A. Presentation of Pipeline Authority Annual Report (Attachment 8)
- B. Pipeline Authority Industry Update (Attachment 9)
- C. **Consideration of Approval of Transfer to Pipeline Authority Administrative Fund from Oil and Gas Research Fund Pursuant to 54-17.7-11** (Attachment 10)
- D. Other Pipeline Authority Business

Meeting Closed to the Public for Executive Session Pursuant to NDCC 6-09-35, 44-04-18.4, 44-04-19.2, 54-17.7-12 and 54-63.1-06

(approximately 10:15 am)

IV. North Dakota Pipeline Authority Executive Session – Justin Kringstad

- A. Preliminary Precedent Agreement Review WBI Bakken East Pipeline – Rob Johnson, President and Mark Anderson, VP of Business Development and Marketing (Confidential Attachment 11)
- B. Other NDPA Confidential Business

(approximately 10:30 am)

V. Bank of North Dakota Executive Session – Don Morgan, Kelvin Hullet

- A. CEO Report (Confidential Attachment 12)
 - i. Executive Summary
 - ii. Concentrations of Credit as of 9/30/25 (Confidential Attachment 13)
 - iii. Problem Loan Report (Confidential Attachment 14)
- B. **Consideration of Approval of BND De Minimus Cap Resolution – Don Morgan** (Confidential Attachment 15)
- C. Discussion related to two CSEA loans, information previously approved as confidential pursuant to 54-63.1-06 – Kelvin Hullet
- D. Presentation of Sept 24, 2025, Confidential Advisory Board and Committee Minutes (Confidential Attachment 15A)
- E. Other BND Confidential Business

Meeting Returns to Public Session

(approximately 10:45 am)

VI. Bank of North Dakota – Don Morgan, Craig Hanson

- A. CEO Report – Don Morgan (Attachment 16)
 - i. Executive Summary
 - ii. Strategic Discussion
 - 1. Q3 Smart Plan Update (Attachment 16A)
 - iii. Financials
 - 1. Q3 Performance Highlights (Attachment 16B)
 - iv. Risk
 - 1. Problem Loan General Discussion
 - v. **Policy and Program Approvals and Updates**
 - 1. Consideration of Approval of 2026 Farm Financial Stability Loan Program (Attachment 17)
 - 2. Consideration of Approval of 2026 Grain Inventory Loan Program (Attachment 18)
- B. **Consideration of Approval of Capital Buffers, Capital Ratio Target and Annual Capital Stress Testing – Don Morgan** (Attachment 19)
- C. **Consideration of Approval of Extension on one CSEA Loan and one CSEA grant as Recommended by the Clean Sustainable Energy Authority – Kelvin Hullet** (Attachment 20)
- D. Presentation of Sept 17, 2025, Nonconfidential Advisory Board and Committee Minutes (Attachment 21)
- E. Other BND Business

(approximately 11:15 am)

VII. North Dakota Housing Finance Agency – Brandon Dettlaff, Jennifer Henderson, Kayla Axtman

- A. Report on Multifamily application Award Summary for Low Income Housing Tax Credit, HOME Investment Partnership Program, National Housing Trust Fund, and Housing Incentive Fund – Jennifer Henderson (Attachment 22)
- B. Report on Issuance of Multifamily Revenue Bonds: Pleasant Valley – Jennifer Henderson (Attachment 23)
- C. Consideration of Approval of Bond Underwriter Based on RFP Submissions and Committee Recommendation – Kayla Axtman** (Attachment 24)
- D. Consideration of approval of 2026 Annual Resolution for Issuance of Tax-Exempt and Taxable Mortgage Revenue Bonds – Kayla Axtman** (Attachment 25)
- E. Consideration of Approval of Resolution for Annual HUD/GNMA Certification of Authorized Signatures** (Attachment 26)
- F. Other NDHFA Business

(approximately 11:30 am)

VIII. North Dakota Public Finance Authority – DeAnn Ament

- A. **Consideration of Approval of the Following State Revolving Fund Loan:**
 - i. South Central Regional Water District – Drinking Water - \$5,625,000 (Attachment 27)
- B. Presentation of Memo of State Revolving Fund Loans Approved by PFA Advisory Committee Pursuant to Policy P-3B (Attachment 28)
 - i. City of Page – Clean Water - \$1,545,000 (Attachment 28A)
 - ii. City of Mott – Clean Water - \$1,118,000 (Attachment 28B)
 - iii. City of Mott – Drinking Water - \$523,000 (Attachment 28C)
- C. Other Public Finance Authority Business

(approximately 11:40 am)

IX. North Dakota Transmission Authority – Claire Vigesaa

- A. **Consideration of Approval to Advance to the US Dept of Energy an IIJA Grant Program Request of \$240,917 for the City of Northwood** (Attachment 29)
- B. Final Report – Transmission Capacity and Large Load Impact Study (Attachment 29)

C. Other NDTA Business

(approximately 11:55 pm)

X. Industrial Commission Administrative Office – Karen Tyler

- A. **Consideration of Approval of August 21 and September 30, 2025, Industrial Commission Meeting Minutes** (Attachment 36)
- B. **Consideration of Approval of 2026 Industrial Commission Meeting Dates** (Attachment 37)
- C. Other Administrative Office Business

XI. Adjournment

*** Industrial Commission members will hold a media availability immediately following the conclusion of the meeting to discuss and answer questions about two new agriculture relief initiatives up for commission approval: the 2026 Farm Financial Stability Loan Program and the 2026 Grain Inventory Loan Program. Bank of North Dakota President and CEO Don Morgan also will attend the media availability, which will be broadcast on the NDIC meeting link.***

Next Regular Industrial Commission Meeting – Wednesday, December 17, 2025
9:00 am – 12:30 pm
Governor's Conference Room

TIMETABLE FOR ADOPTING OIL AND GAS RULES (tentative in RED FONT)**2025**

- Jul 3:** Requested staff ideas for rule changes
- Jul 14:** Received interoffice comments for proposed rules
- Sep 9:** Sent legal ads to North Dakota Newspaper Association for rules notice
(Notices published between Sep 13 – Sep 19) Cost was \$1,737.53 (\$1,737.53/53Cty=\$32.78/County)
- Sep 13:** Wrote regulatory analysis on or before first published date for rules impacting industry > \$50,000/yr
- Sep 19:** All papers (8 multi-day + 42 weekly) published proposed rules notice Sep 13 – Sep 19 except in Divide and McHenry Counties where the ad ran 9/24/2025 and in Ransom County where the ad ran 9/22/2025
- Sep 30:** Industrial Commission meeting—receive approval to proceed with proposed rulemaking
- Oct 2:** File full notice and rules with Legislative Council (LC) via email
LC sends rules notice to interested parties within 15 business days after receiving them
- Oct 3:** Send Notice (via email) sent to sponsors of bills (not applicable)
- Oct 20:** 8:30am CDT: Rules hearing (Case 32201) Oil and Gas Division Office, 1000 E Calgary Ave, Bismarck
(Hearing must be no sooner than 20 days from the date of last publication)
1:30pm MDT: Rules hearing, Oil and Gas Division Field Office, 926 E Industrial Drive, Dickinson
- Oct 21:** 8:30am CDT: Rules hearing, Bakken Airport Hotel, 5813 Jefferson Lane, Williston
2:00pm CDT: Rules hearing, Oil and Gas Division Field Office, 7 Third St SE, Suite 107, Minot
Minimum ten-day comment period starts (to receive input on proposed rules)
- Oct 31:** Comment period ends from hearing—10 days from final hearing date (ten-day mandatory)
- Nov 17:** Finalize responses to all comments received (oral at hearing plus written comments)
Finalize appropriate amendments to rules

Nov 25: IC meeting—approval of rule amendments with ICO 34956 (Case 32201)

Dec 1: Mail ICO 34956 to all interested parties including sponsors (NA); prepare affidavit of mailing to all parties

Dec 22: Complete small entity regulatory analysis—required to minimize adverse impact on small entities

Dec 22: Complete small entity impact statement—required if has an adverse impact on small entities

2026

Jan 2: Submit final rules to Attorney General for legal opinion

Jan 26: Receive opinion from Attorney General's office

Jan 29: File rules and Attorney General opinion with Legislative Council
(Rules filed with LC between Nov 2 and Feb 1 become effective Apr 1)

Feb 12: Notify all interested parties (and post on web) of the Administrative Rules Committee hearing
(Note: also notice sponsors if implementing past legislation being adopted in rules)

Mar ?: Administrative Rules Committee Hearing

Apr 1: Adopt final rules

**NORTH DAKOTA INDUSTRIAL COMMISSION
DEPARTMENT OF MINERAL RESOURCES
OIL AND GAS DIVISION**

**CASE NO. 32201
SUMMARY OF PROPOSED 2026 RULES AND COMMENTS**

NDAC CITE	RULE	PG	PROPOSED CHANGE	COMMENTS RECEIVED				
				DATE RECEIVED	ORAL OR WRITTEN	COMMENT	DISCUSSION	ACTION TAKEN
43-02-03 OIL AND GAS CONSERVATION								
43-02-03-01	Definitions	3	Clarify and modernize definition for "Log or well log"			NO COMMENTS RECEIVED	No response necessary	The proposed amendment will be adopted without any further modification
43-02-03-14.2	Oil and gas metering systems	9	Require email submission of meter test reports			NO COMMENTS RECEIVED	No response necessary	The proposed amendments will be adopted without any further modification
		9	Allows Director to verbally grant variance to section of rules	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC supports the proposal believing it provides flexibility without a loss of reporting transparency.	No response necessary	
		9	Clarify meter owner must file variance request	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC supports the proposal believing it provides flexibility without a loss of reporting transparency.	No response necessary	
43-02-03-16	Application for permit to drill and recomplete	10	Clarify plat is format for pad layout			NO COMMENTS RECEIVED	No response necessary	The proposed amendments will be adopted without any further modification
		10	Requires submission of production facilities layout plat			NO COMMENTS RECEIVED	No response necessary	

NDAC CITE	RULE	PG	PROPOSED CHANGE	COMMENTS RECEIVED				
				DATE RECEIVED	ORAL OR WRITTEN	COMMENT	DISCUSSION	ACTION TAKEN
43-02-03-16.2	Revocation and limitation of drilling permits	NA	Lawrence Bender, Fredrikson & Byron, P.A., requests amendment of 43-02-03-16.2 to provide guidance on when the Commission will suspend or reinstate a permit	10/30/2025	Written	Lawrence Bender-Fredrikson & Byron, P.A.: Bender believes the rule is silent on the standards or factors that guide the Commission on its discretion to suspend of a permit. Bender suggests a presumption be adopted that if the permit holder plus its supporting interest owners hold 55% or more of the ownership, the permit should not be suspended or revoked, and conversely, if the party seeking suspension holds 55% or more of the ownership the permit should be suspended.	The Commission disagrees the rule is silent on when a permit may be suspended; the rules states "...the subject of a revocation or limitation proceeding although a permit will not be suspended after operations have commenced". 43-02-03-16.2(1) states in part "The commission may act upon its own motion or upon the application of an owner in the spacing or drilling unit. In deciding whether to revoke or limit a permit, the factors that the commission may consider include:" and then six factors are listed. The suggested amendment would circumvent the presentation of facts at a hearing as contemplated in 43-02-03-16.2(1).	The proposed amendment will not be considered
43-02-03-18	Drilling units-well locations	12	Allow for larger drilling units for deeper horizontal wells	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC strongly supports the proposal believing it provides regulatory flexibility while maintaining conservation principals and encourages exploration while still requiring justification of the drilling unit through the permitting process ensuring appropriate regulatory oversight.	No response necessary	The proposed amendment will be adopted without any further modification

NDAC CITE	RULE	PG	PROPOSED CHANGE	COMMENTS RECEIVED				
				DATE RECEIVED	ORAL OR WRITTEN	COMMENT	DISCUSSION	ACTION TAKEN
43-02-03-19	Site construction	13	Acknowledge NorthSTAR form names "well or facility sundry notice"			NO COMMENTS RECEIVED	No response necessary.	The proposed amendments will be adopted without any further modification
		13	Require sites to be stable			NO COMMENTS RECEIVED	No response necessary.	
		13	Require immediate reporting of unstable sites	10/20/2025 10/30/2025	Oral + Written Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC requests clarification regarding what constitutes reportable instability; does it encompass everything from minor surface erosion to catastrophic geotechnical failures. Suggest adding "geotechnical" before "instability" and tying it to "movement sufficient to negatively impact existing or future infrastructure" to clarify it does not apply to routine erosion. Suggested language provided. Dustin Anderson-Chord Energy: Chord asks what the Comm defines as "instable" [sic] questioning whether it refers to the larger structure of the pad or perimeter berms or to on-pad dirt movement? Chord requests additional reference material for what needs notice.	Agree clarification necessary	The proposed amendment will be modified as suggested
		13	Acknowledge NorthSTAR form names "well or facility sundry notice"			NO COMMENTS RECEIVED	No response necessary.	The proposed amendment will be adopted without any further modification
		14	Require cementing of all strings while drilling rig is on well but allows for Director discretion			NO COMMENTS RECEIVED	No response necessary	The proposed amendment will be adopted without any further modification

NDAC CITE	RULE	PG	PROPOSED CHANGE	COMMENTS RECEIVED				
				DATE RECEIVED	ORAL OR WRITTEN	COMMENT	DISCUSSION	ACTION TAKEN
43-02-03-22	Defective casing or cementing	15	Require verbal notification to the Director	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC supports the proposal to verbally report as opposed to requiring a sundry notice in all instances.	No response necessary	The proposed amendments will be adopted without any further modification
				10/30/2025	Written	Dustin Anderson-Chord Energy: Chord believes the language is vague and requests additional guidance on the intended threshold for notification.	Notification is required for any well that appears to have defective casing or cementing; the Commission does not believe this language is vague.	
		15	Acknowledge NorthSTAR form name "well sundry notice"			NO COMMENTS RECEIVED	No response necessary	
		15	Require filing of well sundry notice if required by Director			NO COMMENTS RECEIVED	No response necessary	
		15	Clarify tests include well logs	10/30/2025	Written	Dustin Anderson-Chord Energy: Chord appreciates removal of an automatic mechanical integrity test (MIT) since it may not be the ideal diagnostic tool.	No response necessary	
		15	Clarify defects include casing and cementing			NO COMMENTS RECEIVED	No response necessary	
		15	Clarify Director can require wells logs			NO COMMENTS RECEIVED	No response necessary	
		15	Emphasize follow-up report required	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC supports the proposal believing this is a positive step to ensure relevant data is included in the well file.	No response necessary	

NDAC CITE	RULE	PG	PROPOSED CHANGE	COMMENTS RECEIVED				
				DATE RECEIVED	ORAL OR WRITTEN	COMMENT	DISCUSSION	ACTION TAKEN
43-02-03-27.1	Hydraulic fracture stimulation	18	Require notice if unexpected pressure loss or event occurs during fracture stimulation	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC requests clarification of the definition of "other unexpected events" noting there is a legitimate need for reporting of fracturing operations that do not go as intended but the current language is overly broad. Suggest removing "an unexpected pressure loss" and adding "loss of containment". Suggested language provided.	Agree with adding "suggesting loss of containment". Disagree with striking "unexpected pressure loss" but agree it should be associated with loss of containment.	The proposed amendment will be modified to clarify unexpected event generally as suggested
		NA	Chord Energy requests review of 43-02-03-27.1(2)(c), specifically the requirement to perform a visual inspection with photograph on the top joint of casing and well flange during drilling operations	10/30/2025	Written	Dustin Anderson-Chord Energy: Chord believes this language is particularly vague and asks if there is a threshold for what needs notification and does this include potential issues in the lateral portion of the well bore?	Amendment will be modified to associate issues with loss of containment.	
		NA	Chord Energy requests review of 43-02-03-27.1(2)(c), specifically the requirement to perform a visual inspection with photograph on the top joint of casing and well flange during drilling operations	10/30/2025	Written	Dustin Anderson-Chord Energy: Chord believes this poses a serious safety concern for well control as well as an unnecessary delay in completions. Chord believes modern standard downhole imaging logs such as an Ultrasonic Imaging Tool (USIT) log capture this information and request this requirement be stricken.	The Commission believes this merits consideration but would need relevant information to evaluate. There is waiver language currently in the rule.	The proposed amendment will not be considered
43-02-03-28	Safety regulation	19	Director can shut in well if serious threat to the environment	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC requests clarification believing "serious threat of injury to the environment" is subjective and the Director already has the authority to shut in wells that pose threats to public health or safety. NDPC believes the current language stating "threat of pollution" already covers environmental concerns. NDPC requests the proposal be withdrawn. Alternatively, NDPC recommends specific, objective criteria be established for when authority may be exercised, appropriate notice requirements included, and clear standards for lifting a shut-in order.	The Commission believes current rule is unclear whether it applies to only environmental injury such as fire damage in a remote area.	The proposed amendment will be adopted without any further modification
				10/30/2025	Written	Dustin Anderson-Chord Energy: Chord believes the additional language "the environment" is redundant to the authority exercised by the NDDEQ introducing confusion in authority during an environmental emergency.	The Commission disagrees as it is the primary regulator over oil and gas activity and has the field presence necessary to assist in an environmental emergency.	

NDAC CITE	RULE	PG	PROPOSED CHANGE	COMMENTS RECEIVED				
				DATE RECEIVED	ORAL OR WRITTEN	COMMENT	DISCUSSION	ACTION TAKEN
43-02-03-29	Well and lease equipment and gas gathering pipelines	19, 20	Require prior notification of gas pipeline installation, include GIS shape file and design drawings including associated above ground equipment	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC strongly opposes believing it imposes considerable administrative burden on midstream companies while providing very little discernable material benefit to the Commission. NDPC believes the 48-hour notice and one-year expiration create substantial operational challenges that do not account for the realities of pipeline construction. NDPC believes the requirement to submit intent to construct documents and as-built documents for the same pipeline segment creates multiple sets of data with no articulated benefit other than having the data. The NDPC is concerned the submission of pre-construction location and design data will not be exempt from public disclosure. The NDPC believes the requirement to identify environmentally sensitive areas lacks definition, could create confusion, and result in the public disclosure of information about private property that landowners want to keep confidential.	The pipeline construction documents are created for construction; the Commission does not believe it is an administrative burden to submit already created documents. The Commission reviews the data to identify potential construction hazards and informs the applicant. The Commission works with operators and contractors and understands there may be occasional short notice. The Commission does not believe a one-year expiration is unreasonable and it aligns with other permits issued by the Commission. Commission data suggests less than 10% of notifications expire without the pipeline being installed. The Commission disagrees identification of environmentally sensitive areas lacks definition; wetlands, streams, and other surface waterbodies are enumerated. Pursuant to 38-08-26, shape files and the resulting geographic information system database are exempt from any public disclosure.	The proposed amendment will be adopted without any further modification
		20	Require notice to Director if other underground pipeline hit during construction	10/25/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC believes this is duplicative and potentially conflicts with existing PSC authority.	Gas gathering pipelines under Commission jurisdiction are not under PSC jurisdiction.	The proposed amendment will be adopted without any further modification
		21	Require submission of any shape files created for gas pipelines	10/25/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC does not oppose although believes the information is of limited utility due to data gaps making complete compliance difficult but recognizes the Commission's interest in comprehensive records of pipeline locations during permit to drill review. NDPC limits its support contingent upon the Commission providing adequate confidentiality protections.	Pursuant to 38-08-26, shape files and the resulting geographic information system database are exempt from any public disclosure.	The proposed amendment will be adopted without any further modification
		19, 20, 21, 22	Add section titles	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC does not oppose.	No response necessary	The proposed amendment will be adopted without any further modification

NDAC CITE	RULE	PG	PROPOSED CHANGE	COMMENTS RECEIVED				
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43-02-03-29.1	Crude oil and produced water underground gathering pipelines	23	Require statement on presence of shading bucket or other means of removing rocks from backfill material	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC requests withdrawal of this amendment believing it to be unnecessary and 43-02-03-29.1(4)(i) requires backfill material to be free of rocks greater than two inches in diameter.	The intent to use a shading bucket at the notification phase informs the Commission the operator believes it necessary due to construction in a rocky area and extra diligence may be required by field staff to inspect. The intent not to use a shading bucket informs the Commission extra diligence may be required when observing the topsoil and subsoil windrows.	The proposed amendments will be adopted without any further modification
		24	Require notice to Director if abandoned pipeline hit during construction	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC believes this is duplicative and potentially conflicts with existing PSC authority.	Gas gathering pipelines under Commission jurisdiction are not under PSC jurisdiction.	
		25	Director may require casing of pipeline borings for good cause	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC urges this be withdrawn and defer to industry knowledge and existing PSC and PHMSA regulations believing this amendment conflicts with federal pipeline safety guidance and notes PHMSA specifically advises against mandatory casing requirements in many instances. NDPC believes "good cause" is vague and creates uncertainty when this may be applied.	Gas gathering pipelines under Commission jurisdiction are not under PSC jurisdiction. Requiring borings to be cased will not be mandatory but based upon specific site conditions and manufacturer's installation specifications. Similar "good cause" appears 14 times in 43-02-03. The Commission will modify the proposed amendment to be specific to non-metallic pipelines.	The proposed amendment will be modified to be specific to non-metallic pipelines

NDAC CITE	RULE	PG	PROPOSED CHANGE	COMMENTS RECEIVED				
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43-02-03-31	Well log, completion, and workover reports	33	Acknowledge NorthSTAR form name "well plugging report"			NO COMMENTS RECEIVED	No response necessary	The proposed amendments will be adopted without any further modification
		33	Acknowledge NorthSTAR form name "well completion report"			NO COMMENTS RECEIVED	No response necessary	
		33	Allow transport of crude oil from well site before completion report filed without verbal approval from Director	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC supports believing this a common sense change eliminating unnecessary administrative burdens for both operators and the Commission.	No response necessary	
		34	Acknowledge NorthSTAR form name "well sundry notice"			NO COMMENTS RECEIVED	No response necessary	
		34	Require reporting of remedial cementing			NO COMMENTS RECEIVED	No response necessary	
		34	Acknowledge NorthSTAR form name "well sundry notice"			NO COMMENTS RECEIVED	No response necessary	
		34	Remove requirement of reporting pre and post daily production after remedial work			NO COMMENTS RECEIVED	No response necessary	
		34	Require reporting of cement volume used (if applicable)			NO COMMENTS RECEIVED	No response necessary	
		34	Require reporting of any other information required by Director			NO COMMENTS RECEIVED	No response necessary	
		34	Acknowledge NorthSTAR form name "well sundry notice"			NO COMMENTS RECEIVED	No response necessary	
		34	Remove requirement of reporting pre and post daily production after pump change			NO COMMENTS RECEIVED	No response necessary	

NDAC CITE	RULE	PG	PROPOSED CHANGE	COMMENTS RECEIVED				
				DATE RECEIVED	ORAL OR WRITTEN	COMMENT	DISCUSSION	ACTION TAKEN
43-02-03-44	Metered casinghead gas	34, 35	Combine 43-02-03-44 and 43-02-03-45			NO COMMENTS RECEIVED	No response necessary	The proposed amendments will be adopted without any further modification
		34, 35	Move requirement to burn gas from 43-02-03-45 to 43-02-03-44			NO COMMENTS RECEIVED	No response necessary	
		35	Acknowledge NorthSTAR form name "well sundry notice"			NO COMMENTS RECEIVED	No response necessary	
		35	Acknowledge NorthSTAR form name "gas report"			NO COMMENTS RECEIVED	No response necessary	
43-02-03-45	Vented casinghead gas	34, 35	Repeal and combine with 43-02-03-44			NO COMMENTS RECEIVED	No response necessary	The proposed amendment will be adopted without any further modification
43-02-03-47	Produced water	35	Acknowledge NorthSTAR form name "oil report"			NO COMMENTS RECEIVED	No response necessary	The proposed amendments will be adopted without any further modification
		35	Clarify report due by 5 p.m. on date due			NO COMMENTS RECEIVED	No response necessary	

NDAC CITE	RULE	PG	PROPOSED CHANGE	COMMENTS RECEIVED				
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43-02-03-48.1	Central production facility-commingling of production	36	Remove requirement of hearing for diverse ownership commingling; allow Director approval	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC strongly supports believing it benefits both the industry and the Commission by reducing administrative burdens while maintaining appropriate oversight through Director review and approval.	No response necessary	The proposed amendments will be adopted without any further modification
				10/21/2025	Oral	Tori Siemieniewski-Regulatory Manager Phoenix Energy: Siemieniewski supports believing this is a common sense approach that takes the burden off both the operator and the Commission.		
				10/30/2025	Written	Dustin Anderson-Chord Energy: Chord applauds the removal of automatic hearing.		
		36	Hearing can still be required	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC supports but requests immediate notice if hearing required.	Applicants will be notified immediately if hearing required.	
				10/30/2025	Written	Dustin Anderson-Chord Energy: Chord applauds the removal of automatic hearing but believes the scheduling of a hearing on the Commission's motion can add up to six weeks for approval introducing timing uncertainty. Chord requests clarification on circumstances that may require a hearing.	Hearings will be scheduled if an interested party requests subject to Director discretion, and if the application requests a test duration of less than 72 consecutive hours. Once a test method and duration have been approved pursuant to a hearing, the Director can approve subsequent like requests without a hearing. The order issued will grant the Director such authority to approve.	
		36	Clarify information required for meters installed; emphasize testing frequency for common ownership facilities			NO COMMENTS RECEIVED	No response necessary	
		36	Require reporting of provings and calibrations within 30 days of test			NO COMMENTS RECEIVED	No response necessary	
		37	Clarify common ownership facilities require 24-hour test			NO COMMENTS RECEIVED	No response necessary	
		37	Clarify applies to allocation meters; clarify applies to oil meters; emphasize testing frequency for diverse ownership facilities			NO COMMENTS RECEIVED	No response necessary	

NDAC CITE	RULE	PG	PROPOSED CHANGE	COMMENTS RECEIVED				
				DATE RECEIVED	ORAL OR WRITTEN	COMMENT	DISCUSSION	ACTION TAKEN
43-02-03-48.1 (cont'd)	(cont'd) Central production facility-commingling of production	37	Clarify diverse ownership facilities require 72-hour test	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC believes this may unnecessarily trigger hearings in cases where the operator proposes a reliable and technically sound method for allocating production without a 72-hour test. NDPC believes the Commission should retain discretion to approve shorter-duration tests when they are sufficient to ensure accurate allocation of production and allow the Director to approve without a hearing. NDPC suggests recognition in this rule that methods of allocation approved by hearing are acceptable alternatives. Suggested language provided.	Hearings will be scheduled if the application requests a test duration of less than 72 consecutive hours. Once a test method and duration have been approved pursuant to a hearing, the Director can approve subsequent like requests without a hearing. The order issued will grant the Director such authority to approve. The 72 consecutive hour test was established pursuant to API guidance and a requirement to test at least three days per month has been in effect since 1996 by order. A hearing to approve a test duration of less than 72 consecutive hours allows an interested party to voice any concerns. Previous approvals are not affected by this proposed amendment.	The proposed amendment will be adopted without any further modification
				10/21/2025	Oral	Tori Siemieniewski-Regulatory Manager Phoenix Energy: Siemieniewski questions whether the Commission will keep allowing 48-hour test duration commingling approvals and others that have previously been approved. Siemieniewski requests the Commission allow alternate methods to be approved by the Director without having a		
		38	Clarify information required for meters installed at commingled produced water facilities; require installation and calibration of meters in accordance with API or manufacturer recommendations			NO COMMENTS RECEIVED	No response necessary	The proposed amendments will be adopted without any further modification
		38	Adds testing duration for common and diverse ownership commingled produced water facilities			NO COMMENTS RECEIVED	No response necessary	
		38	Acknowledge NorthSTAR form name "facility sundry notice"			NO COMMENTS RECEIVED	No response necessary	
		38	Allow Director to revoke commingling authorization	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC recommends clarification and narrowing the proposed language to non-compliance with the commingling agreement believing it is overly broad. Suggested language provided.	The proposed amendment is limited to non-compliance with this section of rules.	

NDAC CITE	RULE	PG	PROPOSED CHANGE	COMMENTS RECEIVED				
				DATE RECEIVED	ORAL OR WRITTEN	COMMENT	DISCUSSION	ACTION TAKEN
43-02-03-49	Oil production equipment, dikes, and seals	38	Oil vessels diking added	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC requests withdrawal stating an oil vessel differs from an oil tank because they are built to ASME code that requires rigorous inspection, certified fabrication, and pressure testing in contrast to an oil tank built to API's less stringent standards. NDPC believes the risk of failure or leak is much lower for an oil vessel compared to an oil tank.	The Commission believes the current diking requirements have greatly reduced the occurrence of spills travelling off site and adding oil vessels is appropriate. The proposed amendment does not require a specific dike around only the oil vessel but they can be included in a dike around multiple equipment.	The proposed amendments will be adopted without any further modification
				10/21/2025	Oral	Josh Demorrett-ConocoPhillips Company: ConocoPhillips testified the vessel and facility is already diked and monitored by a Supervisory Control and Data Acquisition (SCADA) system and the EPA does not require specific dikes around these oil vessels; therefore, it hopes the Commission takes the same position.		
		38	Clarify all dikes that required must be erected and maintained unless waived by Director			NO COMMENTS RECEIVED	No response necessary	
		38	Add oil vessels to dike volume calculation	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC believes the current diking volume calculation requirement that includes "one day's fluid production" is impractical when Bakken well sites first come online referencing the EPA's requirement of 110% capacity of the largest tank. NDPC states the EPA does not require this around oil vessels or flow through process vessels and requests the Commission align containment requirements with EPA standards as described and withdraw the proposed amendment in its entirety.	The Commission believes the current diking requirements have greatly reduced the occurrence of spills travelling off site. The Commission exercises discretion in applying "one day's fluid production" to diking requirements on new sites.	
				10/21/2025	Oral	Josh Demorrett-ConocoPhillips Company: ConocoPhillips believes the diking volume calculation requirement that includes "one day's fluid production" is on the high side for Bakken production.		

NDAC CITE	RULE	PG	PROPOSED CHANGE	COMMENTS RECEIVED				
				DATE RECEIVED	ORAL OR WRITTEN	COMMENT	DISCUSSION	ACTION TAKEN
43-02-03-52	Report of oil production	39	Clarify report due by 5 p.m. on date due	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC supports the clarification.	No response necessary	The proposed amendments will be adopted without any further modification
		39	Acknowledge NorthSTAR form name "oil report"	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC supports.	No response necessary	
		39	Remove signature requirement	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC supports removing signature requirement for electronically filed reports.	No response necessary	
43-02-03-52.1	Report of gas produced in association with oil	39	Clarify report due by 5 p.m. on date due	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC supports the clarification.	No response necessary	The proposed amendments will be adopted without any further modification
		40	Acknowledge NorthSTAR form name "gas report"	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC supports.	No response necessary	
		40	Remove signature requirement	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC supports removing signature requirement for electronically filed reports.	No response necessary	
43-02-03-53.3	Saltwater handling facility construction and operation requirements	41	Acknowledge NorthSTAR form name "facility sundry notice"			NO COMMENTS RECEIVED	No response necessary	The proposed amendment will be adopted without any further modification
		42	Acknowledge NorthSTAR form name "skim oil report"			NO COMMENTS RECEIVED	No response necessary	
43-02-03-59	Production from gas wells to be measured and reported	42	Clarify gas produced, used on lease, or flared shall be reported pursuant to 43-02-03-44 and 43-02-03-52.1			NO COMMENTS RECEIVED	No response necessary	The proposed amendments will be adopted without any further modification

NDAC CITE	RULE	PG	PROPOSED CHANGE	COMMENTS RECEIVED				
				DATE RECEIVED	ORAL OR WRITTEN	COMMENT	DISCUSSION	ACTION TAKEN
43-02-03-80	Report of purchasers and transporters of crude oil	42	Clarify report due by 5 p.m. on date due			NO COMMENTS RECEIVED	No response necessary	The proposed amendments will be adopted without any further modification
		42	Acknowledge NorthSTAR form name "oil purchasers monthly report"			NO COMMENTS RECEIVED	No response necessary	
		42	Acknowledge NorthSTAR form name "oil transporters monthly report"			NO COMMENTS RECEIVED	No response necessary	
		42	Acknowledge NorthSTAR form name "oil transporters and storers monthly report"			NO COMMENTS RECEIVED	No response necessary	
		43	Acknowledge NorthSTAR form name "authorization to purchase and transport oil"			NO COMMENTS RECEIVED	No response necessary	
43-02-03-80.1	Gas purchaser report	43	New Section: Require gas purchaser to file gas purchasers report (form 12a) of all gas purchased from each well or central production facility by 5 p.m. on the fifth day of the second month succeeding the month in which gas is purchased; sets measurement parameters; requires measurement equipment and volume determinations according to API, AGA, or meter manufacturers recommendations			NO COMMENTS RECEIVED	No response necessary	The proposed amendments will be adopted without any further modification
43-02-03-81	Authorization to transport oil from a well, treating plant, central production facility, or saltwater handling facility	43	Clarifies crude oil cannot be transported from a well or central production facility prior to approval of the authorization to purchase and transport oil and grants director authority to verbally approve transport	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC supports believing these align with current practices and improves efficiency for both operators and the Commission.	No response necessary	The proposed amendments will be adopted without any further modification
		43	Acknowledge NorthSTAR form name "authorization to purchase and transport oil"	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC recommends the Commission prioritize making this form accessible through NorthSTAR and allow for bulk submittal to further stream line compliance.	No response necessary	
		43	Reordering of paragraphs			NO COMMENTS RECEIVED	No response necessary	

NDAC CITE	RULE	PG	PROPOSED CHANGE	COMMENTS RECEIVED				
				DATE RECEIVED	ORAL OR WRITTEN	COMMENT	DISCUSSION	ACTION TAKEN
43-02-03-83	Gas processing plant reports	44	Removes reporting of gas from each well or lease since this is now reported by gas purchaser and adds requirement of reporting gas liquids			NO COMMENTS RECEIVED	No response necessary	The proposed amendments will be adopted without any further modification
		44	Add full form name "gas processing plant report (form 12)"			NO COMMENTS RECEIVED	No response necessary	
		44	Acknowledge NorthSTAR form name "oil report"			NO COMMENTS RECEIVED	No response necessary	
		44	Clarify report due be 5 p.m. on date due			NO COMMENTS RECEIVED	No response necessary	
		44	Clarify form 12 due be 5 p.m. on date due			NO COMMENTS RECEIVED	No response necessary	
43-02-03-88.1	Special procedures for increased density wells, pooling, flaring exemption, underground injection, commingling, converting mineral wells to freshwater wells, and unopposed recovery of a risk penalty applications	44	Removes central tank battery or central production facility cases since director can approve	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC supports the removal since it is consistent with changes made to 43-02-03-48.1, believing it appropriately expands the Director's authority.	No response necessary	The proposed amendments will be adopted without any further modification
		44	Adds unopposed risk penalty cases	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC supports the addition, believing it appropriately expands the Director's authority to approve unopposed applications without the time and expense of a hearing.	No response necessary	

NDAC CITE	RULE	PG	PROPOSED CHANGE	COMMENTS RECEIVED				
				DATE RECEIVED	ORAL OR WRITTEN	COMMENT	DISCUSSION	ACTION TAKEN
43-02-03-88.2	Hearing participants by telecommunication	45, 46	Change "telephone" to "telecommunication"	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC generally supports the proposed amendment but believes "telecommunication" should be replaced with "remote communication or other reliable electronic means" to harmonize with court and administrative precedents within the state improving consistency across agencies. Suggested language provided.	Agree with language suggested.	The proposed amendment will be modified as suggested
		45	Allows telecommunication by applicant even if written request not made			NO COMMENTS RECEIVED	No response necessary	The proposed amendments will be adopted without any further modification
		45	Allows telecommunication by interested party even if written request and notice to applicant not made			NO COMMENTS RECEIVED	No response necessary	
		45	Hearing examiner may disallow telecommunication participation and schedule in-person hearing; remove need to notify if telecommunication is granted or denied			NO COMMENTS RECEIVED	No response necessary	
		46	Remove requirement for attorney or representative to call party			NO COMMENTS RECEIVED	No response necessary	
		46	Allow hearing examiner discretion to waive requirement for attorney or representative for applicant to be present at hearing			NO COMMENTS RECEIVED	No response necessary	
		46	Clarify role of hearing examiner and Commission			NO COMMENTS RECEIVED	No response necessary	
		46	Change "speaker telephone" to "telecommunication equipment"			NO COMMENTS RECEIVED	No response necessary	
		46	Remove requirement for party to pay for cost of telecommunication	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC supports the proposed amendment believing it eliminates an antiquated requirement.	No response necessary	

NDAC CITE	RULE	PG	PROPOSED CHANGE	COMMENTS RECEIVED				
				DATE RECEIVED	ORAL OR WRITTEN	COMMENT	DISCUSSION	ACTION TAKEN
43-05-01 GEOLOGIC STORAGE OF CARBON DIOXIDE								
43-05-01-01	Definitions	47	Add definition of "carbon dioxide storage complex"	10/20/2025	Oral + Written	Brady Pelton-NDPC-Vice President and General Counsel: NDPC has no objections to the proposed amendments as they appear to be primarily technical that provide clarity and align rules with current statutory requirements.	No response necessary	The proposed amendments will be adopted without any further modification
43-05-01-08	Storage facility permit hearing	51	Change rule to match statute					
43-05-01-09	Well permit application requirements	53	Clarify application filed with director					
		53	Removed form name for permit to drill since it does not exist					
		54	Remove requirement to file permit to inject within 30 days of well completion					
		54	Clarify permit to inject is filed on well sundry notice					
43-05-01-11.4	Testing and monitoring requirements	57	Allow Commission to require passive seismicity monitoring					
43-05-01-18.1	Abandonment of wells	58	Refers to section 43-02-03-34.1 for reclamation requirements					
43-05-01-19	Postinjection site care and facility closure	59	Require flowlines to be properly abandoned					
		59	Removes reference to NDCC 38-08-04.12, refers to section 43-02-03-34.1 for reclamation requirements					

NDAC CITE	RULE	PG	PROPOSED CHANGE	COMMENTS RECEIVED				
				DATE RECEIVED	ORAL OR WRITTEN	COMMENT	DISCUSSION	ACTION TAKEN

43-02-03 OIL AND GAS CONSERVATION								
43-05-01 GEOLOGIC STORAGE OF CARBON DIOXIDE								
				10/23/2025	Written	Josh Demorrett-ConocoPhillips Company: ConocoPhillips supports the written comments submitted by the NDPC on 10/20/2025.	No response necessary	The proposed amendments will be adopted or modified as discussed above
				10/30/2025	Written	Dustin Anderson-Chord Energy: Chord supports the comments submitted by the NDPC. Chord also had specific comments included above.	No response necessary	The proposed amendments will be adopted or modified as discussed above

43-02-03-01. Definitions.

The terms used throughout this chapter have the same meaning as in North Dakota Century Code chapter 38-08 except:

1. "Adjusted allowable" means the allowable production a proration unit receives after all adjustments are applied.
2. "Allocated pool" is one in which the total oil or natural gas production is restricted and allocated to various proration units therein in accordance with proration schedules.
3. "Allowable production" means that number of barrels of oil or cubic feet of natural gas authorized to be produced from the respective proration units in an allocated pool.
4. "Barrel" means forty-two United States gallons [158.99 liters] measured at sixty degrees Fahrenheit [15.56 degrees Celsius] and fourteen and seventy-three hundredths pounds per square inch absolute [1034.19 grams per square centimeter].
5. "Barrel of oil" means forty-two United States gallons [158.99 liters] of oil after deductions for the full amount of basic sediment, water, and other impurities present, ascertained by centrifugal or other recognized and customary test.
6. "Bottom hole or subsurface pressure" means the pressure in pounds per square inch gauge under conditions existing at or near the producing horizon.
7. "Bradenhead gas well" means any well capable of producing gas through wellhead connections from a gas reservoir which has been successfully cased off from an underlying oil or gas reservoir.
8. "Casinghead gas" means any gas or vapor, or both gas and vapor, indigenous to and produced from a pool classified as an oil pool by the commission.
9. "Certified or registered mail" means any form of service by the United States postal service, federal express, Pitney Bowes, and any other commercial, nationwide delivery service that provides the mailer with a document showing the date of delivery or refusal to accept delivery.
10. "Commercial injection well" means one that only receives fluids produced from wells operated by a person other than the principal on the bond.
11. "Common purchaser for natural gas" means any person now or hereafter engaged in purchasing, from one or more producers, gas produced from gas wells within each common source of supply from which it purchases, for processing or resale.
12. "Common purchaser for oil" means every person now engaged or hereafter engaging in the business of purchasing oil in this state.
13. "Common source of supply" is synonymous with pool and is a common accumulation of oil or gas, or both, as defined by commission orders.

14. "Completion" means an oil well shall be considered completed when the first oil is produced through wellhead equipment into tanks from the ultimate producing interval after casing has been run. A gas well shall be considered complete when the well is capable of producing gas through wellhead equipment from the ultimate producing zone after casing has been run. A dry hole shall be considered complete when all provisions of plugging are complied with as set out in this chapter.
15. "Condensate" means the liquid hydrocarbons recovered at the surface that result from condensation due to reduced pressure or temperature of petroleum hydrocarbons existing in a gaseous phase in the reservoir.
16. "Cubic foot of gas" means that volume of gas contained in one cubic foot [28.32 liters] of space and computed at a pressure of fourteen and seventy-three hundredths pounds per square inch absolute [1034.19 grams per square centimeter] at a base temperature of sixty degrees Fahrenheit [15.56 degrees Celsius].
17. "Director" means the director of oil and gas of the industrial commission, the assistant director of oil and gas of the industrial commission, and their designated representatives.
18. "Enhanced recovery" means the increased recovery from a pool achieved by artificial means or by the application of energy extrinsic to the pool, which artificial means or application includes pressuring, cycling, pressure maintenance, or injection to the pool of a substance or form of energy but does not include the injection in a well of a substance or form of energy for the sole purpose of:
 - a. Aiding in the lifting of fluids in the well; or
 - b. Stimulation of the reservoir at or near the well by mechanical, chemical, thermal, or explosive means.
19. "Exception well location" means a location which does not conform to the general spacing requirements established by the rules or orders of the commission but which has been specifically approved by the commission.
20. "Flow line" means a pipe or conduit of pipes used for the transportation, gathering, or conduct of a mineral from a wellhead to a separator, treater, dehydrator, tank battery, or surface reservoir.
21. "Gas lift" means any method of lifting liquid to the surface by injecting gas into a well from which oil production is obtained.
22. "Gas-oil ratio" means the ratio of the gas produced in cubic feet to a barrel of oil concurrently produced during any stated period.
23. "Gas-oil ratio adjustment" means the reduction in allowable of a high gas-oil ratio proration unit to conform with the production permitted by the limiting gas-oil ratio for the particular pool during a particular proration period.
24. "Gas transportation facility" means a pipeline in operation serving one or more gas wells for the transportation of natural gas, or some other device or equipment in like operation whereby natural gas produced from gas wells connected therewith can be transported.

25. "Gas well" means a well producing gas or natural gas from a common source of gas supply as determined by the commission.
26. "High gas-oil ratio proration unit" means a proration unit with a producing oil well with a gas-oil ratio in excess of the limiting gas-oil ratio for the pool.
27. "Inactive pipeline" means any underground gathering pipeline system or portion thereof that has not transported fluid for more than one year.
28. "Injection or input well" means any well used for the injection of air, gas, water, or other fluids into any underground stratum.
29. "Injection pipeline" means a pipe or conduit of pipes used for the transportation of fluids, typically via an injection pump, from a storage tank or tank battery directly to an injection well.
30. "Limiting gas-oil ratio" means the gas-oil ratio assigned by the commission to a particular oil pool to limit the volumes of casinghead gas which may be produced from the various oil-producing units within that particular pool.
31. "Log or well log" means a systematic, detailed, and ~~correct~~ accurate record of one or more properties as a function of depth in an open or cased well bore. This includes but is not limited to geophysical, petrophysical, image, or engineered/composite logs, or other well bore measurements acquired while drilling or by wireline operations recorded in paper or digital format ~~formations encountered in the drilling of a well, including commercial electric logs, radioactive logs, dip meter logs, and other related logs.~~
32. "Multiple completion" means the completion of any well so as to permit the production from more than one common source of supply.
33. "Natural gas or gas" means and includes all natural gas and all other fluid hydrocarbons not herein defined as oil.
34. "Occupied dwelling" or "permanently occupied dwelling" means a residence which is lived in by a person at least six months throughout a calendar year.
35. "Official gas-oil ratio test" means the periodic gas-oil ratio test made by order of the commission and by such method and means and in such manner as prescribed by the commission.
36. "Offset" means a well drilled on a forty-acre [16.19-hectare] tract cornering or contiguous to a forty-acre [16.19-hectare] tract having an existing oil well, or a well drilled on a one hundred sixty-acre [64.75-hectare] tract cornering or contiguous to a one hundred sixty-acre [64.75-hectare] tract having an existing gas well; provided, however, that for wells subject to a fieldwide spacing order, "offset" means any wells located on spacing units cornering or contiguous to the spacing unit or well which is the subject of an inquiry or a hearing.
37. "Oil well" means any well capable of producing oil or oil and casinghead gas from a common source of supply as determined by the commission.

38. "Operator" is the principal on the bond covering a well and such person shall be responsible for drilling, completion, and operation of the well, including plugging and reclamation of the well site.
39. "Overage or overproduction" means the amount of oil or the amount of natural gas produced during a proration period in excess of the amount authorized on the proration schedule.
40. "Potential" means the properly determined capacity of a well to produce oil, or gas, or both, under conditions prescribed by the commission.
41. "Pressure maintenance" means the injection of gas or other fluid into a reservoir, either to increase or maintain the existing pressure in such reservoir or to retard the natural decline in the reservoir pressure.
42. "Proration day" consists of twenty-four consecutive hours which shall begin at seven a.m. and end at seven a.m. on the following day.
43. "Proration month" means the calendar month which shall begin at seven a.m. on the first day of such month and end at seven a.m. on the first day of the next succeeding month.
44. "Proration schedule" means the periodic order of the commission authorizing the production, purchase, and transportation of oil or of natural gas from the various units of oil or of natural gas proration in allocated pools.
45. "Proration unit for gas" consists of such geographical area as may be prescribed by special pool rules issued by the commission.
46. "Recomplete" means the subsequent completion of a well in a different pool.
47. "Reservoir" means pool or common source of supply.
48. "Saltwater handling facility" means and includes any container and site used for the handling, storage, disposal of substances obtained, or used, in connection with oil and gas exploration, development, and production and can be a stand-alone site or an appurtenance to a well or treating plant.
49. "Shut-in pressure" means the pressure noted at the wellhead when the well is completely shut in, not to be confused with bottom hole pressure.
50. "Spacing unit" is the area in each pool which is assigned to a well for drilling, producing, and proration purposes in accordance with the commission's rules or orders.
51. "Stratigraphic test well" means any well or hole, except a seismograph shot hole, drilled for the purpose of gathering information with no intent to produce oil or gas from or inject into such well.
52. "Subsurface observation well" means a well used to observe subsurface phenomena, including the presence of carbon dioxide, pressure fluctuations, fluid levels and flow, temperature, and in situ water chemistry.

53. "Tank bottoms" means that accumulation of hydrocarbon material and other substances which settle naturally below crude oil in tanks and receptacles that are used in handling and storing of crude oil, and which accumulation contains basic sediment and water in an amount rendering it unsalable to an ordinary crude oil purchaser; provided, that with respect to lease production and for lease storage tanks, a tank bottom shall be limited to that volume of the tank in which it is contained that lies below the bottom of the pipeline outlet thereto.
54. "Treating plant" means any plant permanently constructed or portable used for the purpose of wholly or partially reclaiming, treating, processing, or recycling tank bottoms, waste oils, drilling mud, waste from drilling operations, produced water, and other wastes related to crude oil and natural gas exploration and production. This is not to be construed as to include saltwater handling and disposal operations which typically recover skim oil and solids from their operations, treating mud or cuttings at a well site during drilling operations, treating flowback water during completion operations at a well site, or treating tank bottoms at the well site or facility where they originated.

History: Amended effective January 1, 1983; May 1, 1992; July 1, 1996; December 1, 1996; September 1, 2000; July 1, 2002; January 1, 2008; April 1, 2014; October 1, 2016; April 1, 2018; April 1, 2024; _____.

General Authority: NDCC 38-08-04

Law Implemented: NDCC 38-08-04

43-02-03-14.2. Oil and gas metering systems.

1. **Application of section.** This section is applicable to all allocation and custody transfer metering stations measuring production from oil and gas wells within the state of North Dakota, including private, state, and federal wells. If these rules differ from federal requirements on measurement of production from federal oil and gas wells, the federal rules take precedence.
2. **Definitions.** As used in this section:
 - a. "Allocation meter" means a meter used by the producer to determine the volume from an individual well before it is commingled with production from one or more other wells prior to the custody transfer point.
 - b. "Calibration test" means the process or procedure of adjusting an instrument, such as a gas meter, so its indication or registration is in satisfactorily close agreement with a reference standard.
 - c. "Custody transfer meter" means a meter used to transfer oil or gas from the producer to transporter or purchaser.
 - d. "Gas gathering meter" means a meter used in the custody transfer of gas into a gathering system.

- e. "Meter factor" means a number obtained by dividing the net volume of fluid (liquid or gaseous) passed through the meter during proving by the net volume registered by the meter.
 - f. "Metering proving" means the procedure required to determine the relationship between the true volume of a fluid (liquid or gaseous) measured by a meter and the volume indicated by the meter.
3. **Inventory filing requirements.** The owner of meter proving equipment shall file with the director an inventory of all conventional pipe provers or master-meter provers used to test the accuracy of oil meters. Inventories must be updated on an annual basis, and filed with the director on or before the first day of each year, or they may be updated as frequently as monthly, at the discretion of the operator. Inventories must include the following:
- a. Meter information:
 - (1) Prover:
 - (a) Type.
 - (b) Serial number.
 - (c) Prover volume.
 - (d) Most recent water draw certificate.
 - (2) Master meter:
 - (a) Make and model.
 - (b) Size.
 - (c) Serial number.
 - (d) Master meter factor.
 - (e) Most recent meter proving certificate.
 - (3) An inventory of all meters used for custody transfer and allocation of production from oil and gas wells, or both must be filed with the director upon request.
4. **Installation and removal of meters.** The director must be notified of all custody transfer meters placed in service. The owner of the custody transfer equipment shall notify the director of the date a meter is placed in service, the make and model of the meter, and the meter or station number. The director must also be notified of all metering installations removed from service. The notice must include the date the meter is removed from service, the serial number, and the meter or station number. The required notices must be filed with the director within thirty days of the installation or removal of a meter.

All allocation meters must be approved prior to installation and use. The application for approval must be on a facility sundry notice and shall include the make and model number of the meter, the meter or station number, the serial number, the well name, its location, and the date the meter will be placed in service.

Meter installations for measuring production from oil or gas wells, or both, must be constructed to American petroleum institute or American gas association standards or to meter manufacturer's recommended installation. Meter installations constructed in accordance with American petroleum institute or American gas association standards in effect at the time of installation shall not automatically be required to retrofit if standards are revised. The director will review any revised standards, and when deemed necessary will amend the requirements accordingly.

5. **Registration of persons proving or testing meters.** All persons engaged in meter proving or testing of oil and gas meters must be registered with the director. Those persons involved in oil meter testing, by flowing fluid through the meter into a test tank and then gauging the tank, are exempted from the registration process. However, such persons must notify the director prior to commencement of the test to allow a representative of the director to witness the testing process. A report of the results of such test shall be filed with the director within thirty days after the test is completed. Registration must include the following:
 - a. Name and address of company.
 - b. Name and address of measurement personnel.
 - c. Qualifications, listing experience or specific training.

Any meter tests performed by a person not registered with the director will not be accepted as a valid test.

6. **Calibration requirements.** Oil and gas metering equipment must be proved or tested to American petroleum institute or American gas association standards or to the meter manufacturer's recommended procedure to establish a meter factor or to ensure measurement accuracy. The owner of a custody transfer meter or allocation meter shall notify the director at least ten days prior to the testing of any meter.
 - a. Oil allocation meter factors shall be maintained within two percent of original meter factor. If the factor change between provings or tests is greater than two percent, meter use must be discontinued until successfully reproven after being repaired or replaced.
 - b. Oil custody transfer meter factors must be maintained within one-quarter of one percent of the previous meter factor. If the factor change between provings or tests is greater than one-quarter of one percent, meter use must be discontinued until successfully reproven after being repaired or replaced.
 - c. Copies of all oil allocation meter test procedures are to be filed with and reviewed by the director to ensure measurement accuracy.

- d. All gas meters must be tested with a minimum of a three-point test for static and differential pressure elements and a two-point test for temperature elements. The test reports must include an as-found and as-left test and a detailed report of changes.
- e. Test reports must include the following:
 - (1) Company name of test contractor.
 - (2) Pipeline company name.
 - (3) Meter owner name.
 - (4) Producer name.
 - (5) Well or central tank battery (CTB) name.
 - (6) Well file number or CTB number.
 - (7) Test personnel's name.
 - (8) Station or meter number.
- f. Unless required more often by the director, minimum frequency of meter proving or calibration tests are as follows:
 - (1) Oil meters used for custody transfer shall be proved monthly for all measured volumes which exceed two thousand barrels per month. For volumes two thousand barrels or less per month, meters shall be proved at each two thousand barrel interval or more frequently at the discretion of the operator.
 - (2) Quarterly for oil meters used for allocation of production in a diverse ownership central production facility. Semiannually for oil meters used for allocation of production in a common ownership central production facility.
 - (3) Semiannually for gas meters used for allocation of production in a diverse ownership central production facility. Annually for gas meters used for allocation of production in a common ownership central production facility.
 - (4) Semiannually for gas meters in gas gathering systems.
 - (5) For meters measuring more than one hundred thousand cubic feet [2831.68 cubic meters] per day on a monthly basis, orifice plates shall be inspected semiannually, and meter tubes shall be inspected at least every five years to ensure continued conformance with the American gas association meter tube specifications.

(6) For meters measuring one hundred thousand cubic feet [2831.68 cubic meters] per day or less on a monthly basis, orifice plates shall be inspected annually.

g. Accuracy of all equipment used to test oil or gas meters must be traceable to the standards of the national institute of standards and technology. The equipment must be certified as accurate either by the manufacturer or an independent testing facility. The certificates of accuracy for all equipment used to test gas meters must be made available upon request. The owner of a conventional pipe prover or master meter prover shall notify the director at least ten days prior to the testing of any prover. Certification of the equipment must be updated as follows:

(1) Annually for all equipment used to test the pressure and differential pressure elements.

(2) Annually for all equipment used to determine temperature.

(3) Biennially for all conventional pipe provers.

(4) Annually for all master meters.

(5) Five years for equipment used in orifice tube inspection.

h. All meter test reports, including failed meter test reports, must be filed within thirty days of completion of proving or calibration tests unless otherwise approved, and must be submitted by email in a portable document format (.pdf) or another format approved by the director. Test reports are to be filed on, but not limited to, all meters used for allocation measurement of oil or gas, all meters used in custody transfer, conventional pipe provers, and master meter provers.

7. **Variances.** Variances from all or part of this section may be granted by the director provided the variance does not affect measurement accuracy. All requests for variances may be granted verbally by the director but must be filed by the meter owner on a facility sundry notice.

A register of variances requested and approved must be maintained by the director.

History: Effective May 1, 1994; amended effective July 1, 1996; September 1, 2000; July 1, 2002; April 1, 2018; April 1, 2020; April 1, 2022; April 1, 2024; _____.

General Authority: NDCC 38-08-04

Law Implemented: NDCC 38-08-04

43-02-03-16. Application for permit to drill and recomplete.

Before any person shall begin any well-site preparation for the drilling of any well other than surveying and staking, such person shall obtain approval from the director. An application for permit to drill must be filed with the director, together with a permit fee of one hundred dollars. Site construction, or appurtenance or road access thereto, may not commence until such

application is approved and a permit to drill is issued by the director. Verbal approval may be given for site preparation by the director in extenuating circumstances to include contractual obligations, an expiring lease, or an expiring right-of-way. The application must be accompanied by the bond pursuant to section 43-02-03-15 or the applicant must have previously filed such bond with the director, otherwise the application is incomplete. An incomplete application received by the director has no standing and will not be deemed filed until it is completed.

The application for permit to drill shall be accompanied by an accurate plat certified by a registered surveyor showing the location of the proposed well with reference to true north and the nearest lines of a governmental section, the latitude and longitude of the proposed well location to the nearest tenth of a second, the ground elevation, and the proposed road access to the nearest existing public road. Information to be included in such application shall be the proposed depth to which the well will be drilled, estimated depth to the top of important markers, estimated depth to the top of objective horizons, the proposed mud program, the proposed casing program, including size and weight thereof, the depth at which each casing string is to be set, the proposed amount of cement to be used, including the estimated top of cement, the proposed pad layout plat, including cut and fill diagrams, and the proposed production facilities layout plat. ~~and the proposed amount of cement to be used, including the estimated top of cement.~~

For wells permitted on new pads built after July 31, 2013, permit conditions imposed by the director may include, upon request of the owner of a permanently occupied dwelling within one thousand feet of the proposed well, requiring the location of all flares, tanks, and treaters utilized in connection with the permitted well be located at a greater distance from the occupied dwelling than the well head, if the location can be reasonably accommodated within the proposed pad location. If the facilities are proposed to be located farther from the dwelling than the well bore, the director can issue the permit without comment from the dwelling owner. The applicant shall give any such owners written notice of the proposed facilities personally or by certified mail, return receipt requested, and addressed to their last-known address listed with the county property tax department. The director must receive written comments from such owner within five business days of the owner receiving said notice. An application for permit must include an affidavit from the applicant identifying each owner's name and address, and the date written notice was given to each owner. The owner's notice must include:

1. A copy of North Dakota Century Code section 38-08-05.
2. The name, telephone number, and if available the electronic mail address of the applicant's local representative.
3. A sketch of the area indicating the location of the owner's dwelling, the proposed well, and location of the proposed flare, tanks, and treaters.
4. A statement indicating that any such owner objecting to the location of the flare, tanks, or treaters, must notify the director within five business days of receiving the notice.

Prior to the commencement of recompletion operations or drilling horizontally in the existing pool, an application for permit must be approved by the director. Such application shall be filed to reenter a well by drilling horizontally, deepening, or plugging back to any source of supply other than the producing horizon in an existing well. Such notice shall include the name and file number and exact location of the well, the approximate date operations will begin, the proposed procedure, the estimated completed total depth, the anticipated hydrogen sulfide content in

produced gas from the proposed source of supply, the weight and grade of all casing currently installed in the well unless waived by the director, the casing program to be followed, and the original total depth with a permit fee of fifty dollars. The director may deny any application if it is determined, in accordance with the latest version of ANSI/NACE MR0175/ISO 15156, that the casing currently installed in the well would be subject to sulfide stress cracking.

The applicant shall provide all information, in addition to that specifically required by this section, if requested by the director. The director may impose such terms and conditions on the permits issued under this section as the director deems necessary.

The director shall deny an application for a permit under this section if the proposal would cause, or tend to cause, waste or violate correlative rights. The director of oil and gas shall state in writing to the applicant the reason for the denial of the permit. The applicant may appeal the decision of the director to the commission.

A permit to drill automatically expires one year after the date it was issued, unless the well is drilling or has been drilled below surface casing. A permit to recompleat or to drill horizontally automatically expires one year after the date it was issued, unless such project has commenced. The director may extend a permit to drill and a permit to recompleat or drill horizontally for up to one year upon request.

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1992; May 1, 1994; September 1, 2000; July 1, 2002; April 1, 2010; April 1, 2012; April 1, 2014; October 1, 2016; April 1, 2020; April 1, 2024.

General Authority: NDCC 38-08-05

Law Implemented: NDCC 38-08-05

43-02-03-18. Drilling units - Well locations.

In the absence of an order by the commission setting spacing units for a pool:

1. a. Vertical or directional oil wells projected to a depth not deeper than the Mission Canyon formation must be drilled upon a governmental quarter-quarter section or equivalent lot, located not less than five hundred feet [152.4 meters] to the boundary of such governmental quarter-quarter section or equivalent lot. No more than one well shall be drilled to the same pool on any such governmental quarter-quarter section or equivalent lot, except by order of the commission, nor shall any well be drilled on any such governmental quarter-quarter section or equivalent lot containing less than thirty-six acres [14.57 hectares] except by order of the commission.
- b. Vertical or directional oil wells projected to a depth deeper than the Mission Canyon formation must be drilled on a governmental quarter section or equivalent lots, located not less than six hundred sixty feet [201.17 meters] to the boundary of such governmental quarter section or equivalent lots. No more than one well shall be drilled to the same pool on any such governmental quarter section or equivalent lots, except by order of the commission, nor shall any well be drilled on any such governmental quarter section or equivalent lots containing less than one hundred forty-five acres [58.68 hectares] except by order of the commission.

2.
 - a. Horizontal wells with a horizontal displacement of the well bore drilled at an angle of at least eighty degrees within the productive formation of at least five hundred feet [152.4 meters], projected to a depth not deeper than the Mission Canyon formation, must be drilled upon a drilling unit described as a governmental section or described as two adjacent governmental quarter sections within the same section or equivalent lots, located not less than five hundred feet [152.4 meters] to the outside boundary of such tract. The horizontal well proposed to be drilled must, in the director's opinion, justify the creation of such drilling unit. No more than one well may be drilled to the same pool on any such tract, except by order of the commission.
 - b. Horizontal wells with a horizontal displacement of the well bore drilled at an angle of at least eighty degrees within the productive formation of at least five hundred feet [152.4 meters], projected to a depth deeper than the Mission Canyon formation, must be drilled upon a drilling unit described as a governmental section or adjacent governmental sections, located not less than five hundred feet [152.4 meters] to the outside boundary of such tract. The horizontal well proposed to be drilled must, in the director's opinion, justify the creation of such drilling unit. No more than one well may be drilled to the same pool on any such tract, except by order of the commission.
3.
 - a. Gas wells projected to a depth not deeper than the Mission Canyon formation shall be drilled upon a governmental quarter section or equivalent lots, located not less than five hundred feet [152.4 meters] to the boundary of such governmental quarter section or equivalent lots. No more than one well shall be drilled to the same pool on any such governmental quarter section or equivalent lots, except by order of the commission, nor shall any well be drilled on any such governmental quarter section or equivalent lot containing less than one hundred forty-five acres [58.68 hectares] except by order of the commission.
 - b. Gas wells projected to a depth deeper than the Mission Canyon formation shall be drilled upon a governmental quarter section or equivalent lots, located not less than six hundred sixty feet [201.17 meters] to the boundary of such governmental quarter section or equivalent lots. No more than one well shall be drilled to the same pool on any such governmental quarter section or equivalent lots, except by order of the commission, nor shall any well be drilled on any such governmental quarter section or equivalent lot containing less than one hundred forty-five acres [58.68 hectares] except by order of the commission.
4. Within thirty days, or a reasonable time thereafter, following the discovery of oil or gas in a pool not then covered by an order of the commission, a spacing hearing shall be docketed. Following such hearing the commission shall issue an order prescribing a temporary spacing pattern for the development of the pool. This order shall continue in force for a period of not more than three years at the expiration of which time a hearing shall be held at which the commission may require the presentation of such evidence as will enable the commission to determine the proper spacing for the pool.

During the interim period between the discovery and the issuance of the temporary order, no permits shall be issued for the drilling of an offset well to the discovery well, unless approved by the director. Approval shall be consistent with anticipated spacing for the orderly development of the pool.

