



NGTL System and Foothills Pipelines Ltd.

CUSTOMER OPERATIONS MEETING

FOR INFORMATIONAL PURPOSES ONLY



NOVEMBER 2, 2023



Welcome and Thank You for Joining Us

Participating via WebEx:

- Please sign-in through WebEx application including your full name and company
- To reduce background noise and improve audio quality, all WebEx participants will be placed on mute when entering the meeting
- Please submit your questions via using the raise hand function and coming off mute or the chat function and we will answer at the best possible opportunity



SAFETY MOMENT

Daylight Savings Time Ends This Sunday!

Know the Facts:

- Time change makes us more prone to drowsiness.
- There are more collisions in the two weeks after the time change, especially in the evening commute.
- Pedestrian collisions increase by more than double in the weeks after the time change.

Prepare Your Vehicle:

- Have a Winter Driving kit prepared.
- Ensure winter tires are installed.
- Ensure battery and headlights are in good operating condition.

Prepare Yourself:

- Prioritize rest in the days leading up to and after the time change.
- Limit screen time in the hours prior to bedtime.
- Focus on personal wellness during the darker months for improved sleep and health.



Fall Back
1 Hour

NOVEMBER 2, 2023



Forward Looking Information

- ❖ This presentation includes certain forward-looking information. Statements that are forward-looking are based on certain assumptions and on what we know and expect today and generally include words like anticipate, expect, believe, may, will, should, estimate or other similar words.
- ❖ The information provided 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. TC Energy shall not be liable for damages sustained as a result of any use or reliance on such information.
- ❖ The outages listed in this presentation are not an exhaustive list. Outage date, duration, and impact may be subject to change. Refer to the Daily Operating Plan (DOP) for all planned outages with potential service impact.

No
impact to FT

Refers to outage periods where FT impact is not expected

Potential
impact to FT

Refers to outage periods where there is potential of FT impact

Partial
impact to FT

Refers to outage periods where FT impact is expected

Important Notes



Outage information in this presentation may not be accurate beyond the November 2, 2023, NGTL/Foothills Customer Operations (WebEx only) meeting



For current outage and capability information, please refer to the most recent Daily Operating Plan ([DOP](#)), the [Dashboard](#) and [bulletins](#)



This meeting covers broad operational and project-related topics that impact operations on the NGTL and Foothills systems. For information on focused Commercial, Operational and Regulatory topics, please contact your [Marketing Representative](#)

Agenda

1. Review of October Operations
2. Review of upcoming 2023 DOP Outages
3. 2024 Operational Outlook
4. Projects Update

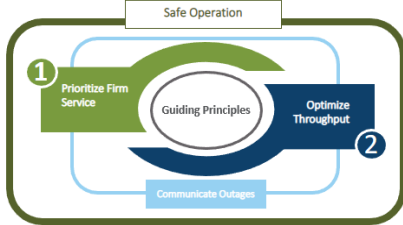


Review of October Operations



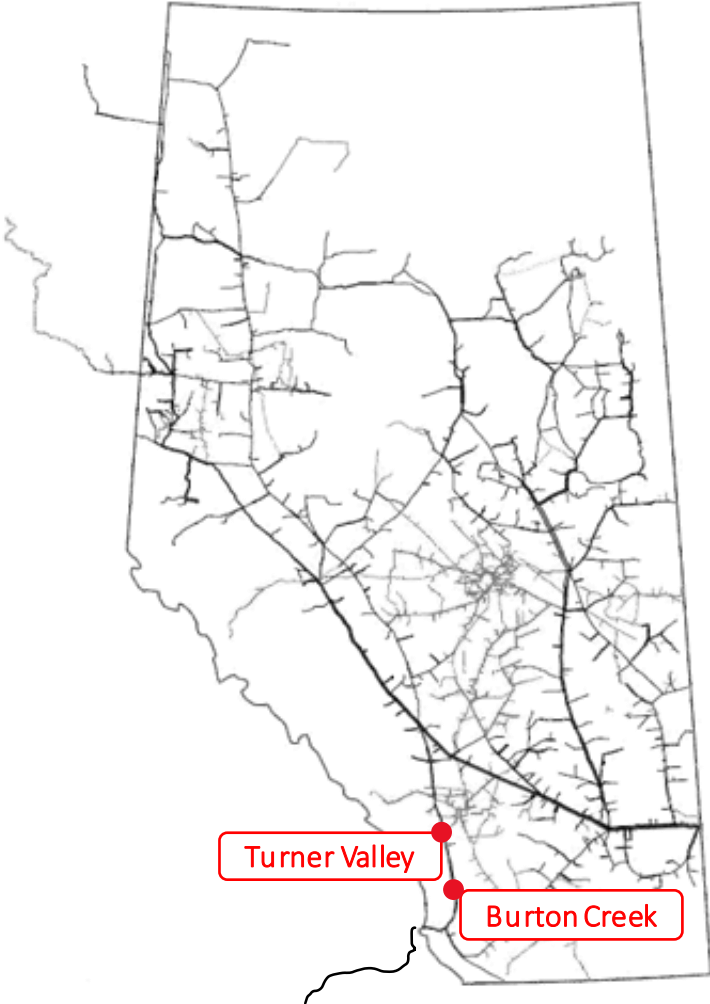
Burton Creek – Compressor Station Maintenance

Turner Valley – Compressor Station Maintenance



Background:

- **Planned:**
 - Burton Creek Compressor Station Maintenance: Oct 18 – Oct 20
 - Unplanned extension of outage to Nov 2
 - Turner Valley Compressor Station Maintenance: Oct 21 – 30
 - Unplanned extension of outage to Oct 31
- **Capability communicated in DOP:**
 - Oct 18 – 20: 69 10⁶m³/d (Burton Creek only)
 - Oct 21 – 31: 62 10⁶m³/d (Burton Creek and Turner Valley overlap)
 - Nov 1 – Nov 2: 69 10⁶m³/d (Burton Creek only)
- **Service Allowable:**
 - NGTL: 0% IT-D, Partial FT-D



Bulletin Date	Effective Date	Service Allowable	Comments
Oct 16	Oct 18 (08:00 MST)	NGTL: 0% IT-D, Partial FT-D (AB-BC + AB-MN)	Burton Creek C/S Maintenance started as scheduled
Oct 19		NGTL: 0% IT-D, Partial FT-D (AB-BC + AB-MN)	Bulletin published to communicate unplanned extension of Burton Creek C/S outage to Nov 2
			Turner Valley C/S outage completed on Oct 31
Nov 2	Nov 3 (08:00 MST)	NGTL: 100% IT-D, 100% FT-D (AB-BC + AB-MN)	Burton Creek C/S unplanned scope on track to be completed as scheduled



Review of DOP Outages (2023)

(From DOP as of Wednesday, November 1)



No
impact to FT

Potential
impact to FT

Partial
impact to FT

Upstream James River Receipt Area (USJR)

Outage Description	Start	End	USJR Outage Capability (10 ⁶ m ³ /d)	USJR Impact (10 ⁶ m ³ /d)	Area Outage Capability (10 ⁶ m ³ /d)	Outage Area Typical Flows (10 ⁶ m ³ /d)	Service Allowable Location/Area
NPS 42 Grande Prairie Mainline Loop – Pipeline Modifications	4-Nov-23	11-Nov-23	370	10	N/A	320 - 350	Potential impact to FT-R USJR

West Gate Delivery Area (WGAT)

Outage Description	Start	End	Capability (10 ⁶ m ³ /d)	Impact (10 ⁶ m ³ /d)	Service Allowable Location/Area
Burton Creek – Compressor Station Maintenance	21-Oct-23	2-Nov-23	62* 69	21 14	Partial Impact to FT-D Alberta/BC and Alberta/Montana Borders
NPS 42 Western Alberta System Mainline Loop – Pipeline Modifications	2-Nov-23	10-Nov-23	87	2	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders
NPS 42 FPL Zone 8 Segment 2A – Pipeline Maintenance	14-Dec-23	19-Dec-23	79	11	Potential Impact to FT Foothills BC

*During overlap with Turner Valley Compressor Station Outage

East Gate Delivery Area (EGAT)

Outage Description	Start	End	Capability (10 ⁶ m ³ /d)	Impact (10 ⁶ m ³ /d)	Service Allowable Location/Area
Jenner – Compressor Station Maintenance	13-Nov-23	30-Nov-23	150	9	No impact to FT-D anticipated Empress/McNeill Borders Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28

May not be accurate beyond the November 2 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.



