GEOGRAPHICAL RESPONSE PLAN

KEYSTONE PIPELINE SYSTEM

FOR TRANSCANADA PIPELINE USE ONLY

Not controlled when printed.

Date of Late Review: December 2018

SOUTH SASKATCHEWAN/RED DEER RIVERS

RESPONSE SUMMARY

This Geographic Emergency Response Plan (GRP) is a component of the Keystone Emergency Response Plan (ERP). Information herein does not supersede any component of the ERP.

The purpose of this plan is to facilitate expedited and efficient emergency response operations to protect people the environment surrounding both the South Saskatchewan and the Red Deer Rivers.

This plan should be referenced as a guide only during emergency response. All actions should be modified to meet the demands of a specific incident. This plan does not direct actions, but merely serves as a resource to responders.

All responders using this plan should ensure the TransCanada First Responder Checklist is completed before implementing this plan.

Recommendations in this GRP may be applied to releases from TransCanada's Keystone Pipeline in the Oyen Section OYENP+57_7 to Bindloss Section BNDLO+22_0.

The area of the pipeline surrounding these two rivers is categorized as gently undulating sandy fluvial-lacustrine and glacio-lacustrine plains with alluvial deposits. Drainage of this area remains local to the large alluvial depressions surrounding the river beds. This response plan is partially in Alberta and Saskatchewan, and within the following municipalities, Cypress County, Special Areas 2&3, Deer Forks 232, Happyland 231, Clinworth 230, Miry Creek 229, Chesterfield 261, Newcombe 260 and Snipe Lake 259.

Culturally and environmentally sensitive receptors need to be protected and preserved in the unlikely event of a release. These receptors have been identified through publically available data from both federal and provincial agencies within a 1km buffer of each source and tactical control points. The South Saskatchewan/Red Deer River Tactical Plans include a list of all environmental and cultural receptors for each control point. The identified receptors include aquifers, water wells, historic sites, environmentally sensitive areas, aboriginal reserves, soil type, drainage pathway and species of concern.

Below is a table showing all species of concern for both federal and provincial status. Each species are ranked as endangered, extirpated, threatened, of special concern or not listed. The definitions of these classifications are as follows:

Endangered: A wildlife species facing imminent extirpation or extinction

Extirpated: A wildlife species that no longer exists in the wild in Canada, but exists elsewhere

Threatened: A wildlife species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction

Special concern: A species is of special concern because of characteristics that make it particularly sensitive to human activities or natural events.

Not listed: A species for which there is insufficient scientific information to support status designation.

