

**Table 2
Keystone Special Status Species
Total Habitat Crossed by State**

Species	Status	Habitat Association	Primary Habitat	Habitat by County and State, and Total Distance (mi) Crossed						
				ND	SD	NE	KS	MO	IL	
Western sand darter <i>Ammocrypta clarum</i>	IL-E	This species occurs in medium and large rivers; most commonly in slight to moderate currents over sandy bottoms. It is known to inhabit areas of gravel or silt. The species has also been recorded from quiet margins of drainage canals and shallow backwaters, usually where there is enough current to keep the bottom largely free of silt. Buries in sand.	Medium to large rivers, sandy substrate							Fayette: Kaskaskia River
Reptiles										
Western fox snake <i>Elaphe vulpine vulpina</i>	MO-E	This species inhabits cultivated fields, along wooded stream valleys and in natural prairies that adjoin marshes. It is active between late April and October. Small mammal burrows and brush piles are used as den sites during winter hibernation. Mating begins in April and females lay eggs under logs or leaf litter in May or June. Young hatch in August or September.	Agriculture, riparian woodlands, prairies, wetlands						St. Charles	1.7 ¹
Smooth earth snake <i>Virginia valeriae</i>	KS-T	This species inhabits rocky hillsides in moist woodlands and woodland edges in river and stream valleys where they may be found on the slopes under leaf litter, rocks, or logs. During winter, it utilizes deep crevices on rocky hillsides. Mating begins in the spring after emergence from hibernation. Mating may also occur in the fall. Young hatch in August or September.	Riparian woodland, upland forest				Doniphan	2.4		
Western massasauga <i>Sistrurus catenatus catenatus</i>	FC; MO-E; IL-E	This subspecies prefers marshy and swamp areas dominated by cordgrass, sedges, and bulrushes, as well as lowland areas along river and lakes. The snakes hibernate singly in mammal burrows, crayfish burrows, and in crevices or rock piles close to water. Courtship and mating occurs in spring and young are born in late July through early September.	Wetland, riparian						Chariton	0.7 ¹
Western massasauga <i>Sistrurus catenatus tergeminus</i>	NE-T; MO-E	This subspecies is found in open sagebrush prairie, rocky prairie hillsides, and prairie marsh habitats, usually near a water source. The snakes hibernate singly in rodent burrows. Courtship and breeding occur both in the Spring and Fall. Young are born during July or August.	Sagebrush, shrubland, wetland			Gage Jefferson	0.0 ¹ 3.4 ¹		Chariton	12.9 ¹
False map turtle <i>Graptemys pseudogeo-graphica</i>	SD-T	This species inhabits slow to swift current rivers and streams, river sloughs, oxbow lakes, ponds, impoundments, and backwaters. They are devoted baskers, often resting just below the surface on submerged branches from fallen trees and projecting logs.	Rivers, streams, sloughs, ponds, backwaters, impoundments		Yankton	0.1				
Kirtland's snake <i>Clonophis kirtlandi</i>	IL-T	This species inhabits prairie wetlands, wet meadows, and grassy edges of creeks, ditches, and ponds, usually in association with crayfish burrows. It also has been found in damp habitat remnants in vacant lots of urban settings. Secretive and nocturnal, it shelters beneath logs and surface debris, or in crayfish burrows, by day.	Wetlands						Fayette	0.0 ¹

¹ Data pending; waiting on completion of wetland/waterbody surveys to determine total habitat crossed (mi); totals likely to change

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				ND		SD		NE		KS		MO		IL	
Amphibians															
Illinois chorus frog <i>Pseudacris strecheri illino</i>	IL-T	Sand prairies and remnants such as sandy agricultural fields and waste areas. Burrows in sand and emerges after heavy, early spring rains to breed in nearby flooded fields, ditches, and other vernal ponds	Sand prairies										Madison	0.6	
Invertebrates															
Dakota skipper <i>Hesperia dacotae</i>	FC; SD-SC, ND-SC	This species is considered an obligate of undisturbed native prairie. The butterfly inhabits wet lowland prairie dominated by bluestem grasses and dry upland prairie dominated by mixed bluestem and needle stem grasses. Both habitat types contain an abundance of flowering plants and have alkaline soils. Adults emerge in mid-June to early July, and mate during a flight period that lasts for about three weeks.	Lowland and upland prairie	Barnes Ransom Sargent	0.0 0.0 8.4	Clark Day Marshall Yankton	4.5 6.7 5.1 2.1								
American burying beetle <i>Nicrophorus americanus</i>	FE; KS-E	This species inhabits upland grasslands or near the edge of grassland/forest. Sandy/clay loam soils and food (carrion) availability are also important. The species appears to prefer loose soil in which to bury carrion. Reproduction occurs from late April through mid August. Reproductive activity includes the burial of a carcass, building of a chamber, and laying eggs.	Grasslands, upland forests					Brown Doniphan Marshall Nemaha	7.9 4.2 6.9 5.3						
Walleshell mussel <i>Leptodea leptodon</i>	FE; SD-SC; NE-E	Occurs in riffles with moderate to high gradients in creeks to large rivers. Typically associated with riffles, relatively strong currents, and substrate of mud, sand, or assemblages of gravel, cobble, and boulder. Restricted to rivers with relatively good water quality in stretches with stable channels. Little is known concerning the reproduction of this species.	Creeks and rivers with good water quality and stable channels			Yankton	0.2	Cedar	0.2						
Higgins' eye pearl mussel <i>Lampsilis higginsii</i>	FE; SD-SC	Found in substrates of mud with a mixture of gravel and stones. Prefers rapidly flowing water. The exact breeding season is unknown.	Fast flowing creeks and rivers, mud substrate			Yankton	0.2	Cedar	0.2						
Winged mapleleaf <i>Quadrula gragosa</i>	FE; SD-SC	The species is found in riffles with clean gravel, sand, or rubble bottoms.	Rivers, streams			Yankton	0.1								
Plants															
Decurrent false aster <i>Boltonia decurrens</i>	FT; MO-E; IL-T	The species grows in open muddy bottomlands and is dependent upon disturbance from cyclical flooding to maintain the habitat suitable for its survival. Historically, it was found on the shores of lakes and the banks of streams. Currently, it is most common in disturbed lowland areas where human-caused disturbance provides adequate habitat. Flowers: July-October.	Riparian floodplains and muddy bottomlands subject to flooding									St. Charles	0.0 ¹	Madison	2.0 ¹
Small white lady's-slipper <i>Cypripedium candidum</i>	NE-T	This species is found in wetland prairie habitats: mesic blacksoil prairie, wet blacksoil prairie, glacial till hill prairie, sedge meadow, calcareous fen, glade. Found on calcareous soils. Flowering occurs May-June.	Wetland prairie					Butler Cedar Colfax Stanton Wayne	0.0 ¹ 4.3 ¹ 0.8 ¹ 1.5 ¹ 1.3 ¹						

¹ Data pending; waiting on completion of wetland/waterbody surveys to determine total habitat crossed (mi); totals likely to change