2024 Operational Outlook

(From DOP as of Wednesday, November 1)



2024 Operational Outlook | Highlights

- The number of outages scheduled to be executed in 2024 is of a similar magnitude to previous years
- With a significant number of expansion facilities placed in-service, overall system capability has increased. Some facility outages are now less impactful than they have been in the past
- East Gate capability is not expected to be the limiting factor. The overall system bottleneck is still expected to be upstream in the USJR area.
- Upstream FT-R restrictions to manage USJR outages could become more frequent due to:
 - Expected supply distribution
 - Recent system expansion that has resulted in a shift of the USJR bottleneck further north



2024 Operational Outlook

- Outages expected to have the most significant impact to system capability have been added to the DOP
- Start and End Dates, Durations, Capability, Area of impact may be revised as new information becomes available

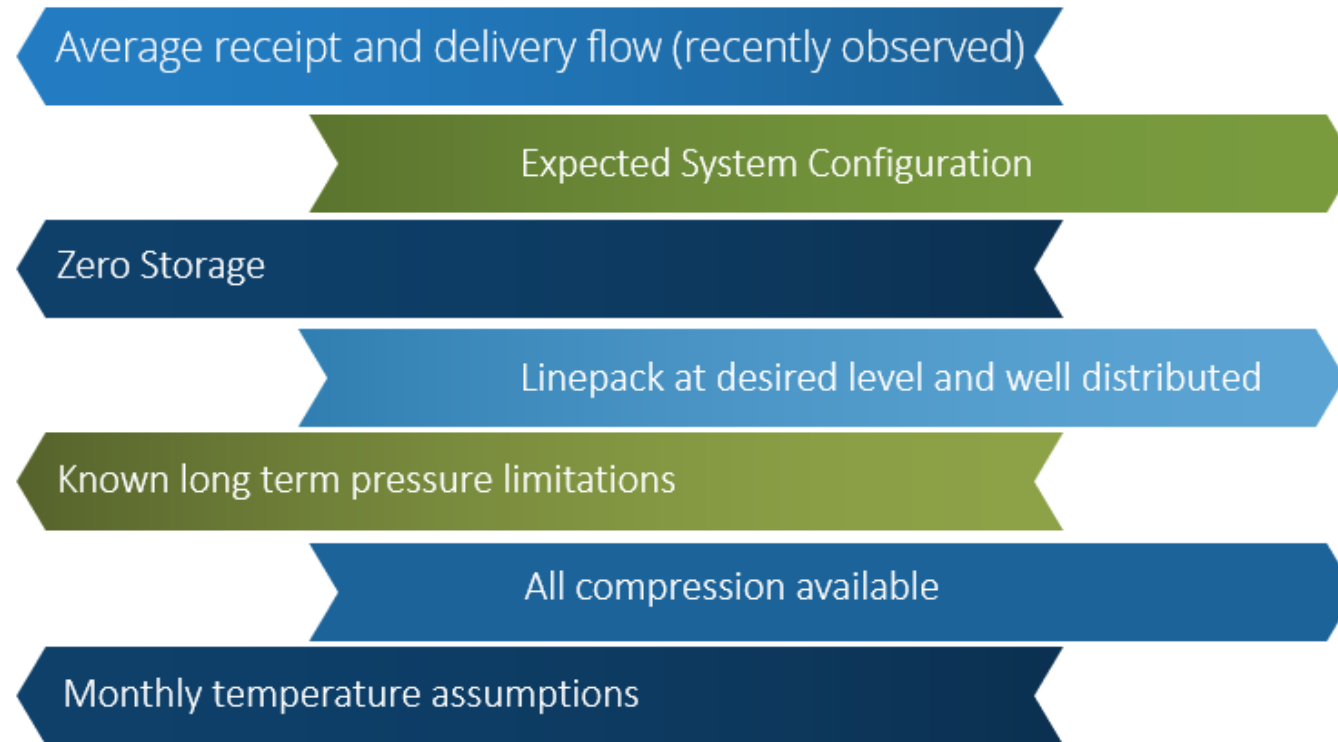
Outages and/or maintenance work is posted to the DOP if there is reasonable expectation that the event could or will result in a change to service authorization levels.

Optimization efforts are on-going, and we will continue to focus on safety, optimizing system capacity and minimizing outage impacts.



Base Capability

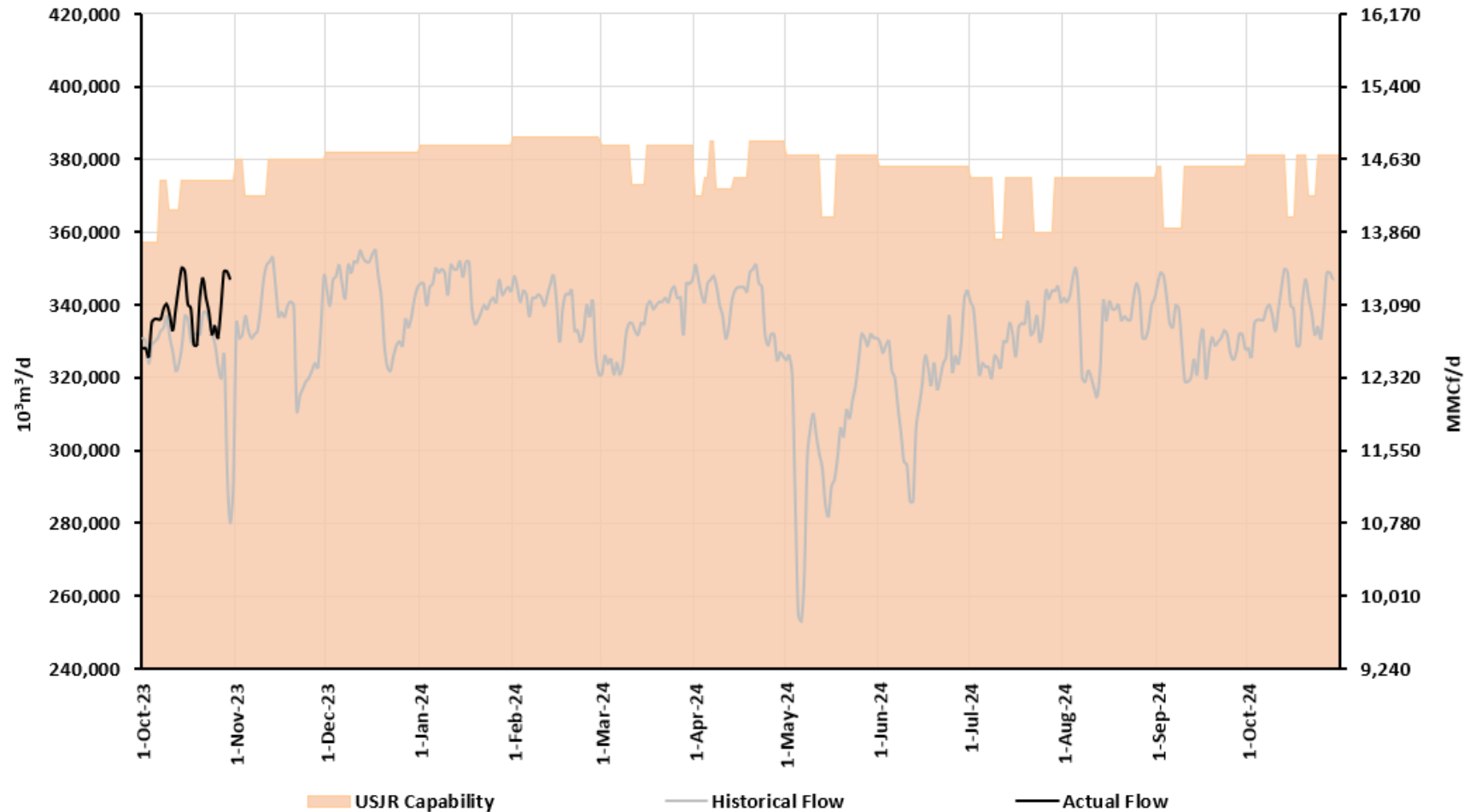
Base Operational Capability: Capability with no outages and known and expected operational constraints



Base capabilities have been determined using the best information known at this time but could be subject to change based on incoming results of summer maintenance activities



Upstream James River



MMM-YY	USJR Base Capability $10^6\text{m}^3/\text{d}$
Nov-23	380
Dec-23	382
Jan-24	384
Feb-24	386
Mar-24	384
Apr-24	385
May-24	381
Jun-24	378
Jul-24	375
Aug-24	375
Sep-24	378
Oct-24	381

Facility Assumptions:

- Groundbirch Mainline Loop (Saturn Section): December 2023
- Emerson Creek Compressor Station and Saddle Hills Unit Addition: April 2024