Wildlife Species	SARA Status	Provincial Status (SK)	Provincial Status (AB)	Ecoregion
Mammals				
Little Mountain Mytosis	no status	not listed		Mixed Grassland
Black Footed Ferret	extirpated	extirpated		Mixed Grassland
Western Small Footed Bat			special concern	Mixed Grassland
Mule Deer				Mixed Grassland
American Badger			data deficient	Mixed Grassland
Birds				
Baird's Sparrow	no status	not listed		Mixed Grassland
Burrowing Owl	endangered	endangered	endangered	Mixed Grassland
Chestnut Collared Longspur	threatened	not listed	not listed	Mixed Grassland
Piping Plover	endangered	endangered	endangered	Mixed Grassland
Ferruginous Hawk	threatened	not listed	endangered	Mixed Grassland
Greater Prairie Chicken	extirpated	extirpated		Mixed Grassland
Common Nighthawk	threatened	not listed	not listed	Mixed Grassland
Yellow Rail	special concern	not listed	not listed	Mixed Grassland
Loggerhead Shrike	threatened	not listed	special concern	Mixed Grassland
Red-headed Woodpecker	threatened	not listed		Mixed Grassland
Short-eared Owl	special concern	not listed	not listed	Mixed Grassland
Sprague's Pipit	threatened	not listed	special concern	Mixed Grassland
Sage Thrasher	endangered	not listed	not listed	Mixed Grassland
Bobolink	no status	not listed		Mixed Grassland
Horned Grebe	no status	not listed		Mixed Grassland
Western Grebe	special concern	not listed	special concern	Mixed Grassland
Rusty Blackbird	special concern	not listed	not listed	Mixed Grassland
Whooping Crane	endangered	endangered	endangered	Mixed Grassland
Barn Swallow	no status	not listed		Mixed Grassland
Greater Sage Grouse	endangered	endangered	endangered	Mixed Grassland
Long Billed Curlew	special concern	not listed	special concern	Mixed Grassland
McCowns Longspur	special concern	not listed	not listed	Mixed Grassland
Olive Sided Flycatcher	threatened	not listed	not listed	Mixed Grassland
Peregrine Falcon	threatened	not listed	threatened	Mixed Grassland
Prairie Falcon			special concern	Mixed Grassland
Fish				
Lake Sturgeon	no status	not listed	threatened	Mixed Grassland
Reptiles			Later de Colonia	Mine d Over a deve d
Prairie Rattle Snake Amphibians		<u> </u>	data deficient	Mixed Grassland
Provide the second seco			there also not	Mina d Overseland
Northern Leopard Frog	special concern	not listed	threatened	Mixed Grassland
Western Tiger Salamander	no status	not listed	data d. #1-14	Mixed Grassland
Great Plains Toad	special concern	not listed	data deficient	Mixed Grassland
Canadian Toad	no status		data deficient	Mixed Grassland
Arthropods Verna's Flower Moth	throatened	not listed	doto deficient	Mixed Grassland
	threatened	not listed	data deficient	
Dakota Skipper	threatened	not listed	not listed	Mixed Grassland
Dusky Dune Moth	endangered	not listed	not listed	
Gold Edged Gem	endangered	not listed	not listed	Misso d One and a self-
Monarch Butterfly	special concern	not listed	not listed	Mixed Grassland
Vascular Plants	throoton	not list	not lists d	Mixed Creeds a
Smooth Goosefoot	threatened	not listed	not listed	Mixed Grassland
Slender Mouse Ear Cress	threatened	threatened	endangered	Mixed Grassland
Small Flowered Sand Verbena	endangered	endangered	threatened	

^{*}Disclaimer: if a species is not listed in on either provincial status or on SARA, it is listed on COSEWIC as a species at risk

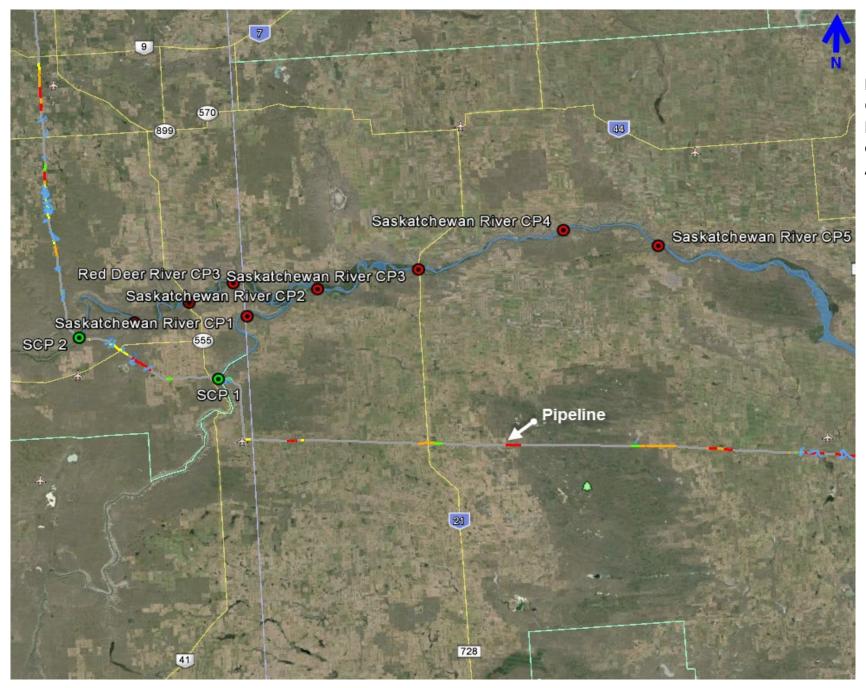
A TransCanada Environmental Specialist will be responsible for managing environmental matters associated with incident response operations, including: environmental assessment; permitting; environmental monitoring and damage assessment; and sensitive habitat and wildlife protection and rehabilitation.

