



NGTL System and Foothills Pipelines Ltd.

CUSTOMER OPERATIONS MEETING

FOR INFORMATIONAL PURPOSES ONLY



3 / 7 / 2024



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

Daylight Savings Time is Coming – March 10th

What can you do to prepare?

In the Days ahead (Wednesday – Saturday):



GO TO BED EARLIER

Move your bedtime up 15 minutes each night until Saturday.



LIGHTS OUT

Turn down lights and limit screen time an hour before bed.



LIMIT CAFFEINE & BOOZE

They prevent you from getting deep sleep.

On Sunday:



SLEEP IN

But not too much – aim to get 7 or 8 hours of shuteye.



GO OUTSIDE

Sunshine cues the body to stop making the sleep hormone, melatonin.



POWER NAP

A short early-afternoon snooze will keep you refreshed.



GET ACTIVE

Exercise energizes you – just do it at least 3 hours before bedtime.

SOURCES: National Sleep Foundation and Mayo Clinic



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

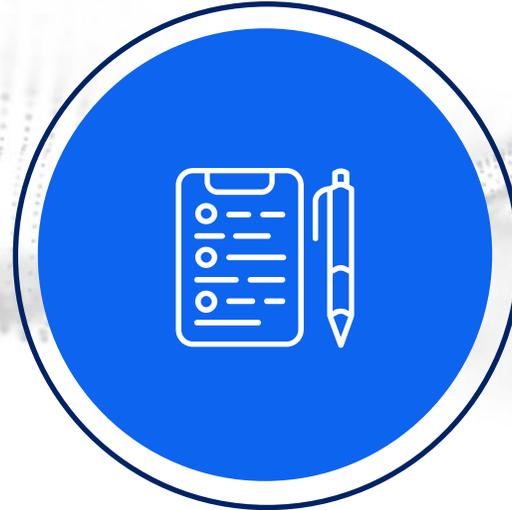
Partial
impact to FT

Refers to outage periods where FT impact is expected

Important Notes



Outage information in this presentation may not be accurate beyond the March 7, 2024, 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. Projects Update
2. In-line Inspections / Derates
3. Review of Upcoming 2024 Outages



Projects Update



Project Updates: ISD Summary (since February 1, 2024 update)

NGTL:	
Intra-Basin Expansion	<ul style="list-style-type: none">• Saddle Hills Unit Addition (ISD April 1, 2024)<ul style="list-style-type: none">• 98% construction complete• 95% commissioning complete• Emerson Creek Compressor Station (ISD April 1, 2024)<ul style="list-style-type: none">• 100% construction complete• 95% commissioning complete

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



Integrity (In-line Inspection/De-rates)



Derates of Pipelines

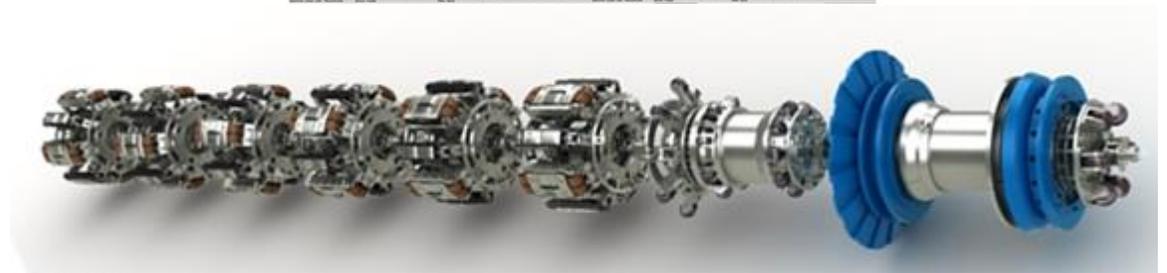
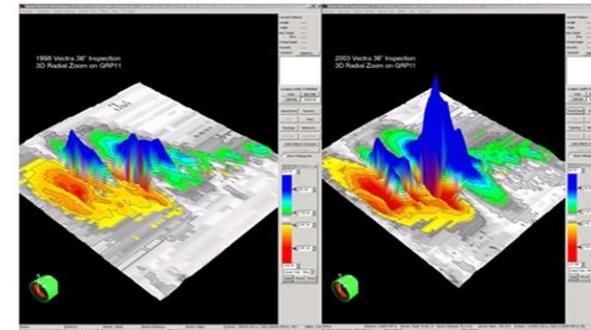
High Level Overview of Derates:

- In-line inspections (ILI) are completed by the Pipeline Integrity team
- ILI data is analyzed between the ILI vendor and TC
- Immediate derates are analyzed and implemented as required
- Once mitigation work is completed then the derate is lifted

Year	# ILI Runs - Canada Gas
2022	152
2023	152
2024	159

Drivers for Derates:

- ❖ Safety
- ❖ Regulations
- ❖ Practice of Engineering



2024 Operational Outlook

(From DOP as of Wednesday, March 6)



2024 Outages

- All known planned outages at this time have been added to the DOP
- We will continue to make best efforts to limit changes of dates to larger impacting outages; however, Start and End Dates, Durations, Capability, Area of impact may be revised as new information becomes available or further optimization opportunities are identified

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.



