



## NGTL System and Foothills Pipeline Customer Meeting

October 4, 2017


# Welcome



## Safety Procedure:

- In case of alarm or emergency, please proceed immediately to the ground-level exit
- Nearest stairs to ground-level exit are outside this room and directly to the left
- Muster point is located on the plus-15 level of 5<sup>th</sup> Avenue Place (425 1<sup>st</sup> Street SW)

## Participating through WebEx:

- Please sign-in through WebEx application **including your full name and company**
- In response to customer requests to reduce background noise and improve audio quality, all WebEx participants will be placed on mute 
- Prior to commenting or asking a question, please remember to take yourself off mute and identify yourself

*Information provided herein is for informational purposes only and is not to be relied upon for any other purpose whatsoever. The information is based upon certain assumptions that may or may not be accurate, and therefore is subject to various risks and uncertainties. TransCanada shall not be liable for damages sustained as a result of any use or reliance on such information.*

# Safety Moment



**Monday was a warning...**

## **Prepare your vehicle(s) for winter**

- Winterize your car
  - Check antifreeze, defroster, emergency signals, heater, lights, oil, tires, windshield washer fluid, and wiper blades
- Have emergency supplies in your car
  - Blanket, jumper cables, first aid kit, flashlight, ice scraper, matches and a candle, sand/gravel, small shovel and a cellular phone

# Agenda



## Outage Information

- STOP/MOF Enhancements
- DOP (formerly STOP) process and timing
- NrG Highway Notice process and timing

## Operational Capability

- Linepack, Capability, and Outage Information
- Service Restriction Scenarios

## Operational Outlook

- 2017 DOP (formerly STOP) review
- 2018 Major Outage Summary

DOP – Daily Operating Plan (single source for all planned outage information)

STOP – Short Term Operational Plan (enhanced report referred to as DOP)

MOF – Monthly Outage Forecast (outage table rolled into DOP and discontinued)

# STOP/MOF Enhancements



**NGTL/FH Customer Meeting:** May 2017

**Finalized requirements based on feedback:** June 2017

**Finalizing software modifications and testing:** July – Sept 2017

**Implementation:** October 4, 2017

# Proposed Improvements in 2017



## 1. Categorize by receipt, delivery, and interconnect

- Organize from receipt to delivery
- Separate Area and Local tables
- Government run inspections (GRI's) incorporated into Local table

## 2. Provide link to reported plant turn around activity in chart format

- Available aggregate PTA data, separate receipt and delivery charts

## 3. All available outage information contained in one report

- Extend STOP timeline to incorporate MOF
- Provide links to all recent capability and historical flow charts

## 4. Provide link to report data in CSV format

- Allows stakeholders to track changes according to their individual needs



Bridge Plant Turnaround Activity			Inferior Plant Turnaround Activity		
Date		Time (HH:MM)	Date		Time (HH:MM)
SEP 01, 2017	08:00	08:00	SEP 01, 2017	08:00	08:00
SEP 02, 2017	08:00	08:00	SEP 02, 2017	08:00	08:00
SEP 03, 2017	08:00	08:00	SEP 03, 2017	08:00	08:00
SEP 04, 2017	08:00	08:00	SEP 04, 2017	08:00	08:00
SEP 05, 2017	08:00	08:00	SEP 05, 2017	08:00	08:00
SEP 06, 2017	08:00	08:00	SEP 06, 2017	08:00	08:00
SEP 07, 2017	08:00	08:00	SEP 07, 2017	08:00	08:00
SEP 08, 2017	08:00	08:00	SEP 08, 2017	08:00	08:00
SEP 09, 2017	08:00	08:00	SEP 09, 2017	08:00	08:00
SEP 10, 2017	08:00	08:00	SEP 10, 2017	08:00	08:00
SEP 11, 2017	08:00	08:00	SEP 11, 2017	08:00	08:00
SEP 12, 2017	08:00	08:00	SEP 12, 2017	08:00	08:00
SEP 13, 2017	08:00	08:00	SEP 13, 2017	08:00	08:00
SEP 14, 2017	08:00	08:00	SEP 14, 2017	08:00	08:00
SEP 15, 2017	08:00	08:00	SEP 15, 2017	08:00	08:00
SEP 16, 2017	08:00	08:00	SEP 16, 2017	08:00	08:00
SEP 17, 2017	08:00	08:00	SEP 17, 2017	08:00	08:00
SEP 18, 2017	08:00	08:00	SEP 18, 2017	08:00	08:00
SEP 19, 2017	08:00	08:00	SEP 19, 2017	08:00	08:00
SEP 20, 2017	08:00	08:00	SEP 20, 2017	08:00	08:00
SEP 21, 2017	08:00	08:00	SEP 21, 2017	08:00	08:00
SEP 22, 2017	08:00	08:00	SEP 22, 2017	08:00	08:00
SEP 23, 2017	08:00	08:00	SEP 23, 2017	08:00	08:00
SEP 24, 2017	08:00	08:00	SEP 24, 2017	08:00	08:00
SEP 25, 2017	08:00	08:00	SEP 25, 2017	08:00	08:00
SEP 26, 2017	08:00	08:00	SEP 26, 2017	08:00	08:00
SEP 27, 2017	08:00	08:00	SEP 27, 2017	08:00	08:00
SEP 28, 2017	08:00	08:00	SEP 28, 2017	08:00	08:00
SEP 29, 2017	08:00	08:00	SEP 29, 2017	08:00	08:00
SEP 30, 2017	08:00	08:00	SEP 30, 2017	08:00	08:00
SEP 31, 2017	08:00	08:00	SEP 31, 2017	08:00	08:00




USJR Receipt Area

## Local Receipt Areas and Locations

## WGAT Delivery Area

## Foothills Zone 8 (FHZ8)

## EGAT Delivery Area

## Foothills Zone 9 (FHZ9)

## Local Delivery Areas and Locations

## Plant Turnarounds

**Receipt: Local Area/Location**



# Daily Operating Plan

## WGAT Delivery Area and Foothills Zone 8 (FHZ8)



**USJR Receipt Area**

Outage ID	Start	End	Capacity/Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Service Allowable Location/Area	Outage Description
11878271	SEP 30, 2017	OCT 05, 2017	XX,XXX	Potential IT Delivery Restriction Segments 22 and partial 21	Outage X - Compressor Station Maintenance
11878271	SEP 30, 2017	OCT 05, 2017	XX,XXX	Potential IT Delivery Restriction Alberta BC Border	Outage X - Compressor Station Maintenance
11878486	OCT 08, 2017	OCT 20, 2017	XX,XXX	Potential IT Delivery Restriction Segments 22 and partial 21	Outage X - Compressor Station Maintenance
11878486	OCT 08, 2017	OCT 20, 2017	XX,XXX	Potential IT Delivery Restriction Alberta BC Border	Outage X - Compressor Station Maintenance
11878488	OCT 11, 2017	OCT 21, 2017	XX,XXX	Potential FT Delivery Restriction Alberta BC Border	Outage X - Pipeline Maintenance
11878505	OCT 23, 2017	OCT 29, 2017	XX,XXX	Potential FT Delivery Restriction Alberta BC Border	Outage X - Pipeline Maintenance

**Local Receipt Areas and Locations**

Outage ID	Start	End	Capacity/Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Service Allowable Location/Area	Outage Description
11878271	SEP 30, 2017	OCT 05, 2017	XX,XXX	Potential IT Delivery Restriction Segments 22 and partial 21	Outage X - Compressor Station Maintenance
11878271	SEP 30, 2017	OCT 05, 2017	XX,XXX	Potential IT Delivery Restriction Alberta BC Border	Outage X - Compressor Station Maintenance
11878486	OCT 08, 2017	OCT 20, 2017	XX,XXX	Potential IT Delivery Restriction Segments 22 and partial 21	Outage X - Compressor Station Maintenance
11878486	OCT 08, 2017	OCT 20, 2017	XX,XXX	Potential IT Delivery Restriction Alberta BC Border	Outage X - Compressor Station Maintenance
11878488	OCT 11, 2017	OCT 21, 2017	XX,XXX	Potential FT Delivery Restriction Alberta BC Border	Outage X - Pipeline Maintenance
11878505	OCT 23, 2017	OCT 29, 2017	XX,XXX	Potential FT Delivery Restriction Alberta BC Border	Outage X - Pipeline Maintenance

**WGAT Delivery Area**

Outage ID	Start	End	Capacity/Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Service Allowable Location/Area	Outage Description
11878271	SEP 30, 2017	OCT 05, 2017	XX,XXX	Potential IT Delivery Restriction Segments 22 and partial 21	Outage X - Compressor Station Maintenance
11878271	SEP 30, 2017	OCT 05, 2017	XX,XXX	Potential IT Delivery Restriction Alberta BC Border	Outage X - Compressor Station Maintenance
11878486	OCT 08, 2017	OCT 20, 2017	XX,XXX	Potential IT Delivery Restriction Segments 22 and partial 21	Outage X - Compressor Station Maintenance
11878486	OCT 08, 2017	OCT 20, 2017	XX,XXX	Potential IT Delivery Restriction Alberta BC Border	Outage X - Compressor Station Maintenance
11878488	OCT 11, 2017	OCT 21, 2017	XX,XXX	Potential FT Delivery Restriction Alberta BC Border	Outage X - Pipeline Maintenance
11878505	OCT 23, 2017	OCT 29, 2017	XX,XXX	Potential FT Delivery Restriction Alberta BC Border	Outage X - Pipeline Maintenance

**Foothills Zone 8 (FHZ8)**

Outage ID	Start	End	Capacity/Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Service Allowable Location/Area	Outage Description
11878325	AUG 16, 2017	SEP 30, 2017	XX,XXX	Outage X - Compressor Station Maintenance	
11878468	OCT 02, 2017	OCT 04, 2017	XX,XXX	Outage X - Compressor Station Maintenance	