TABLE OF CONTENTS

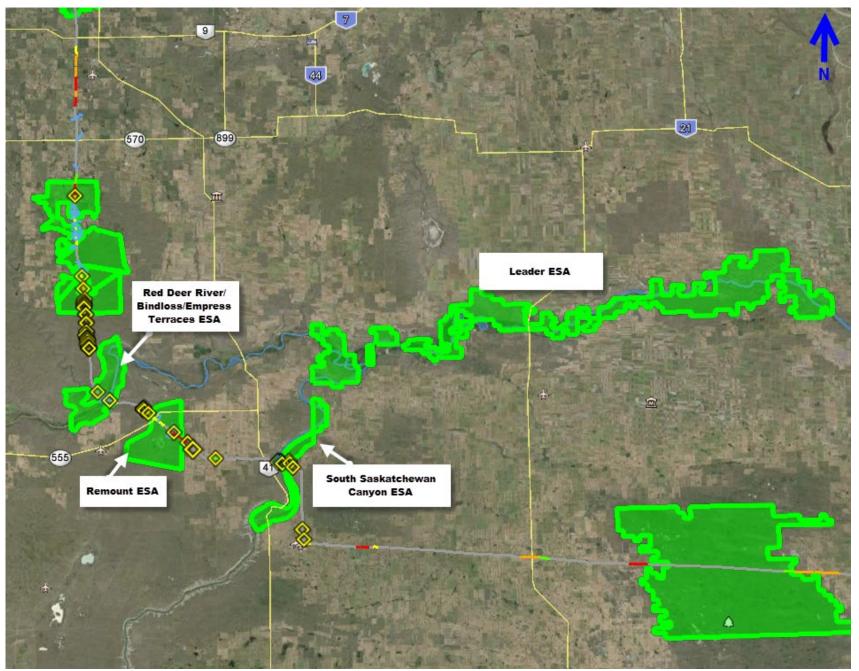
Table of Contents

MAPS	5
MEDICAL PLAN (ICS FORM 206)	11
RESOURCE REQUIRMENT MATRIX	12
POTENTIAL INCIDENT COMMAND POST FACILITIES	13
POTENTIAL STAGING AREAS	14
LOCAL LODGING	15
LOCAL CATERING SERVICES	16
LOCAL RESPONSE CONTRACTORS	17
LOCAL CONTACTS	18
CONTROL POINTS ASSOCIATED WITH THIS PLAN	19