Daily Operating Plan (DOP): Facility Assumptions

Date	Expansion Facilities
April 2024	<p>Intra-basin Expansion:</p> <ul style="list-style-type: none"><li data-bbox="652 476 1302 515">• Emerson Creek Compressor Station<li data-bbox="652 525 1179 564">• Saddle Hills C4 Unit Addition



2024 Operational Outlook | Highlights

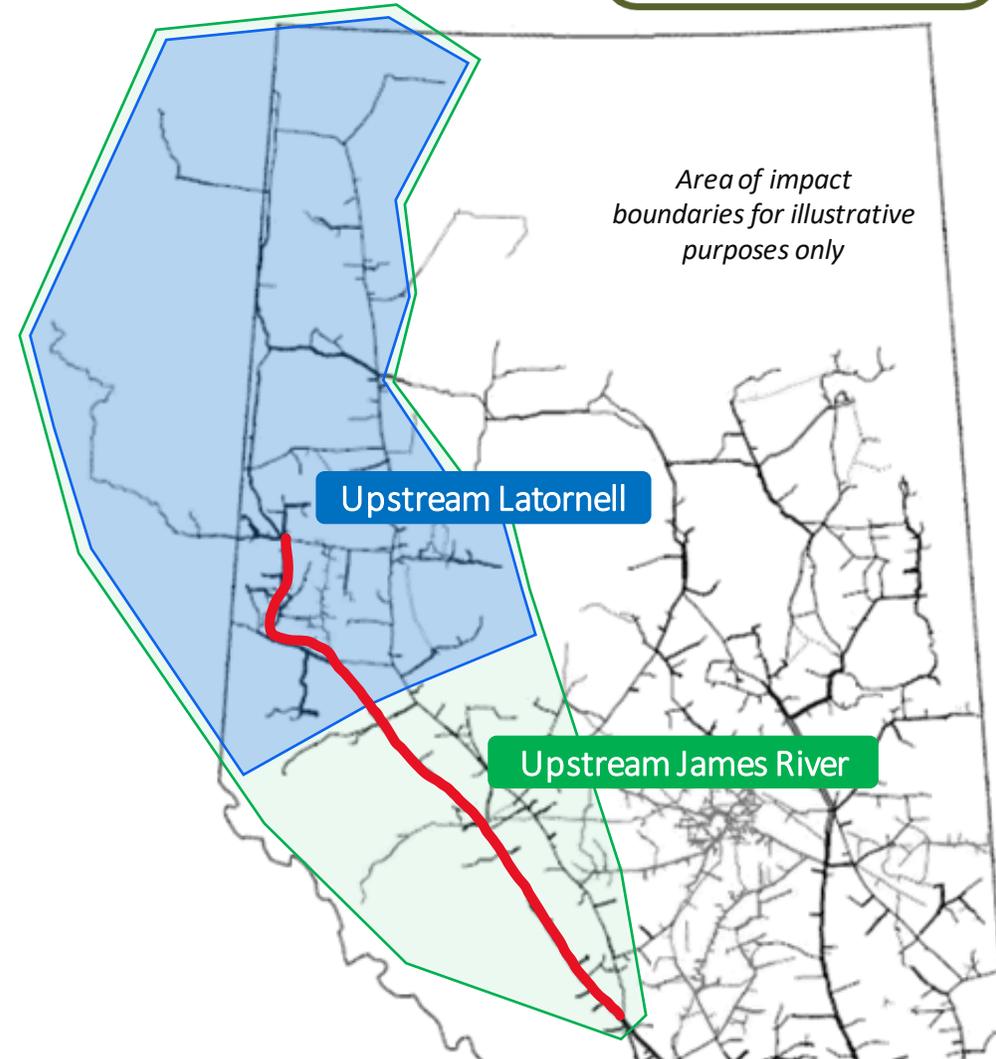
- The number of outages scheduled to be executed in 2024 is of a similar magnitude to previous years
- With a significant number of expansion facilities placed in-service, overall system capability has increased.
- EGAT capability is not expected to be the limiting factor. The overall system bottleneck 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



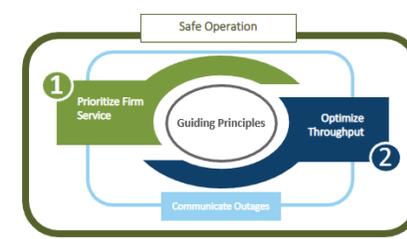
Upstream James River Capability

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)