**EGAT Delivery Area**

Outage ID	Start	End	Capacity/Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Service Allowable Location/Area	Outage Description
11878271	SEP 30, 2017	OCT 05, 2017	XX,XXX	Potential IT Delivery Restriction Segments 22 and partial 21	Outage X - Compressor Station Maintenance
11878271	SEP 30, 2017	OCT 05, 2017	XX,XXX	Potential IT Delivery Restriction Alberta BC Border	Outage X - Compressor Station Maintenance
11878486	OCT 08, 2017	OCT 20, 2017	XX,XXX	Potential IT Delivery Restriction Segments 22 and partial 21	Outage X - Compressor Station Maintenance
11878486	OCT 08, 2017	OCT 20, 2017	XX,XXX	Potential IT Delivery Restriction Alberta BC Border	Outage X - Compressor Station Maintenance
11878488	OCT 11, 2017	OCT 21, 2017	XX,XXX	Potential FT Delivery Restriction Alberta BC Border	Outage X - Pipeline Maintenance
11878505	OCT 23, 2017	OCT 29, 2017	XX,XXX	Potential FT Delivery Restriction Alberta BC Border	Outage X - Pipeline Maintenance

**Foothills Zone 9 (FHZ9)**

Outage ID	Start	End	Capacity/Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Service Allowable Location/Area	Outage Description
11878325	AUG 16, 2017	SEP 30, 2017	XX,XXX	Outage X - Compressor Station Maintenance	
11878468	OCT 02, 2017	OCT 04, 2017	XX,XXX	Outage X - Compressor Station Maintenance	

**Local Delivery Areas and Locations**

Outage ID	Start	End	Capacity/Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Service Allowable Location/Area	Outage Description
11878325	AUG 16, 2017	SEP 30, 2017	XX,XXX	Outage X - Compressor Station Maintenance	
11878468	OCT 02, 2017	OCT 04, 2017	XX,XXX	Outage X - Compressor Station Maintenance	

**Plant Turnarounds**

Outage ID	Start	End	Capacity/Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Service Allowable Location/Area	Outage Description
11878325	AUG 16, 2017	SEP 30, 2017	XX,XXX	Outage X - Compressor Station Maintenance	
11878468	OCT 02, 2017	OCT 04, 2017	XX,XXX	Outage X - Compressor Station Maintenance	

Delivery: West Gate Delivery Area (WGAT)					
Current ABC Base Operational Capability: XX,XXX 10 <sup>3</sup> m <sup>3</sup> /d ABC capability and historical flow (Last Updated: MM/DD/YYYY)					
Outage ID	Start	End	Capacity/Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Service Allowable Location/Area	Outage Description
11878271	SEP 30, 2017	OCT 05, 2017	XX,XXX	Potential IT Delivery Restriction Segments 22 and partial 21	Outage X - Compressor Station Maintenance
11878271	SEP 30, 2017	OCT 05, 2017	XX,XXX	Potential IT Delivery Restriction Alberta BC Border	Outage X - Compressor Station Maintenance
11878486	OCT 08, 2017	OCT 20, 2017	XX,XXX	Potential IT Delivery Restriction Segments 22 and partial 21	Outage X - Compressor Station Maintenance
11878486	OCT 08, 2017	OCT 20, 2017	XX,XXX	Potential IT Delivery Restriction Alberta BC Border	Outage X - Compressor Station Maintenance
11878488	OCT 11, 2017	OCT 21, 2017	XX,XXX	Potential FT Delivery Restriction Alberta BC Border	Outage X - Pipeline Maintenance
11878505	OCT 23, 2017	OCT 29, 2017	XX,XXX	Potential FT Delivery Restriction Alberta BC Border	Outage X - Pipeline Maintenance

**West Gate Delivery Area (WGAT):** Alberta B.C. and Alberta Montana interconnects(Delivery locations in partial Segment 21 and Segment 22 may or may not be included depending on season)

Receipt: Foothills Zone 8 (FHZ8)					
Outage ID	Start	End	Capacity/Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Outage Description	
11878325	AUG 16, 2017	SEP 30, 2017	XX,XXX	Outage X - Compressor Station Maintenance	
11878468	OCT 02, 2017	OCT 04, 2017	XX,XXX	Outage X - Compressor Station Maintenance	

\*Capacities listed are receipt (takeaway) capacities from NGTL, not delivery to NGTL

# Daily Operating Plan

## EGAT Delivery Area and Foothills Zone 9 (FHZ9)



**USJR Receipt Area**

Outage ID	Start	End	Capacity/Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Outage Description
1187821	SEP 11, 2017	SEP 29, 2017	XXX,XXX	Potential IT Delivery Restriction Empress/McNeill Borders
11878271	SEP 30, 2017	OCT 05, 2017	XXX,XXX	Potential IT Delivery Restriction LEGAT
11878489	OCT 17, 2017	OCT 26, 2017	XXX,XXX	Potential IT Delivery Restriction OSDA
11878501	JAN 09, 2018	JAN 18, 2018	XXX,XXX	Potential IT Delivery Restriction NEDA

**Local Receipt Areas and Locations**

Outage ID	Start	End	Capacity/Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Outage Description
1187821	SEP 11, 2017	SEP 29, 2017	XXX,XXX	Potential IT Delivery Restriction Empress/McNeill Borders
11878271	SEP 30, 2017	OCT 05, 2017	XXX,XXX	Potential IT Delivery Restriction LEGAT
11878489	OCT 17, 2017	OCT 26, 2017	XXX,XXX	Potential IT Delivery Restriction OSDA
11878501	JAN 09, 2018	JAN 18, 2018	XXX,XXX	Potential IT Delivery Restriction NEDA

**WGAT Delivery Area**

Outage ID	Start	End	Capacity/Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Outage Description
1187821	SEP 11, 2017	SEP 29, 2017	XXX,XXX	Potential IT Delivery Restriction Empress/McNeill Borders
11878271	SEP 30, 2017	OCT 05, 2017	XXX,XXX	Potential IT Delivery Restriction LEGAT
11878489	OCT 17, 2017	OCT 26, 2017	XXX,XXX	Potential IT Delivery Restriction OSDA
11878501	JAN 09, 2018	JAN 18, 2018	XXX,XXX	Potential IT Delivery Restriction NEDA

**Foothills Zone 8 (FHZ8)**

Outage ID	Start	End	Capacity/Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Outage Description
1187821	SEP 11, 2017	SEP 29, 2017	XXX,XXX	Potential IT Delivery Restriction Empress/McNeill Borders
11878271	SEP 30, 2017	OCT 05, 2017	XXX,XXX	Potential IT Delivery Restriction LEGAT
11878489	OCT 17, 2017	OCT 26, 2017	XXX,XXX	Potential IT Delivery Restriction OSDA
11878501	JAN 09, 2018	JAN 18, 2018	XXX,XXX	Potential IT Delivery Restriction NEDA

**EGAT Delivery Area**

Outage ID	Start	End	Capacity/Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Outage Description
1187821	SEP 11, 2017	SEP 29, 2017	XXX,XXX	Potential IT Delivery Restriction Empress/McNeill Borders
11878271	SEP 30, 2017	OCT 05, 2017	XXX,XXX	Potential IT Delivery Restriction LEGAT
11878489	OCT 17, 2017	OCT 26, 2017	XXX,XXX	Potential IT Delivery Restriction OSDA
11878501	JAN 09, 2018	JAN 18, 2018	XXX,XXX	Potential IT Delivery Restriction NEDA

**Foothills Zone 9 (FHZ9)**

Outage ID	Start	End	Capacity/Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Outage Description
1187821	SEP 11, 2017	SEP 29, 2017	XXX,XXX	Potential IT Delivery Restriction Empress/McNeill Borders
11878271	SEP 30, 2017	OCT 05, 2017	XXX,XXX	Potential IT Delivery Restriction LEGAT
11878489	OCT 17, 2017	OCT 26, 2017	XXX,XXX	Potential IT Delivery Restriction OSDA
11878501	JAN 09, 2018	JAN 18, 2018	XXX,XXX	Potential IT Delivery Restriction NEDA

**Local Delivery Areas and Locations**

Outage ID	Start	End	Capacity/Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Outage Description
1187821	SEP 11, 2017	SEP 29, 2017	XXX,XXX	Potential IT Delivery Restriction Empress/McNeill Borders
11878271	SEP 30, 2017	OCT 05, 2017	XXX,XXX	Potential IT Delivery Restriction LEGAT
11878489	OCT 17, 2017	OCT 26, 2017	XXX,XXX	Potential IT Delivery Restriction OSDA
11878501	JAN 09, 2018	JAN 18, 2018	XXX,XXX	Potential IT Delivery Restriction NEDA

**Plant Turnarounds**

Outage ID	Start	End	Capacity/Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Outage Description
1187821	SEP 11, 2017	SEP 29, 2017	XXX,XXX	Potential IT Delivery Restriction Empress/McNeill Borders
11878271	SEP 30, 2017	OCT 05, 2017	XXX,XXX	Potential IT Delivery Restriction LEGAT
11878489	OCT 17, 2017	OCT 26, 2017	XXX,XXX	Potential IT Delivery Restriction OSDA
11878501	JAN 09, 2018	JAN 18, 2018	XXX,XXX	Potential IT Delivery Restriction NEDA