Any well drilled within one mile [1.61 kilometers] of an established field shall conform to the spacing requirements in that field except when it is apparent that the well will not produce from the same common source of supply. In order to assure uniform and orderly development, any well drilled within one mile [1.61 kilometers] of an established field boundary shall conform to the spacing and special field rules for the field, and for the purposes of spacing and pooling, the field boundary shall be extended to include the spacing unit for such well and any intervening lands. The foregoing shall not be applicable if it is apparent that the well will not produce from the same common source of supply as wells within the field.

5. If the director denies an application for permit, the director shall advise the applicant immediately of the reasons for denial. The decision of the director may be appealed to the commission.

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1992; May 1, 1994; July 1, 1996; July 1, 2002; January 1, 2006; April 1, 2010; April 1, 2012; _____.

General Authority: NDCC 38-08-04, 38-08-07

Law Implemented: NDCC 38-08-04, 38-08-07

43-02-03-19. Site construction.

In the construction of a well site, saltwater handling facility, treating plant, access road, and all associated facilities, the topsoil shall be removed, stockpiled, and stabilized or otherwise reserved for use when the area is reclaimed. "Topsoil" means the suitable plant growth material on the surface; however, in no event shall this be deemed to be more than the top twelve inches [30.48 centimeters] of soil or deeper than the depth of cultivation, whichever is greater. Soil stabilization materials, liners, fabrics, and other materials to be used onsite, on access roads or associated facilities, must be reported on a well or facility sundry notice (~~form 4~~) to the director within thirty days after application. The reclamation plan for such materials shall also be included.

When necessary to prevent pollution of the land surface and freshwaters, the director may require the site to be sloped and diked.

Sites shall not be located in, or hazardously near, bodies of water, nor shall they block natural drainages. Sites and associated facilities shall be designed and built to be stable, divert surface drainage from entering the site, and prevent erosion. Sites exhibiting geotechnical instability causing, or likely to cause, movement sufficient to negatively impact existing or future infrastructure shall be reported to the director immediately.

Sites or appropriate parts thereof shall be fenced if required by the director.

Within six months after the completion of a well or construction of a saltwater handling facility or treating plant, the portion of the site not used for operations shall be reclaimed, unless waived by the director. Operators shall file a well or facility sundry notice (~~form 4~~) detailing the work that was performed and a current site diagram, which identifies the stockpiled topsoil location and its volume. ~~Sites shall be stabilized to prevent erosion.~~

History: Amended effective March 1, 1982; January 1, 1983; May 1, 1992; July 1, 2002; January 1, 2008; April 1, 2010; April 1, 2012; April 1, 2014; October 1, 2016; _____.

General Authority: NDCC 38-08-04

Law Implemented: NDCC 38-08-04

43-02-03-21. Casing, tubing, and cementing requirements.

All wells drilled shall be constructed with strings of casing which must be properly cemented at sufficient depths to adequately protect and isolate all formations containing water, oil, or gas or any combination of these; protect the pipe through salt sections encountered; and isolate the uppermost sand of the Dakota group. Cementing must be by the pump and plug method while the drilling rig is on the well or other methods approved by the director.

Drilling of the surface hole must be with freshwater-based drilling mud or other method approved by the director which will protect all freshwater-bearing strata. This includes water used during the cementing of surface casing for displacement. The surface casing must consist of new or reconditioned pipe that has been previously tested to one thousand pounds per square inch [6900 kilopascals]. The surface casing must be set and cemented at a point not less than fifty feet [15.24 meters] below the base of the Fox Hills formation. Sufficient cement must be used on surface casing to fill the annular space behind the casing to the bottom of the cellar, if any, or to the surface of the ground. If the annulus space is not adequately filled with cement, the director must be notified immediately. The operator shall diligently perform remedial work after obtaining approval from the director. All strings of surface casing must stand cemented under pressure for at least twelve hours before drilling the plug. The term "under pressure" as used herein must be complied with if one float valve is used or if pressure is otherwise held. ~~Cementing must be by the pump and plug method while the drilling rig is on the well or other methods approved by the director.~~ An appropriate accurate gauge must be maintained on the surface casing of any well, not properly plugged and abandoned, to detect any buildup of pressure caused by the migration of fluids. Surface casing pressure must be monitored and maintained to keep the hydrostatic pressure at the surface casing shoe below the pressure the formation integrity test was performed at.

Surface casing strings must be allowed to stand under pressure until the tail cement has reached a compressive strength of at least five hundred pounds per square inch [3450 kilopascals]. All filler cements utilized must reach a compressive strength of at least two hundred fifty pounds per square inch [1725 kilopascals] within twenty-four hours and at least three hundred fifty pounds per square inch [2415 kilopascals] within seventy-two hours. All compressive strengths on surface casing cement must be calculated at a temperature of eighty degrees Fahrenheit [26.67 degrees Celsius].

Production or intermediate casing strings must consist of new or reconditioned pipe that has been previously tested to two thousand pounds per square inch [13800 kilopascals]. Such strings must be allowed to stand under pressure until the tail cement has reached a compressive strength of at least five hundred pounds per square inch [3450 kilopascals]. All filler cements utilized must reach a compressive strength of at least two hundred fifty pounds per square inch [1725 kilopascals] within twenty-four hours and at least five hundred pounds per square inch [3450 kilopascals] within seventy-two hours, although in any horizontal well performing a single stage cement job from a measured depth of greater than thirteen thousand feet [3962.4 meters], the filler cement utilized must reach a compressive strength of at least two hundred fifty pounds per square inch [1725 kilopascals] within forty-eight hours and at least five hundred pounds per square inch [3450 kilopascals] within ninety-six hours. All compressive strengths on production or intermediate casing cement must be calculated at a temperature found in the Mowry

formation using a gradient of 1.2 degrees Fahrenheit per one hundred feet [30.48 meters] of depth plus eighty degrees Fahrenheit [26.67 degrees Celsius]. At a formation temperature at or in excess of two hundred thirty degrees Fahrenheit [110 degrees Celsius], cement blends must include additives to address compressive strength regression.

Each surface casing string must be tested by application of pump pressure of at least one thousand pounds per square inch [6900 kilopascals] and each other casing string shall be tested by application of pump pressure of at least one thousand five hundred pounds per square inch [10350 kilopascals] immediately after cementing, while the cement is in a liquid state, or the casing string must be pressure tested after all cement has reached five hundred pounds per square inch [3450 kilopascals] compressive strength. If, at the end of thirty minutes, this pressure has dropped more than ten percent, the casing must be repaired after receiving approval from the director. Thereafter, the casing again must be tested in the same manner. Further work may not proceed until a satisfactory test has been obtained. The casing in a horizontal well may be tested by use of a mechanical tool set near the casing shoe after the horizontal section has been drilled.

All flowing wells must be equipped with tubing. A tubing packer must also be utilized unless a waiver from the director is obtained after demonstrating the casing will not be subjected to excessive pressure or corrosion. The packer must be set as near the producing interval as practicable, but in all cases must be above the perforations.

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1992; July 1, 1996; January 1, 1997; September 1, 2000; July 1, 2002; May 1, 2004; January 1, 2006; April 1, 2010; April 1, 2012; April 1, 2020; April 1, 2022; April 1, 2024; _____.

General Authority: NDCC 38-08-04

Law Implemented: NDCC 38-08-04

43-02-03-22. Defective casing or cementing.

In any well that appears to have defective casing or cementing, the operator shall ~~conduct a mechanical integrity test, unless deemed unnecessary by the director, and report the test and defect to the director verbally and file a well -on-a sundry notice (form 4) if required by the director. To properly evaluate the condition of the well, the operator shall proceed with diligence to conduct tests or run logs as approved or required by the director.~~ Prior to attempting remedial work to correct any defect on any casing, the operator must obtain approval from the director and ~~proceed with diligence to conduct tests, as approved or required by the director, to properly evaluate the condition of the well bore and correct the defect.~~ The director is authorized to require subsequent pressure tests and logs to verify casing integrity if its competence is questionable. The director may allow the well ~~bore~~ condition to remain if correlative rights can be protected without endangering potable waters. The well shall be properly plugged if requested by the director.

After the completion of any remedial work or attempted remedial work, a report on the operation shall be filed on a well sundry notice with the director pursuant to section 43-02-03-31.

Any well with open perforations above a packer shall be considered to have defective casing.

History: Amended effective January 1, 1983; May 1, 1992; September 1, 2000; July 1, 2002; May 1, 2004; January 1, 2008; April 1, 2018; _____.

General Authority: NDCC 38-08-04

Law Implemented: NDCC 38-08-04

43-02-03-27.1. Hydraulic fracture stimulation.

1. Prior to performing any hydraulic fracture stimulation, including refracs, through a frac string run inside the casing string:
 - a. Remedial work must be performed on all casing strings deemed defective pursuant to section 43-02-03-22 prior to performance at the discretion of the director.
 - b. The frac string must be either stung into a liner with the hanger/packer located in cemented casing or run with a packer set at a minimum depth of one hundred feet [30.48 meters] below the top of cement or a minimum depth of one hundred feet [30.48 meters] below the top of the Inyan Kara formation, whichever is deeper.
 - c. The casing-frac string annulus must be pressurized and monitored during frac operations. If there is a suspected frac string or casing failure, the operator of the well shall verbally notify the director as soon as practicable.
 - d. An adequately sized, function tested pressure relief valve must be utilized on the treating lines from the pumps to the wellhead, with suitable check valves to limit the volume of flowback fluid should the relief valve open. The relief valve must be set to limit line pressure to no more than eighty-five percent of the internal yield pressure of the frac string.
 - e. An adequately sized, function tested pressure relief valve and an adequately sized diversion line must be utilized to divert flow from the casing to a pit or containment vessel in case of frac string failure. The relief valve must be set to limit annular pressure to no more than eighty-five percent of the lowest internal yield pressure of the casing string or no greater than the pressure test on the intermediate casing, less one hundred pounds per square inch gauge, whichever is less.
 - f. The surface casing must be fully open and connected to a diversion line rigged to a pit or containment vessel.
 - g. An adequately sized, function tested remote operated frac valve must be utilized at a location on the christmas tree that provides isolation of the well bore from the treating line and must be remotely operated from the edge of the location or other safe distance.
 - h. Notify the director within twenty-four hours after the commencement of hydraulic fracture stimulation operations, in an electronic format approved by the director, identifying the subject well and verifying a frac string was run in the well.

- i. Within sixty days after the hydraulic fracture stimulation is performed, the owner, operator, or service company shall post on the fracfocus chemical disclosure registry all elements made viewable by the fracfocus website.
- 2. Prior to performing any hydraulic fracture stimulation, including refracs, through a casing string:
 - a. Remedial work must be performed on all casing strings deemed defective pursuant to section 43-02-03-22 prior to performance at the discretion of the director.
 - b. The maximum treating pressure may not be greater than eighty-five percent of the American petroleum institute rating of the affected casing string.
 - c. Casing evaluation tools to verify adequate wall thickness of any affected casing string must be run from the wellhead to a depth as close as practicable to one hundred feet [30.48 meters] above the completion formation and a visual inspection with photographs shall be made of the top joint of the casing and the wellhead flange. The visual inspection and photograph requirement may be waived by the director for good cause.

If the casing evaluation tool or visual inspection indicates wall thickness is below the American petroleum institute minimum or a lighter weight of casing than the well design called for, calculations must be made to determine the reduced pressure rating. If the reduced pressure rating is less than the anticipated treating pressure, a frac string must be run inside the casing.

- d. Cement evaluation tools to verify adequate cementing of each casing string shall be run from the wellhead to a depth as close as practicable to one hundred feet [30.48 meters] above the completion formation.
 - (1) If the cement evaluation tool indicates defective casing or cementing, a frac string must be run inside the casing.
 - (2) If the cement evaluation tool indicates the casing string cemented in the well fails to satisfy section 43-02-03-21, a frac string must be run inside the casing.
- e. Each affected casing string and the wellhead must be pressure tested for at least thirty minutes with less than five percent loss to a pressure equal to or in excess of the maximum frac design pressure.
- f. If the pressure rating of the wellhead does not exceed the maximum frac design pressure, a wellhead and blowout preventer protection system must be utilized during the frac.
- g. An adequately sized, function tested pressure relief valve must be utilized on the treating lines from the pumps to the wellhead, with suitable check valves to limit the volume of flowback fluid should be the relief valve open. The relief valve must be set to limit line pressure to no greater than the test pressure of the casing, less one hundred pounds per square inch [689.48 kilopascals].

- h. The surface casing valve must be fully open and connected to a diversion line rigged to a pit or containment vessel.
 - i. An adequately sized, function tested remote operated frac valve must be utilized between the treating line and the wellhead.
 - j. If there is a suspected casing failure, the operator of the well shall verbally notify the director as soon as practicable.
 - k. Notify the director within twenty-four hours after the commencement of hydraulic fracture stimulation operations, in an electronic format approved by the director, identifying the subject well and verifying all logs and pressure tests have been performed as required.
 - l. Within sixty days after the hydraulic fracture stimulation is performed, the owner, operator, or service company shall post on the fracfocus chemical disclosure registry all elements made viewable by the fracfocus website.
3. If during the stimulation, an unexpected pressure loss or other unexpected event occurs suggesting loss of containment, or the pressure in the casing-surface casing annulus exceeds three hundred fifty pounds per square inch [2413 kilopascals] gauge, the owner or operator shall verbally notify the director as soon as practicable but no later than twenty-four hours following the incident.

History: Effective April 1, 2012; amended effective April 1, 2014; April 1, 2020; April 1, 2022; April 1, 2024; _____.

General Authority: NDCC 38-08-04

Law Implemented: NDCC 38-08-04

43-02-03-28. Safety regulation.

During drilling operations all oil wells must be cleaned into a pit or tank, not less than forty feet [12.19 meters] from the derrick floor and one hundred fifty feet [45.72 meters] from any fire hazard.

All flowing oil wells must be produced through an approved oil and gas separator or emulsion treater of ample capacity and in good working order. No boiler, electric generator, flare, or treater may be placed nearer than one hundred fifty feet [45.72 meters] to any producing well or oil tank that is not an oil processing vessel as defined in American Society of Mechanical Engineers (ASME) section VIII. Placement as close as one hundred twenty-five feet [38.10 meters] may be allowed if a spark or flame arrestor is utilized on the equipment. Placement of an oil processing vessel as defined in ASME section VIII as close as fifty feet [15.24 meters] may be allowed if approved by the director. The required distances above must be measured horizontally from closest vessel edge to closest edge of the boiler, generator, flare, or treater or closest vessel edge to flame arrestor or burner air inlet edge. Any rubbish or debris that might constitute a fire hazard must be removed to a distance of at least one hundred fifty feet [45.72 meters] from the vicinity of wells and tanks. All waste must be burned or disposed of in such manner as to avoid creating a fire hazard. All vegetation must be removed to a safe distance from any production or injection equipment to eliminate a fire hazard.

The director may require remote operated or automatic shutdown equipment to be installed on, or shut in for no more than forty days, any well that is likely to cause a serious threat of pollution or injury to the environment or the public health or and safety.

Surface casing may not be plumbed into the production flow line to relieve pressure without approval from the director.

No well shall be drilled nor production or injection equipment installed nor saltwater handling facility or treating plant constructed less than five hundred feet [152.40 meters] from an occupied dwelling unless agreed to in writing by the owner of the dwelling or authorized by order of the commission.

Subsurface pressure must be controlled during all drilling, completion, and well-servicing operations with appropriate fluid weight and pressure control equipment. The operator conducting any well hydraulic fracture stimulation shall give prior written notice, up to thirty-one days and not less than twenty-one days, to any operator of a well completed in the same or adjacent pool, if publicly available information indicates or if the operator is made aware, if the completion intervals are within two thousand six hundred and forty feet [804.67 meters] of one another. Notice must include twenty-four- hour emergency contact information, planned start and end dates, and contact information for scheduling updates.

History: Amended effective January 1, 1983; May 1, 1990; September 1, 2000; January 1, 2006; January 1, 2008; April 1, 2012; April 1, 2014; October 1, 2016; April 1, 2020; April 1, 2024;

General Authority: NDCC 38-08-04

Law Implemented: NDCC 38-08-04

43-02-03-29. Well and lease equipment and gas gathering pipelines.

Wellhead and lease equipment with a working pressure at least equivalent to the calculated or known pressure to which the equipment may be subjected shall be installed and maintained. Equipment on producing wells shall be installed to facilitate gas-oil ratio tests, and static bottom hole or other pressure tests. Valves shall be installed and maintained in good working order to permit pressure readings to be obtained on both casing and tubing.

All newly constructed underground gas gathering pipelines must be devoid of leaks and constructed of materials resistant to external corrosion and to the effects of transported fluids. All such pipelines installed in a trench must be installed in a manner that minimizes interference with agriculture, road and utility construction, the introduction of secondary stresses, the possibility of damage to the pipe, and tracer wire shall be buried with any nonconductive pipes installed. When a trench for an underground gas gathering pipeline is backfilled, it must be backfilled in a manner that provides firm support under the pipe and prevents damage to the pipe and pipe coating from equipment or from the backfill material.

1. Notifications.

- a. The underground gas gathering pipeline owner shall notify the director, at least seven days prior to commencing new construction of any underground gas gathering pipeline. The notice of intent to construct automatically expires after**

one year and for any project not built within one year; a new notice of intent to construct must be submitted.

(1) The notice of intent to construct an underground gas gathering pipeline must include the following:

(a) The proposed date construction is scheduled to begin.

(b) A statement that the director will be verbally notified approximately forty-eight hours prior to commencing the construction.

(c) A statement on the presence of a shading bucket or other means to remove rocks from the backfill material.

(d) A geographical information system layer utilizing North American datum 83 geographic coordinate system (GCS) and in an environmental systems research institute (Esri) shape file format showing the proposed route of the pipeline from the point of origin to the termination point.

(e) The proposed underground gas gathering pipeline design drawings, including all associated above ground equipment.

[1] The proposed pipeline composition, specifications (i.e. size, weight, grade, wall thickness, coating, and standard dimension ratio).

[2] The type of fluid to be transported.

[3] The method of testing pipeline integrity (e.g. hydrostatic or pneumatic test) prior to placing the pipeline into service.

[4] Proposed burial depth of the pipeline.

[5] The location and type of all road crossings (i.e. bored and cased or bored only).

[6] The location of all environmentally sensitive areas, such as wetlands, streams, or other surface waterbodies that the pipeline may traverse, if applicable.

a.b. If damage occurs to any underground gathering pipeline, flow line, or other underground equipment used to transport crude oil, natural gas, carbon dioxide, or water produced in association with oil and gas, during construction, operation, maintenance, repair, or abandonment of an underground gas gathering pipeline, the responsible party shall verbally notify the director immediately. This is to include any line strikes of already abandoned underground gathering pipelines, regardless of any fluid release.

4.2. Underground gas gathering pipeline as built.

2. The operator of any underground gas gathering pipeline placed into service on August 1, 2011, to June 30, 2013, shall file with the director, by January 1, 2015, a geographical information system layer utilizing North American datum 83 geographic coordinate system (GCS) and in an environmental systems research institute (Esri) shape file format showing the location of the pipeline centerline. Any shape files that have been created for any underground gas gathering pipeline placed into service prior to August 1, 2011 shall also be filed with the director. The operator of any underground gas gathering pipeline placed into service after June 30, 2013, shall file with the director, within one hundred eighty days of placing into service, a geographical information system layer utilizing North American datum 83 geographic coordinate system (GCS) and in an environmental systems research institute (Esri) shape file format showing the location of all compressor sites, buried drip tanks, and the pipeline centerline. An affidavit of completion shall accompany each layer containing the following information:

- a. A statement that the pipeline was constructed and installed in compliance with section 43-02-03-29.
 - b. The outside diameter, minimum wall thickness, composition, internal yield pressure, and maximum temperature rating of the pipeline, or any other specifications deemed necessary by the director.
 - c. The anticipated operating pressure of the pipeline.
 - d. The type of fluid that will be transported in the pipeline and direction of flow.
 - e. Pressure to which the pipeline was tested prior to placing into service.
 - f. The minimum pipeline depth of burial.
 - g. In-service date.
 - h. Leak detection and monitoring methods that will be utilized after in-service date.
 - i. Pipeline name.
 - j. Accuracy of the geographical information system layer.
3. Pipeline abandonment method. When an underground gas gathering pipeline or any part of such pipeline is abandoned, the operator shall leave such pipeline in a safe condition by conducting the following:
- a. Disconnect and physically isolate the pipeline from any operating facility or other pipeline.
 - b. Cut off the pipeline or the part of the pipeline to be abandoned below surface at pipeline level.
 - c. Purge the pipeline with fresh water, air, or inert gas in a manner that effectively removes all fluid.
 - d. Remove cathodic protection from the pipeline.

- e. Permanently plug or cap all open ends by mechanical means or welded means.
4. Pipeline abandonment reporting. Within one hundred eighty days of completing the abandonment of an underground gas gathering pipeline the operator of the pipeline shall file with the director a geographical information system layer utilization North American datum 83 geographic coordinate system (GCS) and in an environmental systems research institute (Esri) shape file format showing the location of the pipeline centerline and an affidavit of completion containing the following information:
- a. A statement that the pipeline was abandoned in compliance with section 43-02-03-29.
 - b. The type of fluid used to purge the pipeline.
5. Pipeline markers. Aboveground pipeline markers must be placed and maintained over each buried underground gas gathering pipeline or portion thereof at the discretion of the director when necessary to protect public health and safety. The markers must contain at least the following on a background of sharply contrasting color: the word "Warning", "Caution", or "Danger" followed by the fluid transported pipeline, the name of the operator, and current emergency phone number.

The requirement to submit a geographical information system layer is not to be construed to be required on buried piping utilized to connect flares, tanks, treaters, or other equipment located entirely within the boundary of a well site or production facility.

History: Amended effective January 1, 1983; January 1, 2006; April 1, 2014; October 1, 2016; April 1, 2022; April 1, 2024; _____.

General Authority: NDCC 38-08-04

Law Implemented: NDCC 38-08-04

43-02-03-29.1. Crude oil and produced water underground gathering pipelines.

1. Application of section. This section is applicable to all underground gathering pipelines designed for or capable of transporting crude oil or produced water from an oil and gas production facility for the purpose of disposal, storage, or for sale purposes. If these rules differ from the pipeline manufacturer's prescribed installation and operation practices, the pipeline manufacturer's prescribed installation and operation practices take precedence.

The requirements in this section are not applicable to flow lines, injection pipelines, pipelines operated by an enhanced recovery unit for enhanced recovery unit operations, or on piping utilized to connect wells, tanks, treaters, flares, or other equipment located entirely within the boundary of a well site or production facility.

If these rules differ from or are preempted by federal requirements on federally regulated pipelines, the federal rules take precedence. The pipeline owner shall provide sufficient documentation to the director confirming the pipeline is federally regulated.

2 Definitions. The terms used throughout this section apply to this section only.

- a. "Crude oil or produced water underground gathering pipeline" means an underground gathering pipeline designed or intended to transfer crude oil or produced water from a production facility for disposal, storage, or sale purposes.
- b. "New construction" means a new gathering pipeline installation project or an alteration or reroute of an existing gathering pipeline where the location, composition, size, design temperature, or design pressure changes.
- c. "Pipeline repair" is the work necessary to restore a pipeline system to a condition suitable for safe operations that does not change the design temperature or pressure.
- d. "Gathering system" is a group of connected pipelines which have been designated as a gathering system by the operator. A gathering system must have a unique name and must be interconnected.
- e. "In-service date" is the first date fluid was transported down the underground gathering pipeline for disposal, storage, or sale purposes after construction.

3. Notifications.

- a. The underground gathering pipeline owner shall notify the director, at least seven days prior to commencing new construction of any underground gathering pipeline. The notice of intent to construct automatically expires after one year and for any project not built within one year; a new notice of intent to construct must be submitted.

- (1) The notice of intent to construct a crude oil or produced water underground gathering pipeline must include the following:

- (a) The proposed date construction is scheduled to begin.

- (b) A statement that the director will be verbally notified approximately forty-eight hours prior to commencing the construction.

- ~~(b)(c)~~ A statement on the presence of a shading bucket or other means to remove rocks from the backfill material.

- ~~(c)(d)~~ A geographical information system layer utilizing North American datum 83 geographic coordinate system (GCS) and in an environmental systems research institute (Esri) shape file format showing the proposed route of the pipeline from the point of origin to the termination point.

- ~~(d)(e)~~ The proposed underground gathering pipeline design drawings, including all associated above ground equipment.

- [1] The proposed pipeline composition, specifications (i.e. size, weight, grade, wall thickness, coating, and standard dimension ratio).

on undisturbed native soil and provide continuous support along the length of the pipe. Trench bottoms must be free of rocks greater than two inches in diameter, debris, trash, and other foreign material not required for pipeline installation. If a trench bottom is over excavated, the trench bottom must be backfilled with appropriate material and compacted prior to installation of the pipe to provide continuous support along the length of the pipe.

The width of the trench must provide adequate clearance on each side of the pipe. Trench walls must be excavated to ensure minimal sluffing of sidewall material into the trench. Subsoil from the excavated trench must be stockpiled separately from previously stripped topsoil.

- f. Underground gathering pipelines that cross a township, county, or state graded road must be bored unless the responsible governing agency specifically permits the owner to open cut the road. The director, for good cause, may require any bore for non-metallic underground gathering pipelines to be cased and be of adequate size to allow for casing spacers.
- g. No pipe or other component may be installed unless it has been visually inspected at the site of installation to ensure that it is not damaged in a manner that could impair its strength or reduce its serviceability.
- h. The pipe must be handled in a manner that minimizes stress and avoids physical damage to the pipe during stringing, joining, or lowering in. During the lowering in process the pipe string must be properly supported so as not to induce excess stresses on the pipe or the pipe joints or cause weakening or damage to the outer surface of the pipe.
- i. When a trench for an underground gathering pipeline is backfilled, it must be backfilled in a manner that provides firm support under the pipe and prevents damage to the pipe and pipe coating from equipment or from the backfill material. Sufficient backfill material must be placed in the haunches of the pipe to provide long-term support for the pipe. Backfill material that will be within two feet of the pipe must be free of rocks greater than two inches in diameter and foreign debris. Backfilling material must be compacted as appropriate during placement in a manner that provides support for the pipe and reduces the potential for damage to the pipe and pipe joints.
- j. Cover depths must be a minimum of four feet [1.22 meters] from the top of the pipe to the finished grade. The cover depth for an undeveloped governmental section line must be a minimum of six feet [1.83 meters] from the top of the pipe to the finished grade.
- k. Underground gathering pipelines that traverse environmentally sensitive areas, such as wetlands, streams, or other surface waterbodies, must be installed in a manner that minimizes impacts to these areas. Any horizontal directional drilling plan prepared by the owner or required by the director, must be filed with the director, prior to the commencement of horizontal directional drilling.
- l. Clamping or squeezing as a method of connecting any produced water underground gathering pipeline must be approved by the director. Prior to

clamping or squeezing the pipeline, the owner shall file a sundry notice (form 4 or form provided by the director) with the director and obtain approval of the clamping or squeezing plan. The notice must include documentation that the pipeline can be safely clamped or squeezed as prescribed by the manufacturer's specifications. Any damaged portion of a produced water underground gathering pipeline that has been clamped or squeezed must be replaced before it is placed into service.

5. Pipeline reclamation.

- a. When utilizing excavation for pipeline installation, repair, or abandonment, topsoil must be stripped, segregated from the subsoils, and stockpiled for use in reclamation. "Topsoil" means the suitable plant growth material on the surface; however, in no event shall this be deemed to be more than the top twelve inches [30.48 centimeters] of soil or deeper than the depth of cultivation, whichever is greater.
- b. The pipeline right-of-way must be reclaimed as closely as practicable to original condition. All stakes, temporary construction markers, cables, ropes, skids, and any other debris or material not native to the area must be removed from the right-of-way and lawfully disposed of.
- c. During right-of-way reclamation all subsoils and topsoils must be returned in proper order to as close to the original depths as practicable. Right-of-way reclamation must be completed within one year of the pipeline being placed into service. An extension may be granted at the director's discretion.
- d. The reclaimed right-of-way soils must be stabilized to prevent excessive settling, sluffing, cave-ins, or erosion.
- e. The crude oil and produced water underground gathering pipeline owner is responsible for their right-of-way reclamation and maintenance until such pipeline is released by the director from the pipeline bond pursuant to section 43-02-03-15.

6. Inspection.

All newly constructed crude oil and produced water underground gathering pipelines must be inspected by third-party independent inspectors to ensure the pipeline is installed as prescribed by the manufacturer's specifications and in accordance with the requirements of this section. A list of all third-party independent inspectors and a description of each independent inspector's qualifications, certifications, experience, and specific training must be provided to the director upon request. A person may not be used to perform inspections unless that person has been trained and is qualified in the phase of construction to be inspected. The third-party independent inspector may not be an employee of the gathering pipeline owner/operator or the contractor hired to construct and install the pipeline. The number of third-party independent inspectors must be adequate for the size of the pipeline construction project to ensure proper pipeline installation.

7. Associated pipeline facility.

No associated above ground equipment may be installed less than five hundred feet [152.40 meters] from an occupied dwelling unless agreed to in writing by the owner of the dwelling or authorized by order of the commission.

All associated above ground equipment used to store crude oil or produced water must be devoid of leaks and constructed of materials resistant to the effects of crude oil, produced water, brines, or chemicals that may be contained therein. The above materials requirement may be waived by the director for tanks presently in service and in good condition. Unused tanks and associated above ground equipment must be removed from the site or placed into service, within a reasonable time period, not to exceed one year.

Dikes must be erected around all produced water or crude oil tanks at any new facility prior to placing the associated underground gathering pipeline into service. Dikes must be erected and maintained around all crude oil or produced water tanks or above ground equipment, when deemed necessary by the director. Dikes as well as the base material under the dikes and within the diked area must be constructed of sufficiently impermeable material to provide emergency containment. Dikes must be of sufficient dimension to contain the total capacity of the largest tank plus one day's fluid throughput. The required capacity of the dike may be lowered by the director if the necessity therefor can be demonstrated to the director's satisfaction. Discharged crude oil or produced water must be properly removed and may not be allowed to remain standing within or outside of any diked areas.

The underground gathering pipeline owner shall take steps to minimize the amount of solids stored at the pipeline facility, although the remediation of such material may be allowed onsite, if approved by the director.

8. Underground gathering pipeline as built.

The owner of any underground gathering pipeline placed into service after July 31, 2011, shall file with the director, as prescribed by the director, within one hundred eighty days of placing into service, a geographical information system layer utilizing North American datum 83 geographic coordinate system (GCS) and in an environmental systems research institute (Esri) shape file format showing the location of all associated above ground equipment and the pipeline centerline from the point of origin to the termination point. An affidavit of completion shall accompany each layer containing the following information:

- a. A third-party inspector certificate that the pipeline was constructed and installed in compliance with section 43-02-03-29.1.
- b. The outside diameter, minimum wall thickness, composition, and maximum temperature rating of the pipeline, or any other specifications deemed necessary by the director.
- c. The maximum allowable operating pressure of the pipeline.

- d. The specified minimum yield strength and internal yield pressure of the pipeline if applicable to the composition of pipe.
 - e. The type of fluid that will be transported in the pipeline.
 - f. Pressure and duration to which the pipeline was tested prior to placing into service.
 - g. The minimum pipeline depth of burial from the top of the pipe to the finished grade.
 - h. In-service date.
 - i. Leak protection and monitoring methods that will be utilized after in-service date.
 - j. Any leak detection methods that have been prepared by the owner.
 - k. The name of the pipeline gathering system and any other separately named portions thereof.
 - l. The geographical information system layer must be within twenty feet [6.10 meters] of horizontal accuracy.
9. Operating requirements.

The maximum operating pressure for all crude oil and produced water underground gathering pipelines may not exceed the manufacturer's specifications of the pipe or the manufacturer's specifications of any other component of the pipeline, whichever is less. The maximum operating pressure of any portion of an underground gathering system may not exceed the test pressure from the most recent integrity test demonstration following modification or repair for which it was tested.

The crude oil or produced water underground gathering pipeline must be equipped with adequate controls and protective equipment to prevent the pipeline from operating above the maximum operating pressure.

10. Leak protection, detection, and monitoring.

All crude oil and produced water underground gathering pipeline owners shall file with the director any leak protection and monitoring plan prepared by the owner or required by the director, pursuant to North Dakota Century Code section 38-08-27.

If any leak detection plan has been prepared by the owner, it must be submitted to the director. All crude oil or produced water underground gathering pipeline owners shall develop and maintain a data sharing plan and file a copy with the director. The plan must provide for real-time sharing of data between the operator of the production facility, the crude oil or produced water underground gathering pipeline owner, and the operator at the point or points of disposal, storage, or sale. If a discrepancy in the shared data is observed, the party observing the data discrepancy shall notify all other parties and action must be taken to determine the cause. A record of all data discrepancies must be retained by the crude oil or produced water underground

gathering pipeline owner. If requested, copies of such records must be filed with the director.

11. Spill response.

All crude oil and produced water underground gathering pipeline owners shall maintain a spill response plan during the service life of any crude oil or produced water underground gathering pipeline. The plan should detail the necessary steps for an effective and timely response to a pipeline spill. The spill response plan should be tailored to the specific risks in the localized area. Response capabilities should address access to equipment and tools necessary to respond, as well as action steps to protect the health and property of impacted landowners, citizens, and the environment.

12. Corrosion control.

- a. Underground gathering pipelines must be designed to withstand the effects of external corrosion and maintained in a manner that mitigates internal corrosion.
- b. All metallic underground gathering pipelines installed must have sufficient corrosion control.
- c. All coated pipe must be electronically inspected prior to placement using coating deficiency (i.e. holiday) detectors to check for any faults not observable by visual examination. The holiday detector must be operated in accordance with manufacturer's instructions and at a voltage level appropriate for the electrical characteristics of the pipeline system being tested. During installation all joints, fittings, and tie-ins must be coated with materials compatible with the coatings on the pipe. Coating materials must:
 - (1) Be designed to mitigate corrosion of the buried pipeline;
 - (2) Have sufficient adhesion to the metal surface to prevent under film migration of moisture;
 - (3) Be sufficiently ductile to resist cracking;
 - (4) Have enough strength to resist damage due to handling and soil stress;
 - (5) Support any supplemental cathodic protection; and
 - (6) If the coating is an insulating type, have low moisture absorption and provide high electrical resistance.
- d. Cathodic protection systems must meet or exceed the minimum criteria set forth in the National Association of Corrosion Engineers standard practice Control of External Corrosion on Underground or Submerged Metallic Piping Systems.
- e. If internal corrosion is anticipated or detected, the underground gathering pipeline owner shall take prompt remedial action to correct any deficiencies, such as increased pigging, use of corrosion inhibitors, internal coating of the pipeline

(e.g. an epoxy paint or other plastic liner), or a combination of these methods. Corrosion inhibitors must be used in sufficient quantity to protect the entire part of the pipeline system that the inhibitors are designed to protect.

13. Pipeline integrity.

A crude oil or produced water underground gathering pipeline owner may not operate a pipeline unless it has been pressure tested and demonstrated integrity. In addition, an owner may not return to service a portion of pipeline which has been repaired, replaced, relocated, or otherwise changed until it has demonstrated integrity.

- a. The crude oil and produced water underground gathering pipeline owner shall notify the director at least forty-eight hours prior to commencement of any pipeline integrity test to allow a representative of the director to witness the testing process and results. The notice must include the pipeline integrity test procedure.
- b. The crude oil and produced water underground gathering pipeline owner shall submit within sixty days of the underground gathering pipeline being placed into service the integrity test results which must include the following:
 - (1) The name of the pipeline gathering system and any other separately named portions thereof;
 - (2) The date of the test;
 - (3) The duration of the test;
 - (4) The length of pipeline which was tested;
 - (5) The maximum and minimum test pressure;
 - (6) The starting and ending pressure;
 - (7) A copy of the appropriately scaled chart recorder or digital log results;
 - (8) A geographical information system layer utilizing North American datum 83 geographic coordinate system (GCS) and in an environmental systems research institute (Esri) shape file format showing the location of the centerline of the portion of the pipeline that was tested;
 - (9) A copy of the test procedure used; and
 - (10) A third-party inspector certificate summarizing the pipeline has been pressure tested and whether it demonstrated integrity, including the identification of any leaks, ruptures, or other integrity issues encountered, and an explanation for any substantial pressure gain or losses during the integrity test, if applicable.
- c. All crude oil and produced water underground gathering pipeline owners shall maintain a pipeline integrity demonstration plan during the service life of any

crude oil or produced water underground gathering pipeline. The director, for good cause, may require a pipeline integrity demonstration on any crude oil or produced water underground gathering pipeline.

14. Pipeline repair.

Each owner, in repairing an underground gathering pipeline or pipeline system, shall ensure that the repairs are made in a manner that prevents damage to persons or property.

An owner may not use any pipe, valve, or fitting, for replacement or repair of an underground gathering pipeline, unless it is designed to meet the maximum operating pressure.

- a. At least forty-eight hours prior to any underground gathering pipeline repair or replacement, the underground gathering pipeline owner shall notify the director, except in an emergency.
- b. Within one hundred eighty days of repairing or replacing any underground gathering pipeline the owner of the pipeline shall file with the director a geographical information system layer utilizing North American datum 83 geographic coordinate system (GCS) and in an environmental systems research institute (Esri) shape file format showing the location of the centerline of the repaired or replaced pipeline and an affidavit of completion containing the following information:
 - (1) A statement that the pipeline was repaired in compliance with section 43-02-03-29.1.
 - (2) The reason for the repair or replacement.
 - (3) The length of pipeline that was repaired or replaced.
 - (4) Pressure and duration to which the pipeline was tested prior to returning to service.
- c. Clamping or squeezing as a method of repair for any produced water underground gathering pipeline must be approved by the director. Prior to clamping or squeezing the pipeline, the owner shall file a sundry notice (form 4) with the director and obtain approval of the clamping or squeezing plan. The notice must include documentation that the pipeline can be safely clamped or squeezed as prescribed by the manufacturer's specifications. If an emergency requires clamping or squeezing, the owner or the owner's agent shall obtain verbal approval from the director and the notice shall be filed within seven days of completing the repair. Any damaged portion of a produced water underground gathering pipeline that has been clamped or squeezed must be replaced before it is returned to service.

15. Pipeline abandonment.

- a. At least forty-eight hours prior to abandoning any underground gathering pipeline, the underground gathering pipeline owner shall notify the director verbally.
- b. When an underground gathering pipeline or any part of such pipeline is abandoned as defined under subsection 1 of North Dakota Century Code section 38-08-02 after March 31, 2014, the owner shall leave such pipeline in a safe condition by conducting the following:
 - (1) Disconnect and physically isolate the pipeline from any operating facility, associated above ground equipment, or other pipeline.
 - (2) Cut off the pipeline or the part of the pipeline to be abandoned below surface at pipeline level.
 - (3) Purge the pipeline with fresh water, air, or inert gas in a manner that effectively removes all fluid.
 - (4) Remove cathodic protection from the pipeline.
 - (5) Permanently plug or cap all open ends by mechanical means or welded means.
 - (6) The site of all associated above ground equipment must be reclaimed pursuant to section 43-02-03-34.1.
 - (7) If the bury depth is not at least three feet below final grade, such portion of pipe must be removed.
- c. Within one hundred eighty days of completing the abandonment of an underground gathering pipeline the owner of the pipeline shall file with the director a geographical information system layer utilizing North American datum 83 geographic coordinate system (GCS) and in an environmental systems research institute (Esri) shape file format showing the location of the pipeline centerline and an affidavit of completion containing the following information:
 - (1) A statement that the pipeline was abandoned in compliance with section 43-02-03-29.1.
 - (2) The type of fluid used to purge the pipeline.
 - (3) The date of pipeline abandonment.
 - (4) The length of pipeline abandoned.

16. Pipeline markers.

- a. Aboveground pipeline markers must be placed and maintained over each buried crude oil or produced water underground gathering pipeline or portion thereof at

the discretion of the director when necessary to protect public health and safety. The markers must contain at least the following on a background of sharply contrasting color: the word "Warning", "Caution", or "Danger" followed by the name of the fluid transported pipeline, the name of the operator, and current emergency phone number.

History: Effective October 1, 2016; amended effective April 1, 2020; April 1, 2022; April 1, 2024;

General Authority: NDCC 38-08-04

Law Implemented: NDCC 38-08-04

43-02-03-31. Well log, completion, and workover reports.

After the plugging of a well, a well plugging record (form 7) report must be filed with the director. After the completion of a well, recompletion of a well in a different pool, or drilling horizontally in an existing pool, a well completion report (form 6 or form provided by the director) must be filed with the director. ~~In no case shall oil or gas be transported from the lease prior to the filing of a completion report unless approved by the director.~~ The operator shall cause to be run an open hole electrical, radioactivity, or other similar log, or combination of open hole logs, of the operator's choice, from which formation tops and porosity zones can be determined. The operator shall cause to be run a gamma ray log from total depth to ground level elevation of the well bore. Within six months of reaching total depth and prior to completing the well, the operator shall cause to be run a cement evaluation log from which the presence and quality of bonding of cement can be determined in every well in which production or intermediate casing has been set. The initial cement evaluation log must be run without the addition of pressure at surface, except at depths where the cement evaluation tool may need appropriate pressure applied to function properly. The obligation to log may be waived or postponed by the director if the necessity therefor can be demonstrated to the director's satisfaction. Waiver will be contingent upon such terms and conditions as the director deems appropriate. All logs run must be available to the director at the well site prior to proceeding with plugging or completion operations. All logs run shall be submitted to the director free of charge. Logs must be submitted as one digital TIFF (tagged image file format) copy and one digital LAS (log ASCII) formatted copy, or a format approved by the director. In addition, operators shall file one copy of drill stem test reports and charts, formation water analyses, core analyses, geologic reports, and noninterpretive lithologic logs or sample descriptions if compiled by the operator.

All information furnished to the director on permits, except the operator name, well name, location, permit date, confidentiality period, spacing or drilling unit description, spud date, rig contractor, central tank battery number, any production runs, or volumes injected into an injection well, must be kept confidential from the date a request by the operator is received in writing until the six-month confidentiality period has ended. The six-month period commences on the date the well is completed or the date the written request is received, whichever is earlier. If the written request accompanies the application for permit to drill or is filed after permitting but prior to spudding, the six-month period commences on the date the well is spudded. The director may release such confidential completion and production data to health care professionals, emergency responders, and state, federal, or tribal environmental and public health regulators if the director deems it necessary to protect the public's health, safety, and welfare.

All information furnished to the director on recompletions, restimulation wells, or reentries, except the operator name, well name, location, permit date, confidentiality period, spacing or

drilling unit description, spud date, rig contractor, any production runs, or volumes injected into an injection well, must be kept confidential for not more than six months if requested by the operator in writing. The six-month period shall commence on the date the well is completed, recompleted, or restimulated or the date a request by the operator is received in writing, whichever is earlier. Any information furnished to the director prior to approval of the recompletion, restimulation, or reentry must remain public.

Approval must be obtained on a well sundry ~~form~~ notice from the director prior to perforating or recompleting a well in a pool other than the pool in which the well is currently permitted.

After the completion of any remedial work, or attempted remedial work such as plugging back or drilling deeper, acidizing, shooting, formation fracturing, squeezing operations, remedial cementing, setting liner, perforating, reperforating, or other similar operations not specifically covered herein, a report on the operation shall be filed on a well sundry notice (~~form 4~~) with the director. The report must present a detailed account of all work done and the date of such work; ~~the daily production of oil, gas, and water both prior to and after the operation~~; the shots per foot, size, and depth of perforations; the quantity of cement, sand, crude, chemical, or other materials employed in the operation; ~~and any other pertinent information or operations which affect the original status of the well and are not specifically covered herein, and any other information required by the director.~~

Upon the installation of pumping equipment on a flowing well, or change in type of pumping equipment designed to increase productivity in a well, the operator shall submit a well sundry notice (~~form 4~~) of such installation. The notice must include all pertinent information on the pump and the operation thereof including the date of such installation, ~~and the daily production of the well prior to and after the pump has been installed.~~

All forms, reports, logs, and other information required by this section must be submitted within thirty days after the completion of such work, although a completion report must be filed immediately after the completion or recompletion of a well in a pool or reservoir not then covered by an order of the commission.

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1990; May 1, 1992; May 1, 1994; July 1, 1996; September 1, 2000; July 1, 2002; January 1, 2006; January 1, 2008; April 1, 2010; April 1, 2012; October 1, 2016; April 1, 2020; April 1, 2024; _____.

General Authority: NDCC 38-08-04

Law Implemented: NDCC 38-08-04

43-02-03-44. Vented, flared, and Mmetered casinghead gas.

Pending arrangements for disposition for some useful purpose, all vented casinghead gas shall be burned. Each flare shall be equipped with an automatic ignitor or a continuous burning pilot, unless waived by the director for good reason.

All casinghead gas produced must be reported monthly to the director in units of one thousand cubic feet [28.32 cubic meters] computed at a pressure of fourteen and seventy-three hundredths pounds per square inch absolute [1034.19 grams per square centimeter] at a base temperature of sixty degrees Fahrenheit [15.56 degrees Celsius]. Associated gas production may not be transported from a well premises or central production facility until its volume has been determined through the use of properly calibrated measurement equipment. All

measurement equipment and volume determinations must conform to American gas association standards. The operator of a well shall notify the director within thirty days on a well sundry ~~form~~ notice of the connection date to a gas gathering system, the metering equipment, transporter, and purchaser of the gas. Any gas produced and used on lease for fuel purposes or flared may be estimated or measured and must be reported on a gas ~~production report (form 5b)~~ in accordance with section 43-02-03-52.1. Meters used to determine the use on lease or flared gas volumes must be installed and calibrated in accordance with American petroleum institute or American gas association standards or to the meter manufacturer's recommendations.

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1992; July 1, 1996; September 1, 2000; April 1, 2024; _____.

General Authority: NDCC 38-08-04

Law Implemented: NDCC 38-08-04

~~43-02-03-45. Vented casinghead gas.~~

~~Pending arrangements for disposition for some useful purpose, all vented casinghead gas shall be burned. Each flare shall be equipped with an automatic ignitor or a continuous burning pilot, unless waived by the director for good reason. The estimated volume of gas used and flared shall be reported to the director on a gas report (form 5b) on or before the fifth day of the second month succeeding that in which gas is produced.~~

~~**History:** Amended effective April 30, 1981; January 1, 1983; May 1, 1990; May 1, 1992; September 1, 2000~~Repealed effective April 1, 2026.

General Authority: NDCC 38-08-04

Law Implemented: NDCC 38-08-04

43-02-03-47. Produced water.

Monthly water production from each well must be determined through the use of properly calibrated meter measurements, tank measurements, or an alternate measurement method approved by the director. This includes allocating water production back to individual wells on a monthly basis, provided the method of volume determination and allocation procedure results in reasonably accurate production volumes. Operators shall report monthly to the director the amount of water produced by each well on ~~form 5a~~ an oil report. The reports must be filed by five p.m. ~~on or before~~ the first day of the second month following that in which production occurred.

History: Amended effective January 1, 1983; May 1, 1992; May 1, 1994; September 1, 2000; _____.

General Authority: NDCC 38-08-04

Law Implemented: NDCC 38-08-04

43-02-03-48.1. Central production facility - Commingling of production.

1. The director may approve requests to consolidate production equipment at a central location. The applicant shall provide all information requested by the director. The director may impose such terms and conditions as the director deems necessary.

2. Commingling of oil and gas production from two or more wells in a central production facility is prohibited unless approved by the director. There are two types of central production facilities in which production from two or more wells is commingled that may be approved by the director.
 - a. A central production facility in which all production going into the facility has common ownership. For purposes of this section, production with common ownership is defined as production from wells that do not have diverse ownership.
 - b. A central production facility in which production going into the facility has diverse ownership. For purposes of this section, production with diverse ownership is defined as production from wells that are:
 - (1) In different drilling or spacing units; and
 - (2) Which have different mineral ownership.
3. The commingling of oil and gas production in a central production facility from two or more wells having common or diverse ownership may be approved by the director provided the production from each well can be accurately determined at reasonable intervals. The Commission may act upon its own motion or upon the application of an affected party to schedule a hearing to consider the approval of commingling in a central production facility. ~~Commingling of oil and gas production in a central production facility from two or more wells having diverse ownership may be approved by the director provided the production from each well is accurately metered prior to commingling. Commingling of oil and gas production in a central production facility from two or more wells having diverse ownership that is not metered prior to commingling may only be approved by the commission after notice and hearing.~~
 - a. Common ownership central production facility. The application for permission to commingle oil, gas, or both in a central production facility with common ownership must be submitted on a facility sundry notice and shall include the following:
 - (1) A plat or map showing thereon the location of the central facility and the name, well file number, and location of each well and flow lines from each well that will produce into the facility.
 - (2) A schematic drawing of the facility which diagrams the testing, treating, routing, and transferring of production. All pertinent items such as treaters, tanks, flow lines, valves, meters, recycle pumps, etc., should be shown.
 - (3) An affidavit executed by a person who has knowledge indicating that common ownership as defined above exists.
 - ~~(3)~~(4) The name of the manufacturer, size, and type of allocation meters to be used. Oil meters must be proved at least semiannually and gas meters must be calibrated at least annually. The results must be reported to the director within thirty days following the completion of the test.

~~(4)~~(5) An explanation of the procedures or method to be used to determine, accurately, individual well production at periodic intervals. Such procedures or method shall be performed at least ~~once every three months~~ quarterly for at least twenty-four consecutive hours.

~~(5) List of all allocation meters to be used and the meter type.~~

A copy of all tests are to be filed with the director on a central tank battery well test form within thirty days after the tests are completed.

b. Diverse ownership central production facility. The application for permission to commingle oil, gas, or both in a central production facility having diverse ownership must be submitted on a facility sundry notice and shall include the following:

(1) A plat or map showing thereon the location of the central facility and the name, well file number, and location of each well, and flow lines from each well that will produce into the facility.

(2) A schematic drawing of the facility which diagrams the testing, treating, routing, and transferring of production. All pertinent items such as treaters, tanks, flow lines, valves, meters, recycle pumps, etc., should be shown.

(3) The name of the manufacturer, size, and type of allocation meters to be used. ~~The Oil~~ meters must be proved at least once every three months and gas meters must be calibrated at least semiannually. ~~the~~ The results must be reported to the director within thirty days following the completion of the test.

(4) An explanation of the procedures or method to be used to determine, accurately, individual well production at periodic intervals. Such procedures or method shall be performed monthly for at least seventy-two consecutive hours.

~~(5) List of all allocation meters to be used and the meter type.~~

A copy of all tests are to be filed with the director on a central tank battery well test form within thirty days after the tests are completed.

4. The commingling of produced water in a central production facility from two or more wells may be approved by the director provided the produced water production can be accurately determined at reasonable intervals. The application for permission to commingle water in a central production facility must be submitted on a facility sundry notice and shall include the following:

a. A plat or map showing thereon the location of the central facility and the name, well file number, and location of each well, and flow lines from each well that will produce into the facility.

b. A schematic drawing of the facility which diagrams the testing, treating, routing,

and transferring of production. All pertinent items such as treaters, tanks, flow lines, valves, meters, recycle pumps, etc., should be shown.

c. An affidavit executed by a person who has knowledge indicating that common ownership as defined above exists; or an indication that it is not common ownership.

ed. The name of the manufacturer, size, and type of allocation meters to be used. Allocation meters must be installed and calibrated in accordance with American petroleum institute or to the meter manufacturer's recommendations.

de. An explanation of the procedures or method to be used to determine, accurately, individual well production at periodic intervals. Such procedures or method shall be performed quarterly for common ownership central production facilities for at least twenty-four consecutive hours and monthly for diverse ownership central production facilities for at least seventy-two consecutive hours.

e. ~~List of all allocation meters to be used and the meter type.~~

5. Any changes to a previously approved central production facility must be reported on a facility sundry notice (~~form 4~~) and approved by the director.

~~5.6.~~ The director may revoke the authorization to commingle production in a central production facility for failure to comply with this section or any terms, conditions, or directives imposed by the director.

History: Effective May 1, 1992; amended effective September 1, 2000; May 1, 2004; April 1, 2020, April 1, 2024; _____.

General Authority: NDCC 38-08-04

Law Implemented: NDCC 38-08-04

43-02-03-49. Oil production equipment, dikes, and seals.

Storage of oil in underground or partially buried tanks or containers is prohibited. Surface oil tanks and production equipment must be devoid of leaks and constructed of materials resistant to the effects of produced fluids or chemicals that may be contained therein. Unused tanks and production equipment must be removed from the site or placed into service, within a reasonable time period, not to exceed one year.

Dikes must be erected around oil tanks, oil vessels, flowthrough process vessels, and recycle pumps at any new production facility prior to completing any well. ~~Such D~~dikes must be erected and maintained ~~around oil tanks~~ at all facilities unless a waiver is granted by the director. Dikes as well as the base material under the dikes and within the diked area must be constructed of sufficiently impermeable material to provide emergency containment. Dikes around oil tanks and oil vessels as defined in American Society of Mechanical Engineers (ASME) section VIII must be of sufficient dimension to contain the total capacity of the largest tank or oil vessel plus one day's fluid production. Dikes around flowthrough process vessels must be of sufficient dimension to contain the total capacity of the vessel. The required capacity of the dike may be lowered by the director if the necessity therefor can be demonstrated to the director's satisfaction.

Within one hundred eighty days from the date the operator is notified by the commission, a perimeter berm, at least six inches [15.24 centimeters] in height, must be constructed and maintained.

The berm must be constructed of sufficiently impermeable material to provide emergency containment and to divert surface drainage away from the site around all storage facilities and production sites that include storage tanks, have a daily throughput of more than one hundred barrels of fluid per day, and include production equipment or load lines that are not contained within secondary containment dikes. The director may consider an extension of time to implement these requirements if conditions prevent timely construction, or a modification of these requirements if other factors are present that provide sufficient protection from environmental impacts. Prior to removing any perimeter berm, the operator or owner shall obtain approval by the director.

Numbered weather-resistant security seals shall be properly utilized on all oil access valves and access points to secure the tank or battery of tanks.

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1992; September 1, 2000; July 1, 2002; May 1, 2004; April 1, 2010; April 1, 2012; October 1, 2016; April 1, 2018; April 1, 2020; _____.

General Authority: NDCC 38-08-04

Law Implemented: NDCC 38-08-04

43-02-03-52. Report of oil production.

The operator of each well completed in any pool shall, by five p.m. on or before the first day of the second month succeeding the month in which production occurs or could occur, file with the director ~~the amount of production made by each such well upon form 5 or approved computer sheets no larger than eight and one-half by eleven inches [21.59 by 27.94 centimeters]~~ an oil report. ~~The report shall be signed by both the person responsible for the report and the person witnessing the signature. The printed name and title of both the person signing the report and the person witnessing the signature shall be included. Wells for which reports of production are not received by the close of business~~ five p.m. on said first day of the month may be shut in for a period not to exceed thirty days. The director shall notify, by certified mail, the operator and authorized transporter of the shut-in period for such wells. Any oil produced during such shut-in period shall be deemed illegal oil and subject to the provisions of North Dakota Century Code section 38-08-15.

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1992; December 1, 1997; September 1, 2000; October 1, 2016; _____.

General Authority: NDCC 38-08-04

Law Implemented: NDCC 38-08-04

43-02-03-52.1. Report of gas produced in association with oil.

The operator of each well completed in any pool shall, by five p.m. on or before the fifth day of the second month succeeding the month in which production occurs or could occur, file with the director ~~the amount of gas produced by each such well upon form 5b or approved computer~~

~~sheets no larger than eight and one half by eleven inches [21.59 by 27.94 centimeters] a gas report. The report shall be signed by both the person responsible for the report and the person witnessing the signature. The printed name and title of both the person signing the report and the person witnessing the signature shall be included. Wells for which reports of production are not received by the close of business five p.m. on said fifth day of the month may be shut in for a period not to exceed thirty days. The director shall notify, by certified mail, the operator and authorized transporter of the shut-in period for such wells. Any gas produced during such shut-in period must be deemed illegal gas and subject to the provisions of North Dakota Century Code section 38-08-15.~~

History: Effective May 1, 1992; amended effective December 1, 1997; September 1, 2000; October 1, 2016; _____.

General Authority: NDCC 38-08-04

Law Implemented: NDCC 38-08-04

43-02-03-53.3. Saltwater handling facility construction and operation requirements.

1. Bond requirement. Before construction of a saltwater handling facility, saltwater handling facility site, or access road begins, the operator shall file with the director a surety bond or cash bond conditioned upon compliance with all laws, rules and regulations, and orders of the commission. The bond must be in the amount of fifty thousand dollars and must be payable to the industrial commission. The commission, after notice and hearing, may require a higher bond amount. Such additional amounts for bonds must be related to the economic value of the facility and the expected cost of decommissioning and site reclamation, as determined by the commission. The commission may refuse to accept a bond if the operator or surety company has failed in the past to comply with all laws, rules and regulations, and orders of the commission; if a civil or administrative action brought by the commission is pending against the operator or surety company; or for other good cause.
2. Saltwater handling facility sites or appropriate parts thereof must be fenced if required by the director. All fences installed within or around any facility must be constructed in a manner that promotes emergency ingress and egress.
3. All waste, recovered solids, and fluids must be stored and handled in such a manner to prevent runoff or migration offsite.
4. Surface tanks may not be underground or partially buried, must be devoid of leaks, and constructed of, or lined with, materials resistant to the effects of produced saltwater liquids, brines, or chemicals that may be contained therein. The above materials requirement may be waived by the director for tanks presently in service and in good condition. Unused tanks and equipment must be removed from the site or placed into service, within a reasonable time period, not to exceed one year.
5. Dikes must be erected and maintained around saltwater tanks at any saltwater handling facility. Dikes must be erected around saltwater tanks at any new facility prior to introducing fluids. Dikes as well as the base material under the dikes and within the diked area must be constructed of sufficiently impermeable material to provide emergency containment. Dikes must be of sufficient dimension to contain the total capacity of the largest tank plus one day's fluid throughput. The required capacity of

the dike may be lowered by the director if the necessity therefor can be demonstrated to the director's satisfaction. The operations of the saltwater handling facility must be conducted in such a manner as to prevent leaks, spills, and fires. Discharged liquids or brines must be properly removed and may not be allowed to remain standing within or outside of any diked areas. All such incidents must be properly cleaned up, subject to approval by the director. All such reportable incidents must be promptly reported to the director and a detailed account of any such incident must be filed with the director in accordance with section 43-02-03-30.

6. Within one hundred eighty days from the date the operator is notified by the commission, a perimeter berm, at least six inches [15.24 centimeters] in height, must be constructed of sufficiently impermeable material to provide emergency containment around the facility and to divert surface drainage away from the site. The director may consider an extension of time to implement these requirements if conditions prevent timely construction or a modification of these requirements if other factors are present that provide sufficient protection from environmental impacts.
7. The operator shall take steps to minimize the amount of solids stored at the facility.
8. Within thirty days following construction or modification of a saltwater handling facility, a facility sundry notice (~~form 4~~) must be submitted detailing the work and the dates commenced and completed. The facility sundry notice must be accompanied by a schematic drawing of the saltwater handling facility site drawn to scale, detailing all facilities and equipment, including the size, location, and purpose of all tanks; the height and location of all dikes as well as a calculated containment volume; all areas underlain by a synthetic liner; any leak detection system installed; the location of all flowlines; the stockpiled topsoil location and its volume; and the road access to the nearest existing public road.
9. Immediately upon the commissioning of the saltwater handling facility, the operator shall notify the director in writing of such date.
10. The operator of a saltwater handling facility shall provide continuing surveillance and conduct such monitoring and sampling as the director may require.
11. Storage pits, waste pits, or other earthen storage areas must be prohibited unless authorized by an appropriate regulatory agency. A copy of said authorization must be filed with the director.
12. Burial of waste at any saltwater handling facility site is prohibited. All residual water and waste, fluid or solid, must be disposed of in an authorized facility.
13. If deemed necessary by the director, the operator shall cause to be analyzed any waste substance contained onsite. Such chemical analysis must be performed by a certified laboratory and must adequately determine if chemical constituents exist which would categorize the waste as hazardous by department of environmental quality standards.
14. Saltwater handling facilities must be constructed and operated so as not to endanger surface or subsurface water supplies or cause degradation to surrounding lands and

must comply with section 43-02-03-28 concerning fire hazards and proximity to occupied dwellings.

15. All proposed changes to any saltwater handling facility are subject to prior approval by the director.
16. Any salable crude oil recovered from a saltwater handling facility must be reported on a ~~form 5 SWD~~ skim oil report.
17. The operator shall comply with all laws, rules and regulations, and orders of the commission. All rules in this chapter governing oil well sites also apply to any saltwater handling facility site.
18. The operator shall immediately cease operations if so ordered by the director for the failure to comply with the statutes of North Dakota, commission rules or orders, or directives of the director.

History: Effective October 1, 2016; amended effective April 1, 2018; April 1, 2020; _____.

General Authority: NDCC 38-08-04

Law Implemented: NDCC 38-08-04

43-02-03-59. Production from gas wells to be measured and reported.

Gas production may not be transported from gas well premises until its volume has been determined through the use of properly calibrated measurement equipment. All measurement equipment and volume determinations must conform to American gas association standards and corrected to a pressure of fourteen and seventy-three hundredths pounds per square inch absolute [1034.19 grams per square centimeter] at a base temperature of sixty degrees Fahrenheit [15.56 degrees Celsius]. Gas produced, used on lease, or flared shall be reported pursuant to sections 43-02-03-44 and 43-02-03-52.1. production reports (form 5b) shall be filed with the director on or before the fifth day of the second month succeeding that in which production occurs.

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1992; May 1, 1994; July 1, 1996; September 1, 2000; _____.

General Authority: NDCC 38-08-04

Law Implemented: NDCC 38-08-04

43-02-03-80. Reports of purchasers and transporters of crude oil.

~~On or before~~ By five p.m. on the first day of the second month succeeding that in which oil is removed, purchasers and transporters, including truckers, shall file with the director the appropriate monthly reporting forms. The purchaser shall file on ~~form 10~~ the oil purchasers monthly report and the transporter on ~~form 10a~~ the oil transporters monthly report the amount of all crude oil removed and purchased by them from each well, central production facility, treating plant, or saltwater handling facility during the reported month. The transporter shall report the disposition of such crude oil on an oil transporters and storers monthly report (form 10b). All meter and tank measurements, and volume determinations of crude oil removed and purchased

from a well or central production facility must conform to American petroleum institute standards and corrected to a base temperature of sixty degrees Fahrenheit [15.56 degrees Celsius] and fourteen and seventy-three hundredths pounds per square inch absolute [1034.19 grams per square centimeter].

Prior to removing any oil, purchasers and transporters shall obtain an approved copy of a producer's authorization to purchase and transport oil (~~form 8~~) from either the producer or the director.

The operator of any oil rail facility shall report the amount of oil received and shipped out of such facility on form 10rr.

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1990; May 1, 1992; May 1, 1994; July 1, 1996; September 1, 2000; April 1, 2014; October 1, 2016; _____.

General Authority: NDCC 38-08-04

Law Implemented: NDCC 38-08-04

43-02-03-80.1. Gas Purchaser Report.

By five p.m. on the fifth day of the second month succeeding the month in which gas is purchased from a well or central production facility, gas purchasers shall file with the director a gas purchasers report (form 12a) of all gas purchased from each well or central production facility during the reported month. All volumes of gas shall be reported in units of one thousand cubic feet [28.32 cubic meters] computed at a pressure of fourteen and seventy-three hundredths pounds per square inch absolute [1034.19 grams per square centimeter] at a base temperature of sixty degree Fahrenheit [15.56 degrees Celsius]. All measurement equipment and volume determinations must conform to American petroleum institute or American gas association standards, or with the meter manufacturer's recommendations.