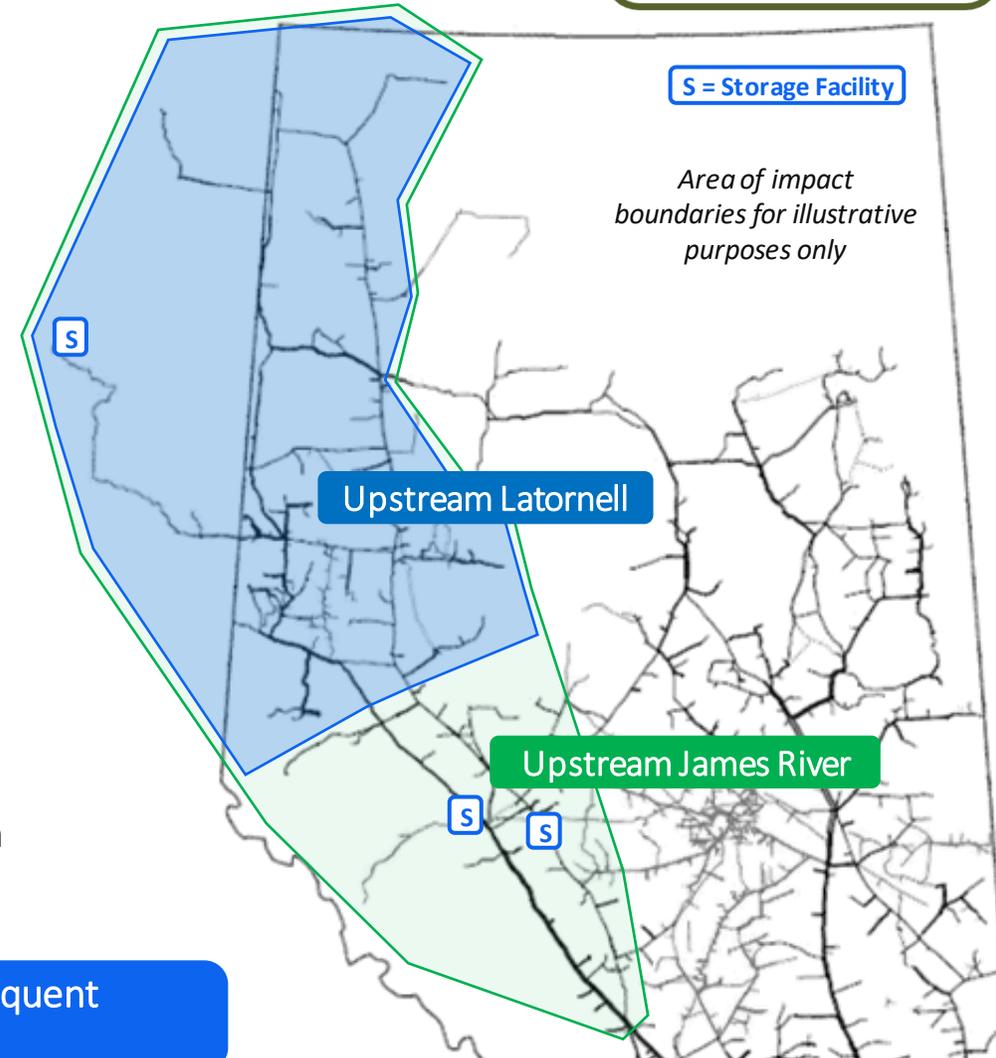


Upstream James River Capability



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

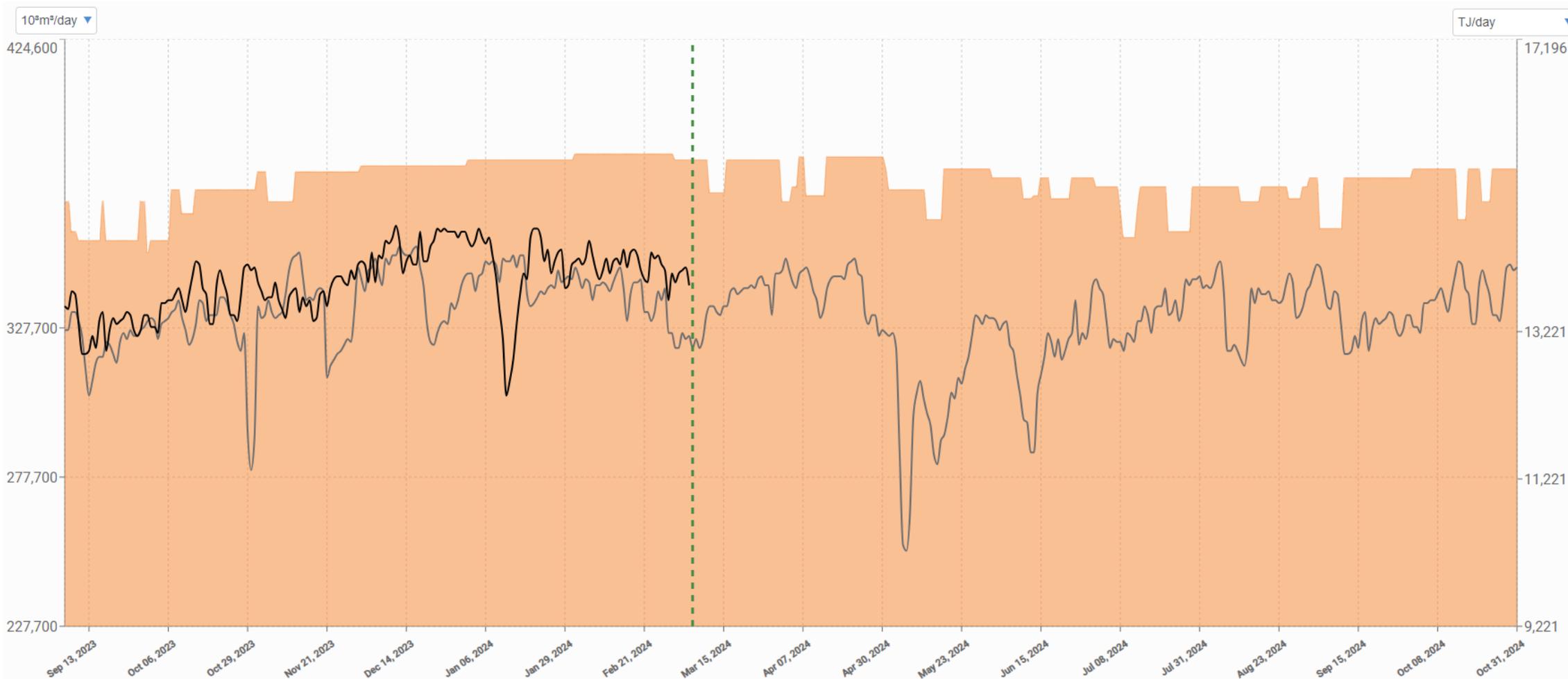


Local FT-R restrictions to manage USJR outages could become more frequent with the supply bottleneck further North



