

# **Thunder Butte Pipeline Project**

## **Ten-Year Plan: 2024-2034**

**Per North Dakota Public Service Commission Chapter 49-22, NDCC**

Revision: 0

December 11, 2023



In accordance with North Dakota Public Service Commission (Commission), Energy Conversion and Transmission Facility Siting Act Section 49-22-04 and the North Dakota Administrative Code (NDAC) Chapter 6906-02, Thunder Butte Pipeline, LLC (TBPL) submits the following Ten-Year Plan for years 2024 through 2034.

1. A description of the general location, size, and type of all facilities to be owned or operated by the utility during the ensuing ten years, as well as those facilities to be removed from service during the ten-year period.
  - a. TBPL currently does not own or operate any transmission facilities in North Dakota.
  - b. TBPL is submitting a Consolidated Certificate of Corridor Compatibility and Route Permit Application (Consolidated Application) to the Commission requesting a Certificate of Corridor Compatibility and Route Permit for construction and operation of the Thunder Butte Pipeline Project (Project). The Consolidated Application supports TBPL's request to construct and operate the proposed Project to transport crude oil from the existing Thunder Butte Petroleum Services (TBPS) Crude Storage and Loading Facility (TBPS Facility) within the Fort Berthold Indian Reservation (FBIR) near Makoti, North Dakota, to the existing Enbridge Stanley Pump Station and Terminal (Enbridge Storage Facility) located in Stanley, North Dakota. The proposed project consisting of two primary components:
    - i. Construction of a new 3.84-mile-long crude oil pipeline in Ward and Mountrail Counties, and
    - ii. Conversion of an existing 30.8-mile-long gathering pipeline to a crude oil transmission pipeline in Mountrail County.
  - c. TBPL is requesting permission from the Commission to construct and operate a new 3.84-mile-long, 6.625-inch outer diameter (OD) underground carbon steel crude oil pipeline; to construct a new pump skid located at the TBPS Facility, and to construct a new 4.0-acre midline pump station located in T154N R89W S34 NENW. The new midline pump station will be located on an existing 30.8-mile-long existing crude oil pipeline.
  - d. TBPL is also requesting permission from the Commission to convert the existing 30.8-mile-long, 6.625-inch OD gathering pipeline that TBPL recently purchased from Enbridge to a transmission pipeline and to operate the existing pipeline in conjunction with the new 3.84-mile-long pipeline for transmission of crude oil as mentioned above.
  - e. TBPL does not currently own or operate any facilities that it plans to remove from service during the next ten years.
  - f. TBPL does not plan to remove from service in the next ten years any of the planned facilities that will be purchased from Enbridge as a part of the Commission permission to operate request.