43-02-03-81. Authorization to transport oil from a well, treating plant, central production facility, or saltwater handling facility.

~~Before~~In no case shall any crude oil ~~is be~~ transported from a well, treating plant, central production facility, or saltwater handling facility, ~~the operator shall file with the director, and obtain prior to the director's approval, an~~ of the authorization to purchase and transport oil form (form 8) unless verbally approved by the director.

The director may revoke the authorization to purchase and transport oil for failure to comply with any rule, regulation, or order of the commission.

Oil transported before the authorization is obtained or if such authorization has been revoked shall be considered illegal oil.

~~The director may revoke the authorization to purchase and transport oil for failure to comply with any rule, regulation, or order of the commission.~~

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1992; July 1, 1996; September 1, 2000; April 1, 2014; October 1, 2016; _____.

General Authority: NDCC 38-08-04
Law Implemented: NDCC 38-08-04

43-02-03-83. Gas processing plant reports.

Each operator of a gas processing plant, cycling plant, or any other plant at which natural gas is received and processing~~processed shall report~~, gasoline, butane, propane, condensate, kerosene, oil, or other products are extracted from gas shall furnish to the director a report containing the amount of natural gas received, disposition of the natural gas, and the plant production that includes condensate, ethane, propane, butane, natural gasoline, kerosene, oil, sulfur, or other products from each lease or well on a gas plant report (form 12)~~a by five p.m. on the fifth day of the second month following that in which gas is processed.~~

Crude oil recovered shall be reported to the director, on ~~form 5~~an oil report by five p.m. on or before the close of business on the first day of the second month succeeding that in which oil is removed. Other operations shall be reported to the director, on form 12 ~~and 12a, by five p.m. on or before the fifth day of the second month following that in which gas is processed.~~

History: Amended effective April 30, 1981; January 1, 1983; May 1, 1992; _____.

General Authority: NDCC 38-08-04
Law Implemented: NDCC 38-08-04

43-02-03-88.1. Special procedures for increased density wells, pooling, flaring exemption, underground injection, commingling, converting mineral wells to freshwater wells, and ~~central tank battery or central production facilities~~unopposed recovery of a risk penalty applications.

1. Applications to amend field rules to allow additional wells on existing spacing units, for pooling under North Dakota Century Code section 38-08-08, for a flaring exemption under North Dakota Century Code section 38-08-06.4 and section 43-02-03-60.2, for underground injection under chapter 43-02-05, for commingling in one well bore the fluids from two or more pools under section 43-02-03-42, for converting a mineral well to a freshwater well under section 43-02-03-35, and for ~~establishing central tank batteries or central production facilities under section 43-02-03-48.1~~recovery of a risk penalty for which there is no known opposition under section 43-02-03-16.3, must be signed by the applicant or the applicant's representative. The application must contain or refer to attachments that contain all the information required by law as well as the information the applicant wants the commission to consider in deciding whether to grant the application. The application must designate an employee or representative of the applicant to whom the commission can direct inquiries regarding the application.
2. The commission shall give the county auditor notice at least fifteen days prior to the hearing of any application in which a request for a disposal under chapter 43-02-05 is received.
3. The applications referred to in subsection 1 will be advertised and scheduled for hearing as are all other applications received by the commission. The applicant, however, unless required by the director, need not appear at the hearing scheduled to consider the application, although additional evidence may be submitted prior to the hearing. Any interested party may appear at the hearing to oppose or comment on the

application. Any interested party may also submit written comments on or objections to the application prior to the hearing date. Such submissions must be received no later than five p.m. on the last business day prior to the hearing date and may be part of the record in the case if allowed by the hearing examiner.

4. The director is authorized, on behalf of the commission, to grant or deny the applications referred to in subsection 1.
5. In any proceeding under this section, the applicant, at the hearing, may supplement the record by offering testimony and exhibits in support of the application.
6. In the event the applicant is not required by the director to appear at the hearing and an interested party does appear to oppose the application or submits a written objection to the application, the hearing examiner shall continue the hearing to a later date, keep the record open for the submission of additional evidence, or take any other action necessary to ensure that the applicant, who does not appear at the hearing as the result of subsection 3, is accorded due process.

History: Effective May 1, 1992; amended effective May 1, 1994; May 1, 2004; April 1, 2012; April 1, 2014; April 1, 2018; April 1, 2022; _____.

General Authority: NDCC 38-08-04, 38-08-11

Law Implemented: NDCC 38-08-04, 38-08-08

43-02-03-88.2. Hearing participants by telephone remote communication or other reliable electronic means.

In any hearing, the commission may, at its ~~option~~ discretion, allow ~~telephonic communication~~ remote communication or communication by other reliable electronic means of witnesses and interested parties. The procedure shall be as follows:

1. ~~Telephonic communication~~ Notice of an applicant's witness appearing through remote communication or communication by other reliable electronic means will only should be considered if a written request is made submitted in writing at least two business days prior to the hearing date.
2. ~~Telephonic communication~~ Notice of an interested party appearing through remote communication or communication by other reliable electronic means will only should be considered if said party notifies submitted in writing to the applicant and the commission in writing at least three business days prior to the hearing date. Such notice shall include the subject hearing, the name and telephone number of the interested party, and the name and telephone number of the interested party's attorney or representative that will be present at the hearing.
3. ~~In the event an objection to any party's telephonic communication is received, the~~ The hearing examiner may disallow such communication by telephone remote communication or communication by other reliable electronic means and may schedule or reschedule for an in-person hearing. The commission will notify all parties whether or not the request to participate by telephone is granted or denied.

4. All parties participating by ~~telephone~~ remote communication or communication by other reliable electronic means shall have an attorney or representative present at the hearing who shall be responsible for ~~actually calling said party once the case is called for hearing, for~~ providing the commission at the time of the hearing with any documentary evidence requested to be included in the record, and for any other matters necessary for the party to participate by ~~telephone~~ remote communication or communication by other reliable electronic means. This requirement may be waived at the discretion of the hearing examiner for good cause.
5. All parties participating by ~~telephone~~ remote communication or communication by other reliable electronic means shall file an affidavit verifying the identity of such party. The record of such ~~telephonic communication~~ remote communication or communication by other reliable electronic means shall not be considered evidence in the case unless said affidavit is received by the ~~examiner~~ commission prior to an order being issued by the commission. The commission shall provide a form affidavit. The commission has the discretion to refuse to consider all or any part of the information received from any party participating by ~~telephone~~ remote communication or communication by other reliable electronic means.
6. For all hearings allowing ~~communication by telephone~~ remote communication or communication by other reliable electronic means, the commission shall provide a hearing room equipped with a ~~speaker telephone~~ remote communication equipment.
7. ~~The cost of telephonic communication shall be paid by the party requesting its use.~~

History: Effective July 1, 2002; amended effective May 1, 2004; _____.

General Authority: NDCC 38-08-11

Law Implemented: NDCC 28-32-11

43-05-01-01. Definitions.

The terms used throughout this chapter have the same meaning as in chapter 43-02-03 and North Dakota Century Code chapter 38-08 except:

1. "Abandoned well" means a well whose use has been permanently discontinued or which is in a state of disrepair such that it cannot be used for its intended purpose or for observation purposes.
2. "Activity" means any activity related to the geological storage of carbon dioxide subject to regulation under this chapter and North Dakota Century Code chapter 38-22.
3. "Aquifer" means a geologic formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well, spring, or other point of discharge.
4. "Area of review" means the region surrounding the geologic sequestration project where underground sources of drinking water may be endangered by the injection activity.
5. "Bond rating" means a rating assigned to any long-term senior secured indebtedness issued by or on behalf of the storage operator, including any indebtedness issued by any governmental authority with respect to which the storage operator is obligor.
6. "Carbon dioxide plume" means the extent underground, in three dimensions, of an injected carbon dioxide stream.
- ~~6~~7. "Carbon dioxide storage complex" means the formations or parts of formations of the storage reservoir including the injection zone plus confining zones and any intervening geologic strata.
- ~~7~~8. "Carbon dioxide stream" means carbon dioxide that has been captured from an emission source (e.g., a coal-burning power plant), plus incidental associated substances derived from the source materials and the capture process, and any substances added to the stream to enable or improve the injection process. This does not apply to any carbon dioxide stream that meets the definition of a hazardous waste.
- ~~8~~9. "Casing" means a pipe or tubing of varying diameter and weight, which is installed into a well to maintain the structural integrity of that well.
- ~~9~~10. "Cementing" means the operation whereby a cement slurry is pumped into a drilled hole and forced behind the casing.
- ~~10~~11. "Closure period" means that period from permanent cessation of carbon dioxide injection until the commission issues a certificate of project completion.
- ~~11~~12. "Confining zone" means a geologic formation, group of formations, or part of a formation stratigraphically overlying the injection zone that acts as a barrier to fluid movement. For injection wells operating under an injection depth waiver, confining zone means a geologic formation, group of formations, or part of a formation stratigraphically overlying and underlying the injection zone.

- ~~42~~13. "Contaminant" means any physical, chemical, biological, or radiological substance or matter in water.
- ~~43~~14. "Corrective action" means the use of commission-approved methods to ensure that wells within the area of review do not serve as conduits for the movement of fluids into underground sources of drinking water.
- ~~44~~15. "Draft permit" means a document prepared under section 43-05-01-07.2 indicating the commission's tentative decision to issue a storage facility permit or modify, revoke and reissue, or terminate an existing storage facility permit.
- ~~45~~16. "Exempted aquifer" means an "aquifer" or its portion that meets the criteria in the definition of "underground sources of drinking water" but which has been exempted according to the procedures in section 43-05-01-02.4.
- ~~46~~17. "Facility area" means the areal extent of the storage reservoir.
- ~~47~~18. "Fault" means a surface or zone of rock fracture along which there has been displacement.
- ~~48~~19. "Flow lines" means pipelines transporting carbon dioxide from the carbon dioxide injection facilities to the wellhead.
- ~~49~~20. "Fluid" means any material or substance which flows or moves, whether in a semisolid, liquid, sludge, gas, or any other form or state.
- ~~20~~21. "Formation" means a body of rock characterized by a degree of lithologic homogeneity which is prevailing, but not necessarily, tabular and is mappable on the earth's surface or traceable in the subsurface.
- ~~21~~22. "Formation fluid" means fluid present in a formation under natural conditions as opposed to introduced fluids.
- ~~22~~23. "Formation fracture pressure" means the pressure, measured in pounds per square inch, which, if applied to a subsurface formation, will cause that formation to fracture.
- ~~23~~24. "Geologic sequestration" means the geologic storage of a gaseous, liquid, or supercritical carbon dioxide stream in a storage reservoir. This term does not apply to carbon dioxide capture or transport.
- ~~24~~25. "Geologic sequestration project" means an injection well or wells used to emplace a carbon dioxide stream beneath the lowermost formation containing underground sources of drinking water; or, wells used for geologic sequestration that have been granted a waiver of the injection depth requirements; or, wells used for geologic sequestration that have received an expansion to the areal extent of an existing enhanced oil or gas recovery aquifer exemption. It includes the subsurface three-dimensional extent of the carbon dioxide plume, as well as the associated pressure front.
- ~~25~~26. "Ground water" means water occurring beneath the surface of the ground that fills available openings in rock or soil materials such that they may be considered saturated.

- ~~26~~27. "Injection well" means a nonexperimental well used to inject carbon dioxide into or withdraw carbon dioxide from a reservoir.
- ~~27~~28. "Injection zone" means a geologic formation, group of formations, or part of a formation that is of sufficient areal extent, thickness, porosity, and permeability to receive carbon dioxide through a well or wells associated with a geologic sequestration project.
- ~~28~~29. "Mechanical integrity" means the absence of significant leakage within an injection well's tubing, casing, or packer (internal mechanical integrity), or outside of the casing (external mechanical integrity).
- ~~29~~30. "Minerals" means coal, oil, and natural gas.
- ~~30~~31. "Model" means a representation or simulation of a phenomenon or process that is difficult to observe directly or that occurs over long time frames. Models that support geologic sequestration can predict the flow of carbon dioxide within the subsurface, accounting for the properties and fluid content of the subsurface formations and the effects of injection parameters.
- ~~31~~32. "Operational period" means the period during which injection occurs.
- ~~32~~33. "Packer" means a device lowered into a well, which can be expanded or compressed to produce a fluid-tight seal.
- ~~33~~34. "Person" means an individual, association, partnership, corporation, municipality, state, federal, or tribal agency, or an agency or employee thereof.
- ~~34~~35. "Plug" or "plugging" means the act or process of sealing the flow of fluid into or out of a formation through a borehole or "well" penetrating that formation.
- ~~35~~36. "Postclosure period" means that period after the commission has issued a certificate of project completion.
- ~~36~~37. "Postinjection site care" means appropriate monitoring and other actions, including corrective action, needed following cessation of injection to ensure that underground sources of drinking water are not endangered. Postinjection site care may occur in the closure or postclosure periods.
- ~~37~~38. "Pressure" means the total load or force per unit area acting on a surface.
- ~~38~~39. "Pressure front" means the zone of elevated pressure and displaced fluids created by the injection of carbon dioxide into the subsurface. The pressure front of a carbon dioxide plume refers to a zone where there is a pressure differential sufficient to cause the movement of injected fluids or formation fluids into underground sources of drinking water.
- ~~39~~40. "Project completion" means the point in time, as determined by the commission at which the certificate of project completion is issued and the storage operator is released from all regulatory requirements associated with the storage facility.
- ~~40~~41. "Stratum" (strata plural) means a single sedimentary bed or layer, regardless of thickness, that consists of generally the same kind of rock material.

~~41~~42. "Subsurface observation well" means a well used to observe subsurface phenomena, including the presence of carbon dioxide, pressure fluctuations, fluid levels and flow, temperature, and in situ water chemistry.

~~42~~43. "Surface casing" means the first string of well casing to be installed in the well.

~~43~~44. "Transmissive fault or fracture" means a fault or fracture that has sufficient permeability and vertical extent to allow fluids to move between formations.

~~44~~45. "Trapping" means the physical and geochemical processes by which injected carbon dioxide is sequestered in the subsurface. Physical trapping occurs when buoyant carbon dioxide rises in the formation until it reaches impermeable strata that inhibits further upward and lateral migration or is immobilized in pore spaces due to capillary forces. Geochemical trapping occurs when chemical reactions between the injected carbon dioxide and natural occurring minerals in the formation lead to the precipitation of solid carbonate minerals or dissolution in formation fluids.

~~45~~46. "Underground source of drinking water" means an aquifer or any portion of an aquifer that supplies drinking water for human consumption, or in which the ground water contains fewer than ten thousand milligrams per liter total dissolved solids and is not an exempted aquifer as determined by the commission under section 43-02-05-03.

~~46~~47. "Well" means a bored, drilled or driven shaft, or a dug hole, whose depth is greater than the largest surface dimension; or an improved sinkhole; or a subsurface fluid distribution system.

History: Effective April 1, 2010; amended effective April 1, 2013.

General Authority: NDCC 28-32-02

Law Implemented: NDCC 38-22

43-05-01-08. Storage facility permit hearing.

1. The commission shall hold a public hearing before issuing a storage facility permit. At least forty-five days prior to the hearing, the applicant shall give notice of the hearing to the following:
 - a. Each operator of mineral extraction activities within the facility area and within one-half mile [.80 kilometer] of its outside boundary;
 - b. Each mineral lessee of record within the facility area and within one-half mile [.80 kilometer] of its outside boundary;
 - c. Each owner of record of the surface within the facility area and one-half mile [.80 kilometer] of its outside boundary;
 - d. Each owner of record of minerals within the facility area and within one-half mile [.80 kilometer] of its outside boundary;
 - e. Each owner and each lessee of record of the pore space within the storage reservoir and within one-half mile [.80 kilometer] of the reservoir's boundary; and

- f. Any other persons as required by the commission.
2. The notice given by the applicant must contain:
- a. A legal description of the land within the facility area.
 - b. The date, time, and place that the commission will hold a hearing on the permit application.
 - c. A statement that a copy of the permit application and draft permit may be obtained from the commission.
 - d. A statement that all comments regarding the storage facility permit application must be in writing and submitted to the commission prior to the hearing or presented at the hearing.
 - e. A statement that amalgamation of the storage reservoirs pore space is required to operate the storage facility, that the commission may require that the pore space owned by nonconsenting owners be included in the storage facility and subject to geologic storage, and the amalgamation of pore space will be considered at the hearing.
3. The commission shall give at least a thirty-day public notice and comment period for a draft storage facility permit, except in an emergency, including notice of the time and place of hearing thereon by ~~one~~ publication of such notice for two consecutive weeks in a newspaper of general circulation in Bismarck, North Dakota, and in a newspaper of general circulation in the county or counties where the land affected or some part thereof is situated, unless in some particular proceeding a longer period of time or a different method of publication is required by law, in which event such period of time and method of publication shall prevail. The notice shall issue in the name of the commission and shall conform to the other requirements provided by law. The public notice must state that an application has been filed with the commission for permission to store carbon dioxide and describe the location of the proposed facility area and the date, time, and place of the hearing before the commission at which time the merits of the application and draft permit will be considered.
4. The public notice given by the commission must contain the following:
- a. Name and address of the commission;
 - b. Name and address of the applicant;
 - c. A brief description of the nature and purpose of the hearing, including the applicable rules and procedures;
 - d. A brief description of the activity described in the storage facility permit application or the draft storage facility permit;

- e. Name, address, and telephone number of a person from whom interested persons may obtain further information, including copies of the draft storage facility permit, fact sheet, and the storage facility permit application;
 - f. A brief description of the comment procedures and other procedures by which the public may participate in the final permit decision;
 - g. The date of any previous public notices relating to the storage facility; and
 - h. Any additional information that the commission requires.
5. Public notice shall be given by the following methods:
- a. By mailing or e-mailing a copy of the notice, the fact sheet, the storage facility permit application, and draft permit to the following:
 - (1) The applicant;
 - (2) The department of environmental quality;
 - (3) The state geological survey;
 - (4) The state water commission;
 - (5) The United States environmental protection agency; and
 - (6) Federal and state agencies with jurisdiction over fish and wildlife resources, the advisory council on historic preservation, and state historical preservation officers, including any affected Indian tribes and the bureau of Indian affairs.
 - b. By mailing or e-mailing of copy of the public notice to the following:
 - (1) To any unit of local government having jurisdiction over the area where the storage facility is proposed to be located and to each state agency having any authority under state law with respect to the construction or operation of such facility.
 - (2) Any other person or group either upon request or on a departmental mailing list to receive geologic storage of carbon dioxide public notices:
 - (a) Including those who request in writing to be on the list;
 - (b) Persons on "area lists" from past permit proceedings in that area; and
 - (c) Notifying the public of the opportunity to be put on the mailing list through periodic publication in the public press and in such publications as state-funded newsletters, environmental bulletins, or state law journals. The commission may update the mailing list from time to time by requesting written indication of continued interest

from those listed. The commission may delete from the list the name of any person who fails to respond to such a request.

6. During the public comment period any interested person may submit written comments on the draft storage facility permit or the storage facility permit application. All comments shall be considered in making the final decision and shall be answered when a final storage facility permit is issued. The response to comments must include:
 - a. Provisions, if any, of the draft permit that have been changed in the final permit decision, and the reasons for the change; and
 - b. A brief description and response to all significant comments on the draft permit or the permit application.
7. The response to all applicable comments shall be available to the public.

History: Effective April 1, 2010; amended effective April 1, 2013.

General Authority: NDCC 28-32-02

Law Implemented: NDCC 38-22

43-05-01-09. Well permit application requirements.

1. Following receipt of a storage facility permit, the storage operator shall obtain a permit to drill, deepen, convert, operate, or, upon demonstration of mechanical integrity, reenter a previously plugged and abandoned well for storage purposes.
2. Application for permits to drill, deepen, convert, operate, or reenter a well must be ~~submitted on form 25 provided by the commission~~ filed with the director and must include at a minimum:
 - a. An accurate plat certified by a registered surveyor showing the location of the proposed injection or subsurface observation well. The plat must be drawn to the scale of one inch [25.4 millimeters] equals one thousand feet [304.8 meters], unless otherwise directed by the commission, and must show distances from the proposed well to the nearest facility area boundary. The plat must show the latitude and longitude of the proposed well location to the nearest tenth of a second. The plat must also show the location and status of all other wells that have been drilled within one-fourth mile [402.34 meters], or any other distance deemed necessary by the commission, of the proposed injection or subsurface observation well;
 - b. The drilling, completion, or conversion procedures for the proposed injection or subsurface observation well;
 - c. A well bore schematic showing the name, description, and depth of the storage reservoirs and the depth of the deepest underground source of drinking water; a description of the casing in the injection or subsurface observation well, or the proposed casing program, including a full description of cement already in place or as proposed; and the proposed method of testing casing before use of the injection well;

- d. A geophysical log, if available, through the storage reservoir to be penetrated by the proposed injection well or if an injection or subsurface observation well is to be drilled, a complete log through the reservoir from a nearby well is permissible. Such log must be annotated to identify the estimated location of the base of the deepest underground source of drinking water, showing the stratigraphic position and thickness of all confining strata above the reservoirs and the stratigraphic position and thickness of the reservoir; and
 - e. The proposed pad layout, including cut and fill diagrams.
3. ~~Within thirty days after the conclusion of well drilling and completion activities, a permit application~~Before injection commences, a well sundry notice shall be submitted to operate an injection well and must include at a minimum:
- a. A schematic diagram of the surface injection system and its appurtenances;
 - b. A final well bore diagram showing the name, description, and depths of the storage reservoir and the base of the deepest underground source of drinking water and a diagram of the well depicting the casing, cementing, perforation, tubing, and plug and packer records associated with the construction of the well;
 - c. The well's complete dual induction or equivalent log through the storage reservoir. Such a log shall be run prior to setting casing through the storage reservoir. Logs must be annotated to identify the estimated location of the base of the deepest underground source of drinking water, showing the stratigraphic position and thickness of all confining strata above the storage reservoir and the reservoir's stratigraphic position and thickness unless that information has been previously submitted. When approved in advance by the commission, this information can be demonstrated with a dual induction or equivalent log run in a nearby well or by such other method acceptable to the commission;
 - d. An affidavit specifying the chemical constituents, their relative proportions and the physical properties of the carbon dioxide stream, and the source of the carbon dioxide stream;
 - e. Proof that the long string of casing of the well is cemented adequately so that the carbon dioxide is confined to the storage reservoirs. Such proof must be provided in the form of a cement bond log or the results of a fluid movement study or such other method specified by the commission;
 - f. The results of a mechanical-integrity test, if applicable to well type, of the casing in accordance with the pressure test requirements of this section if a test was run within one calendar year preceding the request for a conversion permit for a previously drilled well;
 - g. The final area of review based on modeling, using data obtained during logging and testing of the well and the formation, including any relevant updates on the geologic structure and hydrogeologic properties of the proposed storage reservoir and overlying formations;

- h. Information on the compatibility of the carbon dioxide stream with fluids in the injection zone and minerals in both the injection and the confining zone, based on the results of the formation testing program, and with the materials used to construct the well;
- i. The results of the formation testing program;
- j. The status of corrective action on wells in the area of review;
- k. All available logging and testing program data on the well;
- l. Any updates to the proposed area of review and corrective action plan, testing and monitoring plan, injection well plugging plan, postinjection site care and facility closure plan, and the emergency and remedial response plan, which are necessary to address new information collected during logging and testing of the well; and
- m. Any other information that the commission requires.

History: Effective April 1, 2010; amended effective April 1, 2013.

General Authority: NDCC 28-32-02

Law Implemented: NDCC 38-22

43-05-01-11.4. Testing and monitoring requirements.

The storage operator shall prepare, maintain, and comply with a testing and monitoring plan to verify that the geologic sequestration project is operating as permitted and is not endangering underground sources of drinking water. The requirement to maintain and implement a commission-approved plan is directly enforceable regardless of whether the requirement is a condition of the permit. The plan must be submitted with the storage facility permit application for commission approval and must include a description of how the storage operator will meet the requirements of this section, including accessing sites for all necessary monitoring and testing during the life of the project.

1. The testing and monitoring plan must include:
 - a. Analysis of the carbon dioxide stream in compliance with applicable analytical methods and standards generally accepted by industry and with sufficient frequency to yield data representative of its chemical and physical characteristics;
 - b. Installation and use, except during well workovers, of continuous recording devices to monitor injection pressure, rate, and volume; the pressure on annulus between the tubing and the long string casing; and the annulus fluid volume added;
 - c. Corrosion monitoring of the well materials for loss of mass, thickness, cracking, pitting, and other signs of corrosion, which must be performed on a quarterly basis to ensure that the well components meet the minimum standards for material strength and performance by:

- (1) Analyzing coupons of the well construction materials placed in contact with the carbon dioxide stream;
 - (2) Routing the carbon dioxide stream through a loop constructed with the material used in the well and inspecting the materials in the loop; or
 - (3) Using an alternative method approved by the commission;
- d. Periodic monitoring of the ground water quality and geochemical changes above the confining zone that may be a result of carbon dioxide movement through the confining zone or additional identified zones, including:
 - (1) The location and number of monitoring wells based on specific information about the geologic sequestration project, including injection rate and volume, geology, the presence of artificial penetrations, and other factors; and
 - (2) The monitoring frequency and spatial distribution of monitoring wells based on baseline geochemical data and on any modeling results in the area of review evaluation;
- e. A demonstration of external mechanical integrity at least once per year until the injection well is plugged; and, if required by the commission, a casing inspection log at a frequency established in the testing and monitoring plan;
- f. A pressure fall-off test at least once every five years unless more frequent testing is required by the commission based on site-specific information;
- g. Testing and monitoring to track the extent of the carbon dioxide plume and the presence or absence of elevated pressure (e.g., the pressure front) by using:
 - (1) Direct methods in the injection zone; and
 - (2) Indirect methods (e.g., seismic, electrical, gravity, interferometric synthetic aperture radar or electromagnetic surveys and down-hole carbon dioxide detection tools), unless the commission determines, based on site-specific geology, that such methods are not appropriate;
- h. The commission may require surface air monitoring and soil gas monitoring to detect movement of carbon dioxide that could endanger an underground source of drinking water. Regarding these requirements:
 - (1) Design of surface air and soil gas monitoring must be based on potential risks to underground sources of drinking water within the area of review;
 - (2) The monitoring frequency and spatial distribution of surface air monitoring and soil gas monitoring must be based on using baseline data, and the monitoring plan must describe how the proposed monitoring will yield useful information on the area of review; and

- (3) Surface air monitoring and soil gas monitoring methods are subject to the commission's approval;
- i. The commission may require passive seismicity monitoring to detect induced seismicity that could compromise the containment of the stored carbon dioxide within the carbon dioxide storage complex that could endanger an underground source of drinking water.
- j. Any additional monitoring, as required by the commission, necessary to support, upgrade, and improve computational modeling of the area of review evaluation;
- j.k. Periodic reviews of the testing and monitoring plan by the storage operator to incorporate monitoring data collected, operational data collected, and the most recent area of review reevaluation performed. The storage operator shall review the testing and monitoring plan at least once every five years. Based on this review, the storage operator shall submit an amended testing and monitoring plan or demonstrate to the commission that no amendment to the testing and monitoring plan is needed. Any amendments to the testing and monitoring plan are subject to the commission's approval, must be incorporated into the permit, and are subject to the permit modification requirements. Amended plans or demonstrations must be submitted to the commission as follows:
- (1) Within one year of an area of review reevaluation;
 - (2) Following any significant changes to the facility, such as addition of monitoring wells or newly permitted injection wells within the area of review, on a schedule determined by the commission; or
 - (3) When required by the commission; and
- k.l. A quality assurance and surveillance plan for all testing and monitoring requirements.
2. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
3. Records of monitoring information shall include:
- a. The date, exact place, and time of sampling or measurements;
 - b. The individual who performed the sampling or measurements;
 - c. The date analyses were performed;
 - d. The individual who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.

4. All permits shall specify:
 - a. Requirements concerning the proper use, maintenance, and installation, when appropriate, of monitoring equipment or methods, including biological monitoring methods when appropriate;
 - b. Required monitoring, including type, intervals, and frequency sufficient to yield data, which are representative of the monitored activity, including when appropriate, continuous monitoring; and
 - c. Applicable reporting requirements based upon the impact of the regulated activity and as specified throughout this chapter. Reporting shall be no less frequent than specified in section 43-05-01-18.

History: Effective April 1, 2013.

General Authority: NDCC 28-32-02

Law Implemented: NDCC 38-22

43-05-01-18.1. Abandonment of wells.

1. The removal of injection equipment or the failure to operate an injection well for one year constitutes abandonment of the well. An abandoned well must be plugged in accordance with the plugging plan and its site must be reclaimed pursuant to section 43-02-03-34.1.
2. The commission may waive for one year the requirement to plug and reclaim an abandoned well by giving the well temporarily abandoned status. This status may only be given to wells that are to be used for purposes related to the geologic storage of carbon dioxide. If a well is given temporarily abandoned status, the well's perforations must be isolated, the integrity of its casing must be proven, and its casing must be sealed at the surface, all in a manner approved by the commission. The commission may extend a well's temporarily abandoned status beyond one year. A fee of one hundred dollars shall be submitted for each application to extend the temporary abandonment status of any well.
3. In addition to the waiver in subsection 2, the commission may also waive the duty to plug and reclaim an abandoned well for any other good cause found by the commission. If the commission exercises this discretion, the commission shall set a date or circumstance upon which the waiver expires.

History: Effective April 1, 2013.

General Authority: NDCC 28-32-02

Law Implemented: NDCC 38-22

43-05-01-19. Postinjection site care and facility closure.

The storage operator shall submit and maintain the postinjection site care and facility closure plan as a part of the storage facility permit application to be approved by the commission. The requirement to maintain and implement a commission-approved plan is directly enforceable regardless of whether the requirement is a condition of the permit.

1. The postinjection site care and facility closure plan must include the following information:
 - a. The pressure differential between preinjection and predicted postinjection pressures in the injection zone;
 - b. The predicted position of the carbon dioxide plume and associated pressure front at cessation of injection as demonstrated in the area of review evaluation;
 - c. A description of postinjection monitoring location, methods, and proposed frequency;
 - d. A schedule for submitting postinjection site care monitoring results to the commission; and
 - e. The duration of the postinjection site care monitoring time frame that ensures nonendangerment of underground sources of drinking water.
2. The storage operator shall specify in the postinjection site care and facility closure plan which wells will be plugged and which will remain unplugged to be used as subsurface observation wells. Subsurface observation and ground water monitoring wells as approved in the plan must remain in place for continued monitoring during the closure and postclosure periods.
3. Upon cessation of injection, the storage operator shall either submit an amended postinjection site care and facility closure plan or demonstrate to the commission through monitoring data and modeling results that no amendment to the plan is needed. Any amendments to the postinjection site care and facility closure plan are subject to the commission's approval and must be incorporated into the storage facility permit.
4. At any time during the life of the geologic sequestration project, the storage operator may modify and resubmit the postinjection site care and facility closure plan for the commission's approval within thirty days of such change.
5. Upon cessation of injection, all wells not associated with monitoring must be properly plugged and abandoned in a manner which will not allow movement of injection or formation fluids that endanger underground sources of drinking water in accordance with section 43-05-01-11.5. All storage facility equipment, appurtenances, and structures not associated with monitoring must be removed, and all flowlines properly abandoned. Following well plugging and removal of all surface equipment, the surface must be reclaimed to the commission's specifications that will, in general, return the land as closely as practicable to original condition pursuant to ~~North Dakota Century Code section 38-08-04.1~~243-02-03-34.1.
6. The well casing must be cut off at a depth of five feet [1.52 meters] below the surface and a steel plate welded on top identifying the well name and that it was used for carbon dioxide.

7. The commission shall develop in conjunction with the storage operator a continuing monitoring plan for the postclosure period, including a review and final approval of wells to be plugged.
8. The storage operator shall continue to conduct monitoring during the closure period as specified in the commission-approved postinjection site care and facility closure plan. The storage operator may apply for project completion with an alternative postinjection site care monitoring time frame pursuant to North Dakota Century Code section 38-22-17. Once it is demonstrated that underground sources of drinking water are no longer endangered, the final assessment under subsection 9 is complete, and upon full compliance with North Dakota Century Code section 38-22-17, the storage operator may apply to the commission for a certificate of project completion. If the storage operator is unable to meet the requirements of North Dakota Century Code section 38-22-17 and is unable to demonstrate that underground sources of drinking water are no longer being endangered, the storage operator shall continue monitoring the storage facility for fifty years or until full compliance is met and such demonstration can be made.
9. Before project completion, the storage operator shall provide a final assessment of the stored carbon dioxide's location, characteristics, and its future movement and location within the storage reservoir. The storage operator shall submit the final assessment to the commission within ninety days of completing all postinjection site care and facility closure requirements.
 - a. The final assessment must include:
 - (1) The results of computational modeling performed pursuant to delineation of the area of review under section 43-05-01-05.1;
 - (2) The predicted time frame for pressure decline within the injection zone, and any other zones, such that formation fluids may not be forced into any underground sources of drinking water or the time frame for pressure decline to preinjection pressures;
 - (3) The predicted rate of carbon dioxide plume migration within the injection zone and the predicted time frame for the cessation of migration;
 - (4) A description of the site-specific processes that will result in carbon dioxide trapping, including immobilization by capillary trapping, dissolution, and mineralization at the site;
 - (5) The predicted rate of carbon dioxide trapping in the immobile capillary phase, dissolved phase, or mineral phase;
 - (6) The results of laboratory analyses, research studies, or field or site-specific studies to verify the information required in paragraphs 4 and 5;
 - (7) A characterization of the confining zone, including a demonstration that it is free of transmissive faults, fractures, and microfractures, and an evaluation of thickness, permeability, and integrity to impede fluid (e.g., carbon dioxide, formation fluids) movement;

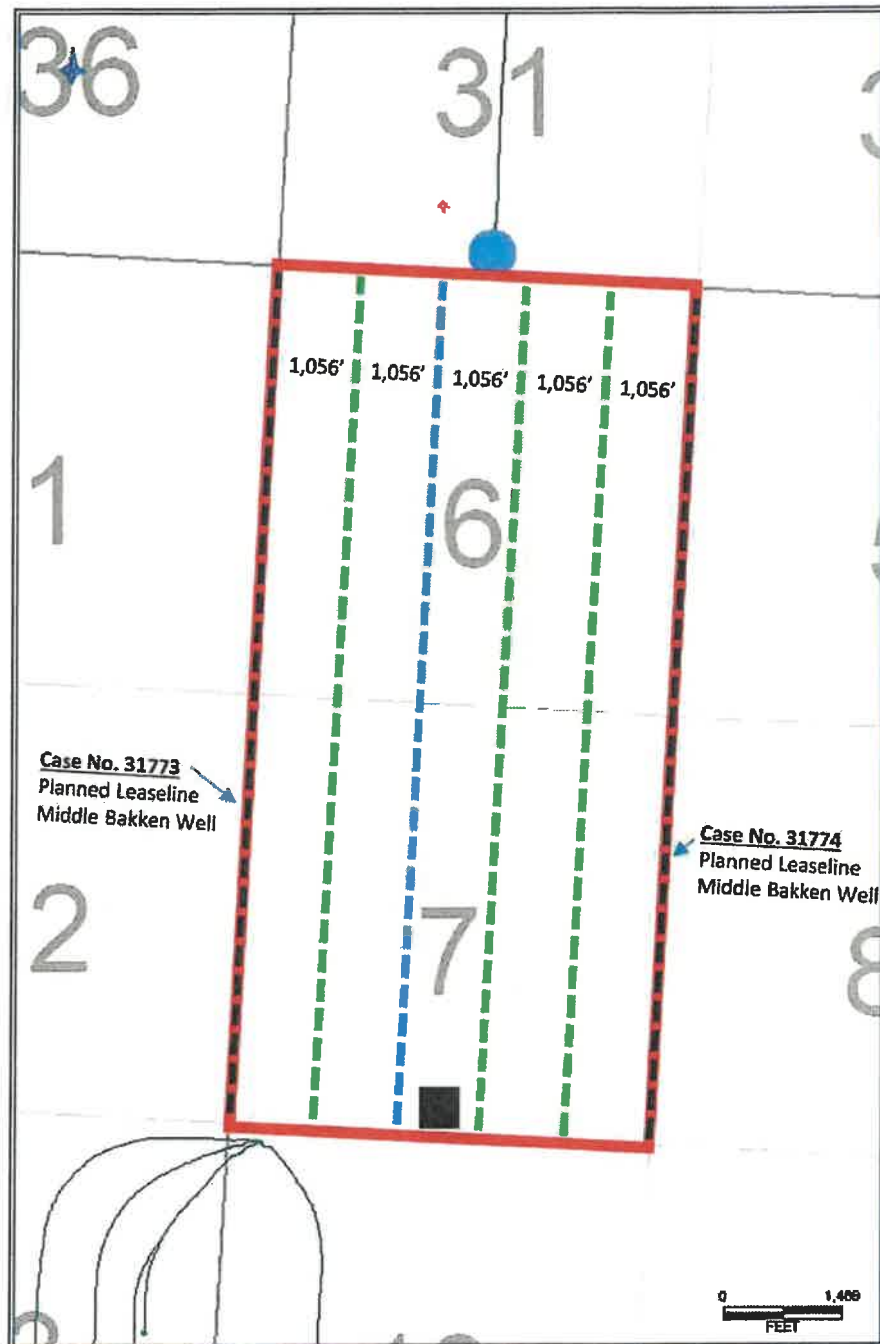
- (8) Any other projects in proximity to the predictive modeling of the final extent of the carbon dioxide plume and area of elevated pressures. The presence of potential conduits for fluid movement, including planned injection wells and project monitoring wells associated with the proposed geologic sequestration project;
 - (9) A description of the well construction and an assessment of the quality of plugs of all abandoned wells within the area of review;
 - (10) The distance between the injection zone and the nearest underground source of drinking water above and below the injection zone;
 - (11) An assessment of the operations conducted during the operational period, including the volumes injected, volumes extracted, all chemical analyses conducted, and a summary of all monitoring efforts. The report must also document the stored carbon dioxide's location and characteristics and predict how it might move during the postclosure period;
 - (12) An assessment of the funds in the carbon dioxide storage facility trust fund to ensure that sufficient funds are available to carry out the required activities on the date on which they may occur, taking into account project-specific risk assessments, projected timing of activities (e.g., postinjection site care), and interest accumulation in the trust fund; and
 - (13) Any additional site-specific factors required by the commission.
- b. Information submitted to support the demonstration in subdivision a must meet the following criteria:
- (1) All analyses and tests for the final assessment must be accurate, reproducible, and performed in accordance with the established quality assurance standards. An approved quality assurance and quality control plan must address all aspects of the final assessment;
 - (2) Estimation techniques must be appropriate and test protocols certified by the United States environmental protection agency must be used where available;
 - (3) Predictive models must be appropriate and tailored to the site conditions, composition of the carbon dioxide stream, and injection and site conditions over the life of the geologic sequestration project;
 - (4) Predictive models must be calibrated using existing information when sufficient data are available;
 - (5) Reasonably conservative values and modeling assumptions must be used and disclosed to the commission whenever values are estimated on the basis of known, historical information instead of site-specific measurements;

- (6) An analysis must be performed to identify and assess aspects of the postinjection monitoring time frame demonstration that contribute significantly to uncertainty. The storage operator shall conduct sensitivity analyses to determine the effect that significant uncertainty may contribute to the modeling demonstration; and
 - (7) Any additional criteria required by the commission.
- 10. The storage operator shall provide a copy of an accurate plat certified by a registered surveyor which has been submitted to the county recorder's office designated by the commission. The plat must indicate the location of the injection well relative to permanently surveyed benchmarks. The storage operator must also submit a copy of the plat to the United States environmental protection agency regional administrator office.
- 11. The storage operator shall record a notation on the deed to the property on which the injection well was located, or any other document that is normally examined during title search, that will in perpetuity provide any potential purchaser of the property the following information:
 - a. The fact that land has been used to sequester carbon dioxide;
 - b. The name of the state agency, local authority, or tribe with which the survey plat was filed, as well as the address of the United States environmental protection agency regional office to which it was submitted; and
 - c. The volume of fluid injected, the injection zone or zones into which it was injected, and the period over which injection occurred.

History: Effective April 1, 2010; amended effective April 1, 2013; April 1, 2018.

General Authority: NDCC 28-32-02

Law Implemented: NDCC 38-22



- Existing 1280-acre Spacing Unit



- Three Forks Horizontal Wells



- Proposed Well Pad Location



- Proposed Additional Middle Bakken Horizontal Well



- Approved Middle Bakken Horizontal Leaseline Well



- Approved Middle Bakken Horizontal Well

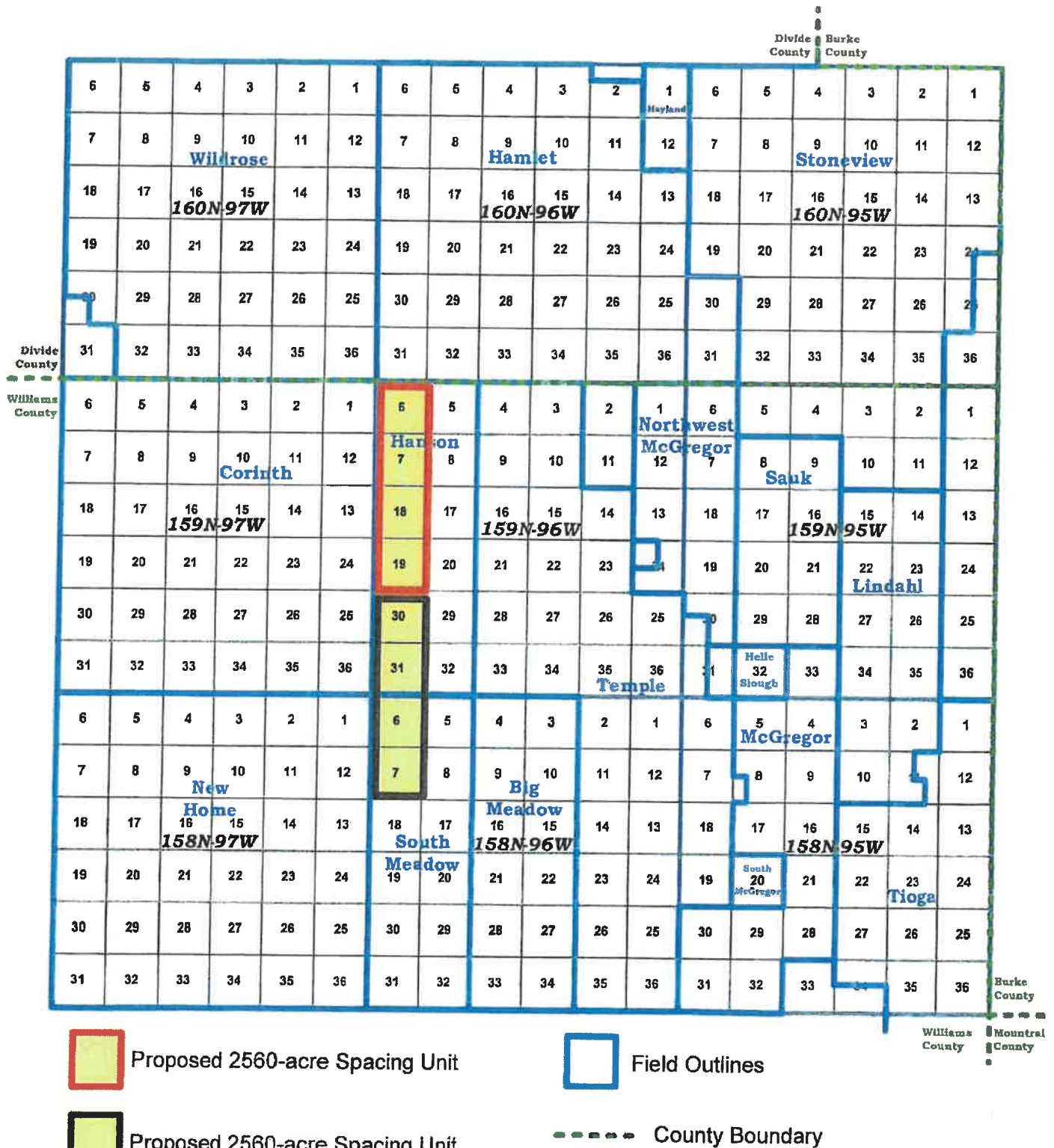
INDUSTRIAL COMMISSION
STATE OF NORTH DAKOTA

DATE 10/23/25 CASE NO. 32279

Introduced By Phoenix

Exhibit 7

Identified By Shively



INDUSTRIAL COMMISSION
STATE OF NORTH DAKOTA
DATE 10/23/25 CASE NO. 32171
Introduced By Continental
Exhibit L-1
Identified By Callaway

General Locator Map



Case No. 32171
Exhibit L-1

PROPOSED DIRECTIONAL WELL PLOT

2560-Acre Spacing Unit

Sections 30 & 31 - Township 159N-Range 96W

Sections 6 & 7 - Township 158N-Range 96W

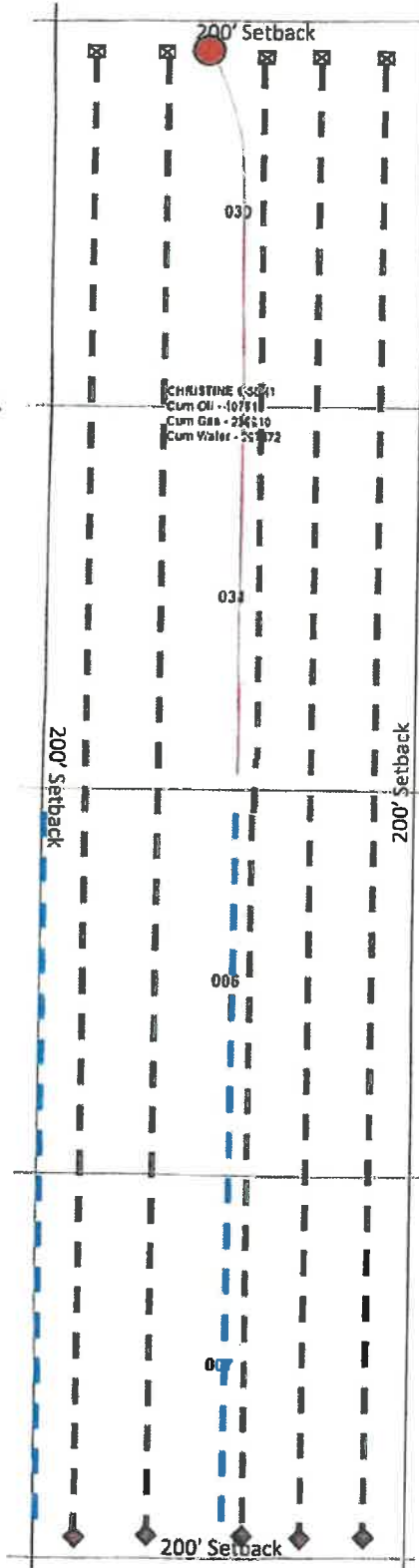
Williams County

Exact Location of
Lateral Well Bore may
change based on
topographical and/or
cultural restrictions

PDP O/G/W Cum
Values Shown

Note: The B.H.L and S.H.L.
Are nonspecific, made for
field rules found on the APD
(Approved Drilling Permit)

- Future CLR Bakken Lateral
- Phoenix Permitted Bakken Lateral
- Middle Bakken Lateral
- Three Forks Lateral
- Potential Surface Location
- ⊠ 7" Casing Point
- ◆ Bottom Hole Location
- Section Line



INDUSTRIAL COMMISSION
STATE OF NORTH DAKOTA
DATE 10/23/25 CASE NO. 32171
Introduced By Continental
Exhibit E-2
Identified By George



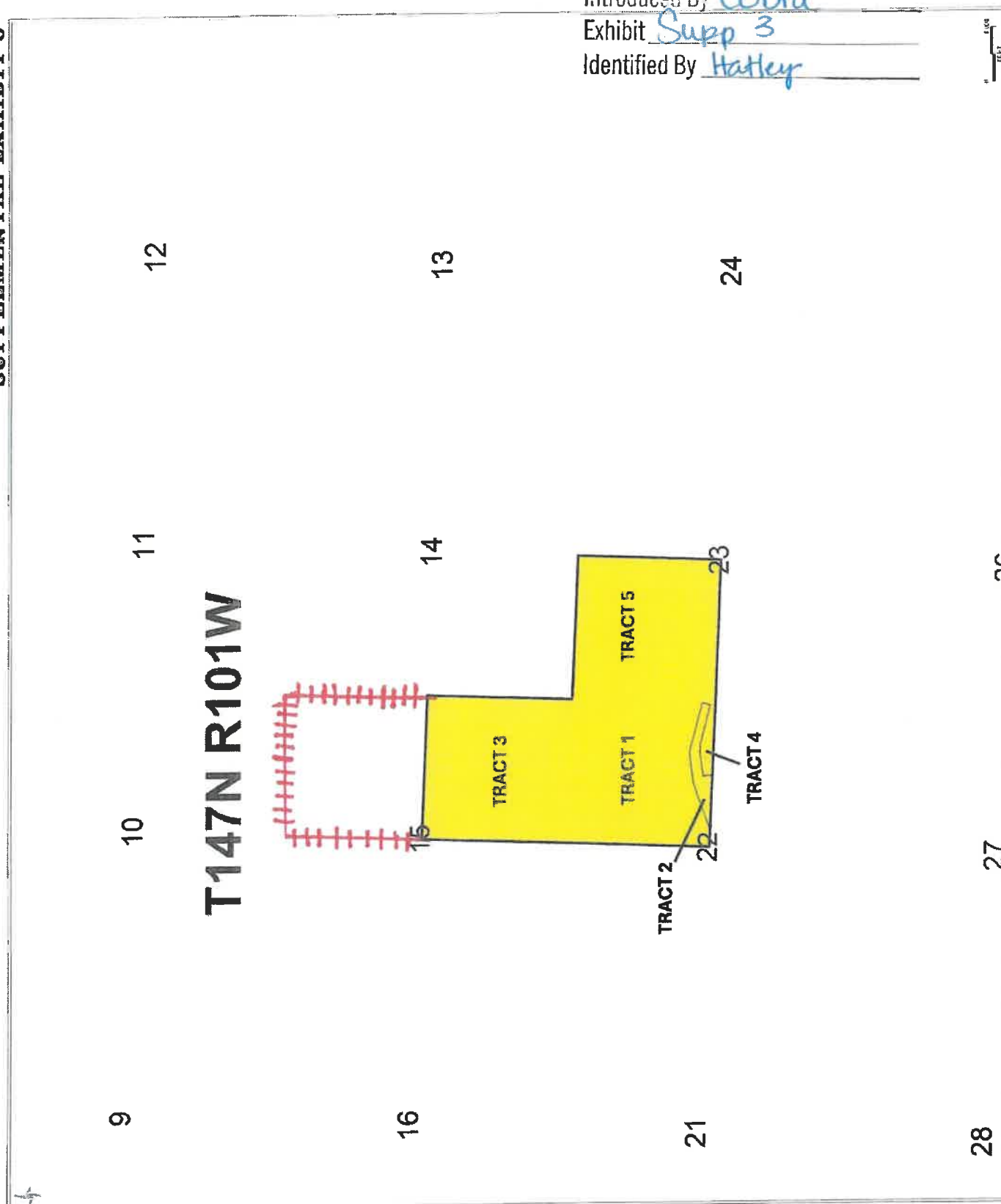
Exhibit E-2
Case #32171

INDUSTRIAL COMMISSION

STATE OF NORTH DAKOTA

DATE 4/25/25 CASE NO. 31623Introduced By CobraExhibit Supp 3Identified By Hatley

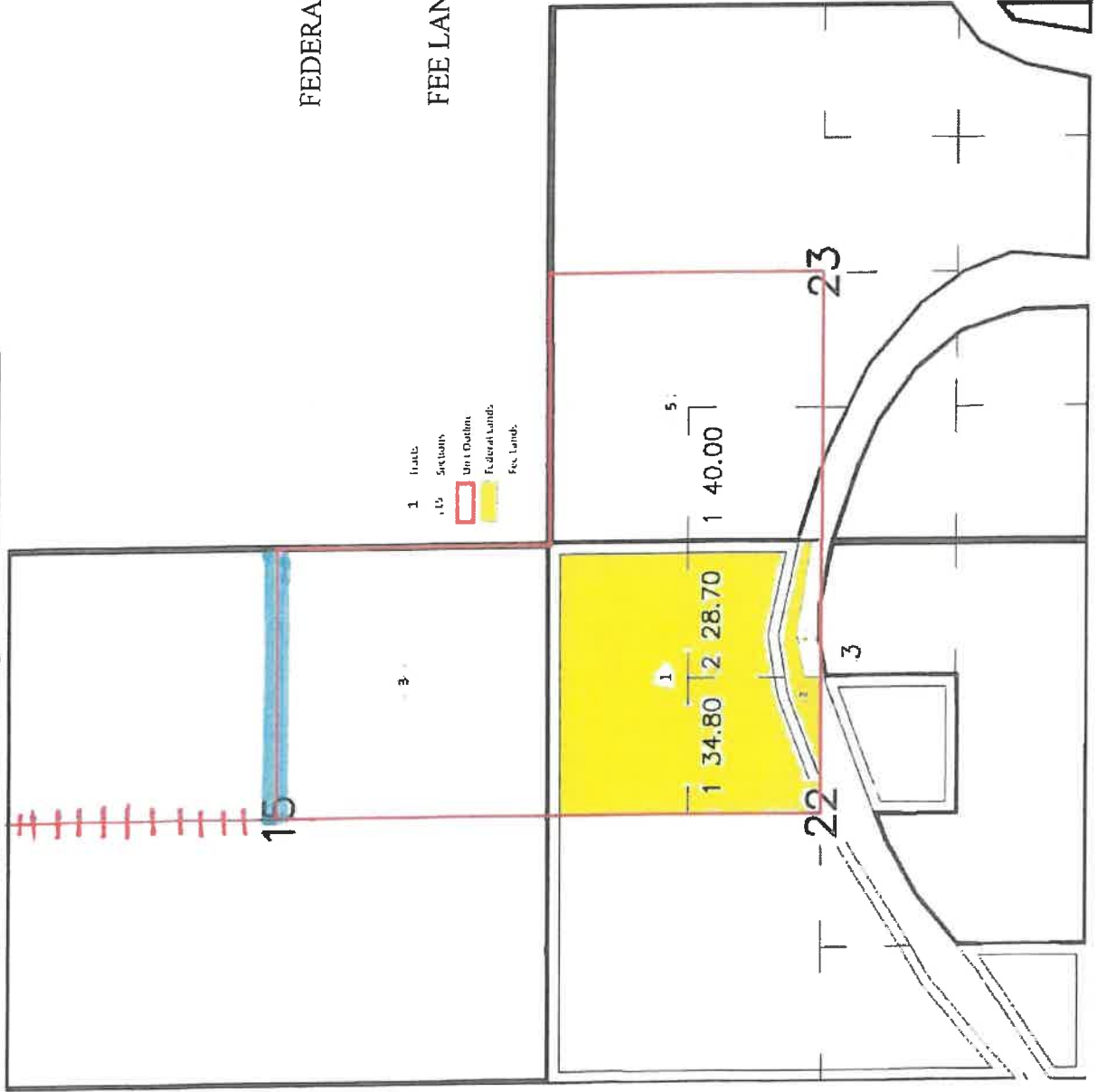
SUPPLEMENTAL EXHIBIT 3



SUPPLEMENTAL EXHIBIT A

BULL MOOSE-DUPEROW UNIT AREA OUTLINE

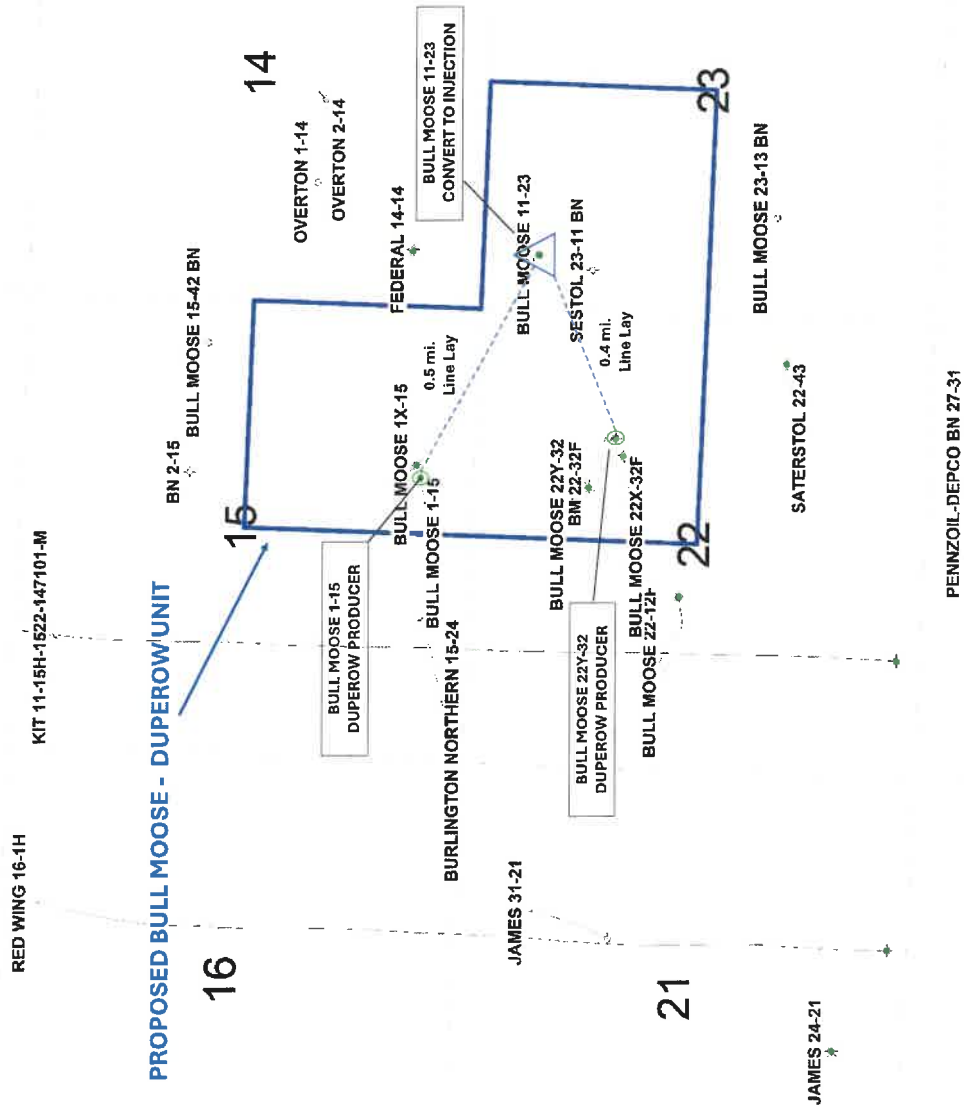
Township 147 North, Range 101 West of the 5th P.M.



	GROSS ACRES	PERCENTAGE
FEDERAL LANDS	154.140	32.1125% 24.2849%
FEE LANDS	325.860 +85.864	67.8875% 75.916%
	480.000 640.000	100.0000%

INDUSTRIAL COMMISSION
STATE OF NORTH
DATE 4/15/25 CASE NO. 31623
Introduced By Cobra
Exhibit Supp Ex A
Identified By Hatley

EXHIBIT 17



COBRA OIL AND GAS CO.
MCKENZIE CO., NORTH DAKOTA - BULL MOOSE
BULL MOOSE DUPELOW UNIT

0 1,000 2,000
FEET

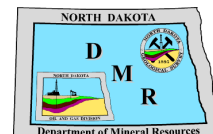
POSTED WELL DATA
Produced

WELL SYMBOLS
 ○ PROPOSED MOORE CONVECTED
 ● EXISTING WELL
 ● CH 1.5 mi. Well
 ● Proposed And Abandoned Oil and Gas Well
 ● Closes Off into Gas

By: JOSH JARON
Revision 24, 2015



Mineral Resources



INDUSTRIAL COMMISSION OF NORTH DAKOTA

Schedule for Oil & Gas Hearings
Bismarck, North Dakota
 DMR Conference Room
 1000 East Calgary Ave

Hearing Date

January 21, 2026
January 22, 2026

February 25, 2026
February 26, 2026

March 25, 2026
March 26, 2026

April 22, 2026
April 23, 2026

May 27, 2026
May 28, 2026

June 24, 2026
June 25, 2026

July 29, 2026
July 30, 2026

August 26, 2026
August 27, 2026

September 23, 2026
September 24, 2026

October 21, 2026
October 22, 2026

November 18, 2026
November 19, 2026

December 16, 2026
December 17, 2026

January 20, 2027
January 21, 2027

Docket Closing Date

December 17, 2025

January 21, 2026

February 18, 2026

March 18, 2026

April 22, 2026

May 20, 2026

June 24, 2026

July 22, 2026

August 19, 2026

September 16, 2026

October 14, 2026

November 11, 2026

December 16, 2026

Mark F. Bohrer
 ASSISTANT DIRECTOR
 OIL AND GAS DIVISION

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 DIRECTOR
 DEPT. OF MINERAL RESOURCES

Edward C. Murphy
 STATE GEOLOGIST
 GEOLOGICAL SURVEY

North Dakota Pipeline Authority



Annual Report July 1, 2024 – June 30, 2025

Industrial Commission of North Dakota

Governor Kelly Armstrong, Chairman

Attorney General Drew H. Wrigley

Agriculture Commissioner Doug Goehring

North Dakota Pipeline Authority

Annual Report

July 1, 2024 – June 30, 2025

Overview

At the request of the North Dakota Industrial Commission, the Sixtieth Legislature passed House Bill 1128 authorizing the North Dakota Pipeline Authority. It was signed into law on April 11, 2007. The statutory mission of the Pipeline Authority is “to diversify and expand the North Dakota economy by facilitating development of pipeline facilities to support the production, transportation, and utilization of North Dakota energy-related commodities, thereby increasing employment, stimulating economic activity, augmenting sources of tax revenue, fostering economic stability and improving the State’s economy”. As established by the Legislature, the Pipeline Authority is a builder of last resort, meaning private business would have the first opportunity to invest in and/or build additional needed pipeline infrastructure.

By law, the Pipeline Authority membership is comprised of the members of the North Dakota Industrial Commission. Funding for Pipeline Authority operations and studies comes at the recommendation of the Oil and Gas Research Council and is authorized by the Industrial Commission. On August 1, 2008 the Industrial Commission named Justin J. Kringstad, an engineering consultant, to serve as Director of the North Dakota Pipeline Authority. The North Dakota Pipeline Authority Director works closely with the Department of Mineral Resources Director, North Dakota Petroleum Council President, and leadership of the Industrial Commission. The Pipeline Authority has no other staff and receives no direct General Fund appropriation. The Pipeline Authority Director reports to the Industrial Commission members and the Oil and Gas Research Council on a regular basis.

Statutory Authority

The statutory authority for the Pipeline Authority is outlined in Chapter 54-17.7 of the North Dakota Century Code (N.D.C.C.). Section 54-17.7-04 of the N.D.C.C. delineates the powers of the Pipeline Authority, including but not limited to: 1) making grants, loans, or borrowing money; 2) issuing up to \$800 million in revenue bonds; 3) entering into lease-sale contracts; 4) owning, purchasing, leasing, renting, and disposing of pipeline facilities or the right to capacity in any pipeline system, whether within or outside the state of North Dakota; and 5) entering into contracts to construct, maintain, and operate pipeline facilities.