Upstream James River

Capability - Actual Flow - Historical Flow



May not be accurate beyond the March 7 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	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
Goodfish A2 – Compressor Station Maintenance	11-Mar-24	13-Mar-24	373	11	241	195 - 225	Potential impact to FT-R USJR U/S Latornell
Leismer East – Compressor Station Maintenance	11-Mar-24	15-Mar-24	376	8	244	195 - 225	Potential impact to FT-R USJR U/S Latornell
Goodfish A1 – Compressor Station Maintenance	13-Mar-24	15-Mar-24	373	11	241	195 - 225	Potential impact to FT-R USJR U/S Latornell
Otter Lake – Compressor Station Maintenance	1-Apr-24	3-Apr-24	370	15	238	195 - 225	Potential impact to FT-R USJR U/S Latornell
Alces River – Compressor Station Maintenance	1-Apr-24	5-Apr-24	375	10	243	195 - 225	Potential impact to FT-R USJR U/S Latornell
Gold Creek – Compressor Station Maintenance	8-Apr-24	13-Apr-24	372	13	277	230 - 260	Potential impact to FT-R USJR U/S Berland River
NPS 42 Edson Mainline Loop – Pipeline Maintenance	2-May-24	7-May-24	374	7	279	230 - 260	Potential impact to FT-R USJR U/S Berland River
Pipestone Creek – Compressor Station Maintenance	6-May-24	12-May-24	374	7	279	230 - 260	Potential impact to FT-R USJR U/S Berland River
Meikle River D5 – Compressor Station Maintenance	13-May-24	17-May-24	364	17	232	195 - 225	Potential impact to FT-R USJR U/S Latornell
Latornell – Compressor Station Maintenance	10-Jun-24	12-Jun-24	371	7	276	230 - 260	Potential impact to FT-R USJR U/S Berland River
Latornell A2 – Compressor Station Maintenance	10-Jun-24	14-Jun-24	372	6	277	230 - 260	Potential impact to FT-R USJR U/S Berland River

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Upstream James River Receipt Area (USJR)

No
impact to FT

Potential
impact to FT

Partial
impact to FT

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 36 Edson Mainline Extension – Pipeline Maintenance	18-Jun-24	23-Jun-24	371	7	276	230 - 260	Potential impact to FT-R USJR U/S Berland
NPS 48 Tanghe Creek Loop 2 – Pipeline Maintenance	9-July-24	12-July-24	358	17	226	195 - 225	Potential impact to FT-R USJR U/S Latornell
Hidden Lake North B2 – Compressor Station Maintenance	8-July-24	13-July-24	368	7	236	195 - 225	Potential impact to FT-R USJR U/S Latornell
Paul Lake – Compressor Station Maintenance	8-July-24	12-July-24	367	8	235	195 - 225	Potential impact to FT-R USJR U/S Latornell
Otter Lake – Compressor Station Maintenance	22-Jul-24	28-Jul-24	360	15	228	195 - 225	Potential impact to FT-R USJR U/S Latornell
NPS 36 WAS Mainline Extension – Pipeline Maintenance	12-Aug-24	17-Aug-24	370	5	238	195 - 225	Potential impact to FT-R USJR U/S Latornell
Latornell A1 – Compressor Station Maintenance	26-Aug-24	29-Aug-24	371	4	276	230 - 260	Potential impact to FT-R USJR U/S Berland
Meikle River C – Compressor Station Maintenance	4-Sep-24	10-Sep-24	361	17	229	195 - 225	Potential impact to FT-R USJR U/S Latornell
Alces River – Compressor Station Maintenance	4-Sep-24	6-Sep-24	368	10	236	195 - 225	Potential impact to FT-R USJR U/S Latornell
Meikle River D5 – Compressor Station Maintenance	14-Oct-24	16-Oct-24	364	17	232	195 - 225	Potential impact to FT-R USJR U/S Latornell
Goodfish – Compressor Station Maintenance	21-Oct-24	23-Oct-24	370	11	238	195 - 225	Potential impact to FT-R USJR U/S Latornell

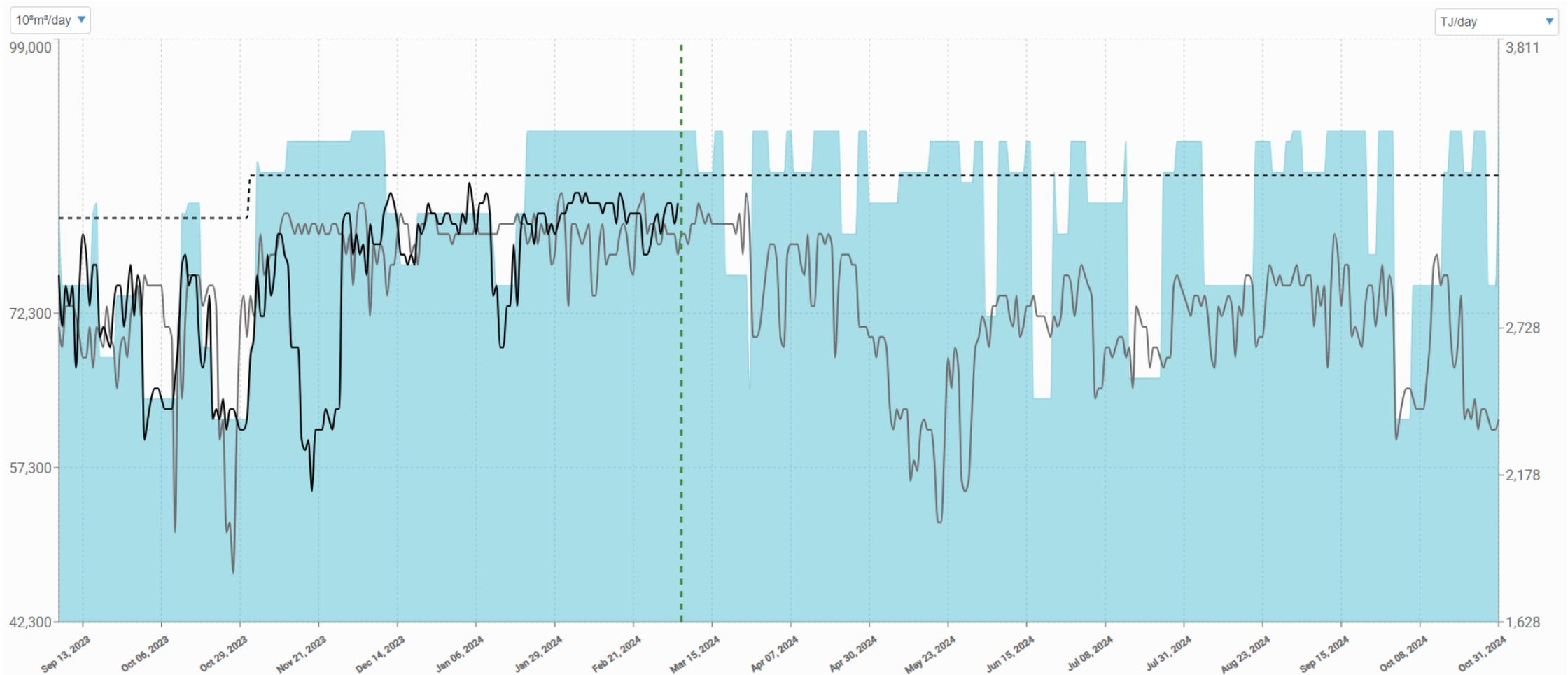
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Alberta-B.C. Border

