

USAG-UR-SGREG-000013 DECEMBER 2011 REVISION 0

FERC Docket No. PF09-11-000

APPENDIX 3C VEGETATION IMPACTS

(to be filed in the final report)



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									TABLI	E 3C-1										
				_				Ala	ska Pipe	eline Pro	ject				a h					
					es of Fo	rested					d by Co	nstructi	ion and (Operatio Propertion	n ^{°,}					
	Need	osed dleleaf rest	Nee	pen dleleaf brest		dleleaf	Broa	sed adleaf rest	Broa	pen adleaf orest		dleaf dland		Mixed rest		Mixed rest		xed dland	To	otal
Section / Facility	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.
PT Pipeline Beaufort Coastal Plain								-				-		-				-		
Pipeline Right-of-Way																				
Additional Temporary Workspace (ATWS)																				
Aboveground Facilities ^c																				
Pipe Storage and Contractor Yards																				
Access Roads Construction Camps																				
Borrow Sites																				
Helipads																				
Subtotal ALASKA MAINLINE																				
Beaufort Coastal Plain																				
Pipeline Right-of-Way ATWS																				
Aboveground Facilities °																				



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					es of Fo	rested \					d by Co	nstructi	on and C)peratio	n ^{a,s}					
	Need	osed dleleaf orest	Nee	pen dleleaf brest		dleleaf odland	Broa	sed adleaf rest	Broa	pen adleaf rest		idleaf dland	Closed	Mixed		Mixed rest		xed dland	To	tal
Section / Facility	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.
Pipe Storage and Contractor Yards																				
Access Roads																				
Construction Camps																				
Borrow Sites																				
Helipads																				
Subtotal																				
Brooks Foothills																				
Pipeline Right-of-Way ATWS																				
Aboveground Facilities ^c																				
Pipe Storage and Contractor Yards																				
Access Roads																				
Construction Camps																				
Borrow Sites																				
Helipads																				
Subtotal																				
Brooks Range																				
Pipeline Right-of-Way																				



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		dleleaf orest	Nee	dleleaf orest		dleleaf dland		idleaf rest	Broa	idleaf rest		dleaf dland	Closed For		Open Fo	Mixed rest	Mix Woo		Tc	otal
Section / Facility	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.
ATWS																				
Aboveground Facilities ^c																				
Pipe Storage and Contractor Yards																				
Access Roads																				
Construction Camps																				
Borrow Sites																				
Helipads																				
Subtotal																				
Ray Mountains																				
Pipeline Right-of-Way																				
ATWS																				
Aboveground Facilities ^c																				
Pipe Storage and Contractor Yards																				
Access Roads																				
Construction Camps																				
Borrow Sites																				
Helipads																				
Subtotal																				
Yukon-Tanana Uplands																				



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									TABLE	3C-1										
								Alas	ska Pipe	line Pro	ject									
					es of Fo	rested \					d by Coı	nstructi	on and C	<mark>peratio</mark>	n ^{a,b}					
	Nee	osed dleleaf orest	Nee	pen dleleaf orest		dleleaf odland	Broa	sed idleaf rest	Broa	pen adleaf rest		idleaf dland	Closed	Mixed		Mixed rest		xed dland	To	otal
Section / Facility	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.
Pipeline Right-of-Way																				
ATWS																				
Aboveground																				
Facilities ^c																				
Pipe Storage and	t																			
Contractor Yards	;																			
Access Roads																				
Construction Camps																				
Borrow Sites																				
Helipads																				
Subtotal																				
Tanana-																				
Kuskokwim																				
Lowlands																				
Pipeline																				
Right-of-Way																				
ATWS																				
Aboveground Fa	cilities	С																		
Pipe Storage and	d Conti	ractor Ya	rds																	
Access Roads																				
Construction Camps																				
Borrow Sites																				
Helipads																				
Subtotal																				



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									TABLE	3C-1										
				Acre	es of Fo	rested \	/egetatio		ka Pipel r Types			nstructio	on and (Operatio	n ^{a,b}					
	Clo: Need For	leleaf		en leleaf est		lleleaf dland		sed dleaf rest	Broa	en dleaf est	Broa Wood			l Mixed rest	Open For	Mixed est	Mix Wood		То	tal
Section / Facility	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.