Before the Pipeline Authority can exercise its power to construct pipeline facilities, it must follow a statutory process designed to ensure public participation and comment. Specifically, the Pipeline Authority must publish a notice describing the need for the pipeline project. Entities interested in constructing the facilities or providing services to meet the identified needs have 180 days to respond by

filing a notice of intent. If the Pipeline Authority receives a notice of intent from an interested entity, it cannot proceed with construction unless it determines that doing so is in the public interest. In making this determination, the Pipeline Authority must consider factors such as the economic impact on the state, economic feasibility, technical performance, reliability, past performance, and the likelihood of successful completion and ongoing operation.

North Dakota Pipeline Regulatory Programs

The Pipeline Authority does not serve in any capacity as a regulatory agency for the pipeline industry. North Dakota's pipeline industry is regulated by several state and federal agencies. Roles of each regulatory entity are complex and the Pipeline Authority urges all interested parties to please contact the agencies below for more information on their jurisdiction of the pipeline industry.

- North Dakota Department of Emergency Services
- North Dakota Department of Environmental Quality
- North Dakota Public Service Commission
- North Dakota Industrial Commission-Department of Mineral Resources-Oil and Gas Division
- Environmental Protection Agency
- Federal Energy Regulatory Commission
- U.S. Department of Transportation-Pipeline and Hazardous Materials Safety Administration-Office of Pipeline Safety
- Homeland Security's Infrastructure Security Division

Summary of Activities

North Dakota's petroleum industry began the 2024–2025 fiscal year with West Texas Intermediate (WTI) oil prices just over \$80 per barrel. Despite these economically attractive prices, only 39 drilling rigs were active in July 2024 as the industry maintained a capital-disciplined development pace, roughly operating one drilling rig for every \$2 of WTI oil price.

The oil market softened through the fiscal year, with WTI averaging about \$71 per barrel. As prices weakened, North Dakota's active drilling rig count declined accordingly, ending the fiscal year in the low 30s.

During the 2024–2025 fiscal year, the industry expanded the use of three-mile laterals across the Bakken and Three Forks formations to further enhance capital efficiency. By mid-2025, roughly one-third of all new wells featured three-mile laterals, up from about 15 to 25 percent in the prior fiscal year. These extended-reach development patterns significantly increase productive lateral footage while maintaining a relatively modest drilling fleet.

In addition, operators have started implementing four-mile laterals where space allows to further improve drilling and completion efficiency. Figure 1 illustrates the generalized productivity gains achieved by utilizing longer lateral lengths in a scenario with 34 active drilling rigs.

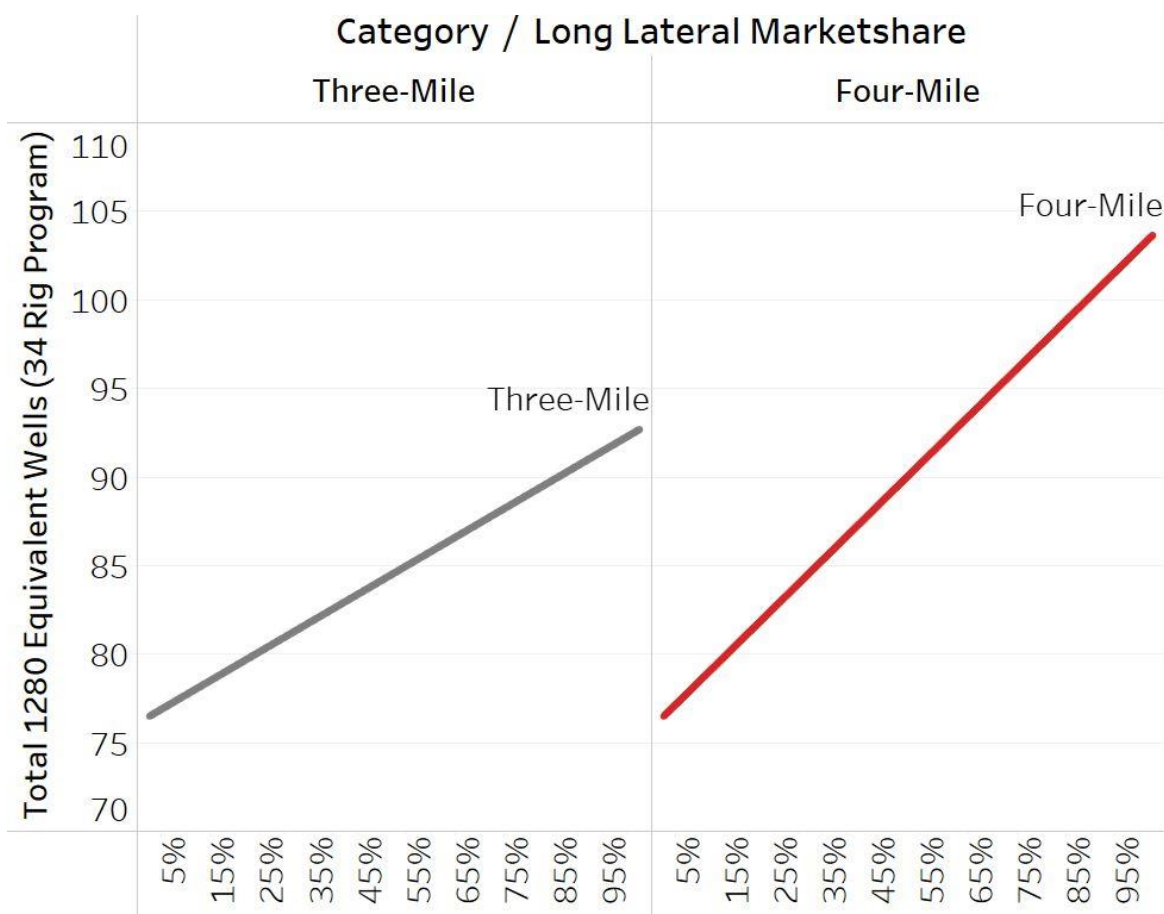


Figure 1. Equivalent two-mile wells (i.e. 1,280) for various market shares of three and four-mile laterals in a 34 well program.

Average oil production throughout the 2024–2025 fiscal year remained relatively strong at around 1.18 million barrels per day, though this level remains below the record high of 1.5 million barrels per day set in late 2019.

Despite a slight downward oil production trend during the 2024–2025 fiscal year, the long-term outlook for North Dakota’s petroleum industry remains strong. The state’s midstream sector continues to adapt to current production levels while planning for future expansion opportunities.

Over the past year, the Pipeline Authority continued to be actively engaged in translating production and development data into oil and natural gas transportation solutions. Collaboration with industry to generate crude oil and natural gas production forecasts—used to quantify future pipeline needs and timelines—remains one of the Authority’s key responsibilities. Because pipeline companies tend to be conservative in their investment planning, these forecasting efforts play a critical role in providing the confidence necessary to advance future expansion projects.

During the fiscal year the Pipeline Authority contacted, met with, and shared information with numerous interested parties including, but not limited to, the following:

AgriBank	Alliance Pipeline
Applied Digital	Bakken Energy
Balon Corporation	Bank of America
Barclays	Basin Electric Power Cooperative
Blue Sky Carbon Partners	BNSF Railway
Border States	BP
Canadian Imperial Bank of Commerce (CIBC)	Catalyst Midstream
Cerilon	Citadel Energy Marketing
Claire Lasers	Concord Energy
Coyote Station Co-Ownership Group	Dakota Gasification Company (DGC)
Dakota Natural Gas	DT Midstream
East Daley Capital	Enbridge
Energy Intelligence	Energy Modeling & Analysis (EMA) Inc.
Energy Transfer Partners	Essar Group
FuelForge/Gas2Gas	Geronimo Power
Great River Energy	Hanwha
Harvest Midstream	Harvestone
Hess Corporation	Hydrogen XT
Intensity Infrastructure Partners	JP Morgan Chase
Kinder Morgan	Kingston Marketing
Lake Region Electric Cooperative	MDU Resources
Mesabi Metallics	Minnesota Energy Resources
Minnesota Power	Minnkota Power Cooperative
Montana-Dakota Utilities	Moody's
Nextera Energy	ONEOK
Otter Tail Power Company	Pembina Pipeline
PetroNerds	Pivotal Energy Partners
Rainbow Energy Center	Raymond James & Associates
RBN Energy	S&P Global
Scranton Holding Company	Sequent Energy Management
Sourcerock	Steel Reef Infrastructure
Tallgrass Energy	TC Energy
Tenaska	True Companies
UBS	United Energy Trading
Vortex Flow	WBI Energy
WEC Energy Group	Wood Mackenzie
World Kinect	Xcel Energy

In addition, the Pipeline Authority worked with a number of state and federal agencies to gather information and provide expertise on pipeline issues. Those agencies and entities included:

North Dakota Public Service Commission	North Dakota Department of Commerce
North Dakota Transmission Authority	Energy and Environmental Research Center
North Dakota Oil and Gas Division	North Dakota Department of Transportation
North Dakota Governor's Office	Department of Environmental Quality
North Dakota Attorney General's Office	North Dakota Agriculture Commissioner's Office
North Dakota Tax Department	Bank of North Dakota
Minot State University	North Dakota Oil & Gas Research Program
Upper Great Plains Transportation Institute	North Dakota OMB
North Dakota State University	North Dakota Department of Trust Lands
North Dakota Department of Water Resources	University of Michigan
Wisconsin Public Service Commission	

The Director of the Pipeline Authority also worked with the following trade associations/groups:

North Dakota Petroleum Council
Grand Forks Region Economic Development Corporation
Western Dakota Energy Association
Vision West
Jamestown/Stutsman Development Corporation
Valley Prosperity Partnership
Minot Chamber EDC
National Association of Royalty Owners (NARO)
 Fargo Moorhead Economic Development Corporation
Bismarck-Mandan Chamber EDC

As noted above, the Pipeline Authority has been facilitating discussions between governmental agencies and companies interested in expanding North Dakota's midstream infrastructure.

In addition, the Director of the Pipeline Authority provided information to citizens and news media on issues related to pipelines.

Pipeline Capacity Acquisition and Funding

During the 2023 legislative session, action was taken on House Bill 1014 to update the Pipeline Authority statute, enhancing the agency's ability to acquire and manage capacity positions on new or expanding

pipeline systems. That legislation authorized up to \$60 million in financial support through a line of credit from the Bank of North Dakota to help facilitate new energy transportation infrastructure.

Building upon that foundation, the 2025 legislative session Senate Bill 2014 amended subsection 4 of section 54-17.7-04 of the North Dakota Century Code to expand the Authority's borrowing capacity. The updated statutory language now reads:

- a. *(1) The authority may borrow up to sixty million dollars through a line of credit from the Bank.*
- (2) In addition to the borrowing under paragraph 1, the authority may borrow up to forty million dollars through a line of credit from the Bank to provide total borrowing of up to one hundred million dollars under this subdivision. The borrowing under this paragraph is available only if the authority enters a capacity purchase agreement by December 31, 2026, related to a pipeline project to transport natural gas from the western area of the state to the eastern area of the state.*

- D. *The authority shall repay the line of credit from amounts available. If the amounts available on June 30, 2027, are not sufficient to repay the line of credit, the authority shall notify the director of the office of management and budget, and the director of the office of management and budget shall transfer funds from the strategic investment and improvements fund to the Bank for the repayment pursuant to section 6 - 09.7 - 05 based on the amount certified by the Bank.*

This legislative change increases the maximum borrowing authority from \$60 million to \$100 million per biennium, contingent upon the Pipeline Authority entering a capacity purchase agreement tied to a project that enhances natural gas transportation between western and eastern North Dakota.

The legislative intent of this amendment was to ensure that future funding through the Authority directly supports projects extending natural gas delivery and reliability to underserved regions of the state, particularly eastern North Dakota.

With this expanded financial mechanism, the Pipeline Authority is well positioned to play a more active role in facilitating large-scale pipeline capacity acquisitions and infrastructure expansion, working collaboratively with industry and state partners to advance long-term energy reliability and market access across North Dakota.

2025 Request for Information – Natural Gas Pipeline Capacity

In May 2025, the Pipeline Authority issued a Request for Information (RFI) seeking detailed proposals from entities developing new natural gas transmission systems capable of transporting gas from western to eastern North Dakota. The RFI's purpose was to gather technical, financial, and regulatory information to evaluate opportunities for state participation through capacity acquisition under the expanded funding authority provided in Senate Bill 2014.

The RFI requested data covering multiple categories including: project routing and capacity, market access, rate structures, capacity-release options, and regulatory frameworks. Respondents were also asked to describe how project economics might evolve depending on various levels of NDPA capacity participation.

Accompanying the RFI was a structured evaluation memorandum outlining the criteria used to assess competing proposals, focusing on project readiness, market connectivity, delivered cost to market, regulatory certainty, and alignment with long-term state energy goals.

Two formal responses were submitted by the June 24, 2025 deadline:

- WBI Energy Transmission, proposing its Bakken East Pipeline, connecting western North Dakota production zones to new markets in central and eastern North Dakota.
- Intensity Infrastructure Partners, proposing an intrastate pipeline concept offering gas service to users across western North Dakota in Phase 1 and extending service to eastern North Dakota in Phase 2.

In August 2025, the Industrial Commission formally approved advancing negotiations with WBI Energy Transmission, directing the Pipeline Authority Executive Director to begin contract discussions for the purchase of transport capacity.

Crude Oil and Natural Gas Production Forecasting

The Pipeline Authority continued to develop and maintain crude oil and natural gas production forecasts for North Dakota and the U.S. portion of the Williston Basin. These forecasts are widely utilized by both public and private organizations. Two assumption scenarios are modeled to communicate the production impacts of varying price and activity levels. The "Base" case reflects expected production, based on the Federal Energy Information Administration's (EIA) West Texas Intermediate (WTI) oil price forecasts. The "Low" case represents a more conservative production outlook, assuming lower-than-expected activity and/or oil prices. Figure 2 presents a long-term oil production forecast for North Dakota, while Figure 3 illustrates a long-term natural gas production forecast based on the same two activity scenarios for North Dakota.

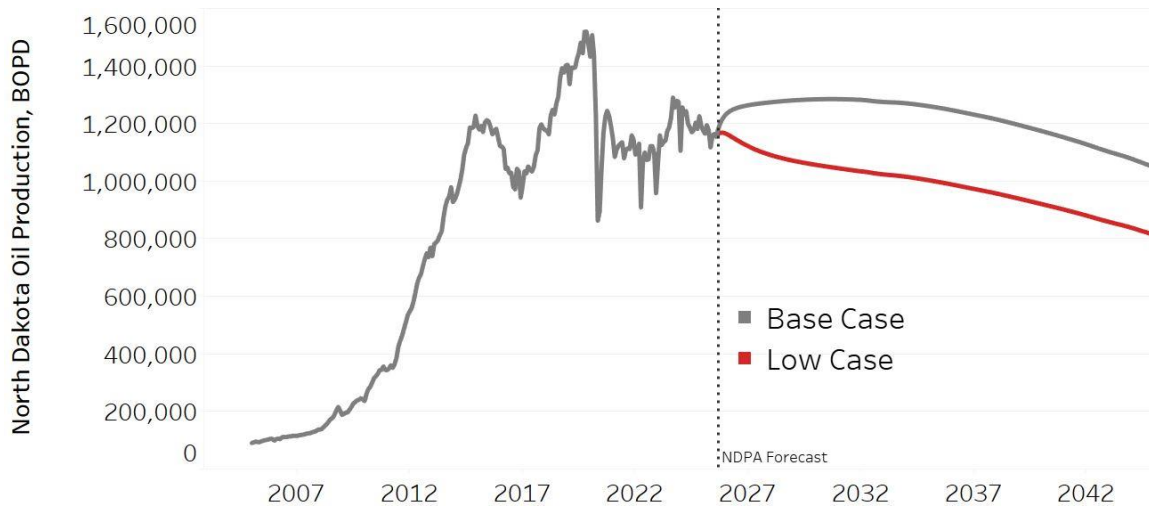


Figure 2. Long term crude oil production forecast for North Dakota starting in Sep. 2025

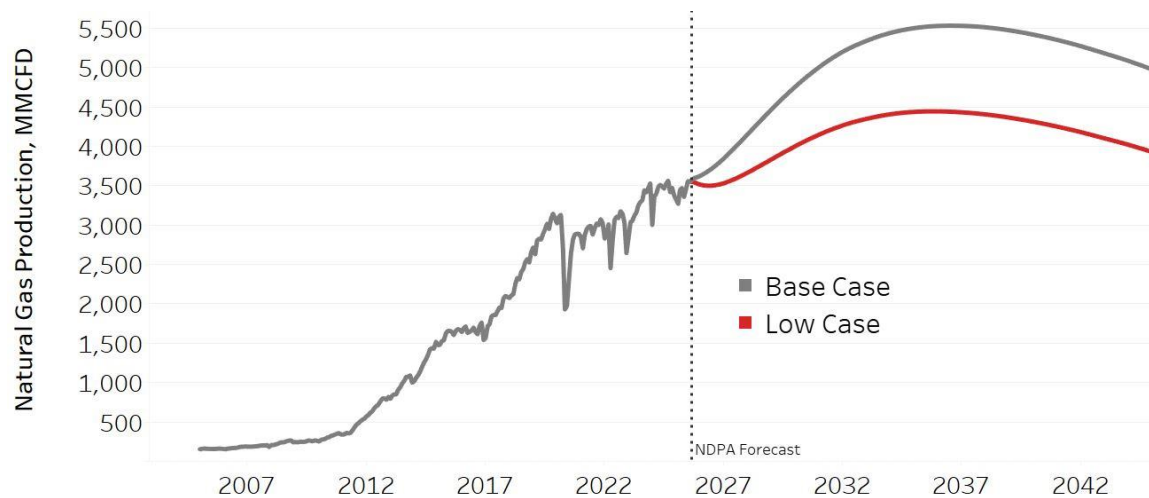


Figure 3. North Dakota natural gas production forecast starting in Sep. 2025

Given the ongoing market uncertainty surrounding the global economic outlook, multiple military conflicts, and Russian energy sanctions, the Pipeline Authority has developed a series of production forecasts based on different well completion scenarios in North Dakota. Figures 4 and 5 depict the near-term estimated oil and natural gas production levels based on the specified number of new well completions per month. These scenario calculations have been highly beneficial for transportation planning, budgeting, and policy development. Additional information on this topic is available on the Pipeline Authority's website.

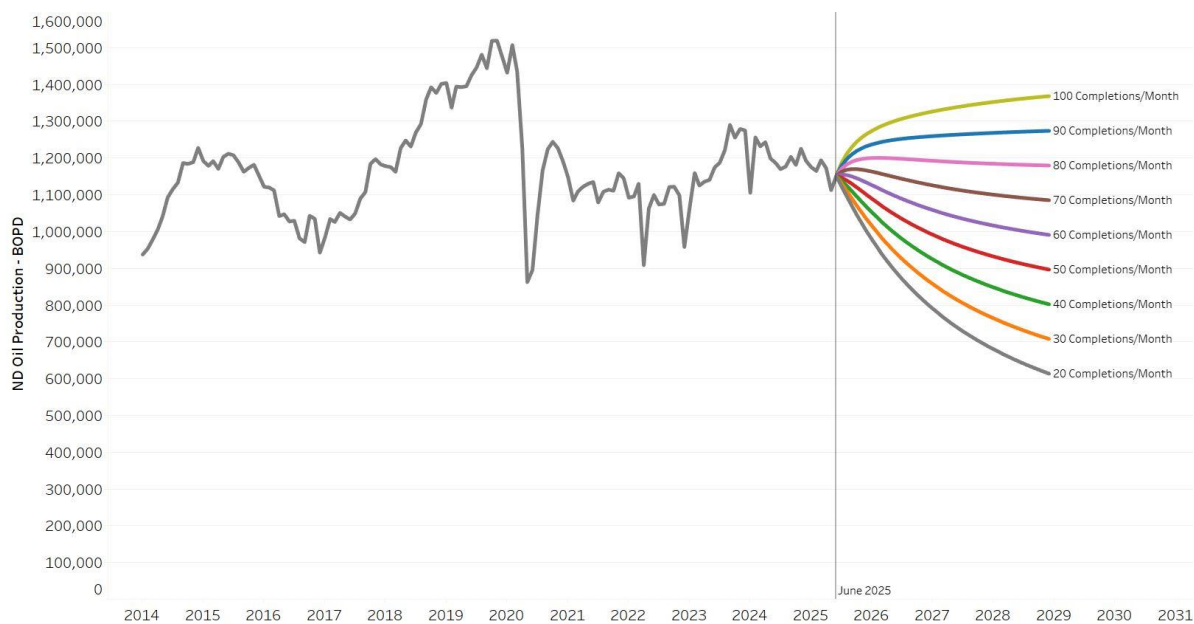


Figure 4. North Dakota oil production under various completion scenarios

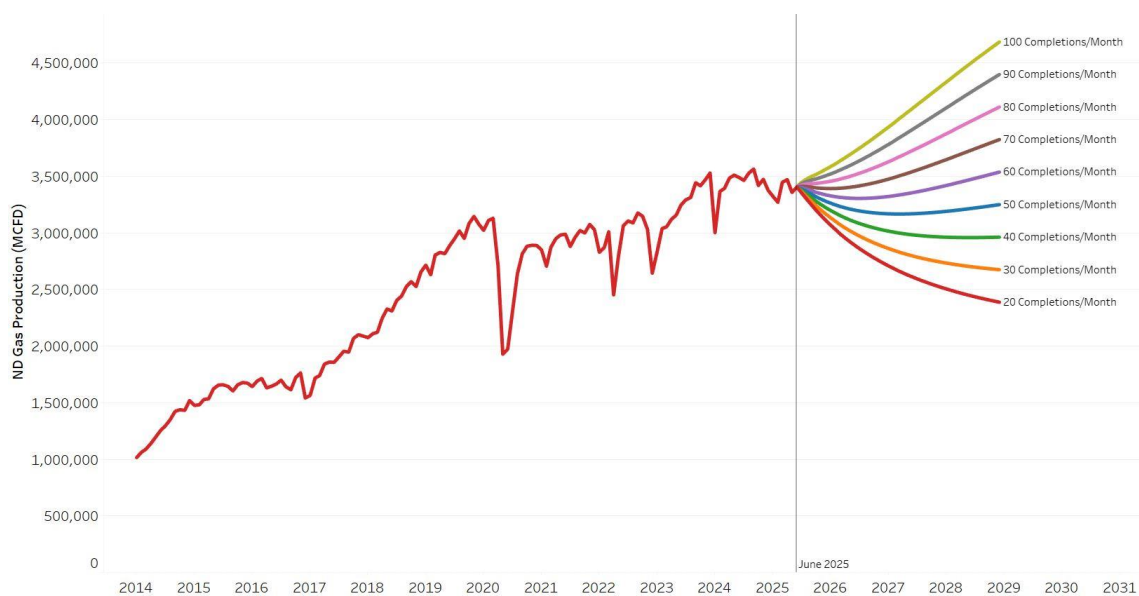


Figure 5. North Dakota natural gas production under various completion scenarios

Natural Gas Liquids

During the 2024-2025 fiscal year, the Pipeline Authority continued to dedicate significant attention to the topic of natural gas liquids (NGLs). Natural gas produced from the Bakken and Three Forks Formations is particularly rich in NGLs such as ethane, propane, and butane. The Pipeline Authority continually updated its forecast models to better understand the production potential of these NGLs and the transportation infrastructure needed to support future growth.

The forecast in Figure 6 presents two potential production scenarios based on different activity level assumptions. North Dakota experienced a significant shortfall in gross pipeline capacity until ONEOK's Elk Creek Pipeline became operational in late 2019. It is anticipated that NGL production will again surpass pipeline capacity by mid-2028, unless additional system expansions occur or a new market solution is developed. The complexity of NGL transportation is further compounded by the fact that not all NGL pipelines are designed to handle the same types of NGL products. Additionally, natural gas plants in the region produce either purity products or unfractionated products, commonly referred to as Y-grade.

There are several options available to address the growing volume of NGLs in North Dakota. One option is to build, expand, or repurpose existing pipeline systems. A second option is the development of value-added industries that would use NGL products as feedstock. Another potential use for NGLs is in enhanced oil recovery (EOR) within the Williston Basin, as fields continue to mature. The use of NGLs as a working fluid for EOR is still in the research phase, but early lab results have shown promising potential.

To advance the potential of using North Dakota's NGL products as feedstock for value-added industries, funding was allocated to the Energy and Environmental Research Center to study the feasibility of salt cavern storage in the Williston Basin. In late 2020, a research paper was released, indicating that storage opportunities may be commercially viable in North Dakota. Additional funding was provided during the 2021 and 2023 legislative sessions to develop pilot projects aimed at confirming the study's findings. The Pipeline Authority remains actively engaged in this initiative, as it could significantly impact the transportation and utilization of North Dakota's NGL products.

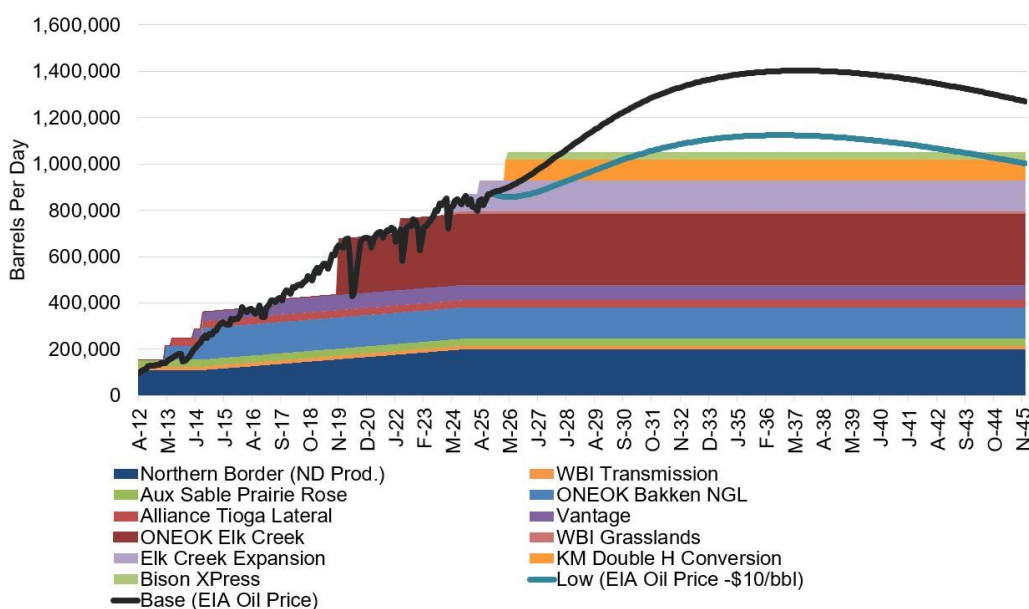


Figure 6. Forecasted North Dakota NGL production and transportation options.

Natural Gas Capture

Although not a regulatory agency, the Pipeline Authority plays an active support role in helping the state maximize natural gas capture. The Pipeline Authority continuously monitors and reports gas capture statistics and provides analysis on current and future developments to industry participants, regulators, policymakers, and the public.

Several significant actions taken by the North Dakota Industrial Commission in recent years have positively impacted natural gas capture efforts. The first was the requirement for operating companies to submit a natural gas capture plan to the Oil & Gas Division, outlining how produced natural gas would be sold or utilized on-site. The second key action was an Industrial Commission order on July 1, 2014, which established gas capture targets through 2020 and provided a means of enforcement by the Oil & Gas Division through production and permitting restrictions.

In November 2018, the Industrial Commission updated the natural gas capture regulations for Bakken and Three Forks production. Additional details on the November update are available on the Oil & Gas Division website.

The current North Dakota gas capture target rates are as follows:

- 74% Capture – Q4 2014
- 77% Capture – Q1 2015
- 80% Capture – Q2 2016
- 85% Capture – Q4 2016
- 88% Capture – Q4 2018
- 91% Capture – Q4 2020

In July 2025, North Dakota's petroleum industry produced 3.56 billion cubic feet per day (BCFD) of natural gas, achieving a gross capture rate of 94%. Industry estimates suggest that over \$20 billion has been invested in pipeline and processing infrastructure to help meet the state's gas capture targets. To achieve future gas capture goals, the industry will require significant additional investments in gas gathering, processing, and transmission systems.

Natural Gas Processing

For reference, a North Dakota Gas Processing and Transportation map can be found on the Pipeline Authority website and a table of all gas processing plants can be found in Appendix C

New or Expanding Natural Gas Plants

Due to the vast footprint of the Bakken resource, natural gas gathering and processing operators in North Dakota have historically faced significant challenges in keeping pace with the increasingly rapid and efficient drilling and completion techniques. Despite these challenges, the industry is stepping up to

capitalize on the substantial economic opportunities presented by the rich natural gas produced in the Bakken.

North Dakota currently has thirty-four natural gas processing and conditioning plants in operation, with a combined processing capacity of approximately 4.3 BCFD (Figure 7). The Pipeline Authority anticipates that natural gas processing capacity will need to increase by over 1 BCFD in the coming years to keep pace with production growth. A detailed breakdown of existing and proposed facilities can be found in Appendix C and on the Pipeline Authority website.

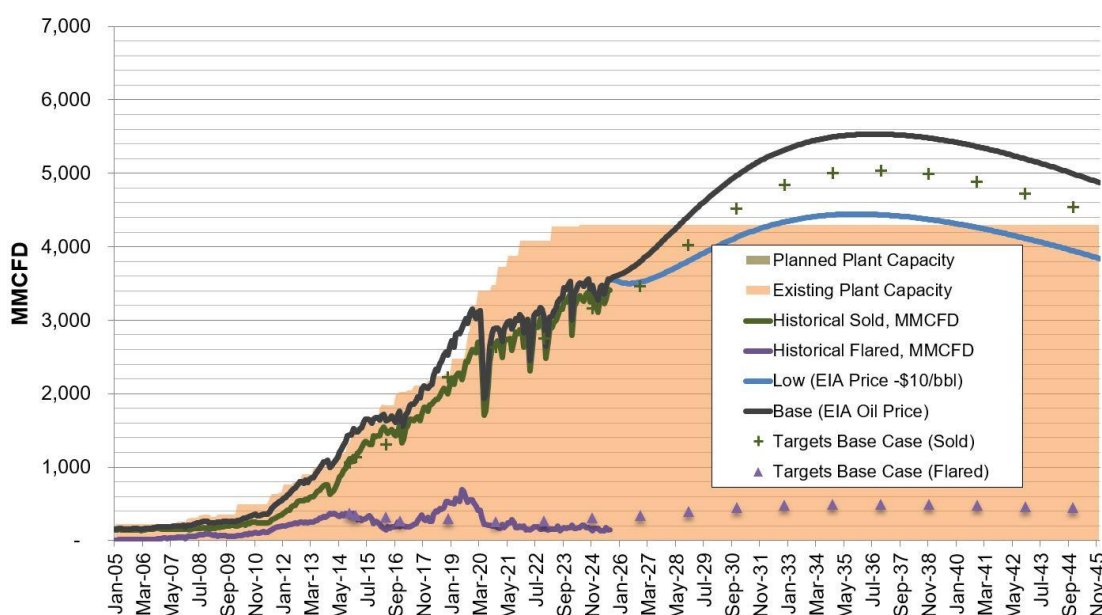


Figure 7. North Dakota natural gas processing plant intake capacity, gas production, gas forecast, and NDIC capture targets. (Forecast starts in Aug. 2025)

Williston Basin Gas Storage

One primary use of residue natural gas is heating residential and commercial buildings. Without the use of underground natural gas storage, the supply chain would struggle to handle significant seasonal demand fluctuations. During the warm summer months, excess natural gas is stored in underground reservoirs and then withdrawn during colder periods when demand is higher (Figure 8). The reservoirs used for natural gas storage are typically depleted gas-producing fields that have been converted to serve a storage function.

The nearest residue natural gas storage field is located near Baker, Montana, and is operated by WBI Energy. Primarily situated in southeastern Montana within the Cedar Creek Anticline, the Baker field is one of the largest natural gas storage fields in the United States, with a working gas capacity of approximately 160 BCF. When combined with the Elk Basin storage field in Montana, WBI Energy's total working gas capacity exceeds 193 BCF, although operations have averaged a balance of less than 55 BCF

over the past year (Figure 8). Regional interstate residue gas pipelines provide transportation services to and from both the Baker and Elk Basin storage fields.

A formal effort by WBI Energy in late 2024 to expand system capacity and pipeline connectivity to the Baker storage field was unsuccessful due to a lack of long-term, firm shipper commitments. The Pipeline Authority remains actively engaged in ongoing discussions to support future production growth and economic development opportunities in the region by leveraging the advantages of local natural gas storage.

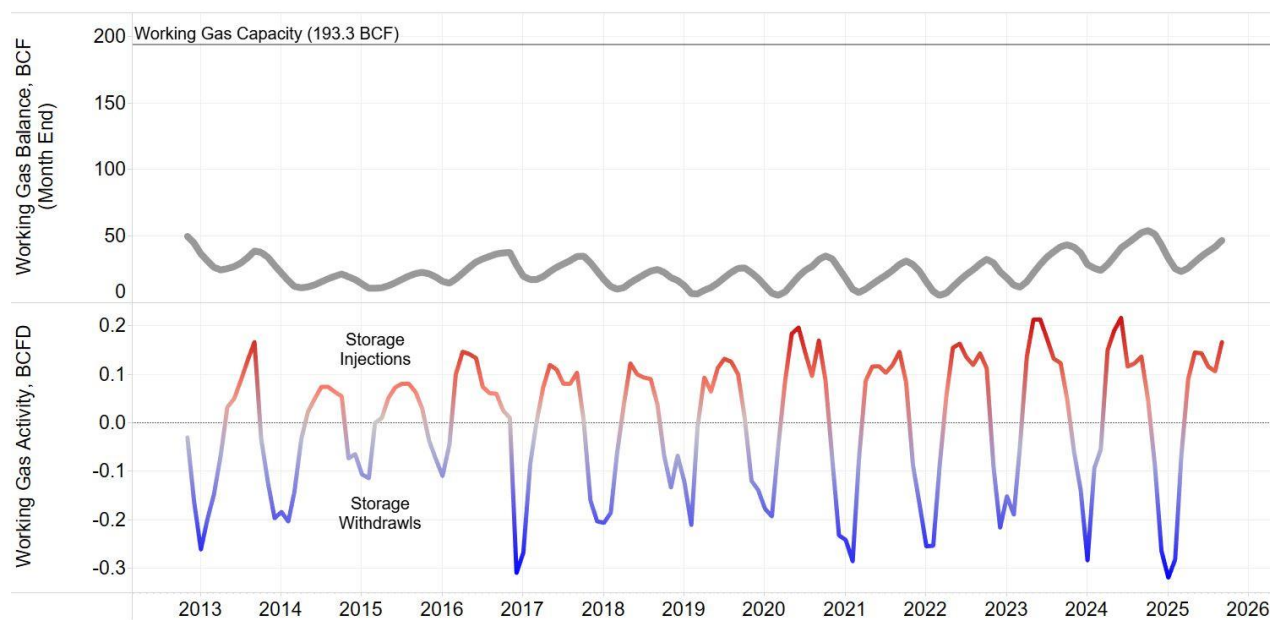


Figure 8. WBI Energy gas storage field activity

North Dakota Freight Advisory Committee

In the fall of 2018, the Pipeline Authority Director, along with several other private and public entities, partnered with the North Dakota Department of Transportation to establish the North Dakota Freight Advisory Committee. The primary objective of the committee is to improve collaboration between transportation providers, industry sectors, and government entities to efficiently expand North Dakota's economy.

In June 2022, a draft of the combined State Freight and Rail Plan was published on the North Dakota Department of Transportation's website. Public outreach and comment periods began in Q3 2022, with the final plan being published in January 2023.

The Committee continues to focus on strategies to enhance the state's freight transportation system by improving efficiency, safety, and connectivity. Its goal is to support economic growth by identifying infrastructure needs, fostering collaboration among stakeholders, and ensuring sustainable freight

movement across all modes of transport. Future updates to the State Freight and Rail Plan will be published in the coming years.

Along with the Pipeline Authority, member entities include:

- BNSF Railroad
- Dakota, Missouri Valley, & Western Railroad
- Federal Rail Administration
- Magnum Trucking
- Minot Air Force Base
- Federal Highway Administration
- North Dakota Department of Commerce
- Teamsters Local 638
- Enger Grain & Livestock
- North Dakota Aeronautics Commission
- United Sugars Corporation
- North Dakota Motor Carriers Association
- North Dakota Mill and Elevator
- North Dakota Highway Patrol
- North Dakota League of Cities
- North Dakota Trade Office
- North Dakota Department of Transportation
- North Dakota Public Service Commission
- North Dakota Metropolitan Planning Organization
- Mountrail County
- Impact ND

Industry and Public Communications Activities

Pipeline Authority Websites

In an effort to provide industry and public users with the most timely and comprehensive information, the Pipeline Authority continues to update its websites as new data becomes available. The websites enable the Pipeline Authority to share current Williston Basin oil production data, maps, news, publications, basic pipeline information, pipeline safety details, and links to pipeline mapping systems.

Monthly Updates

During the 2024-2025 fiscal year, the Pipeline Authority produced monthly transportation and production reports, providing interested parties with a quick overview of crude oil and natural gas production levels, as well as details on how each commodity was transported and/or processed. This information is presented during monthly media events held in collaboration with the North Dakota Oil & Gas Division.

The reports are also posted on the Pipeline Authority's website, and an email distribution list has been established to circulate updates to those interested.

North Dakota Drilling Economics

To assist the midstream industry in understanding current and future petroleum activity levels, the Pipeline Authority regularly publishes analyses exploring the economics of drilling in North Dakota's Bakken and Three Forks formations. This research examines historical drilling success in North Dakota and predicts where drilling may be concentrated during periods of fluctuating oil prices.

As part of this research, Figure 9 compares the expected after-tax rate of return for wells drilled with two- and three-mile lateral lengths. North Dakota operators have increasingly adopted three-mile laterals, observing a 45+% increase in well productivity over two-mile laterals while only experiencing a ~25% rise in overall costs. Based on an assumed \$60/bbl at the wellhead, it was found that two-mile wells could consistently achieve a 10%-20% rate of return or higher if they produced at least an average of 250 barrels of oil per lateral mile per day during the peak production month. Due to efficiency gains, three-mile wells could achieve a similar rate of return while producing only an average of 200 barrels of oil per lateral mile per day during the peak production month. Maps are also maintained to indicate the general locations of the wells analyzed in Figure 9.

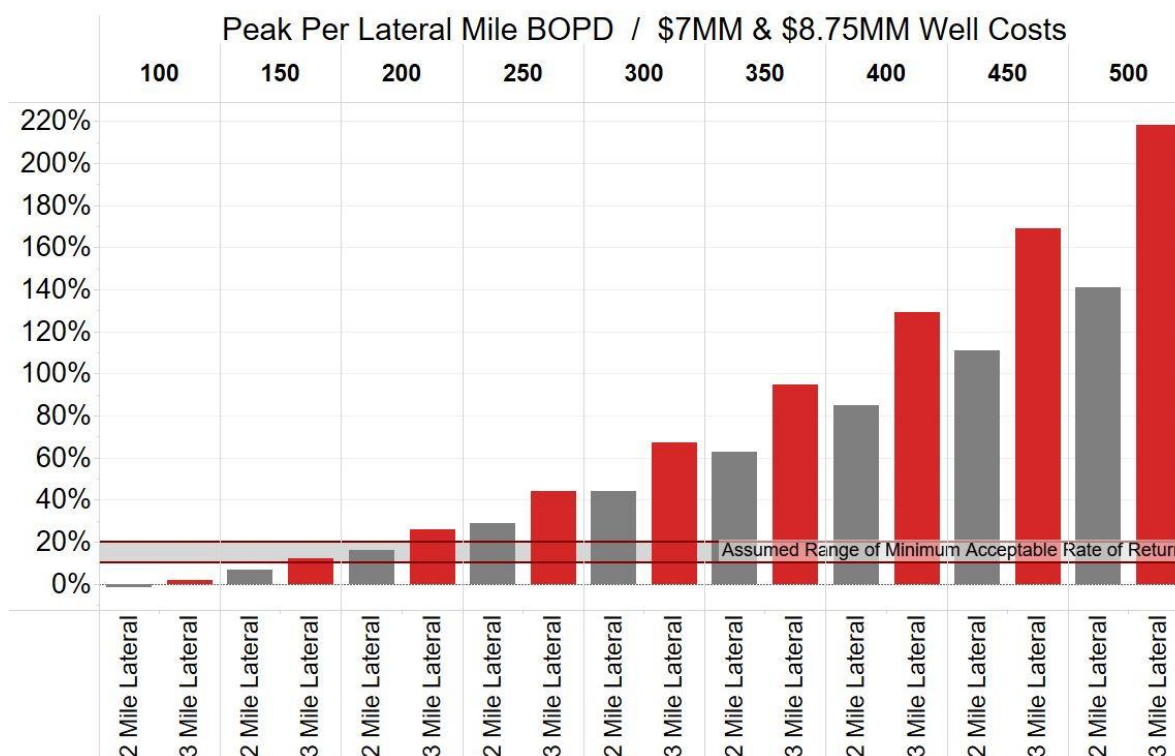


Figure 9. North Dakota drilling economics summary (Assumes \$60/bbl at the wellhead)

Pipeline Presentations

The Pipeline Authority had the opportunity to present at various legislative, industry, and public events during the past fiscal year. These presentations typically focused on North Dakota's transportation dynamics, with additional material covering drilling economics and production techniques. Slides from many of the major events have been made available on the Pipeline Authority's website for public access.

Williston Basin Pipeline Infrastructure

For reference, a series of North Dakota pipeline maps can be found in Appendix A

Pipeline Mileage

In 2024, North Dakota's pipeline industry added 428 miles of new oil, natural gas, and produced water pipelines (Figure 10). The majority of these new pipelines function as gathering systems for oil, natural gas, and produced water (Figure 11). The significant decrease in pipeline construction from 2016 through 2022 was proportional to the slowdown in well completions and the geographic concentration of activity within the core of the oil play. Data from the Federal Department of Transportation and the North Dakota Oil & Gas Division indicates that North Dakota now has over 31,269 miles of gathering and transmission pipelines. Further details about North Dakota's pipeline network can be found on the Pipeline Authority website.

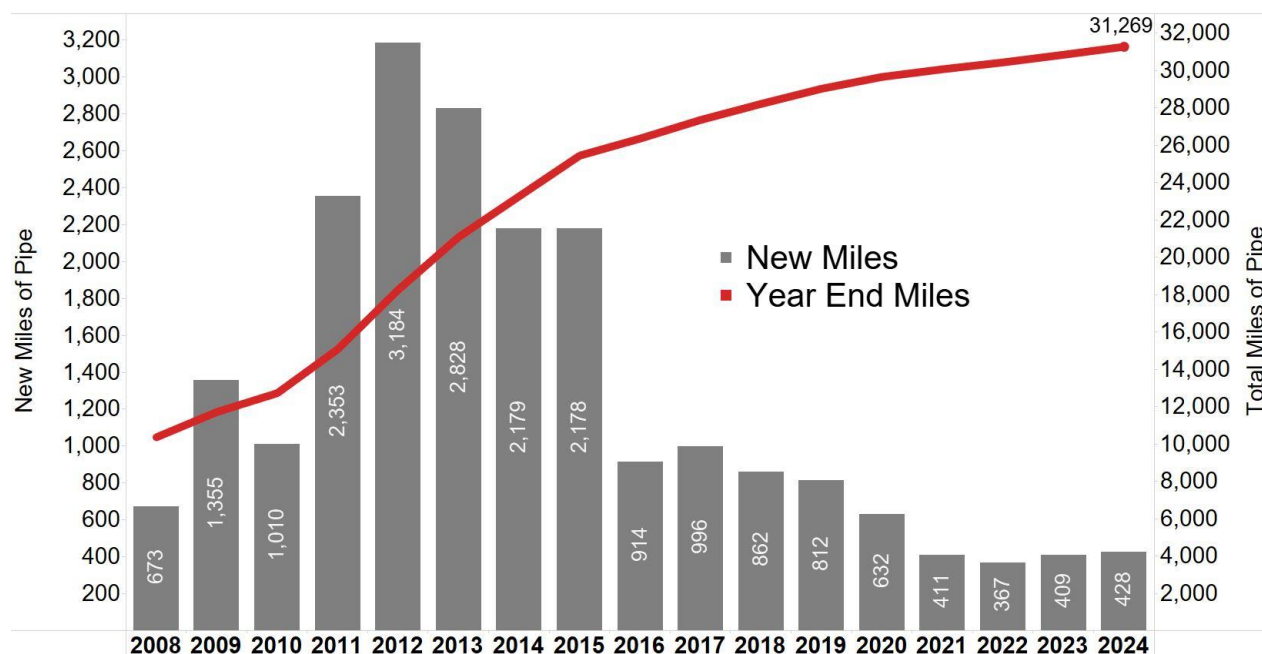


Figure 10. North Dakota pipeline mileage

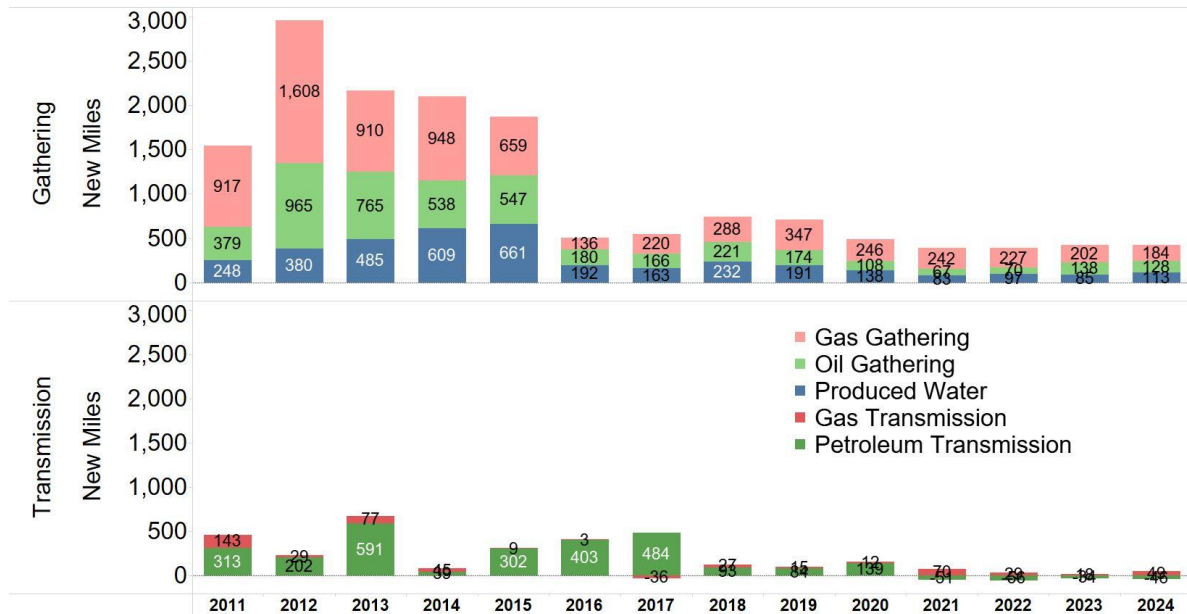


Figure 11. New North Dakota pipeline mileage by category

Crude Oil Pipelines, Refining, and Rail Transportation

Enbridge/North Dakota Pipeline Company: Having completed several expansion projects over the past number of years, Enbridge now has the capacity to move 355,000 BOPD on its pipeline system to Clearbrook, MN. Enbridge completed their work to expand north bound capacity of 145,000 BOPD in early 2013 for the larger scale “Bakken Expansion Project”. Oil using the northbound route navigates the Enbridge Saskatchewan system to an interconnect with the Enbridge Mainline at Cromer, MB. Once on the Mainline system, the Williston Basin oil quickly reenters the United States and meets east bound Enbridge oil at Clearbrook, MN.

Enbridge’s plans to construct the 225,000 BOPD “Sandpiper” system were deferred during the third quarter of 2016 due to unexpected regulatory challenges in Minnesota and ultimately canceled. Enbridge plans to monitor market conditions and reevaluate potential expansion opportunities in North Dakota.

Bridger, Belle Fourche, and Butte Pipelines (Bridger Pipeline System): Bridger and Belle Fourche Pipelines operate as intra-regional pipeline systems moving oil to several pipeline interconnects or rail facilities in the Williston Basin. One such pipeline interconnect is with the Butte Pipeline near Baker, MT. The Butte Pipeline currently has the capacity to move 275,000 BOPD to Guernsey, WY. In Guernsey, WY, the oil is transported to Wood River, IL on the Platte Pipeline, Cushing, OK on the White Cliffs Pipeline, or loaded into rail cars for further transport.

In mid-2022, Bridger Pipeline began constructing a multi-segment expansion project from Johnson’s Corner, ND to Guernsey, WY to meet growing production levels. Placed into service in early 2023, the

16", 137 mile "South Bend Pipeline" is able to ship 175,000 BOPD to Baker, MT. Additionally, a 191-mile southern section of 20" pipeline moves up to 200,000 BOPD of North Dakota and Rockies oil from Hulett, WY to Guernsey, WY. At Guernsey, WY oil has multiple shipping options by pipeline and rail.

BakkenLink: After announcing plans in 2010 to offer a pipeline system connecting the Williston Basin to the Keystone XL Pipeline in Eastern Montana, BakkenLink altered their project scope. Now in service, the BakkenLink system collects crude oil from various locations along its route south of Lake Sakakawea and delivers the oil to a unit train rail facility located near Fryburg, ND. In late 2015, Andeavor (formerly Tesoro Corporation) purchased the BakkenLink pipeline and rail facility from Great Northern Midstream.

In February 2018, Andeavor (now Marathon Petroleum) sought, and was granted, approval from the North Dakota Public Service Commission to add NGL service to the existing BakkenLink crude oil system. Completed in late 2018, the additional NGL service to Fryburg, ND uses three new line segments on the north and south ends of the BakkenLink system.

Energy Transfer Partners: In early 2014, Energy Transfer Partners (ETP) held an open season to solicit interest in a new 30" pipeline from North Dakota to Patoka, IL. In June 2014, ETP announced that they had secured sufficient shipper support to move forward with the project. The project began construction in May 2016 and was placed into commercial service on June 1, 2017. When the "Dakota Access" pipeline began collecting oil north and south of Lake Sakakawea it had the ability to transport up to 520,000 BOPD.

In 2018, two successful open seasons were held for additional service on the Dakota Access pipeline. With additional shipper commitments, the pipeline was expanded to carry up to 600,000 BOPD.

In 2019, ETP began the regulatory process to expand the Dakota Access system up to 1.1 million BOPD through the use of additional pump stations and horsepower at existing pump facilities. In August 2021, ETP announced the most recent completion of the Dakota Access Pipeline system expansion to a new system capacity of 750,000 BOPD. No timelines have been announced as to when the full system expansion up 1.1 million BOPD would be complete.

In 2020, DC District Court Judge James E. Boasberg ruled that the US Army Corp of Engineers needed to conduct a full environmental impact statement (EIS) for the Lake Oahe crossing in south central North Dakota. After months of rigorous review, in May 2021 Judge Boasberg ruled that the Dakota Access pipeline could continue operations while the EIS proceeds. A draft EIS was released in the third quarter of 2023 with the final EIS publication anticipated to be complete in late-2025 or early-2026.

Kinder Morgan Double H Pipeline: The 12-inch, 485-mile Double H Pipeline transports oil from North Dakota and Montana to Guernsey, Wyoming, where it connects with other regional pipelines for further distribution. Originally developed by Hiland Partners, the 88,000 BOPD system became operational in 2015. Kinder Morgan acquired the pipeline later that year as part of its purchase of Hiland Partners.

In July 2024, Kinder Morgan announced plans to convert the Double H Pipeline to NGL service in response to changing market demand. The pipeline will be removed from crude oil service in 2025, with NGL transportation expected to begin in the first half of 2026.

Plains All American Pipeline: In November 2010, Plains All American Pipeline (Plains) announced plans to construct a new 103-mile, 12-inch, pipeline from Trenton, ND to an interconnect with the existing Wascana Pipeline at the United States-Canada border in northeast Montana. The “Bakken North” pipeline went into service in May 2014, with an initial capacity of 40,000 BOPD, expandable to 75,000 BOPD.

TC Energy (TransCanada) Bakken Marketlink: On September 13, 2010, TransCanada launched a successful open season for Bakken producers interested in accessing TransCanada’s proposed Keystone XL Pipeline project in eastern Montana. The proposed 100,000 BOPD interconnect would be located near Baker, MT and would require new pumps and tanks to accommodate the Bakken oil. Third party shippers would be necessary to move the crude to the Baker, MT facility from North Dakota.

In November 2015, President Obama announced that the Keystone XL Pipeline was not in the national interest of the United States and that a required Presidential Permit would not be granted. In March 2017, President Trump reversed the White House decision and granted a Presidential Permit to TransCanada for the Keystone XL Pipeline. TC Energy (formerly TransCanada) continued their work towards regulatory approval of the Keystone XL Pipeline, before President Biden canceled the Presidential Permit in January 2021. TC Energy formally cancelled the project in June 2021.

Marathon Petroleum Mandan Refinery (Formerly Andeavor/Tesoro): Expanded by 10,000 BOPD in 2012, Marathon Petroleum operates a 68,000 BOPD refinery in Mandan, ND. The refinery receives its light sweet feedstock through a network of pipelines in the Williston Basin. Products generated at the refinery are distributed directly from a truck rack at the facility or through the NuStar North Pipeline to Eastern North Dakota and Minnesota.

In 2017, Tesoro Corporation changed its name to Andeavor. In the second half of 2018, Andeavor merged with Marathon Petroleum and now operates under the Marathon Petroleum name.

Marathon Petroleum Dakota Prairie Refinery: In late June 2016, Tesoro Corporation purchased the Dakota Prairie Refinery from MDU Resources Group and Calumet Specialty Products Partners. The Dakota Prairie Refinery, began processing 20,000 BOPD at its facility just west of Dickinson, ND in May 2015. The “diesel topping” refinery produced around 7,000 BPD of diesel fuel for regional consumption, while the remaining product was transported for further processing or use.

In 2018, a decision was made to convert the refinery to produce renewable diesel fuel by mid-2020. Beginning in June 2020, the facility no longer used crude oil as a feedstock. Renewable diesel fuel from the facility is now primarily being shipped by rail to markets in California.

Davis Refinery: Meridian Energy Group is planning to construct a crude oil refinery in Billings County, east of the Fryburg Rail Facility in Belfield. The refinery is designed with an inlet oil capacity of 49,500 BPD. All refined products are expected to be marketed regionally with transportation taking place by truck and/or rail. Preliminary site preparation began in July 2018 with plant completion undetermined at time of report publication.

A map of North Dakota crude oil gathering systems can be found on the Pipeline Authority website

Rail Loading Facilities: The transportation of crude oil by rail has played a critical role in moving increasing volumes of crude oil from the Williston Basin to markets across the United States and Canada. Figure 12 illustrates the estimated market share percentages for rail, pipeline, and local refining in the Williston Basin, while Figure 13 presents the estimated volume of oil transported by rail out of North Dakota. Additional maps, capacities, and details about various facilities are available on the Pipeline Authority's website.

A significant decrease in crude-by-rail volumes is evident during the 2015-2017 period in Figures 12 and 13. This decline can be attributed to reduced production in North Dakota and diminished market incentives for using rail transport. Prior to the 2020 industry downturn, crude-by-rail volumes had been steadily increasing as production rose and pipeline egress reached capacity. The Pipeline Authority estimates that six of the more than 20 rail facilities in the region remain active in loading crude oil, with the most active facilities being those capable of handling unit trains and offering multiple inbound/outbound marketing options.

The future utilization of crude-by-rail in North Dakota will be influenced by oil production volumes, market pricing, pipeline capacity, and regulatory oversight.

A map of North Dakota oil rail loading facilities can be found in Appendix B

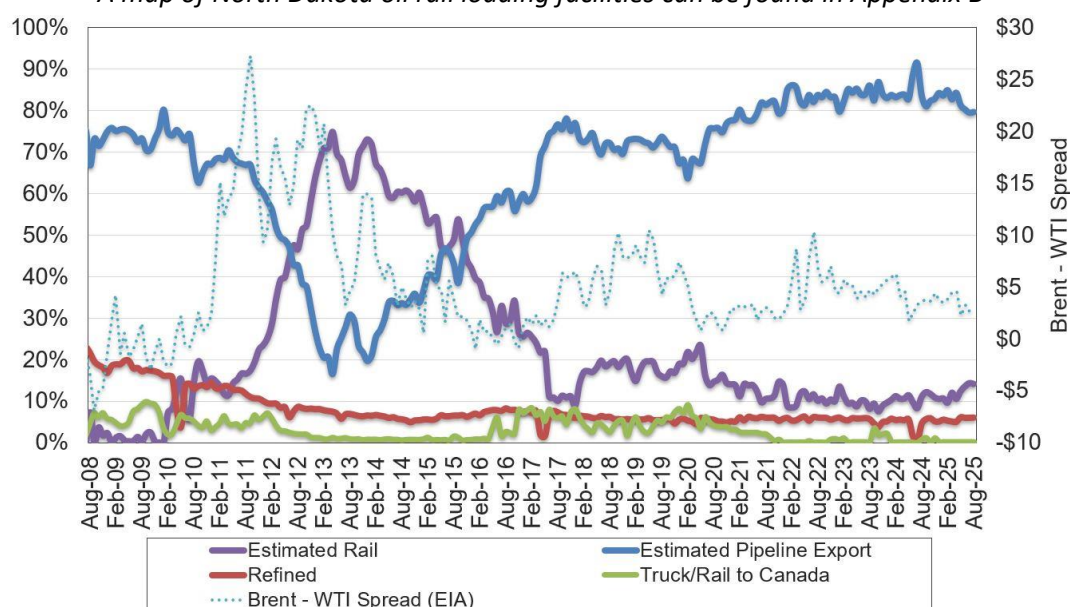


Figure 12. Estimated oil transportation by mode (August 2025 data)



Figure 13. Estimated outbound crude oil rail shipments (August 2025 data)

Natural Gas Pipelines

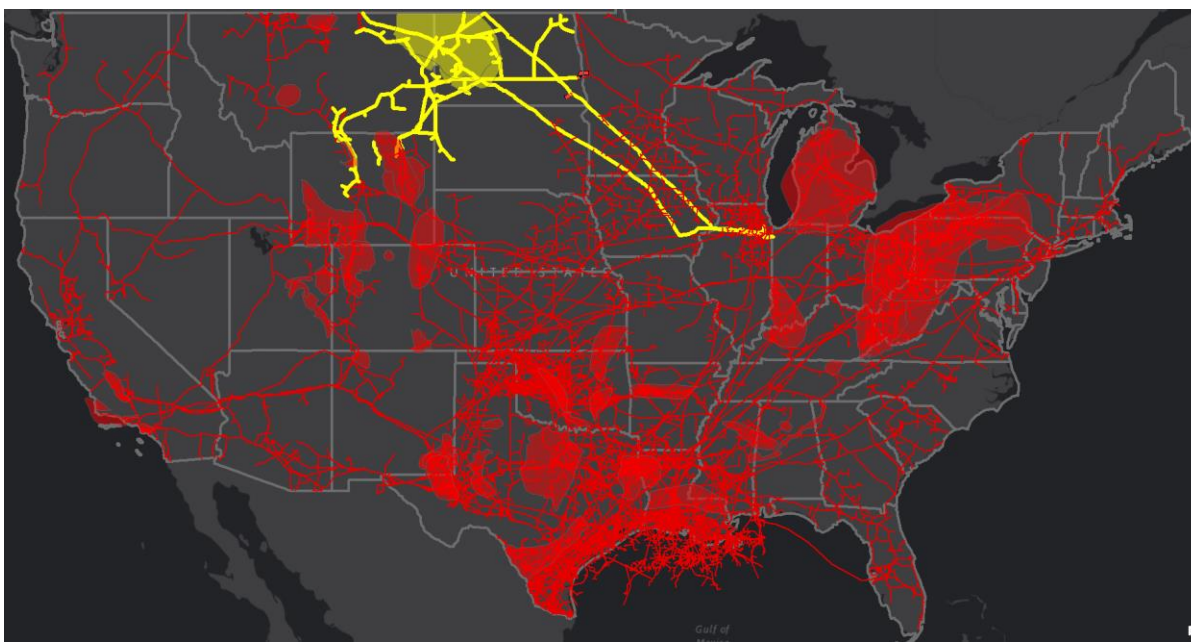


Figure 14. North Dakota's interstate gas pipelines (yellow) and the national interstate gas pipeline network (red)

Alliance Pipeline: The Alliance Pipeline is a high pressure, large diameter natural gas pipeline that originates in British Columbia, Canada and terminates at the Aux Sable gas processing plant near Chicago, IL. The Alliance Pipeline transports “dense gas” or gas that still contains high BTU natural gas liquids, such as propane and butane. In February 2010, the Alliance Pipeline began transporting rich natural gas from

North Dakota via a new interconnect with the Prairie Rose Pipeline near Bantry, ND (See Aux Sable below). The 36-inch diameter United States portion of the pipeline has a certified capacity of 1.513 BCFD. The Alliance Pipeline has one direct North Dakota delivery point in Hankinson and one interconnect with Montana Dakota Utilities to serve industrial manufacturing in Gwinner.

In response to growing natural gas production, Alliance Pipeline announced plans on June 22, 2011, to construct a new, 80-mile, natural gas pipeline from the Hess Gas Plant in Tioga, ND to an interconnection point near Sherwood, ND. Commissioned in late 2013, the “Tioga Lateral Pipeline” has the ability to deliver liquids rich, high BTU, natural gas to Chicago, IL for further processing and transportation. The Tioga Lateral has the capacity to transport up to 126 million cubic feet per day (MMCFD).

Northern Border: The Northern Border Pipeline, owned by TC Pipelines and ONEOK Partners, is a 1,249-mile pipeline originating at the Port of Morgan in Montana and terminating near North Hayden, Indiana. The pipeline has a system receipt capacity of 2.37 BCFD, with less than half of the gas supply in 2020 originating in Canada through a receipt point with the Foothills Pipeline at the Port of Morgan. The 42-inch diameter Northern Border Pipeline receives gas deliveries at a total of seventeen receipt points in the Williston Basin with fourteen of those points for North Dakota gas supply. (See the Bison Pipeline section below for details on the proposed Bison XPress expansion project)

In May 2020, Northern Border submitted a proposed tariff modification to the Federal Energy Regulatory Commission (FERC) that would limit the energy content of flows exiting North Dakota to 1,100 BTU. The FERC decision process resulted in a technical conference being held and multiple opportunities for interested party input. While the Pipeline Authority remained neutral on the proposed tariff modifications, considerable efforts were made to model and quantify the potential impacts to North Dakota’s petroleum industry. FERC ultimately rejected the proposed BTU limit, but left open the opportunity for a similar proposal to be filed in the future with additional supporting evidence.

See the “Bison Pipeline” section for details on the Bison Xpress pipeline expansion project.

WBI Energy: Formerly known as Williston Basin Interstate Pipeline Co., WBI Energy operates more than 3,800 miles of natural gas transmission pipelines throughout North Dakota, Montana, Wyoming, Minnesota, and South Dakota. This network of pipelines plays a vital role in North Dakota’s natural gas industry. It contains fourteen interconnecting points with other regional pipelines and can also deliver natural gas to local distribution companies or natural gas storage fields. WBI continues to make system upgrades in western North Dakota in order to meet growing customer demand.