Delivery: East Gate Delivery Area (EGAT)					
Current OSDA Base Operational Capability: XX,XXX 10 <sup>3</sup> m <sup>3</sup> /d OSDA capability and historical flow (Last Updated: MM/DD/YYYY)					
Current Empress/McNeill Base Operational Capability: XXX,XXX 10 <sup>3</sup> m <sup>3</sup> /d Empress/McNeill Border capability and historical flow (Last Updated: MM/DD/YYYY)					
Outage ID	Start	End	Capacity/Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Service Allowable Location/Area	Outage Description
11878465	SEP 11, 2017	SEP 29, 2017	XXX,XXX	Potential IT Delivery Restriction Empress/McNeill Borders	Outage X - Compressor Station Maintenance
11878271	SEP 30, 2017	OCT 05, 2017	XXX,XXX	Potential IT Delivery Restriction LEGAT	Outage X - Compressor Station Maintenance
11878489	OCT 17, 2017	OCT 26, 2017	XXX,XXX	Potential IT Delivery Restriction OSDA	Outage X - Pipeline Modifications
11878501	JAN 09, 2018	JAN 18, 2018	XXX,XXX	Potential IT Delivery Restriction NEDA	Outage X - Pipeline Modifications
<b>East Gate Delivery Area (EGAT):</b> Empress, McNeill, Unity, Cold Lake, AeCo C, Warwick Southeast, Chancellor, Carbon, Severn Creek, and Crossfield interconnects, and all delivery locations in Segments 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, partial 21, 22, 23, partial 28. <b>- Lower East Gate Delivery Area (LEGAT):</b> Empress, McNeill, Unity, Segments 15, 16, 17, 18, 19, 20, 23, partial 21, partial 28 <b>- North and East Delivery Area (NEDA):</b> Unity, Cold Lake, Warwick Southeast interconnects, and all delivery locations in Segments 10, 11, 12, 13, 14, 15, 16, 17, 23, partial 28 <b>- Oil Sands Delivery Area (OSDA):</b> Cold Lake interconnect, and all delivery locations in Segments 10, 11, 14					
Receipt: Foothills Zone 9 (FHZ9)					
Outage ID	Start	End	Capacity/Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Outage Description	
11878323	SEP 27, 2017	SEP 27, 2017	XX,XXX	Outage X - Pipeline Maintenance	
11878323	SEP 28, 2017	SEP 28, 2017	XX,XXX	Outage X - Pipeline Maintenance	
11878541	OCT 02, 2017	OCT 05, 2017	XX,XXX	Outage X - Compressor Station Maintenance	
11878493	OCT 10, 2017	OCT 13, 2017	XX,XXX	Outage X - Compressor Station Maintenance	
*Capabilities listed are receipt (takeaway) capabilities from NGTL, not delivery to NGTL					

USJR Receipt Area

## Local Receipt Areas and Locations

## WGAT Delivery Area

## Foothills Zone 8 (FHZ8)

## EGAT Delivery Area

### Foothills Zone 9 (FHZ9)

## Local Delivery Areas and Locations

## Plant Turnarounds

**Delivery: Local Area/Location**



# Proposed Improvements in 2017



## 1. Categorize by receipt, delivery, and interconnect

- Organize from receipt to delivery
- Separate Area and Local tables
- Government run inspections (GRI's) incorporated into Local table

## 2. Provide link to reported plant turn around activity in chart format

- Available aggregate PTA data, separate receipt and delivery charts

## 3. All available outage information contained in one report

- Extend STOP timeline to incorporate MOF
- Provide links to all recent capability and historical flow charts

## 4. Provide link to report data in CSV format

- Allows stakeholders to track changes according to their individual needs

# Daily Operating Plan Plant Turnarounds



USJR Receipt Area					
Receipt ID	Start	End	Receipt Description	Receipt Location	Receipt Status
USJR001	SEP 15, 2017	SEP 15, 2017	USJR Receipt Area	USJR Receipt Area	Completed
USJR002	SEP 16, 2017	SEP 16, 2017	USJR Receipt Area	USJR Receipt Area	Completed
USJR003	SEP 17, 2017	SEP 17, 2017	USJR Receipt Area	USJR Receipt Area	Completed
USJR004	SEP 18, 2017	SEP 18, 2017	USJR Receipt Area	USJR Receipt Area	Completed
USJR005	SEP 19, 2017	SEP 19, 2017	USJR Receipt Area	USJR Receipt Area	Completed
USJR006	SEP 20, 2017	SEP 20, 2017	USJR Receipt Area	USJR Receipt Area	Completed
USJR007	SEP 21, 2017	SEP 21, 2017	USJR Receipt Area	USJR Receipt Area	Completed
USJR008	SEP 22, 2017	SEP 22, 2017	USJR Receipt Area	USJR Receipt Area	Completed
USJR009	SEP 23, 2017	SEP 23, 2017	USJR Receipt Area	USJR Receipt Area	Completed
USJR010	SEP 24, 2017	SEP 24, 2017	USJR Receipt Area	USJR Receipt Area	Completed

Local Receipt Areas and Locations					
Receipt ID	Start	End	Receipt Description	Receipt Location	Receipt Status
LR001	SEP 15, 2017	SEP 15, 2017	Local Receipt Area	Local Receipt Area	Completed
LR002	SEP 16, 2017	SEP 16, 2017	Local Receipt Area	Local Receipt Area	Completed
LR003	SEP 17, 2017	SEP 17, 2017	Local Receipt Area	Local Receipt Area	Completed
LR004	SEP 18, 2017	SEP 18, 2017	Local Receipt Area	Local Receipt Area	Completed
LR005	SEP 19, 2017	SEP 19, 2017	Local Receipt Area	Local Receipt Area	Completed
LR006	SEP 20, 2017	SEP 20, 2017	Local Receipt Area	Local Receipt Area	Completed
LR007	SEP 21, 2017	SEP 21, 2017	Local Receipt Area	Local Receipt Area	Completed
LR008	SEP 22, 2017	SEP 22, 2017	Local Receipt Area	Local Receipt Area	Completed
LR009	SEP 23, 2017	SEP 23, 2017	Local Receipt Area	Local Receipt Area	Completed
LR010	SEP 24, 2017	SEP 24, 2017	Local Receipt Area	Local Receipt Area	Completed

WGAT Delivery Area					
Receipt ID	Start	End	Receipt Description	Receipt Location	Receipt Status
WGAT001	SEP 15, 2017	SEP 15, 2017	WGAT Delivery Area	WGAT Delivery Area	Completed
WGAT002	SEP 16, 2017	SEP 16, 2017	WGAT Delivery Area	WGAT Delivery Area	Completed
WGAT003	SEP 17, 2017	SEP 17, 2017	WGAT Delivery Area	WGAT Delivery Area	Completed
WGAT004	SEP 18, 2017	SEP 18, 2017	WGAT Delivery Area	WGAT Delivery Area	Completed
WGAT005	SEP 19, 2017	SEP 19, 2017	WGAT Delivery Area	WGAT Delivery Area	Completed
WGAT006	SEP 20, 2017	SEP 20, 2017	WGAT Delivery Area	WGAT Delivery Area	Completed
WGAT007	SEP 21, 2017	SEP 21, 2017	WGAT Delivery Area	WGAT Delivery Area	Completed
WGAT008	SEP 22, 2017	SEP 22, 2017	WGAT Delivery Area	WGAT Delivery Area	Completed
WGAT009	SEP 23, 2017	SEP 23, 2017	WGAT Delivery Area	WGAT Delivery Area	Completed
WGAT010	SEP 24, 2017	SEP 24, 2017	WGAT Delivery Area	WGAT Delivery Area	Completed

Foothills Zone 8 (FHZ8)					
Receipt ID	Start	End	Receipt Description	Receipt Location	Receipt Status
FH001	SEP 15, 2017	SEP 15, 2017	FH001 Receipt	FH001 Location	Completed
FH002	SEP 16, 2017	SEP 16, 2017	FH002 Receipt	FH002 Location	Completed
FH003	SEP 17, 2017	SEP 17, 2017	FH003 Receipt	FH003 Location	Completed
FH004	SEP 18, 2017	SEP 18, 2017	FH004 Receipt	FH004 Location	Completed
FH005	SEP 19, 2017	SEP 19, 2017	FH005 Receipt	FH005 Location	Completed
FH006	SEP 20, 2017	SEP 20, 2017	FH006 Receipt	FH006 Location	Completed
FH007	SEP 21, 2017	SEP 21, 2017	FH007 Receipt	FH007 Location	Completed
FH008	SEP 22, 2017	SEP 22, 2017	FH008 Receipt	FH008 Location	Completed
FH009	SEP 23, 2017	SEP 23, 2017	FH009 Receipt	FH009 Location	Completed
FH010	SEP 24, 2017	SEP 24, 2017	FH010 Receipt	FH010 Location	Completed

EGAT Delivery Area					
Receipt ID	Start	End	Receipt Description	Receipt Location	Receipt Status
EGAT001	SEP 15, 2017	SEP 15, 2017	EGAT Delivery Area	EGAT Delivery Area	Completed
EGAT002	SEP 16, 2017	SEP 16, 2017	EGAT Delivery Area	EGAT Delivery Area	Completed
EGAT003	SEP 17, 2017	SEP 17, 2017	EGAT Delivery Area	EGAT Delivery Area	Completed
EGAT004	SEP 18, 2017	SEP 18, 2017	EGAT Delivery Area	EGAT Delivery Area	Completed
EGAT005	SEP 19, 2017	SEP 19, 2017	EGAT Delivery Area	EGAT Delivery Area	Completed
EGAT006	SEP 20, 2017	SEP 20, 2017	EGAT Delivery Area	EGAT Delivery Area	Completed
EGAT007	SEP 21, 2017	SEP 21, 2017	EGAT Delivery Area	EGAT Delivery Area	Completed
EGAT008	SEP 22, 2017	SEP 22, 2017	EGAT Delivery Area	EGAT Delivery Area	Completed
EGAT009	SEP 23, 2017	SEP 23, 2017	EGAT Delivery Area	EGAT Delivery Area	Completed
EGAT010	SEP 24, 2017	SEP 24, 2017	EGAT Delivery Area	EGAT Delivery Area	Completed