ATWS

Aboveground Facilities c

Pipe Storage and Contractor Yards

Access Roads

Construction

Camps

Borrow Sites

Helipads

Subtotal

^a The numbers in this table have been rounded for presentation purposes. As a result, the totals may not reflect the exact sum of the addends in all cases.

Operational maintenance will typically include a 100-foot-wide pipeline right-of-way. The operational impact acres for the pipeline right-of-way include the maintained pipeline right-of-way and other permanent facilities that will be utilized during operation of Project facilities.

Acreage used for the construction and operation of Aboveground Facilities is 0.0 when it occurs within the construction or operation footprint of the pipeline right-of-way. Additional acreage is noted if Aboveground Facilities are placed outside of these areas.



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										TABLE	3C-2											
					A	f Carre	b Veget	ation C	Alasi	ca Pipel	ine Pro	ject	-44:	n and	On a rati	a,b						
					Dwar		o veget	ation C	over i	ypes A	rected	by Con	Structio	n and	Operati	on						
Section / County	T	d Dwarf Scrub		Dwarf Scrub	Sci	rub		d Tall rub		en Tall crub		d Low rub		d Low rub		Dwarf rub		ceous Scrub		/ Dwarf rub	To	otal
/ Facility	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.
PT Pipeline		Соп. Ор. Соп. Ор. Соп. Ор. Соп. Ор. Соп. Ор. Соп. Ор.																				
Beaufort Coastal Plain																						
Pipeline Right-of-Way																						
ATWS																						
Aboveground Facilities ^c																						
Pipe Storage and Contractor Yards																						
Access Roads																						
Construction Camps																						
Borrow Sites																						
Helipads																						
Subtotal																						
ALASKA MAINLINE																						
Beaufort Coastal Plain																						
Pipeline Right-of-Way																						
ATWS																						



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										TABLE	3C-2											
									Alask	a Pipel	ine Pro	ject										
							<mark>b Veget</mark>	ation C	over T	ypes Af	fected	by Con	structio	n and	Operati	on ^{a,b}						
Section / County	Tree		Tree	Dwarf Scrub	So Woo	f Tree rub dland	Sc	ed Tall crub	So	n Tall crub	Sc	ed Low rub	Sc	d Low rub	Sc	rub	Dwarf	iceous f Scrub	Sc	v Dwarf crub		otal
/ Facility	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Ор.	Con.	Op.	Con.	Op.	Con.	Op.
Aboveground Facilities ^c																						
Pipe Storage and Contractor Yards																						
Access Roads																						
Construction Camps																						
Borrow Sites																						
Helipads																						
Subtotal																						
Brooks Foothills																						
Pipeline Right-of-Way																						
ATWS																						
Aboveground Facilities ^c																						
Pipe Storage and Contractor Yards																						
Access Roads																						
Construction Camps																						
Borrow Sites																						
Helipads																						
Subtotal																						
Brooks Range																						



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										TABLE	3C-2											
									Alask	a Pipel	<mark>ine Pro</mark>	<mark>ject</mark>				- 1-						
							b Veget	ation C	over T	ypes A	fected	by Con	structio	n and	<u>Operati</u>	on ^{a,b}						
Section / County		d Dwarf Scrub		Dwarf Scrub	Sc	f Tree rub dland		ed Tall crub		n Tall crub		ed Low crub		d Low rub		Dwarf rub		ceous f Scrub	Sc	v Dwarf crub		otal
/ Facility	Con.	Ор.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.
Pipeline Right-of-Way		Con. Op.																				
ATWS																						
Aboveground Facilities °																						
Pipe Storage and Contractor Yards																						
Access Roads																						
Construction Camps																						
Borrow Sites																						
Helipads																						
Subtotal																						
Ray Mountains																						
Pipeline Right-of-Way																						
ATWS																						
Aboveground Facilities ^c																						
Pipe Storage and Contractor Yards																						
Access Roads																						
Construction Camps																						
Borrow Sites																						
Helipads																						