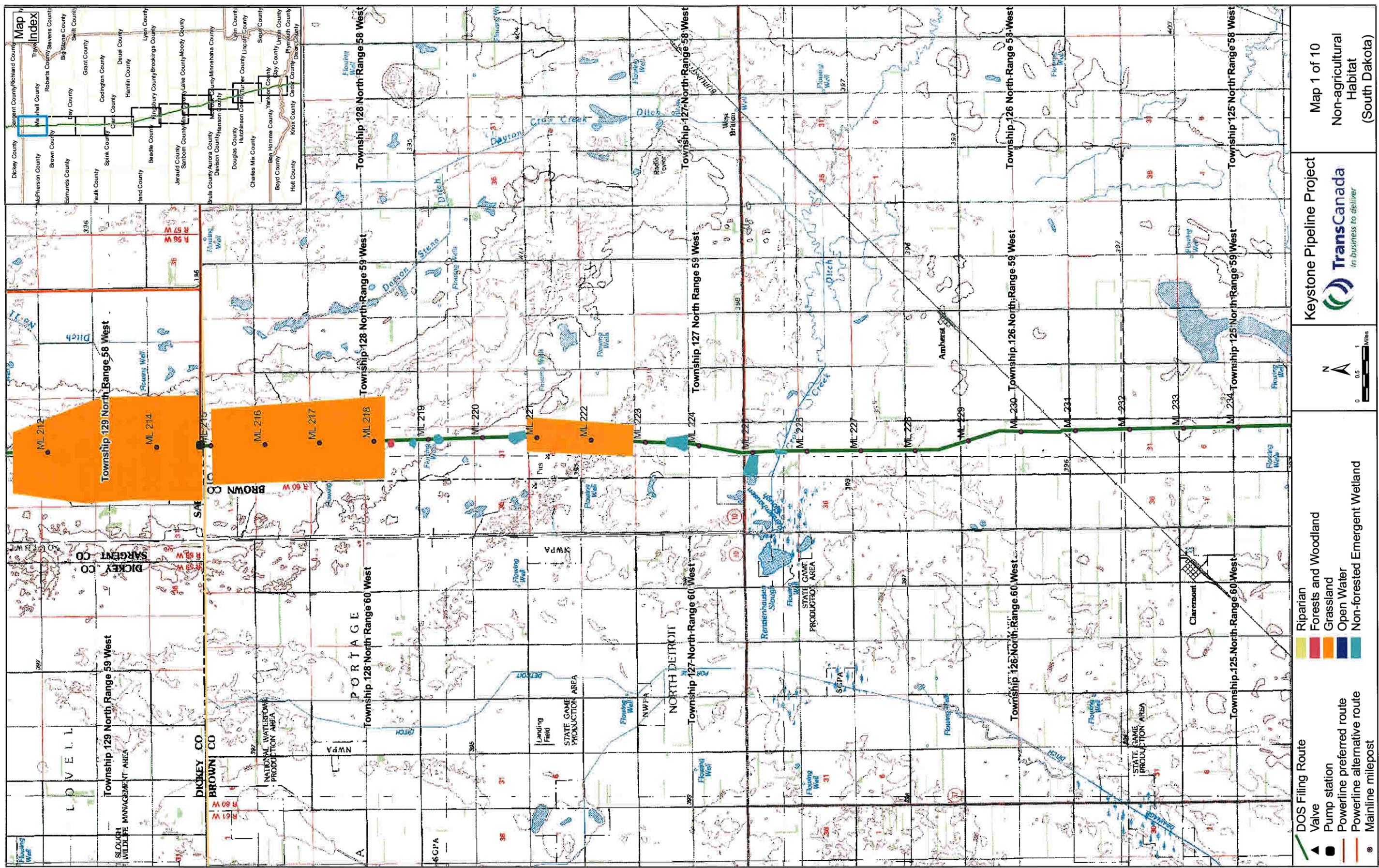
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Eastern prairie fringed orchid <i>Platanthera leucophaea</i>	FT; IL-E	Mesic-wet calcareous tallgrass sand or silt loam prairie. May also be found in open graminoid portions of lake margins, sedge, meadows, and marshes, wet prairie or open swamps, or bogs and shores. Flowering begins late June to early July. Flowers do not appear annually.	Mesic-wet tallgrass prairie													Bond	0.0 ¹
																Fayette	0.0 ¹
																Madison	0.0 ¹
																Marion	0.0 ¹
Western prairie fringed orchid <i>Platanthera praeclara</i>	FT; ND-SC; SD-SC; NE-T	Occurs in mesic upland tallgrass prairie in the southern part of its range, often in swales, and wet-mesic tallgrass prairie and sedge meadows in the northern part of its range. Also known from prairies and swales in sand dune complexes that are fed by shallow underground water. Flowers June-July.	Tallgrass prairie, dune complexes	Ransom	0.0	Clark	4.5 ¹	Butler	0.0 ¹								
						Day	6.7 ¹	Cedar	4.3 ¹								
						Yankton	2.1 ¹	Colfax	0.8 ¹								
								Gage	0.0 ¹								
								Jefferson	3.4 ¹								
								Platte	0.0 ¹								
								Saline	0.3 ¹								
								Seward	0.0 ¹								
								Stanton	1.5 ¹								
								Wayne	1.3 ¹								
Prairie bush-clover <i>Lespedeza leptostachya</i>	FT; IL-E	In Illinois, this species is generally found on dry gravel prairies and dry-mesic prairies. It is often found on north-facing prairie slopes. On these slopes, it typically occurs either in thin soil at the margins of rocks or in gravelly loamy soil. Flowers in July, August.	Prairie													Bond	0.8
																Fayette	0.0
																Madison	0.6
																Marion	0.0
Running buffalo clover <i>Trifolium stoloniferum</i>	FE; MO-E	This species is commonly found in areas of rich soils in the ecotone between open forest and prairie; and moist, partially shaded woodlands- sometimes along stream or river terraces. Also found in areas disturbed by grazing or mowing. This species historically grew along bison trails. Flowers: April-June.	Riparian areas, woodland/prairie ecotones									Lincoln	11.7 ¹				
Royal Catchfly <i>Silene regia</i>	IL-E	This species is found in habitats that include mesic black soil prairies, openings in upland forests, savannas, scrubby barrens, and open areas along roadsides and railroads	Prairies, upland forests, savannas, open roadsides													Madison	1.6
Prairie Spiderwort <i>Tradescantia bracteata</i>	IL-T	Common spiderwort likes sandy soils and seems to be most abundant where grazing is light to moderate. Dry typical prairie and dry sand prairies	Grazed prairies, sandy soils													Madison	0.6
Spring Ladies' Tresses <i>Spiranthes vernalis</i>	IL-E	This species is typically found in upland dry to mesic forests, dry to mesic prairies, and successional cultured fields.	Upland/mesic forests													Madison	2.0 ¹

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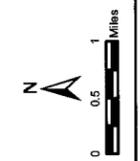
Table 3
South Dakota Special Status Species Listed by County and Habitat Type

COUNTY	GRASSLAND	FORESTS AND WOODLANDS	RIPARIAN	EMERGENT WETLAND	OPEN WATER
Beadle				Whooping Crane	Bald Eagle, Whooping Crane, Topeka Shiner
Clark	Eskimo Curlew, Dakota Skipper, Western Prairie Fringed Orchid			Eskimo Curlew, Interior Least Tern, Piping Plover, Whooping Crane, Western Prairie Fringed Orchid	Bald Eagle, Interior Least Tern, Piping Plover, Whooping Crane
Day	Western Prairie Fringed Orchid Dakota Skipper			Western Prairie Fringed Orchid, Piping Plover	Bald Eagle, Piping Plover
Hanson					Bald Eagle, Topeka Shiner
Hutchinson				Interior Least Tern	Bald Eagle, Interior Least Tern, Topeka Shiner
Kingsbury				Piping Plover, Whooping Crane	Bald Eagle, Piping Plover, Whooping Crane, Topeka Shiner
Marshall	Dakota Skipper				Bald Eagle
McCook					Bald Eagle, Topeka Shiner
Miner					Bald Eagle, Topeka Shiner
Yankton	Western Prairie Fringed Orchid Dakota Skipper			Interior Least Tern, Piping Plover, Whooping Crane, Western Prairie Fringed Orchid	Interior Least Tern, Piping Plover, Whooping Crane, Pallid Sturgeon, Sicklefin Chub, Sturgeon Chub, Topeka Shiner, False Map Turtle, Higgins Eye Pearly Mussel, Winged Maple Leaf, Scaleshell Mussel