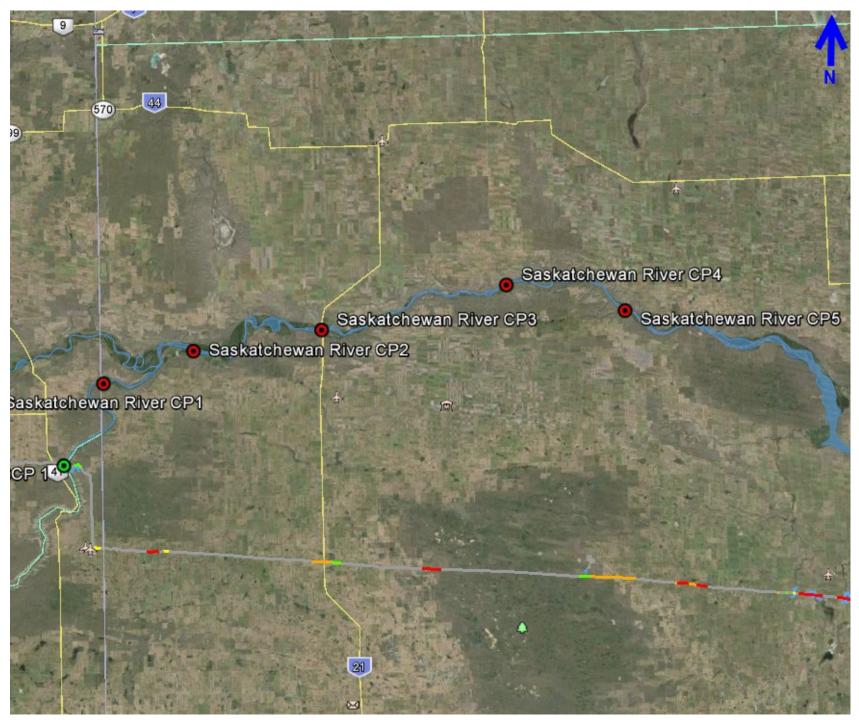
MAPS



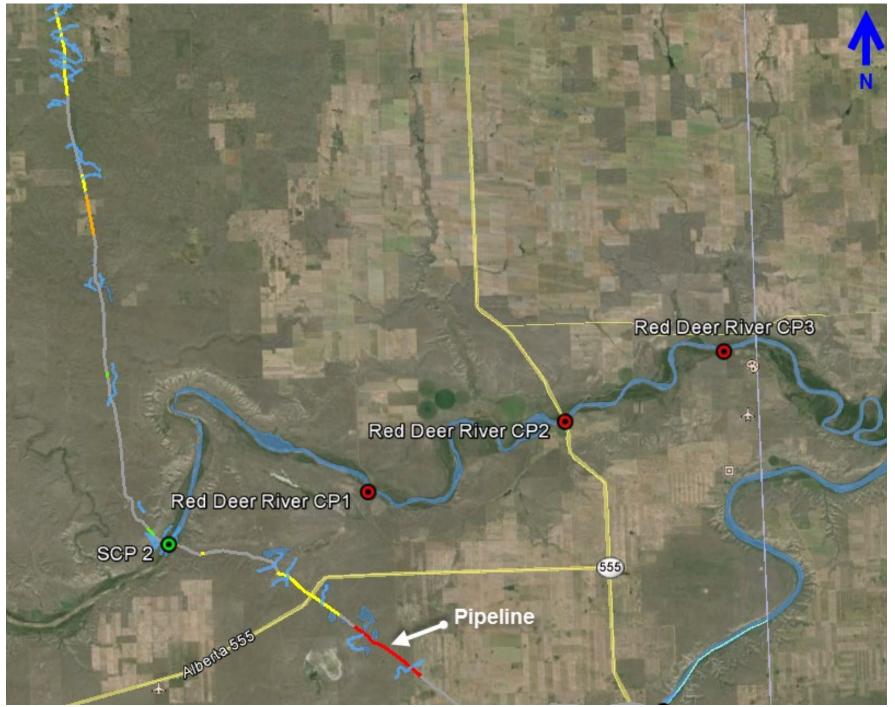
Map 1: Overview Map of entire GRP Area



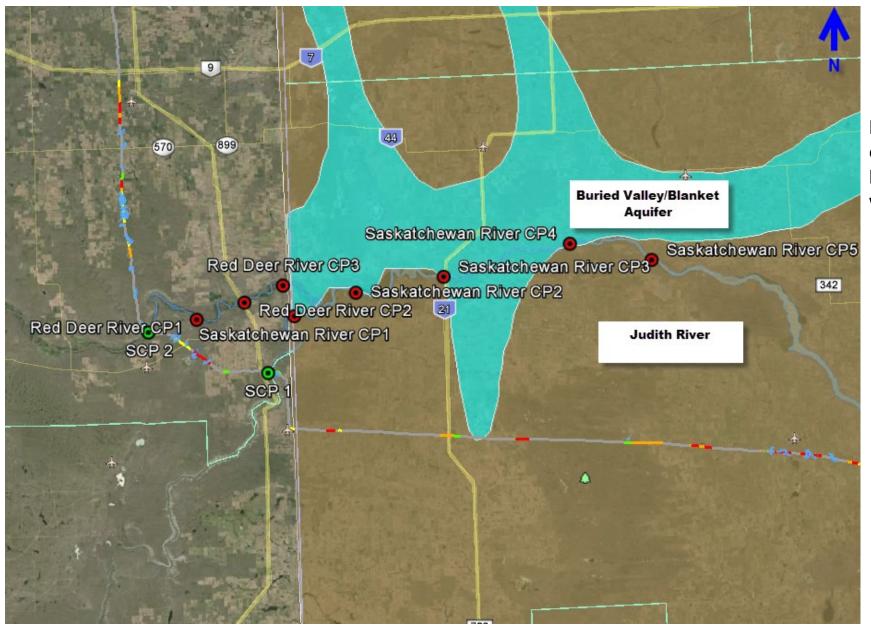
Map 2: identifies protected areas within the GRP