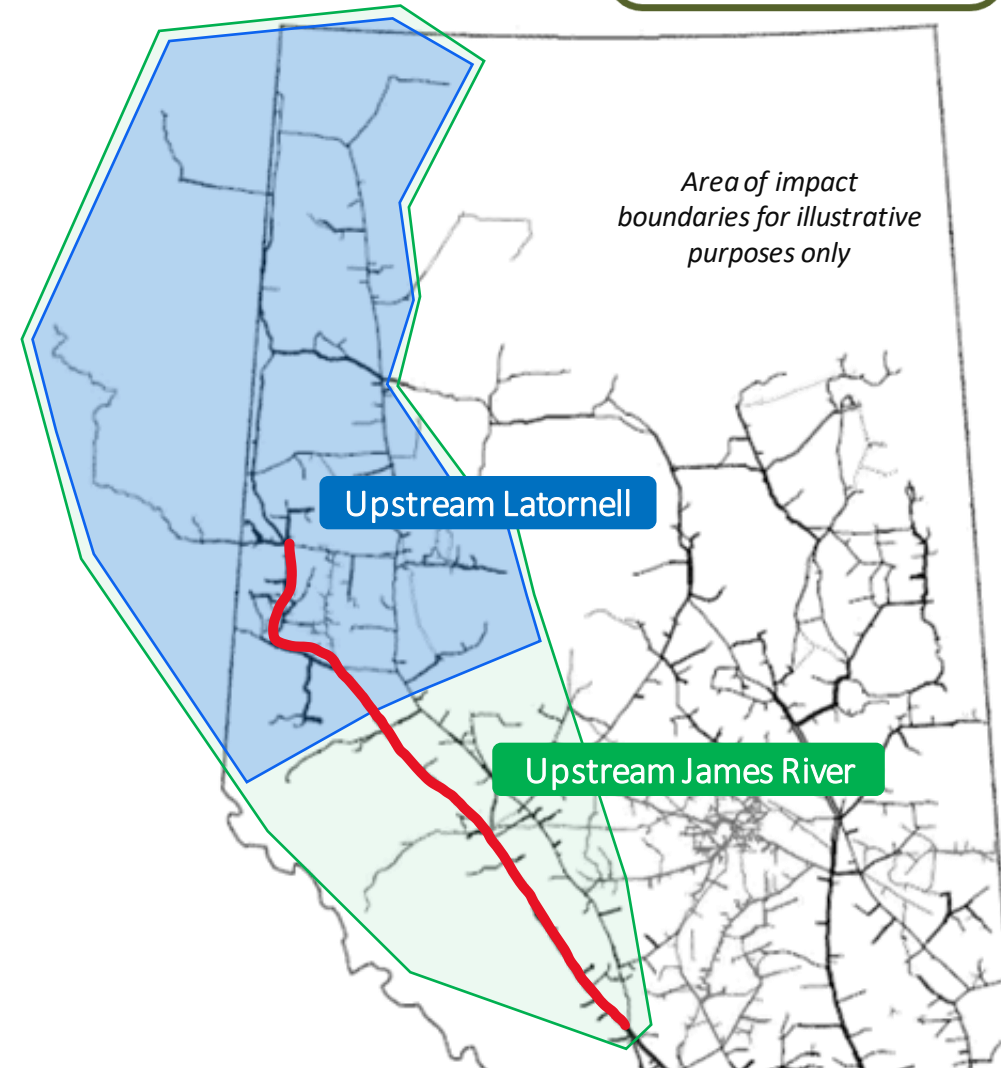
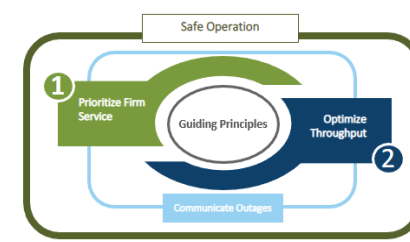
May not be accurate beyond the November 2 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.



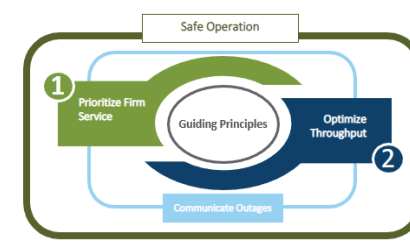
Upstream James River Capability

Most of the 'largest impacting outages' are located on the North Central Corridor (NCC).....

- Completion of several expansion facilities over the past couple years has resulted in major capacity debottlenecking down the Grande Prairie Mainline (GPML) and Edson Mainline (EDSML) Corridors.
- Outages along the GPML and EDSML corridors will still be impactful, but are expected to be less significant and have lower capacity impact than in previous years
- Outages on the NCC will continue to be the ones with the highest capacity impact (similar capacity impact as previous years)

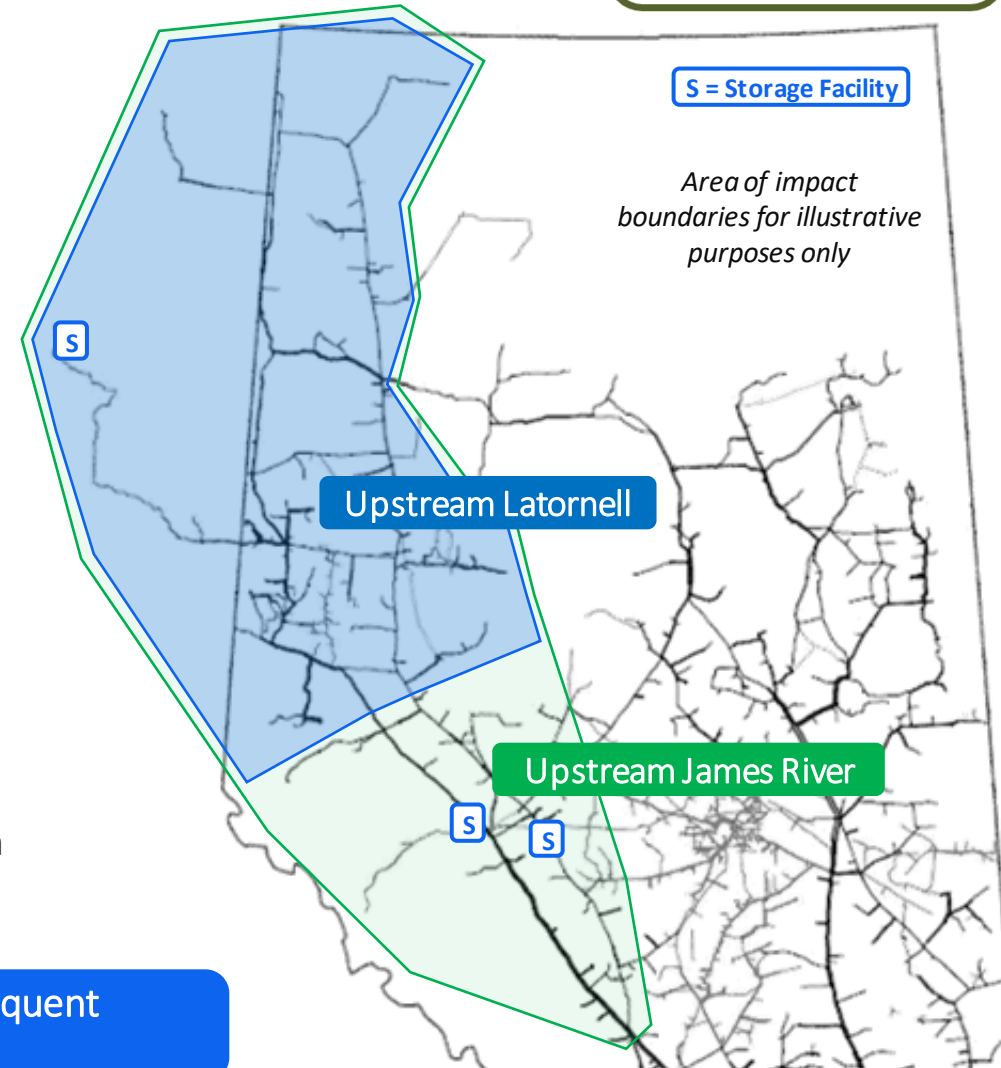


Upstream James River Capability



Most of the ‘largest impacting outages’ have an area of impact of Upstream Latornell opposed to full Upstream James River (USJR).....

- With the significant debottlenecking completed on the GPML and EDSML corridors, the supply bottleneck is now further north (within the Latornell or Berland River areas) for a large majority of outages
- In the event of an outage where supply upstream of Latornell is greater than capability:
 - 1) IT-R upstream of the bottleneck would be curtailed
 - 2) A broad area restriction would be assessed to determine if curtailment of any other IT service would allow us to safely manage the outage
 - If expected to be effective, a curtailment of all IT-D downstream of the bottleneck could be implemented
 - If not expected to be effective, a local FT-R restriction upstream of the bottleneck could be implemented



Local FT-R restrictions to manage USJR outages could become more frequent with the supply bottleneck further North

