

October 3, 2018

**VIA HAND-DELIVERY**

Mr. Darrell Nitschke  
Executive Secretary  
North Dakota Public Service Commission  
600 E. Boulevard, Dept. 408  
Bismarck, ND 58505-0480

**Re: BOE Pipeline, LLC  
Tree Mitigation Monitoring  
Case No. PU-13-825**

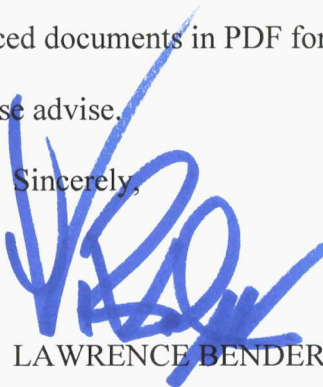
Dear Mr. Nitschke:

Please find enclosed for filing in the above-referenced matter an original and ten (10) copies of the BOE Tree Mitigation Monitoring Memorandum, submitted on behalf of BOE Pipeline, LLC.

A disk containing the above-referenced documents in PDF format is also provided.

Should you have any questions, please advise.

Sincerely,



LAWRENCE BENDER

LB/kl

cc: Patrick Fahn (*via e-mail*)

Enclosures

64961121.1

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**118 PU-13-825** Filed: 10/3/2018 Pages: 5  
**Tree Mitigation Monitoring Memorandum**

Bakken Oil Express, LLC

Lawrence Bender, Fredrikson & Byron, P.A.



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# Memorandum

**Date:** 10/1/2018  
**To:** Sara Cardwell – ND PSC  
**Copy to:** John Wadsworth – BOE and Scott Besmer - KLJ  
**From:** Nick Anderson - KLJ  
**RE:** BOE I Tree Mitigation Monitoring (Case No. PU-13-825)

## INTRODUCTION:

BOE Pipeline, LLC (BOE) received the Public Service Commission Route Permit (Permit # 161) on December 30, 2013, to construct a 38 mile, sixteen-inch diameter, crude oil pipeline from Killdeer to Dickinson, North Dakota (Case No. PU-13-825). Construction of the proposed project commenced on January 13, 2014, with final ROW clean-up occurring on September 13, 2014. Upon completion of construction, reclamation efforts along the pipeline corridor commenced. Between October and November 2014, the reclamation efforts included final grading, seeding and miscellaneous reclamation activities. These activities were completed in 2015.

As part of the reclamation activities, impacts to trees and shrubs were mitigated. A tree and shrub count was completed along the corridor prior to and after construction activities to determine the number and species of trees and shrubs removed, as well as the location/landowner where the trees and shrubs were removed. Once impacts were identified, a Tree and Shrub Mitigation Plan was designed to describe how tree and shrub impacts would be mitigated. The original plan was submitted to the North Dakota Public Service Commission (PSC) in March 2016. At that time, only a portion of the impacted species were proposed to be mitigated, since some of the landowners did not want trees and/or shrubs replanted on their property. The PSC reviewed the plan and determined that all the trees and shrubs, including excess species, would need to be mitigated. A revised plan was submitted to the PSC in February 2017, which included tree and shrub replacement on both private lands and on ND state lands in cooperation with the North Dakota Game and Fish Department (NDGF). An agreement with NDGF was finalized in 2018, with BOE responsible for the purchase of 570 trees and shrubs, associated landscaping fabric, and Stark County SCD labor to plant the trees. (species to be determined by NDGF). The additional plantings are anticipated to offset the limited survivability of the trees and shrubs planted in 2015.

Trees and shrubs planted on private lands occurred during the 2015 growing season. Per the mitigation plan, tree and shrub plantings are to be inspected annually, in September, for three years. A report of each annual inspection would be submitted to the Commission by October 1 of each year, documenting the condition of plantings and any woodlands work completed as of September of each year. If after the



third annual report the survival rate is less than 75%, the mitigation plan will be reviewed and additional plantings may be required.

#### **MONITORING:**

Eight landowners requested trees and shrubs to be replanted on their property. In 2017, the monitoring survey determined that no trees or shrubs had survived on three of the landowners properties; therefore, those properties were excluded from the 2018 monitoring survey. The remaining landowners were contacted to obtain survey permission; however, only two of the remaining five landowners were able to be reached. On September 10, 2018, Nute Bishop (KLJ) conducted the field surveys to determine the health and recruitment of planted tree and shrub species. The following discussion identifies the landowners who requested trees and shrubs to be replanted on their property and current condition of the plantings:

David and Laura Sadowsky - The planting area was overgrown with western snowberry, and none of the juneberry or Hansen hedge rose plants were observed (0% survivability). Wild juneberry and prairie rose were observed growing in the area.