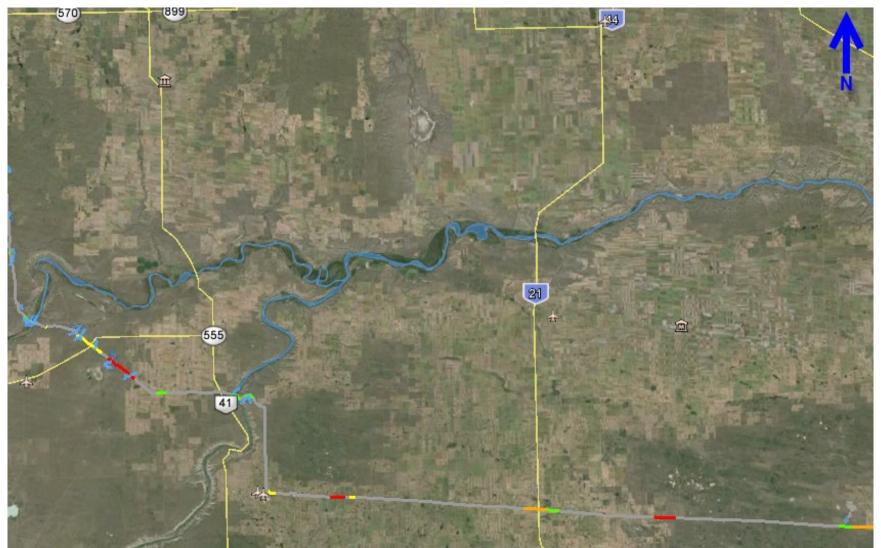
Map 3: close up of South Sask. River source and tactical control points



Map 4: close up of the Red Deer River source and tactical control points



Map 5: displays the key aquifers within the GRP



Map 7: displaying the water channels within the GRP

MEDICAL PLAN (ICS FORM 206)

Transportation	Transportation						
Name		Location		Contact#		Paramedics On-Site (Y/N)	
Lac La Biche Regional Ems		201	1A St W, Oyen, Al 2J0	B TOJ	911/ (403) 664 3084	1-	Υ
Empress Ambulance Service (0	Oyen)	314	4 3 rd Ave East, Oye TOJ 2J0	n AB	911/ (403) 66- 3577		Υ
Leader and District Ambulance	Service	200-	-4 TH Ave W. Leade S0N 1H0	er, SK	911		Υ
Eston/Eatonia Ambulance Service		Box 667, Eston, SK S0L 1A0		(306) 962-366	57	Y	
Hospitals							
Hospital Name	Addres	SS	Contact#	Tra Air	vel Time Ground	Burn Cente	Heli- Pad
Leader Hospital	423 Main Leader, SK 1H0		(306) 628-3845				
Big Country Hospital	312 3 St Oyen, A		(403) 664-4300				
Medicine Hat Regional Hospital	666 5 Street SW, Medicine Hat, AB T1A 4H6		(403) 529-8000				
Cypress Regional Hospital	2004 Saskatche Dr, Swif Current, S S9H 5M	t SK 8	(306) 778-9400				
Eston Health Centre Special Medical Emer	800 Main Si Eston, SK 1A0	S0L	(306) 962-3667				

RESOURCE REQUIRMENT MATRIX

	Calculation	Substantive Spills Avg. Probable (1% WCD) Redacted 2d	Large Spills Max. Most Probable (10% WCD) Redacted 2d	Worst Case Discharge (WCD) Redacted 2d
Skimmer (TDS 118)	=Volume of oil released/2,400 bbls x 2 to compensate for less 100% efficiency 1 skimmer = 2,400 bbls/day	1	4	34
Powerplant (Generator)	=1 per skimmer	1	4	34
Pump	=1 per skimmer	1	4	34
Boom (ft)	=1000 feet per recovery site	1000	4000	34,000
Vac Truck	=Volume of oil released/Vac Truck capacity/4 trips per day Vac Truck Capacity= 70bbls	2	15	142
Storage (Frac Tank)	=Volume of oil released/Frac Tank capacity x 2 Frac Tanks = 500 bbls	2	16	159

*this GRP is located in Response Zone 1 of the Keystone ERP. The WCD was determined by the Pipeline and Hazardous Materials Safety Administration Discharge Volume Association. Within the specific area of this GRP the WCD is Redacted 2d