(includes both NGTL and Foothills BC outages)

■ Capability - Actual Flow - Historical Flow - - Contracts



May not be accurate beyond the March 7 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.



West Gate Delivery Area (WGAT)

No
impact to FT

Potential
impact to FT

Partial
impact to FT

Outage Description	Start	End	Capability (10 ⁶ m ³ /d)	Impact (10 ⁶ m ³ /d)	Service Allowable Location/Area
NPS 42 Western Alberta System Mainline Loop – Pipeline Maintenance	19-Mar-24	26-Mar-24	76 (Mar 19-25) 65 (Mar 26)	14 (Mar 19-25) 25 (Mar 26)	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders Segment 22 and Partial 21
Moyie C – Compressor Station Maintenance	22-Apr-24	26-Apr-24	80	10	Potential Impact to FT Foothills BC
NPS 36 Foothills Zone 7 Leg 1C – Pipeline Maintenance	30-Apr-24	8-May-24	83	6	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders
Crowsnest H – Compressor Station Maintenance	27-May-24	30-May-24	85	4	Potential Impact to FT Foothills BC
Burton Creek – Compressor Station Maintenance	3-Jun-24	6-Jun-24	72	17	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders
Winchell Lake – Compressor Station Maintenance	17-Jun-24	20-Jun-24	84	5	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders Segment 22 and Partial 21
Crowsnest A – Compressor Station Maintenance	17-Jun-24	21-Jun-24	65	24	Potential Impact to FT Foothills BC
NPS 36 BC Mainline – Pipeline Maintenance	17-Jun-24	22-Jun-24	64	25	Potential Impact to FT Foothills BC
Moyie D – Compressor Station Maintenance	24-Jun-24	27-Jun-24	80	9	Potential Impact to FT Foothills BC
NPS 36 Western Alberta System Mainline – Pipeline Maintenance	3-Jul-24	13-Jul-24	83	6	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders

Note: Outages located in the USJR area show up in the WGAT table in DOP to indicate a broad area restriction could be applied to reduce flows through the bottleneck but have been excluded from this slide to avoid duplication

May not be accurate beyond the March 7 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.



West Gate Delivery Area (WGAT)

No
impact to FT

Potential
impact to FT

Partial
impact to FT

Outage Description	Start	End	Capability (10 ⁶ m ³ /d)	Impact (10 ⁶ m ³ /d)	Service Allowable Location/Area
Turner Valley A3 – Compressor Station Maintenance	15-Jul-24	19-Jul-24	85	4	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders
Crowsnest B – Compressor Station Maintenance	15-Jul-24	19-Jul-24	80	9	Potential Impact to FT Foothills BC
NPS 36 BC Mainline – Pipeline Maintenance	15-Jul-24	24-Jul-24	68	21	Potential Impact to FT Foothills BC
NPS 36 Western Alberta System Mainline – Pipeline Maintenance	15-Jul-24	24-Jul-24	66	23	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders Segment 22 and Partial 21
Elko – Compressor Station Maintenance	6-Aug-24	20-Aug-24	75	14	Potential Impact to FT Foothills BC
Burton Creek A3 – Compressor Station Maintenance	23-Sep-24	25-Sep-24	78	12	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders
Moyie – Compressor Station Maintenance	1-Oct-24	5-Oct-24	62	28	Potential Impact to FT Foothills BC
Turner Valley – Compressor Station Maintenance	1-Oct-24	14-Oct-24	75	15	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders Segment 22 and Partial 21
Crowsnest K – Compressor Station Maintenance	28-Oct-24	30-Oct-24	75	15	Potential Impact to FT Foothills BC

