

STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: July 1, 2019

AT (OFFICE): NHPUC

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FROM: Joseph M. Vercellotti, P.E. JV
Utility Engineer, Safety Division

SUBJECT: Docket No. DG 19-074 Petition of Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities for a License to Construct and Maintain a Natural Gas Pipeline beneath the Soucook River in Concord and Pembroke New Hampshire
Staff Recommendation

TO: Debra Howland, Executive Director
Randy Knepper, Director, Safety Division
Steve Frink, Director, Gas and Water Division
Paul Dexter, Staff Attorney

The Safety Division's review of the above petition consisted of the following elements:

- Petition contents, project overview and history
- Review of land ownership on each side of the river crossing.
- Review of 49 CFR Part 192 and Puc 500 rule requirements.
- Review of public need and public impact, including applicability of other State regulations
- Conclusions and Recommendations

Petition Contents, Project Overview and History

On April 4, 2019, Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities ("Liberty") filed a petition, pursuant to RSA 371:17 and RSA 371:20, to construct and maintain a distribution gas main under and across the Soucook River in Concord and Pembroke, New Hampshire. The Soucook River forms the border between Pembroke and Concord. The natural gas distribution main will feed a new gas service for the Pleasant View Gardens commercial greenhouse located on the south side of North Pembroke Road. The main will connect to the existing Liberty natural gas distribution system at the intersection of North Pembroke Road and Sheep Davis Road in Concord, New Hampshire, which is approximately 1,900 feet west of Pleasant View Gardens.

In the petition, Liberty states that the construction of the new gas distribution main underneath the Soucook River in connection to this project is necessary in order to provide safe natural gas service to Pleasant View Gardens in Pembroke, New Hampshire, as required by RSA 371:17.

Consistent with RSA 371:20 requirements, Liberty indicated this crossing of public waters, as described in its petition, can be exercised without substantially affecting public rights in said waters.

Liberty's proposes to install a 6-inch nominal diameter high density polyethylene (HDPE) main from the intersection of Sheep Davis Road, and North Pembroke Road, to the Pleasant View Gardens facility on the east side of the Soucook River. Liberty proposes to install the main under the Soucook River portion of the work through a 12-inch diameter HDPE casing using Horizontal Directional Drilling (HDD) equipment. Liberty provided the following proposed pipe installation methodology and specifications:

Main installation using HDD is a trenchless pipe installation method, which allows the installation of a new main under the riverbed without surface water impacts. Liberty proposes installing 600 feet of main using HDD. The Safety Division estimates this includes approximately 75 feet directly below the riverbed and approximately 269 feet within the flood plain. The slope of the radius is steep almost 18% with a 600 ft bending curve. This bending curve is greater than the required 40 ft bending curve for the 12-inch nominal diameter sleeve and thus should be adequate and not impose stresses exceeding allowable levels.

Liberty indicated the gas main will consist of 6-inch nominal diameter HDPE SDR-11 plastic carrier pipe inserted into a 12-inch diameter HDPE-SDR-17 plastic casing pipe. By using this pipe within a casing pipe configuration, Liberty will be able to maintain the carrier pipe without disruption to the river. The casing pipe will be at least 15 feet below the riverbed and at least 3 feet below the existing road grade, where pipe is installed using the traditional trench method.

Land Ownership

Liberty provided sufficient documentation to demonstrate that the gas distribution pipeline is to be located under the bed of the Soucook River as well as under the eastern and western shores of the Soucook River. The termination points will be within the right of way of North Pembroke Road with the eastern entrance located approximately in front of the property owned by Pleasant View Gardens. During construction, the HDD process will utilize temporary entry and exit pits on each side of the Soucook River. The temporary entry and exit pits used during the HDD construction of the proposed crossing will be located within the municipal road right-of-way for the city of Concord and town of Pembroke. The project location and river flood plain delineation are shown on the attached plan.

Review of Safety Requirements as Described in Puc 500

N.H. Code Admin. Rules Puc 506.01, Pipeline Safety Standards, provides that:

- (a) All utilities shall comply with those pipeline safety regulations established by the United States Department of Transportation which are set forth in 49 C.F.R. Parts 191, 192, 193, 198 and 199, including future amendments thereto.
- (b) Where Puc 500 or Puc 800 establishes more stringent requirements than those pipeline safety regulations adopted pursuant to (a) above, the more stringent requirement set forth in Puc 500 or Puc 800 shall apply.

Liberty's petition does not explicitly state that the administrative rules of Puc 500 will be met, but does provide engineering details that show overall compliance with 49CFR Part 192, which is referenced in Puc 506.01.

The Safety Division review of the petition and attachments submitted to date found the proposed crossing to be in conformance with the applicable requirements of Puc 500 and 49CFR Part 192.

Public Need and Public Impact

The Safety Division believes any impact to the public from this river crossing will be negligible as a result of the directional bore and the prescribed depth below the river bottom. Liberty has stated that this replacement main is needed to supply the customer gas demand in greater Concord and Pembroke. The Safety Division notes that without the proposed new gas distribution main, Liberty would not be able to serve all of its existing Concord and Pembroke customers.