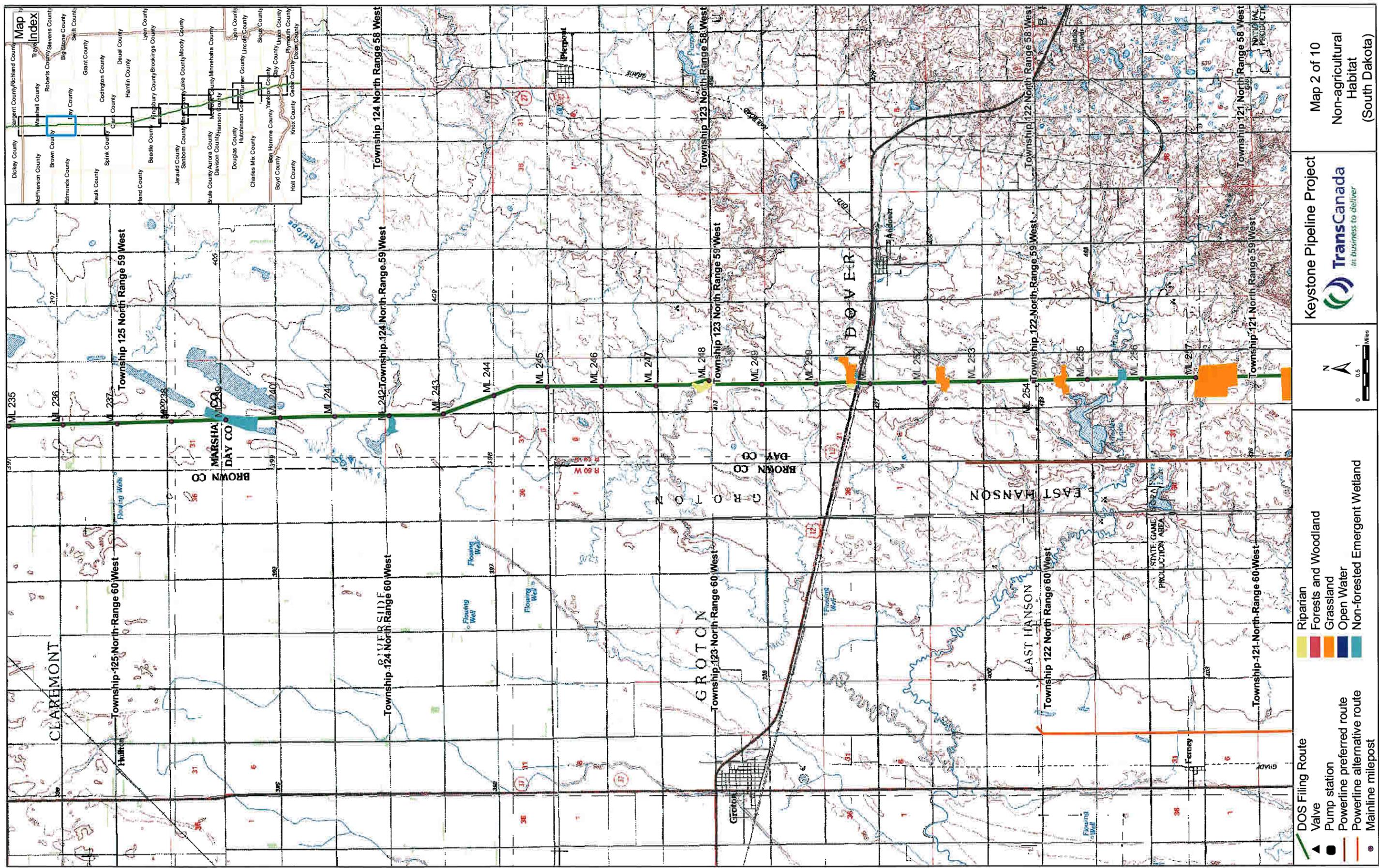


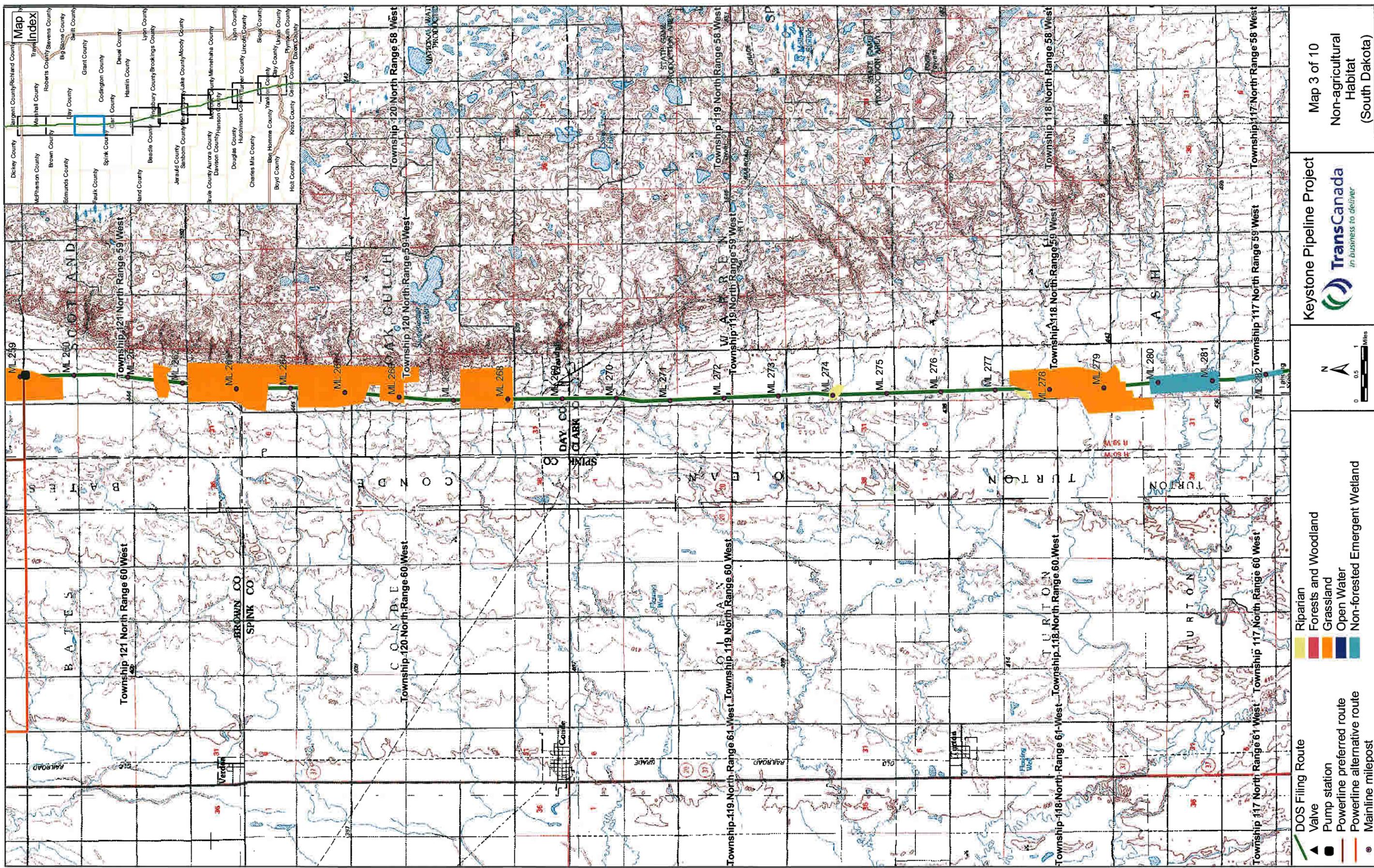
Map Index

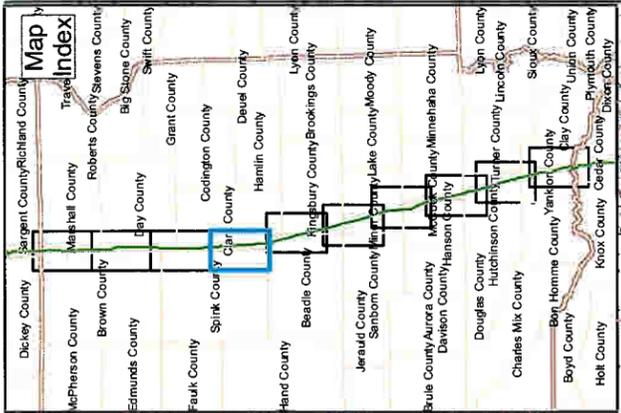
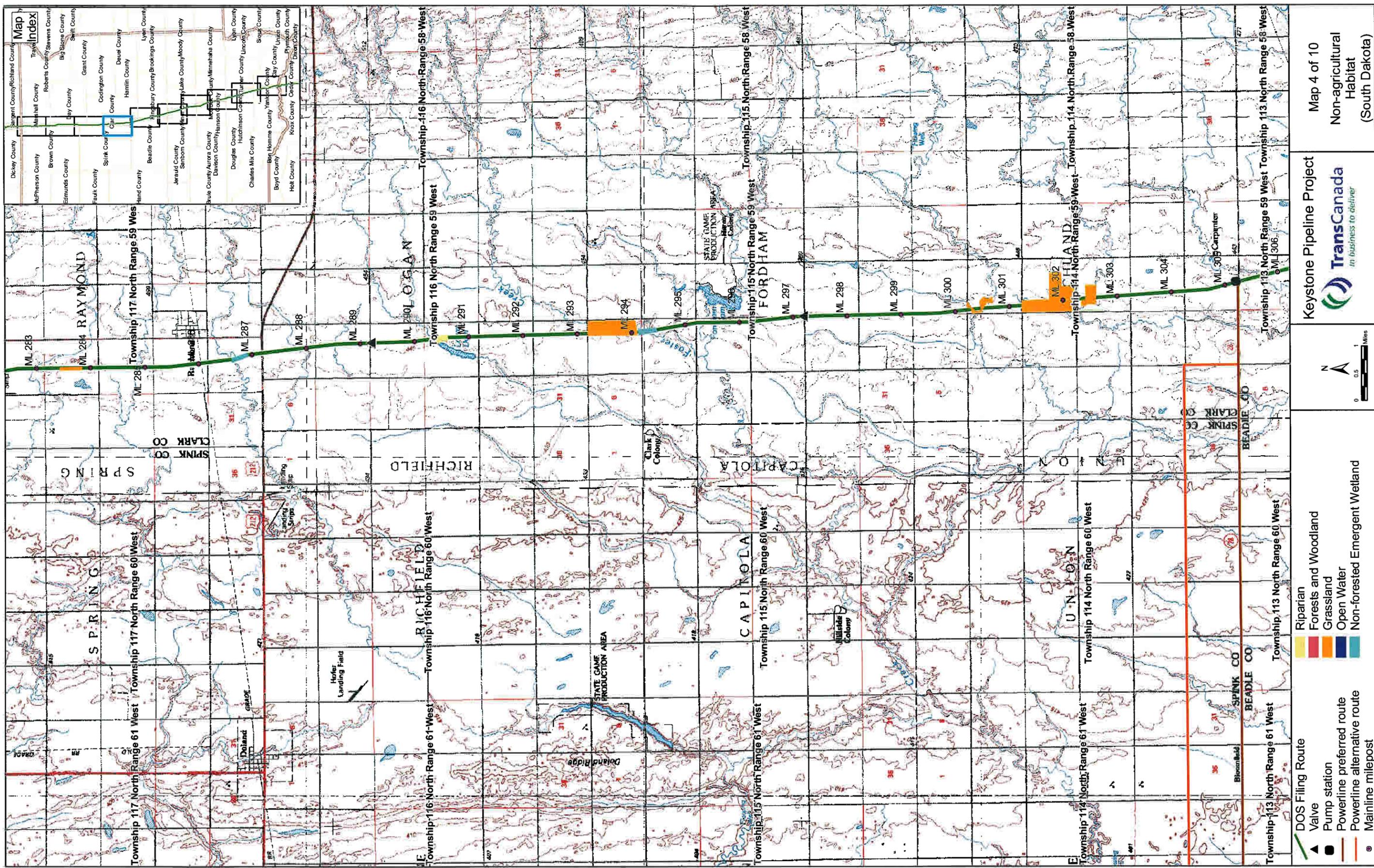
Dickey County	Sargent County	Richardson County
McPherson County	DeWitt County	Roberts County
Edmunds County	Big Stone County	Swift County
Faulk County	Sink County	Clay County
Hand County	Codington County	DeSaut County
	Hamlin County	Lynn County
	Beadle County	King County
	Brookings County	Moody County
	Jerauld County	Minnehaha County
	Sully County	Lincoln County
	DeWitt County	Hanson County
	Aurora County	Douglas County
	Devon County	Hutchinson County
	Charles Mix County	Lincoln County
	Ben Hur County	Yankton County
	Boyd County	Clark County
	Holt County	Clay County
		Plymouth County
		Dickens County