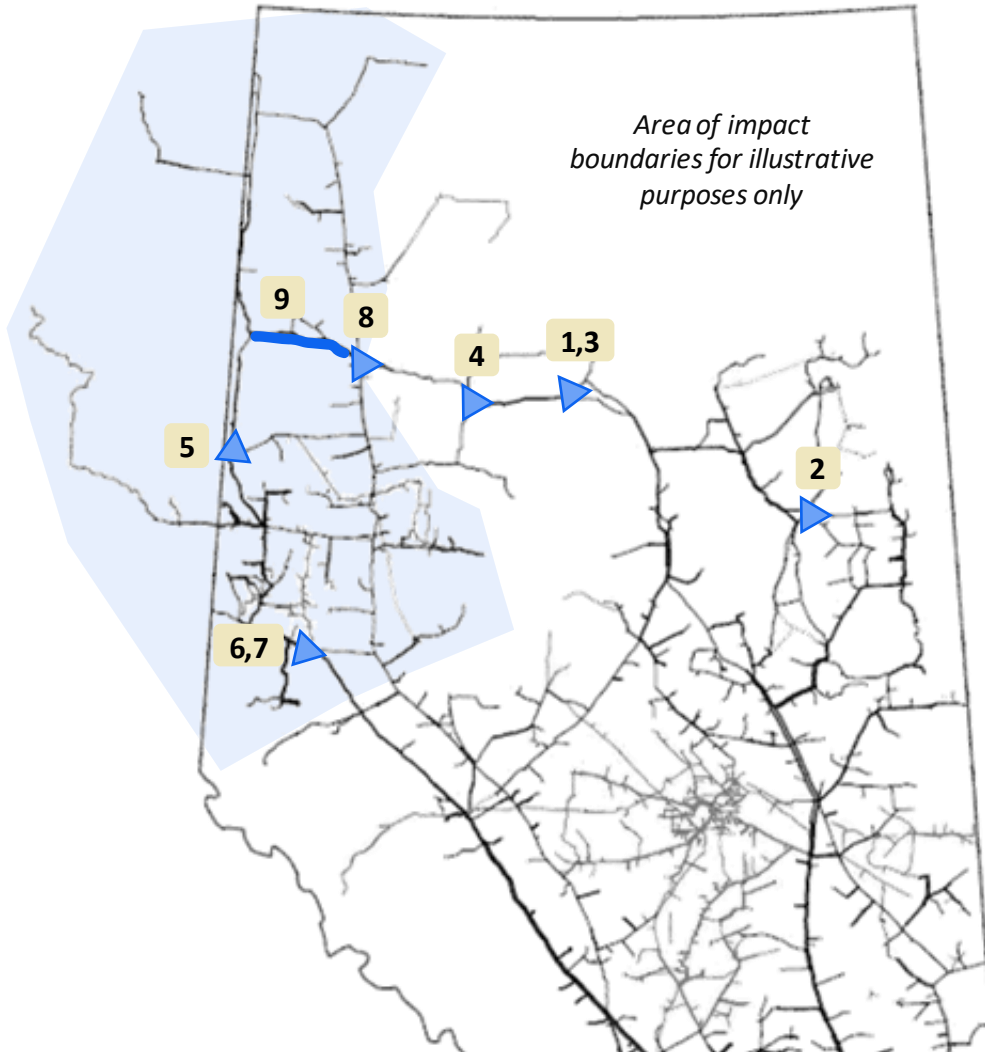


Upstream James River Receipt Area (USJR)

No
impact to FT

Potential
impact to FT

Partial
impact to FT



	Outage Description	Start Date	End Date	Capability (10 ⁶ m ³ /d)	Impact (10 ⁶ m ³ /d)	Area
1	Goodfish A2 Compressor Station Maintenance	Mar 11	Mar 13	373	11	Upstream Latornell
2	Leismer East Compressor Station Maintenance	Mar 11	Mar 15	376	8	Upstream Latornell
3	Goodfish A1 Compressor Station Maintenance	Mar 13	Mar 15	373	11	Upstream Latornell
4	Otter Lake Compressor Station Maintenance	Apr 1	Apr 3	370	15	Upstream Latornell
5	Alces River Compressor Station Maintenance	Apr 1	Apr 5	375	10	Upstream Latornell
6	Gold Creek Compressor Station Maintenance	Apr 8	Apr 13	372	13	Upstream Berland River
7	Gold Creek B3 Compressor Station Maintenance	Apr 8	Apr 18	375	10	Upstream Berland River
8	Meikle River D5 Compressor Station Maintenance	May 13	May 17	364	17	Upstream Latornell
9	NPS 48 Tanghe Creek Loop 2 Pipeline Maintenance	July 9	July 12	358	17	Upstream Latornell

May not be accurate beyond the November 2 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.

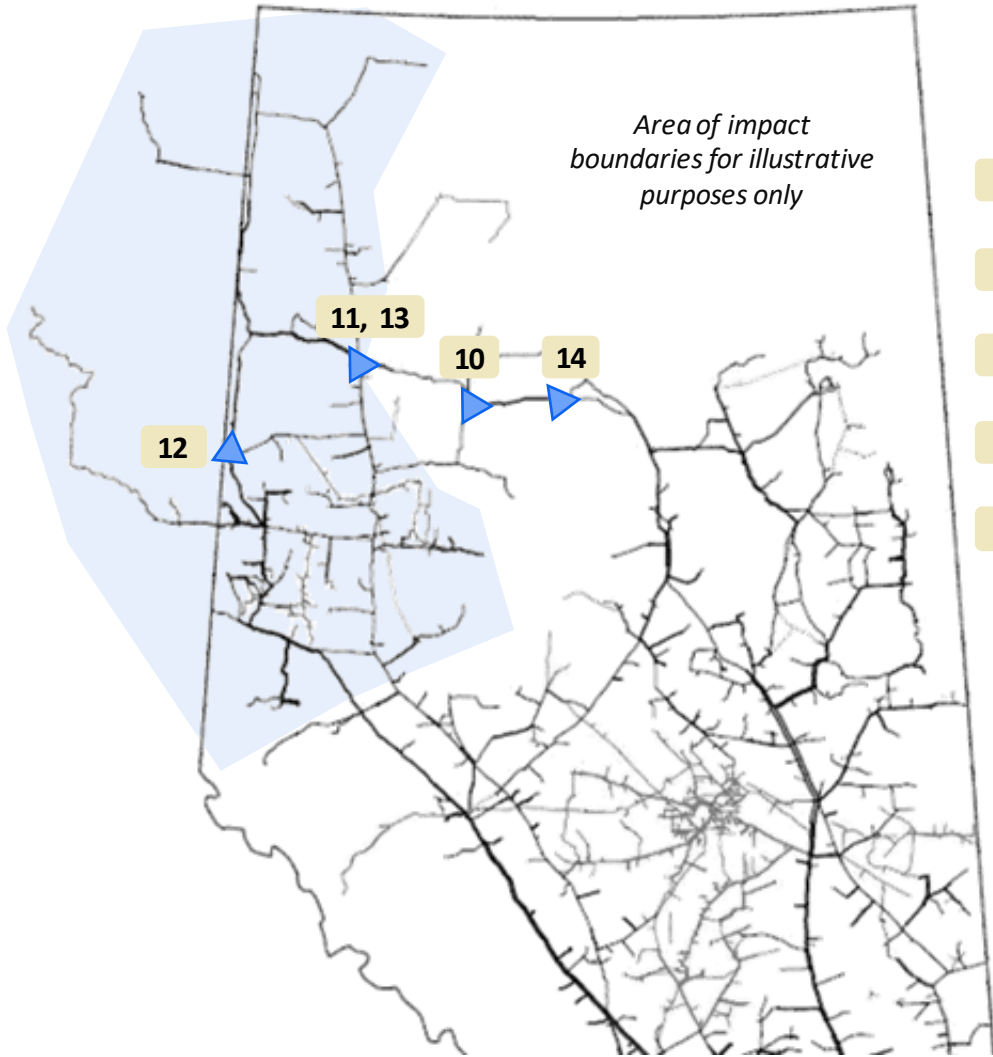


Upstream James River Receipt Area (USJR)