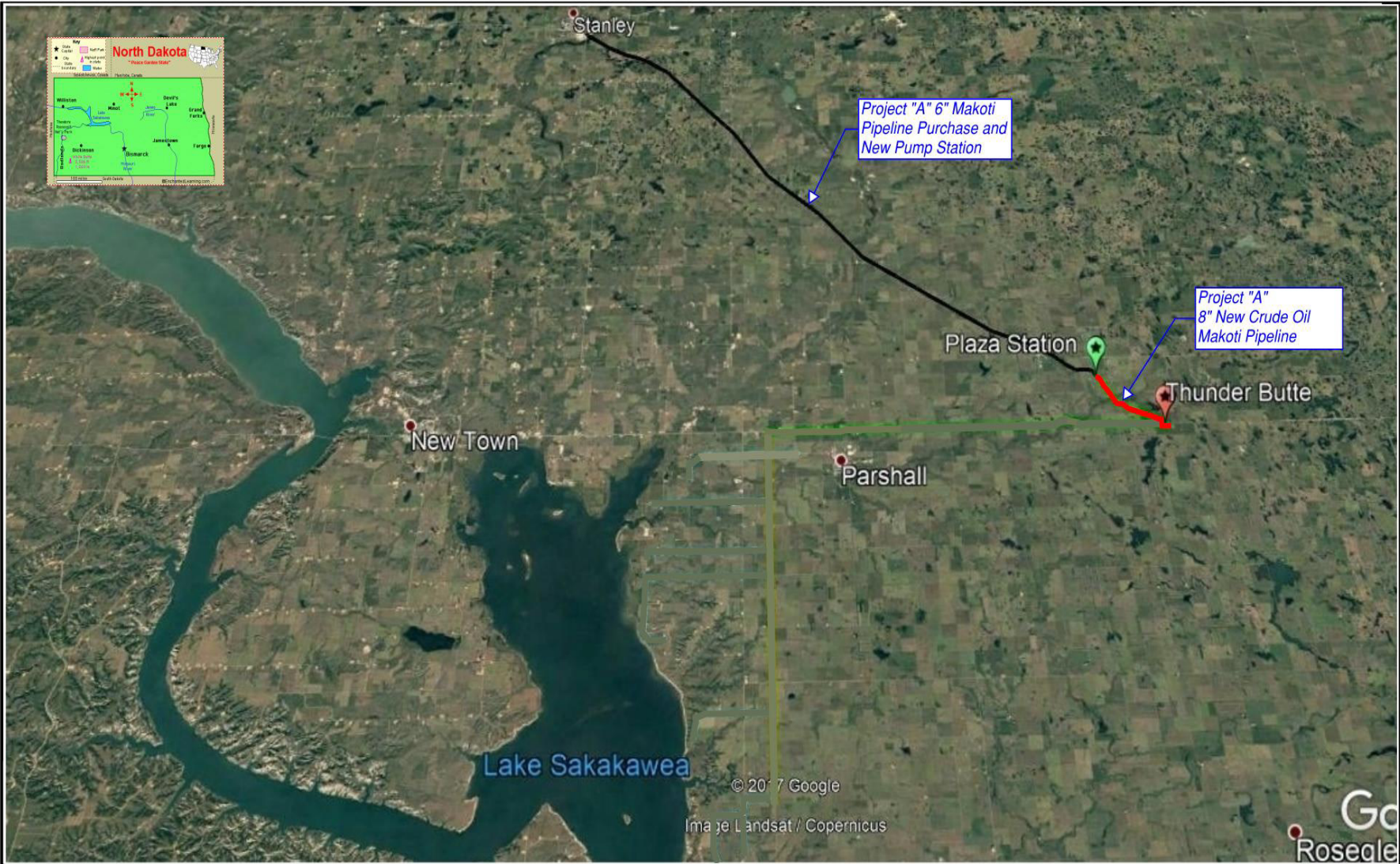
2. An identification of the location of the tentative preferred site for all energy conversion facilities and tentative location of all transmission facilities on which construction is intended to be commenced within the ensuing five years and such other information as may be required by the commission. The site and corridor identification shall be made in compliance with the criteria published by the commission pursuant to section 49-22-05.1.
  - a. TBPL does not currently have any plans of constructing any energy conversion facilities within the next five years.
  - b. As mentioned above in Section 1, TBPL proposes to construct and operate a new 3.84-mile-long crude oil pipeline in Ward and Mountrail Counties. The proposed pipeline will start at the TBPS Facility in T152N R87W S19 NWNE and will traverse northwest toward Plaza, ND where it will connect into the existing crude oil pipeline at T152N R88W S2 SWSW. From that connection point, the existing pipeline traverses northwest 30.8 miles to the Enbridge Storage Facility in Stanley, ND in T156N R91W S27 NESW. TBPL proposes to construct and operate one proposed midline pump station at a 4.0-acre site located in T154N R89W S34 NENW.
3. A description of the efforts by the utility to coordinate the plan with other utilities so as to provide a coordinated regional plan for meeting the utility needs of the region.
  - a. TBPL performed research of the area and determined that there was insufficient infrastructure to connect the TBPS facility to existing markets except for the existing Enbridge crude oil pipeline, which is why TBPL has coordinated with Enbridge to acquire the existing pipeline and then build a new 3.84-mile-long pipeline to connect the TBPS facility to the existing pipeline. The project will transport crude oil from the TBPS Facility to the Enbridge Facility in Stanley in order to get the oil to markets across the United States.
  - b. In the development of the Project, TBPL has performed centerline surveys of the route and the midline pump station and has identified all third-party utilities that would be crossed or encroached upon. TBPL will reach out to those utilities and establish communication with them in order to obtain crossing or encroachment requirements during construction and operation. Those respective requirements will be incorporated into the design, construction, and operation of the Project and TBPL will work with each utility during construction, operation, and maintenance phases of the Project to ensure the Project is safely constructed and operated around those respective utilities.
4. A description of the efforts to involved environmental protection and land-use planning agencies in the planning process, as well as other efforts to identify and minimize environmental problem at the earliest possible stage in the planning process.