- DOS Filing Route
- Valve
- Pump station
- Powerline preferred route
- Powerline alternative route
- Mainline milepost
- Riparian**
 - Forests and Woodland
 - Grassland
 - Open Water
 - Non-forested Emergent Wetland

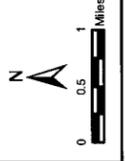






- DOS Filing Route
- Valve
- Pump station
- Powerline preferred route
- Powerline alternative route
- Mainline milepost

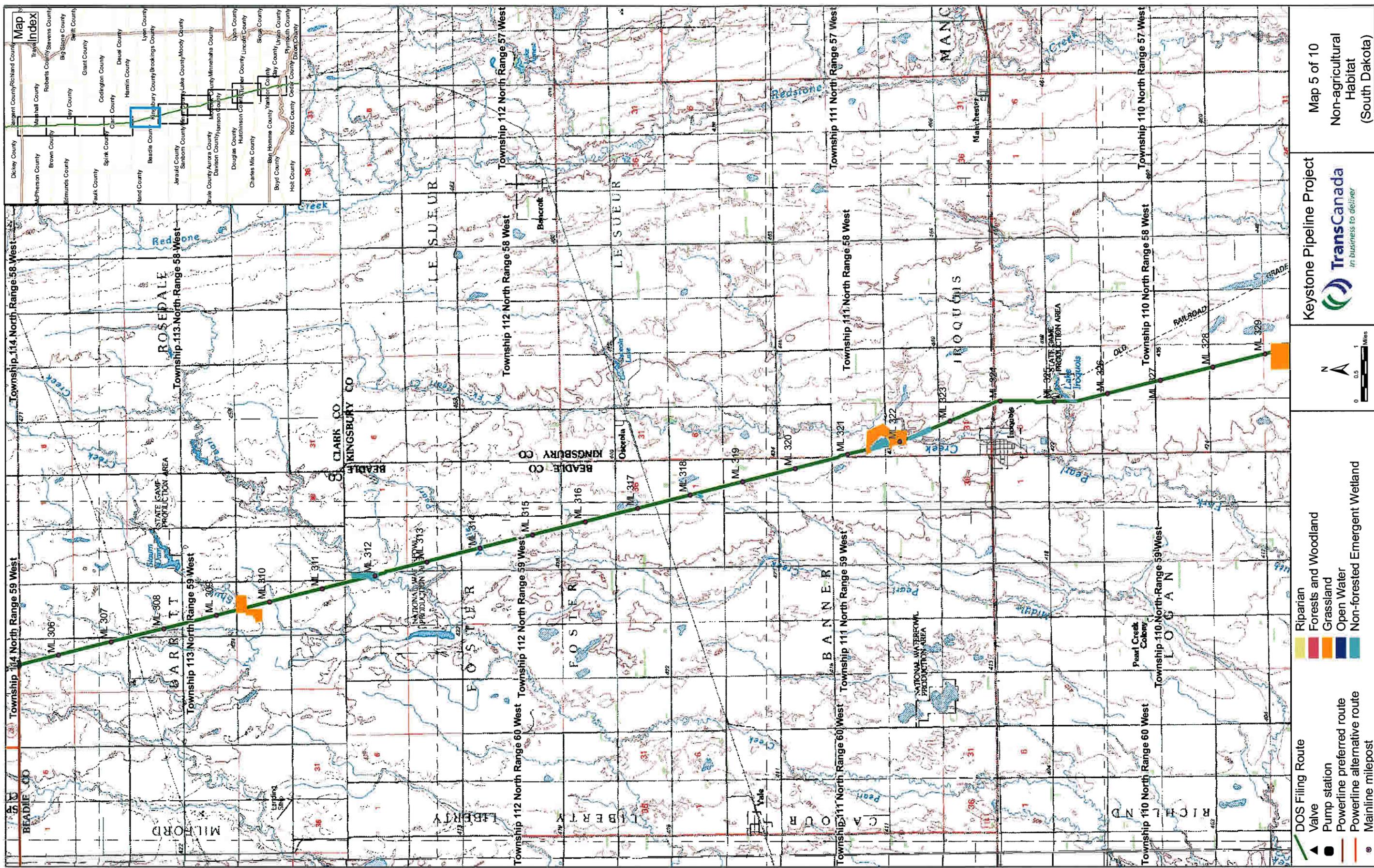
- Riparian
- Forests and Woodland
- Grassland
- Open Water
- Non-forested Emergent Wetland



Keystone Pipeline Project



Map 4 of 10
Non-agricultural
Habitat
(South Dakota)



- DOS Filing Route
- Valve
- Pump station
- Powerline preferred route
- Powerline alternative route
- Mainline milepost

- Riparian
- Forests and Woodland
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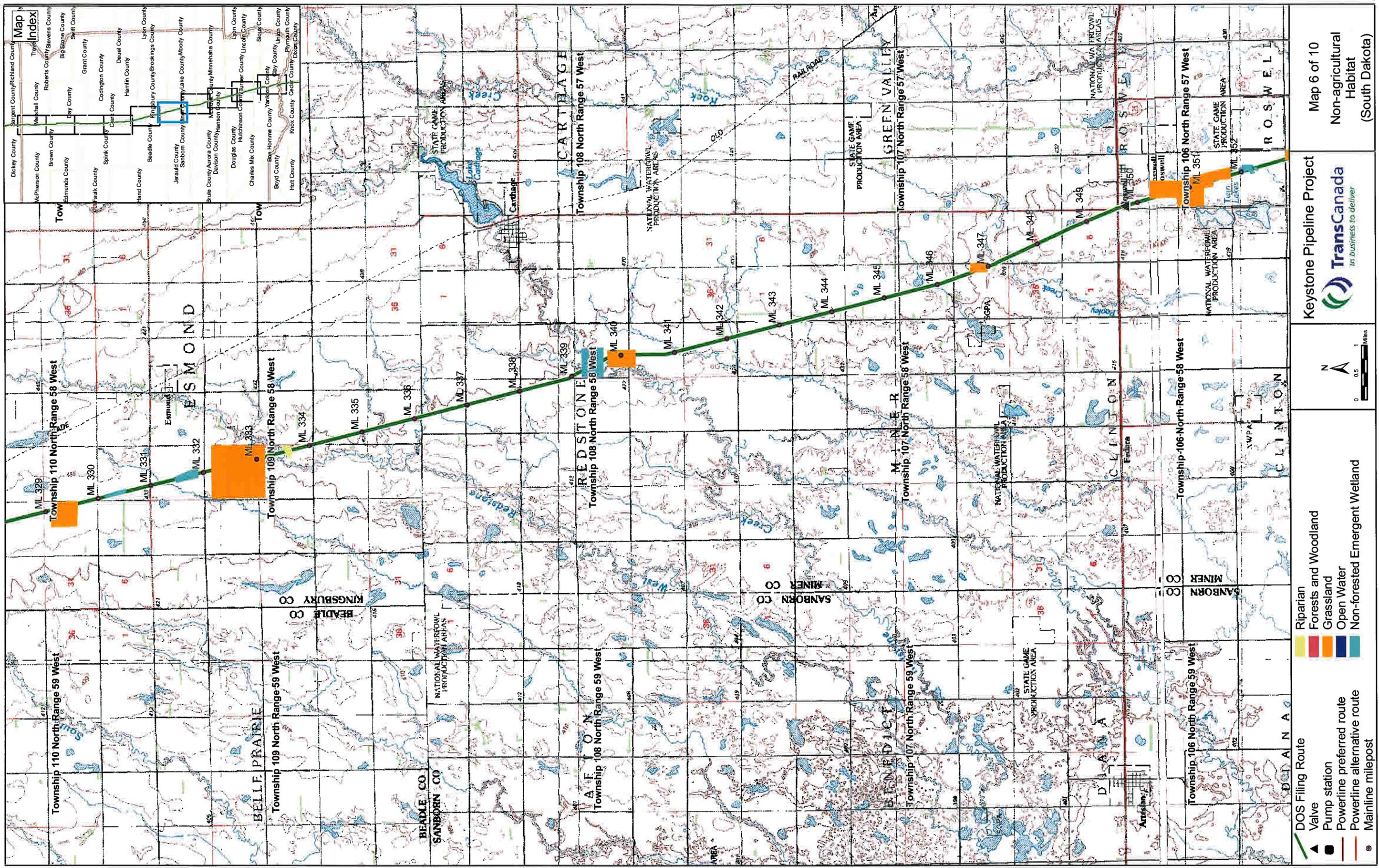
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Keystone Pipeline Project