No impact to FT

Potential impact to FT

Partial impact to FT

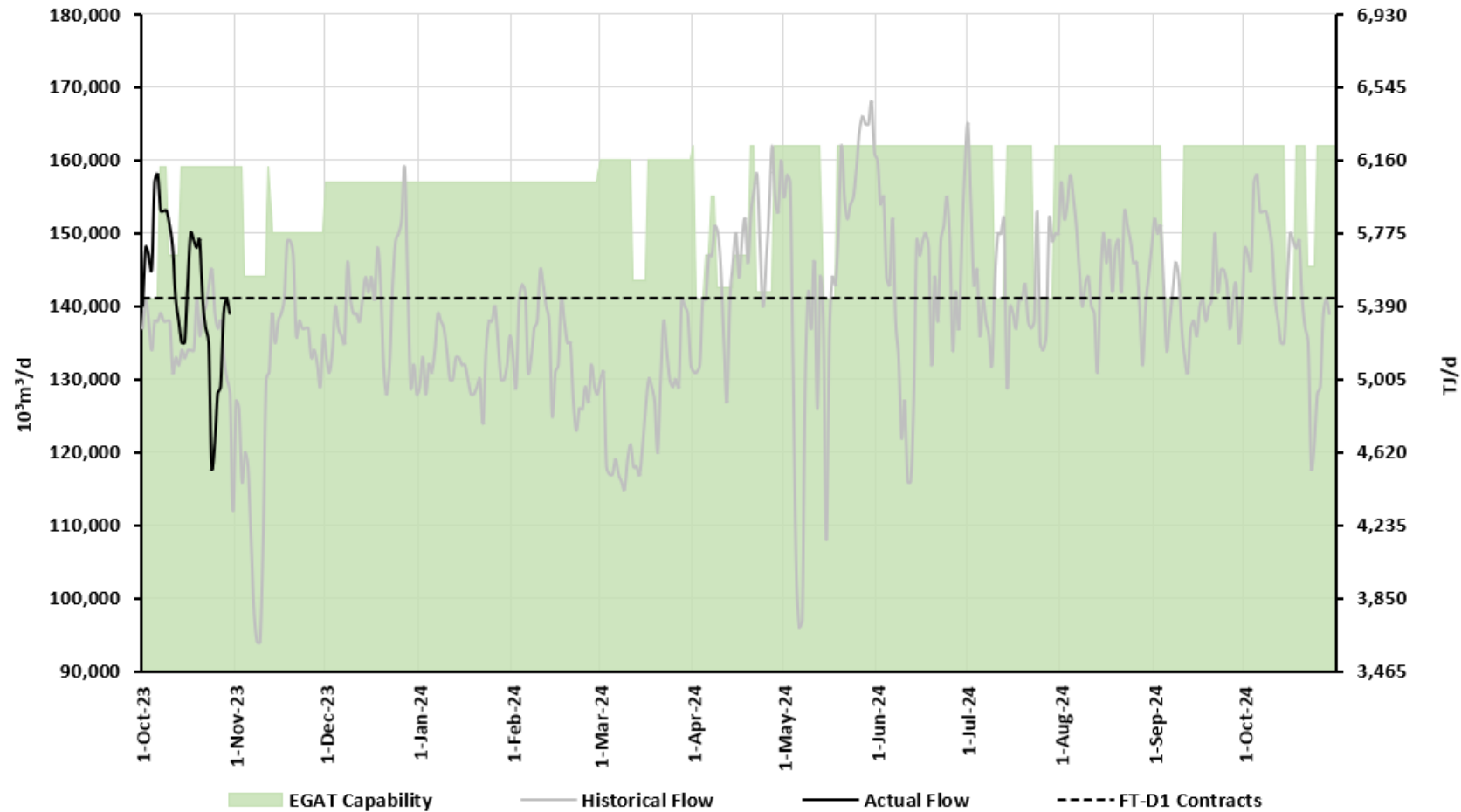


	Outage Description	Start Date	End Date	Capability (10 ⁶ m ³ /d)	Impact (10 ⁶ m ³ /d)	Area
10	Otter Lake Compressor Station Maintenance	Jul 22	Jul 28	360	15	Upstream Latornell
11	Meikle River C Compressor Station Maintenance	Sep 3	Sep 9	361	17	Upstream Latornell
12	Alces River Compressor Station Maintenance	Sep 3	Sep 5	368	10	Upstream Latornell
13	Meikle River D5 Compressor Station Maintenance	Oct 14	Oct 16	364	17	Upstream Latornell
14	Goodfish Compressor Station Maintenance	Oct 21	Oct 23	370	11	Upstream Latornell

May not be accurate beyond the November 2 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.



East Gate (EGAT)



MMM-YY	EGAT Base Capability $10^6 m^3/d$	EGAT Contracts $10^6 m^3/d$
Nov-23	159	141
Dec-23	157	141
Jan-24	157	141
Feb-24	157	141
Mar-24	160	141
Apr-24	162	141
May-24	162	141
Jun-24	162	141
Jul-24	162	141
Aug-24	162	141
Sep-24	162	141
Oct-24	162	141

May not be accurate beyond the November 2 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.

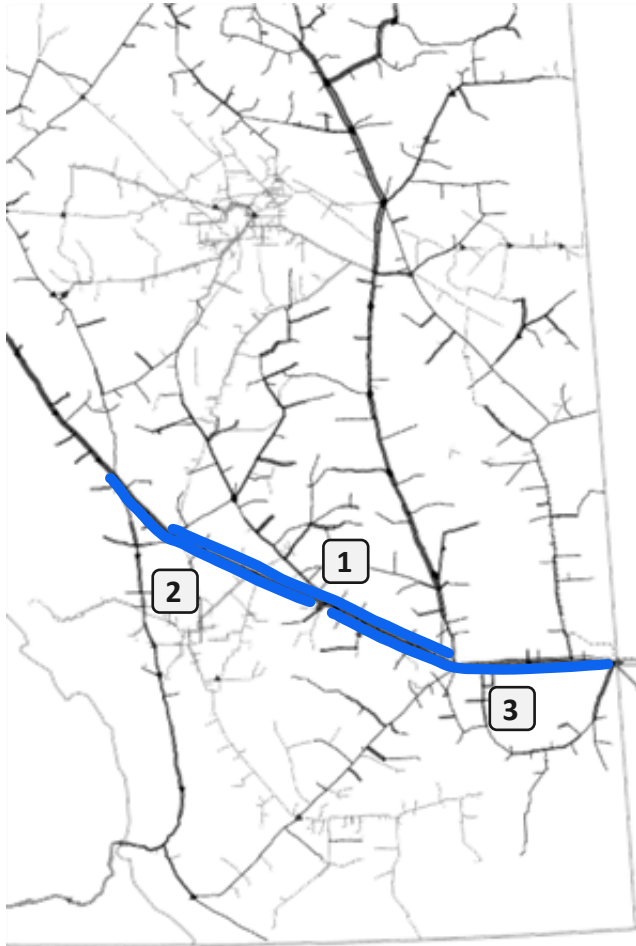


East Gate Area (EGAT)

No
impact to FT

Potential
impact to FT

Partial
impact to FT

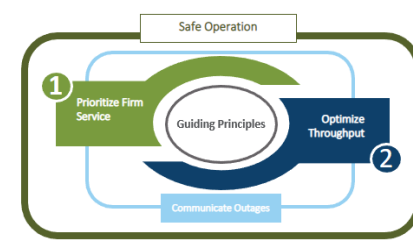


	Outage Description	Start Date	End Date	Capability (10 ⁶ m ³ /d)	Impact (10 ⁶ m ³ /d)	Area
1	NPS 34 EAS and CAS Pipeline Maintenance	Apr 2	Apr 10	155	7	Lower EGAT
2	NPS 42 Edson & CAS Mainline Loop Pipeline Maintenance	Apr 11	Apr 19	151	11	Lower EGAT
3	NPS 42 Foothills Zone 6 Pipeline Maintenance	Apr 22	Apr 27	142	20	Lower EGAT

May not be accurate beyond the November 2 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.



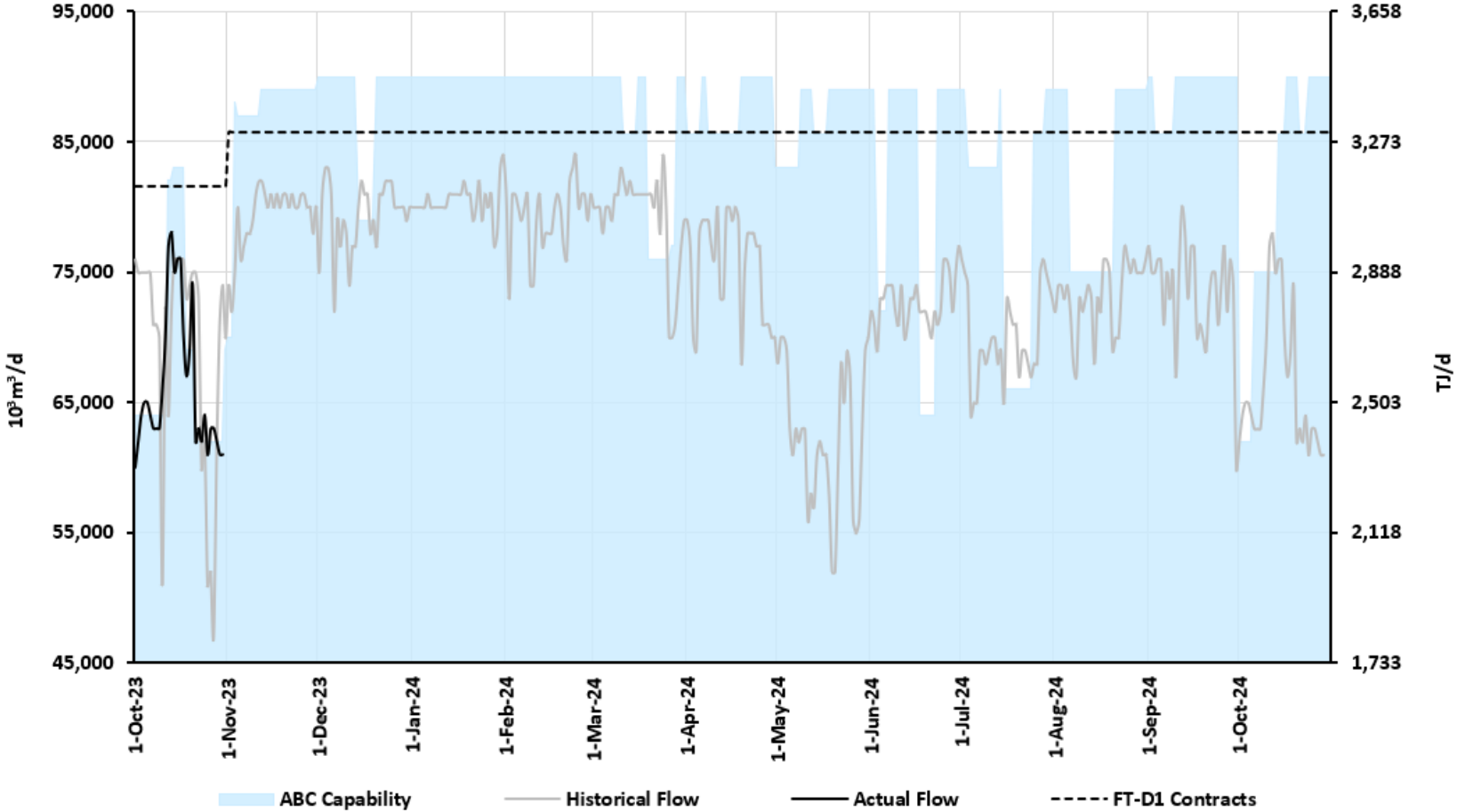
USJR/EGAT Capability



- We don't expect that the EGAT capability will be the limiting factor. The overall system bottleneck is still expected to be upstream in the USJR area
- All reported USJR outages are currently also reported in the EGAT area table indicating that the effectiveness of a broad area IT-D restriction would be considered prior to implementing an upstream FT-R restriction
- Whether or not a broad area IT-D restriction will be adequate to manage flows through the bottleneck is highly dependent on system and contract utilization at the time
- Leading into the outage, if a broad area restriction is not expected to appropriately manage supply through the bottleneck:
 - An upstream FT-R restriction could be utilized
 - EGAT could remain unrestricted (the outage would be removed from the EGAT table and chart in DOP when a bulletin is published communicating authorization levels)
- We will continue to follow our guiding principles and established protocol of first curtaining all IT services prior to curtailing FT services

If system contract utilization is high, and upstream FT-R restrictions become more common, opportunity for EGAT IT-D could be greater than shown in the EGAT chart

West Gate (WGAT)



MMM-YY	WGAT Base Capability $10^6 \text{ m}^3/\text{d}$	WGAT Contracts $10^6 \text{ m}^3/\text{d}$
Nov-23	89	85.6
Dec-23	90	85.6
Jan-24	90	85.6
Feb-24	90	85.6
Mar-24	90	85.6
Apr-24	90	85.6
May-24	89	85.6
Jun-24	89	85.6
Jul-24	89	85.6
Aug-24	89	85.6
Sep-24	90	85.6
Oct-24	90	85.6

May not be accurate beyond the November 2 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.