In June 2016, WBI announced an open season to connect the eastern North Dakota portion of the system with the Viking Pipeline in western Minnesota. This project, known as the Valley Expansion, does not directly support North Dakota gas production volumes, but rather would serve to provide additional gas volumes to consuming markets in eastern North Dakota. The Valley Expansion project became operational in late 2018.

In early 2019, WBI Energy announced plans to construct a new gas pipeline system called the “North Bakken Expansion Project”. Started in July 2021 and completed in Q1 2022, the \$260 million system consists of 60 miles of 24” pipe and 30 miles of 12” pipe. The initial project added 250 MMCFD of capacity from Tioga, ND to an interconnect with the Northern Border Pipeline in McKenzie County. Capacity can be expanded to 600,000 MCFD to meet growing gas volumes in the future.

In Q3 2021, WBI Energy held a successful open season for a system expansion in Southeast North Dakota. The 60.5 mile, 12” pipeline will deliver up to 20.6 MMCFD of natural gas from Mapleton, ND to Wahpeton, ND. WBI Energy began the FERC regulatory process in Q2 2022, with formal support from the Industrial Commission being submitted in June 2022 and final approval received in Q3 2023. The pipeline is scheduled to be in-service Q4 2024 and has the potential to connect to additional nearby communities and end-users.

In Q1 2022, WBI Energy held a successful open season for the expansion and permanent reversal of the existing Grasslands pipeline. The 16” pipeline connects to the Northern Border pipeline near Manning, ND and is slated to deliver gas to two additional natural gas pipelines in Wyoming for further transport to the Cheyenne trading hub. The project began construction in summer 2023 and was completed in Q4 2023. Initial project capacity is estimated to be 94 MMCFD.

In Q4 2024, WBI Energy launched a non-binding open season for the proposed “Bakken East” natural gas pipeline. The 455-mile project is designed to transport up to 1 BCFD of natural gas from McKenzie County to eastern North Dakota markets near Mapleton and Ellendale. For additional details on the state’s role in supporting this project, see the earlier sections on the Pipeline Authority capacity program and the 2025 RFI.

Intensity Infrastructure Partners: In early 2025, Intensity Infrastructure Partners launched a non-binding open season for its proposed “Intensity Pipeline.” The project is anticipated to be developed in two phases. Phase I consists of 136 miles of 42-inch-diameter pipeline with an initial capacity of approximately 1.5 BCFD, extending from McKenzie County to southern McLean County.

In April 2025, a 208-mile, 30-inch Phase II extension was announced, connecting the Phase I segment near southern McLean County to Casselton, North Dakota. The extension is designed to bring the total system length to approximately 344 miles, with an initial capacity target of 1.1 BCFD, expandable to 1.5 BCFD with additional compression. The in-service target for the extension is January 1, 2030.

For additional details on the state’s role in supporting this project, see the earlier sections on the Pipeline Authority capacity program and the 2025 RFI.

Aux Sable: In June 2011, Aux Sable announced the acquisition of the Prairie Rose Pipeline and condensate recovery facility near Stanley, ND. Originally constructed by Pecan Pipeline, the 75-mile, 12-inch system went into service February 2010 and has the capability to transport over 120 MMCFD of unprocessed natural gas from Mountrail County to an interconnect with the Alliance Pipeline near Bantry, ND.

Bison Pipeline: TC Energy placed the 302-mile, 30-inch Bison Pipeline into service in early 2011. The pipeline was built to connect natural gas production in the Powder River Basin of Wyoming to the Northern Border Pipeline in Morton County, North Dakota. The pipeline had an initial capacity of 407 MMCFD and could be expanded to 1 BCFD. From 2018 to the first half of 2020, the Bison Pipeline was idle. Limited and sporadic natural gas transportation resumed in May 2020 and ceased in September 2020.

In the first half of 2022, TC Energy began informally seeking interest for a proposal to reverse the Bison Pipeline to serve growing natural gas transmission needs from North Dakota. In June 2023, a binding open season was held offering 430,000 dekatherms per day of capacity. Two shippers, Hess and ONEOK, signed up for a combined total of 300,000 dekatherms per day of firm capacity. In Q3 2023, TC Energy filed for project approval at FERC with an in-service target of Q1 2026. An expansion from 300,000 to the proposed 430,000 dekatherms per day is possible in the future if supported by shipper demand.

Dakota Natural Gas: Dakota Natural Gas, LLC was formed in 2018 to provide natural gas service to areas of North Dakota that were currently not served by any other natural gas utility. Regulated by the North Dakota Public Service Commission, Dakota Natural Gas was authorized to provide natural gas distribution service to retail and commercial customers in North Dakota. The first project was completed in 2019 and provided gas service from the Viking Pipeline in western Minnesota to the community of Drayton, ND. The second project was completed in late 2021 and delivers gas from the Viking Pipeline to residential and industrial users in the communities of Mayville and Hillsboro, ND. Further expansion to residential and commercial users in Portland, ND was completed in Q4 2022.

A new project to connect the cities of Arvilla and Larimore in Northeast North Dakota was announced in mid-2023 and placed in-service in late 2024.

Natural Gas Liquids Pipelines

ONEOK Bakken NGL Pipeline: On July 26, 2010, ONEOK Partners announced plans to construct a new 12" natural gas liquids pipeline capable of moving 60,000 BPD from existing and planned facilities in the Williston Basin to an interconnect with the Overland Pass Pipeline near Cheyenne, WY. The "Bakken NGL Pipeline" was built to address the high volumes of natural gas liquids that are extracted from the rich Bakken gas during processing. The pipeline operates as a Y-grade system, with product fractionation taking place in Bushton, KS. ONEOK announced completion of the pipeline in April 2013 and an expanded capacity of 140,000 BPD in September 2014.

In February 2018, ONEOK announced the Elk Creek Pipeline, a \$1.4 billion NGL transmission system connecting Williston Basin production to Mid-Continent markets. Construction began in 2018 and the line entered service in late 2019. ONEOK completed an expansion of the Elk Creek Pipeline in 2025, increasing total system capacity to approximately 575,000 bpd.

Vantage Pipeline: On July 15, 2010, Mistral Energy announced a new 430-mile liquid ethane pipeline from Tioga, ND to Empress, AB. With an initial capacity of 40,000 BPD, the new “Vantage Pipeline” was built to address the high concentration of ethane found in North Dakota’s natural gas. Placed into service Q2 2014 in conjunction with the Hess Tioga Gas Plant Expansion, the pipeline was constructed of 10” pipe. In September 2014, Pembina Pipeline Corporation purchased the Vantage Pipeline from Mistral Midstream.

On February 10, 2015, Pembina Pipeline announced that the Vantage ethane pipeline would expand to connect to ONEOK’s Stateline plants with 50 miles of 8” pipeline. The \$85 million system expansion also included taking the existing mainline capacity from 40,000 bpd to 65,000 bpd. Ethane deliveries from the ONEOK Stateline plants to Vantage began in May 2017.

Kinder Morgan Double H Pipeline: In July 2024, Kinder Morgan announced plans to convert the Double H pipeline from crude oil to NGL service in response to evolving market demand. The pipeline will be removed from crude service in 2025 and will begin transporting NGLs in the first half of 2026. (See crude oil pipeline notes for additional system information)

Carbon Dioxide Pipelines

Dakota Gasification: The Dakota Gasification Company’s, 12-14 inch, 205-mile pipeline went into service in 2000 and transports roughly 150 MMCFD of carbon dioxide to oilfields near Weyburn, SK.

Denbury Resources: Denbury Resources began construction in 2021 on a pipeline to connect the Cedar Creek Anticline oilfields in eastern Montana and southwest North Dakota to the existing Greencore Pipeline at Bell Creek, MT. The 110 mile, \$150 million, extension began injecting carbon dioxide in the field in early 2022.

Project Tundra: Project Tundra has proposed a plan to collect carbon dioxide from the Milton R. Young Station and transport it to the Williston Basin for either sequestration and/or enhanced oil recovery. If approved, a pipeline carrying carbon dioxide from the Young Station could be in service by the late 2020’s.

Midwest Carbon Express: Summit Carbon Solutions, created by Summit Agricultural Group in early 2021, is actively developing the “Midwest Carbon Express” pipeline. If regulatory approvals are granted, the system is projected to be operational in 2027. The Summit Carbon Solutions project will be able to capture and permanently store 18 million tons of carbon dioxide annually, making it the largest such project in the world.

Summit Carbon Solutions would construct the Midwest Carbon Express system across five states, including North Dakota, Nebraska, Iowa, Minnesota, and South Dakota to connect more than 50 ethanol plants for long-term underground sequestration in North Dakota. Initial project costs are estimated at \$8 billion.

Hydrogen Development

Bakken Energy: Bakken Energy, formerly Bakken Midstream Natural Gas, and Mitsubishi Power Americas signed a strategic partnership agreement in early 2021 to create a clean hydrogen hub in North Dakota to produce, store, and transport hydrogen while capturing and sequestering associated carbon dioxide emissions.

Initial plans to utilize the Dakota Gasification Plant near Beulah, ND did not materialize and the company continues to actively evaluate opportunities to proceed.

Liberty Hydrogen Hub: In mid-2022, TC Energy and Marathon Petroleum proposed a new hydrogen hub concept to the Clean Sustainable Energy Authority. Funding from the Clean Sustainable Energy Authority for a FEED study was authorized and will be managed by the Energy and Environmental Research Center. The hub is proposed to be located outside Dickinson, ND with many specific details remaining confidential at time of report.

In the summer of 2024, TC Energy and Marathon Petroleum announced that they will no longer be proceeding with a hydrogen hub in North Dakota. The Energy and Environmental Research Center is actively working to secure new partner(s) to advance the development of a hydrogen hub in North Dakota.

The Pipeline Authority continues to work with additional interested parties on the development of additional hydrogen related projects, including the potential for blending hydrogen into existing natural gas pipelines.

Planned Activities

Over the coming year, the Pipeline Authority will focus significant effort on negotiating and finalizing a capacity agreement with WBI Energy under the expanded funding authority approved in 2023 and 2025. This work will establish the State of North Dakota as an anchor capacity holder on a new intrastate natural gas transmission system connecting western and eastern North Dakota.

Once the state's capacity position is secured, the Authority will work with interested parties to release portions of this capacity in short-term increments or permanent assignments, ensuring the capacity is used efficiently to enhance transportation reliability for growing upstream needs and to provide greater volumes of North Dakota-sourced natural gas for end-use customers.

In parallel, the Authority will continue its broader efforts to analyze well performance, produce production forecasts, and assess transportation needs for crude oil, natural gas, and natural gas liquids (NGLs) across the Williston Basin. Updated forecasts will be issued regularly to reflect evolving market conditions and energy price trends.

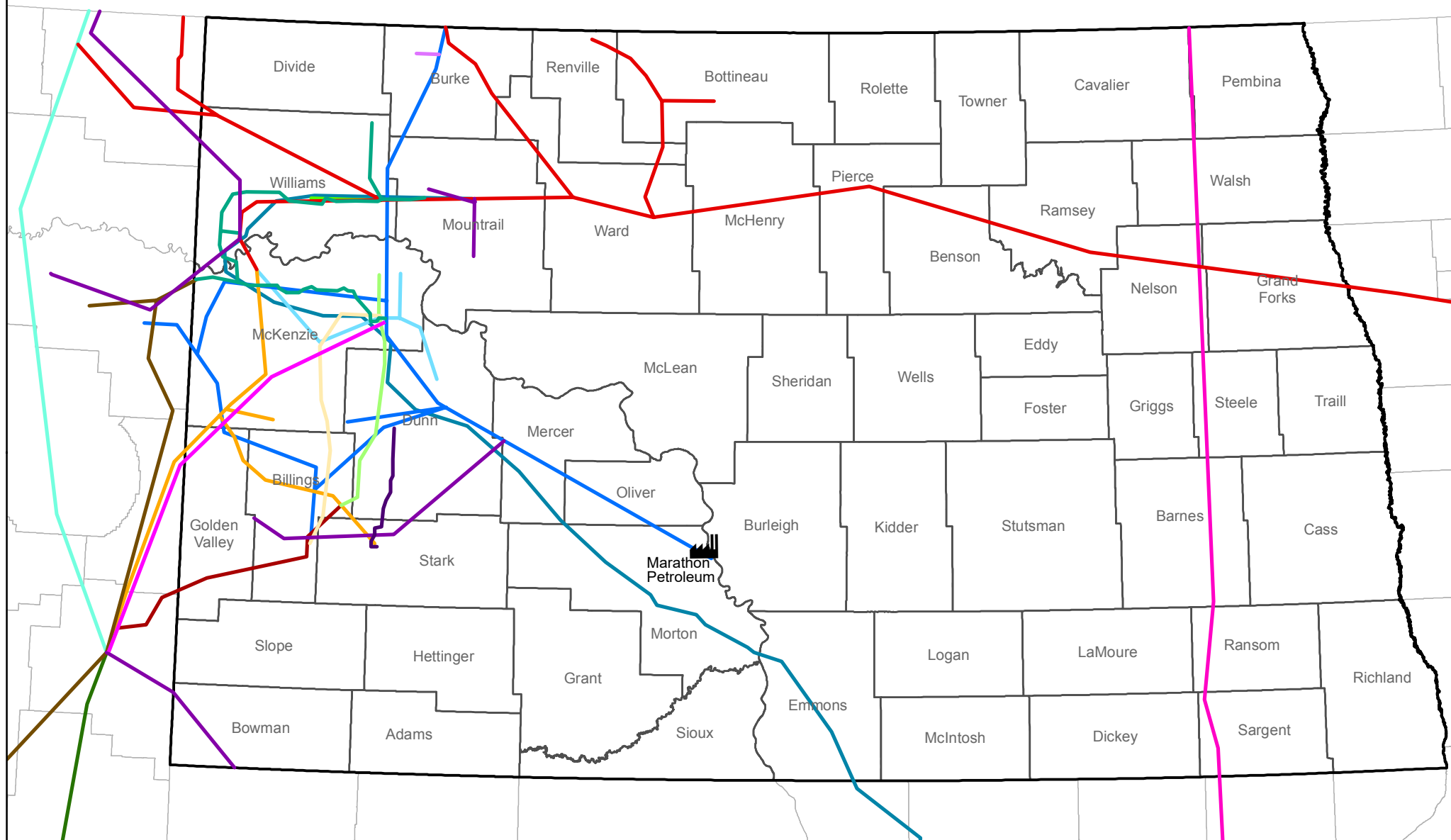
The Authority will also remain engaged in early-stage discussions on hydrogen blending, gas storage, and other emerging infrastructure concepts that could further strengthen the state's midstream capabilities.

Finally, the Pipeline Authority Director will continue participating on the Clean Sustainable Energy Authority's technical committee and maintain the organization's long-standing commitment to industry and public information sharing through briefings, webinars, and reports to policymakers, stakeholders, and community groups.

APPENDIX A

North Dakota Pipeline Maps

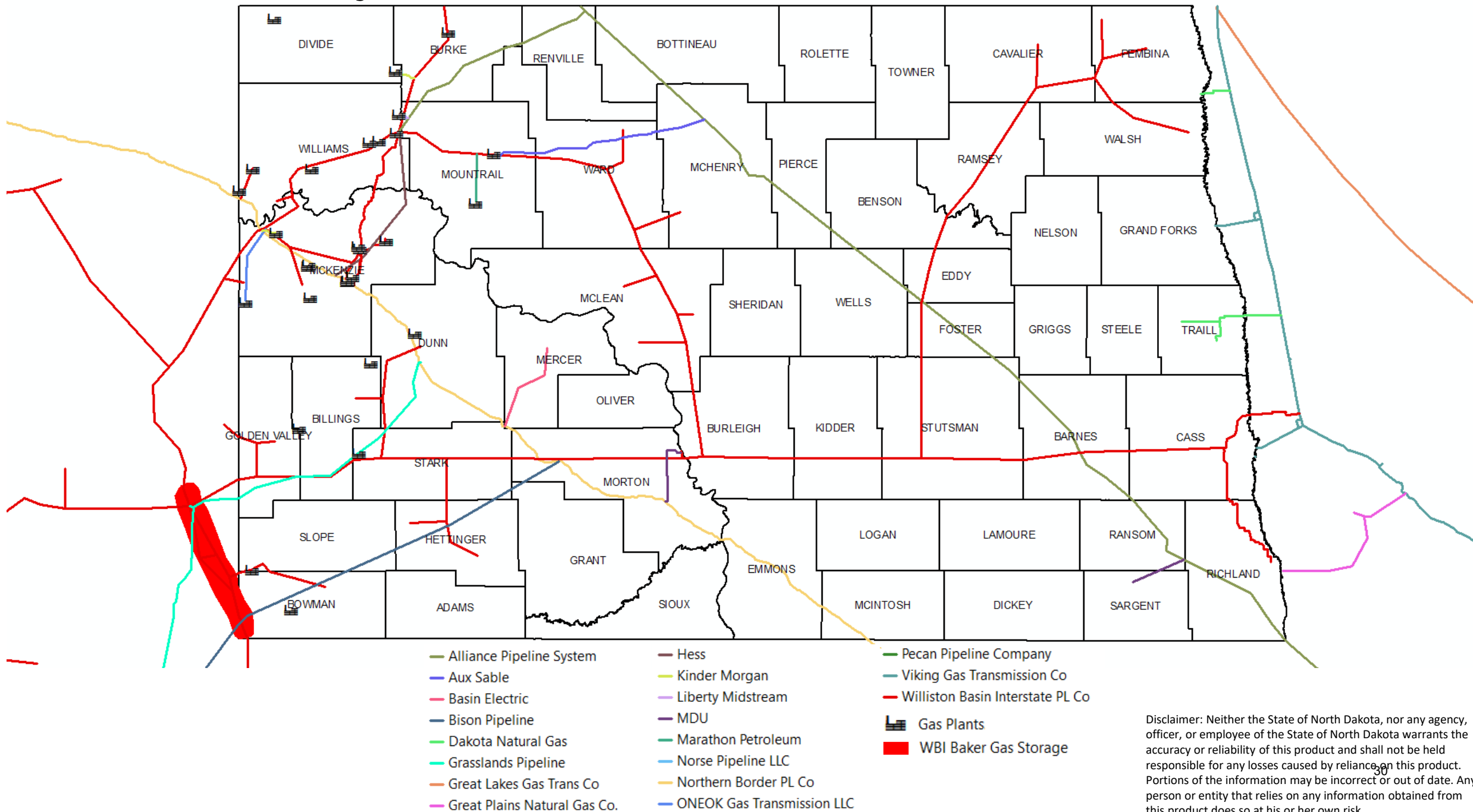
North Dakota Crude Oil Pipelines



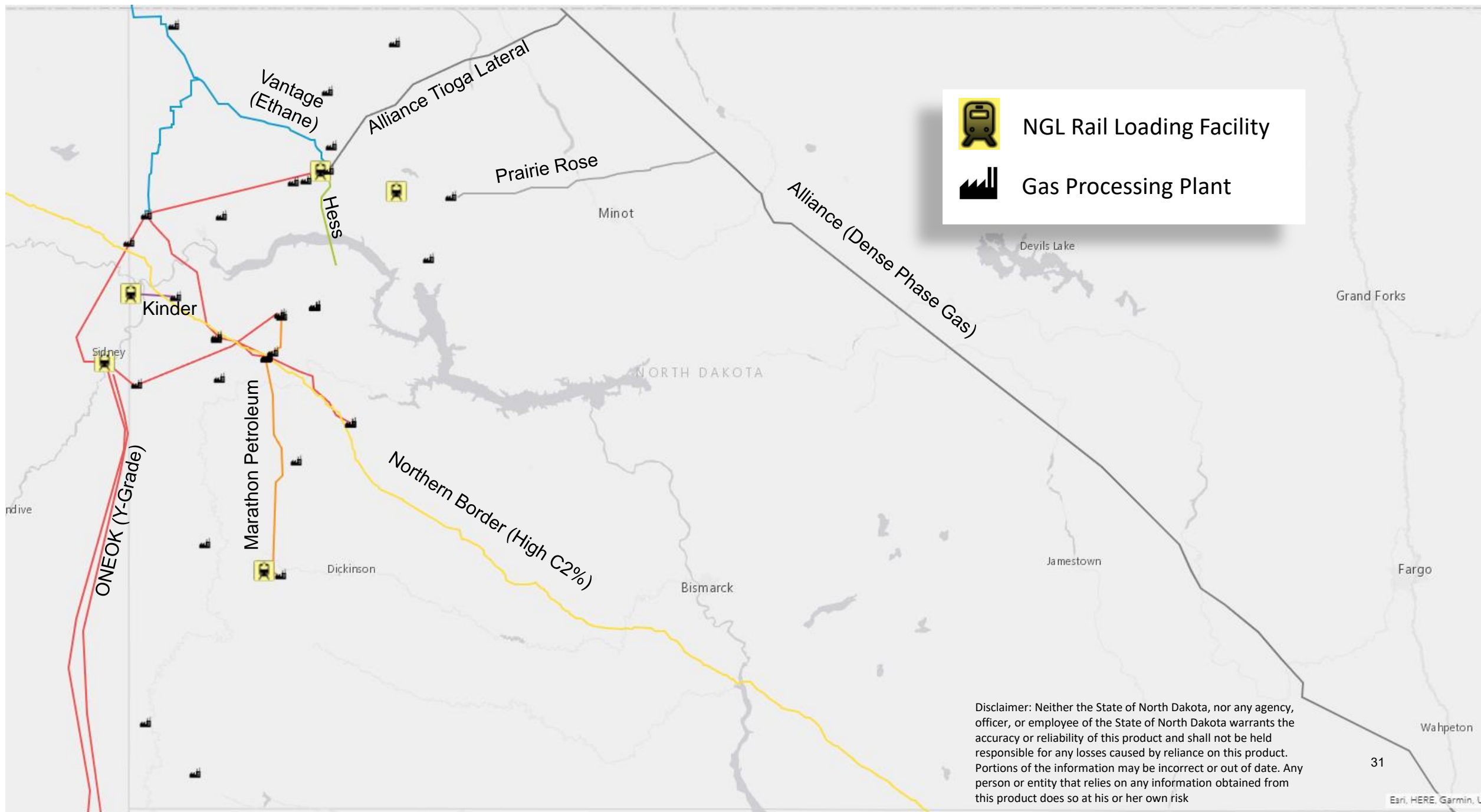
- | | | | | | |
|--------------------|-----------------|---------------|------------|-------------------|----------|
| South Bend | Basin Transload | Butte | Double H | Hiland | Bridger |
| Bakken Oil Express | Belle Fourche | Crestwood | Enbridge | Keystone Pipeline | Targa |
| BakkenLink | Bridger | Dakota Access | Four Bears | Little Missouri | Marathon |

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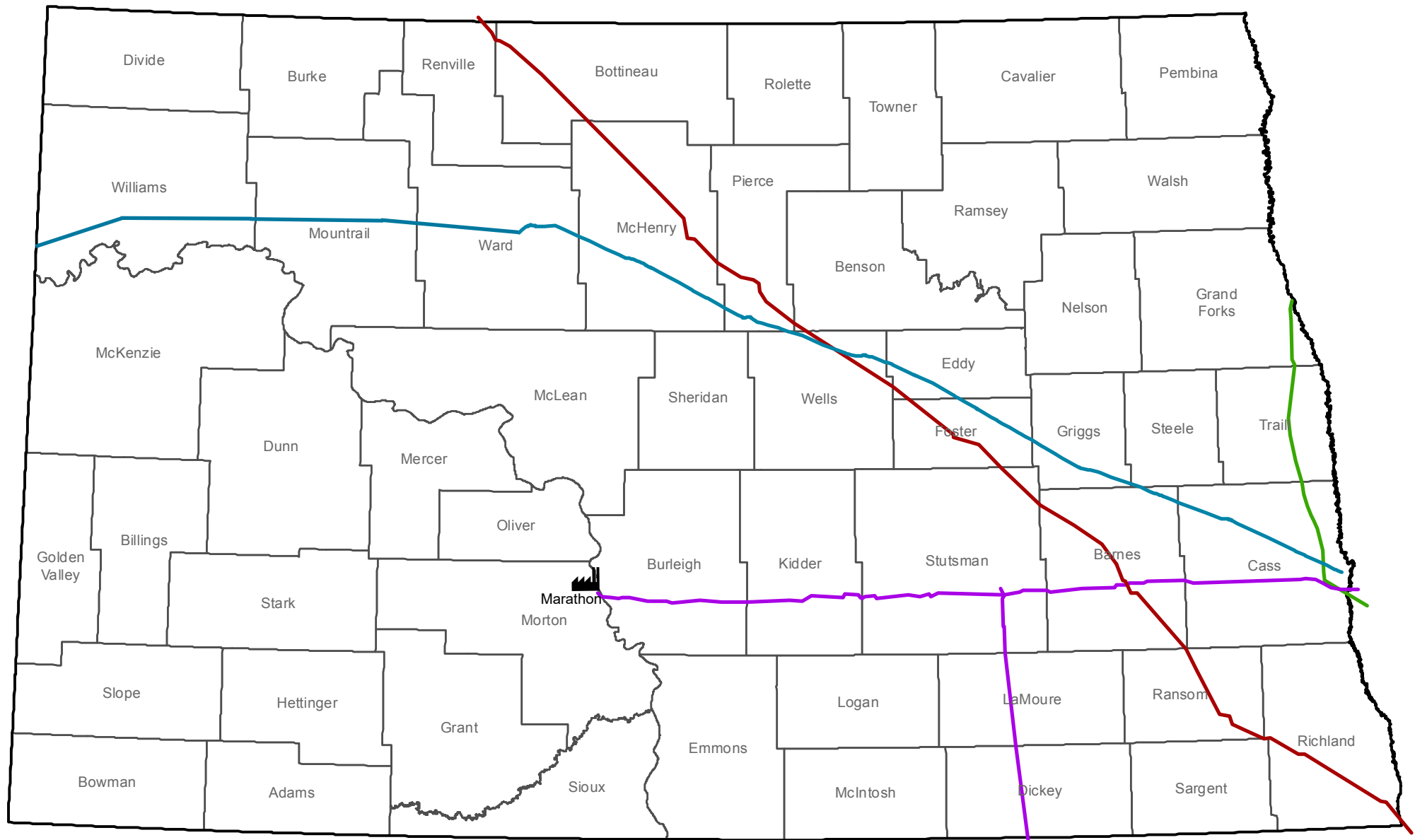
Major Natural Gas Infrastructure




Major Natural Gas Liquids Infrastructure



North Dakota Products Pipelines

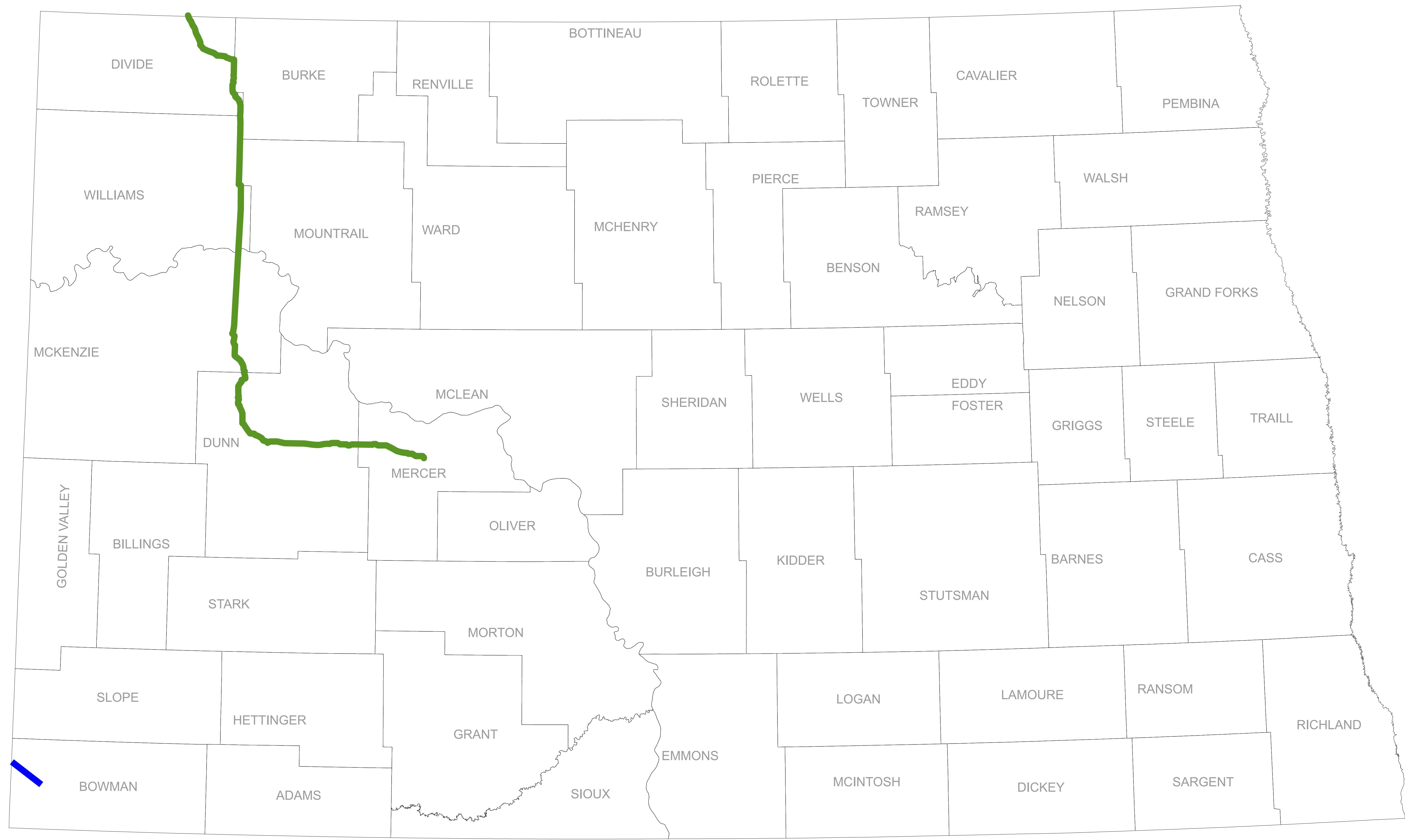


— Cenex Pipeline LLC - Refined Products
 — Magellan Midstream Partners LP - Refined Products
 — Kinder Morgan Cochin - Condensate
 — NuStar Energy - Refined Products
  Refinery

Date: 7/13/2015

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North Dakota CO₂ Pipelines



— Denbury

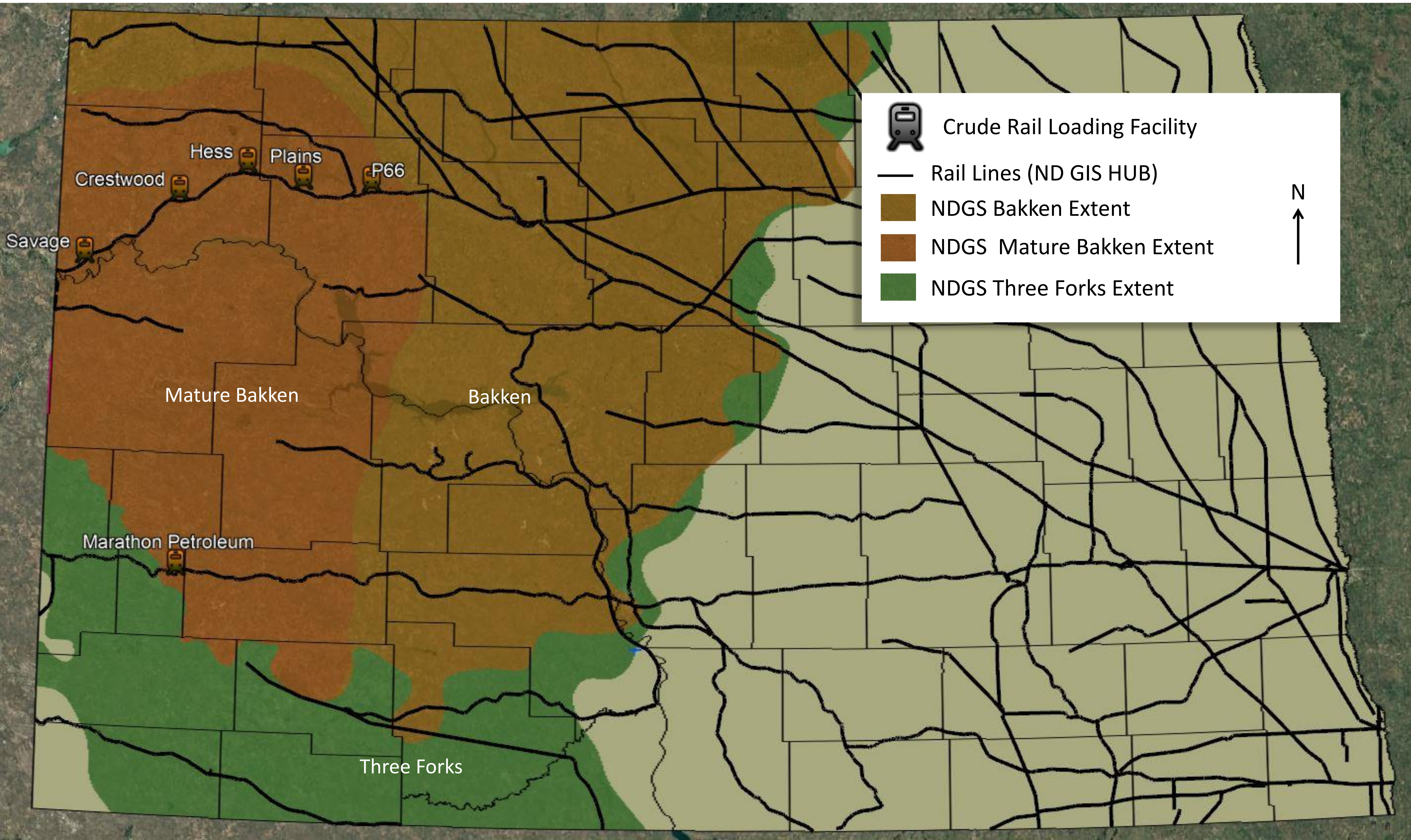
— Dakota Gas

APPENDIX B

North Dakota Crude Oil Rail Loading Map

North Dakota Crude Oil Rail Loading Facilities In Service

North Dakota Pipeline Authority – July 2025



APPENDIX C

North Dakota Gas Processing Plant Table

Natural Gas Processing Capacity, Million Cubic Feet Per Day

Owner Company	Facility	County	2006	2008	2010	2012	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
North Dakota																		
Steel Reef	Lignite	Burke	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
ONEOK	Marmarth	Slope	7.5	7.5	7.5	7.5	7.5	7.5	7.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
ONEOK	Grasslands	McKenzie	63	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
ONEOK	Stateline I	Williams	NA	NA	NA	100	100	100	100	120	120	120	120	120	120	120	120	120
ONEOK	Stateline II	Williams	NA	NA	NA	NA	100	120	120	120	120	120	120	120	120	120	120	120
ONEOK	Garden Creek I	McKenzie	NA	NA	NA	100	120	120	120	120	120	120	120	120	120	120	120	120
ONEOK	Garden Creek II	McKenzie	NA	NA	NA	NA	120	120	120	120	120	120	120	120	120	120	120	120
ONEOK	Garden Creek III	McKenzie	NA	NA	NA	NA	120	120	120	120	120	120	120	120	120	120	120	120
ONEOK	Lonesome Creek	McKenzie	NA	NA	NA	NA	NA	NA	200	200	280	280	280	280	280	280	280	280
ONEOK	Demicks Lake	McKenzie	NA	NA	NA	NA	NA	NA	NA	NA	NA	200	200	200	200	200	200	200
ONEOK	Demicks Lake II	McKenzie	NA	NA	NA	NA	NA	NA	NA	NA	NA	200	200	200	200	200	200	200
ONEOK	Demicks Lake III	McKenzie	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	200	200	200	200
ONEOK	Bear Creek	Dunn	NA	NA	NA	NA	NA	NA	80	80	130	130	130	130	130	130	130	130
ONEOK	Bear Creek II	Dunn	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	200	200	200	200	200
Petro Hunt	Little Knife	Billings	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
True Oil	Red Wing Creek	McKenzie	4	4	4	4	10	10	10	10	15	15	15	15	15	15	15	15
Sterling Energy	Ambrose	Divide	0.5	0.5	0.5	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EOG Resources	Stanley	Mountrail	NA	20	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
Chord Energy	Ray	Williams	NA	10	NA	NA	NA	10	10	10	15	25	25	25	25	25	25	25
Andeavor	Robinson Lake	Mountrail	NA	30	45	90	110	130	130	130	130	150	150	150	150	150	150	150
Andeavor	Belfield	Stark	NA	NA	NA	30	35	35	35	35	35	35	35	35	35	35	35	35
XTO - Nesson	Ray	Williams	NA	10	10	10	10	25	25	25	25	25	25	100	100	100	100	100
Hess	Tioga	Williams	110	110	110	110	250	250	250	250	265	265	265	415	415	415	415	415
Targa/Hess JV	LM4	McKenzie	NA	NA	NA	NA	NA	NA	NA	NA	NA	200	200	200	200	200	200	200
Kinder Morgan	Badlands	Bowman	4	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Kinder Morgan	Norse	Divide	NA	NA	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Kinder Morgan	Watford City	McKenzie	NA	NA	NA	90	90	90	90	90	90	90	90	90	90	90	90	90
Kinder Morgan	Roosevelt	McKenzie	NA	NA	NA	NA	NA	NA	50	50	50	200	200	200	200	200	200	200
Silver Hill Energy Partners	County Line	Williams	NA	NA	NA	NA	NA	NA	20	20	30	30	30	30	30	30	30	60
Summit Resources	Knutson	Billings	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**
Targa Resources	Badlands	McKenzie	NA	NA	NA	45	45	90	90	90	90	90	90	90	90	90	90	90
USG Midstream Bakken	DeWitt	Divide	NA	NA	NA	NA	3	3	3	3	3	3	3	3	3	3	3	3
1804 Ltd	Spring Brook	Williams	NA	NA	NA	NA	NA	45	45	45	60	70	70	70	70	70	70	70
Crestwood	Wild Basin	McKenzie	NA	NA	NA	NA	NA	NA	80	145	320	320	320	320	320	320	320	320
Crestwood	Arrow	McKenzie	NA	NA	NA	NA	NA	NA	NA	30	30	150	150	150	150	150	150	150
Caliber Midstream	Hay Butte	McKenzie	NA	NA	NA	NA	10	10	10	10	10	10	10	10	10	10	10	10
Kinder Morgan	Sanderson	Williams	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	250	250	250	270	270
Aux Sable - Chicago, IL																		
Aux Sable	Prairie Rose Pipeline	Mountrail	NA	NA	126	126	126	126	126	126	126	126	126	126	126	126	126	126
Total, MMCFD			222.0	355.0	491.0	901.0	1,444.5	1,599.5	2,029.5	2,137.0	2,492.0	3,202.0	3,402.0	4,077.0	4,077.0	4,277.0	4,297.0	4,327.0



North Dakota Pipeline Authority

State Capitol 14th Floor • 600 E. Boulevard Ave. Dept. 405 • Bismarck, ND 58505-0840

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E-mail: jjkringstad@ndpipelines.com • www.pipeline.nd.gov

North Dakota Midstream Update



Image: Library of Congress

November 25, 2025



Justin J. Kringstad - North Dakota Pipeline Authority

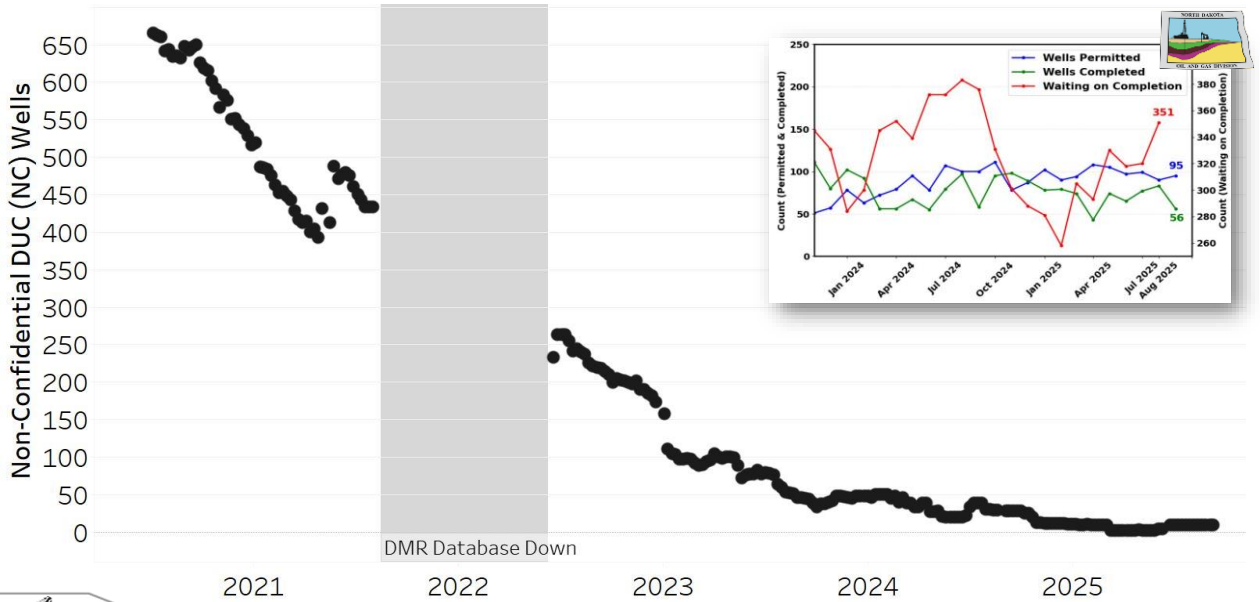
North Dakota Drilling Rigs: 32 (November 13, 2025)



Justin J. Kringstad - North Dakota Pipeline Authority

2

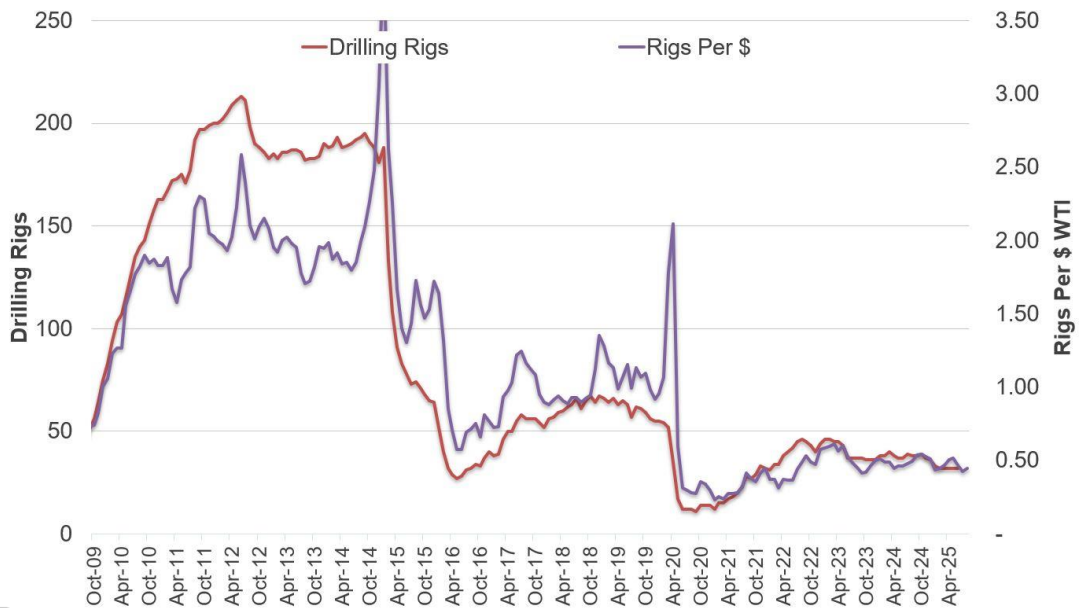
North Dakota DUC/NC Well Counts



JJ Kringstad - North Dakota Pipeline Authority

3

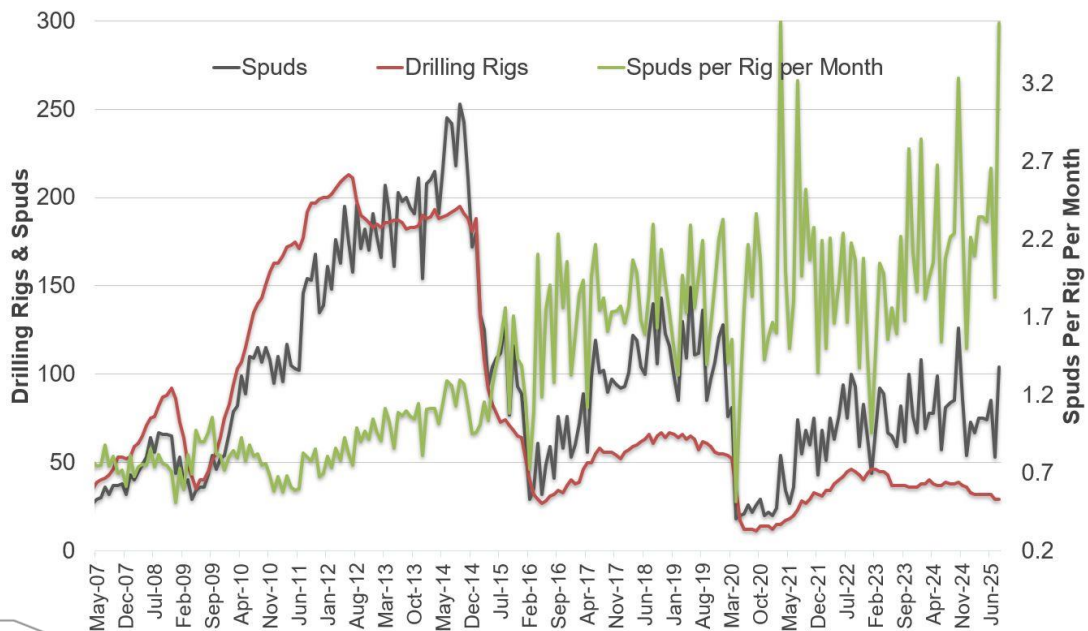
North Dakota Drilling Rig Relationship With Oil Price



Justin J. Kringstad - North Dakota Pipeline Authority

4

North Dakota Drilling Rig Efficiency



Justin J. Kringstad - North Dakota Pipeline Authority

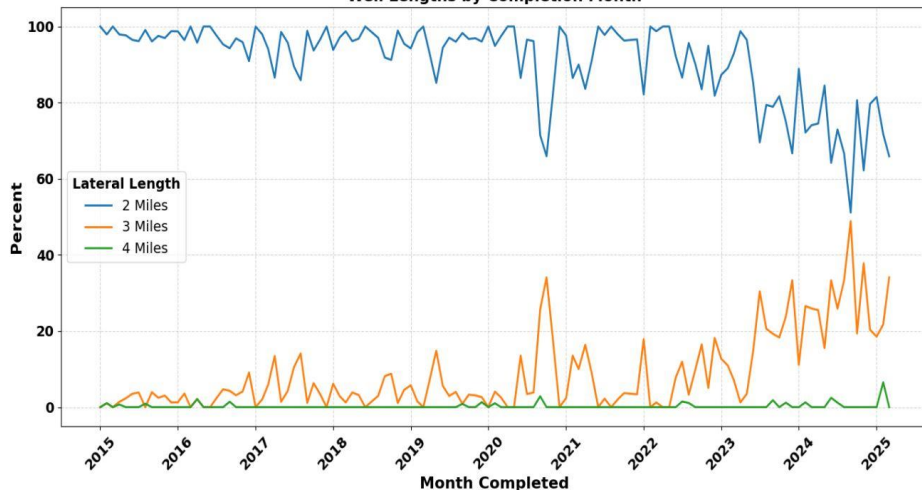
5

ND DIRECTOR'S CUT | OCTOBER 2025 | AUGUST PRODUCTION

LATERAL LENGTHS OVER TIME



Well Lengths by Completion Month



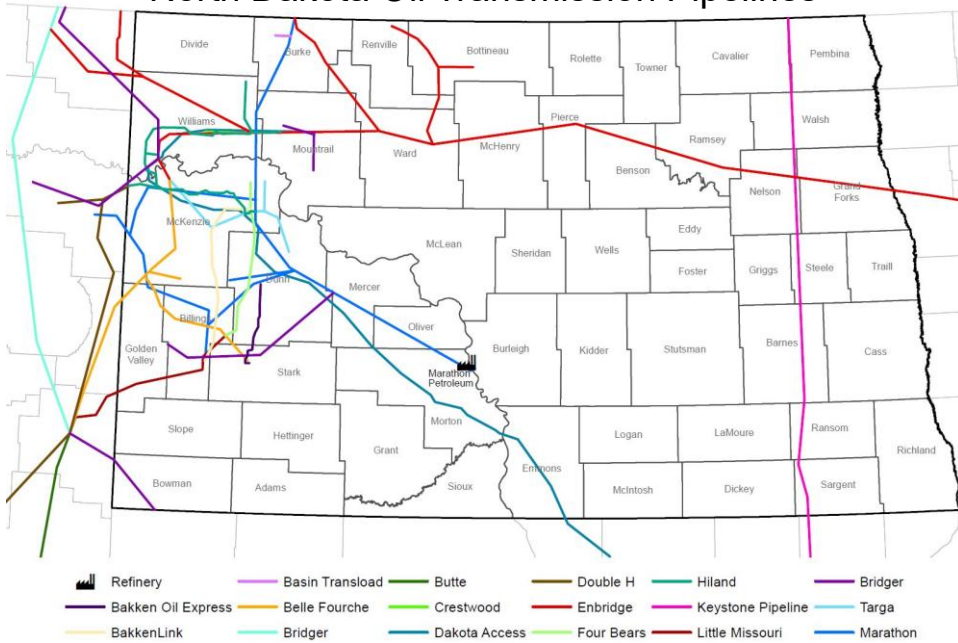
- The total percentage of 2-mile laterals is ~65%
- The total percentage of 3-mile laterals is ~35%
- 4-mile lateral development began in 2024 and is in its infancy, but we continue to see an increase in 4-mile permits

Lateral Length Categorization: (First to last perforation)

- 1.5-2.24 miles = 2-mile
- 2.25-3.24 miles = 3-mile
- 3.25-4.24 miles = 4-mile

dmr.nd.gov

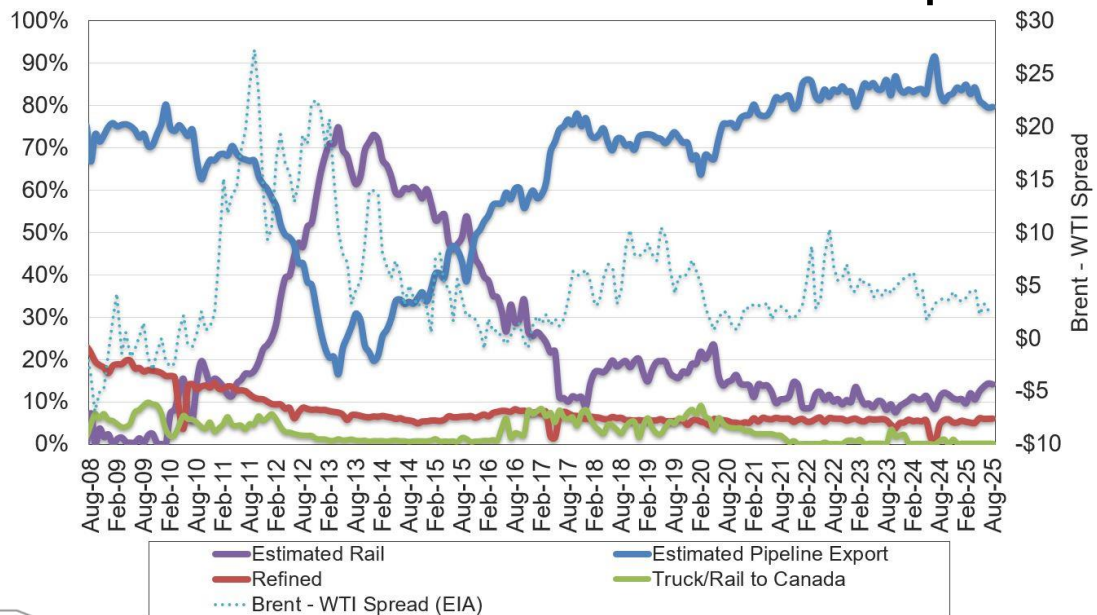
North Dakota Oil Transmission Pipelines



Justin J. Kringstad - North Dakota Pipeline Authority

7

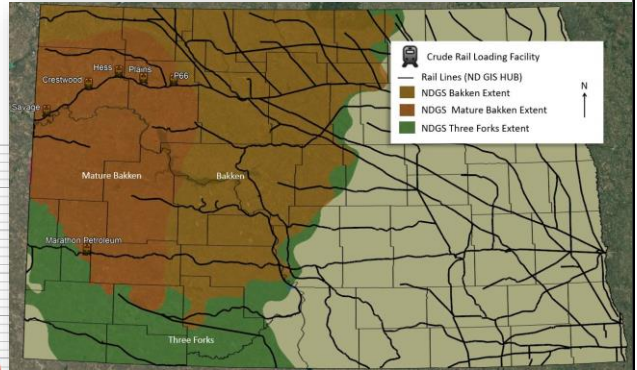
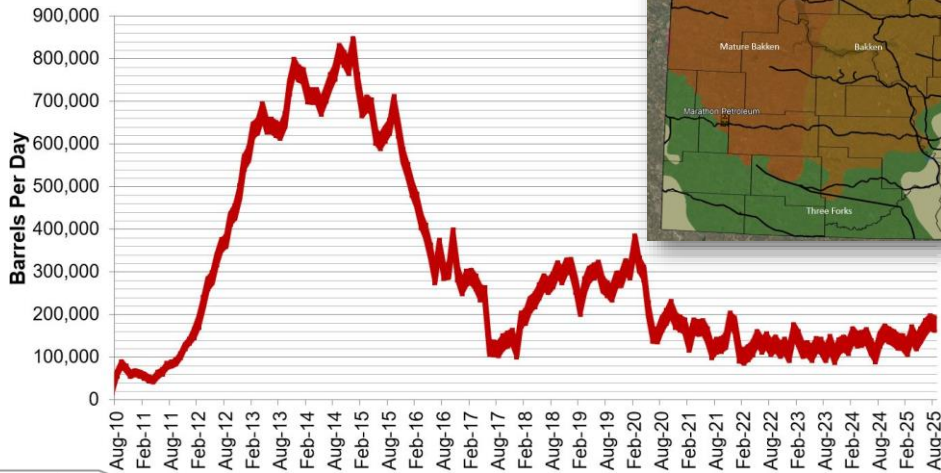
Estimated Williston Basin Oil Transportation



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8

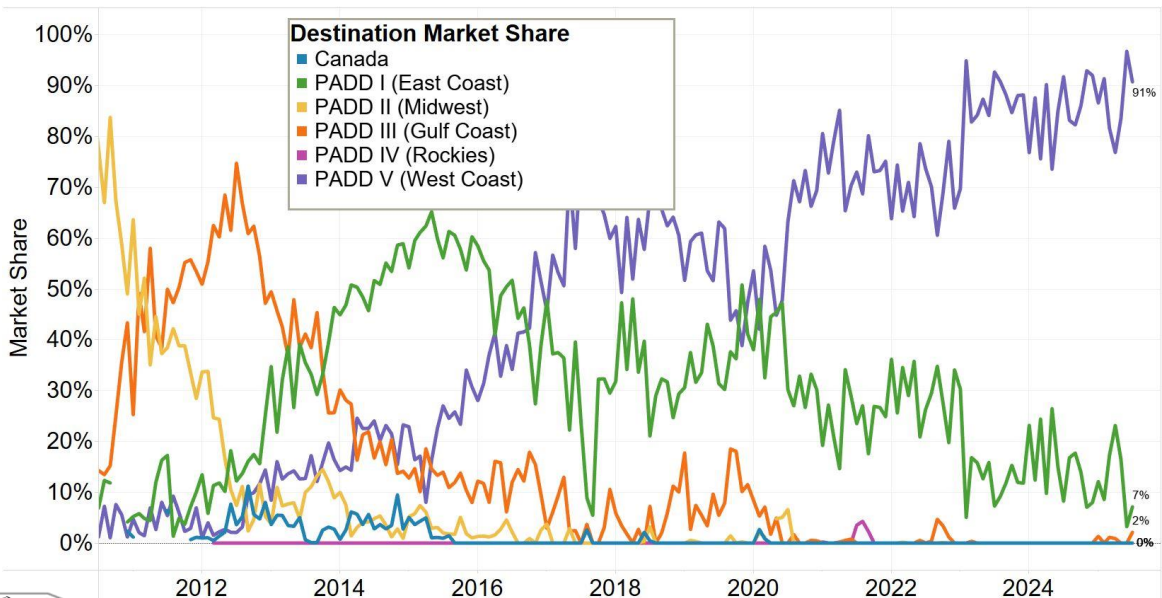
Estimated ND Rail Export Volumes



Justin J. Kringstad - North Dakota Pipeline Authority

9

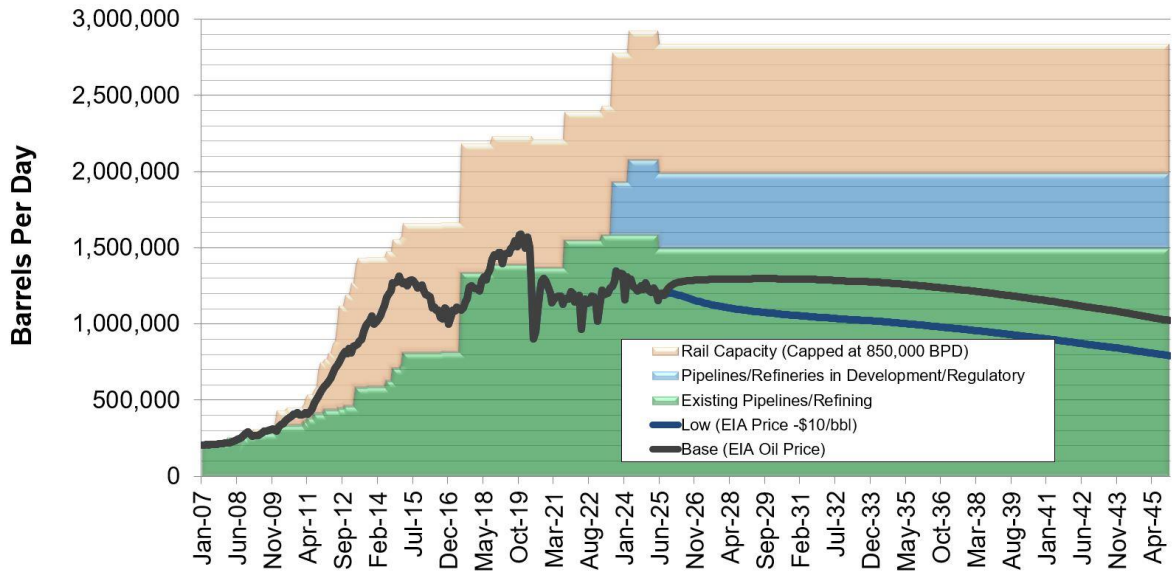
Rail Destinations Market Share (July 2025)



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10

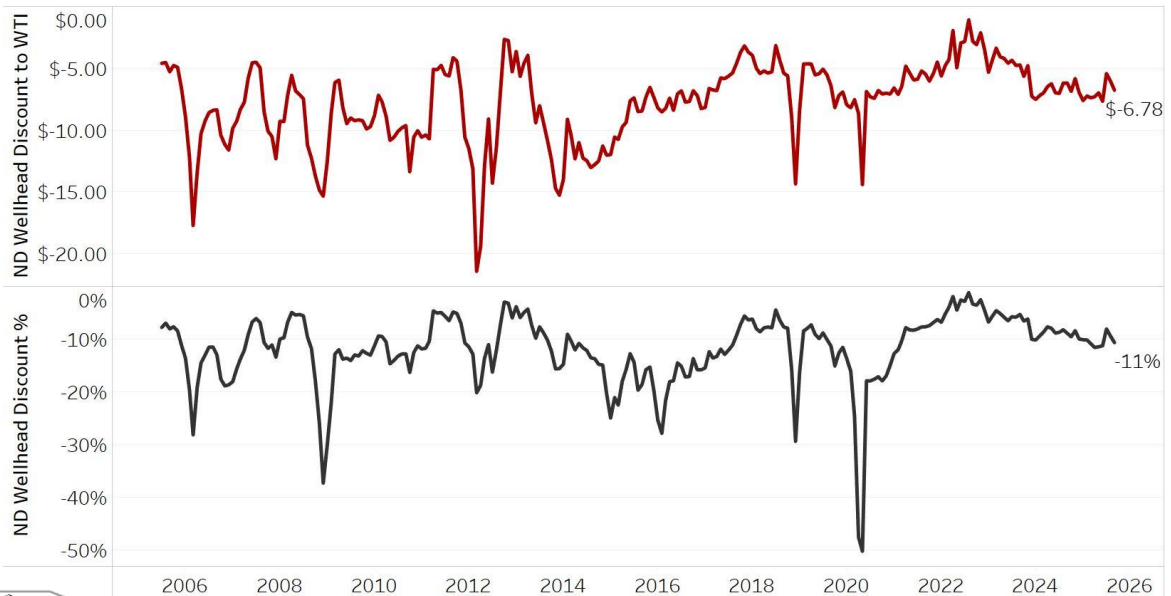
Williston Basin Oil Production & Export Capacity, BOPD



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11

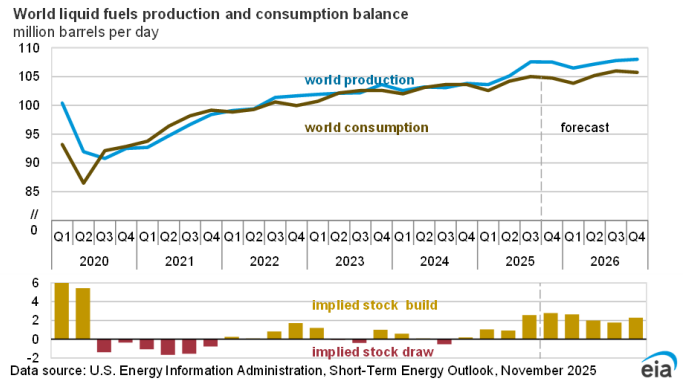
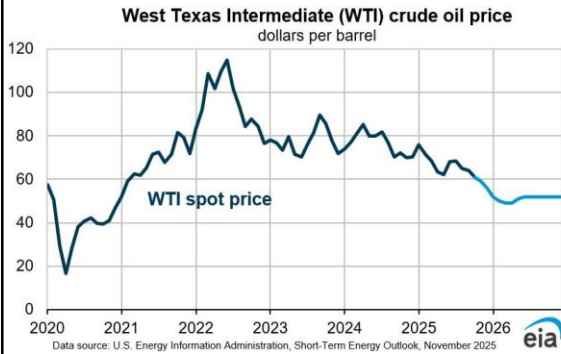
Average North Dakota Oil "Discount" to WTI



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12

EIA Oil Price Outlook (November 2025)