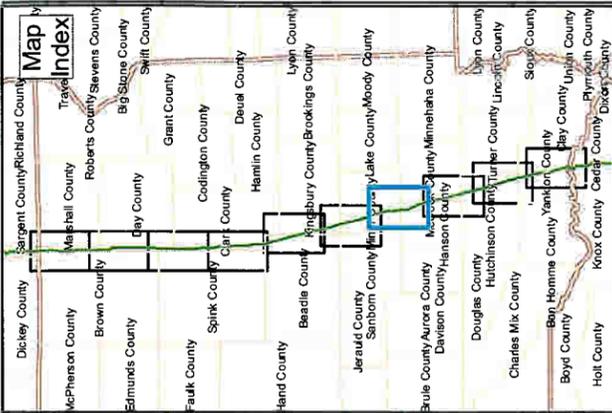
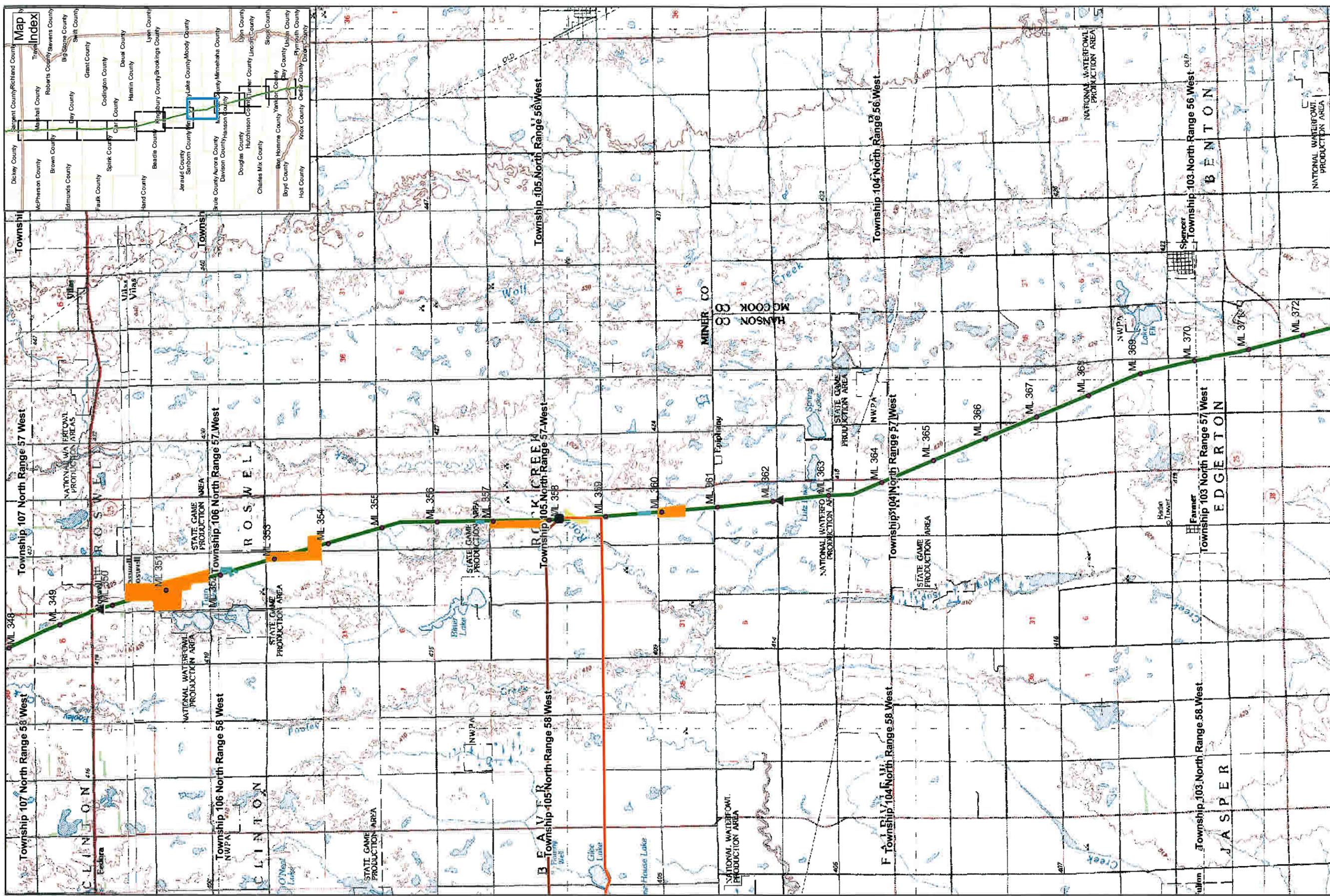
TransCanada
in business to deliver

Map 5 of 10
Non-agricultural
Habitat
(South Dakota)



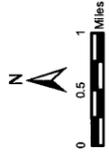
Keystone Pipeline Project
 TransCanada
in business to deliver

Map 6 of 10
 Non-agricultural
 Habitat
 (South Dakota)



- DOS Filing Route
- Valve
- Pump station
- Powerline preferred route
- Powerline alternative route
- Mainline milepost

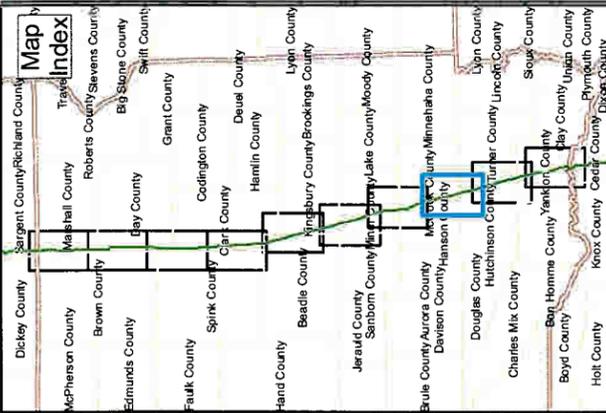
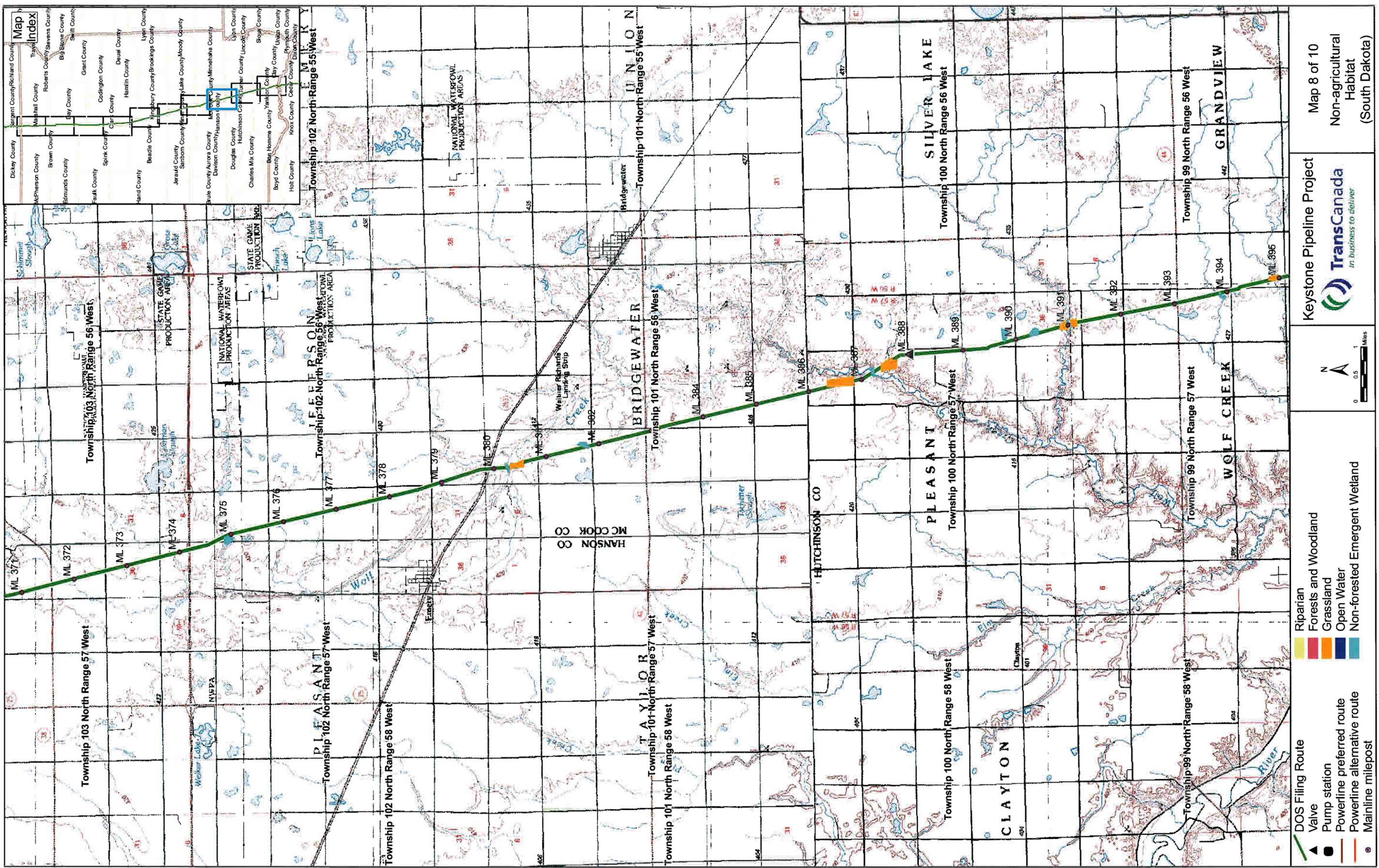
- Riparian
- Forests and Woodland
- Grassland
- Open Water
- Non-forested Emergent Wetland



