

October 25, 2017

VIA HAND DELIVERY

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



**RE: BAKKEN OIL EXPRESS, LLC
CASE NUMBER PU-13-825**

Dear Mr. Nitschke:

Please find enclosed for filing an original and ten (10) copies of the 2017 Mitigation Monitoring Memorandum. Also enclosed is a CD containing the referenced document in PDF format.

If you should have any questions, please advise.

Sincerely,

LAWRENCE BENDER

LB/ber
Enclosure

cc: Sara Cardwell (*via e-mail*)

62540321.1

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Mitigation Monitoring Memorandum for 2017



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Memorandum

Date: 10/23/2017
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 (NDGFD). Eight private landowners requested trees to be replanted on their property.

Trees and shrubs planted on private lands occurred during the 2015 growing season; however, the project conducted in cooperation with the NDGFD is still ongoing and those species have yet to be planted. 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 1¹ of each year, documenting the condition of plantings and any woodlands work completed as of

¹ Due to landowner issues the 2017 monitoring occurred in early October. Sara Cardwell (ND PSC) was notified of the delay in an email on September 27, 2017, at which point it was discussed that the 2017 monitoring report would be submitted after the October 1 deadline.



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. Each landowner was contacted to obtain survey permission; however, only six of the eight landowners were able to be reached. On October 5, 2017, 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, but there were six juneberry and seven Hansen hedge rose plants growing in a linear tract that appeared to be those planted in 2015 (100% survivability). Wild juneberry and prairie rose were observed also growing in the area.

Mark and Tina Kovash – None of the six juneberry have survived (0% survivability).

Toby and Peggy Stroh – All plantings had died on the Stroh property, which included four green ash and two Hansen hedge rose (0% survivability).

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).

Kurt Kubik – All plantings had died on the Kubik property, which included two green ash, two chokecherry, and two peachleaf willow (0% survivability).

Harlan Bullinger – Mr. Bullinger informed us that a company was on his property spraying weeds and had accidentally sprayed the BOE planted trees and shrubs. KLJ field verified that all the BOE planted trees and shrubs had died. At the request of Mr. Bullinger, the herbicide applicator replaced the trees and shrubs in his yard within an existing shelter belt. Permission was not obtained to survey the new planting location; therefore, the area was not surveyed.

Kenneth Kadrmas – Mr. Kadrmas had requested to be contacted prior to KLJ or BOE staff entering the property to survey tree/shrub plantings. 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 - Initial contact was made with Mr. Larson, who requested to be contacted prior to KLJ or BOE staff entering the property to survey tree/shrub plantings. Numerous attempts were made to inform the landowner(s) of the upcoming surveys; however, no follow-up contact attempts were successful. Survey permission was not obtained; therefore, the area was not surveyed.



RESULTS:

Due to the severe drought conditions experienced in 2017, survivability of species varied significantly on lands where survey permission was obtained. Three of the properties surveyed had 0% survivability, while two of the properties had 100% survivability. The remaining three properties were not surveyed.

For lands where survey permission was obtained, total survivability of the trees planted in 2015 was 73% (49 of the 67 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 2018 and provide a follow up report by October 1, 2018. 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.

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		Mitigation			2017 Mitigation Monitoring		
Species	Mitigation Required (2:1 Ratio)	Number of Individuals Replaced on Private Lands (2015)	Number of Individuals Replaced on NDGFD Property (2018)	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	38	95%
Peachleaf Willow <i>(Salix amygdaloides)</i>	4	4	0	4	0	2	0%
Green Ash <i>(Fraxinus pennsylvanica)</i>	26	26	0	26	0	6	0%
Juneberry <i>(Amelanchier alnifolia)</i>	24	12	12 (Species TBD)	24	6	12	50%
Prairie Rose <i>(Rosa arkansana)</i>	312	156 (Replaced with Hansen's Hedge Rose)	156 (Species TBD)	312	7	9	100%
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
Total Survivability of Surveyed Properties					49	67	73%