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13

Monthly Completion* Scenarios - Oil

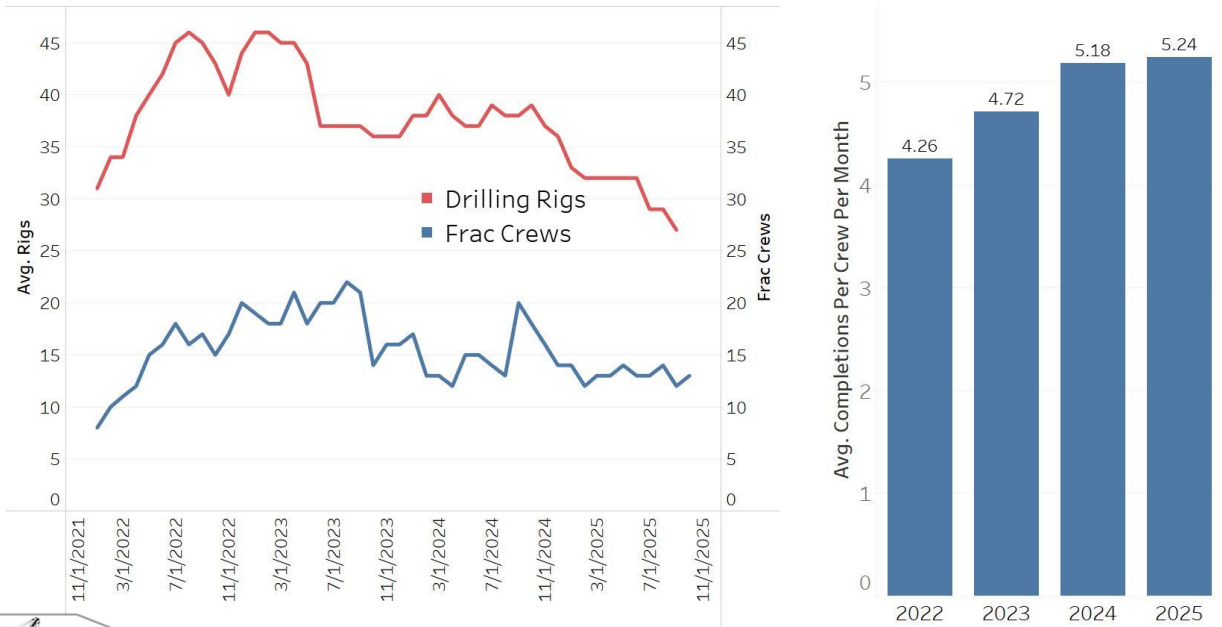


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*1,280 Acre Equivalent Spacing

14

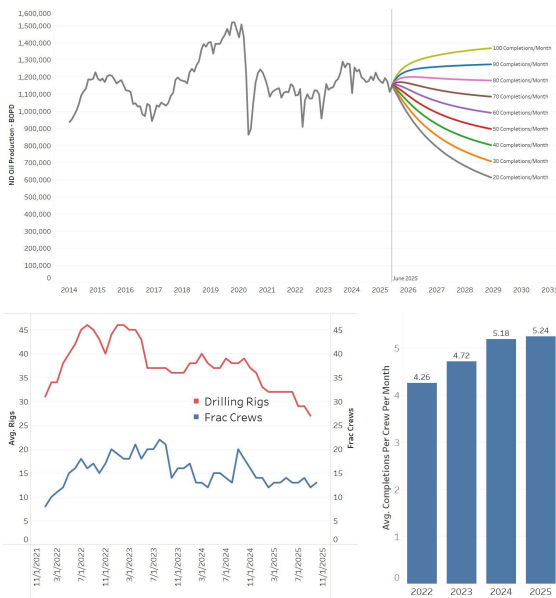
North Dakota Frac Crew Efficiency



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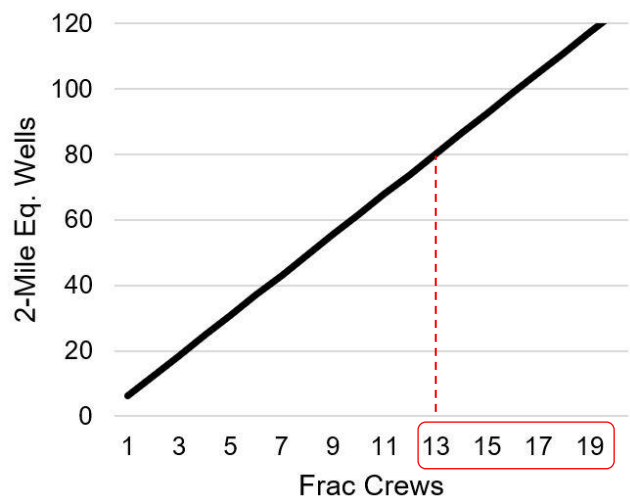
15

What is the Optimal Frac Crew Count? (Assuming 30% 3-Mile & 5% 4-Mile)



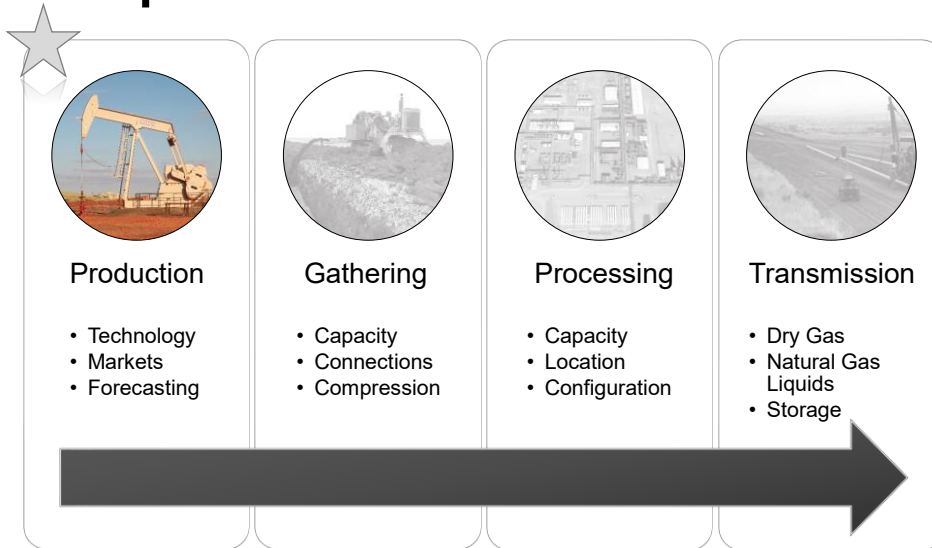
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2-Mile Eq. Wells



*3rd & 4th Mile Oil Performance Assumption ~45% of 2-Mile Well 16

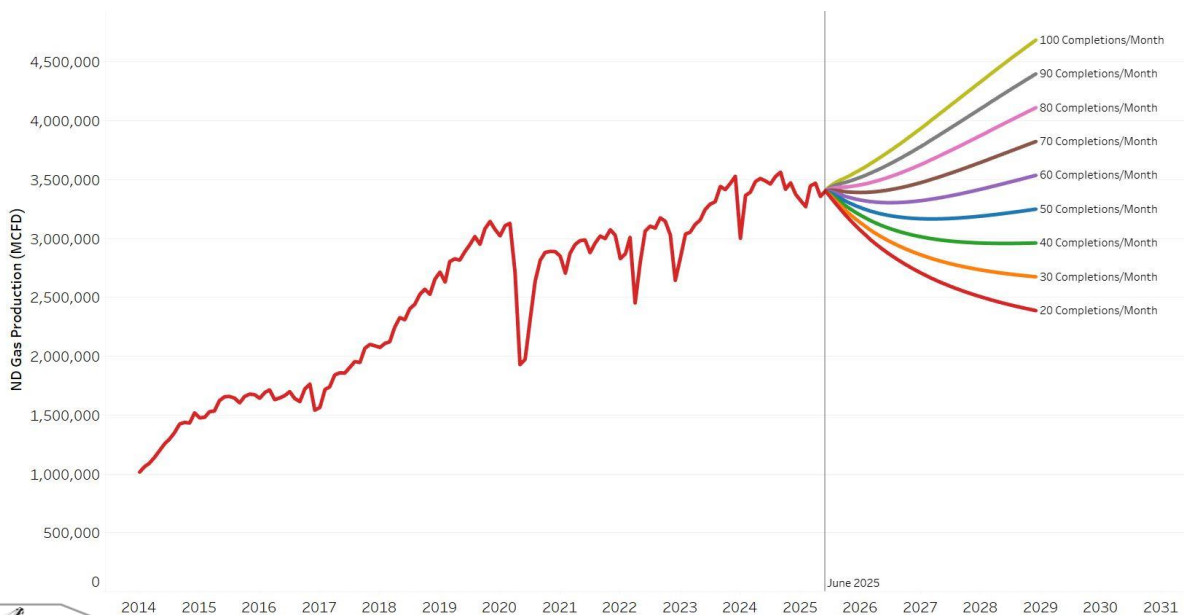
A Complete Natural Gas Solution



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17

Monthly Completion* Scenarios - Gas

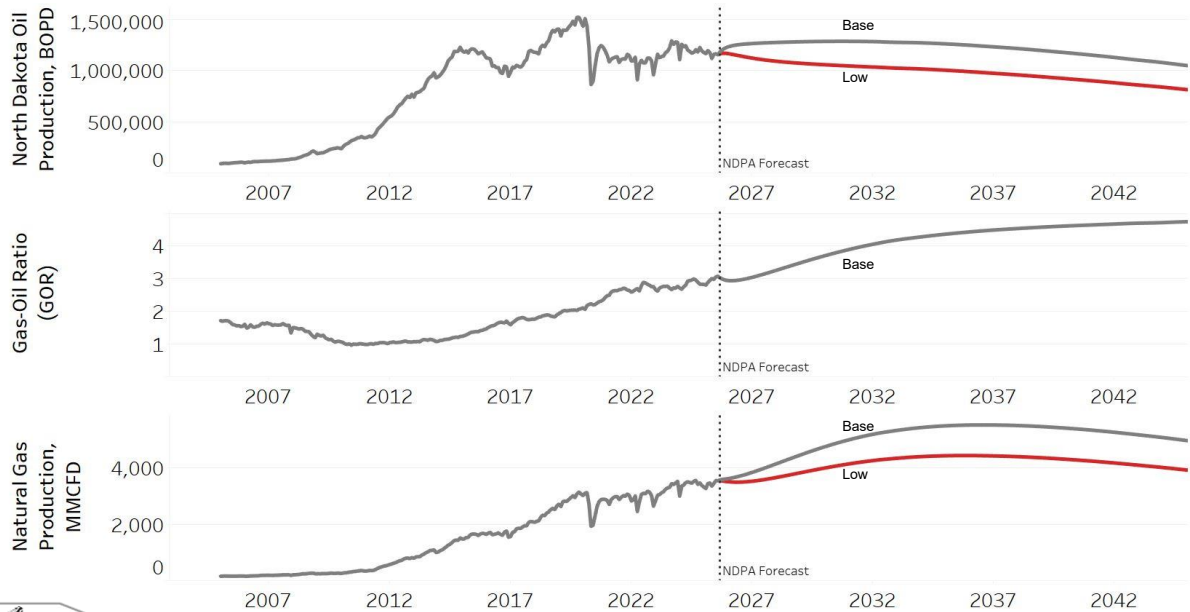


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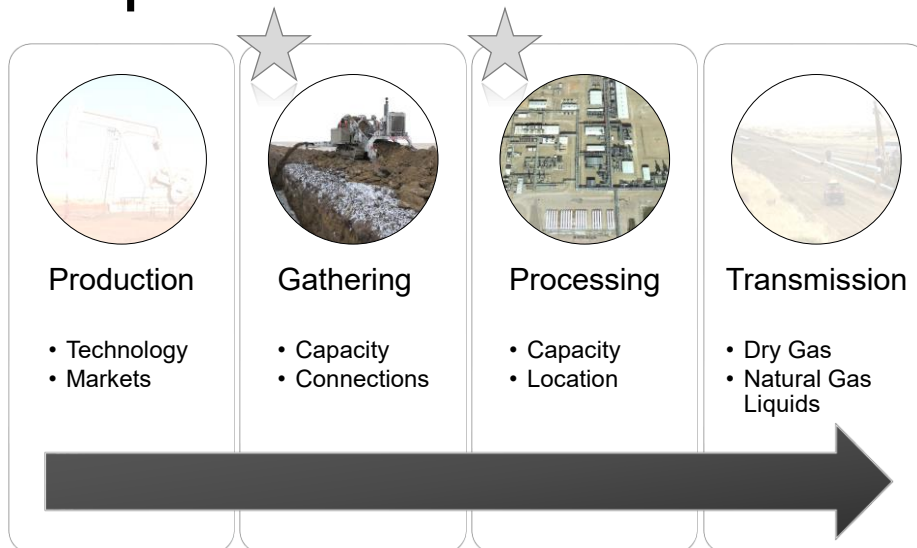
*1,280 Acre Equivalent Spacing

18

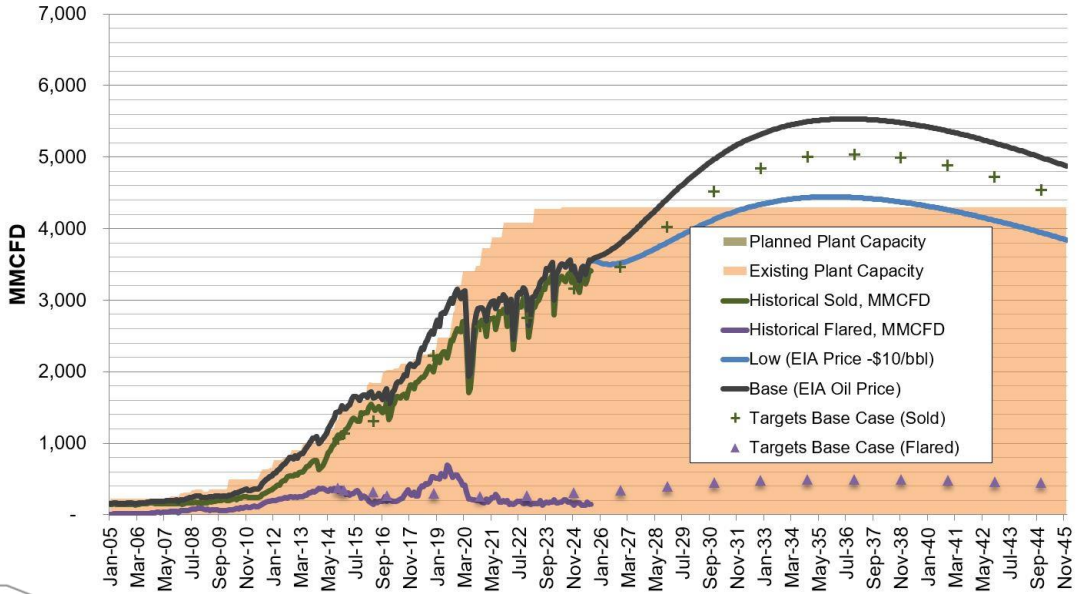
ND Production Forecast: EIA Price Deck



A Complete Natural Gas Solution



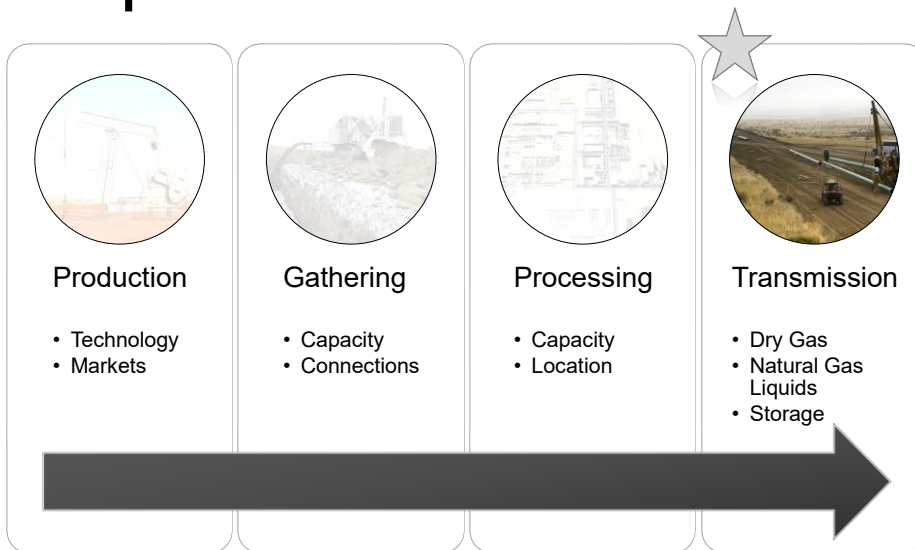
North Dakota Gas Processing Outlook



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21

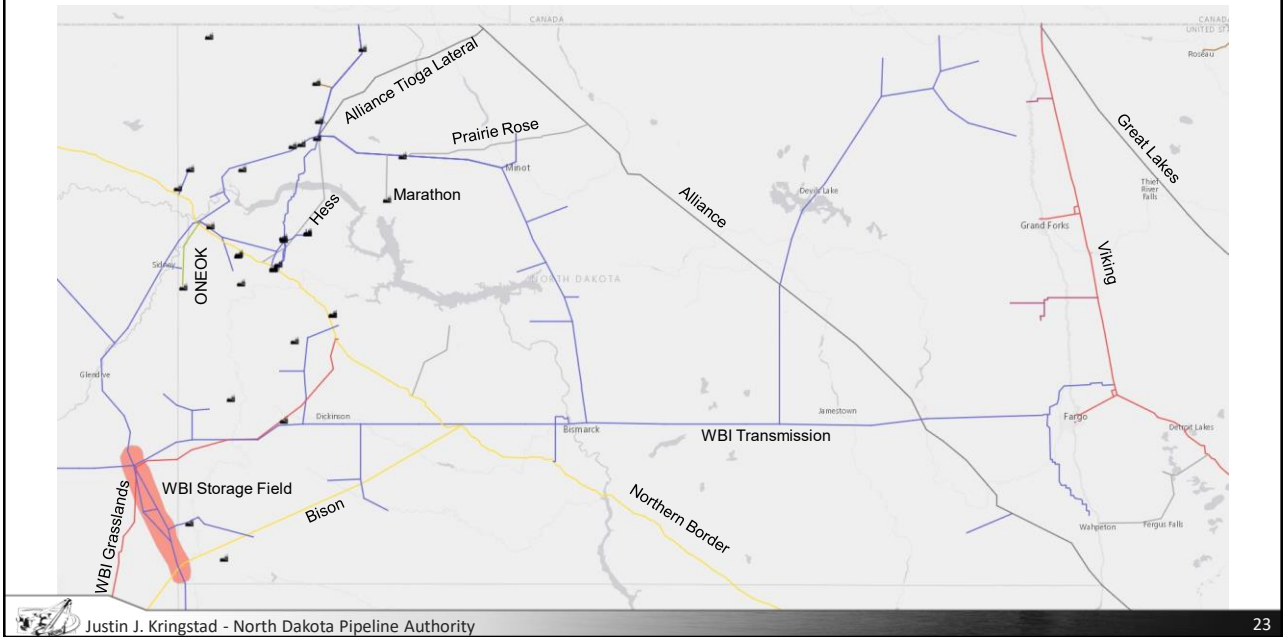
A Complete Natural Gas Solution



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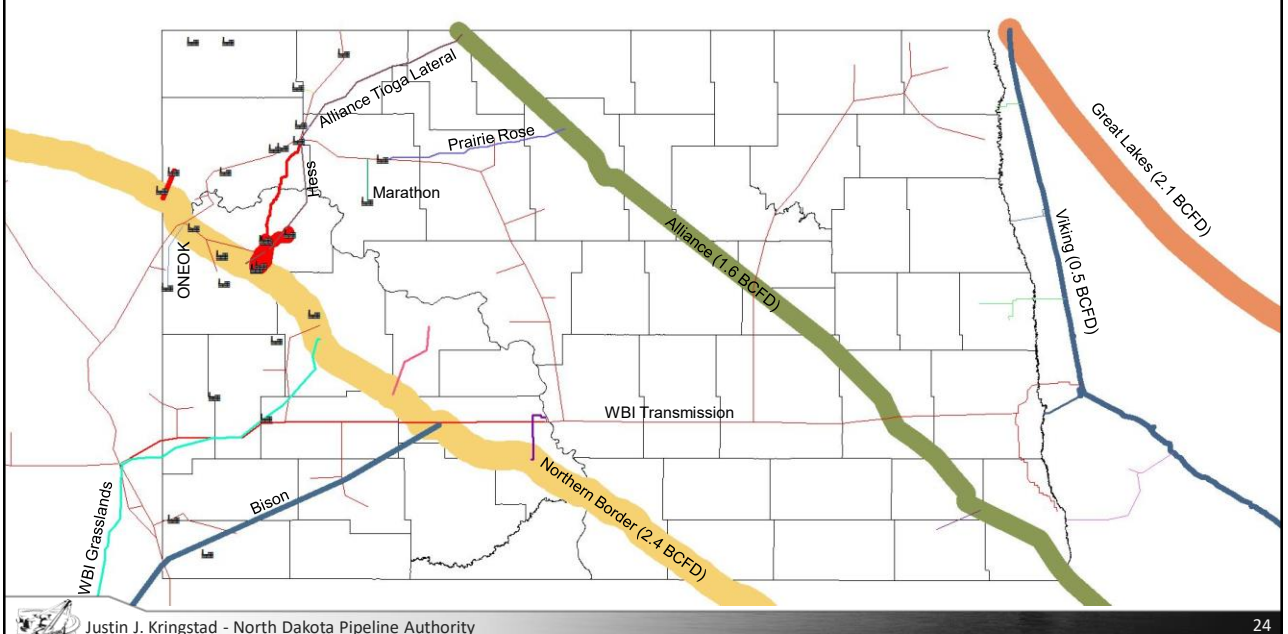
22

Major Residue Gas Pipeline Infrastructure



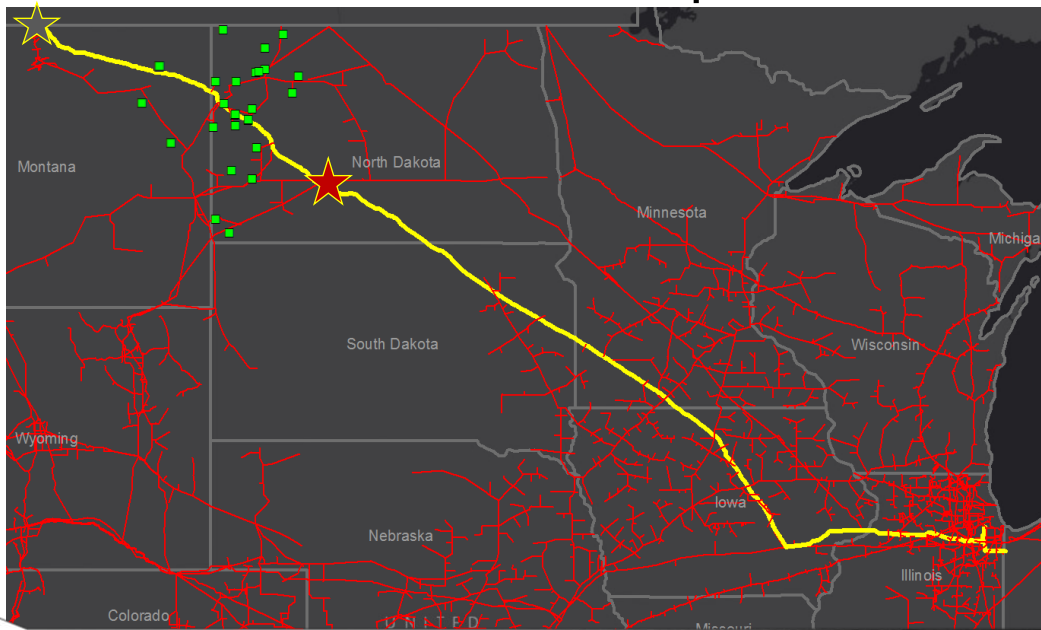
23

Residue Gas Pipeline Capacity Visualization



24

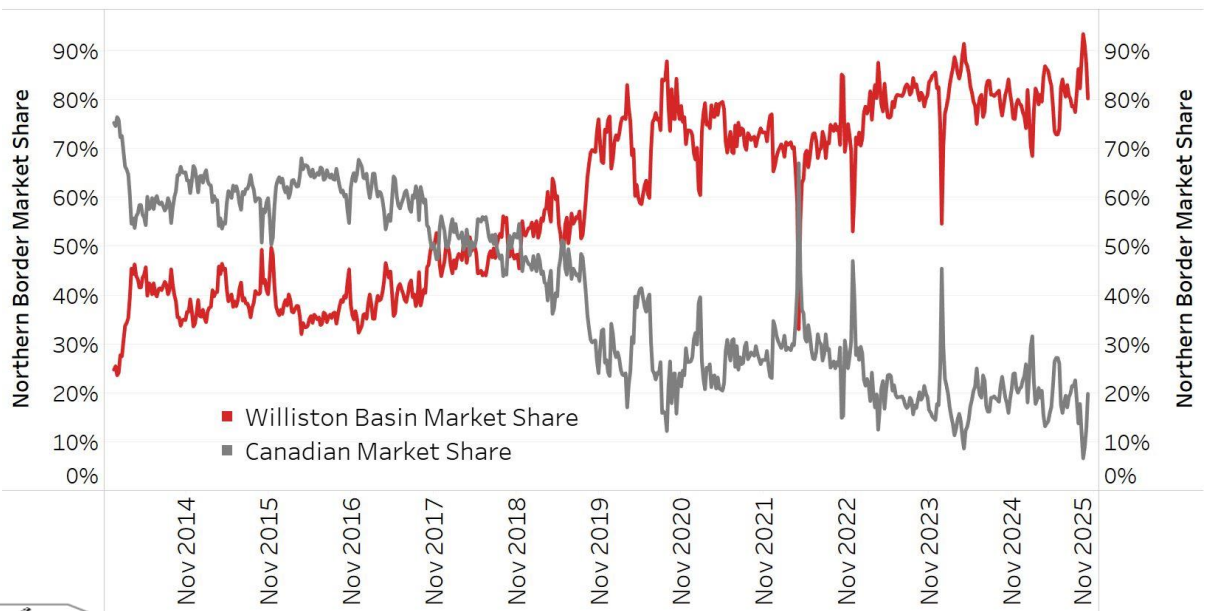
Northern Border Pipeline



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25

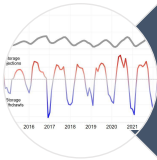
Northern Border Pipeline Market Share



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26

Summer 2025 Transmission Tailwinds



Summer Storage Injections
Seasonal ~100,000 Dth/day



Local Power Generation
Increase ~120,000 Dth/day



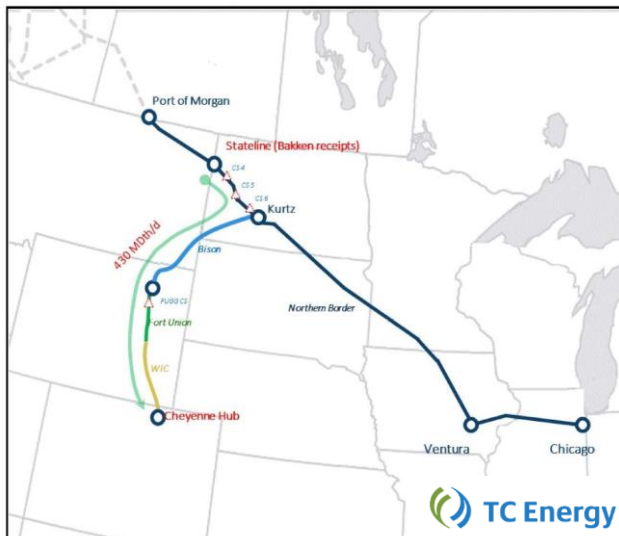
High Ethane Recovery
Elective ~100,000 Dth/day



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27

TC Energy / Kinder Morgan: Bakken xPress Project



Project Highlights

- Non-binding open season April 4 - May 6, 2022
- Binding Open Season: June 1-30, 2023
- Three compressor upgrades in North Dakota
- Reverse the idle Bison Pipeline (30" – 302 Mile)
- Capacity 300,000 Dth/Day (430,000 Offered)
- March 2026 targeted in-service date
- Fort Union Gas Gathering and Wyoming Interstate Company provide further transport to Cheyenne hub.
- Seeking commitments 10yrs or Longer
- \$555 million: \$347 Replacement/\$208 Expansion

Proposed Rates

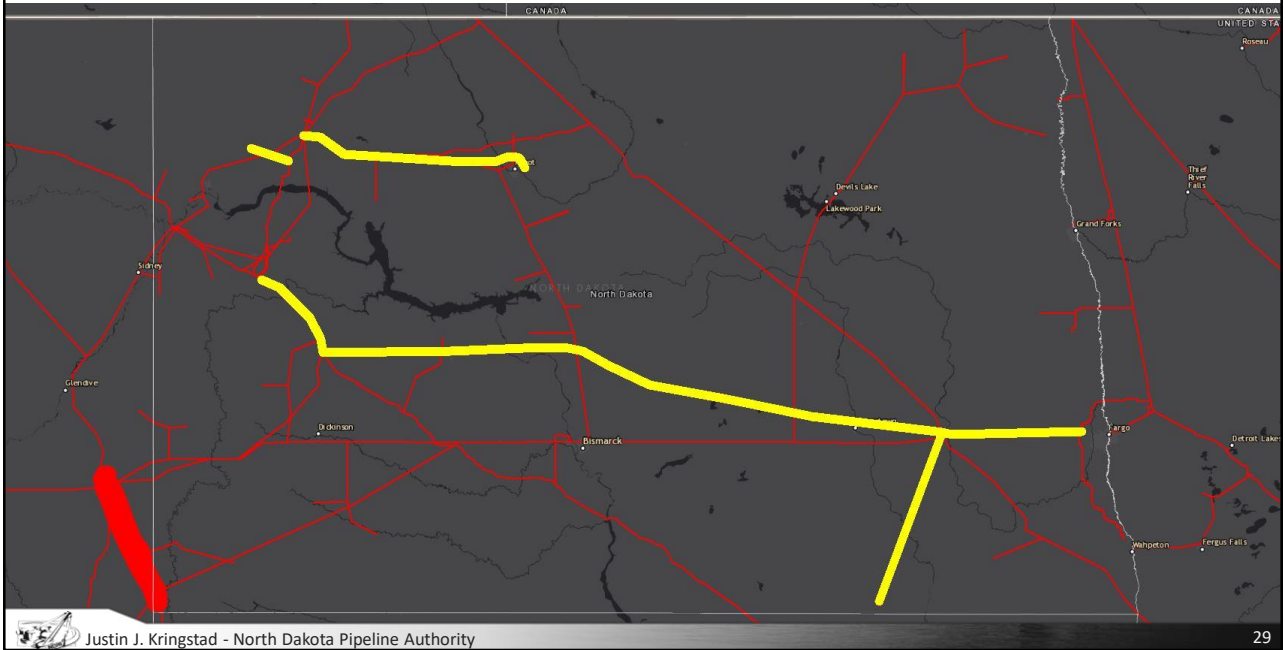
- NBPL/Bison \$0.45/Dth + Fuel/Elec to WIC/FUG Interconnect
- WIC/FUG to Cheyenne \$0.30/Dth + Fuel/Elec
- Anchor Shipper Minimum: 50,000 Dth/Day



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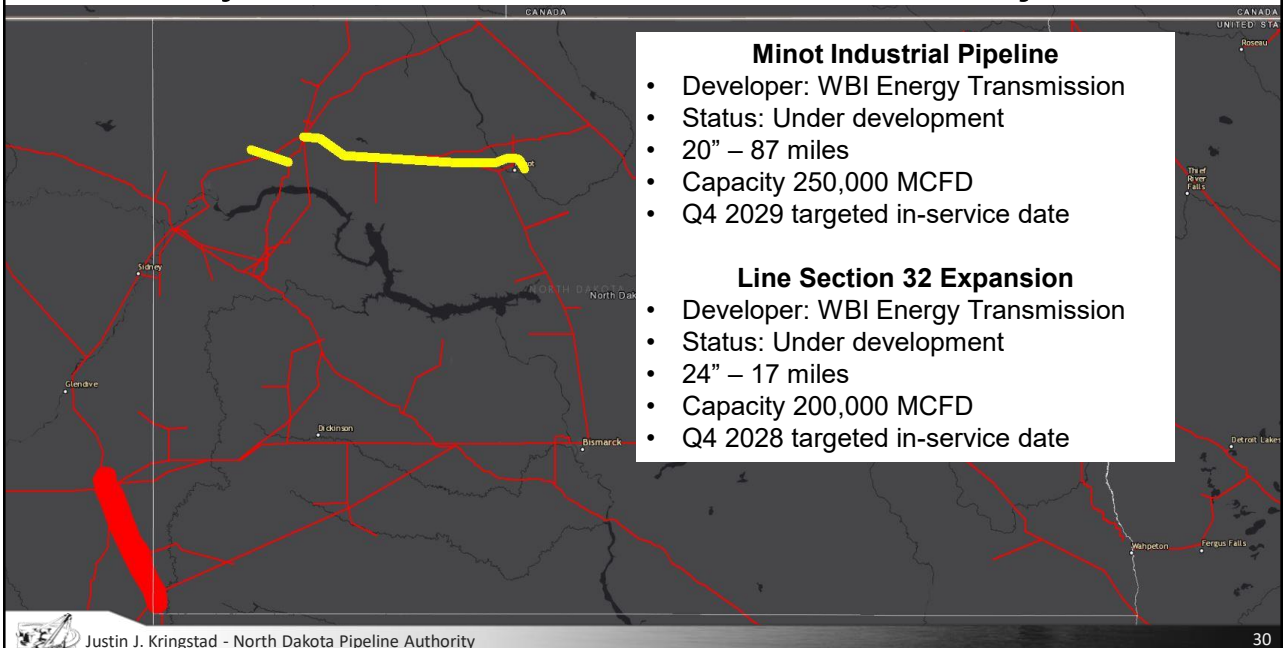
28

Beyond 2026: Gas Transmission Projects



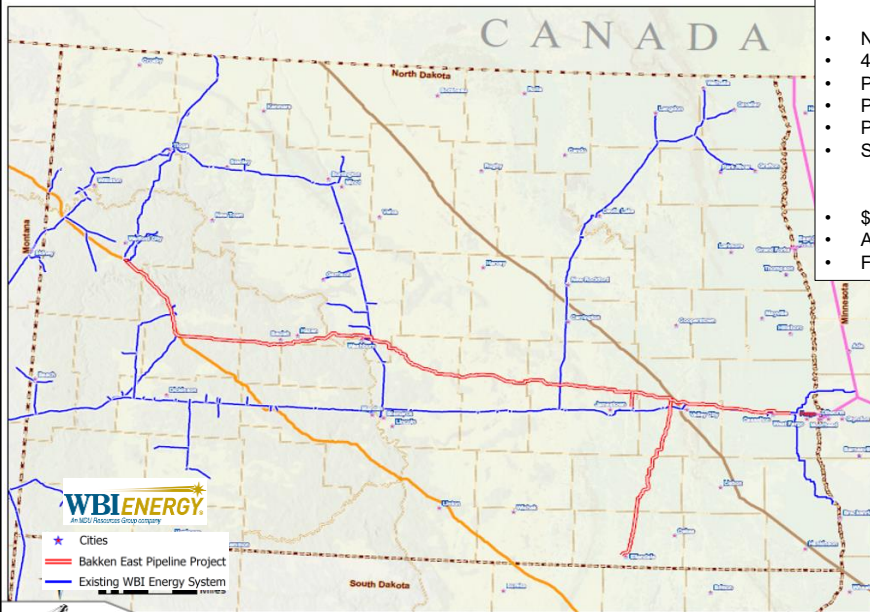
29

Beyond 2026: Gas Transmission Projects



30

WBI Energy: Proposed Bakken East Project



Natural Gas Pipeline Project Highlights

- Non-binding open season Dec 16 – Jan 31, 2025
- 455 Miles: 36", 30", & 20" Pipe
- Proposed Capacity (East) 1,000,000 Dth/Day
- Phase 1 (West) : Nov 2029 targeted in-service
- Phase 2 (East) : Nov 2030 targeted in-service
- Seeking commitments 20yrs or Longer

Estimated Rates

- \$0.85 to \$0.90/Dth + Fuel/Electric/Commodity
- Anchor Shipper Minimum: 100,000 Dth/Day
- Foundation Shipper Minimum: 250,000 Dth/Day

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31



Bakken East – Preliminary Work

- 98% permission to survey received for 350 mile mainline
- 95% permission to survey received for Spiritwood Lateral
- 53% permission to survey received for Ellendale Lateral

- 285 miles of wetland and general habitat surveys completed
- 220 miles of cultural surveys and staging yards completed
- 290 miles of special status species surveys completed
- 258 miles of civil surveys completed

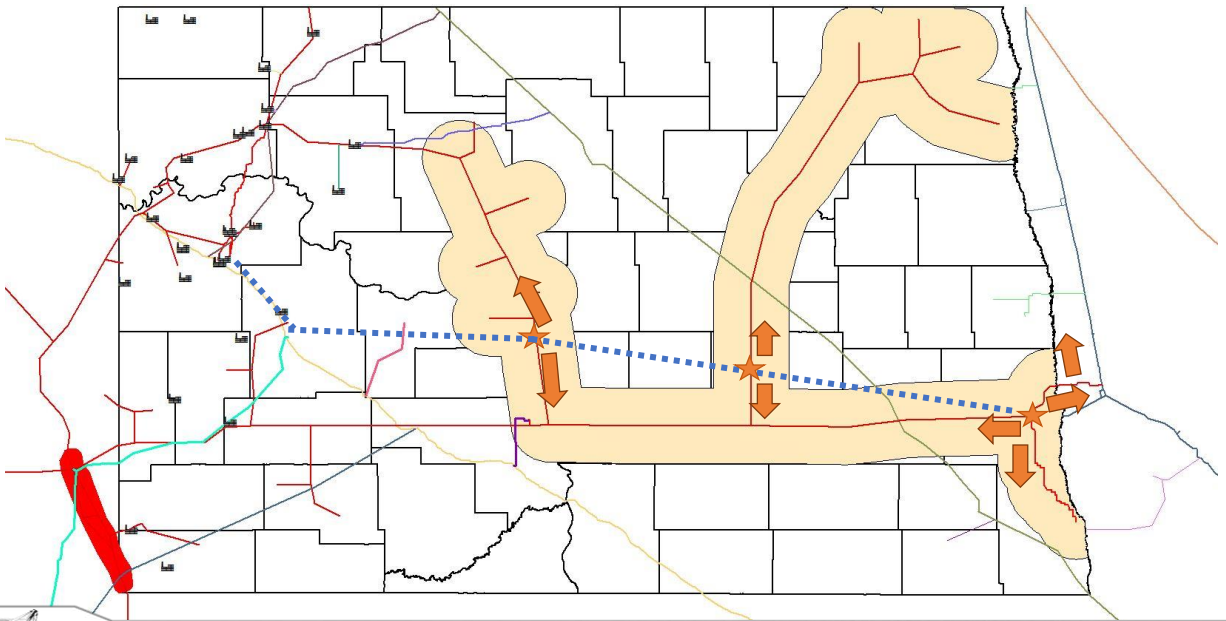
WBI ENERGY
An MDU Resources Group company

***As of 11-5-2025**

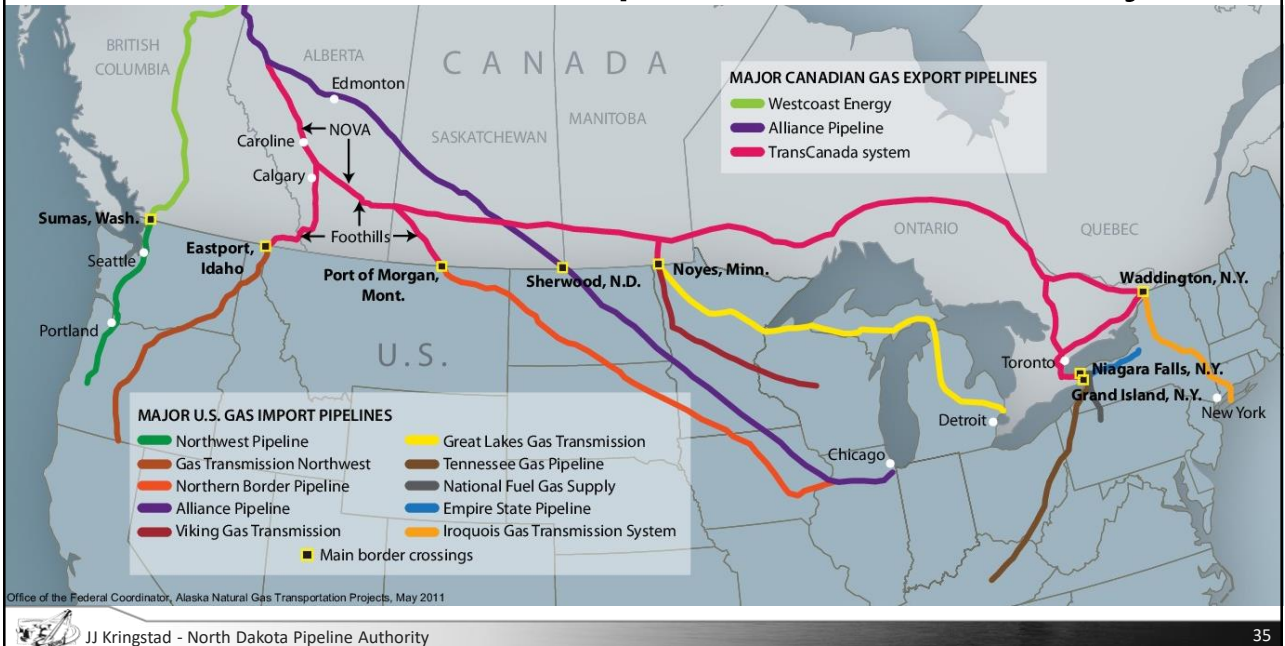
Bakken East Major Milestone Schedule



Going East: Statewide Benefits of Interconnections

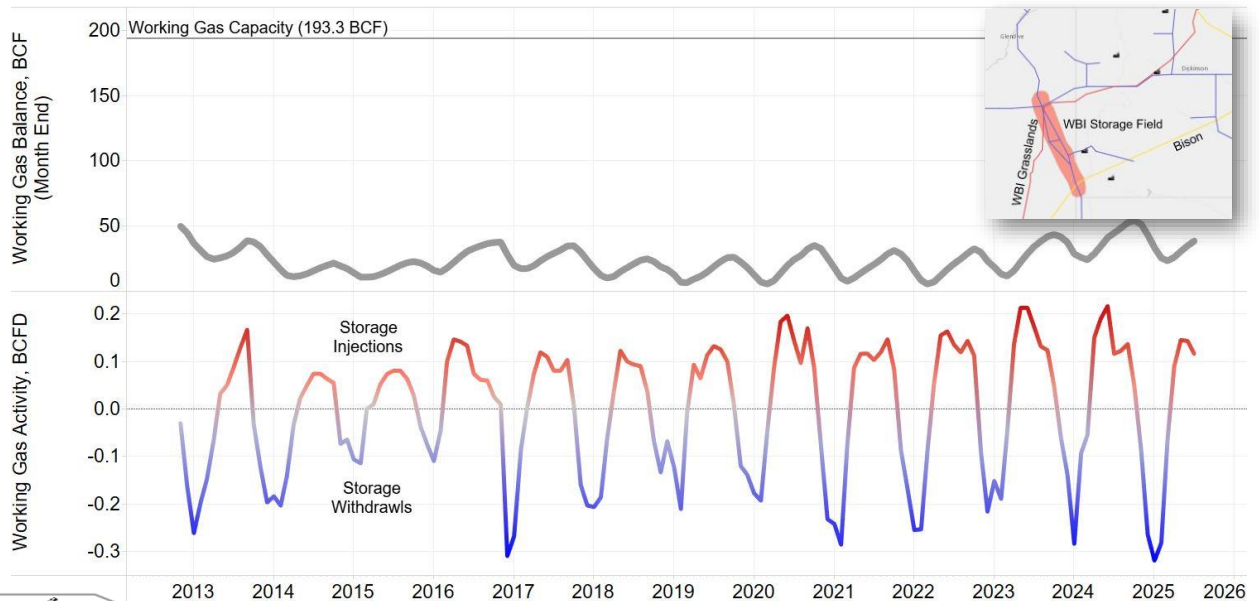


Canadian Gas Pipeline Connectivity



35

Residue Gas Storage – WBI Energy*

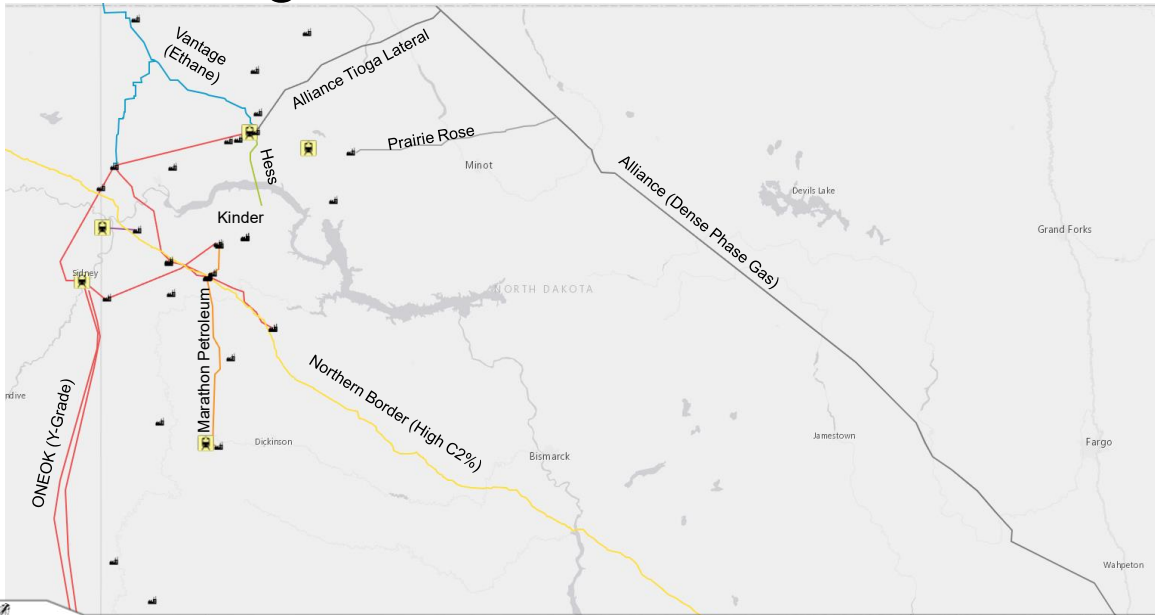


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*WBI Energy Storage Fields: Baker & Elk Basin

36

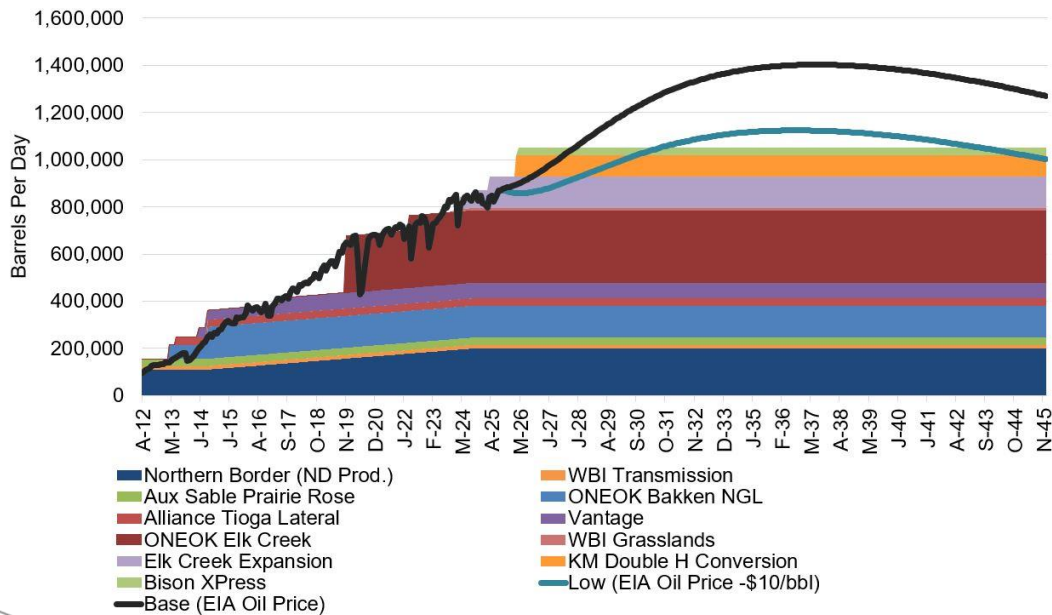
Regional NGL Infrastructure



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37

NGL Transport Needs* – With New Cheyenne Pipes



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*Rail and Local Trucking Not Included

38

Contact Information

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39



November 25, 2025

To: North Dakota Industrial Commission

From: Brandon Dettlaff, Executive Director

RE: Multifamily Application Award Summary for Low Income Housing Tax Credit, HOME Investment Partnership Program, National Housing Trust Fund, and Housing Incentive Fund

North Dakota Housing Finance Agency (NDHFA) held a multifamily rental production and rehabilitation application round to allocate funds available through the Federal Low Income Housing Tax Credit (LIHTC), HOME Investment Partnerships (HOME), National Housing Trust Fund (HTF) and the state Housing Incentive Fund (HIF). The application deadline was Sept. 30, 2025.

Twenty-three projects submitted applications including an additional funding request from an existing approved application. The application round was significantly oversubscribed with requests for exceeding the funding available by over

Scoring and ranking was completed in November. Seven projects (including the forward commitment) were selected for funding. Detailed summaries of the successful projects are provided below. A listing of all the applications received is provided as an attachment.

BACKGROUND: FUNDING AVAILABILITY

Low Income Housing Tax Credit (LIHTC)

The LIHTC program was created with the passage of the Tax Reform Act of 1986 and made permanent in 1993. LIHTC gives investors a dollar-for-dollar reduction in their federal tax liability in exchange for providing financing for affordable rental housing. Annually the IRS establishes a per capita rate and a small state minimum volume cap for which states receive their credit allocation. North Dakota receives the small state minimum and forward allocates credits. A total of \$4,199,673 credits were available, and requests received totaled \$19,215,491 (\$1,015,818 oversubscribed).

HOME Investment Partnership Program (HOME)

The HOME program is funded by HUD and is provided to states as formula grants to provide a wide range of activities including building, buying, and/or rehabilitating affordable housing for rent or homeownership or providing direct rental assistance to low-income households. HOME is the largest federal block grant available to state and local governments and is designed exclusively to create affordable housing for low-income households. North Dakota receives the small state minimum of \$3 million. A total of \$2,389,155.87 was made available for multifamily rental production and rehabilitation. Requests received totaled \$10.5 million. (\$8.1 million oversubscribed)

National Housing Trust Fund (HTF)

Created through the Housing and Economic Recovery Act of 2008 and first funded in 2016 through a directed set aside from a percentage of new mortgage purchases made by Fannie Mae and Freddie Mac. North Dakota receives the small state minimum which averages \$3 million. 100 percent of the fund must be used to create units targeted for 30 percent area median incomes. A total of \$3,258,340 was made available and a total of \$16.28 million in requests were received. (\$13 million oversubscribed)

Housing Incentive Fund (HIF)

Authorized by the 69th Legislative Assembly as a general fund appropriation for \$35 million, \$9,850,000 for ND Homeless Grant, \$5 million for single family projects in a developing community or for a community land trust project and \$20 million for multifamily activities. A total of nineteen applications were received requesting over \$27 million. (\$7 million oversubscribed)

SUCCESSFUL APPLICATION SUMMARY

1. 14-4 Apartments, Fargo ND

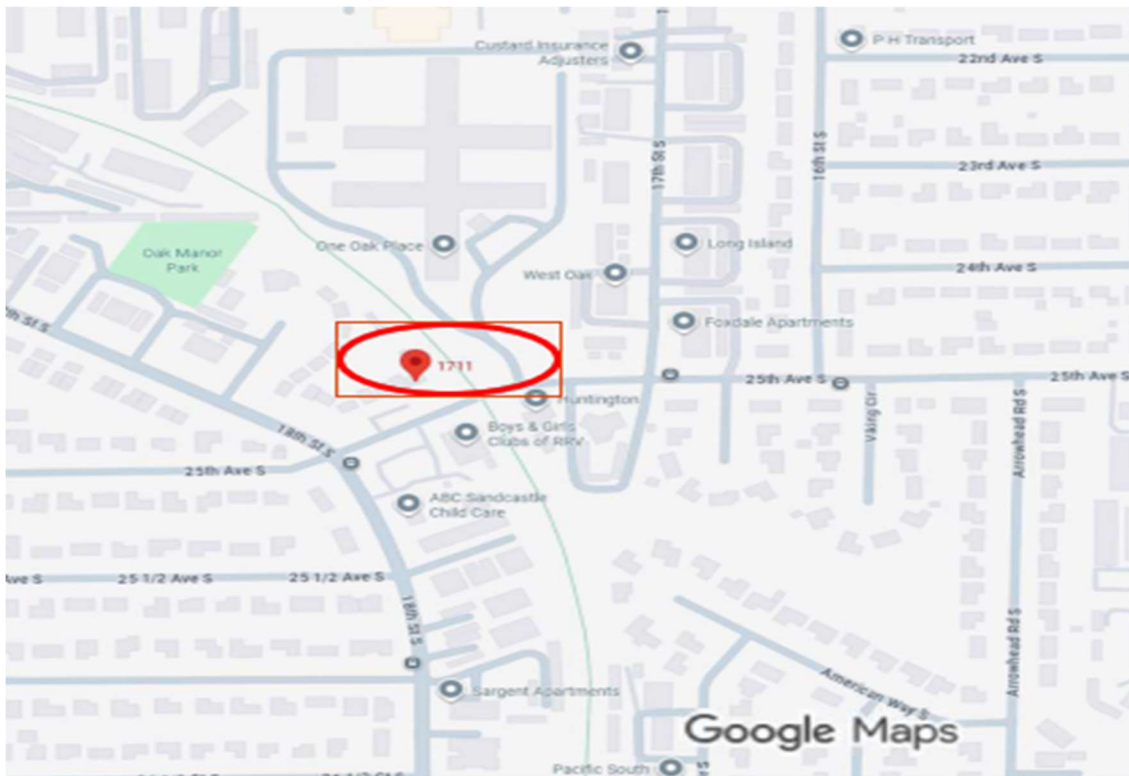


14-4 Apartments is a demolition/disposition of a property owned by Fargo Housing and Redevelopment Authority (FHRA). The site is 2.73 acres, occupied by fourteen aged duplexes (28 units). The aged units will be demolished and replaced with a 65-unit complex to support general family occupancy. Each unit will have in-unit washer and dryers, appliances, broadband internet. The site will include a community room, children's play area, and onsite services to support resident stability and engagement.

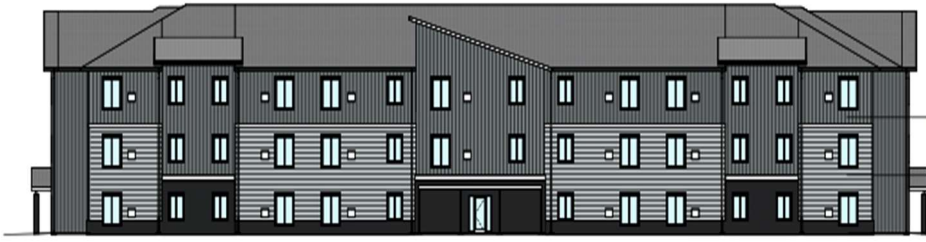
FHRA has partnered with Blueline Development, Inc. to complete the project. Blueline Development has also worked with FHRA on Elliott Plance and Lashkowitz Highrise. The project is located in a neighborhood that supports a mix of single-family and multifamily housing. Close proximity to walking trails, schools and a childcare center. Total development costs are estimated at \$17.3 million.

Funding awarded includes \$1,347,000 9% LIHTCs and \$1 million HIF. FHRA is also committing 65 project based vouchers to the units, further enhancing affordability.

Project Location 1711 25th Avenue South, Fargo ND



2. Harvest Acres Apartments 1, Fargo ND

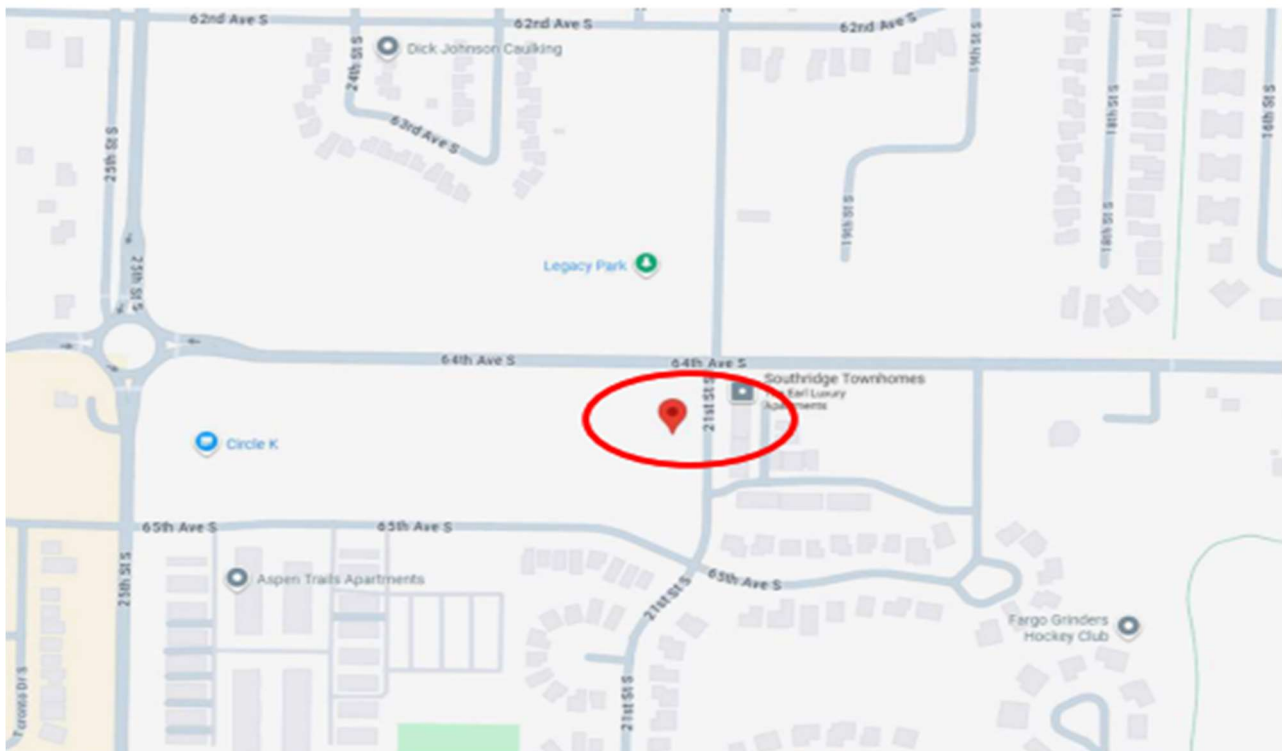


Harvest Acres is a 39-unit, new construction, senior housing facility located in Fargo. The property will offer secure entry, elevator, community room with kitchen, library, and fitness room. Residents will have access to resident supports. The project is located near parks, retail and recreational amenities. Total development costs are estimated at \$15.6 million.

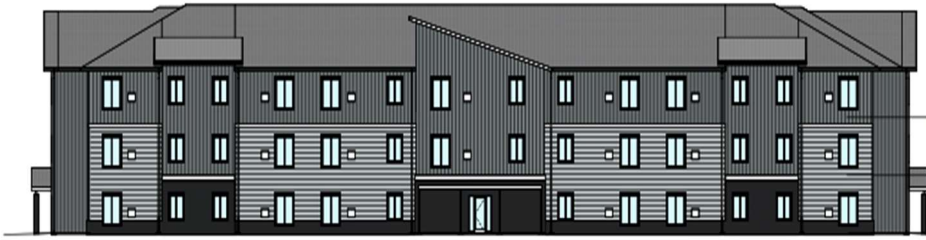
Beyond Shelter, Inc. is the developer and intends to retain ownership.

The application was awarded \$1,136,600 LIHTCs, \$1,000,000 HIF, \$699,155.87 HOME, and \$3,258,340.62 HTF. The developer is in the process of securing a HUD Section 8 project based contract. This contract is a transfer of budget authority from the opt out of the University Drive Manor apartments which ceased operations in March, 2025.

Project Location 2131 65th Ave South, Fargo



3. Buffalo Manor Apartments, Jamestown ND

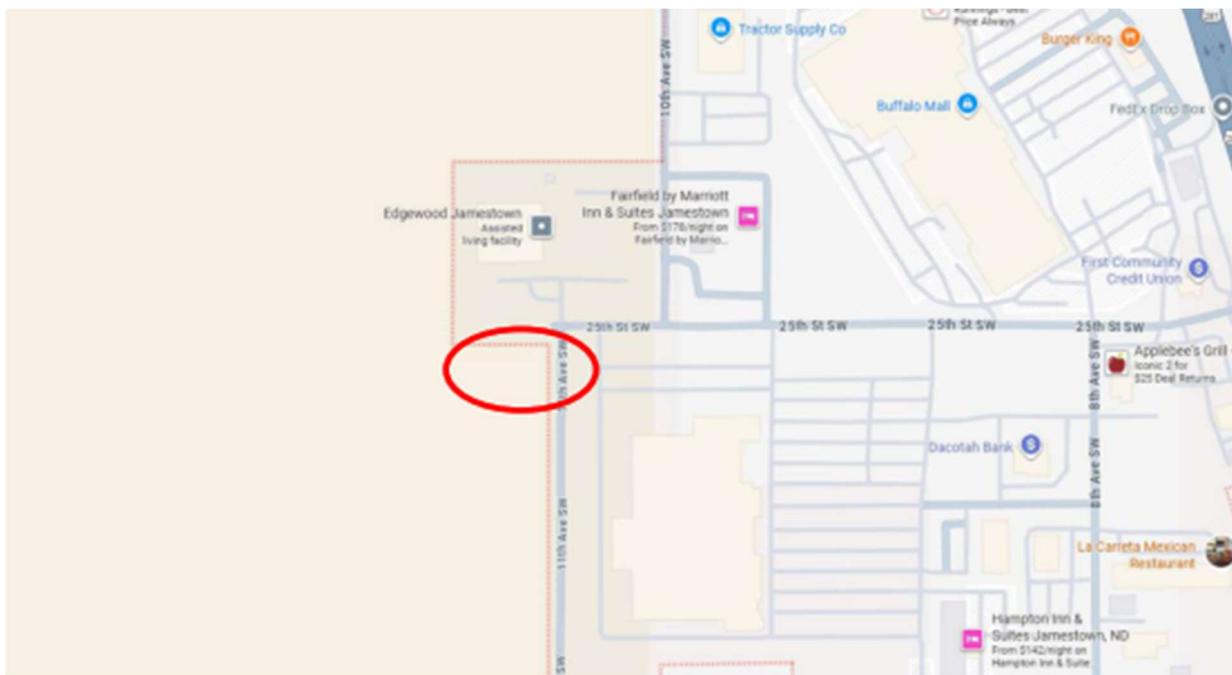


Buffalo Manor Apartments is a 39-unit, new construction, senior housing facility located in Jamestown. The property will offer secure entry, elevator, community room with kitchen, library, and fitness room. Residents will have access to resident supports. The project is located near parks, restaurants, medical, retail and recreational amenities. Total development costs are estimated at \$16 million.