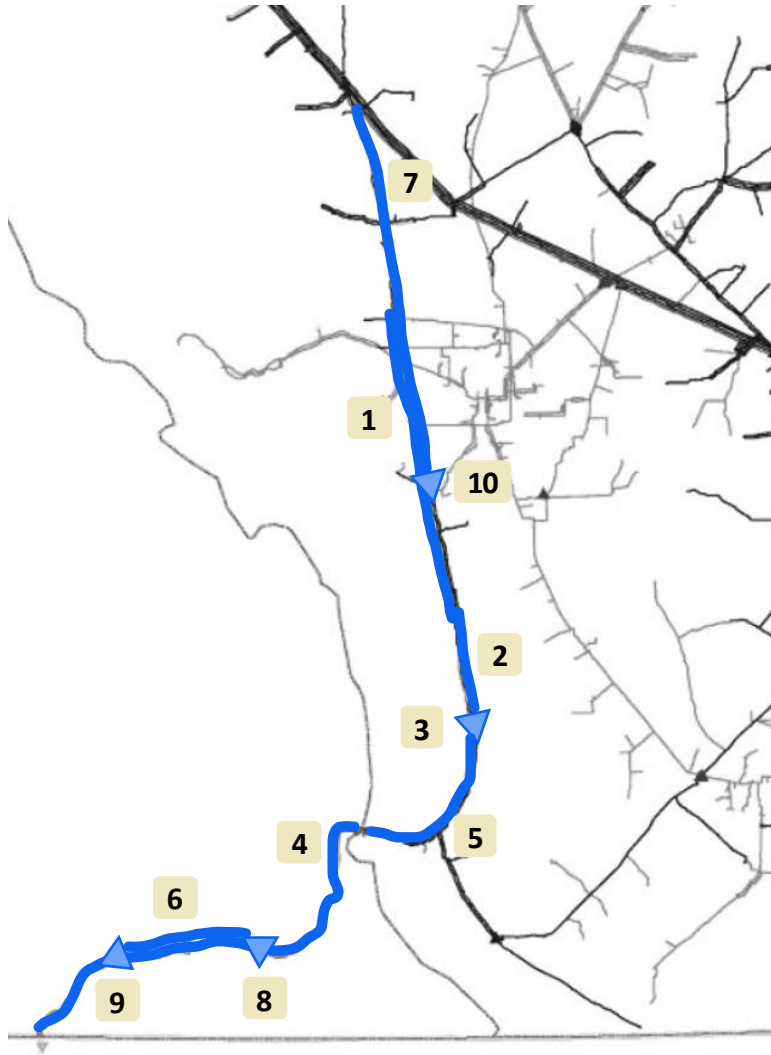


West Gate Area (WGAT)

No
impact to FT

Potential
impact to FT

Partial
impact to FT



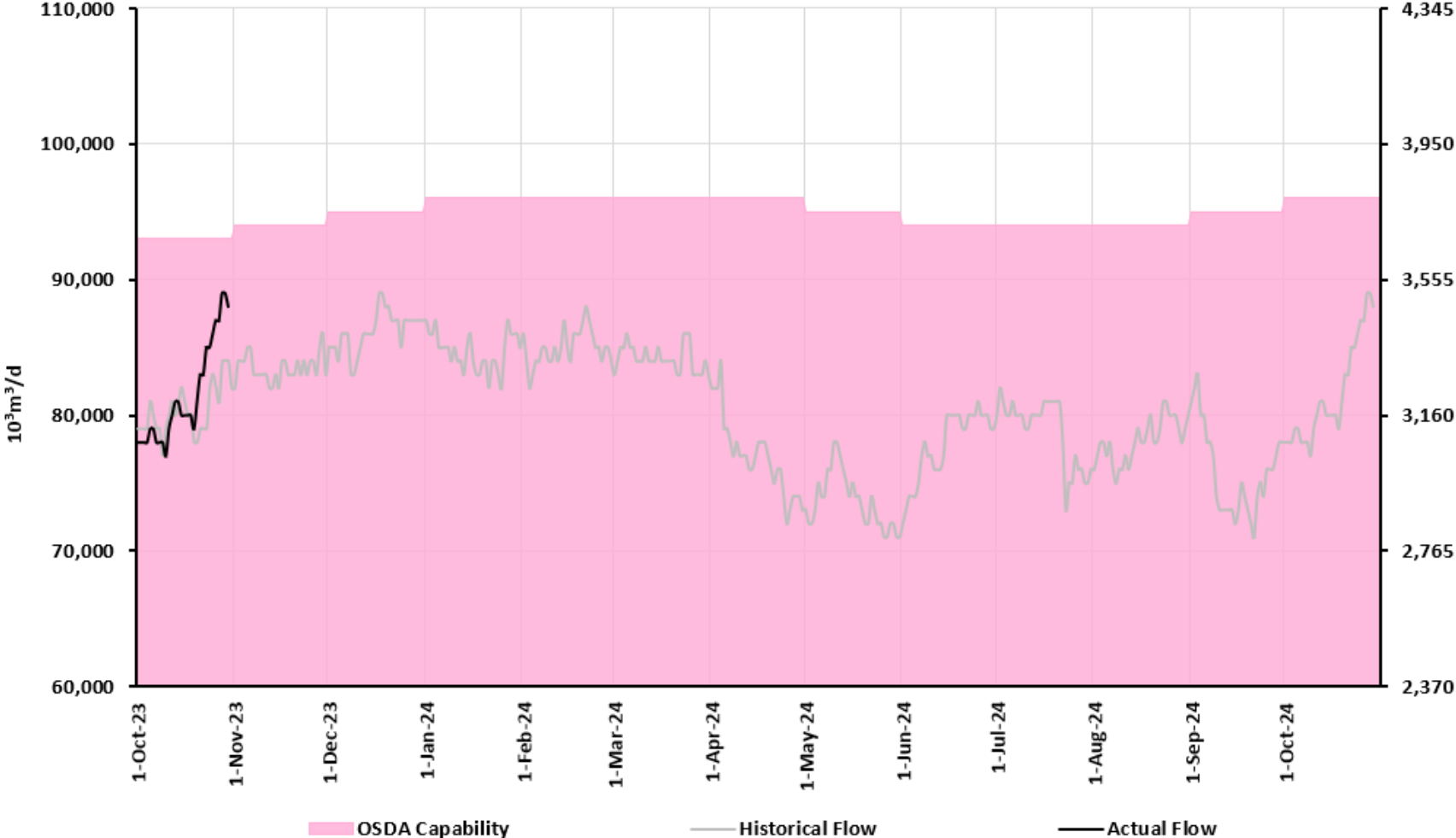
	Outage Description	Start Date	End Date	Capability (10 ⁶ m ³ /d)	Impact (10 ⁶ m ³ /d)	Area
1	NPS 42 Western Alberta System Mainline Loop Pipeline Maintenance	Mar 19	Mar 28	76	14	AB-BC & AB-MN Borders Segment 22 and Partial 21
2	NPS 36 Foothills Zone 7 Leg 1C Pipeline Maintenance	Apr 30	May 8	83	7	AB-BC & AB-MN Borders
3	Burton Creek Compressor Station Maintenance	Jun 3	Jun 6	72	17	AB-BC & AB-MN Borders
4	NPS 36 BC Mainline Pipeline Maintenance	Jun 17	Jun 22	64	25	Foothills BC
5	NPS 36 Western Alberta System Mainline Pipeline Maintenance	Jul 3	Jul 13	83	6	AB-BC & AB-MN Borders
6	NPS 36 BC Mainline Pipeline Maintenance	Jul 15	Jul 24	68	21	Foothills BC
7	NPS 36 Western Alberta System Mainline Pipeline Maintenance	Jul 15	Jul 24	66	23	AB-BC & AB-MN Borders Segment 22 and Partial 21
8	Elko Compressor Station Maintenance	Aug 6	Aug 20	75	14	Foothills BC
9	Moyie Compressor Station Maintenance	Oct 1	Oct 5	62	28	Foothills BC
10	Turner Valley Compressor Station Maintenance	Oct 1	Oct 14	75	15	AB-BC & AB-MN Borders Segment 22 and Partial 21

Note: Dates may change as optimization and alignment opportunities are coordinated with downstream operators.