Foothills Zone 9 (FHZ9)					
Receipt ID	Start	End	Receipt Description	Receipt Location	Receipt Status
FH011	SEP 15, 2017	SEP 15, 2017	FH011 Receipt	FH011 Location	Completed
FH012	SEP 16, 2017	SEP 16, 2017	FH012 Receipt	FH012 Location	Completed
FH013	SEP 17, 2017	SEP 17, 2017	FH013 Receipt	FH013 Location	Completed
FH014	SEP 18, 2017	SEP 18, 2017	FH014 Receipt	FH014 Location	Completed
FH015	SEP 19, 2017	SEP 19, 2017	FH015 Receipt	FH015 Location	Completed
FH016	SEP 20, 2017	SEP 20, 2017	FH016 Receipt	FH016 Location	Completed
FH017	SEP 21, 2017	SEP 21, 2017	FH017 Receipt	FH017 Location	Completed
FH018	SEP 22, 2017	SEP 22, 2017	FH018 Receipt	FH018 Location	Completed
FH019	SEP 23, 2017	SEP 23, 2017	FH019 Receipt	FH019 Location	Completed
FH020	SEP 24, 2017	SEP 24, 2017	FH020 Receipt	FH020 Location	Completed

## Local Delivery Areas and Locations

Plant Turnarounds					
Receipt ID	Start	End	Receipt Description	Receipt Location	Receipt Status
PT001	SEP 15, 2017	SEP 15, 2017	PT001 Receipt	PT001 Location	Completed
PT002	SEP 16, 2017	SEP 16, 2017	PT002 Receipt	PT002 Location	Completed
PT003	SEP 17, 2017	SEP 17, 2017	PT003 Receipt	PT003 Location	Completed
PT004	SEP 18, 2017	SEP 18, 2017	PT004 Receipt	PT004 Location	Completed
PT005	SEP 19, 2017	SEP 19, 2017	PT005 Receipt	PT005 Location	Completed
PT006	SEP 20, 2017	SEP 20, 2017	PT006 Receipt	PT006 Location	Completed
PT007	SEP 21, 2017	SEP 21, 2017	PT007 Receipt	PT007 Location	Completed
PT008	SEP 22, 2017	SEP 22, 2017	PT008 Receipt	PT008 Location	Completed
PT009	SEP 23, 2017	SEP 23, 2017	PT009 Receipt	PT009 Location	Completed
PT010	SEP 24, 2017	SEP 24, 2017	PT010 Receipt	PT010 Location	Completed

Receipt: Plant Turnaround Activity	
Date	Flow (10 <sup>3</sup> m <sup>3</sup> /day)
SEP 15, 2017	X
SEP 16, 2017	X
SEP 17, 2017	X
SEP 18, 2017	X
SEP 19, 2017 to SEP 20, 2017	X
SEP 21, 2017	X
SEP 22, 2017	X
SEP 23, 2017 to SEP 25, 2017	X
SEP 27, 2017 to SEP 28, 2017	X

\*Includes known plant turnaround activity at the time of publication

Delivery: Plant Turnaround Activity	
Date	Flow (10 <sup>3</sup> m <sup>3</sup> /day)
SEP 15, 2017 to SEP 20, 2017	X
SEP 25, 2017 to SEP 26, 2017	X
OCT 1, 2017	X
OCT 5, 2017	X
NOV 3, 2017 to NOV 10, 2017	X
NOV 15, 2017 to NOV 17, 2017	X
DEC 1, 2017	X
Dec 9, 2017	X
DEC 10, 2017 to DEC 20, 2017	X

\*Includes known plant turnaround activity at the time of publication



# Proposed Improvements in 2017



## 1. Categorize by receipt, delivery, and interconnect

- Organize from receipt to delivery
- Separate Area and Local tables
- Government run inspections (GRI's) incorporated into Local table

## 2. Provide link to reported plant turn around activity in chart format

- Available aggregate PTA data, separate receipt and delivery charts

## 3. All available outage information contained in one report

- Extend STOP timeline to incorporate MOF
- Provide links to all recent capability and historical flow charts

## 4. Provide link to report data in CSV format

- Allows stakeholders to track changes according to their individual needs

# Daily Operating Plan

## Links to Capability and Historical Flow Charts



→

Receipt: Upstream James River Area (USJR)					
Current USJR Base Operational Capability: XXX,XXX 10 <sup>3</sup> m <sup>3</sup> /d <a href="#">USJR capability and historical flow</a> (Last Updated: MM/DD/YYYY)					
Outage ID	Start	End	Capability/ Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Service Allowable Location/Area	Outage Description
11878357	SEP 09, 2017	SEP 17, 2017	XXX,XXX	Potential IT/FT Receipt Restriction USJR	Outage X - Compressor Station Maintenance
11878543	SEP 18, 2017	SEP 29, 2017	XXX,XXX	Potential IT Receipt Restriction USJR	Outage X - Compressor Station Maintenance

→

Delivery: West Gate Delivery Area (WGAT)					
Current ABC Base Operational Capability: XX,XXX 10 <sup>3</sup> m <sup>3</sup> /d <a href="#">ABC capability and historical flow</a> (Last Updated: MM/DD/YYYY)					
Outage ID	Start	End	Capability/ Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Service Allowable Location/Area	Outage Description
11878271	SEP 30, 2017	OCT 05, 2017	XX,XXX	Potential IT Delivery Restriction Segments 22 and partial 21	Outage X - Compressor Station Maintenance
11878271	SEP 30, 2017	OCT 05, 2017	XX,XXX	Potential IT Delivery Restriction Alberta BC Border	Outage X - Compressor Station Maintenance

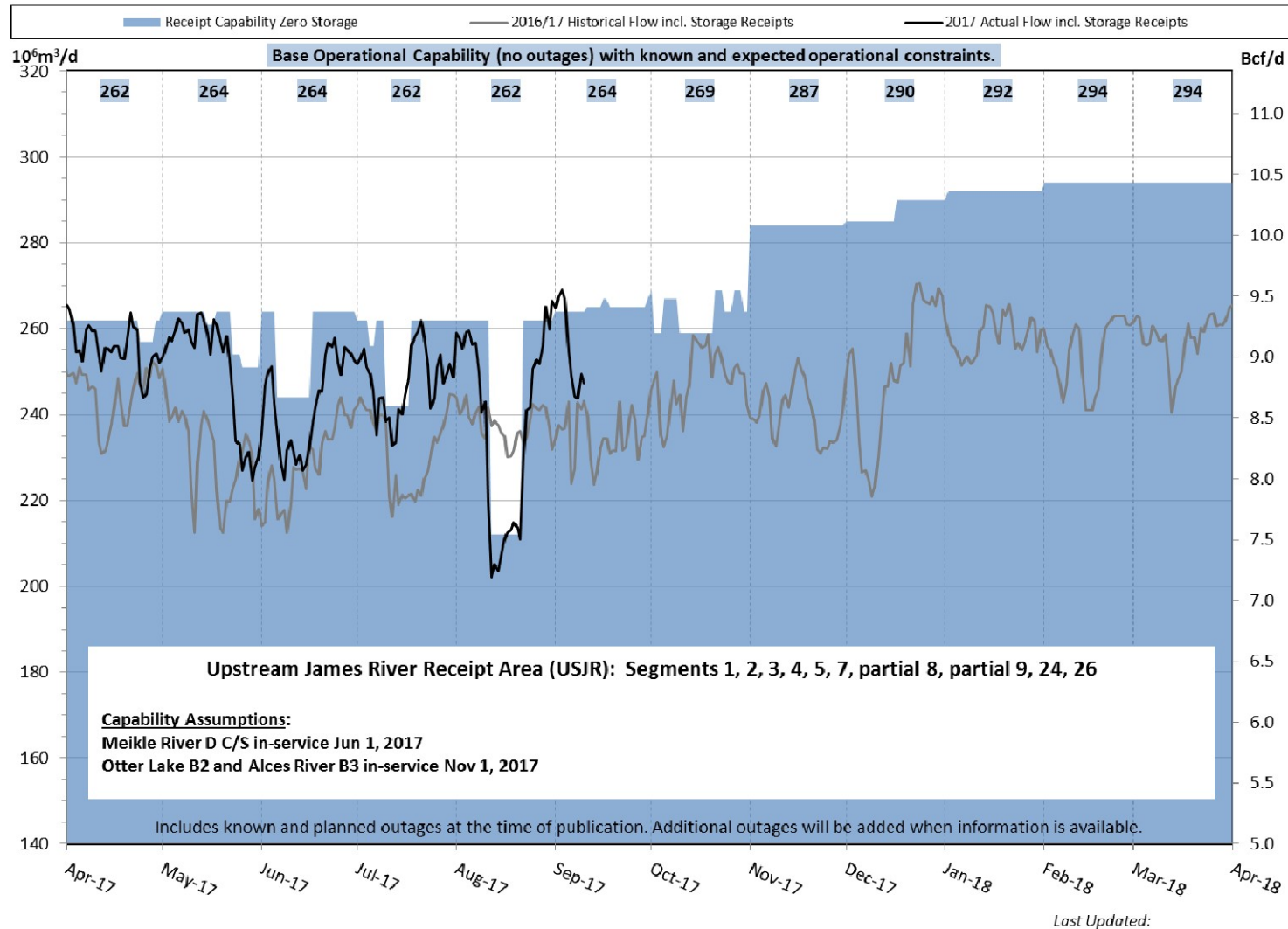
→

→

Delivery: East Gate Delivery Area (EGAT)					
Current OSDA Base Operational Capability: XX,XXX 10 <sup>3</sup> m <sup>3</sup> /d <a href="#">OSDA capability and historical flow</a> (Last Updated: MM/DD/YYYY)					
Current Empress/McNeill Base Operational Capability: XXX,XXX 10 <sup>3</sup> m <sup>3</sup> /d <a href="#">Empress/McNeill Border capability and historical flow</a> (Last Updated: MM/DD/YYYY)					
Outage ID	Start	End	Capability/ Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Service Allowable Location/Area	Outage Description
11878465	SEP 11, 2017	SEP 29, 2017	XXX,XXX	Potential IT Delivery Restriction Empress/McNeill Borders	Outage X - Compressor Station Maintenance
11878271	SEP 30, 2017	OCT 05, 2017	XXX,XXX	Potential IT Delivery Restriction Empress/McNeill Borders	Outage X - Compressor Station Maintenance