Keystone Pipeline Project



Map 7 of 10
 Non-agricultural
 Habitat
 (South Dakota)



Map 8 of 10

Keystone Pipeline Project

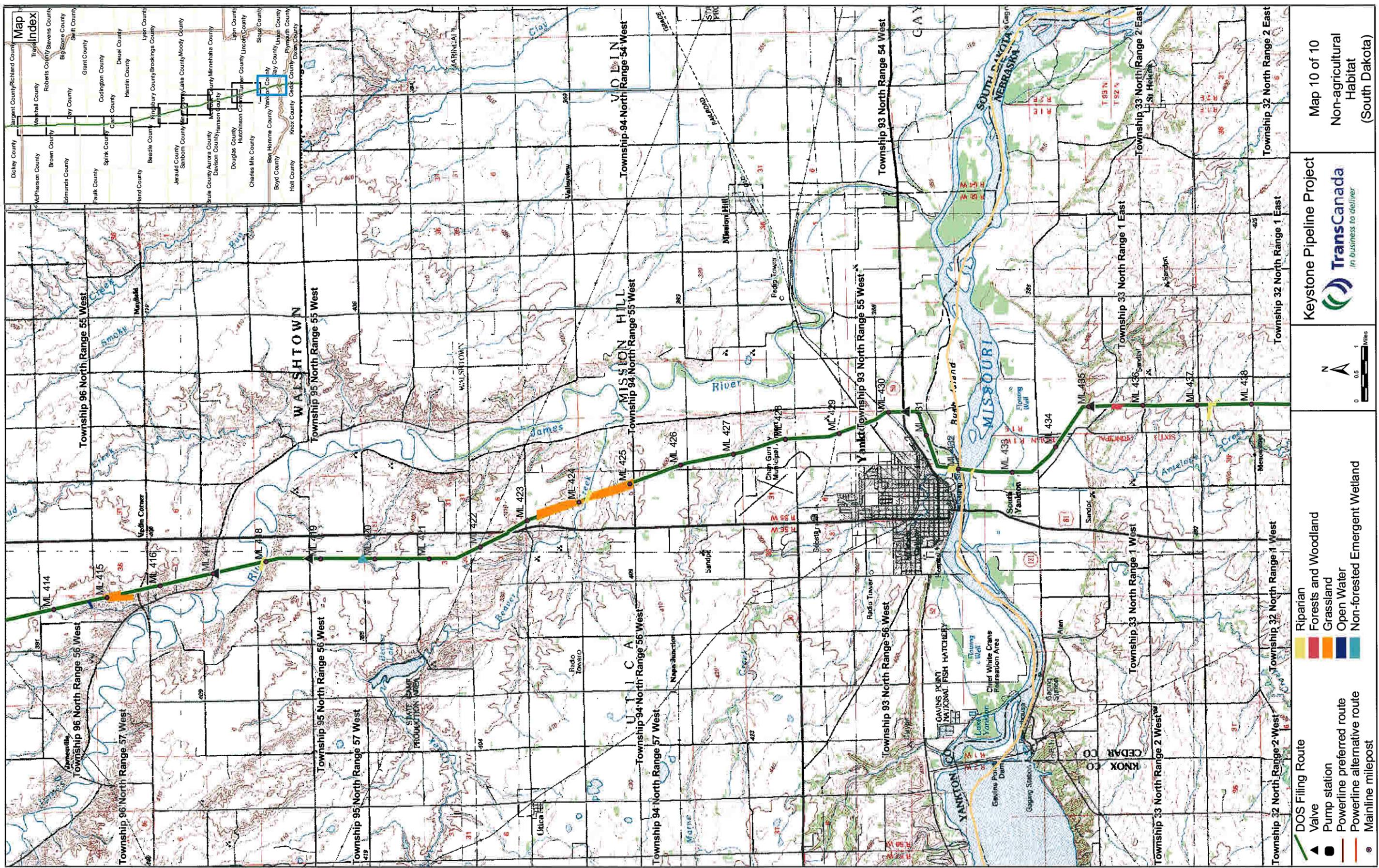
TransCanada
In business to deliver

Non-agricultural Habitat (South Dakota)

Legend:

- DOS Filing Route
- Valve
- Pump station
- Powerline preferred route
- Powerline alternative route
- Mainline milepost
- Riparian
- Forests and Woodland
- Grassland
- Open Water
- Non-forested Emergent Wetland

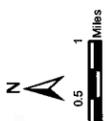
Scale: 0 0.5 1 Miles



Map Index

Dickey County	Sargent County	Richland County
McPherson County	Roberts County	Sevens County
Edmunds County	Day County	Big Stone County
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Hamlin County	Codington County	Deuel County
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Jerauld County	Sioux County	Lake County
Moody County	Lincoln County	Mitchell County
DeWitt County	Butte County	Aurora County
Hutchinson County	Turkey County	Union County
Charles Mix County	Douglas County	Plymouth County
Ben Hur County	Yankton County	St. Helena County
Boyd County	Lincoln County	Yankton County
Holt County	Knox County	Deuel County

<ul style="list-style-type: none"> DOS Filing Route Valve Pump station Powerline preferred route Powerline alternative route Mainline milepost 	<ul style="list-style-type: none"> Riparian Forests and Woodland Grassland Open Water Non-forested Emergent Wetland 	<p>Map 10 of 10</p> <p>Keystone Pipeline Project</p> <p>TransCanada In business to deliver</p> <p>Non-agricultural Habitat (South Dakota)</p>
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FOR INTERNAL KEYSTONE PROJECT USE ONLY

TransCanada – Keystone Pipeline Contact Summary Form

Location of Meeting ENSR

Date/Time of Meeting 6/06/06

Keystone Team Member(s) Sara Stribley

Contact Information:

Name	Doug Backlund
Title	Wildlife Biologist
Organization	South Dakota Game, Fish, & Parks
Address	Foss Building, 523 East Capitol Pierre, South Dakota 57501-3182
County	
Phone	605-773-3381
E-mail address	Doug.Backlund@state.sd.us

Meeting Information:

Type of Contact (phone, in-person, etc.): Phone

Issue: Clarification on Topeka Shiner Streams listed in Consultation letter

Concern Level: High Moderate Low

Description:

I spoke with Doug Backlund about the streams that were listed in his consultation letter as Topeka shiner streams (Redstone, Rock, Middle Pearl, South Fork Pearl, and Shue Creek). I explained to him that ENSR has these streams listed as intermittent streams, if this was a correct classification of these streams, and if he knew whether Topeka shiners inhabited areas near the pipeline crossing. He stated that he didn't really know, but thought that most of the streams were intermittent, and that populations of shiners stay in these springs in areas where they run year round. He stated that surveys may need to be conducted to really determine if there is suitable habitat for shiners in these streams in the area of the pipeline crossing. He also suggested that we talk to the SD FWS (605-224-8693).

Issue: _____

Concern Level: High Moderate Low

Description:

Stribley, Sara

From: Doug.Hansen@state.sd.us
Sent: Wednesday, April 12, 2006 3:58 PM
To: Stribley, Sara
Cc: Doug.Backlund@state.sd.us
Subject: RE: Information Request Regarding Keystone Pipeline Project

Hi Sara,
The email you sent to our Department website did make its way to me. I'm not sure if I'm the Doug you intended it for, but nonetheless, I think I can answer your questions. Here's what I found out after consulting with my staff:

We did receive a letter from ENSR requesting occurrence species, communities and habitats that are either listed, designated or considered sensitive. The letter was dated January 24, 2006. It was addressed to Doug Backlund, who is the database manager for our Natural Heritage Program. The Natural Heritage Program is part of the Division of Wildlife within our Game, Fish and Parks Department. The letter was signed by Charles Johnson, Senior Wildlife Biologist.