Safety Division Staff Conclusion and Recommendation:

The Safety Division recommends approval of Liberty's petition under RSA 371:17 and RSA 371:20 with the following conditions:

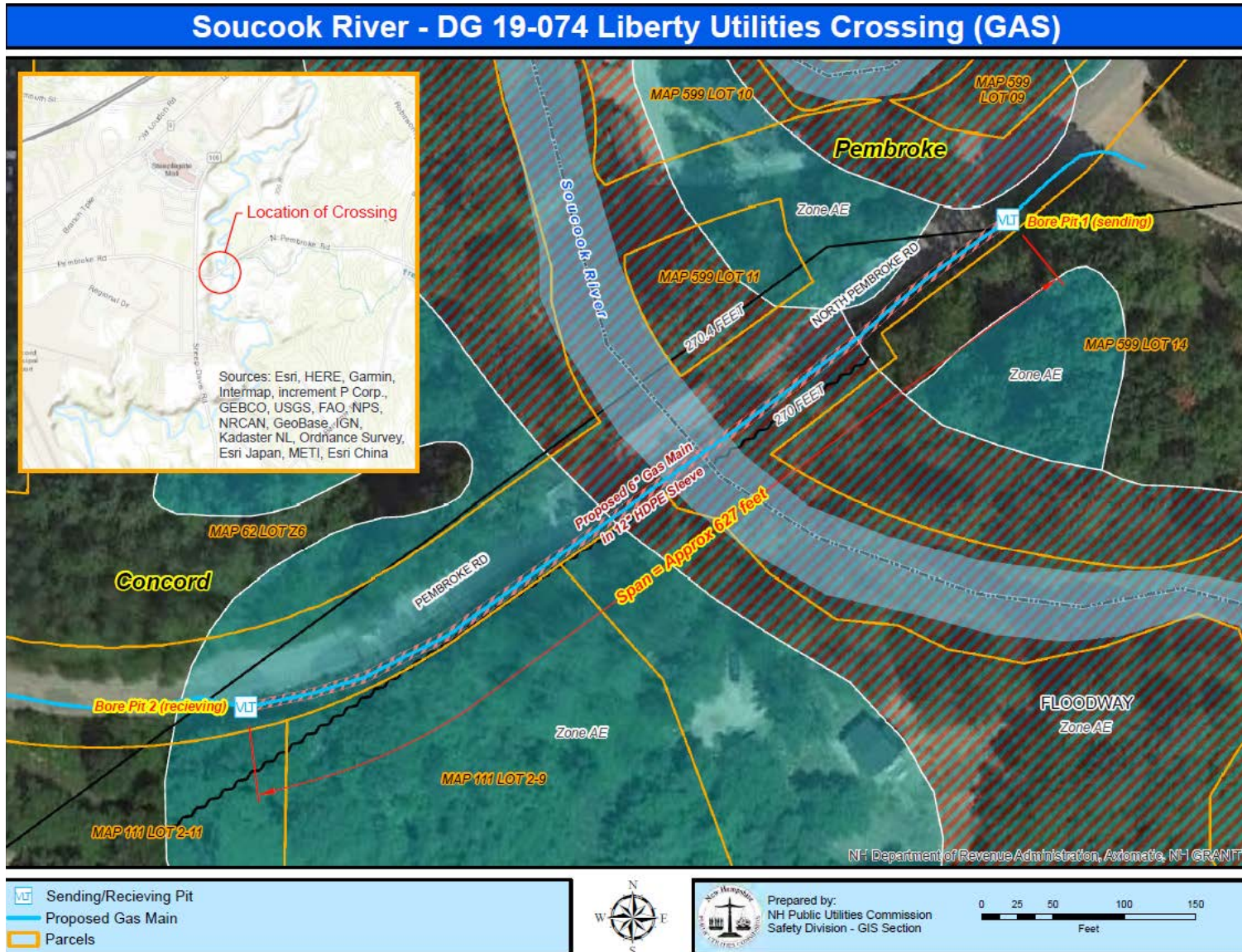
- a. Staff recommends that the approval be limited to the Liberty natural gas pipeline under consideration in this docket.
- b. Liberty is required to construct, operate, and maintain the piping consistent with both Puc 506.02 and 49 CFR Part 192 requirements and the North American Society for Trenchless Technology's (NASTT's) Horizontal Directional Drilling Good Practices Guidelines (4th edition).
- c. Liberty should be directed to operate and maintain the crossing in conformance with the latest 49 CFR Part 192 amendments. Any and all future alterations to the crossing that may impact the public shall conform to the most current 49 CFR Part 192 amendments in effect at the time of submittal of the alteration.
- d. Liberty should use aboveground pipeline markers to identify the pipeline location with appropriate warning and company contact information on each side of the

- Soucook River crossing. The gas main must be locatable for future excavations using a tracer wire or other suitable equivalent means.
- e. Continuous monitoring for possible hydro fracture situations shall be provided during the HDD operation.
 - f. Containment measures shall be implemented immediately during a hydro fracture situation that at a minimum include notifications to be made in the event a hydro fracture occurs to the NH PUC Safety Division and NH DES; and clean up procedures to be implemented in the event a hydro fracture occurs shall be onsite prior to the beginning of the HDD operation.

If these conditions are met, the Safety Division is of the opinion that the proposed natural gas pipeline crossing will meet current safety standards (Puc 506.02 and 49 CFR Part 192).

The Safety Division believes the construction of the new gas distribution main under the Soucook River, as proposed, may be exercised without substantially affecting the public rights in said waters and lands (RSA 371:20).

The Safety Division is also of the opinion that the proposed natural gas pipeline crossing is necessary to meet the reasonable requirements of service to the public (RSA 371:17).



View Service Lists

 (../Regulatory/regulatory.htm)	 (../ServiceLists/ViewServiceList.aspx)	A A A
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Service List - Docket Related

Docket# : 19-074

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