



Northern Natural Gas Company
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Omaha NE 68103-0330
402 398-7200

May 13, 2025

Via eFiling

Ms. Debbie-Anne Reese, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

RE: Northern Natural Gas
Northern Lights 2025 Expansion
Docket No. CP24-60-000
Condition 15 – Tomah HDD P4-1¹ – Proposed Noise Mitigation Plan and Request
Approval to Commence HDD Activities on P4-1

Dear Ms. Reese:

In accordance with Condition 15 of the Order Issuing Certificate and Approving Abandonment issued February 19, 2025, by the Federal Energy Regulatory Commission (Commission), Northern Natural Gas (Northern) hereby submits for filing in the above-referenced docket its proposed noise mitigation plan for horizontal directional drill (HDD) P4-1 on the Tomah branch line loop.

Northern obtained a list of the drilling equipment and specifications that will be used by the contractor at this location. Based upon this information, Northern's contractor, Stantec Consulting, developed the attached noise mitigation plan and predicted mitigated noise impacts at the noise sensitive areas (NSAs) for HDD P4-1. The drilling contractor also agreed to utilize one vacuum truck, which will only run for six hours out of a 10-hour workday. As demonstrated in the attached, the predicted day-night noise levels at NSAs attributable to drilling operations from HDD P4-1 on the Tomah branch line loop are below 70 decibels on the A-weighted scale.

Northern requests the Director of the Office of Energy Projects issue written approval of the attached noise mitigation plan and approval to commence HDD P4-1 on the Tomah branch line loop.

¹ As discussed in Northern's Implementation Plan and response to the conditions of the order, specifically condition 15, filed March 6, 2025, with FERC, the original noise table in Appendix 9H from the section 7 application mislabeled the Tomah HDD P4-2; it should have been labelled HDD P4-1. There are no predicted Ldn sound levels over 70 decibels on the A-weighted scale for Tomah HDD P4-2. A revised noise table was attached to the March 6 filing correcting, among other clerical errors, the HDD labels for the Tomah branch line loop.

Northern Natural Gas Company
Northern Lights 2025 Expansion

Any questions regarding this filing should be directed to the undersigned at (402) 398-7138.

Respectfully submitted,

/signed/ Donna Martens

Donna Martens
Senior Regulatory Analyst

attachment



Stantec Consulting
1165 Scheuring Rd., De Pere, WI

May 8, 2025
File: Docket No. CP24-60-000

Attention: Debbie-Anne A. Reese, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Reference: Northern Natural Gas Company FERC Docket No. CP24-60-000 Northern Lights 2025 Expansion Project – FERC Order Issuing Certificate and Approving Abandonment (Order) – Condition 15 Tomah HDD P4-1 Updated Noise Analysis

Dear Ms. Reese,

INTRODUCTION

Northern Natural Gas (Northern) owns and operates an approximately 14,300-mile-long natural gas transmission pipeline system and associated aboveground facilities, including pipeline facilities in Minnesota and Wisconsin. As part of infrastructure upgrades, Northern is constructing a 1.28-mile extension of its 8-inch-diameter Tomah branch line loop as part of the Northern Lights 2025 expansion project.

Northern has reviewed the Federal Energy Regulatory Commission (FERC) Order Issuing Certificate and Approving Abandonment (Order) dated February 19, 2025. As part of the Order, Condition 15 stipulates that:

“Prior to construction, Northern shall file with the Secretary, for review and written approval by the Director of OEP, or the Director’s designee, a noise mitigation plan for horizontal direction drill P4-2¹ to reduce the noise level attributable to drilling operations at noise sensitive areas where predicted day-night noise levels are above 70 decibels on the A-weighted scale.”

The initial daytime horizontal directional drill (HDD) noise impacts from HDD TBL P4-1 on the Tomah branch line loop were predicted to exceed 70 dBA L_{dn} at two nearby noise sensitive areas (NSAs). FERC and the Environmental Protection Agency (EPA) Region 5 office requested that Northern create and implement a noise mitigation plan to reduce the noise levels attributable to drilling operations where predicted day-night noise levels are above 70 dBA L_{dn}. This memo provides a summary of the proposed mitigation plan to be implemented by Northern and updated mitigated noise impacts at the NSAs.