In response to the letter and request for information, Mr. Backlund responded by letter addressed to Mr. Johnson and dated February 8, 2006. Accompanying the letter was an invoice for \$150 to cover the cost of the data search. We also have on file a copy of check number 139341 from ENSR for payment of the invoice amount.

Sara, it appears there may be some confusion or thinking that the Natural Heritage Program is a separate entity or would provide separate information from the Department of Game, Fish and Parks. I noticed in the last paragraph of your referenced request letter that a similar request for information was being made of the Department. To clarify this, I can say that the response from Doug Backlund does indeed represent the response from the Department of Game, Fish and Parks. This response is based on data managed by the Natural Heritage Program which is administered by the Department.

It is our understanding that the proposed route of the pipeline project has been modified since we provided this information. If additional information is needed based on the new proposed route, please contact Doug Backlund as our Department representative, as well as our Natural Heritage Program database manager. By the way, Doug will be out of the office for the next couple weeks.

I hope this answers you questions, Sara.

Doug Hansen
Director, Division of Wildlife
Dept. of Game, Fish and Parks
605-773-4518

-----Original Message-----

From: Stribley, Sara [mailto:sstribley@ensr.aecom.com]
Sent: Wednesday, April 12, 2006 11:24 AM
To: GFP Wildinfo
Subject: Information Request Regarding Keystone Pipeline Project

To: Doug Hansen

Hi Doug,
I tried calling your office at several different telephone numbers, but kept getting a busy signal, so I thought I would try and shoot you an email. ENSR is preparing the EA for the TransCanada Keystone Pipeline Project and we sent out letters in January requesting information on sensitive species along the proposed project route. I have been going through the responses we have received back, and noticed that we do not have anything from the SD Game, Fish, and Parks. I just wanted to follow up with you to 1) make sure that you received our letter, and 2) make sure that we haven't lost something that you might have

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sent. If you need us to provide you with additional information regarding the project please let us know! We would greatly appreciate any input you could provide regarding this project!

Thanks for your help,
Sara Stribley

Sara Stribley
Staff Specialist
ENSR Corporation
1601 Prospect Pkwy
Fort Collins, CO 80525
970.493.8878 ext. 168
sstribley@ensr.com



Correspondence Summary Sheet

By: Sara Stribley **Date:** 4/12/06
Talked With: Doug Hansen **Project Number:** 10623-004-601
Title: Wildlife Division Director **Project Name:** Keystone
Of: South Dakota Game, Fish, & Parks **Subject:** Sensitive species consultation letter follow-up
Telephone Number: 605-773-3381 **Facsimile Number:**
Email or Internet Address (if applicable): Doug.Hansen@state.sd.us
Supplemental Information Attached? YES NO
Indicate Documentation Type: Telephone Facsimile Internet Email

I tried calling Doug Hansen, but none of the phone numbers that I had listed worked. I sent Doug and email following up with the sensitive species consultation letters we sent out January 24, 2006. See the attached email correspondence.

FILE NAME- SS_DH_SDGFP_041206.doc

Signature

Distribution: (1) File (2) Self (3) Report

Stribley, Sara

From: Stribley, Sara
Sent: Wednesday, April 12, 2006 10:24 AM
To: 'wildinfo@state.sd.us'
Subject: Information Request Regarding Keystone Pipeline Project

To: Doug Hansen

Hi Doug,
I tried calling your office at several different telephone numbers, but kept getting a busy signal, so I thought I would try and shoot you an email. ENSR is preparing the EA for the TransCanada Keystone Pipeline Project and we sent out letters in January requesting information on sensitive species along the proposed project route. I have been going through the responses we have received back, and noticed that we do not have anything from the SD Game, Fish, and Parks. I just wanted to follow up with you to 1) make sure that you received our letter, and 2) make sure that we haven't lost something that you might have sent. If you need us to provide you with additional information regarding the project please let us know! We would greatly appreciate any input you could provide regarding this project!

Thanks for your help,
Sara Stribley

Sara Stribley
Staff Specialist
ENSR Corporation
1601 Prospect Pkwy
Fort Collins, CO 80525
970.493.8878 ext. 168
sstribley@ensr.com

Hi Doug,
I tried calling your office at several different telephone numbers, but kept getting a busy signal, so I thought I would try and shoot you an email. ENSR is preparing the EA for the TransCanada Keystone Pipeline Project and we sent out letters in January requesting information on sensitive species along the proposed project route. I have been going through the responses we have received back, and noticed that we do not have anything from the SD Game, Fish, and Parks. I just wanted to follow up with you to 1) make sure that you received our letter, and 2) make sure that we haven't lost something that you might have sent. If you need us to provide you with additional information regarding the project please let us know! We would greatly appreciate any input you could provide regarding this project!

Thanks for your help,
Sara Stribley



DEPARTMENT OF GAME, FISH AND PARKS

Foss Building
523 East Capitol
Pierre, South Dakota 57501-3182

February 8, 2006

Charles Johnson
ENSR
1601 Prospect Parkway
Fort Collins, CO 80525

Dear Mr. Johnson:

As requested, I have searched the South Dakota Natural Heritage Database for records of rare, threatened or endangered species and unique ecosystems or sensitive communities. ENSR requested a five-mile buffer along the proposed pipeline route for animals and a three-mile buffer for plants. To simplify to search and keep the costs down, I used a five-mile buffer for both. Therefore, some plant records that ENSR did not request might be included.

Some additional information on the data should be considered. The proposed route of the pipeline is through an area known as the Hecla Sandhills, in NW Marshall County. Much of the Hecla Sandhills area remains in native grassland. This area is unique due to the subirrigated grasslands and associated rare plant species. There are a number of rare plant records in the Hecla Sandhills that are included in the data.

The following description of the Hecla Sandhills is taken from:

*Environmental Assessment: Dakota Tallgrass Prairie Habitat Preservation Area
Prepared by: U.S. Fish and Wildlife Service
Sand Lake National Wildlife Refuge
39650 Sand Lake Drive
Columbia, SD 57433
and
U.S. Fish and Wildlife Service
Refuges and Wildlife, Division of Realty
134 Union Blvd., Suite 350
Lakewood, CO 80228-1807
January 2000*

In northeastern Brown County and northwestern Marshall County, South Dakota, a very unique and relatively small grassland ecosystem exists. The

soils of this grassland are dominated by the Hecla-Hamar-Ullen association which is nearly level to undulating, well-drained to poorly drained, sandy and loamy soils (USDA, SCS 1936). Portions of this area have a very rough topography with a high density of wetlands, and blowouts occur in the choppy hills. Soils of this area are classified as the Maddock-Serden and the Serden-Hamar-Venlo

associations which are excessively drained, somewhat poorly drained, and poorly drained level to rolling, sandy soils on glacial plains. This area is referred to by the local communities as the "Hecla Sandhills." Much of the Sandhills remains in grass, and the majority of the grass is native prairie. These sandy soils have evolved a grassland ecosystem which is very unusual to this region. This grassland ecosystem is considered to be a Sandy Tallgrass Transition Prairie (STTP) dominated by plants such as big bluestem, sand bluestem, prairie sandreed, needle-and-thread, green needlegrass, Indiangrass, and western wheatgrass. See Appendix A for species listed in this document with accompanying scientific names. The vegetation of the Hecla Sandhills is mapped as Nebraska Sandhills prairie. The nearest extent of the Nebraska Sandhills lies some 200 miles south-southwest of the Hecla Sandhills in extreme south-central South Dakota, distinguishing the Hecla Sandhills as an extreme outlier of this vegetation type. The closest area of other substantial sandhills topography and vegetation approaches only 50 miles to the northeast as the Sheyenne National Grassland of southeastern North Dakota, but the slightly higher precipitation there supports oak savanna type vegetation. The Hecla Sandhills area is surrounded by a more level to gently undulating topography which has a very high water table. This area has numerous subirrigated meadows that are used as native hayland and pasture. The majority of this area has been converted to cropland; however, some relatively large tracts (greater than 160 acres) of native prairie remain. The entire region covers approximately 220 square miles in South Dakota with less than 25 square miles considered to be Sandhills.

The proposed route crosses a number of streams in Beadle and Kingsbury counties that are known Topeka shiner streams. These streams include Redstone, Rock, Middle Pearl Creek, South Fork Pearl Creek, and Shue Creek. Although there are no collection sites in these streams within the five-mile buffer zone, it is known that the species occurs in these streams and is likely to occur in the five-mile buffer of the proposed pipeline route. I included those records outside the five-mile buffer in a separate section. Other records of Topeka shiners that were in the five-mile buffer are in the main data section.

Migratory species such as the federally endangered whooping crane could be present temporarily during the spring and fall migration. The bald eagle, a federal threatened species, is migrant throughout the area and may winter locally. The area below Gavins Point Dam is a known winter roost site for bald eagles. Bald eagle nests are becoming more common in South Dakota. It is possible that unknown or new nests of bald eagles could be found on the pipeline route. Two known nests are reported in the data, both are

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on the Missouri River near Yankton. The nest on the Nebraska side of the river, just below the Meridian Bridge, was reportedly destroyed by wind.