Beyond Shelter, Inc. is the developer and intends to retain ownership.

The application was awarded \$1,427,888 LIHTCS, \$1,000,000 HIF, and \$1,690,000 HOME. In addition, the developer has secured a HUD Section 8 contract transfer from Dakota Estates in Lidgerwood, ND and Binford Manor in Binford. The developer is also working with Hud to transfer a rental assistance contract from the Section 202 Jamestown Legacy project which is the former hospital building that is struggling financially and looking to be sold to the University.

Address TBD, Intersection of 11th Ave NW and 25th St SW, Jamestown



4. Central at the Horizon, Fargo ND

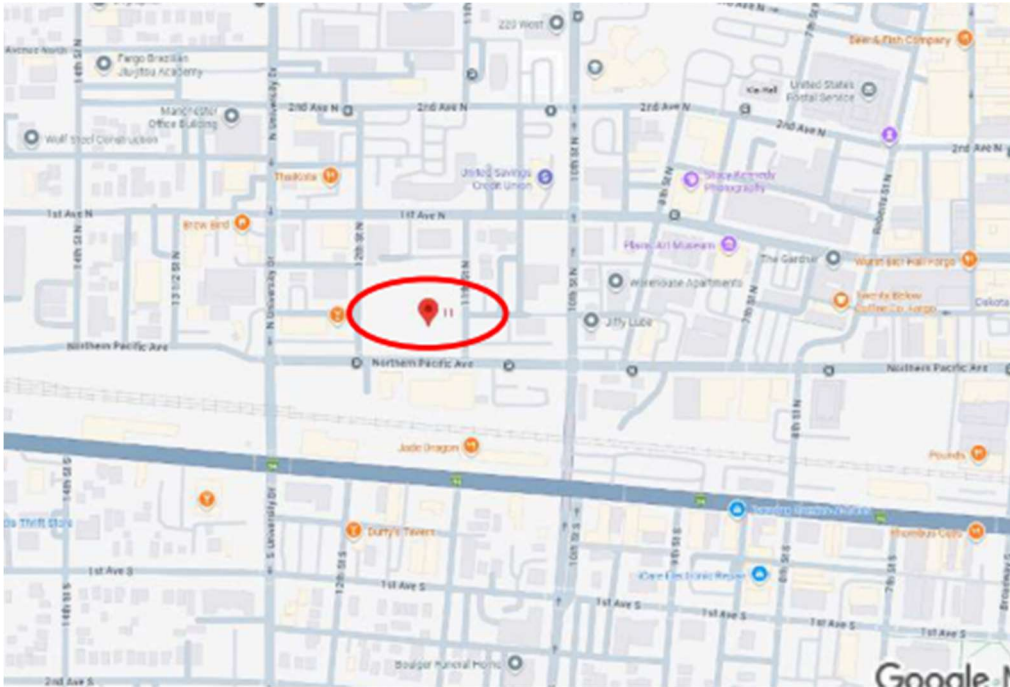


Central at Horizon is a 262-unit, new construction, general occupancy project located in downtown Fargo. The project is designed to support general workforce and will offer amenities such as a courtyard and private dog park. Total development costs are estimated at \$52 million.

Annex Group will serve as developer, owner, contractor, and property management team. Based in Indiana, the Annex Group has developed several large-scale properties in the Midwest. Central will be the first project in North Dakota.

The application was awarded \$4,322,321 in 4% LIHTCs, \$3,000,000 HIF, and is expecting a \$47 million multifamily bond issuance.

Project Location 11 12th Street N, Fargo ND



5. Kings View Apartments, Grand Forks ND

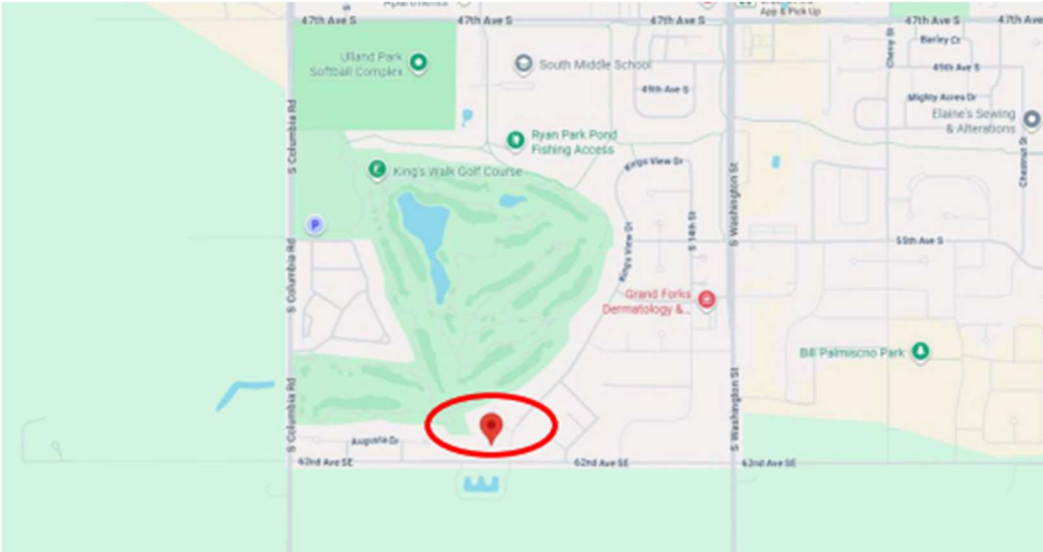


Kingsview Apartments is a 45-unit multifamily apartment complex located in south Grand Forks. The project will include community space, onsite property management office, mail and package delivery, underground parking, community room, and outdoor pet area. The property will be a mix and 1- and 2-bedroom apartments for general occupancy. Total development costs are estimated at \$12.4 million.

The project will be developed by Dakota Commercial who will also serve as owner, contractor, and property manager.

The application was awarded \$1,500,000 HIF.

Project Location 6150 Kings View Dr, Grand Forks



6. Brookstone Apartments 4, Grand Forks ND

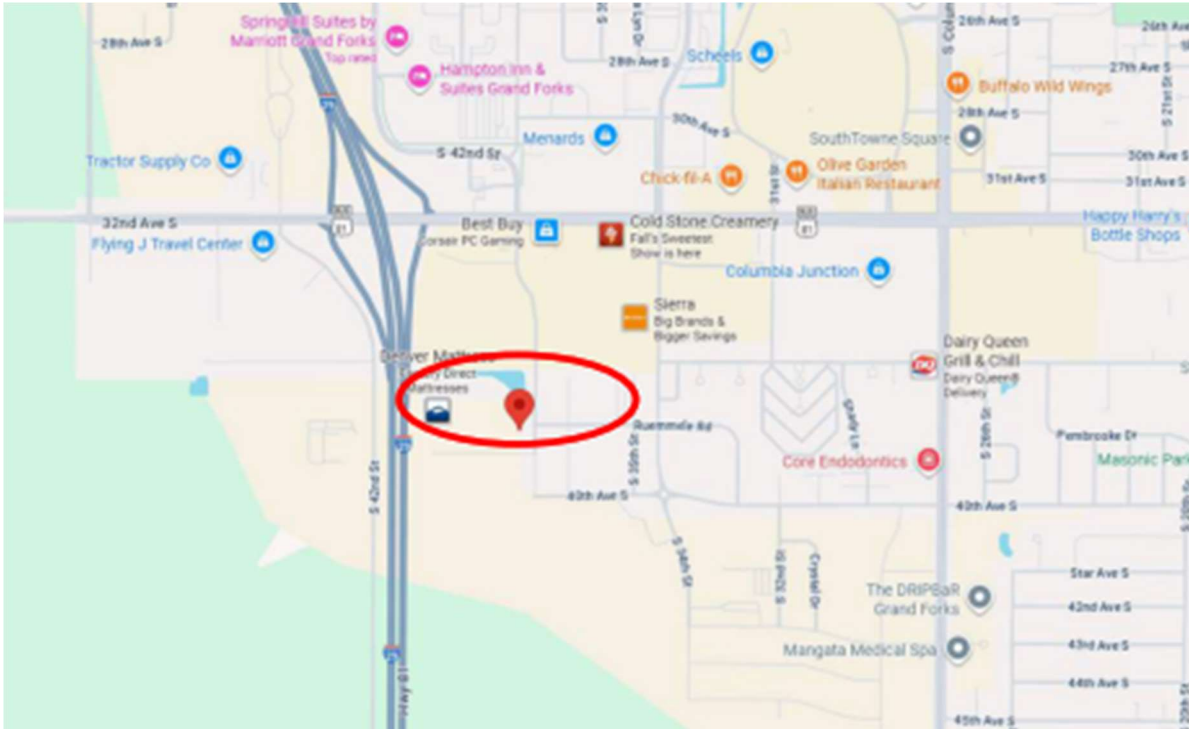


New construction of 160-unit general occupancy apartment complex located in Grand Forks. The project will consist of two, four-story structures with community space including property management office, mail/package delivery area, and community room. The property will feature a mix of units from efficiency to three bedrooms. Total development costs are estimated at \$33 million.

The project will be developed by Dakota Commercial who will serve as owner and property manager. MAK Construction will serve as general contractor.

The application was awarded \$5.4 million HIF, an estimated \$1.6 million 4% LIHTCS and will require a tax-exempt bond issuance, the amount TBD.

Project Location 3810 39th Ave S, Grand Forks



7. Wildrose Senior Housing, Minot ND (Additional Funding)



Wild Rose Senior Housing is an acquisition/rehabilitation of an existing 48-unit general occupancy project currently known as Southside Living, formally Guardian Manor. Southside living is a LIHTC project built in 1993 and will finish its original period of affordability on 12/31/2026. The project needs significant updates including exterior improvements, including windows and siding, HVAC systems replacement and full unit updates. The project is optimal for conversion to senior housing as it is single-level cottage style units with community space and is in close proximity to grocery and medical facilities.

The developer, American Covenant Senior Housing Foundation from Kalispell, MT, has experience owning and operating senior living communities that offer supportive services as needed. Estimated development costs have increased from \$8.1 million to \$9 million.

Initial funding awarded included \$300,359 4% LIHTCs, and \$2,150,000 HIF and an estimated \$5.6 million tax-exempt bond issuance. The application was awarded an additional \$850,000 HIF.

Project Location 3204 4th Street SW, Minot ND 58701



2025 Annual Application Round- Applications Due 09/30/2025											
9% LIHTC Available HIF Available	HOME Available HTF Available	\$2,389,155.87 \$3,258,340.62	Max LIHTC per Project:		34%	\$ 1,427,888					
Development Name	Applicant	Location	Total Units	Type of Development	Target Population	LIHTC 9 Requested	LIHTC 4 Requested	HIF Requested	HOME Requested	HTF Requested	Development Cost
Central at the Horizon	Union Development Holdings III, LLC	Fargo	262	New Construction	General Occupancy		4,332,321	\$ 3,000,000.00			\$ 93,711,019.00
Brookstone Apartments 4	Dakota Commercial & MAK Construction	Grand Forks	160	New Construction	General Occupancy		1,635,527	\$ 5,376,053.00			\$ 33,213,797.00
Brookstone Apartments 9	Dakota Commercial & Development	Grand Forks	40	New Construction	General Occupancy	990,000		\$ 100,000.00			\$ 11,819,667.00
FHRA 14-4	Redevelopment Authority	Fargo	65	New Construction	General Occupancy	1,082,900		\$ 980,000.00	\$ 980,000.00	\$ 980,000.00	\$ 17,303,516.00
Cottages Off Collins	CommunityWorks North Dakota	Mandan	40	New Construction	Senior (55+)	1,258,365			\$ 1,250,000.00		\$ 13,139,727.00
Windsong at Silver Ranch	CommunityWorks North Dakota	Bismarck	32	New Construction	General Occupancy	1,161,580			\$ 400,000.00	\$ 400,000.00	\$ 11,363,468.00
Buffalo Manor Apartments 1	Beyond Shelter, Inc	Jamestown	39	New Construction	Senior (62+)	1,345,000		\$ 1,345,000.00	\$ 1,310,000.00	\$ 1,000,000.00	\$ 16,027,953.00
Elson Shores 1	Housing Authority of Cass County	West Fargo	40	New Construction	Senior (62+)	1,394,000		\$ 1,300,000.00	\$ -	\$ 2,100,000.00	\$ 18,258,843.00
Elson Shores 2	Housing Authority of Cass County	West Fargo	36	New Construction	Senior (62+)	1,394,000		\$ 1,600,000.00	\$ 860,000.00	\$ 600,000.00	\$ 17,737,429.00
Engle Court Phase II	Authority	Minot	36	New Construction	General Occupancy	1,390,000		\$ 1,300,000.00	\$ -	\$ 2,700,000.00	\$ 16,589,671.00
Harvest Acres Apartments 1	Beyond Shelter, Inc	Fargo	39	New Construction	Senior (62+)	1,350,000		\$ 1,300,000.00	\$ 1,310,000.00	\$ 1,100,000.00	\$ 15,628,493.00
Harvest Acres Apartments 2	Beyond Shelter, Inc	Fargo	39	New Construction	Senior (62+)	1,390,000		\$ 1,300,000.00	\$ -	\$ 1,700,000.00	\$ 15,431,828.00
Villas at Durango	Commonwealth	Bismarck	40	New Construction	General Occupancy	1,258,365		\$ 81,823.00	\$ 327,293.00	\$ 2,700,000.00	\$ 15,367,781.00
Townhomes on 44th	Homes, Inc	Grand Forks	36	New Construction	General Occupancy	1,639,000		\$ 1,000,000.00	\$ 2,000,000.00	\$ 3,000,000.00	\$ 26,148,651.00
Tobi Lane Twinhomes	Homes, Inc	Grand Forks	24	New Construction	General Occupancy	1,348,013		\$ 1,000,000.00			\$ 16,648,244.00
MHL 122	Development Partners, LLC	Devils Lake	67	Acquisition/Rehab	General Occupancy	955,904					\$ 13,116,367.00
Avalon at Jamestown	LLC	Jamestown	25	New Construction	General Occupancy	1,258,364					\$ 11,847,203.00
Centerpointe Townhomes	Affordable Housing Developers, Inc	Rugby	8	New Construction	General Occupancy			\$ 1,950,000.00	\$ 2,100,000.00		\$ 4,761,472.00
FHRA SRO Rehab	Housing Authority of the City of Fargo	Fargo	23	Acquisition/Rehab	General Occupancy			\$ 2,428,900.00			\$ 4,822,400.00
Wild Rose Senior Housing	Wild Rose Senior Housing, LLC	Minot	48	Acquisition/Rehab	Senior (55+)			\$ 750,000.00			\$ 9,083,758.00
KingsView Apartments	Dakota Commercial & Development	Grand Forks	45	New Construction	General Occupancy			\$ 1,500,000.00			\$ 12,446,000.00
CWND Rolla	CommunityWorks North Dakota	Rolla	47	Rehabilitation	General Occupancy			\$ 500,000.00			\$ 1,500,000.00
Fieldview Row	Fieldview LLC	Gilby	3	New Construction	General Occupancy			\$ 474,000.00			\$ 973,768.00
23			1194			19,215,491	5,967,848	\$ 27,285,776.00	\$ 10,537,293.00	\$ 16,280,000.00	\$ 396,941,055.00
Amount Oversubscribed						15,015,818		\$ 6,929,528.27	\$ 8,148,137.13	\$ 13,021,659.38	

2025 Annual Application Round- Applications Selected for Commitment											
Development Name	Applicant	Location	Total Units	Type of Development	Target Population	LIHTC 9 Awarded	LIHTC 4 Awarded	HIF Awarded	HOME Awarded	HTF Awarded	Development Cost
FHRA 14-4	Redevelopment Authority	Fargo	65	New Construction	General Occupancy	1,347,000		\$ 1,000,000.00			\$ 17,303,516.00
Harvest Acres Apartments 1	Beyond Shelter, Inc	Fargo	39	New Construction	Senior (62+)	1,136,600		\$ 1,000,000.00	\$ 699,155.87	\$ 3,258,340.62	\$ 15,628,493.00
Buffalo Manor Apartments 1	Beyond Shelter, Inc	Jamestown	39	New Construction	Senior (62+)	1,427,888		\$ 1,000,000.00	\$ 1,690,000.00		\$ 16,027,953.00
Wild Rose Senior Housing	Wild Rose Senior Housing, LLC	Minot	48	Acquisition/Rehab	Senior (55+)			\$ 850,000.00			\$ 9,083,758.00
Central at the Horizon	Union Development Holdings III, LLC	Fargo	262	New Construction	General Occupancy		4,332,321	\$ 3,000,000.00			\$ 93,711,019.00
KingsView Apartments	Dakota Commercial & Development	Grand Forks	45	New Construction	General Occupancy			\$ 1,500,000.00			\$ 12,446,000.00
Brookstone Apartments 4	Dakota Commercial & MAK Construction	Grand Forks	160	New Construction	General Occupancy		1,635,527	\$ 5,400,000.00			\$ 33,213,797.00
Funding Remaining			658			288,185	5,967,848	\$ 6,606,247.73	\$ -	\$ -	



November 25, 2025

TO: Industrial Commission

FROM: Brandon Dettlaff, Executive Director

RE: Summary Report on Issuance of Multifamily Revenue Bonds: Pleasant Valley

On June 26, 2025 the Industrial Commission executed an Authorizing Resolution, authorizing the issuance of Multifamily Revenue Bonds not to exceed \$9,500,000 along with following operative documents

- (a) Trust Indenture
- (b) Loan Agreement
- (c) Regulatory Agreement
- (d) Bond Purchase Agreement

and authorized the Executive Director, Director of Community Housing and Grants Management, or the Chief Financial Officer to execute documents in final form so long as changes fell within the approved parameters of the documents as drafted.

Transaction summary as authorized

Pleasant Valley Apartments is an existing 60-unit general occupancy Section 8 project. Originally constructed between 1978 and 1981, the project has not undergone any significant renovations since it was built. Renovations include full kitchen, appliances, and flooring replacement, exterior upgrades, replacement of all building systems, and improvements to grounds and parking. The total development costs are estimated at \$15.5 million.

The transaction involves the sale of bonds which will be secured by a construction loan through Bridgewater Bank. Once construction is complete and the project is stabilized, the bonds will be converted into a physical Governmental Note and purchased by Lument Real Estate Capital. Freddie Mac will commit to purchase the note from Lument shortly after conversion.

Final Issuance Summary

The bond transaction closed on October 9, 2025 with no substantial changes to final documents. Final issuance was \$9,000,000

Bond Allocation Approval No. 25-02
\$9,000,000
State of North Dakota
North Dakota Housing Finance Agency
Multifamily Revenue Bonds
(Pleasant Valley Apartments)
Series 2025

REPORT OF ISSUANCE

Issuer: Industrial Commission of North Dakota, acting as the North Dakota Housing Finance Agency.

Description of Project or Program: Proceeds from the above-captioned bonds were lent to Pleasant Valley TC Apartments, LP, a North Dakota limited partnership (the "Borrower"), to finance a portion of the costs of the acquisition, construction and equipping by the Borrower of the Pleasant Valley Apartments, an 60-unit, scattered-site multifamily residential rental project located in Dickinson, North Dakota.

Aggregate Principal Amount of Indebtedness Issued: Series 2025 in the amount of \$9,000,000, all of which requires volume cap.

Date of Issuance: October 9, 2025.



November 25, 2025

TO: Industrial Commission

FR: NDHFA Underwriter Selection Committee:
 Jaden Grossman, Assistant Attorney General for the State and attorney for NDHFA
 Karen Tyler, Executive Director, Industrial Commission
 Jordan Kannianen, Deputy Executive Director, Industrial Commission
 Brandon Dettlaff, Executive Director, NDHFA
 Kayla Axtman, Chief Financial Officer, NDHFA

RE: NDHFA Bond Underwriter Engagement Proposal

North Dakota Housing Finance Agency's (the "Agency") current engagement with its bond management team is set to expire on January 1, 2026.

The Request for Proposal (the "RFP") for the NDHFA Bond Underwriter Engagements was distributed October 8, 2025, to 23 underwriting firms who are either part of the current management team, selling group, or are known to be very active in Single Family Mortgage Revenue Bonds. The deadline for responses was October 27, 2025.

Fifteen proposals were received. Eight of the proposals were for Senior Manager on all bond issues and seven were for Co-Manager on all bond issues. The eight-member NDHFA Underwriter Selection Committee comprised of Brandon Dettlaff, Kayla Axtman, Karen Tyler, Jordan Kannianen, Jaden Grossman, and our Financial Advisors Tom Caine, Ansel Caine and Victor Chiang, reviewed the responses. The RFP asked firms to respond to 21 specific points including housing bond experience, costs/fees, marketing experience, North Dakota presence, and program and structuring suggestions. The Selection Committee also took into consideration past sales performance of North Dakota bonds. The Selection Committee is recommending the Agency renew its engagement with **RBC Capital Markets** having one senior and three co-managers. Co-Managers are the top three firms based on sales performance from the last transaction. A firm could become the senior manager on a transaction should their suggested structure be superior to what is proposed by the senior manager.

Selection Committee recommendations are as follows:

Senior Manager: RBC Capital Markets

Compensation: Management fee – \$.75 per thousand of bonds to the Senior Manager only. There will be no management fee paid to the remaining team members.

Risk compensation: None

Expiration Date: January 1, 2030, with the option to extend for a one-year period at the direction of the Agency, all subject to satisfactory performance



The recommended management fee of \$.75 will be subject to renegotiation should the services of the Senior Manager change. All management team members receive commission (takedown) from bond sales.

The reasons for proposing **RBC Capital Markets** as a Senior Manager were based primarily on: (1) they have had a long and successful history as a Senior and Co-Manager for the Agency's single family bond issues; (2) they have shown a commitment to the State through their underwriting of bonds and wealth management office location in Fargo; (3) they have provided liquidity and acted as a swap counterparty for the Agency in prior transactions; (4) they are ranked first as Senior Manager according to the Bond Buyer; (5) they have provided superior material during the structuring phase of a transaction as compared to Morgan Stanley and Wells Fargo when they acted as Senior Manager.

Finally, the Agency will make it clear to the proposed management team members that although the proposed engagement is for approximately four years with the option to extend for one additional year, the Agency reserves the right to make changes to the team and the terms of the engagement at any time. The Selection Committee recommendation is being made in reliance on the information provided in the responses to the RFP.

Sincerely,

A handwritten signature in black ink that reads "Kayla Axtman".

Kayla Axtman, CFO
NORTH DAKOTA HOUSING FINANCE AGENCY

NORTH DAKOTA HOUSING FINANCE AGENCY
HOUSING FINANCE PROGRAM BONDS
HOME MORTGAGE FINANCE PROGRAM

2026 ANNUAL SERIES RESOLUTION

WHEREAS, the Industrial Commission of North Dakota (the “**Commission**”) acting in its capacity as a state housing finance agency, i.e., the North Dakota Housing Finance Agency (the “**Agency**”), is empowered by the provisions of the North Dakota Century Code Chapter 54-17 (the “**Act**”) to establish, and has established, a home mortgage finance program to contract to purchase from lenders mortgage loans made to persons or families of low or moderate income to finance the purchase or substantial rehabilitation of owner-occupied, single-family residential dwelling units; and

WHEREAS, the Commission adopted the Housing Finance Program General Bond Resolution of 1994, on July 21, 1994, as amended (the “**1994 General Resolution**”), and the General Bond Resolution of 2009, on November 25, 2009 (the “**2009 General Bond Resolution**,” and together with the 1994 General Resolution, the “**General Resolutions**”), wherein Wilmington Trust, National Association, Minneapolis, Minnesota, was appointed successor trustee (the “**Trustee**”) under each of the General Resolutions, and which General Resolutions were each accepted by the Trustee, and which General Resolutions are hereby ratified and confirmed; and

WHEREAS, the Agency has previously issued certain bonds pursuant to each of the General Resolutions (collectively, the “**Home Mortgage Finance Program Bonds**”), both of which allow for the issuance of additional bonds thereunder and the refunding of certain bonds currently outstanding thereunder; and

WHEREAS, the General Resolutions authorize the issuance and sale of additional Home Mortgage Finance Program Bonds (the “**New Series Bonds**”), pursuant to the Act, the application of the proceeds of which will provide funding for the captioned Home Mortgage Finance Program, which may include the North Dakota Roots Program (the “**Program**”), contemplated by the Act in furtherance of the Program for the providing of decent, safe, and sanitary housing for persons and families of low or moderate income; and

WHEREAS, the Commission acting as the Agency has determined to appoint as its agents the Executive Director, the Director of Homeownership Programs and the Chief Financial Officer of the Agency (the “**Authorized Officers**”) for the negotiation of the terms of sale of the New Series Bonds, in one or more series, with fixed or floating interest rates, and with or without bondholder tender rights, and to sign such agreements on behalf of the Commission after such terms of sale have been negotiated, and such certificates and other documents as are necessary and customary to complete the sale of the New Series Bonds, and to enter into agreements for their sale by the Agency and purchase by the Underwriters described below, private entities or the U.S. Treasury and/or instrumentalities thereof, subject to the limitations herein established with regard to the New Series Bonds:

- (a) a maximum principal amount of long-term bonds of \$750,000,000; provided that bonds may be issued pursuant hereto to refund any bond outstanding under

the 1994 General Resolution or the 2009 General Bond Resolution without regard to this maximum principal amount;

(b) a maximum principal amount of short-term bonds of \$100,000,000; provided that bonds may be issued pursuant hereto to refund any bond outstanding under the 1994 General Resolution or the 2009 General Bond Resolution without regard to this maximum principal amount;

(c) a final maturity of not later than fifty years from the applicable date of issuance;

(d) a maximum average annual interest rate, on a per issue basis, of 9.00% for fixed rate bonds, and for variable rate bonds an initial rate of 8.00% with a maximum rate of 15% per annum, determined at the time of pricing any New Series Bonds; and

WHEREAS, the following documents (collectively, the “**Closing Financing Documents**”) may be prepared in connection with each issuance of the New Series Bonds:

(a) One or more Bond Certificates, (the “**Bond Certificates**”);

(b) Fixed Rate Bond Purchase Contract (the “**Fixed Rate Bond Purchase Contract**”) with respect to any New Series Bonds issued with fixed interest rates (the “**Fixed Rate Bonds**”), by and between the Commission and the representative of the underwriters selected by an Authorized Officer (collectively the “**Underwriters**”);

(c) Variable Rate Bond Purchase Contract (the “**Variable Rate Bond Purchase Contract**”) with respect to any New Series Bonds issued with variable interest rates (the “**Variable Rate Bonds**”), by and between the Commission and the sole underwriter of any Variable Rate Bonds selected by an Authorized Officer;

(d) Preliminary Official Statement, with respect to the New Series Bonds (the “**Preliminary Official Statement**”);

(e) Continuing Disclosure Agreement (the “**Continuing Disclosure Agreement**”) by and between the Agency and the Trustee;

(f) Remarketing Agreement (the “**Remarketing Agreement**”) with respect to any Variable Rate Bonds by and among the Commission, a remarketing agent selected by an Authorized Officer and Wilmington Trust, National Association, as tender agent (the “**Tender Agent**”); and

(g) Standby Bond Purchase Agreement (the “**Standby Bond Purchase Agreement**”) with respect to any Variable Rate Bonds by and among the Agency, the Trustee, the Tender Agent and a counterparty selected by an Authorized Officer; and

WHEREAS, Section 1.150-2 of the Internal Revenue Code regulations (the “**Tax Regulations**”) provides, if the Agency intends to finance mortgage loans with its own funds or

warehouse funds, and then reimburse itself with New Series Bond proceeds, that the Agency declare its intention to do so prior to so financing such mortgage loans.

NOW BE IT HERewith RESOLVED:

1. The Authorized Officers are appointed as agents of the Commission acting as the Agency for the purposes set forth in the preambles to this Annual Series Resolution and the Agency is hereby authorized to issue, execute, sell and deliver the New Series Bonds, in substance as provided in the final forms of the Closing Financing Documents as approved by an Authorized Officer, provided that the New Series Bonds meet the following conditions:

A. The New Series Bonds: (i) shall be sold, issued, executed and delivered at such time as an Authorized Officer shall determine during the period commencing January 1, 2026 and ending on January 31, 2027, in one or more series or sub-series, in an aggregate principal amount not to exceed the amounts set forth in the preambles to this Annual Series Resolution; (ii) shall be subject to redemption prior to maturity, at prices and otherwise as determined by an Authorized Officer to be in the best interests of the Agency; (iii) shall have long term ratings no lower than the long term rating on the bonds outstanding under the applicable General Resolution immediately prior to the issuance of the New Series Bonds; and (iv) shall be dated, mature in the years and in the principal amounts and be payable on the dates and at the respective rates of interest per annum determined by an Authorized Officer (subject in all cases to the limitations otherwise set forth in this Annual Series Resolution).

B. Any New Series Bonds issued as Fixed Rate Bonds shall bear interest at fixed rates determined by an Authorized Officer, provided, however that the weighted average of such rates, on a per issue basis, shall not exceed 9.0% per annum. Any New Series Bonds issued as Variable Rate Bonds shall bear interest at a variable rate that shall not initially exceed 8.0%.

C. An Authorized Officer shall determine whether the New Series Bonds shall be issued as bonds the interest on which is exempt from or subject to federal income taxation.

D. The New Series Bonds shall not constitute debt of the State or any political subdivision thereof. Neither the faith and credit nor the taxing powers of the State or any political subdivision thereof may be pledged to the payment of the principal of or interest on the New Series Bonds.

E. The New Series Bonds shall be special limited obligation revenue bonds of the State payable solely from the revenues and assets pledged therefore under the applicable General Resolution.

2. The form of one or more Bond Certificates, in substantially the forms of either the 2024 Series A/B Bond Certificate executed in connection with the issuance of the Agency's Home Mortgage Finance Program Bonds, Home Mortgage Finance Program, 2024 Series A and 2024 Series B (collectively, the "**2024 Series AB Bonds**") or the 2023 Series C Bond Certificate executed in connection with the issuance of the Agency's Home Mortgage Finance Program Bonds, Home Mortgage Finance Program, 2023 Series C (the "**2023 Series C Bonds**") are hereby approved with such changes, variations, omissions and insertions as an Authorized Officer shall

approve. The execution and delivery of such Bond Certificates by an Authorized Officer shall constitute conclusive evidence of such approval.

3. The form of the Fixed Rate Bond Purchase Contract, in substantially the form of the purchase contract prepared in connection with the issuance of the 2024 Series AB Bonds, and the form of the Variable Rate Bond Purchase Contract, in substantially the form of the purchase contract prepared in connection with the issuance of the 2023 Series C Bonds, are hereby approved with such changes, variations, omissions and insertions as an Authorized Officer shall approve. The execution and delivery of the respective Purchase Contracts by an Authorized Officer shall constitute conclusive evidence of such approvals.

4. The Preliminary Official Statement, in substantially the form of either the Official Statement prepared in connection with the issuance of the 2024 Series AB Bonds or the Official Statement prepared in connection with the 2023 Series C Bonds, with such changes, omissions, insertions and revisions as an Authorized Officer shall deem advisable, is hereby authorized, and the furnishing of the information in the Preliminary Official Statement and in a final Official Statement for each issuance of New Series Bonds, and the use of such Preliminary Official Statement and final Official Statement by the Underwriters in connection with the offering of such New Series Bonds to the public, are hereby approved. Any Authorized Officer is hereby authorized to execute and deliver to the Underwriters the final Official Statement for the applicable New Series Bonds in substantially the form of the Preliminary Official Statement with such changes therein as are approved by such Authorized Officer. The execution and delivery of one or more copies of the final Official Statement by an Authorized Officer shall constitute conclusive evidence of such approval.

5. The form of the Continuing Disclosure Agreement, in substantially the form of the Continuing Disclosure Agreement prepared in connection with the issuance of the 2024 Series AB Bonds is hereby approved with such changes, variations, omissions, and insertions as an Authorized Officer shall approve. The execution and delivery of the Continuing Disclosure Agreement by such Authorized Officer shall constitute conclusive evidence of such approval.

6. The form of the Remarketing Agreement, in substantially the form of such agreement prepared in connection with the issuance of the 2023 Series C Bonds is hereby approved with such changes, variations, omissions, and insertions as an Authorized Officer shall approve. The execution and delivery of the Remarketing Agreement by such Authorized Officer shall constitute conclusive evidence of such approval.

7. The form of the Standby Bond Purchase Agreement, in substantially the form of such agreement prepared in connection with the issuance of the Agency's Home Mortgage Finance Program Bonds, Home Mortgage Finance Program, 2019 Series E if the counterparty specified by an Authorized Officer of the Agency is the Federal Home Loan Bank of Des Moines or substantially in the form prepared in connection with the issuance of the 2023 Series C Bonds if any other counterparty is specified by an Authorized Officer of the Agency, is hereby approved with such changes, variations, omissions, and insertions as an Authorized Officer shall approve. The execution and delivery of the Standby Bond Purchase Agreement by such Authorized Officer shall constitute conclusive evidence of such approval.

8. The Authorized Officers are hereby authorized, empowered and directed to do all acts and things required or provided for by the Closing Financing Documents and to execute and deliver all such additional certificates, instruments, agreements and documents, (including any tax certificate or forms) pay all such fees, charges and expenses and to do all such further acts and things as may be necessary, or in the reasonable discretion of an Authorized Officer, desirable and proper to effect the purposes of this Annual Series Resolution and to cause compliance by the Agency with all the terms, covenants and provisions of such documents binding upon the Agency.

9. The use of interest rate hedging agreements with such financial organizations as an Authorized Officer of the Agency may specify (each, a “**Counterparty**”) is hereby approved (in particular financial organizations with whom the Agency already has such hedging agreements) and the form of the interest rate hedging agreements with such counterparties, consisting of an ISDA Master Agreement, including a Schedule and Credit Support Annex, and one or more Confirmations thereto, relating to the New Series Bonds (collectively, the “**Hedging Agreements**”) which Counterparties and form of agreements satisfy the provisions of the Commission’s Swap Management and Execution Policy (the “**Swap Policy**”) are hereby approved, and the Authorized Officers of the Agency are authorized to negotiate the final terms of, approve and execute any such Hedging Agreements; and such execution and delivery shall constitute conclusive evidence of their approval of all changes thereto.

10. The New Series Bonds shall be executed by the manual or facsimile signatures of the Governor, the Attorney General, the Agriculture Commissioner and an Authorized Officer, and with the manual or a facsimile of the Official Seal of the Commission impressed, imprinted or otherwise reproduced thereon.

11. The terms of any sale of New Series Bonds shall be reported to the Commission at its next succeeding meeting, and any acts of the officers, agents and employees of the Commission and the Agency which are in conformity with the purpose and intent of this Annual Series Resolution and in furtherance of the sale of the New Series Bonds need not be submitted for approval, ratification and confirmation.

12. In addition to the authority otherwise granted herein, the Authorized Officers are authorized and empowered to enter into, amend or terminate interest rate hedging agreements with respect to any Home Mortgage Finance Program Bonds with a variable interest rate, including replacement of expiring hedging agreements, but only for the purposes and in accordance with the Swap Policy as then in effect, and in no case may the notional amount of any such agreement exceed the principal amount of variable interest rate Home Mortgage Finance Program Bonds whose interest rate is being hedged.

13. In addition to the authority otherwise granted herein, the Authorized Officers are authorized and empowered to enter into liquidity agreements, such as standby bond purchase agreements, including extension or replacement of expiring liquidity agreements, with financial institutions whereby such institutions are primarily obligated to purchase any tendered Home Mortgage Finance Program Bonds that are not successfully remarketed.

14. To the extent required for New Series Bonds to be issued as tax-exempt bonds, each Authorized Officer is hereby appointed to represent the Agency at public hearings held pursuant

to Section 147(f) of the Internal Revenue Code, to be held on the dates and at the times selected by such Authorized Officer regarding the proposed issuance of such New Series Bonds and will receive, on behalf of the Commission, public comments, oral or written, and advise the Chairman of the Commission of the substance of the testimony given at the public hearing prior to the date of issuance of such New Series Bonds

15. Moneys held by the Trustee pursuant to the General Resolutions may be invested in any investments permitted by the respective General Resolution, and in accordance with North Dakota laws.

16. Program Directive No. 83, adopted by the Commission on June 23, 2004, authorizing the changing of Mortgage Loan purchase price, fees and points and interest rate is still in effect and is hereby ratified and confirmed.

17. This Annual Series Resolution is intended to qualify as a reimbursement resolution pursuant to the Tax Regulations and, therefore permit proceeds from the sale of the New Series Bonds to be used to reimburse the Agency for its purchase of any Mortgage Loans in anticipation of the availability of the proceeds from the sale of the New Series Bonds; in particular, the Agency hereby declares its intention, within the meaning of the Tax Regulations, to facilitate continuous funding of the Program by, from time to time, financing Mortgage Loans and then issuing New Series Bonds in one or more series within 18 months thereof to reimburse itself for such financing, all in an amount presently expected to not exceed the amount of long-term New Series Bonds authorized by Section 1 hereof, and hereby confirms that any Authorized Officer is authorized to also so declare the intention of the Agency within the meaning of said Tax Regulations, provided that any such declaration does not authorize or obligate the Agency to issue any such New Series Bonds.

IN WITNESS WHEREOF, this Annual Series Resolution has been adopted and signed on November 25, 2025 and shall remain in full force and effect through January 31, 2027.

INDUSTRIAL COMMISSION OF NORTH DAKOTA
ACTING AS THE NORTH DAKOTA HOUSING FINANCE AGENCY

Kelly Armstrong, Governor and Chairman

Drew H. Wrigley, Attorney General

Doug Goehring, Agriculture Commissioner

Attest:

Karen Tyler
Executive Director and Secretary

[SEAL]

CERTIFICATION

I hereby certify that the Annual Series Resolution to which this Certification is affixed is a true copy of the original adopted by the Industrial Commission of North Dakota at a properly noticed meeting held in Bismarck, North Dakota, on November 25, 2025 with the motion for adoption of the foregoing made by _____ and seconded by _____, and the roll call vote on the motion was as follows:

Kelly Armstrong	"Aye"	"Nay"	Absent	Abstained
Drew H. Wrigley	"Aye"	"Nay"	Absent	Abstained
Doug Goehring	"Aye"	"Nay"	Absent	Abstained

Karen Tyler
Executive Director and Secretary

[SEAL]

Resolution of Board of Directors and Certificate of Authorized Signatures

U.S. Department of Housing
and Urban Development
Government National Mortgage Association

OMB Approval No. 2503-0033 (Exp. 04/30/2026)

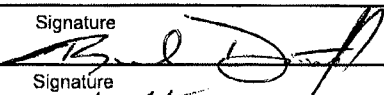
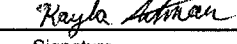
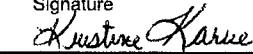
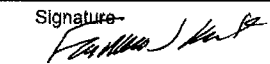
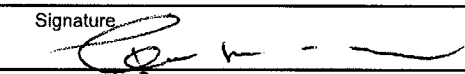
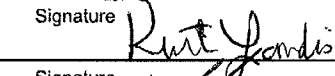
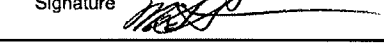
(Please type all entries)

Public reporting burden for this collection of information is estimated to average 5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. This agency may not collect this information, and you are not required to complete this form, unless it displays a current OMB control number.

Ginnie Mae is authorized to collect the information on this form as required by Section 306(g) of the National Housing Act and/or the Ginnie Mae Handbook, 5500.3, Rev. 1. Ginnie Mae maintains this information to ensure that the persons identified below perform in accordance with acceptable business standards. The information collected will not be disclosed outside the Department except as required by law.

Name of Issuer	NORTH DAKOTA HOUSING FINANCE AGENCY	Issuer ID Number	4093
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Resolved First, that

Name and Title of Officer Brandon Dettlaff, Executive Director	Signature 
Name and Title of Officer Kayla Axtman, Chief Financial Officer	Signature 
Name and Title of Officer Kristine Karre, Controller	Signature 
Name and Title of Officer Franklin Kraft, System Admin	Signature 
Name and Title of Officer Terri Mollman Larson, Director of Financial Services	Signature 
Name and Title of Officer Kurt Landis, IT Manager	Signature 
Name and Title of Officer Weston Glasser, IT Analyst	Signature 
Name and Title of Officer	Signature

of this corporation, or any one or more of them, be and each of them is hereby authorized and empowered in the name of and on behalf of this corporation and under its corporate seal, from time to time while these resolutions are in effect, to execute and deliver to the Government National Mortgage Association, in the form prescribed by said Association, with respect to the issue(s) by this corporation, under Section 306(g) of the National Housing Act and the Regulations pertaining thereto, of mortgage-backed securities to be guaranteed by the Association, any documents required to: (a) make applications to Ginnie Mae in the name of and on behalf of this corporation for approval to become an issuer and for Ginnie Mae commitments to guarantee such mortgage-backed securities issued by this corporation; (b) enter into contracts with Ginnie Mae for the latter's guaranty of mortgage-backed securities issued in accordance with the terms and conditions of commitments to guarantee, issued by the Association to this corporation; (c) merge mortgage notes, deeds of trust and bonds now owned or hereafter acquired by this corporation into pools or loan packages, against which this corporation may issue mortgage-backed securities; (d) enter into any agreements, execute any documents or papers, and furnish any information required or deemed necessary or proper by the Association in connection with any of the foregoing; and (e) abide by all the terms and conditions set forth in the Ginnie Mae Mortgage-

Resolved Second, that the above named officers, be and they are hereby authorized and empowered in their discretion and as occasion may arise to receive and endorse the name of this corporation on any checks or drafts representing the proceeds from collections made by servicers of mortgages pertaining to pools or loan packages, and to issue and sign any checks or drafts issued to pay to the security holders their pro rata shares in these proceeds, and to do and perform any and all acts and to execute any and all additional instruments or agreements, from time to time, in the name of and on behalf of this corporation under its corporate seal or otherwise, deemed necessary or proper by the Association in connection with the formation of mortgage pools or loan packages, the issuance of mortgage-backed securities, the guaranty of mortgage-backed securities by the Association and the discharge of the duties and obligations of this corporation, as issuer, until the proceeds of the last maturing mortgage in any pool or loan package is remitted to registered security holders.

Resolved Third, that any contracts or agreements heretofore made said Association on behalf of this corporation, and all acts of officers or agents of this corporation in connection with any contracts to be entered into for the guaranty by the Association of mortgage-backed securities to be issued by this corporation are hereby ratified and confirmed.

Resolved Fourth, that Ginnie Mae is authorized to rely upon the aforesaid resolution until receipt by it of written notice thirty days in advance of any proposed change therein.

Certification.

I Hereby Certify that the foregoing is a true and correct copy of a resolution presented to and adopted by the Board of Directors of
NORTH DAKOTA HOUSING FINANCE AGENCY

at a meeting duly called and held at the North Dakota State Capital, 600 East,Boulevard,Bismarck,ND,58504

on the 25th day of NOV, 2025, at which a quorum was present and voted, and that such resolution is duly recorded in the minute book of this corporation; that the officers named in said resolution have been duly elected or appointed to, and are the present incumbents of, the respective offices set after their respective names. I also certify that the signatures set opposite the officers' names are true and genuine specimens of the officers' respective signatures.

In Witness Whereof, I have hereunto signed my name and affixed the seal of this corporation.

(seal)

Karen Tyler

Secretary

I, Brandon Dettlaff

Executive Director

Name of Officer

Title of Officer

of NORTH DAKOTA HOUSING FINANCE AGENCY

Name of Institution

in 2624 Vermont Avenue,Bismarck,ND,58504

hereby certify

Location of Institution

Karen Tyler

is duly qualified and acting

Name of Secretary

of NORTH DAKOTA HOUSING FINANCE AGENCY

Name of Institution

and that the signature appearing above is his/her genuine signature.

In Witness Whereof, I have hereunto signed my name

11/25/2025

Date


Officer Signature

November 12, 2025

PUBLIC FINANCE AUTHORITY ADVISORY COMMITTEE

RECOMMENDATION TO THE INDUSTRIAL COMMISSION

The Advisory Committee, at its November 12, 2025 meeting, reviewed, discussed, and recommends approval of a \$5,625,000 Drinking Water State Revolving Fund Program loan to South Central Regional Water District.

North Dakota Public Finance Authority
Advisory Committee

Keith Lund, Chairman
Linda Svihovec
John Phillips

Industrial Commission
of North Dakota

Kelly Armstrong
GOVERNOR

Drew H. Wrigley
ATTORNEY GENERAL

Doug Goehring
AGRICULTURE COMMISSIONER



Public Finance Authority

Memorandum

To: Public Finance Authority Advisory Committee
Miles Silbert, Public Financial Management
Kylee Merkel, Bank of North Dakota

From: DeAnn Ament, Executive Director

Date: November 5, 2025

Re: South Central Regional Water District
Drinking Water State Revolving Fund

Purpose of the Project: Connecting the City of Napoleon to South Central Regional Water District (District).

Project Amount:

DWSRF Request	\$ 5,625,000
DWSRF Loan Forgiveness	(4,218,750)
Net DWSRF Loan	\$1,406,250

DWSRF Request	\$ 5,625,000
DWR Cost Share	992,610
Project Total	\$ 6,617,610

Users to Benefit from the Project: 745

Users Served by the System: 8,692 connections plus 13 bulk users which include 5 cities serving a total population of 4,335

The requested term for the Drinking Water State Revolving Fund (DWSRF) loan is 30 years. The District will issue revenue bonds payable with water user fees. The net average annual payment for the revenue bonds will be \$59,256. The reserve requirement will be \$63,600 and the 110% coverage requirement will be \$65,182.

The District currently provides water services to 8,692 rural connections and 5 cities in Burleigh, Kidder, Emmons, McIntosh and Logan Counties. Burleigh County users pay a monthly base rate of \$34 and \$7.50/1,000 gallons up to 10,000 gallons and \$7.90/1,000 gallons over 10,000 gallons. All other users' monthly base rate is \$40 and \$6.00/1,000 gallons. The number of connections is anticipated to grow by 178 over the next two years. Annual operations and maintenance expenses are anticipated to increase by \$45,000.

Net Operating Coverage:

	2021	2022	2023	2024
Interest Revenue	\$28,911	\$114,640	\$441,430	\$557,651
Operating Revenue	9,198,369	8,557,714	8,222,376	8,752,727
Operating Expenses	6,893,303	6,588,252	7,029,452	7,076,528
Net Operating Revenue	2,333,977	2,084,102	1,634,354	2,233,850
Depreciation	2,066,549	2,066,497	2,051,560	2,015,188
Adjusted Net Operating Revenue	\$4,400,526	\$4,150,599	\$3,685,914	\$4,249,038
Revenue Bond Payments	\$2,404,872	\$2,411,345	\$2,408,864	\$2,410,114
Net Operating Coverage	183%	172%	153%	176%
Proforma DWSRF Payments ¹	\$165,005	\$165,005	\$165,005	\$165,005
Proforma Net Operating Coverage	171%	161%	143%	165%

¹ Includes the \$105,749 average annual bond payment for the DWSRF loan approved in December 2023 that began drawing in September 2024.

Net operating revenue should be sufficient to meet the 110% net operating coverage requirement.

Total outstanding debt of the District as of October 31, 2025:

	Original Debt	Outstanding Debt
Total Revenue Bond Debt ²	\$44,581,750	\$20,877,260

² All payments have been made as agreed. The District has five DWSRF loans outstanding totaling \$7,298,709. A debt service reserve of \$2,415,016 is held by the District.

The current estimated population of the District is 31,604 which is an increase of 776 since the 2010 census. Major employers in the service area are Linton Hospital, Ashley Medical Center, Strasburg Care Center, Wisher Living Center (Healthcare) with 576 employees, Emmons County has 95 employees and Linton, Ashley & Wishek Public Schools employ 80.

District-Wide School Enrollment for K-12:

2021-2022	2022-2023	2023-2024	2024-2025
1,636	1,668	1,660	1,607



Memorandum

TO: DeAnn Ament, Executive Director
North Dakota Public Finance Authority

FROM: PFM Financial Advisors LLC

DATE: November 12, 2025

RE: Marketplace Analysis - Drinking Water State Revolving Fund Program
South Central Regional Water District

The South Central Regional Water District (“District”) has presented a request to the Authority and the North Dakota Department of Environmental Quality (“Department”) for a \$5,625,000 loan of which \$4,218,750 will be loan forgiveness for a total net loan of \$1,406,250 under the Drinking Water State Revolving Fund Program (“DWSRF Program”). The DWSRF Program is used to make subsidized interest rate loans to political subdivisions for the purpose of constructing various water treatment, distribution, and storage facilities as approved by the Department in accordance with federal and state regulations and an updated Intended Use Plan prepared by the Department.

The District intends to use the proceeds to connect the City of Napoleon to the District.

The municipal securities to be acquired by the Authority will be revenue bonds payable with water user fees. The District’s average annual payment under the proposed loan will be approximately \$59,256 indicating a 110% net revenue coverage requirement of approximately \$65,182. The District will be required to deposit \$63,600 into a reserve fund with payments of \$12,720 per year for the first five years of the loan. Proforma net operating coverage of the Water Fund was 1.71x, 1.61x, 1.43x and 1.65x for 2021-2024, respectively. The existing net operating revenues will provide sufficient coverage to meet the 110% coverage requirement.

As of October 31, 2025, the District has outstanding Revenue Bonds of \$20,877,260. The District currently has five Drinking Water SRF loans outstanding with a balance of \$7,298,709. The District is current in its payments for its outstanding Authority loans.

Funding for the construction of the District's projects has been included in a list of approved projects as prepared and updated by the Department. As an authorized participant in the DWSRF Program, the District will benefit substantially from the subsidized fixed rate loans made under the Program. Consequently, no other financing mechanism can provide a greater cost advantage than that offered by the DWSRF Program.

Attachment 27E

Memorandum

To: Industrial Commission

From: Kylee Merkel, Business Banker
Bank of North Dakota

Date: November 6, 2025

RE: South Central Regional Water District
Drinking Water State Revolving Fund Program

ND Public Finance Authority has delivered to BND their memo which recommends approval of a \$5,625,000 loan to South Central Regional Water District under the Drinking Water State Revolving Fund (DWSRF). This project is eligible for \$4,218,750 of DWSRF loan forgiveness, making the net loan \$1,406,250. The total cost of the project is \$6,617,610, with \$992,610 coming from a Department of Water Resources cost-share grant.

The project will connect the City of Napoleon to the system. The requested loan term is 30 years. The District will issue revenue bonds payable from water user fees. The annual payment will average \$59,256.

Debt Service Coverage:

	2022	2023	2024	Projected
Operating Revenue	8,557,714	8,222,376	8,752,727	8,752,727
Interest Revenue	114,640	441,430	557,651	557,651
Operating Expenses	-6,588,252	-7,040,212	-7,076,528	-7,076,528
Net Operating Revenue	2,084,102	1,623,594	2,233,850	2,233,850
Add: Depreciation	2,066,497	2,051,560	2,015,188	2,015,188
Adjusted Operating Income	4,150,599	3,675,154	4,249,038	4,249,038
Current Debt Service	2,411,345	2,408,864	2,410,114	2,515,863
Proposed Debt Service				59,256
Current Debt Service	2,411,345	2,408,864	2,410,114	2,575,119
Debt Service Coverage	172.13%	152.57%	176.30%	165.00%

Connections in Burleigh County pay a monthly base rate of \$34.00 plus a volume charge of \$7.50 per 1,000 gallons, up to 10,000 gallons, and \$7.90 per 1,000 gallons in excess of 10,000 gallons. All other connections pay a monthly base rate of \$40.00 and a volume charge of \$6.00 per 1,000 gallons. The existing user fees will generate sufficient net operating revenues to service both the new and existing debt.

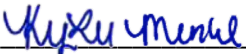
Outstanding Debt (as of October 31, 2025):

	<u>Original Amount</u>	<u>Amount Outstanding</u>
Revenue Bonds	44,581,750	20,877,260
	\$44,581,750	\$20,877,260

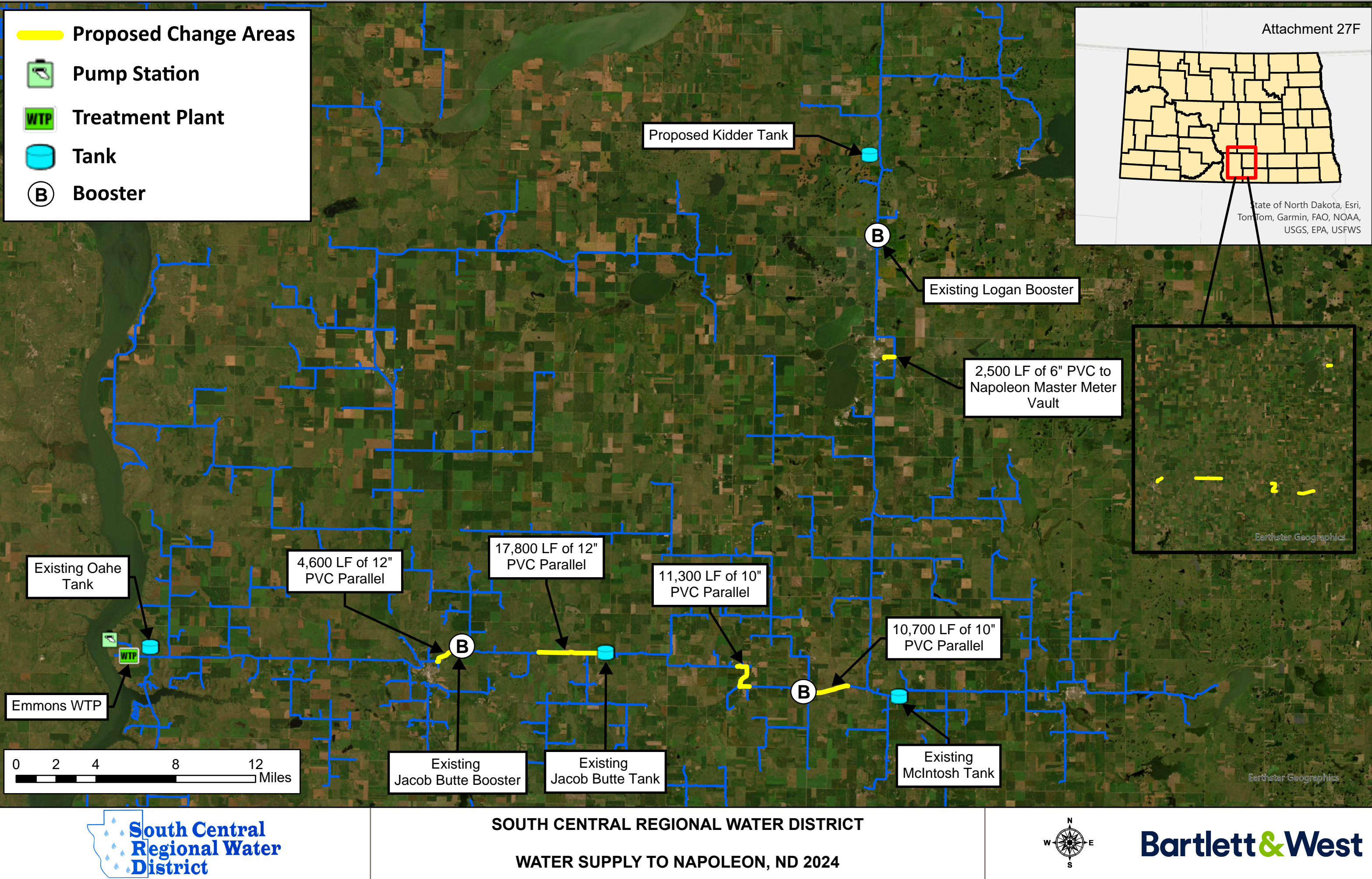
Average annual debt service requirements are estimated at \$2,575,119, which is an average of \$81.48 per resident of the District.

The District currently provides water services to 8,692 rural residential connections and 5 bulk City connections. The District provides services in Burleigh, Kidder, Emmons, McIntosh and Logan Counties. The District's estimated population is 31,604.

Based upon the PFA recommendation and the benefits obtained with this project, BND concurs with their evaluation and support of the request.



Kylee Merkel
Business Banker



Industrial Commission
of North Dakota

Kelly Armstrong
GOVERNOR

Drew H. Wrigley
ATTORNEY GENERAL

Doug Goehring
AGRICULTURE COMMISSIONER



Memorandum

To: Industrial Commission: Governor Kelly Armstrong, Attorney General Drew H. Wrigley, Agriculture Commissioner Doug Goehring

From: DeAnn Ament, Executive Director

Date: November 12, 2025

Re: Mott, Drinking Water State Revolving Fund
Mott, Clean Water State Revolving Fund
Page, Clean Water State Revolving Fund

Under current policy, the Public Finance Authority can make loans under the State Revolving Fund Program in an amount not to exceed \$2,000,000 and under the Capital Financing Program in an amount not to exceed \$500,000 without seeking the final approval of the Industrial Commission. Within this policy, once the loan has been approved, the Public Finance Authority is required to provide the details of the loan to the Industrial Commission. Accordingly, the Public Finance Authority and its Advisory Committee used this policy to approve the following loans.

The committee reviewed the City of Mott's Drinking Water State Revolving Fund (DWSRF) application for a \$523,000 loan towards a \$4,491,00 project. Clean Water State Revolving Fund (CWSRF) will lend \$1,118,000 and US Army Corp of Engineers will provide a \$2,850,000 grant. The City will replace sanitary sewer, manholes, water mains, valves, hydrants and service lines. The requested term for the loan is 30 years. The City will issue improvement bonds payable with special assessments. The improvement bonds will be a contingent general obligation of the City, backed by the statutory requirement that the City levy a general deficiency tax in the event that the revenues from the collection of special assessments are not sufficient to pay the debt service on the improvement bonds.

The committee reviewed the City of Page's CWSRF application for a \$1,545,000 which is eligible for \$1,158,00 of loan forgiveness. The net loan will be \$387,000. The project will replace or reline the existing vitrified clay pipe sewer mains and also stabilize the banks and replace rip rap at the wastewater lagoons. The requested term for the loan is 30 years. The City will issue revenue bonds payable with sewer user fees.

The Public Finance Authority's Advisory Committee approved these loans at their November 12, 2025, meeting.

Industrial Commission
of North Dakota

Kelly Armstrong
GOVERNOR

Drew H. Wrigley
ATTORNEY GENERAL

Doug Goehring
AGRICULTURE COMMISSIONER



Memorandum

To: Public Finance Authority Advisory Committee
Miles Silbert, Public Financial Management
Kylee Merkel, Bank of North Dakota

From: DeAnn Ament, Executive Director

Date: November 6, 2025

Re: City of Page
Clean Water State Revolving Fund Program Loan

Purpose of the Project: Replace or reline the existing vitrified clay pipe sewer mains. Also, stabilize the banks and replace rip rap at the wastewater lagoons.

Project Amount:

CWSRF Request/Project Total	\$ 1,545,000
CWSRF Loan Forgiveness	-1,158,000
Net CWSRF Loan	\$ 387,000

Population to Benefit from the Project: 190

Population Served by the System: 190

The requested term for the Clean Water State Revolving Fund (CWSRF) loan is 30 years. The City will issue revenue bonds payable with sewer user fees. The average annual payment for the revenue bonds will be \$16,286. The 110% coverage requirement will be \$17,915 and the required debt service reserve will be \$17,495.

The City has 118 sewer connections which pay a base rate of \$30 per connection. The City intends to increase its sewer user rate by \$15, which would generate approximately \$21,240 annually.

Sewer Fund:

	Unaudited			
	2021	2022	2023	2024
Operating Revenue	\$59,626	\$41,701	\$40,723	\$41,634
Operating Expenses	11,087	10,872	9,681	15,267
Net Operating Revenue	\$48,539	\$30,830	\$31,041	\$26,368
Revenue Bond Payments	\$27,072	\$26,822	\$26,572	\$26,322
Net Operating Coverage	179%	115%	117%	100%
Proforma User Rate Increase	\$21,240	\$21,240	\$21,240	\$21,240
Proforma CWSRF Bond Payment	\$16,286	\$16,286	\$16,286	\$16,286
Proforma Net Operating Coverage	161%	121%	122%	112%

Existing revenues combined with the proposed rate increase will generate sufficient revenue to meet the net operating coverage requirement.

Outstanding Debt October 31, 2025:

	Original Amount	Outstanding Amount
Improvement Bonds	\$2,620,929	\$1,414,006
Revenue Bonds ¹	369,439	128,000
	<u>\$2,990,368</u>	<u>\$1,542,006</u>

¹ Payments have been made as agreed. The City has one CWSRF and two Drinking Water SRF loans with total outstanding balances of \$128,000.

The average annual payment of all bond debt is \$253,845 or \$1,336 per person.

The City of Page is located in Cass County 54 miles northwest of Fargo. Based on the 2020 census, the total population was 190; this is a decrease of 42 from the 2010 census. The largest employers in the City are Hope-Page School with 30 employees, Arthur Companies (agriculture) with 10 employees and Page Cafe (restaurant) which employs 8.

Hope-Page School Enrollment:

				Projected
2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
155	152	149	149	150

The City's 2024 taxable valuation was \$638,068. This is an increase of \$132,136 from the 2020 taxable valuation.

Property Taxes Levied & Collected 9/30/2025:

Levy Year	Dollar Amount of Levy	Amount Collected to Date of Application	Percentage Collected
2024	\$19,585	\$16,992	87%
2023	21,532	19,342	90%
2022	21,676	20,646	95%

Special Assessments Levied & Collected 9/30/2025

Year	Dollar Amount	Amount Collected to Date of Application	Percentage Collected
2024	\$205,538	\$190,323	93%
2023	205,538	195,106	95%
2022	206,991	204,062	99%

City of Page Mill Levy History:

Year	City	School	Park District	State and County	Other	Total for Each Year
2024	36.01	84.00	5.80	50.17	10.52	186.50
2023	37.70	82.00	6.07	49.69	10.00	185.46
2022	40.51	80.05	6.48	51.54	10.52	189.10
2021	43.55	74.54	6.95	52.29	10.50	187.83
2020	43.98	70.00	6.91	52.51	10.26	183.66



Memorandum

TO: DeAnn Ament, Executive Director
North Dakota Public Finance Authority

FROM: PFM Financial Advisors LLC

DATE: November 12, 2025

RE: Marketplace Analysis - Clean Water State Revolving Fund Program
City of Page

The City of Page ("City") has presented a request to the Authority and the North Dakota Department of Environmental Quality ("Department") for a \$1,545,000 loan of which \$1,158,000 will be loan forgiveness, for a total of \$387,000 under the Clean Water State Revolving Fund Program ("CWSRF Program"). The CWSRF Program is used to make subsidized interest rate loans to political subdivisions for the purpose of constructing various wastewater treatment projects and landfill projects as approved by the Department in accordance with federal and state regulations and an updated Intended Use Plan prepared by the Department.

The City intends to use the proceeds to replace or reline the existing vitrified clay pipe sewer mains and stabilize the banks and replace rip rap at the wastewater lagoons.

The municipal securities to be acquired by the Authority will be revenue bonds payable with sewer user fees. The City's average annual payment under the proposed loan will be approximately \$16,286 indicating a 110% net revenue coverage requirement of approximately \$17,915. The City will be required to deposit \$17,495 into a reserve fund with payments of \$3,499 per year for the first five years of the loan. The current sewer connection monthly base rate is \$30 and the City anticipates raising the rate by \$15, which will generate approximately \$21,240 of annual revenue. Pro forma net operating coverage of the sewer fund was 1.61x, 1.21x, 1.22x and 1.12x for 2021-2024, respectively. The anticipated monthly base rate increase and existing sewer fund revenues will provide sufficient net revenues to meet the 110% coverage requirement.