# Daily Operating Plan

## USJR Receipt Area Chart Mockup



# Proposed Improvements in 2017



## 1. Categorize by receipt, delivery, and interconnect

- Organize from receipt to delivery
- Separate Area and Local tables
- Government run inspections (GRI's) incorporated into Local table

## 2. Provide link to reported plant turn around activity in chart format

- Available aggregate PTA data, separate receipt and delivery charts

## 3. All available outage information contained in one report

- Extend STOP timeline to incorporate MOF
- Provide links to all recent capability and historical flow charts

## 4. Provide link to report data in CSV format

- Allows stakeholders to track changes according to their individual needs



# Daily Operating Plan, DOP (formerly STOP) HTML and CSV Format



Outage ID	Table	Start	End	Capability	Typical Flow	Location	Description
11878543	USJR	18-Sep-17	29-Sep-17	X		Potential IT Receipt Restriction; USJR	Outage X - Compressor Station Maintenance
11878318	USJR	18-Sep-17	29-Sep-17	X		Potential IT Receipt Restriction; USJR	Outage X - Pipeline Maintenance
11878271	USJR	30-Sep-17	4-Oct-17	X		Potential IT/FT Receipt Restriction; USJR	Outage X - Compressor Station Maintenance
11878545	USJR	5-Oct-17	9-Oct-17	X		Potential IT Receipt Restriction; USJR	Outage X - Compressor Station Maintenance
11878486	USJR	9-Oct-17	20-Oct-17	X		Potential IT/FT Receipt Restriction; USJR	Outage X - Compressor Station Maintenance
11878485	USJR	10-Oct-17	16-Oct-17	X		Potential IT/FT Receipt Restriction; USJR	Outage X - Compressor Station Maintenance
11878542	LCLR	15-Sep-17	21-Sep-17	X	X	Meter Station A	Meter Station Maintenance
11878564	LCLR	18-Sep-17	22-Sep-17	X	X	Meter Station B	Outage X - Pipeline Maintenance
11878544	LCLR	19-Sep-17	22-Sep-17	X	X	Meter Station C, Meter Station D	Outage X - Pipeline Maintenance
11878318	LCLR	19-Sep-17	28-Sep-17	X	X	Meter Station E	Outage X - Pipeline Maintenance
11878480	LCLR	21-Sep-17	(8H)	X	X	Meter Station F	
11878533	LCLR	28-Sep-17	3-Oct-17	X	X	Meter Station G	
11878271	LCLR	2-Oct-17	4-Oct-17	X	X	Meter Station H, Meter Station I, Meter Station J	
11878271	LCLR	2-Oct-17	5-Oct-17	X	X	Meter Station K, Meter Station L, Meter Station M, Meter Station N	
11878534	LCLR	3-Oct-17	7-Oct-17	X	X	Meter Station O	
11878484	LCLR	3-Oct-17	9-Oct-17	X	X	Meter Station P, Meter Station Q	
11878487	LCLR	11-Oct-17	14-Oct-17	X	X	Meter Station R	

[CSV File](#)

## NGTL/FH Daily Operating Plan

### Reports

Please select a report for viewing. (Formerly STOP)

Report naming follows:

YYYY\_MM\_DD\_hh\_mm

2017\_09\_25\_11\_26 ( [HTML](#) , [CSV](#) )

2017\_09\_25\_10\_32 ( [HTML](#) , [CSV](#) )

2017\_09\_25\_10\_32 ( [HTML](#) , [CSV](#) )

2017\_09\_25\_10\_32 ( [HTML](#) , [CSV](#) )

2017\_09\_25\_10\_32 ( [HTML](#) , [CSV](#) )

2017\_09\_25\_10\_32 ( [HTML](#) , [CSV](#) )

2017\_09\_25\_10\_30 ( [HTML](#) , [CSV](#) )

## Receipt: Upstream James River Area (USJR)

Current USJR Base Operational Capability: XXX,XXX 10<sup>3</sup>m<sup>3</sup>/d

[USJR capability and historical flow](#) (Last Updated: MM/DD/YYYY)

Outage ID	Start	End	Capability/ Allowable (10 <sup>3</sup> m <sup>3</sup> /day)	Service Allowable Location/Area	Outage Description
11878357	SEP 09, 2017	SEP 17, 2017	XXX,XXX	Potential IT/FT Receipt Restriction USJR	Outage X - Compressor Station Maintenance
11878543	SEP 18, 2017	SEP 29, 2017	XXX,XXX	Potential IT Receipt Restriction USJR	Outage X - Compressor Station Maintenance
11878318	SEP 18, 2017	SEP 29, 2017	XXX,XXX	Potential IT Receipt Restriction USJR	Outage X - Pipeline Maintenance
11878271	SEP 30, 2017	OCT 04, 2017	XXX,XXX	Potential IT Receipt Restriction USJR	Outage X - Compressor Station Maintenance
11878545	OCT 05, 2017	OCT 09, 2017	XXX,XXX	Potential IT Receipt Restriction USJR	Outage X - Compressor Station Maintenance
11878486	OCT 09, 2017	OCT 20, 2017	XXX,XXX	Potential IT/FT Receipt Restriction USJR	Outage X - Pipeline Maintenance

[HTML File](#)



## Feedback and Comments



*Contact NGTL call-centre 1-403-920-PIPE (7473)*

# Operations Planning Activities



## Day to day operational support

- Customer support
- System Design, Commercial teams, Engineering teams
- Gas Control, Field Operations, Interconnects, Nominations, etc.

## Linepack Management

- Purchase/sale, SD balance zone adjustment

## Outage planning, scheduling, and execution

- ❖ Hydraulic Analysis and capability determination
- ❖ DOP data entry, validation, and publication
- ❖ NrG Highway notice draft, review, and publication

***Get the most out of existing assets  
and prepare for future assets.***

# System Linepack and Capability



Linepack: volume of gas within the system at any point in time

- Target linepack is a fixed volume (NGTL and Atco Pipelines)
- Adjusted seasonally and for specific outages

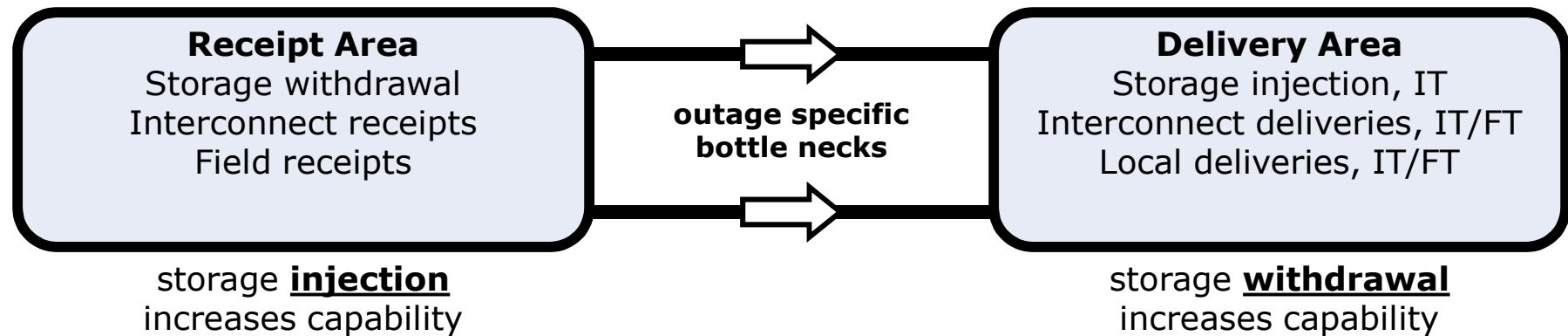
## Supply Demand imbalance affects linepack

- Receipts > Deliveries = packing; Receipts < Deliveries = drafting
  - Customer accounts (T); balance zone adjustment
  - Interconnecting operator accounts (Z); interconnect support
  - System variance managed daily; daily fuel rate adjustment
- Dynamic linepack and perpetual system optimization – an illusive target

## Receipt and Delivery capability is dependent on optimal linepack

- High linepack: higher operating pressure and lower receipt capability
- Low linepack: lower operating pressure and lower delivery capability

# Commercial Storage and Operational Capability



## Operational Capability is influenced by storage

- Operational capability always assumes zero storage injection/withdrawal
- Storage activity is highly dynamic and unpredictable from day-to-day
- Storage services (IT-S) are interruptible

## Receipt Area Storage (upstream of bottlenecks)

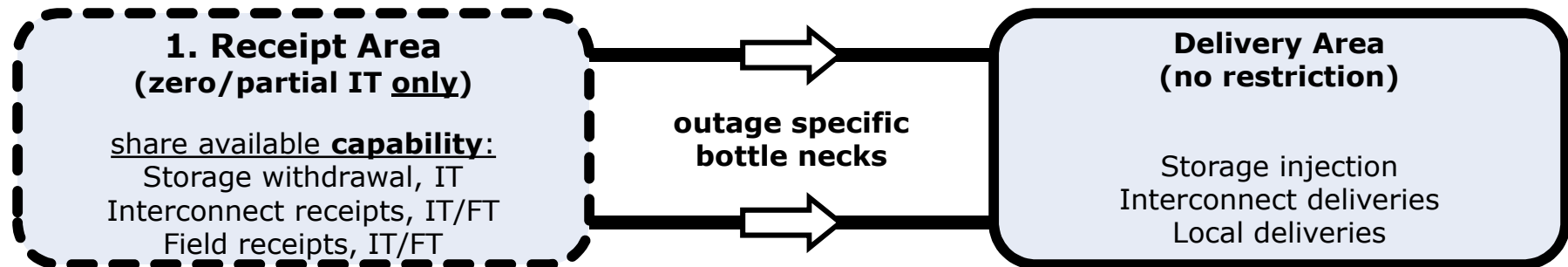
- Injection acts as a local market which increases receipt area capability
- Withdrawal shares available IT receipt capability