May not be accurate beyond the November 2 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.



Oil Sands Delivery Area (OSDA)



MMM-YY	OSDA Base Capability $10^6 m^3/d$
Nov-23	94
Dec-23	95
Jan-24	96
Feb-24	96
Mar-24	96
Apr-24	96
May-24	95
Jun-24	94
Jul-24	94
Aug-24	94
Sep-24	95
Oct-24	96

May not be accurate beyond the November 2 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.

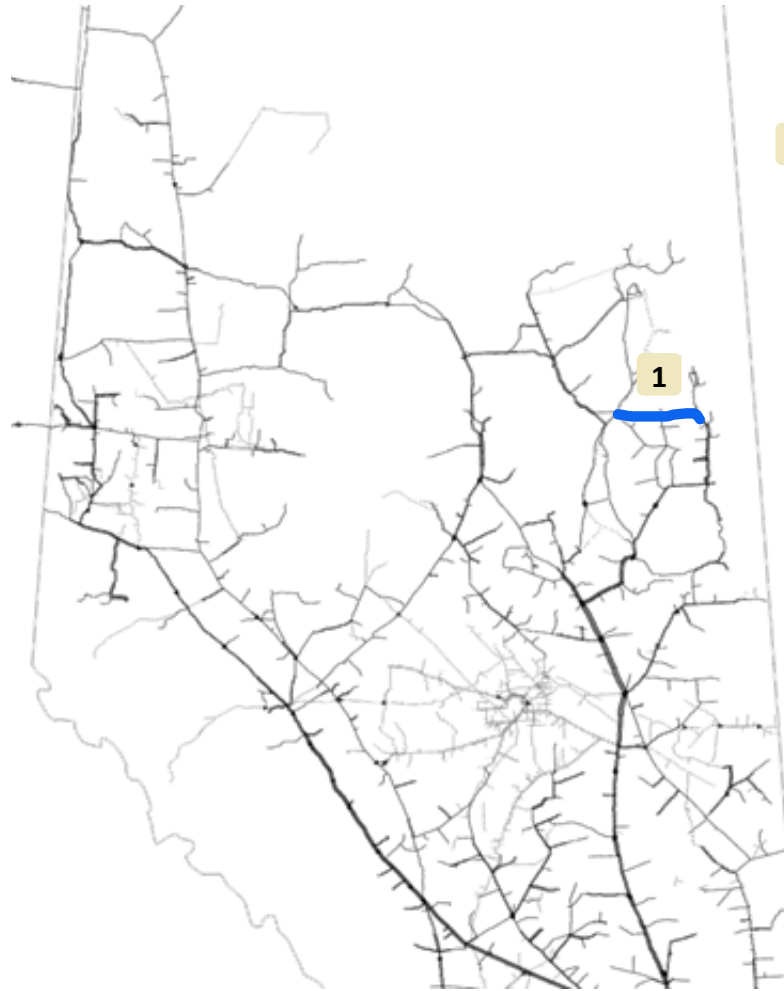


Oilsands Delivery Area (OSDA)

No
impact to FT

Potential
impact to FT

Partial
impact to FT



Outage Description	Start Date	End Date	Capability (10 ⁶ m ³ /d)	Area
1 NPS 30 Leismer Kettle River Crossover/ NPS 24 Kettle River Lateral Loop Pipeline Maintenance	Jan 16	Jan 19	39	Local Delivery: Segment 11 (Typical Flow: 39 10 ⁶ m ³ /d)

Note: Winter access required – subject to change if during a period of extreme cold and ground conditions permit deferral

May not be accurate beyond the November 2 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.

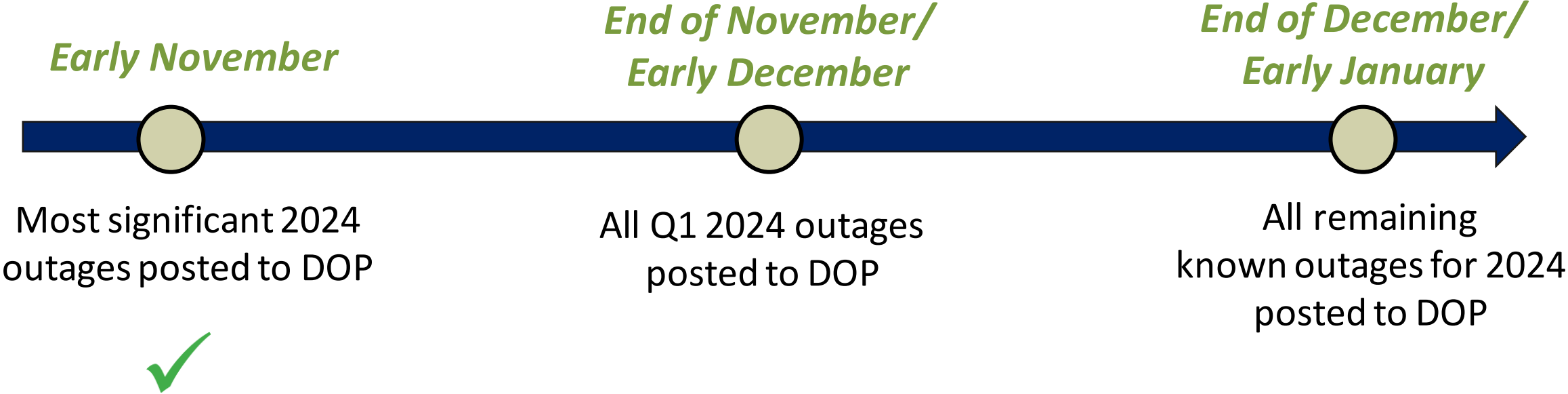


2024 Operational Outlook | Summary

- The number of outages scheduled to be executed in 2024 is of a similar magnitude to previous years
- With a significant number of expansion facilities placed in-service, overall system capability has increased. Some facility outages are now less impactful than they have been in the past
- EGAT capability is not expected to be the limiting factor. The overall system bottleneck is still expected to be upstream in the USJR area. Therefore, all reported USJR outages continue to be reported in the EGAT area table indicating that, in alignment with our guiding principles, the effectiveness of a broad area IT-D restriction would be considered prior to implementing an upstream FT-R restriction
- Whether or not a reduction of downstream IT-D will be adequate to manage flows through the bottleneck for a broad area outage is highly dependent on system and contract utilization at the time
- Upstream FT-R restrictions to manage USJR outages could become more frequent due to:
 - Expected supply distribution
 - Recent system expansion that has resulted in a shift of the USJR bottleneck further north



2024 Outage Communication Schedule | Next Steps



Refer to the Daily Operating Plan (DOP) for the most current outage information



Reminder: Plant Turnaround Information

- Where possible, we will continue to make all efforts to align maintenance with customer maintenance activities to maximize coordination opportunities and minimize impacts
- All customer specific information received will remain strictly confidential within the outage planning and coordination teams

Most common places to find the form:

- Customer Express
- Bottom of the Daily Operation Plan (DOP)

Where to send the form: ab_bc_ops_planning@tcenergy.com

The image shows a screenshot of the 'PLANT TURNAROUND INFORMATION FORM' from TC Energy. The form includes fields for 'Date', 'Email to: ab_bc_ops_planning@tcenergy.com', and a section for 'Your Contact Information' with fields for 'Your Name', 'Company Name', 'Phone', 'Secondary Phone (Optional)', and 'Email'. Below this is a section titled 'Please select one of the following:' with two checkboxes: 'Information for new Plant Turnaround' and 'Update to existing Plant Turnaround information'. The next section is 'Plant Turnaround Information:' with fields for 'NGTL Meter Station Name', 'NGTL Meter Station Number', 'Start Date', 'End Date', 'Start Time', and 'End Time'. It also includes a 'Type of Plant Turnaround:' section with checkboxes for 'Complete Turnaround (Zero Flow)' and 'Partial Turnaround:'. Under 'Partial Turnaround', there are fields for 'Expected Flow during turnaround: 10^m/d' and 'Typical Flow: 10^m/d'. At the bottom, there is an 'Additional Comments:' section. A footer note reads: 'Email this form to: ab_bc_ops_planning@tcenergy.com. Direct any questions to the Pipeline @ (403) 920-7473.'