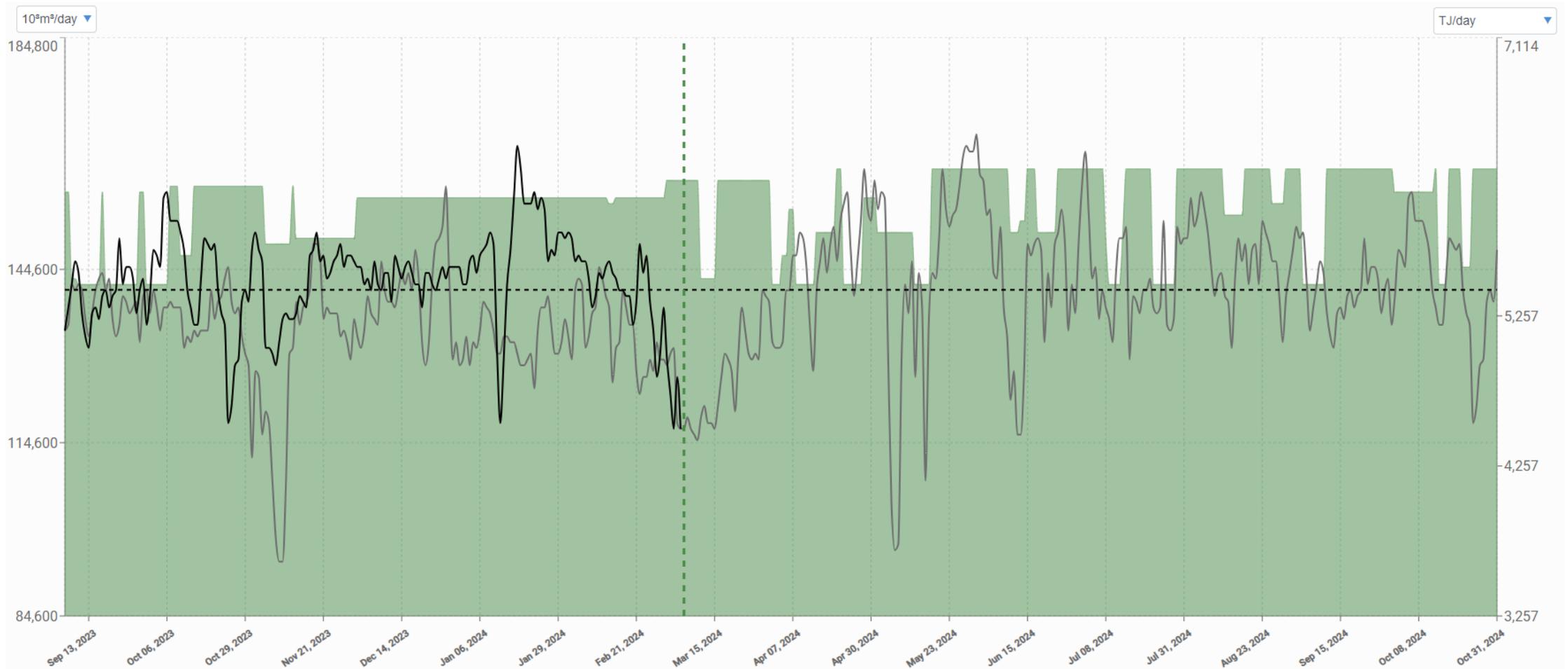
Note: Outages located in the USJR area show up in the WGAT table in DOP to indicate a broad area restriction could be applied to reduce flows through the bottleneck but have been excluded from this slide to avoid duplication

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East Gate

■ Capability — Actual Flow - - Historical Flow - - Contracts



May not be accurate beyond the March 7 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.



East Gate Delivery Area (EGAT)

No
impact to FT

Potential
impact to FT

Partial
impact to FT

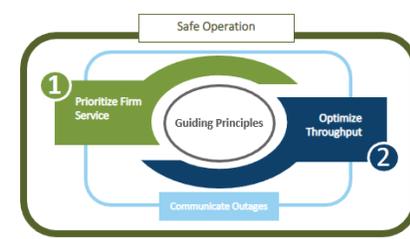
Outage Description	Start	End	Capability (10 ⁶ m ³ /d)	Impact (10 ⁶ m ³ /d)	Service Allowable Location/Area
NPS 34 EAS and CAS – Pipeline Maintenance	2-Apr-24	10-Apr-24	155	7	No impact to FT-D anticipated Empress/McNeill Borders Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28
NPS 42 Edson & CAS Mainline Loop – Pipeline Maintenance	11-Apr-24	19-Apr-24	151	11	No impact to FT-D anticipated Empress/McNeill Borders Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28
NPS 42 Foothills Zone 6 – Pipeline Maintenance	22-Apr-24	27-Apr-24	142	20	No impact to FT-D anticipated Empress/McNeill Borders Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28
Acme – Compressor Station Maintenance	22-Apr-24	05-May-24	157	5	No impact to FT-D anticipated Empress/McNeill Borders Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28
Didsbury – Compressor Station Maintenance	13-May-24	17-May-24	156	6	No impact to FT-D anticipated Empress/McNeill Borders Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28
Beiseker B3 – Compressor Station Maintenance	10-Jun-24	13-Jun-24	158	4	No impact to FT-D anticipated Empress/McNeill Borders Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28
Clearwater A6 – Compressor Station Maintenance	26-Aug-24	29-Aug-24	156	6	No impact to FT-D anticipated Empress/McNeill Borders Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28
Crawling Valley – Compressor Station Maintenance	1-Oct-24	12-Oct-24	158	4	No impact to FT-D anticipated Empress/McNeill Borders Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28

Note: Outages located in the USJR area show up in the EGAT table in DOP to indicate a broad area restriction could be applied to reduce flows through the bottleneck but have been excluded from this slide to avoid duplication

May not be accurate beyond the March 7 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.