## Delivery Area Storage (downstream of bottlenecks)

- Withdrawal acts as a local supply which increases delivery area capability
- Injection shares available IT delivery capability

# Common Service Restriction Scenario

## 1. FT-R not threatened - Receipt IT only



## 1. FT-R not threatened – Receipt IT restriction only

- Majority of upstream receipt IT is storage withdrawal (winter)

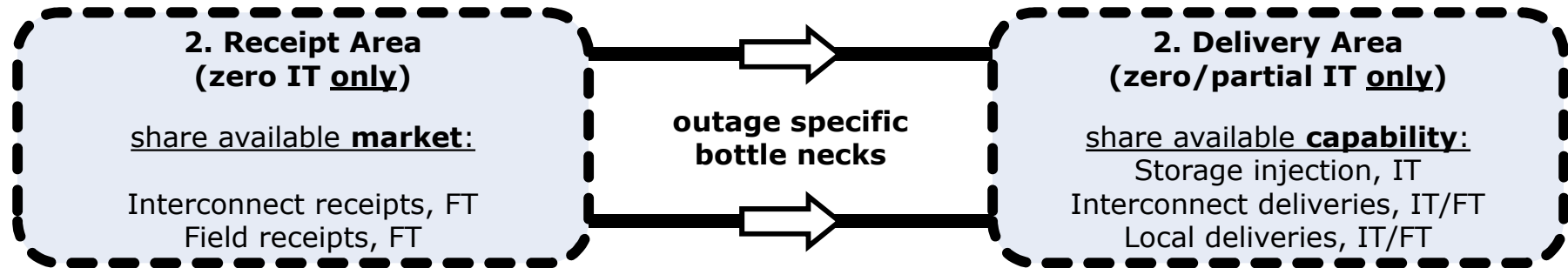
## 2. FT-R avoidance possible - Receipt & Delivery IT restriction

***Guiding principles are adherence to service priority and maximization of throughput.***



## Common Service Restriction Scenario

### 2. FT-R avoidance possible - Receipt & Delivery IT



1. FT-R not threatened – Receipt IT restriction only

### 2. FT-R avoidance possible - Receipt & Delivery IT restriction

- Majority of downstream delivery IT is storage injection (summer)
- Firm restriction if required

*Guiding principles are adherence to service priority and maximization of throughput.*

# Capability and Service Restriction?



# Operational Information Challenges



## Dynamics and uncertainty affect capability

- Supply distribution: field receipts, interconnect receipts, storage withdrawal
- Demand distribution: intra basin consumption, storage injection
- System Linepack: customer accounts

## Daily storage activity affects capability

- Actual capability = stated capability plus actual storage

## Operational status affects communication timing

- Facility return to service always somewhat uncertain. Once return to service is confirmed NrG notice is published with service allowable effective next available cycle.

## Communication further in advance requires prediction

- More conservative start/end dates – longer period of service restriction
- More conservative capability assumptions – lower service allowable

***Balance between maximizing service allowable and providing notice, certainty, and predictability***

## NrG Highway Notice, NrG



### Start/revise/end service restrictions

- Confirmation of area of impact and % allowable
- EGAT and WGAT % allowable confirmed following nomination windows

### Standardized template style for most notices

### Published as soon as information is reviewed and verified

- start/end dates, area of impact, % allowable
- Multi stakeholder review process
- Constant balance between maximizing service allowable and providing notice, certainty, and predictability

## Daily Operating Plan, DOP (formerly STOP)



Operational and outage information managed within corporate data base

- Outage and operational information reported internally and externally

Consultation, data entry, and management by many

- Regional planners, schedulers, and execution teams
- Operations Planning team

Published prior to close of every business day

- Timing based on information completeness and accuracy

***Reliance on collective knowledge, insight, and support.  
Many moving parts and uncertainties.***

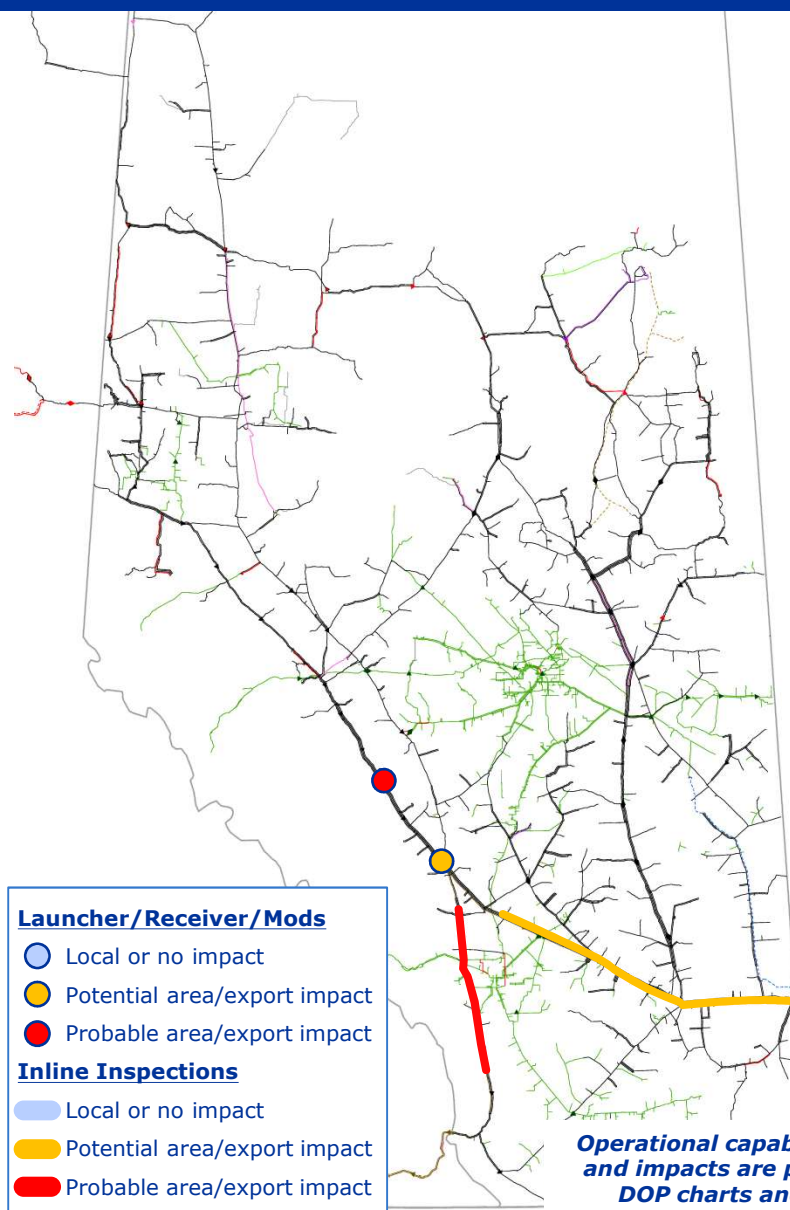


# Outage Information Management?



# 2017 Remaining Outage Highlights

## As of 2017-10-04



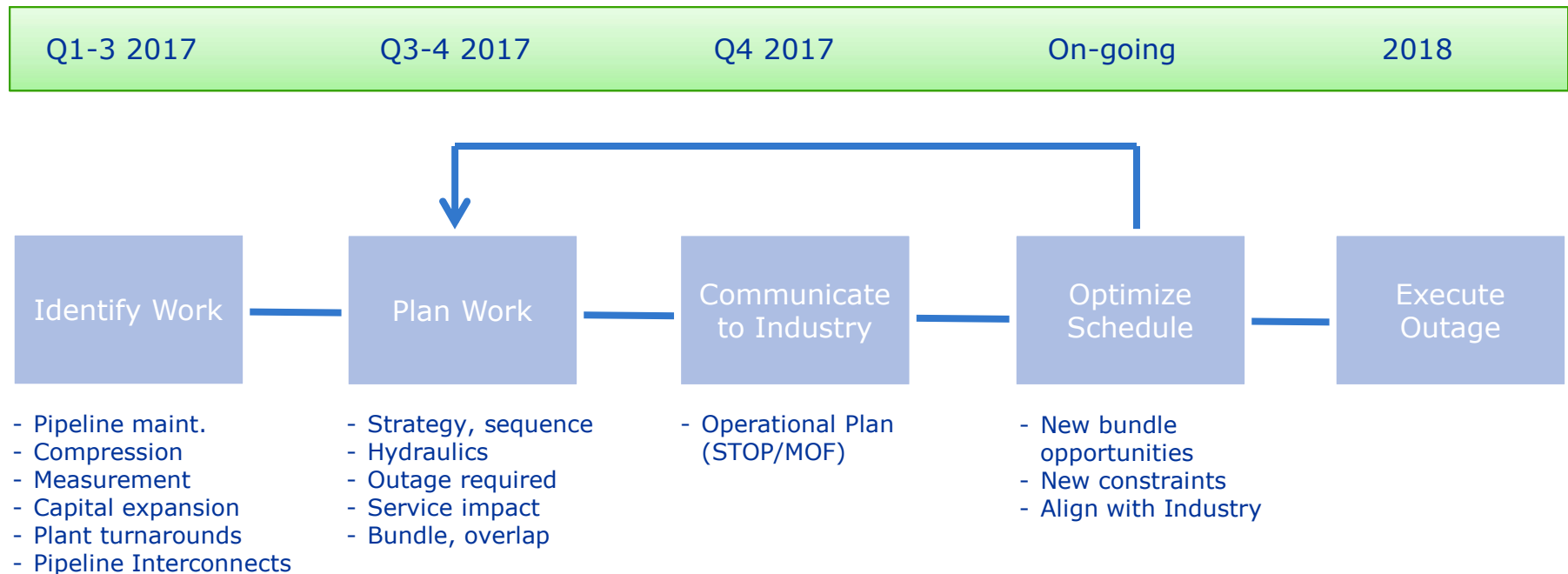
Facility Outage	Scope	Start Date	Duration (days)	Area
Nordegg C/S	Compressor Modifications	10-08-17	13	USJR EGAT WGAT
NPS 42 WASML Loop	Inline Inspections	10-11-17	11	WGAT
Clearwater C/S Unit #1	GG replacement	10-23-17	4	USJR EGAT WGAT
NPS 36 Foothills Mainline	Inline Inspections	10-24-17	6	WGAT
Clearwater C/S Unit #5	Compressor Modifications	10-30-17	40	USJR EGAT WGAT
NPS 36 EASML Loop #2	Inline Inspections	11-01-17	5	EGAT
NPS 36 WASML	Inline Inspections	11-17-17	7	WGAT
NPS 34 EASML/CASML Loop	Inline Inspections	12-04-17	7	EGAT
NPS 42 EASML Loop #3	Inline Inspections	12-11-17	6	EGAT