- a. TBPL has engaged a qualified environmental consulting firm to conduct studies of avoidance and exclusion areas within the Project's respective study areas that would prevent project development in accordance with Commission 49-22 and NDAC 6906. Thus far, no environmental areas or siting concerns have been identified within the Project boundaries that would prevent the further development of the project. If any areas are identified as the studies continue, then TBPL will work diligently with the environmental consultant, state and local agencies, and any other planning authority in the area of concern to mitigate the effects of the pipeline on the respective area of concern.
  - b. TBPL is diligently working to protect the environment through proper planning, development, construction, operation, and maintenance of the Project through collaboration with qualified environmental consultants and state and local agencies and planning authorities.
- 5. A statement of the projected demand for the service rendered by the utility for the ensuing ten years and the underlying assumption for the projection, with that information being as geographically specific as possible, and a description of the manner and extent to which the utility will meet the projected demands.
  - a. The major constraint in transporting crude oil from this area of North Dakota to other markets across the country is the lack of pipeline infrastructure. While several projects have been developed recently and more are planned for the future, the infrastructure is still behind to connect to all the facilities in the area which then leads the oil to be transported by rail or truck. TBPL's project will connect the TBPS Facility utilizing a short new pipeline connected to an existing pipeline to transport the crude oil to market with less of a public safety hazard that would occur with rail or truck transportation.
  - b. The development of hydrocarbon production in the Williston Basin has increased significantly in recent years due to advancements in deep horizontal directional drilling techniques and subsequent oil extraction in the Bakken and Three Forks shale formations. The total recoverable amount of Bakken and Three Forks oil reserves is subject to interpretation and speculation. Studies conducted by the North Dakota Department of Mineral Resources (NDDMR) and the North Dakota Geological Survey (NDGS) in 2008 on the Bakken formation<sup>1</sup> and the Three Forks formation<sup>2</sup> in 2010 indicate that 4.0 to 6.3 billion barrels of oil still undiscovered in the Bakken and Three Forks formations. The most recent US Geological Survey (USGS) information estimated there may be 7.4 billion barrels of undiscovered recoverable oil in the entire Bakken and Three Forks formations, spanning, Montana, North Dakota, and South Dakota<sup>3</sup>. Statistics from the NDDMR indicate that oil production has increased dramatically over the past five years from an average of nearly 664,000 barrels per day (BPD) in 2012 to an

average of over 1,079,000 BPD in 2017<sup>4</sup>. Production is expected to continue to increase dramatically over the next 15 years<sup>5</sup>.

c. Sources

- <sup>1</sup> Bohrer, M., Fried, S., Helms, L. Hicks, B. Juenker, B., McCusker, D., Anderson, F. LeFever, J. Murphy, E., and Nordeng, S. North Dakota Department of Mineral Resources. State of North Dakota Resources Study Project 23 (2008).
  - <sup>2</sup> Helms, L. and Nordeng, S. North Dakota Department of Mineral Resources. Bakken Source System, Three Forks Formation Assessment (2010).
  - <sup>3</sup> United States Geological Survey, Assessment of Undiscovered Oil Resources in the Bakken and Three Forks Formations, Williston Basin Province, Montana, North Dakota, and South Dakota (2013). Web Access in August 2018 at <http://pubs.usgs.gov/fs/2013/3013/>.
  - <sup>4</sup> North Dakota Department of Mineral Resources. North Dakota Monthly Oil Production Statistics. Web access in August 2018 at <https://www.dmr.nd.gov/oilgas/stats/historicaloilprodstats.pdf>
  - <sup>5</sup> North Dakota Department of Mineral Resources. Information Center. Recent Presentations. Web access in August 2018 at [https://www.dmr.nd.gov/oilgas/presentations/WBPC052418\\_2400.pdf](https://www.dmr.nd.gov/oilgas/presentations/WBPC052418_2400.pdf)
6. Any other relevant information as many be requested by the commission. Upon receipt of the ten-year plan the commission shall proceed to assess the impact to the development proposed within the state to ensure that energy conversion facilities and transmission facilities will be sited in an orderly manner compatible with environmental preservation and efficient use of resources.
- a. TBPL is looking forward to working with the Commission on this Project and will provide any additional requested information as timely as possible.



							GAP MIDSTREAM SOUTH PARSHALL GATHERING FIELD PIPELINE PROJECT "A"	
					DRAWN BY	DATE	A.F.E. NO.	DWG. DESC.
					CHK. BY	SCALE	PRINT ISSUED	DWG. NO.
NO.	REVISION	BY	CHK.	DATE	DESIGNED BY	APPR. BY		

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