POTENTIAL INCIDENT COMMAND POST FACILITIES

Name/Address	Phone Number	Distance From – Center (km)	Confere nce Room Size	Food Service On Site (Y/N)	Internet Access (Y/N)	Notes
Empress Community Centre	(403) 565-2202			N	N	
Forksview Motel 317 1 St East, Empress AB	(403) 565-2003			Y	Y	
Empress Forksview Inn 317 1st St. E, Empress, AB T0J 1E0	(403) 565-2003			Υ	Y	
Burstall Community Hall 951 Railway Ave, Burstall, SK S0N 0H0	(306) 679-2244			N	Y	
Leader Friendship Centre 135 1 St W, Leader, SK S0N 1H0	(306) 628-3366			N	N	
Leader Community Hall 402 - 1st Ave W Leader, SK	(306) 628-3860.			N	Y	

POTENTIAL STAGING AREAS

Marco / A alalys a a	Landaman	Dhana musahan	Cima / Arras	Description (Deved Cross) Field etc.)
Name/Address	Landowner	Phone number	Size / Area	Description (Paved Gravel, Field, etc.)
				, , , , , , , , , , , , , , , , , , , ,
Lat/Long				
LauLong				

^{**} TO BE DETERMINED BY TACTICAL CONTROL POINT FORMS

LOCAL LODGING

Name/Address Lat/Long	Phone Number	Distance From – Center (Miles/Kilometers)	Units (Total)	Food Service On-Site (Y/N)	Internet Access (Y/N)	Notes
Leader Inn 118 1st Avenue East, S0N 1H0 Leader, Canada	(306) 628-3854		22	Y	Y	Offering a restaurant and a bar, Leader Inn is located in Leader. Free Wi-Fi access is available. A microwave is featured in each room. Leader Union Hospital is 2 minutes' drive away. Rooms here will provide you with a flat-screen cable TV and a DVD player. The dining area has a refrigerator and a coffee machine. Featuring a bath or shower, private bathrooms also come with a hairdryer and towels. At Leader Inn you will find a 24-hour front desk, a bakery and slot machines. Other facilities offered include a laundry. The property offers free parking with plug-ins. Great Sand Hills is 40 km from Inn Leader. Saskatoon International Airport is 3 hours' drive away.
Best Western Inn 105 George Street W, Swift Current, SK, S9H 0K4, Canada	(306) 773-4660		26	N	Υ	Complimentary Breakfast, pool, meeting room, fitness center, hot tub, high speed internet, 0.40kms from 5 restaurants, catering, Boardroom (850 sq. ft. Up to 50 people)
Howard Johnson Swift Current 1150 South Service Road East, Swift Current, SK S9H 3X6 CA	(306) 778-7730			Y	Y	Internet, pet friendly, Restaurant, parking, bar, casino close by, meeting room.
Comfort Inn Swift Current 1510 South Service Road East Swift Current, SK, S9H 3X6, CA	(306) 778-3994			N	Υ	Free hot breakfast, free parking, 24/hr business centre, wireless high speed internet, fax, copy, print services. Non smoking.
Forksview Motel & Manor 317 First Street East Empress, Alberta T0J 1E0	(403) 565 2003			Kitchen in room	Y	■Boardroom Table (Seats 8) ■Two 8' Folding Leg Tables w Linen ■25 Fixed Leg Stacking Chairs ■Projector with Screen ■Conference Phone ■Bottled Water & Coffee Service

Email: i...@empressforksview.com

LOCAL CATERING SERVICES

Name/Address Lat/Long	Phone Number	Distance From – Center (Miles/Kilometers)	Delivery (Y/N)	Notes
Coffee Break Restaurant 304 Centre Street Empress, AB	(403) 565-2555		Υ	
That's Empressive 309 Centre Street, Empress, AB T0J 1E0	(403) 565-0009		Y	
Shevy's Pizza & Treats 938 Railway Avenue, Burstall, SK S0N 0H0	(306) 679-2179		N	
Mei's Kitchen 128 1st Ave W, Leader, SK S0N 1H0	(306) 628-8888		N	
Subway 115 Highway 21 North, Leader, SK S0N 1H0	(306) 628-3730		N	
Mel's Kitchen 128 1st Ave W, Leader, SK S0N 1H0	(306) 628-8888		Y	
Eatonia Family Restaurant 101 Main St, Eatonia, SK S0L 0Y0	(306) 967-2256		N	
DT's Restaurant 103 3rd St SW, Eston, SK S0L 1A0	(306) 962-3281		N	