¹ As discussed in Northern’s Implementation Plan and response to the conditions of the order, specifically condition 15, filed March 6, 2025, with FERC, the original noise table in Appendix 9H from the section 7 application mislabeled the Tomah horizontal directional drill (HDD) P4-2; it should have been labelled HDD P4-1. The HDD P4-1 under Gardener Avenue is 140 feet in length and has an estimated construction duration of three days. There are no predicted L_{dn} sound levels over L_{dn} over 70 decibels on the A-weighted scale for Tomah HDD P4-2. A revised noise table was attached to the March 6 filing correcting, among other clerical error updates, the HDD labels for Tomah. Northern’s mitigation plan references the correct HDD P4-1 label.

Reference: Northern Natural Gas Company FERC Docket No. CP24-60-000 Northern Lights 2025 Expansion Project – FERC Order Issuing Certificate and Approving Abandonment (Order) – Condition 15 Tomah HDD P4-1 Updated Noise Analysis

NOISE MITIGATION PLAN

Northern has reviewed proposed equipment and drilling activities at HDD TBL P4-1 with their contractor and has developed a reduced list with limited operations for certain equipment. A summary is provided in Table 1.

Table 1 Equipment Summary

Primary Drill		
Equipment	Operating time (daytime hours)	Sound Power Level (dBA)
HDD Rig- D60	10	107
Shaker	10	108
Vac Truck	6	112
Secondary (Backup) Drill²		
Equipment	Operating time (daytime hours)	Sound Power Level (dBA)
HDD Rig- D100	10	107
Shaker	10	108
Vac Truck	6	112
250C Reclaimer	10	108

Two NSAs were identified in proximity to HDD TBL P4-1. A summary is provided in Table 2. Additional residences, at greater setback distances, were identified in the project area; however, the noise impacts will be less than those at the closest NSAs.

Table 2 Noise Sensitive Areas (NSAs)

NSA and Description	Latitude	Longitude
Residence at 9660 Gardener Avenue (NSA04)	43.9724	-90.7992
Residence at 9669 Gardner Avenue (NSA05)	43.9722	-90.8004

A predictive analysis was performed using CADNA/A acoustic modelling software (Version 2021 MR2), published by Datakustik GmbH, configured to implement ISO-9613-2 environmental noise propagation algorithms. This model includes geometrical divergence (distance attenuation), barrier effects due to intervening structures, ground effects, atmospheric absorption, and topography. The model considers a downwind condition in which, for the purpose of analysis, the wind direction is always oriented

² An analysis of a secondary drill is being provided in case the primary drill rig is not available.

Reference: Northern Natural Gas Company FERC Docket No. CP24-60-000 Northern Lights 2025 Expansion Project – FERC Order Issuing Certificate and Approving Abandonment (Order) – Condition 15 Tomah HDD P4-1 Updated Noise Analysis

from each source location towards each modelled noise sensitive receptor. Acoustic modelling parameters used are summarized in Table 3.

Table 3 Acoustic Model Parameters

Parameter	Value	Rationale
Ground Absorption	0	For waterbodies
Ground Absorption	0.2	Accounts for mostly acoustically reflective surfaces (pavement and hard packed ground)
Ground Absorption	0.8	Accounts for mostly acoustically absorptive (i.e. grass) surfaces between the source and representative NSA
Temperature	50 °F	Typical weather average condition
Relative Humidity	70%	Typical weather average condition
Maximum Order of Reflection	2	Accounts for building reflections