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	TABLE 3C-2 Alaska Pipeline Project																					
									Alask	ca Pipel	ine Pro	ject										
							b Veget	ation C	over T	ypes Af	fected	y Cons	structio	n and (Operation	on ^{a,b}						
Section / County		d Dwarf Scrub	Tree	Dwarf Scrub	Sc Woo	f Tree rub dland	Sc	ed Tall rub	Sc	n Tall crub	Sc	d Low rub	Sc	d Low rub	Dryas Sci	rub	Dwarf	ceous Scrub	Sc	/ Dwarf rub		ıtal
/ Facility	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Ор.	Con.	Ор.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.
Subtotal																						
Yukon-Tanana Uplands Pipeline Right-of-Way ATWS																						
Aboveground Facilities ° Pipe Storage																						
and Contractor Yards																						
Access Roads Construction Camps																						
Borrow Sites Helipads																						
Subtotal Tanana-																						
Kuskokwim Lowlands																						
Pipeline Right-of-Way ATWS																						
Aboveground Facilities ^c																						



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										TABLE	3C-2											
											ine Pro											
							b Veget	ation C	over Ty	<mark>/pes Af</mark>	fected I	y Con	structio	n and	<mark>Operati</mark>	on ^{a,b}						
Section / County		d Dwarf Scrub		Dwarf Scrub	So	f Tree rub dland		ed Tall crub		n Tall rub		d Low rub		d Low rub	,	Dwarf		ceous Scrub		/ Dwarf rub	To	otal
/ Facility	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.
Pipe Storage a nd Contractor Yards																						
Access Roads																						
Construction Camps																						
Borrow Sites																						
Helipads																						
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Facilities ^c																						
Pipe Storage and Contractor Yards																						
Access Roads																						
Construction Camps																						
Borrow Sites																						
Helipads																						
Subtotal																						
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pipeline Acreag	e right- e used	of-way a	nd othe construc	r perma	anent fa d opera	cilities t	hat will Abovegi	be utilizeround F	ed durin acilities	g opera is 0.0 w	ation of I hen it o	Project 1	facilities					•				ıy.
c Acreag	e used		onstruc	ction an	d opera	tion of A	Abovegi	ound F	acilities	is 0.0 w	hen it o				uction o	r operat	ion foot	print of	the pipe	eline righ	nt-of-	-wa



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										TABLE	3C-2											
	Alaska Pipeline Project Acres of Scrub Vegetation Cover Types Affected by Construction and Operation and Operation Dwarf Tree																					
Section / County	Troo	Dwarf Scrub	Open Tree	Dwarf Scrub	Dwarf Scr Wood	ub	Close	d Tall	- 1	n Tall rub	Close Sc	d Low rub	Close Sc	d Low rub	Dryas Sci	Dwarf rub	Erica Dwarf		Willow Sci		То	tal
/ Facility	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.



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									TABLE	3C-3										
					(\	Alas	ska Pipe	ine Pro	ject			0	. • a.b					
Section / County			Mesic Graminoid Herbaceous		es of Herbaceous \ Wet Graminoid Herbaceous		Dry Forb Herbaceous			Forb	Wet Forb Herbaceous		Mosses		Lichens		Freshwater Aquatic Herbaceous		То	tal
/ Facility	Con.	Ор.	Con.	Op.	Con.	Op.	Con.	Ор.	Con.	Ор.	Con.	Ор.	Con.	Op.	Con.	Ор.	Con.	Ор.	Con.	Ор.
PT Pipeline																				
Beaufort Coastal Plain																				
Pipeline Right-of-Way ATWS																				
Aboveground Facilities ^c																				
Pipe Storage and Contractor Yards																				
Access Roads																				
Construction Camps																				
Borrow Sites																				
Helipads																				
Subtotal																				
ALASKA MAINLINE																				
Beaufort Coastal Plain																				
Pipeline Right-of-Way																				
ATWS																				
Aboveground Facilities ^c																				