USJR/EGAT Capability

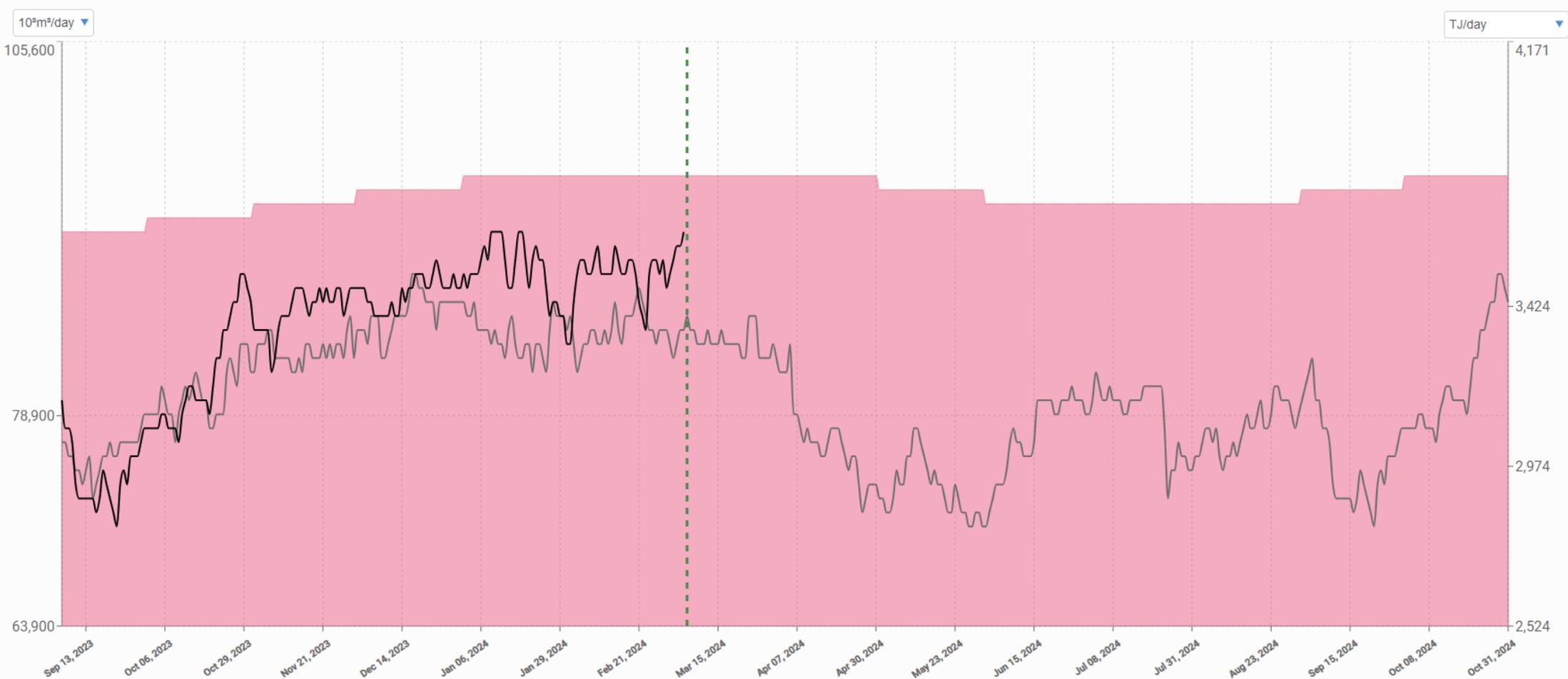


- We don't expect that the EGAT capability will be the limiting factor. The overall system bottleneck is still expected to be upstream in the USJR area
- All reported USJR outages are currently also reported in the EGAT area table indicating that the effectiveness of a broad area IT-D restriction would 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

Oil Sands Delivery Area

■ Capability - Actual Flow - Historical Flow



May not be accurate beyond the March 7 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.



Northeast Delivery Area (NEDA) Oilsands Delivery Area (OSDA)

No
impact to FT

Potential
impact to FT

Partial
impact to FT

There are currently no outages planned that have potential to impact service specific to OSDA or NEDA

May not be accurate beyond the March 7 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.