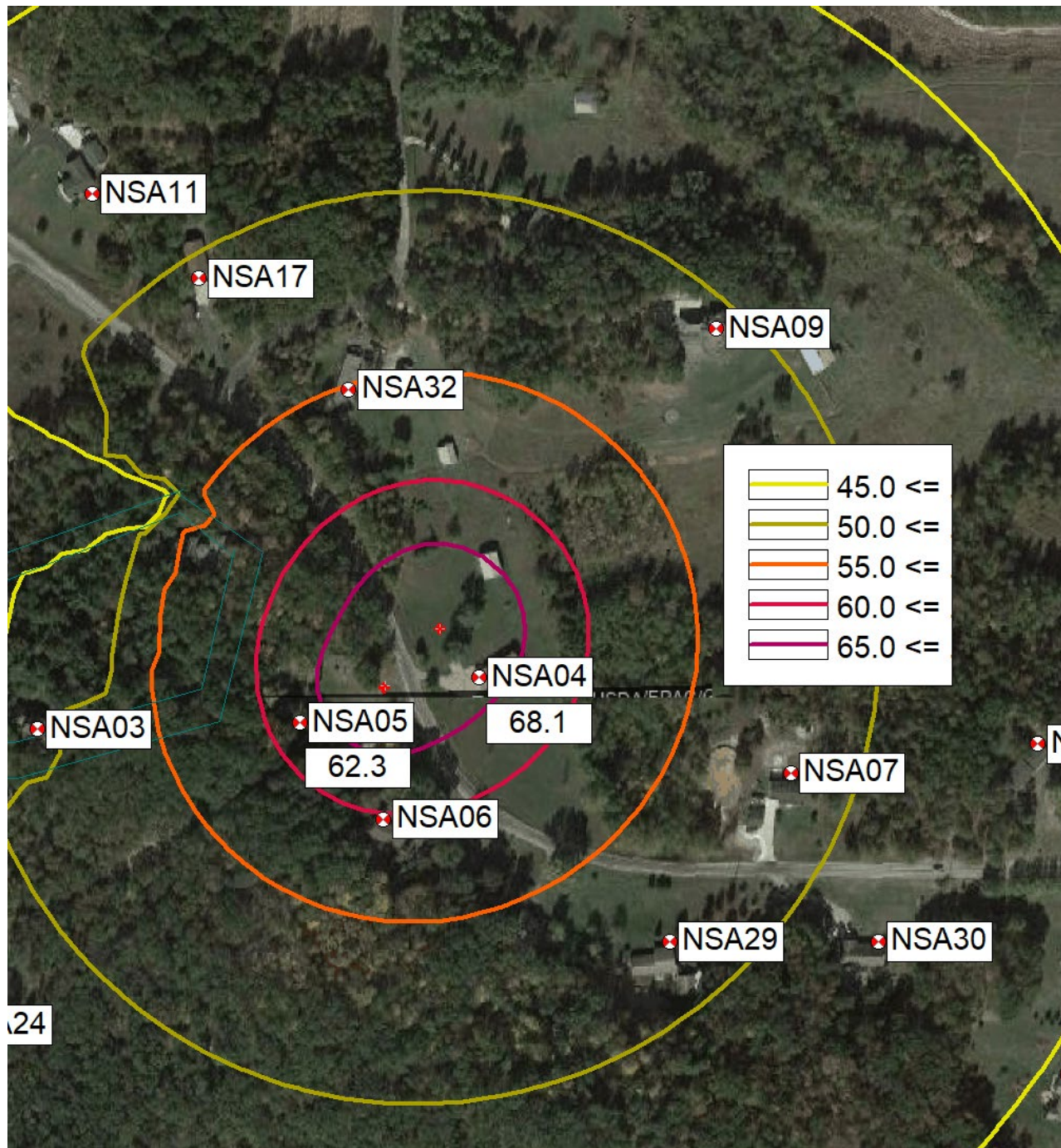
Northern has modelled the noise impact at the NSAs using the sound power levels summarized in Table 1. A summary of predicted noise impacts as NSAs is provided as Table 4. A contour plot of the primary drill and secondary drill is provided as Figure 1 and Figure 2. Based on the modified equipment operation summarized in Table 1, the predicted noise impact of HDD TBL P4-2 part of the Tomah branch line loop at nearby NSAs will be below the applicable FERC daytime L_{dn} criteria of 70 dBA L_{dn} .

Table 4 Predicted Noise Impacts

NSA	Primary Drill Ldn (dBA)	Secondary Drill Ldn (dBA)	FERC Daytime Ldn Criteria	Compliance with Criteria (Yes/No)
Residence at 9660 Gardener Avenue (NSA04)	68	69	70	Yes
Residence at 9669 Gardner Avenue (NSA05)	62	63	70	Yes