Scott Trust-Billy Scott – All 36 chokecherry trees have survived. The plantings on the Scott property were placed in a low-lying draw with tree cover, which appears to have helped the trees during the drought conditions experienced in 2017 (100% survivability).

Harlan Bullinger – Numerous attempts were made to contact Mr. Bullinger; however, all attempts were unsuccessful. Survey permission was not obtained; therefore, the area was not surveyed.

Kenneth Kardmas – Numerous attempts were made to contact Mr. Kardmas; however, all attempts were unsuccessful. Survey permission was not obtained; therefore, the area was not surveyed.

Lance and Christy Larsen - Numerous attempts were made to contact Lance and Christy Larsen; however, all attempts were unsuccessful. Survey permission was not obtained; therefore, the area was not surveyed.

Mark and Tina Kovash – The property was surveyed in 2017 and no surviving trees or shrubs were identified; therefore, the site was not surveyed in 2018.

Toby and Peggy Stroh – The property was surveyed in 2017 and no surviving trees or shrubs were identified; therefore, the site was not surveyed in 2018.

Kurt Kubik – The property was surveyed in 2017 and no surviving trees or shrubs were identified; therefore, the site was not surveyed in 2018.

#### **RESULTS:**



Three properties were surveyed during 2017 and determined to have 0% survivability; therefore, these properties were not surveyed again in 2018. Out of the remaining five properties, permission was only obtained for two properties, which had 73% survivability.

For lands where survey permission was obtained, total survivability of the trees planted in 2015 was 73 % (36 of the 49 trees/shrubs planted survived). ***Please refer to the attached Tree and Shrub Impacts and Mitigation Table.*** This is below the 75% survivability rate agreed to within the Tree and Shrub Mitigation Plan. Upon review of the monitoring report, the ND PSC may request additional plantings.

BOE will monitor the trees planted on private lands again in 2019 and provide a follow up report by October 1, 2019. At that time, it is assumed the NDGFD project will have commenced and the remainder of the trees would be planted. If there are any questions or concerns regarding this report, feel free to contact me at 701-271-4884 or [Nick.Anderson@kljeng.com](mailto:Nick.Anderson@kljeng.com).

Thanks,

Nick Anderson - KLJ

Environmental Planner

Attachment: (1) Tree and Shrub Impacts and Mitigation Table

Tree and Shrub Impacts and Mitigation Table							
Tree and Shrub Impacts		Original Mitigation			2018 Mitigation Monitoring		
Species	Mitigation Required (2:1 Ratio)	Number of Individuals Replaced on Private Lands (2015)	Number of Individuals Replaced on NDGF Property	Total individuals Replaced (2:1 Ratio)	Trees and Shrubs Observed Growing	Trees Planted on Surveyed Properties	Survival Rate on Surveyed Properties
American Elm ( <i>Ulmus americana</i> )	8	4 (Replaced with Siberian Elm)	4 (Species to be determined (TBD))	8	0	0	N/A
Choke Cherry ( <i>Prunus virginiana</i> )	38	38	0	38	36	36	100%
Peachleaf Willow ( <i>Salix amygdaloides</i> )	4	4	0	4	0	0	N/A
Green Ash ( <i>Fraxinus pennsylvanica</i> )	26	26	0	26	0	0	N/A
Juneberry ( <i>Amelanchier alnifolia</i> )	24	12	12 (Species TBD)	24	0	6	0%
Prairie Rose ( <i>Rosa arkansana</i> )	312	156 (Replaced with Hansen's Hedge Rose)	156 (Species TBD)	312	0	7	0%
Roundleaf Hawthorn ( <i>Crataegus lumaria</i> )	58	44 (Replaced with Arnold Hawthorn)	14 (Species TBD)	58	0	0	N/A
Russian Olive ( <i>Elaeagnus angustifolia</i> )	48	48	0	48	0	0	N/A
Siberian Peashrub – AKA Caragana ( <i>Caragana arborescens</i> )	60	58	2 (Species TBD)	60	0	0	N/A
<b>Total</b>	<b>578</b>	<b>390</b>	<b>188*</b>	<b>578</b>	<b>36</b>	<b>49</b>	<b>73%</b>

\*The 2017 BOE Tree and Shrub Mitigation Plan stated 188 trees and shrubs would be replaced in coordination with the NDGF; however, the agreement between BOE and NDGF was finalized in 2018, which will result in the planting of 570 trees and shrubs (species to be determined by NDGF). The additional plantings are anticipated to offset the limited survivability of the trees and shrubs planted in 2015.