LOCAL RESPONSE CONTRACTORS

Name/Address Lat/Long	Phone Number	Distance From- Center (Miles/Kilometers)	Notes
Quantum Murray Emergency Response	(877) 378-7745		
Oil Spill Contingency Group Area 2&3, WCSS Alberta Area U	(306) 778-7857(SK) 1-866-541-8888 (AB)		
Tervita Corporation	1-800-32-SPILL (77455)		24hr North American Emergency Response Line
Stantec Consulting			Environmental Sampling and consulting For Manitoba/Sask area Redacted 1b For work in Alberta contact Redacted 1b
Tetra Tech Consulting			Environmental Sampling and consulting Please contact Redacted 1b
Focus Wildlife	1-310-386-5965		
NewAlta	1-800-774-8466		24hr Emergency Response Line

LOCAL CONTACTS

Name	Location	Phone Numbers
Cypress County	816 - 2nd Avenue Dunmore, AB, T1B 0K3	(403) 526-2888
Special Areas 2 District Office	212 – 2nd Ave W Box 820 Hanna, AB T0J 1P0	(403) 854-5600
Special Areas 3 District Office	319 Main Street Box 30 Oyen, AB T0J 2J0	(403) 664-3618
Rural Municipality Of Deer Forks No 232	428 Martin St, Burstall, SK S0N 0H0	(306) 679-2000
Rural Municipality Of Happyland No 231	106 3 St W, Leader, SK S0N 1H0	(306) 628-3800
Rural Municipality Of Clinworth No 230	128 Kingsway St, Sceptre, SK S0N 2H0	(306) 623-4229
Rural Municipality Of Miry Creek No 229	143 Wayne St, Abbey, SK S0N 0A0	(306) 689-2281
R.M. of Chesterfield No. 261	P.O. Box 70, Eatonia, Saskatchewan, S0L 0Y0	(306) 967-2222
Rural Municipality Of Newcombe No 260	101 Highway Ave, Glidden, SK S0L 1H0	(306) 463-3338
Rural Municipality Of Snipe Lake No 259	#213 Main Street ESTON SK S0L 1A0	(306) 962-3214
Special Areas Alberta Emergency Management		(403) 854-5603
Empress Emergency/fire Services		911
Oyen RCMP	317 1st Avenue E Oyen Alberta, T0J 2J0	(403) 664-3505/911
Burstall Fire Department	932 Railway Ave, Burstall, SK S0N 0H0	(306) 679-2062
Leader Fire Department	151 – 1st Street West Mailing Address: Box 39, Leader, SK S0N 1H0	911
Leader RCMP	348 East Road Allowance Mailing Address: Box 277, Leader, SK S0N 1H0	911
Eston Fire Department	308-3rd St. SW	911
Eston RCMP	218 4 Ave, Eston, SK S0L 1A0	(306) 962-8530/911
Town of Eston	217 Main street	(306) 962-4444
Town of Leader	151 – 1st Street West, Leader, Saskatchewan	(306) 628-3868
Town of Empress	#6 – 3rd Avenue Empress, Alberta T0J 1E0	(403) 565-3938

CONTROL POINTS ASSOCIATED WITH THIS PLAN

This Geographic Response Plan includes several Control Points which may be referenced for recommendation or considerations when containing or recovering released oil in the South Saskatchewan/Red Deer area. When this plan is viewed in electronic format with access to the TransCanada intranet, the links below can be clicked to access each Control Point. When this plan is printed and viewed in paper format, the Control Points should also be printed and attached to the Plan.

RED DEER RIVER

- RED DEER RIVER SCP 1
- RED DEER RIVER TCP 1
- RED DEER RIVER TCP 2
- RED DEER RIVER TCP 3

SOUTH SASKATCHEWAN RIVER

- SOUTH SASKATCHEWAN RIVER SCP 1
- SOUTH SASKATCHEWAN RIVER TCP 1
- SOUTH SASKATCHEWAN RIVER TCP 2
- SOUTH SASKATCHEWAN RIVER TCP 3
- SOUTH SASKATCHEWAN RIVER TCP 4
- SOUTH SASKATCHEWAN RIVER TCP 5