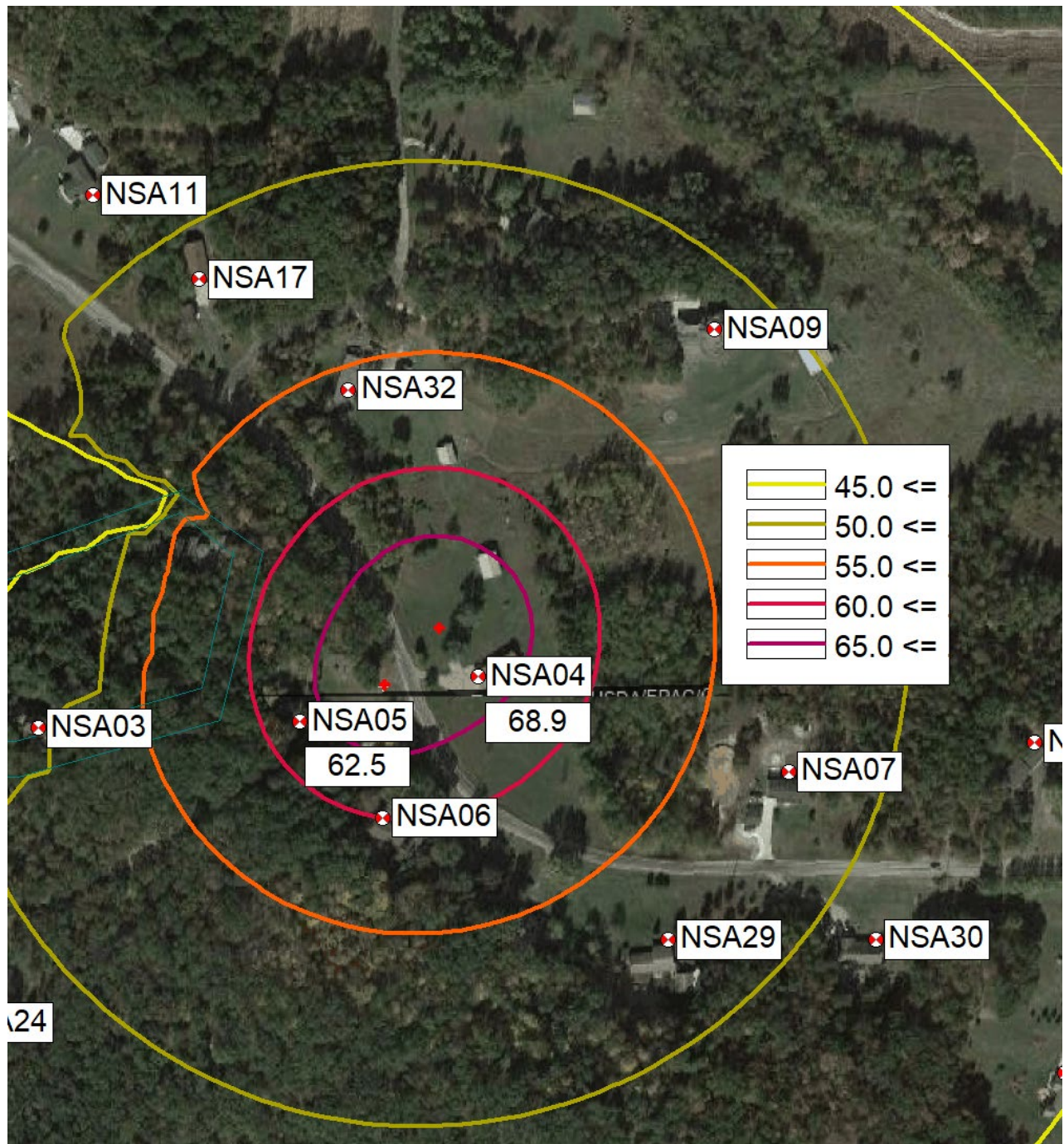
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Figure 1 Daytime Noise Contour Plot – Primary Drill - LAeq-1hr [dBA]



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Figure 2 Daytime Noise Contour Plot – Secondary Drill - LAeq-1hr [dBA]



Reference: Northern Natural Gas Company FERC Docket No. CP24-60-000 Northern Lights 2025 Expansion Project – FERC Order Issuing Certificate and Approving Abandonment (Order) – Condition 15 Tomah HDD P4-1 Updated Noise Analysis

CLOSING

Northern completed updated noise modelling of the Tomah HDD TBL P4-1 to address Condition 15 of the FERC Order Issuing Certificate and Approving Abandonment. The predicted noise impacts at nearby NSAs are anticipated to be less than the requested FERC daytime noise limit of 70 dBA L_{dn} based on the revised equipment list and limited nighttime operation as provided by Northern's contractor.

Should you have any questions or concerns, please do not hesitate to contact the undersigned.

Regards,

Stantec Consulting

A handwritten signature in dark ink, appearing to read 'S.A.', is positioned above a horizontal line.

Samuel Arnold P.Eng. MASc.

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