*Operational capability timing and impacts are provided in DOP charts and tables*

# Outage Planning Process



## 2018 Program Timeline:



***Currently in planning phase focused on integrating all work, bundling activities, and optimize overall program***

## 2018 Significant Outage Highlights



- **Following is a sub set of known 2018 outages**
  - Those for which we have enough certainty to share right now
  - Plant turn around alignment opportunities
- **Based on preliminary analysis and information**
  - Subject to change
- **Share details of the majority 2018 outage program with customers through remainder of 2017**

# 2017/2018 Pipeline Integrity Programs

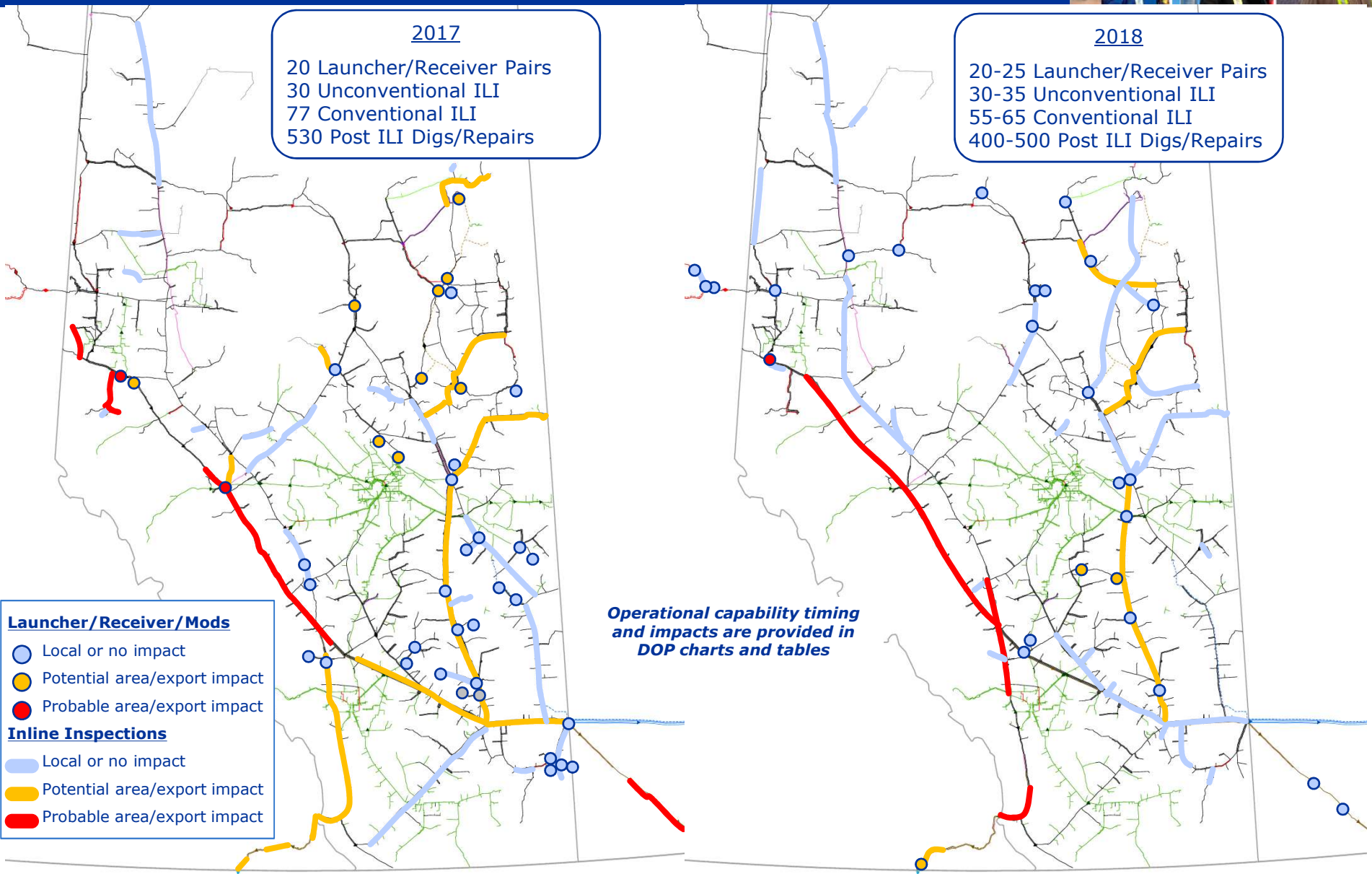


2017

20 Launcher/Receiver Pairs  
30 Unconventional ILI  
77 Conventional ILI  
530 Post ILI Digs/Repairs

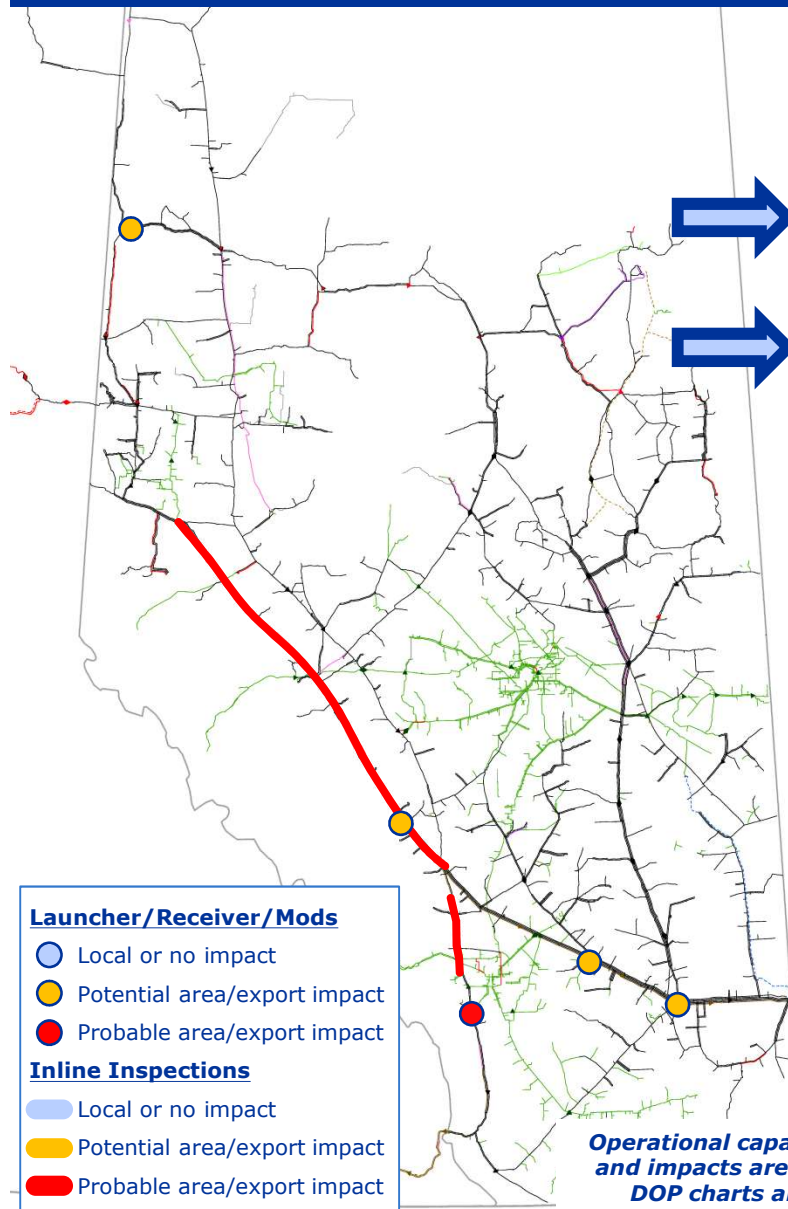
2018

20-25 Launcher/Receiver Pairs  
30-35 Unconventional ILI  
55-65 Conventional ILI  
400-500 Post ILI Digs/Repairs