Please report your maintenance and turnaround schedules for the remainder of 2023 and beyond
Click HERE for the PTA form

Project Updates



Project Updates: ISD Summary (since October 5, 2023 update)

NGTL Projects:	
Intra-Basin Expansion	<ul style="list-style-type: none">• Saturn (ISD Dec 2023)• Saddle Hills Unit Addition (ISD April 2024)<ul style="list-style-type: none">• 71% construction complete• Emerson Creek Compressor Station (ISD April 2024)<ul style="list-style-type: none">• 89% construction complete• 33% commissioning complete
WestPath 2023	Turner Valley, Lundbreck and Longview (In Service) <i>*change since last update</i>
FH Projects:	
Elko Section Loop	In Service <i>*change since last update</i>

Availability of capacity remains subject to: Ground conditions, weather & road access/conditions, heated labour market, environmental and regulatory requirements and LTO approval by the CER



CONTACTS



MARKETING REPS

[Customer Express Contacts
\(tccustomerexpress.com\)](https://tccustomerexpress.com)

NELSON JALOTJOT

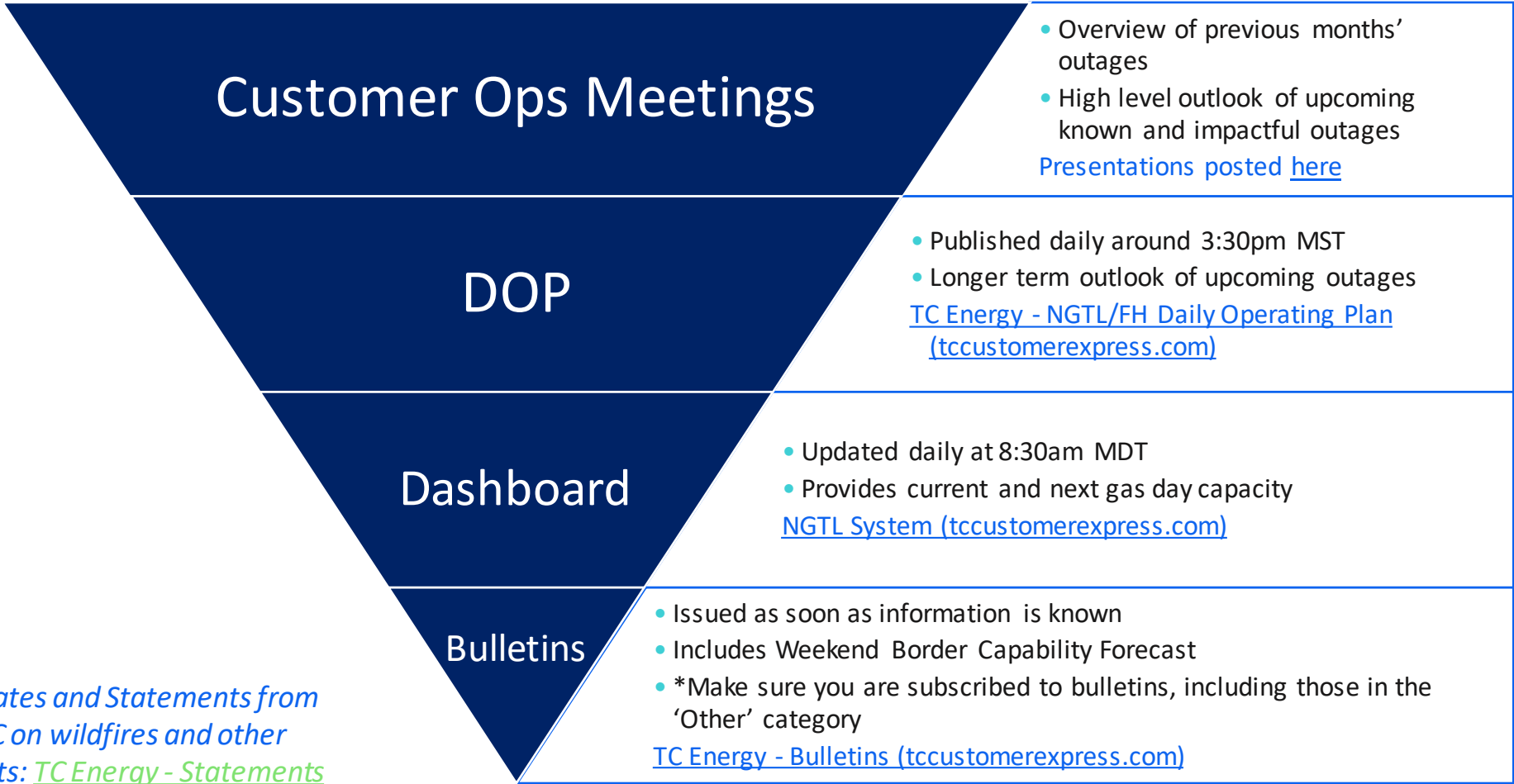
Chair, NGTL/FH Customer Ops

403.827.1039

nelson_jalotjot@tcenergy.com



Outage Communication Tools: Order



Updates and Statements from TC on wildfires and other events: [TC Energy - Statements](#)

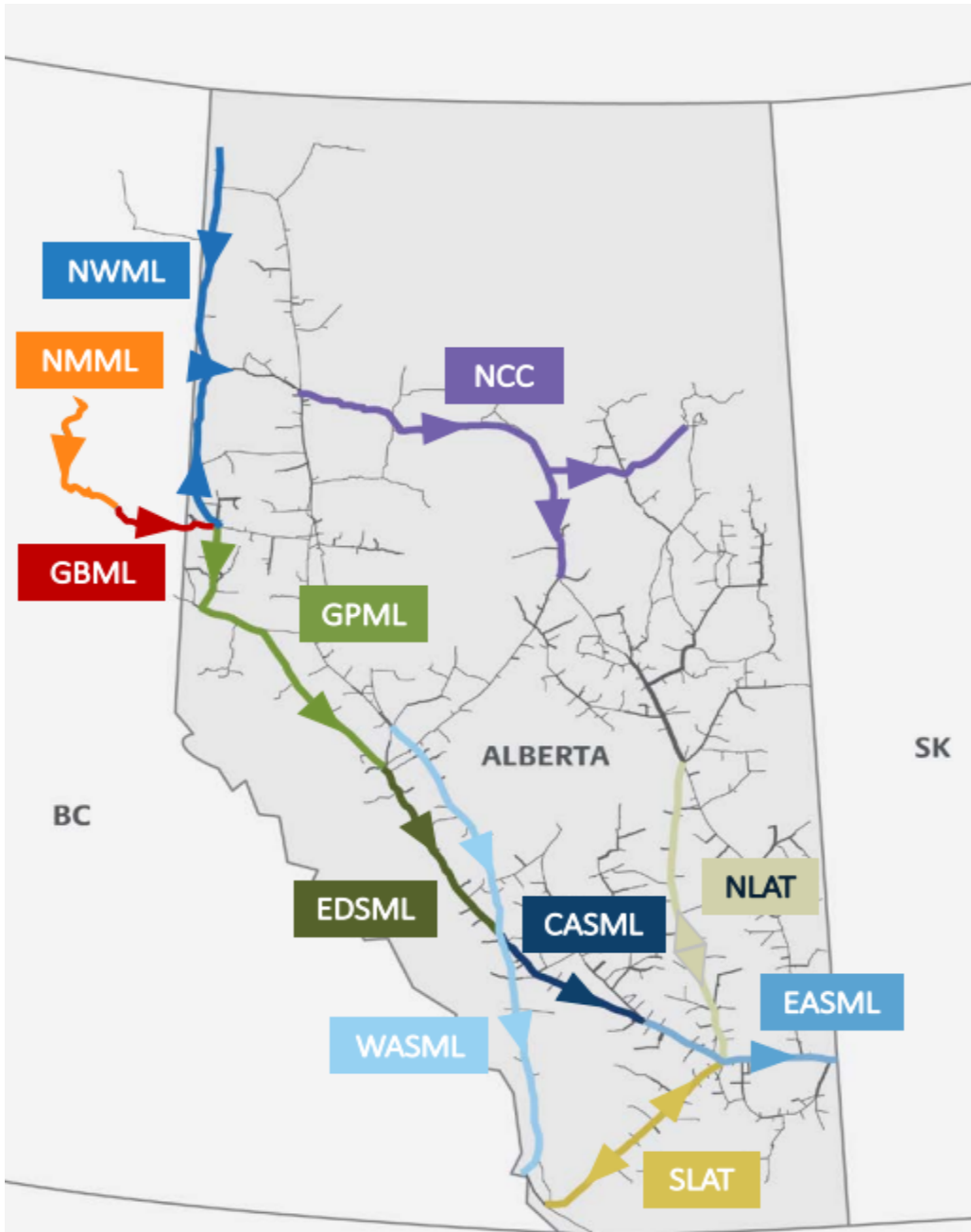
Each level of communication supersedes all information provided in communications above it.



Glossary of Terms

- ❖ **DOP:** Daily Operating Plan [DOP](#)
- ❖ **NGTL:** Nova Gas Transmission Ltd.
- ❖ **FH:** Foothills Pipeline System (BC or SK)
- ❖ **ISD:** In-Service Date
- ❖ **ILI:** Inline Inspection
- ❖ **Transportation Services**
 - ❖ **IT-R:** Interruptible Transportation - Receipt
 - ❖ **IT-D:** Interruptible Transportation - Delivery
 - ❖ **FT-R:** Firm Transportation - Receipt
 - ❖ **FT-D:** Firm Transportation - Delivery
- ❖ **Operational Areas**
 - ❖ **USJR:** Upstream James River
 - ❖ **WGAT:** West Gate
 - ❖ **EGAT:** East Gate
 - ❖ **OSDA:** Oilsands Delivery Area
 - ❖ **NEDA:** North-East Delivery Area

Commonly Referenced Flow Paths



- North Montney Mainline (NMML)
- Groundbirch Mainline (GBML)
- Northwest Mainline (NWML)
- North Central Corridor (NCC)
- Grande Prairie Mainline (GPML)
- Edson Mainline (EDSML)
- Western Alberta System Mainline (WASML)
- Central Alberta System Mainline (CASML)
- Eastern Alberta System Mainline (EASML)
- South Lateral (SLAT)
- North Lateral (NLAT)