As of October 31, 2025, the City has outstanding \$1,414,000 of Improvement Bonds. The City currently has one CWSRF and two DWSRF loans outstanding with a combined total balance of \$128,000. The City is current in its payments for its outstanding Authority loan.

Funding for the construction of the City's projects has been included in a list of approved projects as prepared and updated by the Department. As an authorized participant in the CWSRF Program, the City will benefit substantially from the subsidized fixed rate loans made under the Program. Consequently, no other financing mechanism can provide a greater cost advantage than that offered by the CWSRF Program.

Memorandum

Attachment 28A.2

To: Industrial Commission

From: Kylee Merkel, Business Banker
Bank of North Dakota

Date: November 7, 2025

RE: City of Page
Clean Water State Revolving Fund Program

ND Public Finance Authority has delivered to BND their memo which recommends approval of a \$1,545,000 loan to the City of Page under the Clean Water State Revolving Fund (CWSRF). This project is eligible for \$1,158,000 of CWSRF loan forgiveness, making the net loan amount \$387,000. CWSRF is financing the entire cost of the project. The project will replace or reline the sewer mains and complete lagoon improvements.

The City will issue revenue bonds payable with sewer user fees. The requested loan term is 30 years. The annual payment will average \$16,286. The City currently serves 118 residential connections that pay a monthly base rate of \$30.00. The City anticipates raising the monthly base rate by \$15 per connection. Existing revenues, combined with the rate increase, will generate sufficient coverage to service both the existing and proposed debt service requirements.

Debt Service Coverage:

Sewer Fund	2022	2023	2024	Projected
Operating Revenue	41,702	40,723	41,634	41,634
Rate Increase				21,240
Operating Expenses	-10,872	-9,681	-15,267	-15,267
Net Operating Revenue	30,830	31,042	26,368	47,608
Current Debt Service	26,822	26,572	26,322	26,322
Proposed Debt Service				16,286
Total Debt Service	26,822	26,572	26,322	42,608
Debt Service Coverage	115%	117%	100%	112%

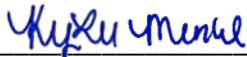
Current Debt Outstanding (as of October 31, 2025):

	<u>Original Amount</u>	<u>Current Balance</u>
Improvement Bonds	2,620,929	1,414,006
Revenue Bonds	369,439	128,000
	2,990,368	1,542,006

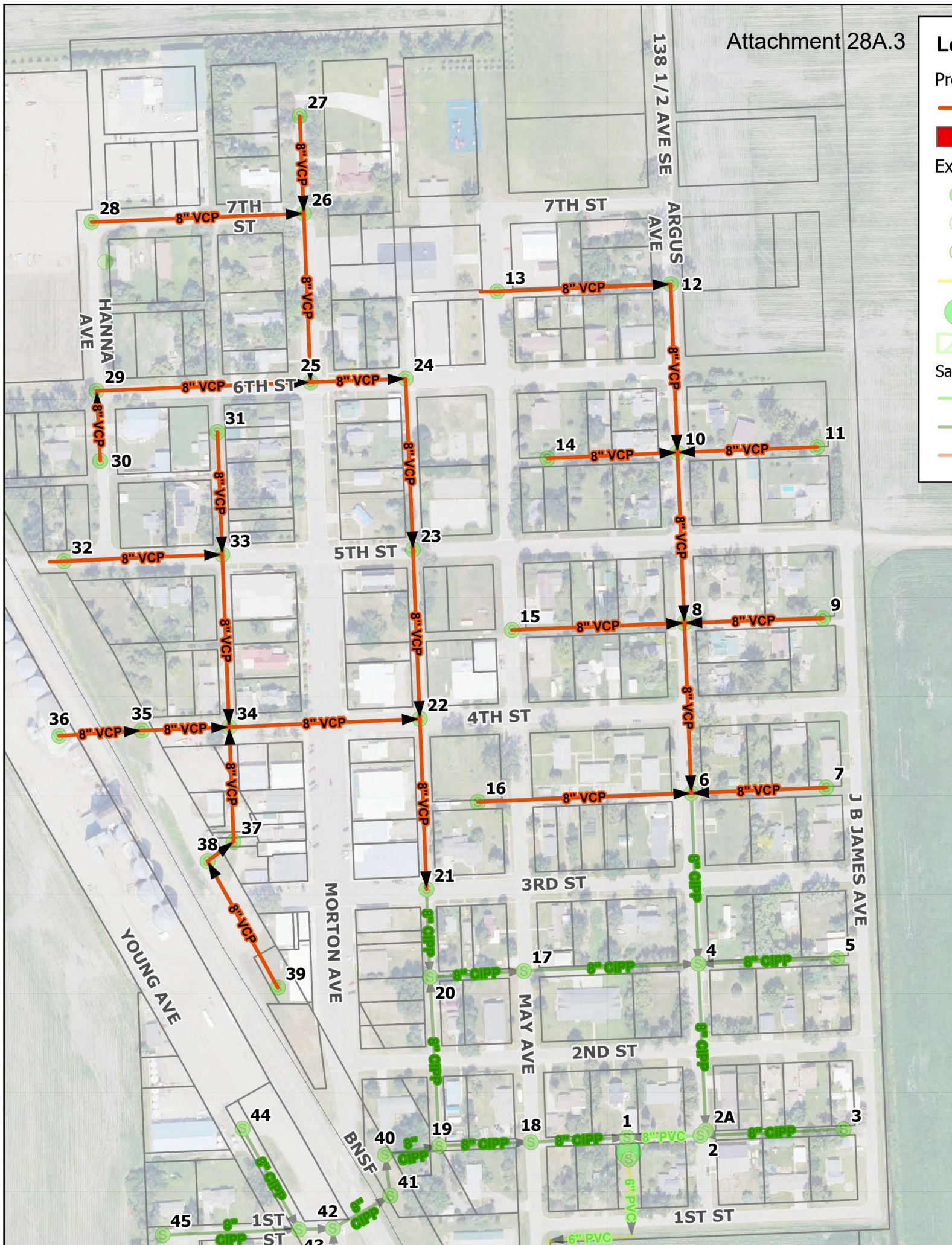
Average annual debt service requirements are estimated at \$253,845, which is an average of \$1,336.02 per resident.

Historical census populations for the City of Page were 190 in 2020, 232 in 2010 and 225 in 2000. The largest employers in the City are Page Public School, Arthur Companies and Page Café.

Based upon the PFA recommendation and the benefits obtained with this project, BND concurs with their evaluation and support of the request.



Kylee Merkel
Business Banker



Industrial Commission
of North Dakota

Kelly Armstrong
GOVERNOR

Drew H. Wrigley
ATTORNEY GENERAL

Doug Goehring
AGRICULTURE COMMISSIONER



Memorandum

To: Public Finance Authority Advisory Committee
Miles Silbert, Public Financial Management LLC
Kylee Merkel, Bank of North Dakota

From: DeAnn Ament, Executive Director

Date: October 28, 2025

Re: City of Mott
Clean Water State Revolving Fund Program Loan

Purpose of the Project: Replace sanitary sewer, manholes, water mains, valves, hydrants and service lines. Install water main to provide looping.

Project Amount:

CWSRF Request	\$1,118,000
DWSRF Request	523,000
USACE Grant	2,850,000
Project Total	\$4,491,000

Population to Benefit from the Project: 653

Population Served by the System: 653

The requested term for both bonds is 30 years. The City will issue improvement bonds payable with special assessments. The average annual payment for the improvement bonds will be \$46,500. The improvement bonds will be a contingent general obligation of the City, backed by the statutory requirement that the City will levy a general deficiency tax in the event that the revenues from the collection of special assessments are not sufficient to pay the debt service on the improvement bonds.

Sewer Fund:

	Unaudited			
	2021	2022	2023	2024
Operating Revenue	\$46,344	\$41,386	\$41,745	\$41,093
Operating Expenses	32,370	34,783	36,051	41,875
Net Operating Revenue (Expense)	<u>\$13,975</u>	<u>\$6,603</u>	<u>\$5,693</u>	<u>-\$783</u>

Outstanding Debt as of September 30, 2025:

	Original Amount	Outstanding Amount
Street Improvement Bonds	\$4,500,000	\$3,552,045
Total Bonds	<u>\$4,500,000</u>	<u>\$3,552,045</u>

The current average annual debt payment is \$355,186 or \$544 per resident. The 555 parcels assessed for the CWSRF project will have an average annual payment of \$83.78. Combined with the DWSRF payment the average annual payment will be \$123.

The City of Mott is located in 56 miles southeast of Dickinson. Based on the 2020 census, the total population was 653; this is a decrease of 68 from the 2000 census. The largest employers in the City are Mott-Regent Public Schools with 40 employees, Mott Health Care Center with 15 employees, and Hettinger County with 15 employees.

Mott-Regent School Enrollment:

				Projected
2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
233	228	225	225	225

The City's 2024 taxable valuation was \$1,319,080. This is an increase of \$103,714 from the 2020 taxable valuation.

Property Taxes Levied & Collected 6/30/2025:

Levy Year	Dollar Amount of Levy	Amount Collected to Date of Application	Percentage Collected
2024	\$123,200	\$114,914	93%
2023	\$124,480	\$118,973	96%
2022	\$124,463	\$123,434	99%

Special Assessments Levied & Collected 6/30/2025:

Year	Dollar Amount	Amount Collected to Date of Application	Percentage Collected
2024	\$2,416	\$132	5%
2023	\$4,984	\$4,565	92%
2022	\$686	\$375	55%

City of Mott Mill Levy History:

Year	City	School	Park District	State and County	Other	Total for Each Year
2024	94.38	115.01	50.06	91.46	15.78	366.69
2023	94.71	112.91	50.07	89.97	14.76	362.42
2022	98.76	114.03	48.67	79.98	14.74	356.18
2021	94.67	112.01	46.64	83.25	5.00	341.57
2020	99.02	112.14	46.76	81.87	5.00	344.79



Memorandum

TO: DeAnn Ament, Executive Director
North Dakota Public Finance Authority

FROM: PFM Financial Advisors LLC

DATE: November 12, 2025

RE: Marketplace Analysis - Clean Water State Revolving Fund Program
City of Mott

The City of Mott ("City") has presented a request to the Authority and the North Dakota Department of Environmental Quality ("Department") for a \$1,118,000 loan under the Clean Water State Revolving Fund Program ("CWSRF Program"). The CWSRF Program is used to make subsidized interest rate loans to political subdivisions for the purpose of constructing various wastewater treatment projects and landfill projects as approved by the Department in accordance with federal and state regulations and an updated Intended Use Plan prepared by the Department.

The City intends to use the proceeds to replace sanitary sewer, manholes, water mains, valves, hydrants, service lines, and install water main to provide looping.

The municipal securities to be acquired by the Authority will be improvement bonds of the City payable from special assessments levied against the benefited property. The proposed term of the loan is 30 years with a subsidized interest rate of 1.50%. The City's average annual payment under the proposed loan will be approximately \$46,500. The improvement bonds will be a contingent general obligation of the City, which will be required by law to levy a general deficiency tax if the revenues collected from the levy of special assessments are insufficient to make the debt service payments.

As of September 30, 2025, the City has \$3,552,045 of Street Improvement Bonds outstanding.

Funding for the construction of the City's projects has been included in a list of approved projects as prepared and updated by the Department. As an authorized participant in the CWSRF Program, the City will benefit substantially from the subsidized fixed rate loans made under the Program. Consequently, no other financing mechanism can provide a greater cost advantage than that offered by the CWSRF Program.

Memorandum

Attachment 28B.2

To: Industrial Commission

From: Kylee Merkel, Business Banker
Bank of North Dakota

Date: October 29, 2025

RE: City of Mott
Clean Water State Revolving Fund Program

ND Public Finance Authority has delivered to BND their memo which recommends approval of a \$1,118,000 loan to the City of Mott under the Clean Water State Revolving Fund (CWSRF). The entire cost of the project is \$4,491,000, with Drinking Water State Revolving Fund providing a \$523,000 loan and US Army Corp of Engineers providing a \$2,850,000 grant.

The project consists of sanitary sewer and water system replacements. The requested loan term is 30 years. The City will issue an improvement bond payable with special assessment collections. The annual payment will average \$46,500.

Sewer Fund:

Sewer Fund	2021	2022	2023
Operating Revenue	46,344	41,386	41,745
Operating Expenses	-32,370	-34,783	-36,052
Net Operating Revenue	13,975	6,603	5,693


Outstanding Debt (as of September 30, 2025):

	Original Amount	Current Balance
Improvement Bonds	4,500,000	3,552,045
	4,500,000	3,552,045

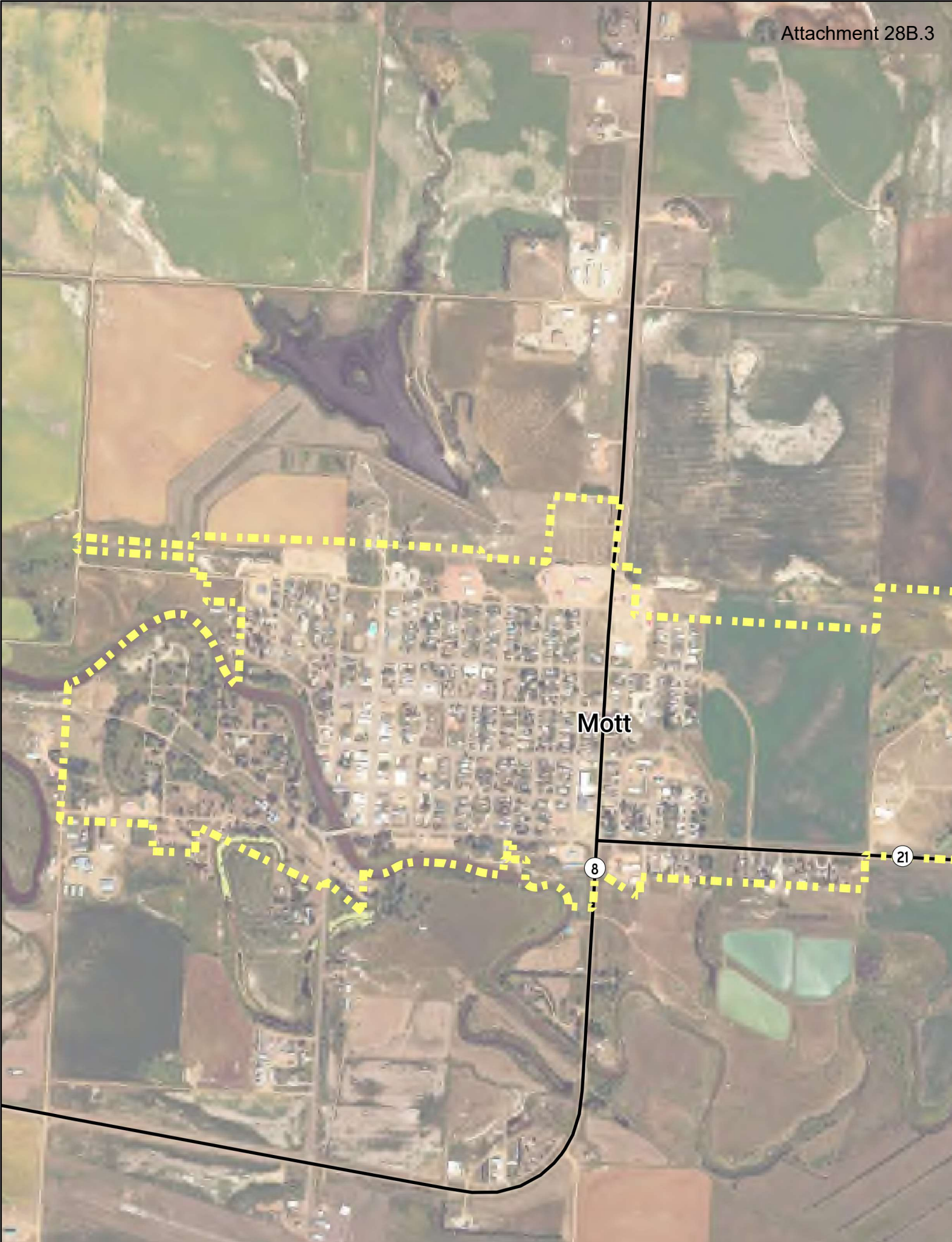
Average annual debt service requirements are estimated at \$355,186, which is an average of \$543.93 per resident.

Historical census populations for the City of Mott were 653 in 2020, 721 in 2010 and 808 in 2000. The largest employers in the City are Mott-Regent Public Schools, Mott Health Care Center and Hettinger County.

Based upon the PFA recommendation and the benefits obtained with this project, BND concurs with their evaluation and support of the request.



Kylee Merkel
Business Banker



Mott

8

21

Industrial Commission
of North Dakota

Kelly Armstrong
GOVERNOR

Drew H. Wrigley
ATTORNEY GENERAL

Doug Goehring
AGRICULTURE COMMISSIONER



Public Finance Authority

Memorandum

To: Public Finance Authority Advisory Committee

From: DeAnn Ament, Executive Director

Date: October 28, 2025

Re: City of Mott
Drinking Water State Revolving Fund Program Loan

Purpose of the Project: Replace water mains, valves, hydrants, service lines, sanitary sewer and manholes. Install water main to provide looping.

Project Amount:

DWSRF Request	\$ 523,000
CWSRF Request	1,118,000
USACE Grant	2,850,000
Project Total	\$ 4,491,000

Population to Benefit from the Project: 653

Population Served by the System: 653

The requested term for both bonds is 30 years. The City will issue improvement bonds payable with special assessments. The average annual payment for the improvement bonds will be \$21,681. The improvement bonds will be a contingent general obligation of the City, backed by the statutory requirement that the City will levy a general deficiency tax in the event that the revenues from the collection of special assessments are not sufficient to pay the debt service on the improvement bonds.

Water Fund:

	Unaudited			
	2021	2022	2023	2024
Operating Revenue	\$259,473	\$233,547	\$235,697	\$234,212
Operating Expenses	202,407	202,231	214,498	284,334
Net Operating Revenue (Expense)	\$57,066	\$31,317	\$21,199	-\$50,122

Outstanding Debt as of September 30, 2025:

	Original Amount	Outstanding Amount
Street Improvement Bonds	\$4,500,000	\$3,552,045

The average annual debt payment, including these two requests, will be \$355,186 or \$544 per resident. The 555 parcels assessed for the DWSRF project will have an average annual payment of \$39.06. Combined with the CWSRF payment the average annual payment will be \$123.

The City of Mott is located in 56 miles southeast of Dickinson. Based on the 2020 census, the total population was 653; this is a decrease of 68 from the 2000 census. The largest employers in the City are Mott-Regent Public Schools with 40 employees, Mott Health Care Center with 15 employees, and Hettinger County with 15 employees.

Mott-Regent School Enrollment:

				Projected
2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
233	228	225	225	225

The City's 2024 taxable valuation was \$1,319,080. This is an increase of \$103,714 from the 2020 taxable valuation.

Property Taxes Levied & Collected 6/30/2025:

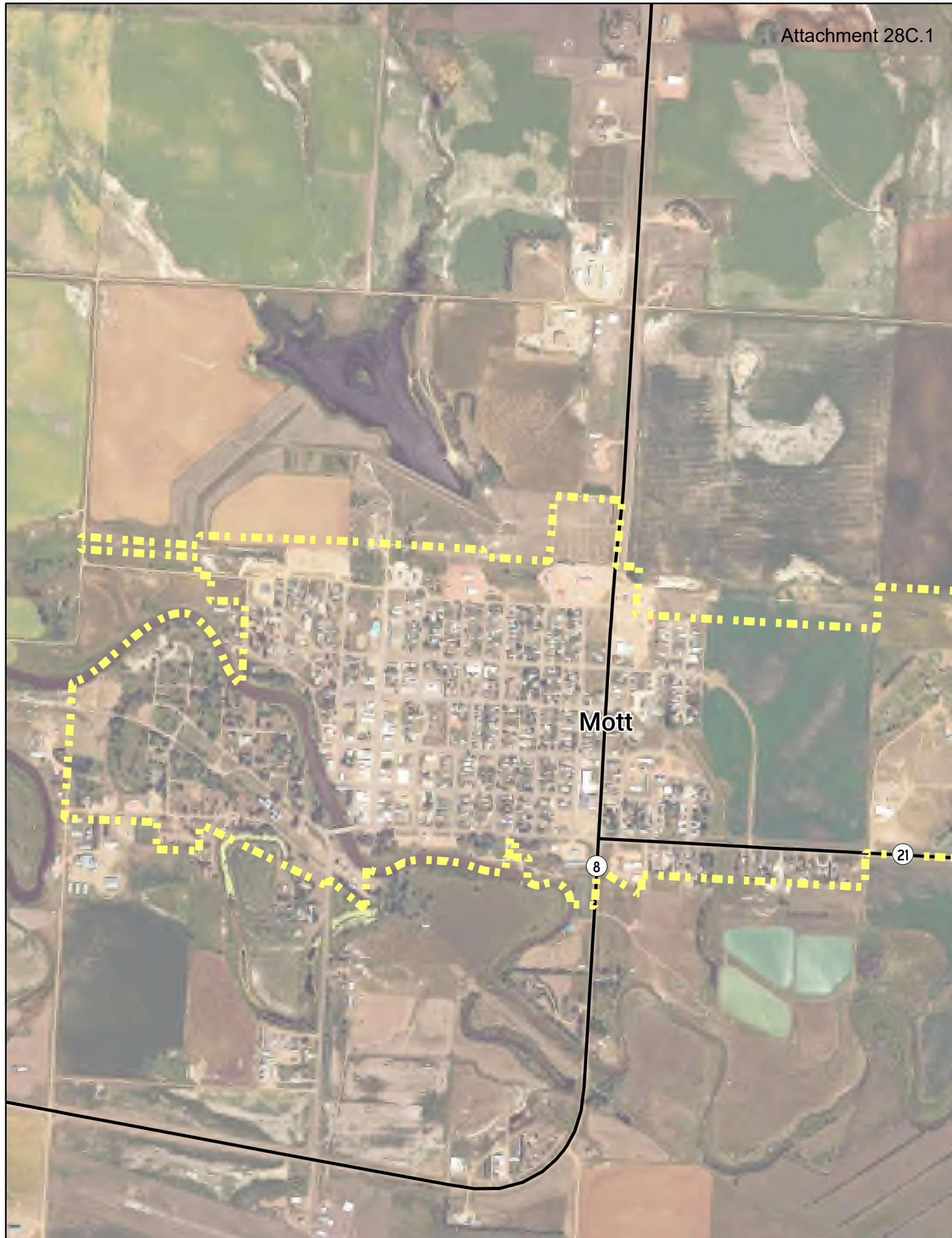
Levy Year	Dollar Amount of Levy	Amount Collected to Date of Application	Percentage Collected
2024	\$123,200	\$114,914	93%
2023	\$124,480	\$118,973	96%
2022	\$124,463	\$123,434	99%

Special Assessments Levied & Collected 6/30/2025:

Year	Dollar Amount	Amount Collected to Date of Application	Percentage Collected
2024	\$2,416	\$132	5%
2023	\$4,984	\$4,565	92%
2022	\$686	\$375	55%

City of Mott Mill Levy History:

Year	City	School	Park District	State and County	Other	Total for Each Year
2024	94.38	115.01	50.06	91.46	15.78	366.69
2023	94.71	112.91	50.07	89.97	14.76	362.42
2022	98.76	114.03	48.67	79.98	14.74	356.18
2021	94.67	112.01	46.64	83.25	5.00	341.57
2020	99.02	112.14	46.76	81.87	5.00	344.79



Mott

8

21

North Dakota Industrial Commission

**Claire Vigesaa – Executive Director
ND Transmission Authority
November 25, 2025**

TOPICS...

- ❑ Additional IIJA Grant Award Opportunity
- ❑ Transmission Capacity/Large Load Study

Summary Pages – Infographic

IIJA Grid Resilience Formula Grant

- ❑ IIJA NDTA Formula Grant FY22/23 \$ 7.5 million
- ❑ IIJA NDTA Formula Grant FY24 \$ 3.9 million
- ❑ Application submitted for FY25 \$ 3.6 million
- ❑ One more potential app for FY26

Plus 15% State Match

- ❑ FY22/23 - \$1,124,856
- ❑ FY24/FY25/FY26 -Est \$583,000/yr or \$1,782,794

Grant Awards FY22/FY23/FY24

<input type="checkbox"/> Capital Electric Cooperative		\$ 321,930
<input type="checkbox"/> Otter Tail Power Company		\$4,432,088
<input type="checkbox"/> Northern Plains Electric Cooperative		\$ 586,000
<input type="checkbox"/> McKenzie Electric Cooperative (returned)		\$2,843,075
<input type="checkbox"/> Burke-Divide Electric Cooperative		\$ 550,000
<input type="checkbox"/> City of Lakota		\$1,707,109
<input type="checkbox"/> Verendrye Electric Cooperative		\$ 314,250
<input type="checkbox"/> KEM Electric Cooperative		\$ 620,000
<input type="checkbox"/> City of Valley City	\$1,053,000	\$ 715,468

\$337,532
available

Special Re-award Grant Award Applications

Applicant	Project	Grant Request	Total Cost	
City of Northwood	Advanced Metering	\$240,917	\$370,642	
City of Lakota	Substation Transformer/controls	\$1,922,900	\$2,870,000	
McLean Electric Co-op	Upgrading to Dielectric Reclosers	\$515,900	\$770,000	awarded 7/25
Otter Tail Power	Vegetation Management-Proactive	\$2,843,075	\$5,686,150	
MDU	Merricourt Sub-Trans Upgrade	\$2,800,000	\$2,086,456	\$7,455,000 awarded 7/25
Capital Electric Co-op	OVHD to URD Road Crossings	\$459,814	\$686,290	
City of Hillsboro	Electric System Upgrades	\$2,800,000	\$5,635,000	
Total Requests		\$11,582,606		
Available Grant Funds		\$2,602,356		

Grant Award Recommendation

<u>Grant Applicant</u>	<u>Request</u>	<u>Recommendation</u>
City of Northwood	\$240,917	\$240,917

Action Requested

ND Industrial Commission acting as the ND Transmission Authority move to advance the following grant request, totaling \$240,917, to the DOE:

City of Northwood – Advanced Metering/Outage Detection - \$240,917

Transmission Capacity & Large Load Impact Study

- ❑ Study Completed October 31, 2025
- ❑ Shared with the Commission (including info-graph piece) – October 31, 2025
- ❑ Presented to the Interim Energy Development & Transmission Committee – Nov 6
- ❑ Shared with Advanced Nuclear Energy Committee & Study Consultant
 - ❑ Presenting to Advanced Nuclear Energy Committee on Dec 15th
- ❑ Shared with the ND PSC, RTOs, Developers, Utilities, & Industry

HB1579
Impact of Large
Load on the Grid

LARGE-LOAD SENSITIVITY

- Several large loads were added at high-voltage locations in North Dakota.
- Three scenarios were evaluated: eastern, central, and western North Dakota including 600–1400 MW.
- Additional 200-MW load at Coal Creek was included for all three scenarios.
- Scenarios based in part on how much additional load the models would solve without mitigation.

Total of 3,100 MW
Added

Eastern 1400 MW

- Coal Creek 230 kV 200 MW
- Bison 345 kV 200 MW
- Buffalo 345 kV 200 MW
- Ellendale 345 kV 200 MW
- Jamestown 345 kV 200 MW
- Maple 345 kV 200 MW
- Prairie 345 kV 200 MW

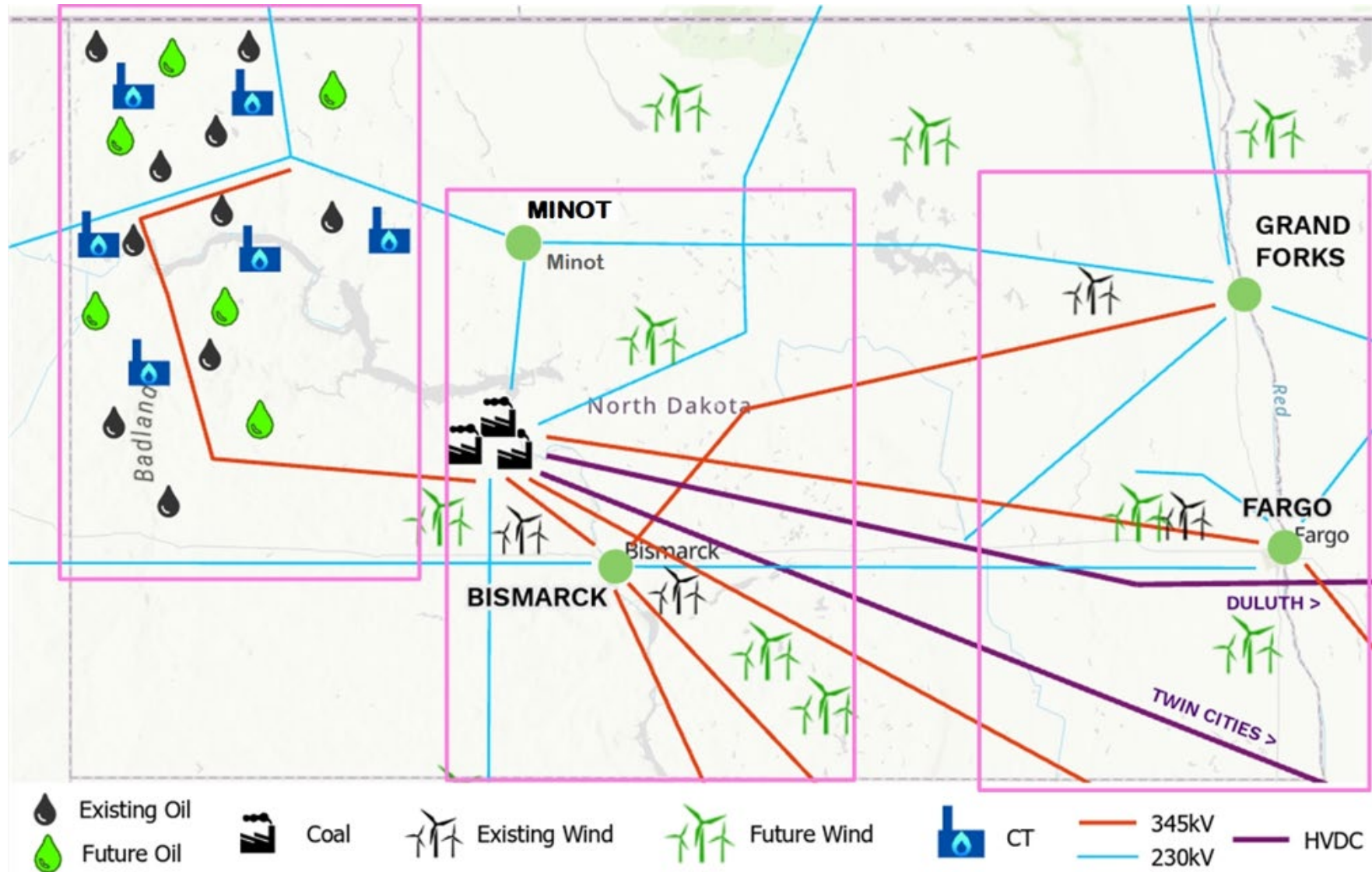
Central 1100 MW

- Coal Creek 230 kV 500 MW total
- Center 345 kV 300 MW
- Leland 345 kV 300 MW

Western 600 MW

- Coal Creek 230 kV 200 MW
- Judson 345 kV 200 MW
- Pioneer 345 kV 200 MW

NORTH DAKOTA SYSTEM MAP



Analysis

- ❑ **The physics...**thermal and voltage implications
- ❑ **The economics...**locational marginal pricing and congestion

Conclusion

- ❑ The addition of Large Loads without matching generation increases grid congestion & creates both thermal and voltage violations.
- ❑ To participate in Large Load Expansion...need to develop generation and transmission concurrently.
- ❑ North Dakota is in a great position to be a “big player” in large load development...abundant natural gas (fast to market), favorable climate and favorable regulatory & taxation environment

N O R T H
Dakota

Be Legendary.

Minutes of a Meeting of the Industrial Commission of North Dakota

Held on August 21st, 2025, beginning at 9:00 a.m.

Governor's Conference Room – State Capitol

Present: Governor Kelly Armstrong, Chairman

Attorney General Drew H. Wrigley

Agriculture Commissioner Doug Goehring

Also Present: This meeting was open through Microsoft Teams so not all attendees are known.

Agency representatives joined various portions of the meeting.

Governor Armstrong called the meeting of the Industrial Commission to order at approximately 9:00 a.m.

Ms. Karen Tyler took roll call, and Governor Armstrong, Commissioner Goehring, and Attorney General Wrigley were present.

Governor Armstrong invited the room to stand and join the Commission in saying the Pledge of Allegiance.

RESEARCH TECHNOLOGY PARK GRANT PROGRAM

Ms. Brenda Wyland and Mr. Josh Gelinski presented for consideration of approval the Program Plan Pursuant to SB 2256.

During the Sixty-ninth Legislative Assembly of North Dakota, SB2256 was passed into law establishing a Research Technology Park Grant Program. The Research Technology Park Grant Program is a strategic initiative aligned with ND Century Code 54-17, designed to substantially enhance North Dakota's economic competitiveness by accelerating technology development and commercialization in the agriculture, defense, and energy sectors. Key outcomes include advanced technological capabilities, intellectual property (IP) generation, robust industry partnerships, economic growth, innovation, and workforce development.

The Research Technology Park Grant Program addresses the critical transition from foundational research to commercial viability, emphasizing dual-use technologies beneficial for both commercial and defense markets. Industry standard Technology Readiness Levels (TRL) will primarily be applicable in the following ways: Research Universities will participate in TRL 1-3 where fundamental scientific principals are explored with early research validated in a controlled lab setting. The RTP's targeted intervention at TRL 4-7 will ensure core components are accelerated and matured, validated, and evolve to market readiness of innovative technologies. The final TRL stages of 8-9 bring further industry collaboration and refinement for market deployment.

It was moved by Commissioner Goehring and seconded by Attorney General Wrigley that the Industrial Commission approve the Research Technology Park (RTP) Grant Program Plan as presented by the RTP CEO, with such approval required pursuant to Section 1 of Senate Bill

2256 enacted by the 69th Legislative Assembly, and further direct the NDIC Executive Director to execute a contract setting forth the terms of the program in compliance with the provisions of the legislation.

On a roll call vote, Governor Armstrong, Attorney General Wrigley, and Commissioner Goehring voted aye. The motion carried unanimously.

NORTH DAKOTA PUBLIC FINANCE AUTHORITY

Ms. DeAnn Ament presented for consideration of approval a Series Resolution for up to \$50,000,000 of North Dakota Public Finance Authority Capital Financing Program Bonds Series 2025A. The resolution can be found on the website.

It was moved by Commissioner Goehring and seconded by Attorney General Wrigley that the Industrial Commission approve a Series Resolution for the issuance of up to \$50,000,000 North Dakota Public Finance Authority Capital Finance Program Bonds Series 2025A.

On a roll call vote, Governor Armstrong, Attorney General Wrigley, and Commissioner Goehring voted aye. The motion carried unanimously.

Ms. Ament presented for consideration of approval the following State Revolving Fund Loans:

- i. **City of Grafton – Drinking Water - \$2,569,000.** The purpose of this loan is to complete phase 1 replacement of the cast iron water mains near the south water tower which will reduce the number of breaks and improve water quality issues. The requested loan term is 30 years, and the City will issue revenue bonds payable with water fee revenue. The average annual payment will be \$100,261.

It was moved by Commissioner Goehring and seconded by Attorney General Wrigley that the Industrial Commission approve the Drinking Water State Revolving Fund loan request of \$2,569,000 for the City of Grafton.

On a roll call vote, Governor Armstrong, Attorney General Wrigley, and Commissioner Goehring voted aye. The motion carried unanimously.

A RESOLUTION WAS MADE

RESOLUTION APPROVING LOAN FROM DRINKING WATER STATE REVOLVING FUND

WHEREAS, the Industrial Commission has heretofore authorized the creation of a Drinking Water State Revolving Fund Program (the “Program”) pursuant to N.D.C.C. chs. 6-09.4, 61-28.1, and 61-28.2; and

WHEREAS, the State Revolving Fund is governed in part by the Master Trust Indenture dated as of July 1, 2011 (the “Indenture”), between the North Dakota Public Finance Authority (the “NDPFA”) and the Bank of North Dakota (the “Trustee”); and

WHEREAS, the City of Grafton (the “Political Subdivision”) has requested a loan in the amount of \$2,569,000 from the Program for phase 1 replacement of the cast iron water mains near the south water tower which will reduce the number of breaks and improve water quality issues; and

WHEREAS, NDPFA’s Advisory Committee is recommending approval of the Loan; and

WHEREAS, there has been presented to this Commission a form of Loan Agreement proposed to be adopted by the Political Subdivision and entered into with the NDPFA;

NOW, THEREFORE, BE IT RESOLVED by the Industrial Commission of North Dakota as follows:

1. The Loan is hereby approved, as recommended by the Advisory Committee.
2. The form of Loan Agreement to be entered into with the Political Subdivision is hereby approved in substantially the form on file and the Executive Director is hereby authorized to execute the same with all such changes and revisions therein as the Executive Director shall approve.
3. The Executive Director is authorized to fund the Loan from funds on hand in the Drinking Water Loan Fund established under the Indenture upon receipt of the Municipal Securities described in the Political Subdivisions bond resolution, to submit to the Trustee a NDPFA Request pursuant to the Indenture, and to make such other determinations as are required under the Indenture.
4. The Commission declares its intent pursuant to Treasury Regulations '1.150-2 that any Loan funds advanced from the Federally Capitalized Loan Account shall be reimbursed from the proceeds of bonds issued by the NDPFA under the Indenture.

Adopted: August 21, 2025

- ii. **City of Jamestown – Drinking Water - \$5,760,000.** The purpose of this loan is to replace the 229 known lead service lines in the City. The requested loan term is 20 years, and the City will issue improvement bonds payable with special assessments. The average annual payment will be \$92,293.

It was moved by Commissioner Goehring and seconded by Attorney General Wrigley that the Industrial Commission approve the Drinking Water State Revolving Fund loan request of \$5,760,000 for the City of Jamestown.

On a roll call vote, Governor Armstrong, Attorney General Wrigley, and Commissioner Goehring voted aye. The motion carried unanimously.

A RESOLUTION WAS MADE

RESOLUTION APPROVING
LOAN FROM DRINKING WATER STATE REVOLVING FUND

WHEREAS, the Industrial Commission has heretofore authorized the creation of a Drinking Water State Revolving Fund Program (the "Program") pursuant to N.D.C.C. chs. 6-09.4, 61-28.1, and 61-28.2; and

WHEREAS, the State Revolving Fund is governed in part by the Master Trust Indenture dated as of July 1, 2011 (the "Indenture"), between the North Dakota Public Finance Authority (the "NDPFA") and the Bank of North Dakota (the "Trustee"); and

WHEREAS, the City of Jamestown (the "Political Subdivision") has requested a loan in the amount of \$5,760,000 from the Program to begin replacement of over 229 known lead service lines; and

WHEREAS, NDPFA's Advisory Committee is recommending approval of the Loan; and

WHEREAS, there has been presented to this Commission a form of Loan Agreement proposed to be adopted by the Political Subdivision and entered into with the NDPFA;

NOW, THEREFORE, BE IT RESOLVED by the Industrial Commission of North Dakota as follows:

1. The Loan is hereby approved, as recommended by the Advisory Committee.
2. The form of Loan Agreement to be entered into with the Political Subdivision is hereby approved in substantially the form on file and the Executive Director is hereby authorized to execute the same with all such changes and revisions therein as the Executive Director shall approve.
3. The Executive Director is authorized to fund the Loan from funds on hand in the Drinking Water Loan Fund established under the Indenture upon receipt of the Municipal Securities described in the Political Subdivisions bond resolution, to submit to the Trustee a NDPFA Request pursuant to the Indenture, and to make such other determinations as are required under the Indenture.
4. The Commission declares its intent pursuant to Treasury Regulations '1.150-2 that any Loan funds advanced from the Federally Capitalized Loan Account shall be reimbursed from the proceeds of bonds issued by the NDPFA under the Indenture.

Adopted: August 21, 2025

- iii. **City of Minot – Drinking Water - \$3,246,000.** The purpose of this loan is to replace the cast iron water mains at Dacotah Homes/2nd Ave SW and 11th Ave NW which will reduce the number of breaks and improve water quality issues. The requested loan term is 20 years, and the City will issue revenue bonds payable with water/sewer/storm sewer user fees. The average annual payment will be \$181,000.

It was moved by Commissioner Goehring and seconded by Attorney General Wrigley that the Industrial Commission approve the Drinking Water State Revolving Fund loan request of \$3,246,000 for the City of Minot.

On a roll call vote, Governor Armstrong, Attorney General Wrigley, and Commissioner Goehring voted aye. The motion carried unanimously.

A RESOLUTION WAS MADE

RESOLUTION APPROVING
LOAN FROM DRINKING WATER STATE REVOLVING FUND

WHEREAS, the Industrial Commission has heretofore authorized the creation of a Drinking Water State Revolving Fund Program (the "Program") pursuant to N.D.C.C. chs. 6-09.4, 61-28.1, and 61-28.2; and

WHEREAS, the State Revolving Fund is governed in part by the Master Trust Indenture dated as of July 1, 2011 (the "Indenture"), between the North Dakota Public Finance Authority (the "NDPFA") and the Bank of North Dakota (the "Trustee"); and

WHEREAS, the City of Minot (the "Political Subdivision") has requested a loan in the amount of \$3,246,000 from the Program to replace the cast iron water mains at Dacotah Homes/2nd Ave SW and 11th Ave NW; and

WHEREAS, NDPFA's Advisory Committee is recommending approval of the Loan; and

WHEREAS, there has been presented to this Commission a form of Loan Agreement proposed to be adopted by the Political Subdivision and entered into with the NDPFA;

NOW, THEREFORE, BE IT RESOLVED by the Industrial Commission of North Dakota as follows:

1. The Loan is hereby approved, as recommended by the Advisory Committee.
2. The form of Loan Agreement to be entered into with the Political Subdivision is hereby approved in substantially the form on file and the Executive Director is hereby authorized to execute the same with all such changes and revisions therein as the Executive Director shall approve.
3. The Executive Director is authorized to fund the Loan from funds on hand in the Drinking Water Loan Fund established under the Indenture upon receipt of the Municipal Securities described in the Political Subdivisions bond resolution, to submit to the Trustee a NDPFA Request pursuant to the Indenture, and to make such other determinations as are required under the Indenture.
4. The Commission declares its intent pursuant to Treasury Regulations '1.150-2 that any Loan funds advanced from the Federally Capitalized Loan Account shall be reimbursed from the proceeds of bonds issued by the NDPFA under the Indenture.

Adopted: August 12, 2025

- iv. **City of West Fargo – Drinking Water - \$2,700,000.** The purpose of this loan is to remodel and add on to the existing public works facility which serves the water, sewer,

street and sanitation departments. The requested loan term is 30 years, and the City will issue revenue bonds payable with water and sewer user fees. The average annual payment will be \$105,563.

It was moved by Commissioner Goehring and seconded by Attorney General Wrigley that the Industrial Commission approve the Drinking Water State Revolving Fund loan request of \$2,700,000 for the City of West Fargo.

On a roll call vote, Governor Armstrong, Attorney General Wrigley, and Commissioner Goehring voted aye. The motion carried unanimously.

A RESOLUTION WAS MADE

RESOLUTION APPROVING
LOAN FROM DRINKING WATER STATE REVOLVING FUND

WHEREAS, the Industrial Commission has heretofore authorized the creation of a Drinking Water State Revolving Fund Program (the "Program") pursuant to N.D.C.C. chs. 6-09.4, 61-28.1, and 61-28.2; and

WHEREAS, the State Revolving Fund is governed in part by the Master Trust Indenture dated as of July 1, 2011 (the "Indenture"), between the North Dakota Public Finance Authority (the "NDPFA") and the Bank of North Dakota (the "Trustee"); and

WHEREAS, the City of West Fargo (the "Political Subdivision") has requested a loan in the amount of \$2,700,000 from the Program to expand the existing public works facility and sanitation building to enhance operational efficiency and accommodate growing staff and equipment needs; and

WHEREAS, NDPFA's Advisory Committee is recommending approval of the Loan; and

WHEREAS, there has been presented to this Commission a form of Loan Agreement proposed to be adopted by the Political Subdivision and entered into with the NDPFA;

NOW, THEREFORE, BE IT RESOLVED by the Industrial Commission of North Dakota as follows:

1. The Loan is hereby approved, as recommended by the Advisory Committee.
2. The form of Loan Agreement to be entered into with the Political Subdivision is hereby approved in substantially the form on file and the Executive Director is hereby authorized to execute the same with all such changes and revisions therein as the Executive Director shall approve.
3. The Executive Director is authorized to fund the Loan from funds on hand in the Drinking Water Loan Fund established under the Indenture upon receipt of the Municipal Securities described in the Political Subdivisions bond resolution, to submit to the Trustee a NDPFA Request pursuant to the Indenture, and to make such other determinations as are required under the Indenture.

4. The Commission declares its intent pursuant to Treasury Regulations '1.150-2 that any Loan funds advanced from the Federally Capitalized Loan Account shall be reimbursed from the proceeds of bonds issued by the NDPFA under the Indenture.

Adopted: August 21, 2025

- v. **City of West Fargo – Clean Water - \$8,500,000.** The purpose of this loan is to remodel and add on to the existing public works facility which serves the water, sewer, street and sanitation departments. The requested loan term is 30 years, and the City will issue revenue bonds payable with water and sewer user fees. The average annual payment will be \$358,250.

It was moved by Commissioner Goehring and seconded by Attorney General Wrigley that the Industrial Commission approve the Clean Water State Revolving Fund loan request of \$8,500,000 for the City of West Fargo.

On a roll call vote, Governor Armstrong, Attorney General Wrigley, and Commissioner Goehring voted aye. The motion carried unanimously.

A RESOLUTION WAS MADE

RESOLUTION APPROVING
LOAN FROM CLEAN WATER STATE REVOLVING FUND

WHEREAS, the Industrial Commission has heretofore authorized the creation of a Clean Water State Revolving Fund Program (the "Program") pursuant to N.D.C.C. chs. 6-09.4 and 61-28.2; and

WHEREAS, the Clean Water State Revolving Fund is governed in part by the Master Trust Indenture dated as of July 1, 2011 (the "Indenture"), between the North Dakota Public Finance Authority (NDPFA) and the Bank of North Dakota (the Trustee); and

WHEREAS, the City of West Fargo (the "Political Subdivision") has requested a loan in the amount of \$8,500,000 from the Program to expand the existing public works facility and sanitation building to enhance operational efficiency and accommodate growing staff and equipment needs; and

WHEREAS, the NDPFA's Advisory Committee is recommending approval of the Loan; and

WHEREAS, there has been presented to this Commission a form of Loan Agreement proposed to be adopted by the Political Subdivision and entered into with the NDPFA;

NOW, THEREFORE, BE IT RESOLVED by the Industrial Commission of North Dakota as follows:

1. The Loan is hereby approved, as recommended by the Advisory Committee.

2. The form of Loan Agreement to be entered into with the Political Subdivision is hereby approved in substantially the form on file and the Executive Director is hereby authorized to execute the same with all such changes and revisions therein as the Executive Director shall approve.

3. The Executive Director is authorized to fund the Loan from funds on hand in the Clean Water Loan Fund established under the Indenture upon receipt of the Municipal Securities described in the Political Subdivisions bond resolution, to submit to the Trustee a NDPFA Request pursuant to the Indenture, and to make such other determinations as are required under the Indenture.

4. The Commission declares its intent pursuant to Treasury Regulations '1.150-2 that any Loan funds advanced from the Federally Capitalized Loan Account shall be reimbursed from the proceeds of bonds issued by the NDPFA under the Indenture.

Adopted: August 21, 2025

Ms. Ament presented a Memo from the NDPFA Advisory Committee regarding SRF Loans Approved under Policy P-3B:

- i. City of Kenmare – Drinking Water - \$638,000. The purpose of this loan is to replace water mains that have experienced leaks and are beyond their useful life. The requested loan term is 30 years, and the City will issue revenue bonds payable with water user fees.

DEPARTMENT OF MINERAL RESOURCES

Mr. Nathan Anderson presented for consideration of approval the following cases:

- i. **Order 34409 in Case 31677** – Regarding application of Continental Resources to amend field rules to create and establish two overlapping 1920 spacing units, authorize drilling on or near section line between existing spacing units and/or such further relief as appropriate.

It was moved by Commissioner Goehring and seconded by Attorney General Wrigley that the Industrial Commission approve Order No. 34409 issued in Case No. 31677, denying the application of Continental Resources, Inc. to amend the field rules for the Brooklyn-Bakken Pool and/or Dollar Joe-Bakken Pool, Willaims County, ND, to create and establish the following: (i) two overlapping 1920-acre spacing units comprised of Sections 6, 7, and 18; and Sections 19, 30, and 31, T.155N., R.97W., authorizing the drilling of a horizontal well on each proposed overlapping 1920-acre spacing unit; and (ii) four overlapping 3840-acre spacing units comprised of Sections 1, 12, and 13, T.155N., R.98W. and Sections 6, 7, and 18, T.155N., R.97W.; Sections 24, 25, and 36, T.155N., R.98W. and Sections 19, 30, and 31, T.155N., R.97W.; Sections 5, 6, 7, 8, 17, and 18, T.155N., R.97W.; and Sections 19, 20, 29, 30, 31, and 32, T.155N., R.97W., authorizing the drilling of a horizontal well on or near the section line between existing spacing units on each proposed overlapping 3840-acre spacing unit; and/or such further relief.

On a roll call vote, Governor Armstrong, Attorney General Wrigley, and Commissioner Goehring voted aye. The motion carried unanimously.

- ii. **Order 34679 in Case 31937** – Regarding application of Phoenix Operating LLC to amend applicable orders for Zahl or Little Muddy-Bakken Pool to establish a standup 1920 spacing unit and authorize five horizontal wells or other such relief as appropriate.

It was moved by Commissioner Goehring and seconded by Attorney General Wrigley that the Industrial Commission approve Order No. 34679 issued in Case No. 31937, denying the application of Phoenix Operating LLC to amend the applicable orders for the Zahl or Little Muddy-Bakken Pool to establish a standup 1920-acre spacing unit described as Section 32 T.159N., R.101W. and Sections 5 and 8 T.158N., R.101W., Williams County, ND, and authorize five horizontal wells to be drilled on such unit, or granting such other relief as may be appropriate.

On a roll call vote, Governor Armstrong, Attorney General Wrigley, and Commissioner Goehring voted aye. The motion carried unanimously.

- iii. **Order 34680 in Case 31938** – Regarding application of Phoenix Operating to amend applicable orders for Zahl-Bakken Pool to establish a standup 1920 spacing unit and authorize five horizontal wells or other such relief as may be appropriate.

It was moved by Commissioner Goehring and seconded by Attorney General Wrigley that the Industrial Commission approve Order No. 34680 issued in Case No. 31938, denying the application of Phoenix Operating LLC to amend the applicable orders for the Zahl-Bakken Pool to establish a standup 1920-acre spacing unit described as Sections 17, 20, and 29 T.159N., R.101W., Williams County, ND, and authorize five horizontal wells to be drilled on such unit, or granting such other relief as may be appropriate.

On a roll call vote, Governor Armstrong, Attorney General Wrigley, and Commissioner Goehring voted aye. The motion carried unanimously.

- iv. **Order 34286 in Case 31554** - NDIC Complainant v. Missouri Basin Well Services Administrative Complaint.

It was moved by Commissioner Goehring and seconded by Attorney General Wrigley that the Industrial Commission approve Order No. 34286 issued in Case No. 31554, to approve the default order imposing civil penalties of \$1,259,878.13 and costs of investigation of \$328.88 on Missouri Basin Well Services, Inc. for violations of N.D. Admin. Code §§ 43020355(1), 43-02-03-34, and 43-02-03-34.1.

On a roll call vote, Governor Armstrong, Attorney General Wrigley, and Commissioner Goehring voted aye. The motion carried unanimously.

- v. **Order 34287 in Case 31555** – NDIC Complainant v. LeLand Oil & Gas, LLC Administrative Complaint.

It was moved by Commissioner Goehring and seconded by Attorney General Wrigley that the Industrial Commission approve Order No. 34287 issued in Case No. 31555, to approve the

default order imposing civil penalties of \$306,487.50 on Leland Oil & Gas, LLC for violations of N.D. Admin. Code §§ 43-02-03-55(1), 43-02-03-34, and 43-02-03-34.1.

On a roll call vote, Governor Armstrong, Attorney General Wrigley, and Commissioner Goehring voted aye. The motion carried unanimously.

- vi. **Order 34288 in Case 31556** – NDIC Complainant v. James M. Peterson LLC, Administrative Complaint.

It was moved by Commissioner Goehring and seconded by Attorney General Wrigley that the Industrial Commission approve Order No. 34288 issued in Case No. 31556, to approve the default order imposing civil penalties of \$173,456.25 and costs of investigation of \$255.00 on James M. Peterson, LLC for violations of N.D. Admin. Code §§ 43-02-03-55(1), 43-02-03-34, and 43-02-03-34.1 and NDCC § 38-08-04(1)(a)(12).

On a roll call vote, Governor Armstrong, Attorney General Wrigley, and Commissioner Goehring voted aye. The motion carried unanimously.

- vii. **Order 34290 in Case 31558** – NDIC Complainant v. TD Services LLC Individually and TD Services LLC dba TD Environmental Administrative Complaint.

It was moved by Commissioner Goehring and seconded by Attorney General Wrigley that the Industrial Commission approve Order No. 34290 issued in Case No. 31558, to approve the default order imposing civil penalties of \$56,718.75 and costs of investigation of \$643.37 on TD Services LLC, individually and TD Services LLC dba TD Environmental for violations of N.D. Admin. Code §§ 43-02-03-55(1), 43-02-03-34, and 43-02-03-34.1.

On a roll call vote, Governor Armstrong, Attorney General Wrigley, and Commissioner Goehring voted aye. The motion carried unanimously.

NORTH DAKOTA PIPELINE AUTHORITY

Mr. Justin Kringstad led discussions on the West to East Pipeline RFI Responses and Presentations. The following is a summary of the Pipeline Company Requests:

- **Intensity Infrastructure Partners**
 - Intensity is seeking a \$50 million per year capacity commitment from the NDIC/NDPA for Phase 1 of the project. This level of commitment would be sufficient to support construction of a 36-inch pipeline to Underwood (up from 24-inch), while positioning the system for a Phase 2 expansion to eastern North Dakota once additional commercial interest is secured. If \$50 million per year is deemed unavailable for Phase 1, a \$30 million per year capacity commitment would be sufficient to support the construction of a 30-inch pipeline to Underwood.
- **WBI Energy – Bakken East**
 - WBI Energy is seeking a \$50 million per year capacity commitment from the NDIC/NDPA for the Bakken East project, which will span from Watford City, ND, to Mapleton, ND (Cass County). Proposed pipeline diameters range from 36-inches in the west to 30-inch in the east, including a 20-inch lateral to Ellendale, ND.

It was moved by Attorney General Wrigley and seconded by Commissioner Goehring that under the authority of North Dakota Century Code Sections 6-09-35, 44-04-18.4, 44-04-19.1, 44-04-19.2, and 54-17.7-12 the Industrial Commission enter executive session for the purpose of Pipeline Authority confidential business, contract negotiation discussions, and Bank of North Dakota confidential business.

On a roll call vote, Governor Armstrong, Attorney General Wrigley, and Commissioner Goehring voted aye. The motion carried unanimously.

The Commission is meeting in executive session pursuant to N.D.C.C 44-04-18.4, 44-04-19.1, 44-04-19.2 and 54-17.7-12 to discuss information provided to the Pipeline Authority previously determined to be confidential, and for discussion related to contract negotiations. Only Commission members, their staff, Commission staff, the Pipeline Authority Executive Director, the Department of Mineral Resources Executive Director, and Bank of North Dakota staff will participate in this executive session.

Following the Pipeline Authority and contract negotiation executive session, the Commission is meeting in executive session pursuant to N.D.C.C. 6-09-35, 44-04-18.4, 44-04-19.1 and 44-04-19.2 to consider those items listed on the agenda under Bank of North Dakota Confidential Business. Only Commission members, their staff, Commission staff, and Bank of North Dakota staff will participate in this executive session.

Any formal action taken by the Commission will occur after it reconvenes in open session.

Governor Armstrong reminded the Commission members and those present in executive session that the discussion must be limited to the announced purposes. The executive session is anticipated to last approximately one hour and will begin at 10:35 a.m.

Meeting Closed to the Public for Executive Session Pursuant to NDCC 6-09-35, 44-04-18.4, 44-04-19.1, 44-04-19.2 and 54-17.7-12.

NORTH DAKOTA PIPELINE AUTHORITY EXECUTIVE SESSION

Industrial Commission Members Present

Governor Kelly Armstrong

Attorney General Drew H. Wrigley

Agriculture Commissioner Doug Goehring

Pipeline Authority Members Present

Justin Kringstad

Others in attendance

Jacy Schafer	Governor's Office
Chris Joseph	Governor's Office
Karen Tyler	Industrial Commission Office
Jordan Kannianen	Industrial Commission Office
Erin Stieg	Industrial Commission Office
Don Morgan	BND

Kelvin Hullet BND
Kirby Evanger BND

BANK OF NORTH DAKOTA EXECUTIVE SESSION

Industrial Commission Members Present

Governor Kelly Armstrong
Attorney General Drew H. Wrigley
Agriculture Commissioner Doug Goehring

BND Members Present

Don Morgan
Kirby Evanger
Kelvin Hullet

Others in attendance

Jacy Schafer	Governor's Office
Chris Joseph	Governor's Office
Karen Tyler	Industrial Commission Office
Jordan Kannianen	Industrial Commission Office
Erin Stieg	Industrial Commission Office

The executive session ended at 11:40 a.m. and the Commission reconvened in open session.

During the Bank of North Dakota executive session, the Commission discussed those items listed on the agenda and a motion was made to approve two loans.

On a roll call vote, Governor Armstrong, Attorney General Wrigley, and Commissioner Goehring voted aye. The motion carried unanimously.

During the Pipeline Authority and contract negotiation executive session, information from two pipeline companies that was previously determined to be confidential, as well as potential contract terms were discussed.

It was moved by Commissioner Goehring and seconded by Attorney General Wrigley that the Industrial Commission direct the North Dakota Pipeline Authority Executive Director to enter into negotiations for a Precedent Agreement with WBI Energy Transmission, pursuant to the authority set forth under N.D.C.C. 54-17.7-04, for the purpose of purchasing pipeline capacity.

On a roll call vote, Governor Armstrong, Attorney General Wrigley, and Commissioner Goehring voted aye. The motion carried unanimously.

BANK OF NORTH DAKOTA

Mr. Don Morgan presented the CEO monthly update. BND continues their Traction EOS journey by actively developing four of the five Foundational Tools: Accountability Chart, Rocks, Meeting Pulse,

and Scorecard/Dashboard. They are entering the Vision Building phase in August and September where they will develop the fifth Foundational Tool. The Bank is focusing on new initiatives, talent management, and governance.

Overall, BND continues to grow at a moderate pace and produces strong earnings. The bond swap executed in the first half of the year will begin to pay significant returns after October, and their loan and security portfolios continue to benefit from repricing in this prolonged “up rate” environment. BND continues to manage costs well and net income without consideration of the one-time \$(17M) swap loss is \$11M, or 11% higher year-over-year.

Dividends are fully paid out for the 2023-2025 biennium and capital continues to grow at an acceptable pace. Forecasted deposit balances and our ability to grow into the future remain their top financial concern

The full non-confidential CEO report can be found on the website.

OFFICE OF THE INDUSTRIAL COMMISSION

Ms. Karen Tyler presented for consideration of approval the Agency and Program Budget Assessments as Directed in SB 2014.

The memo reads as follows:

“Section 8 of SB 2014 HB 1014 passed by the 69th Legislative Assembly states the following:

The sum of \$2,260,660, or so much of the sum as may be necessary, included in the appropriation in subdivision 1 of section 1 of this Act, may be transferred from the entities and funds within the control of the industrial commission or entities directed to make payments to the industrial commission fund for administrative services rendered by the commission. Transfers must be made during the biennium beginning July 1, 2025, and ending June 30, 2027, upon order of the commission.

For the 2025-2027 biennium, I recommend a transfer up to the following amounts from the listed Industrial Commission agencies and programs, as authorized by SB 2014:

Bank of North Dakota	\$339,099	15.0%
North Dakota Mill	\$305,189	13.5%
Outdoor Heritage Fund	\$293,885	13.0%
Clean Sustainable Energy Authority	\$248,672	11.0%
Housing Finance Agency	\$248,672	11.0%
Lignite Research Fund	\$248,672	11.0%
Oil & Gas Research Program	\$259,975	11.5%

Renewable Energy Fund	\$158,246	7.0%
Public Finance Authority	<u>\$158,246</u>	<u>7.0%</u>
	\$2,260,656	

The percentage of the total authorized transfer assigned to each agency or program is largely in keeping with historical transfer recommendations. There is a small increase to the OGRP transfer to support additional administrative work related to the enhanced oil recovery aspect of the program approved by the legislature. Agencies and Programs will also receive a credit from unexpended funds from the 2023-2025 biennium pursuant to section 8 of SB 2014.”

It was moved by Commissioner Goehring and seconded by Attorney General Wrigley that the Industrial Commission approve the agency and program budget assessments as recommended by the Executive Director pursuant to Section 8 of SB 2014 HB 1014 passed by the 69th Legislative Assembly.

On a roll call vote, Governor Armstrong, Attorney General Wrigley, and Commissioner Goehring voted aye. The motion carried unanimously.

Mr. Jordan Kannianen presented for consideration of approval the Clean Sustainable Energy Authority Policy Changes. Those changes included changing the total number of members to eighteen from sixteen – with nine of those being voting and nine being non-voting technical advisors, changes to project eligibilities, application requirements, and deadlines.

It was moved by Commissioner Goehring and seconded by Attorney General Wrigley that the Industrial Commission approve the Clean Sustainable Energy Authority policy changes as recommended by the Deputy Executive Director and approved by the Authority at the August 4, 2024, CSEA meeting.

On a roll call vote, Governor Armstrong, Attorney General Wrigley, and Commissioner Goehring voted aye. The motion carried unanimously.

With no further business, Governor Armstrong adjourned the meeting of the Industrial Commission at 12:05 p.m.

North Dakota Industrial Commission

Brenna Jessen, Recording Secretary

Karen Tyler, Executive Director

Jordan Kannianen, Deputy Director

Industrial Commission of North Dakota



Kelly Armstrong
Governor

Drew H. Wrigley
Attorney General

Doug Goehring
Agriculture Commissioner

TO: Industrial Commission Members
FR: Executive Director Karen Tyler
DT: November 25, 2025
RE: 2026 Industrial Commission Meeting Schedule

After consultation with schedulers for each Commission member, for the 2026 Industrial Commission meeting schedule the following dates are proposed for consideration of approval:

Tuesday January 20, 9:00 am

Tuesday February 24, 9:00 am

Tuesday March 31, 9:00 am

Tuesday April 28, 9:00 am

Wednesday June 24, 9:00 am

Wednesday July 29, 9:00 am

Tuesday August 25, 9:00 am

Tuesday September 22, 9:00 am

Tuesday October 27, 9:00 am

Tuesday November 24, 9:00 am

Tuesday December 15, 9:00 am