# 2018 Known Significant Outage Highlights As of 2017-10-04



Facility Outage	Scope	Duration (days)	Area
NPS 48 EDSML Loop 3 (GPM20 to Schrader Creek CS)	Inline Inspections	10	USJR
NPS 42 GPML Loop (Gold to Edson)	Inline Inspections	10	USJR
NPS 42 WASML Loop (WAS140-110)	Inline Inspections	10	WGAT
Hidden Lake C/S	Exhaust Replacement	12	USJR
Vetchland C/S	Station Inspections	10	USJR
Turner Valley C/S	Station Inspections	7	WGAT
Princess C/S	Controls Upgrade	20	EGAT
Hussar C/S	Station Inspections	10	EGAT

# Inline Inspection (ILI) 101



- **Launcher/Receiver Installation**
- **Above ground facilities to introduce in-line inspection tools or cleaning tools into the line**
- **Typically 2 sites: Launch & Receive**



# Inline Inspection (ILI) 101



- Using launcher; the in-line inspection tool is inserted into the pipeline
- Line cleaning occurs prior to running smart tool
- Tools are propelled by natural gas flow
- Different inspection technologies onboard the smart tool to identify defects in the pipeline
- Unconventional ILI include tethers and free-swims



# Inline Inspection (ILI) 101



- **Validation of results and remediation of reported features occurs following ILI data analysis**
- **Can include: evaluation and recoating, sleeving, or cut-out and replacement**
- **Depending on the nature of the reported feature, pressure restrictions can be imposed to manage the feature until remediation occurs**

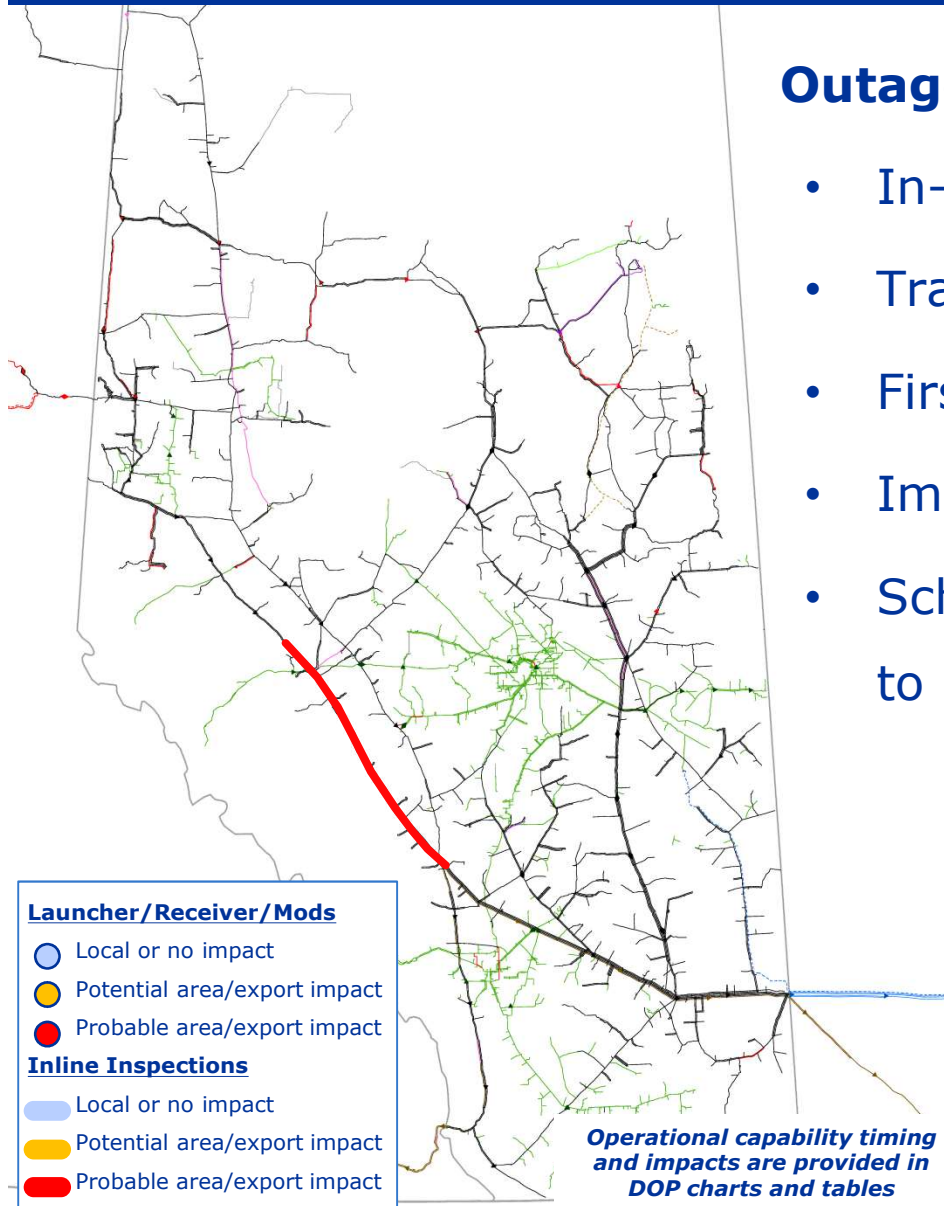


# NPS 48 – Edson ML Loop 3 ILI (GPM20 to Schrader Creek CS)



## Outage Information

- In-service: 1993, 1994, 1998, 2017
- Traps installed: Jul 2016; Sep 2017
- First inspection: 2018
- Impact: ~1.5 Bcfd for 10 days, Q2 2018
- Schedule, capability, and area of impact to be confirmed in Oct/Nov 2017



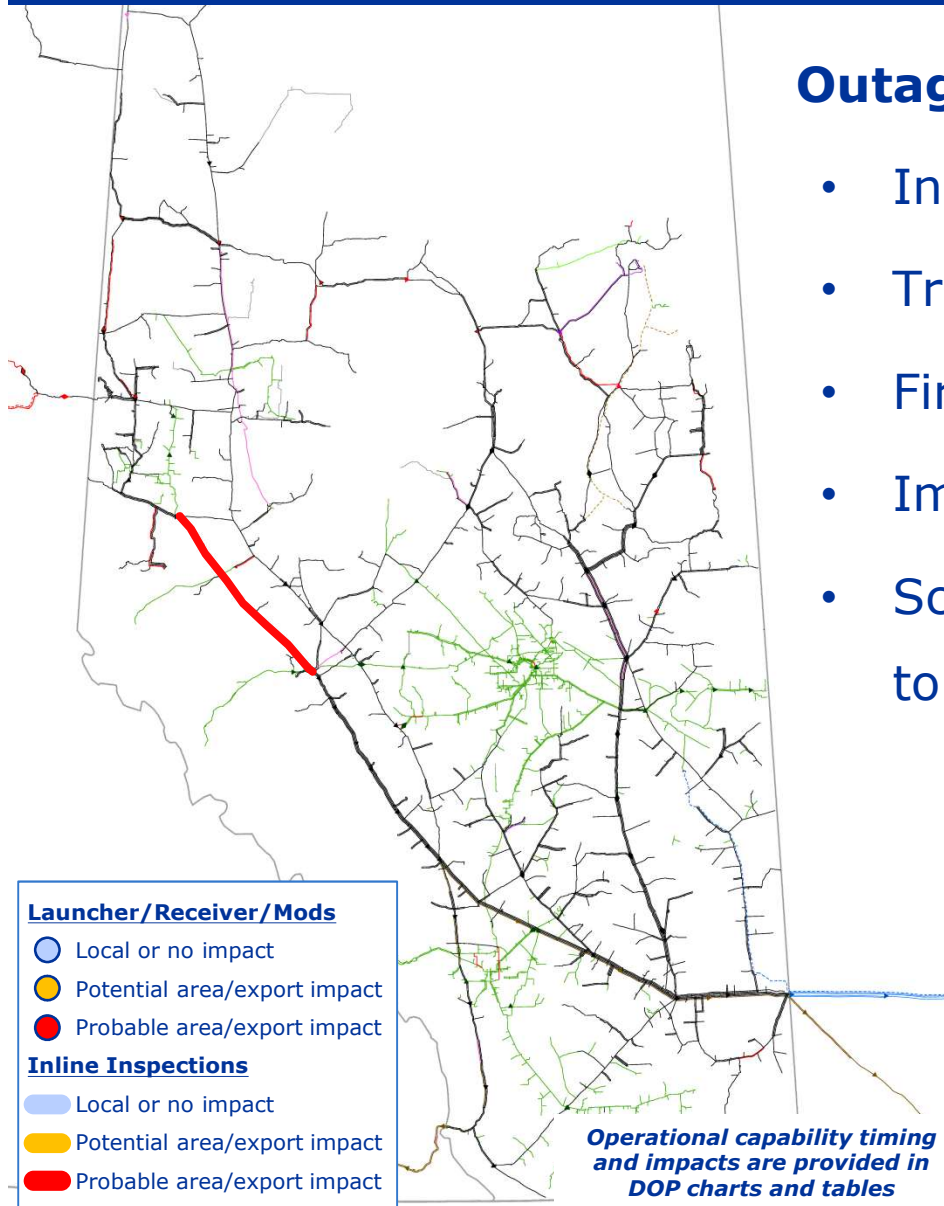


# NPS 42 – Grande Prairie ML Loop ILI (Gold Creek to Edson)



## Outage Information

- In-service: 1994, 1998, 2012
- Traps installed: Sep 2017
- First inspection: 2018
- Impact: ~1.0 Bcfd for 10 days, Q2 2018
- Schedule, capability, and area of impact to be confirmed in Oct/Nov 2017



# Outage Program Highlights?



## Closing Remarks



- Questions and feedback on the new DOP report – contact NGTL call-centre 1-403-920-PIPE (7473)
- Stay tuned for further communications regarding the details related to the 2018 outage program