Additionally, the area below Gavins Point Dam harbors a known concentration of freshwater mussels of at least 17 species. Two federally listed species have been documented in this area, the Higgins Eye and the Scaleshell. The most important habitats are upstream from the proposed crossing site, where firm, gravel substrates are present. Areas of the river that are primarily shifting sand bottom have few to no mussels. A survey was recently completed for the state of Nebraska Department of Road at the site of the new highway bridge just upstream from the proposed crossing. Only a few common mussels were found, due the shifting sand substrate.

A third federally listed mussel, the Fringed Mapleleaf, was found during a survey of the James River in 2002. However, this was a single, relict shell that could be hundreds or even thousands of years old. This species is considered extirpated from the James River.

If you have any questions about this data or need additional information just let me know.

Sincerely,

A handwritten signature in black ink that reads "Douglas Backlund". The signature is written in a cursive style with a large, sweeping flourish at the end.

Doug Backlund
Wildlife Biologist



DEPARTMENT OF GAME, FISH AND PARKS

Foss Building
523 East Capitol
Pierre, South Dakota 57501-3182

INVOICE

February 9, 2006

Invoice from South Dakota Natural Heritage Database to:

ENSR
1601 Prospect Parkway
Fort Collins, CO 80525
ATTN: Charles Johnson

RE: Keystone Pipeline Project

Fee for database search for ENSR:

3 hours of staff time @ \$30.00 per hour	\$90.00
Two database searches @ \$30.00 per search	<u>\$60.00</u>
	\$150.00

Make check payable to **SD Dept. of Game, Fish and Parks**

Submit payment to:

South Dakota Dept. of Game Fish and Park
523 E. Capitol-Foss Bldg.
Pierre, SD 57501
ATTN: Doug Backlund

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January 24, 2006

ENSR
1601 Prospect Parkway
Fort Collins, CO 80525
tel 970.493.8878
fax 970.493.0213
email
cjohnson@ensr.aecom.com
web www.transcanada.com

Doug Hansen
Wildlife Division Director
South Dakota Game, Fish, and Parks
412 West Missouri
Pierre, SD 57501

Dear Mr. Hansen:

TransCanada is planning to construct and operate a 1,830-mile-long interstate crude oil transmission system from an oil supply hub near Hardisty, Alberta, Canada to destinations in the Midwestern United States (U.S). ENSR Corporation (ENSR) has been retained by TransCanada to prepare an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) for the proposed Keystone Pipeline Project (Project) within the U.S. In the U.S., the proposed Project would consist of approximately 1,070 miles of new pipeline constructed from the U.S.-Canada border in Pembina County, North Dakota to terminals and refineries in Salisbury (Chariton County), Missouri, Wood River (Madison County), and Patoka (Marion County), Illinois. TransCanada would construct the new pipeline within a temporary 110-foot-wide construction right-of-way (ROW). After construction and reclamation, the ROW would revert to a 60-foot-wide permanent ROW. TransCanada proposes to begin construction in the spring of 2008, with the system in-service by the end of 2009.

The Project also will require the construction of pump stations, valves, meters, and other ancillary facilities. The hydraulic characteristics of the pipeline will determine pump station and valve locations. The Project will meet all federal, state and local regulatory requirements and will implement an Integrity Management Program to help ensure public safety and to protect the environment. Flow meters and delivery metering stations will measure the amount of product transported and delivered to terminals. Electrical powerlines and facility upgrades will be required in some locations to provide power for the new pump stations and motor operated valves (MOVs) located along the pipeline route. Local power providers will be responsible for obtaining the necessary approvals and authorizations for any such construction.

National Environmental Policy Act Process



Doug Hansen
January 24, 2006
Page 2

The Department of State governs the issuance of Presidential Permits for crude oil pipelines across U.S. borders and will be the federal lead for the NEPA process. In evaluating the Presidential Permit application (including an EA), the Department of State will solicit the views of other federal agencies, including the Department of Interior. Based on public and agency input, the Department of State will review the EA to determine whether a Finding of No Significant Impact (FONSI) is appropriate or whether an Environmental Impact Statement must be prepared with respect to potential significant environmental impacts within the U.S. In addition to the NEPA process, the Department of State must comply with other requirements and regulations, including the Endangered Species Act.

Information Request

Enclosed is an overview map of the entire proposed route that traverses parts of North Dakota, South Dakota, Nebraska, Kansas, Missouri, and Illinois. In South Dakota, the Project will cross portions of Marshall, Day, Clark, Beadle, Kingsbury, Miner, Hanson, McCook, Hutchinson, and Yankton counties (see attached Overview Map and CD with the Electronic Centerline).

On behalf of TransCanada, ENSR would like to provide an opportunity for South Dakota Game, Fish, and Parks (SDGFP) biologists and botanists to identify prominent terrestrial and aquatic resource issues or concerns that may occur within or adjacent to the project area, focusing on species that are either sensitive (e.g., state-listed), have high economic value (e.g., big game, waterfowl), or are considered important by the state (e.g., raptors, bats). Please forward this request to the applicable specialists (e.g., fisheries and/or wildlife biologists, habitat biologists, botanists, etc.) so they may provide information and input. Resource information provided by the SDGFP will be reflected in the environmental baseline description pertaining to the project. If applicable, please send electronic files for our environmental analysis to: cjohnson@ensr.aecom.com.

Where it appears that possible or probable concerns relative to sensitive species or habitats may occur, please indicate whether surveys might be required, as well as the preferred methodology and level of effort you would consider acceptable for the surveys.



Doug Hansen
January 24, 2006
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ENSR also is contacting the U.S. Fish and Wildlife Service and State Natural Heritage Program to request sensitive species information and to obtain input regarding the proposed Project route in South Dakota. If you have any questions regarding this request, please call me at (970) 493-8878. You also may direct project-related questions to the ENSR project manager, Scott Ellis, at the same number. Thank you in advance for your prompt response to this request.

Sincerely,

A handwritten signature in black ink that reads 'Charles Johnson'.

Charles Johnson
Senior Wildlife Biologist

CJ/

Ref: 10623-004

Enc. Overview Project Map
CD

January 24, 2006

ENSR
1601 Prospect Parkway
Fort Collins, CO 80525
tel 970.493.8878
fax 970.493.0213
email cjohnson@ensr.aecom.com
web www.transcanada.com

Doug Backlund
Database Manager/Biologist
South Dakota Natural Heritage Program
South Dakota Department of Game, Fish and Parks
523 E. Capitol-Foss Bldg.
Pierre, SD 57501-3182

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In order to address potential impacts to aquatic and terrestrial plant and animal species, we are requesting occurrence data for:

- Federally listed, proposed, and candidate species;
- Designated critical habitat of federally listed species;
- State listed or state sensitive species; and
- Unique ecosystems or sensitive communities.

Because of the mobility of wildlife species, ENSR would like to request sensitive wildlife information 5 miles beyond the Project boundary. We also would like to request sensitive plant data 3 miles beyond the Project boundary. If applicable, please send electronic files for our environmental analysis to: cjohnson@ensr.aecom.com.

ENSR also is contacting the U.S. Fish and Wildlife Service and South Dakota Game, Fish, and Parks to request sensitive species information and to obtain input regarding the proposed Project route in South Dakota. If you have any questions regarding this request, please call me at (970) 493-8878. You also may direct project-related questions to the ENSR project manager, Scott Ellis, at the same number. Thank you in advance for your prompt response to this request.

Sincerely,

Charles Johnson
Senior Wildlife Biologist

CJ/

Ref: 10623-004

Enc. Overview Project Map
CD

Backlund, Doug

From: Daggett, Rollin [RDaggett@ensr.aecom.com]
Sent: Monday, January 23, 2006 4:35 PM
To: Backlund, Doug
Subject: Keystone Pipeline Project - T&E Data Request

Doug,

As I explained during our recent phone call, I am preparing the fisheries sections of an Environmental Assessment (EA) for the proposed Keystone Pipeline Project. The pipeline route would cross water bodies in South Dakota, as listed below by county. Information that I would like to obtain for the water bodies would be a list of list of federal or state-listed species and important spawning or rearing habitat. The water bodies include the following:

- Unnamed tributary to Amsden Dam (Day County)
- Antelope Creek (Day County)
- Foster Creek (Day Creek)
- Wolf Creek (Hanson and Hutchinson Counties)
- Lutz Lake (Hanson County)
- James River (Yankton County)
- Beaver Creek (Yankton County)
- Marne Creek (Yankton County)
- Missouri River (Yankton and Cedar Counties)

For clarification, you will be receiving a separate letter request from ENSR for a complete special status species record search. This request for aquatic species (fish and mussels) is part of that same data search. I understand that there is a charge for the data search. You can include the aquatic species in one billing for the project if that is easier for you. If you have any questions about the request, please call or send an e-mail. Thanks again for your help.

Rollin Daggett
ENSR
1601 Prospect Parkway
Fort Collins, CO 80525
970-493-8878, Ext 110