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									TABLE	3C-3										
								Alas	ska Pipe	line Pro	iect									
					s of Herb	aceous	Vegeta	tion Co	ver Type	s Affect	ed by C	onstruc	tion and	Opera	tion ^{a,b}					
Section / County	Dry Graminoid Herbaceous		Mesic Graminoid Herbaceous		Wet Graminoid Herbaceous			Forb aceous		c Forb	Wet Forb Herbaceous		Mosses		Lichens		Freshwater Aquatic Herbaceous		To	otal
/ Facility	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Ор.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op
Pipe Storage and Contractor Yards																				
Access Roads																				
Construction Camps																				
Borrow Sites																				
Helipads																				
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Brooks Foothills																				
Pipeline Right-of-Way																				
ATWS																				
Aboveground Facilities ^c																				
Pipe Storage and Contractor Yards																				
Access Roads																				
Construction Camps																				
Borrow Sites																				
Helipads																				
Subtotal																				
Brooks Range																				
Pipeline Right-of-Way																				



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									TABLE	3C-3										
				Acre	s of Herl	baceous	Vegetat	Alas	ska Pipe ver Type	line Pro	ject ed by C	onstruc	tion and	Operat	tion ^{a,b}					
Section / County	Dry Graminoid Herbaceous		Mesic Graminoid Herbaceous		Wet G	Wet Graminoid Herbaceous		Forb	Mesi	c Forb	Wet	Forb	Mosses		Lichens		Freshwater Aquatic Herbaceous		To	otal
/ Facility	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.
ATWS Aboveground Facilities ^c																				
Pipe Storage and Contractor Yards																				
Access Roads																				
Construction Camps																				
Borrow Sites																				
Helipads																				
Subtotal																				
Ray Mountains																				
Pipeline Right-of-Way																				
ATWS																				
Aboveground Facilities ^c																				
Pipe Storage and Contractor Yards																				
Access Roads																				
Construction Camps																				
Borrow Sites																				
Helipads																				
Subtotal																				
Project Total																				



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									TABLE	3C-3										
								Alas	ka Pipe	line Pro	ject				- h					
			Me		s of Herb	aceous	Vegetat	tion Cov	<mark>/er Type</mark>	s Affect	ed by C	onstruc	tion and	Operat	i <mark>ion^{a,b}</mark>		Eroch	water		
Section / County		aminoid aceous	Gram Herba	inoid		Wet Graminoid Herbaceous		Forb iceous	Mesio Herba	Forb iceous		Forb aceous	Mosses		Lich	nens	Aqu	iwater iatic iceous	To	tal
/ Facility	Con.	Op.	Con.	Op.	Con.	Ор.	Con.	Ор.	Con.	Ор.	Con.	Ор.	Con.	Op.	Con.	Op.	Con.	Ор.	Con.	Op.
Yukon-Tanana Uplands																				
Pipeline Right-of-Way																				
ATWS																				
Aboveground Facilities ^c																				
Pipe Storage and Contractor Yards																				
Access Roads																				
Construction Camps																				
Borrow Sites																				
Helipads																				
Subtotal																				
Project Total																				
Tanana- Kuskokwim Lowlands Pipeline																				
Right-of-Way																				
ATWS																				
Aboveground Facilities ^c																				
Pipe Storage and Contractor Yards																				
Access Roads																				



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Alaska Pipeline Project

Acres of Herbaceous Vegetation Cover Types Affected by Construction and Operation^{a,b}

	resident includes and regulation of the regulation and operation																				
	Mesic																Fresh	water			
	Dry Graminoid Graminoi				Graminoid Wet Graminoid			······································						Forb					Aqu		
Section / County	, Herbaceous		baceous Herbaceous		Herbaceous		Herbaceous		Herbaceous		Herbaceous		Mosses		Lich	nens	Herbaceous		Total		
/ Facility	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	

Construction Camps

Borrow Sites

Helipads

Subtotal

Project Total

The numbers in this table have been rounded for presentation purposes. As a result, the totals may not reflect the exact sum of the addends in all cases.

Operational maintenance will typically include a 100-foot-wide pipeline right-of-way. The operational impact acres for the pipeline right-of-way include the maintained pipeline right-of-way and other permanent facilities that will be utilized during operation of Project facilities.

Acreage used for the construction and operation of Aboveground Facilities is 0.0 when it occurs within the construction or operation footprint of the pipeline right-of-way. Additional acreage is noted if Aboveground Facilities are placed outside of these areas.