CONTACTS



MARKETING REPS

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

NELSON JALOTJOT

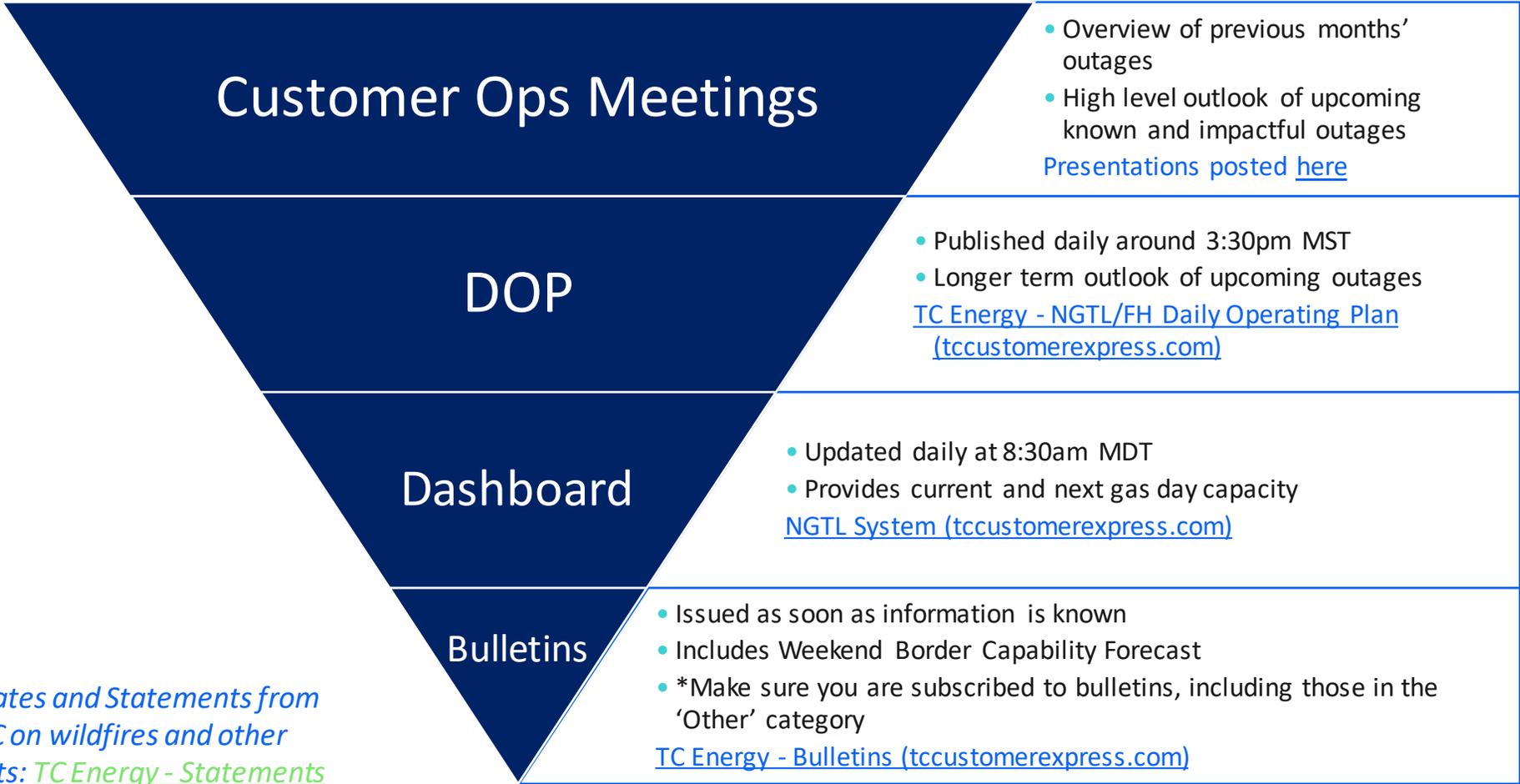
Chair, NGTL/FH Customer Ops

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Outage Communication Tools: Order



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

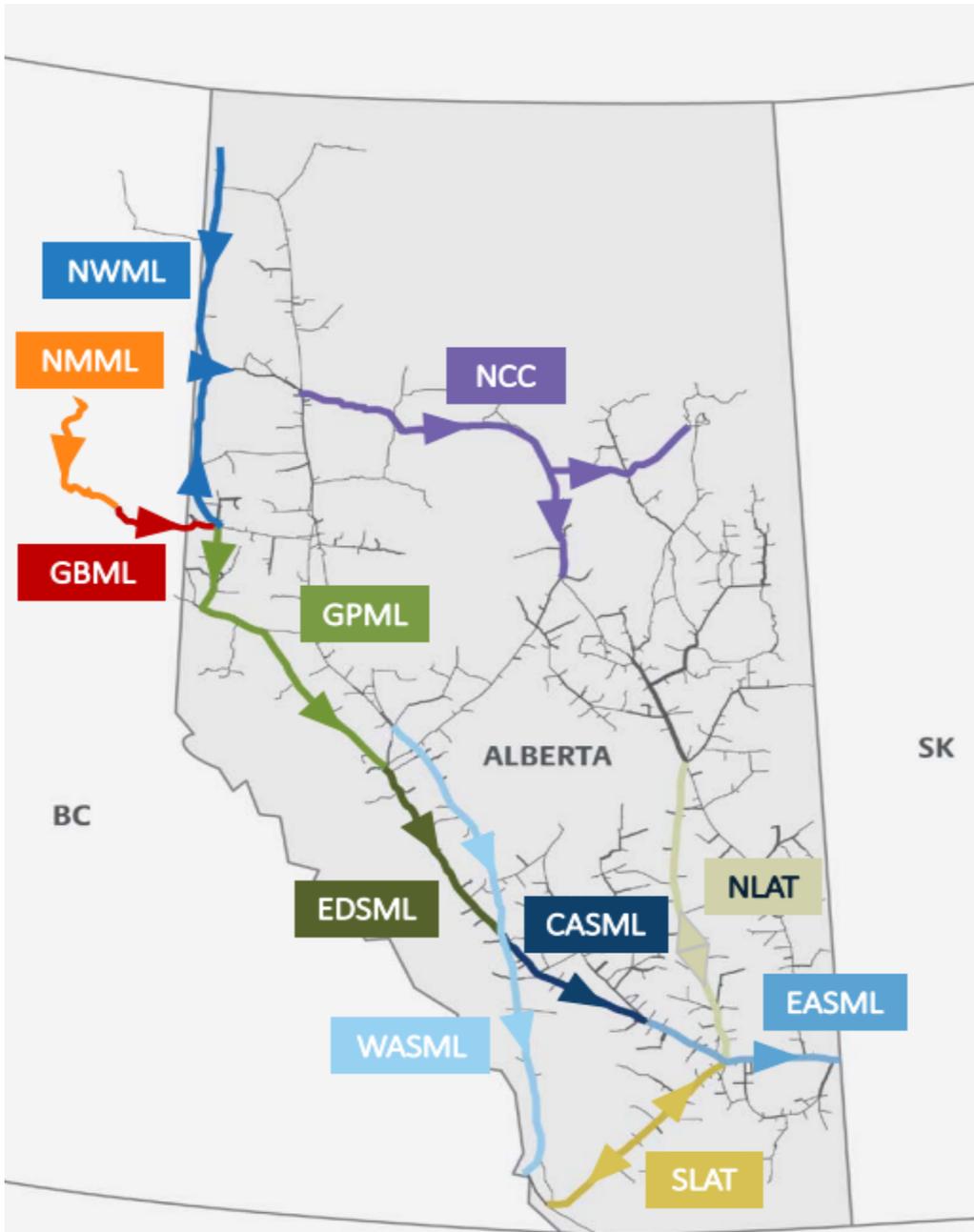
Each level of communication supersedes all information provided in communications above it.



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)