



NGTL System and Foothills Pipelines Ltd.

CUSTOMER OPERATIONS MEETING

FOR INFORMATIONAL PURPOSES ONLY



OCTOBER 5, 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

Winter Driving Tips



Before you go

Check weather and road reports, clear all snow & ice, perform a 360-degree walkaround, allow for extra travel time and keep your phone charged.



While you're driving

Drive at a reduced speed, lengthen your following distance and do not steer while braking or accelerating to avoid skidding.



Beware of dangerous conditions

Keep your eyes peeled for black ice – it looks like shiny asphalt. Remember that steel and concrete bridges are particularly icy and never pass a snowplow.

Always be prepared



Use proper tires



Keep your tank full



Perform regular maintenance



Always have an emergency kit

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

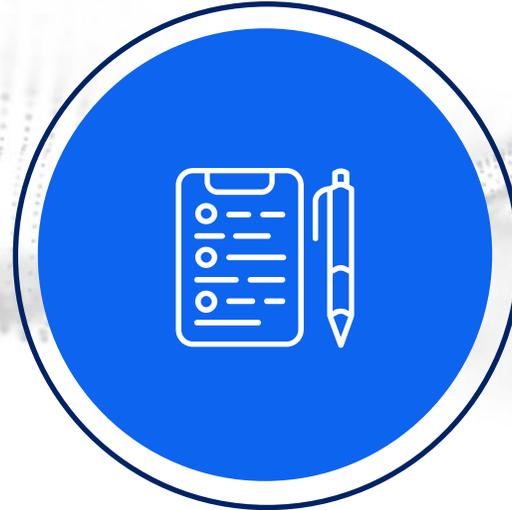
Partial
impact to FT

Refers to outage periods where FT impact is expected

Important Notes



Outage information in this presentation may not be accurate beyond the October 5, 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. Project Updates
2. Review of September Operations
3. Review of Upcoming DOP Outages



Project Updates



Project Updates: ISD Summary (since September 7, 2023 update)

NGTL Projects:	
Intra-Basin Expansion	Saturn (ISD Dec 2023)* <i>change since last update</i> Saddle Hills Unit Addition (ISD April 2024) Emerson Creek Compressor Station (ISD April 2024)
WestPath 2023	Turner Valley, Lundbreck and Longview (ISD Nov 2023)
FH Projects:	
Elko Section Loop	ISD Nov 2023

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



Project Updates: NGTL (since September 7, 2023 update)

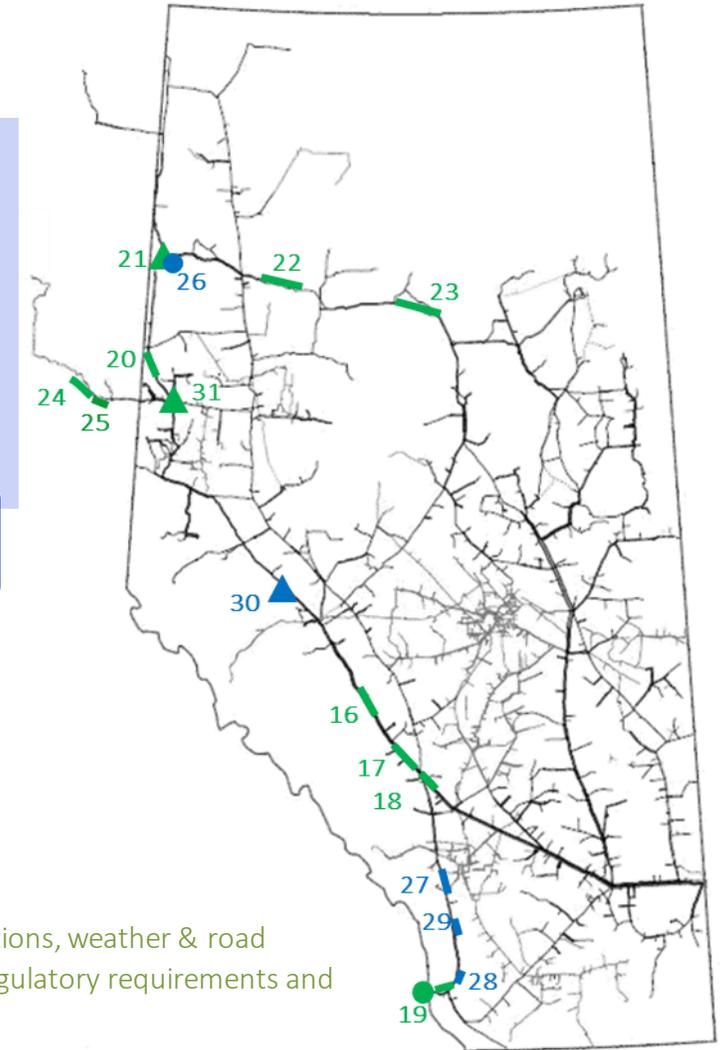
Intra-Basin Expansion

Saturn (Map I.D. # 24) ISD Dec 2023	<ul style="list-style-type: none"> Mainline welding complete
Emerson Creek Compressor Station (Map I.D. #30) Saddle Hills Unit Addition (Map I.D. #31) ISD April 2024	<ul style="list-style-type: none"> 81% construction complete 56% construction complete

West Path 2023

Turner Valley (Map I.D. # 27) Lundbreck (Map I.D. # 28) Longview (Map I.D. # 29) ISD Nov 2023	<ul style="list-style-type: none"> All pipe has been installed and backfilled
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Once all sections are in-service, incremental contracts will be declared



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



Project Update: FH (since September 7, 2023 update)

West Path 2023

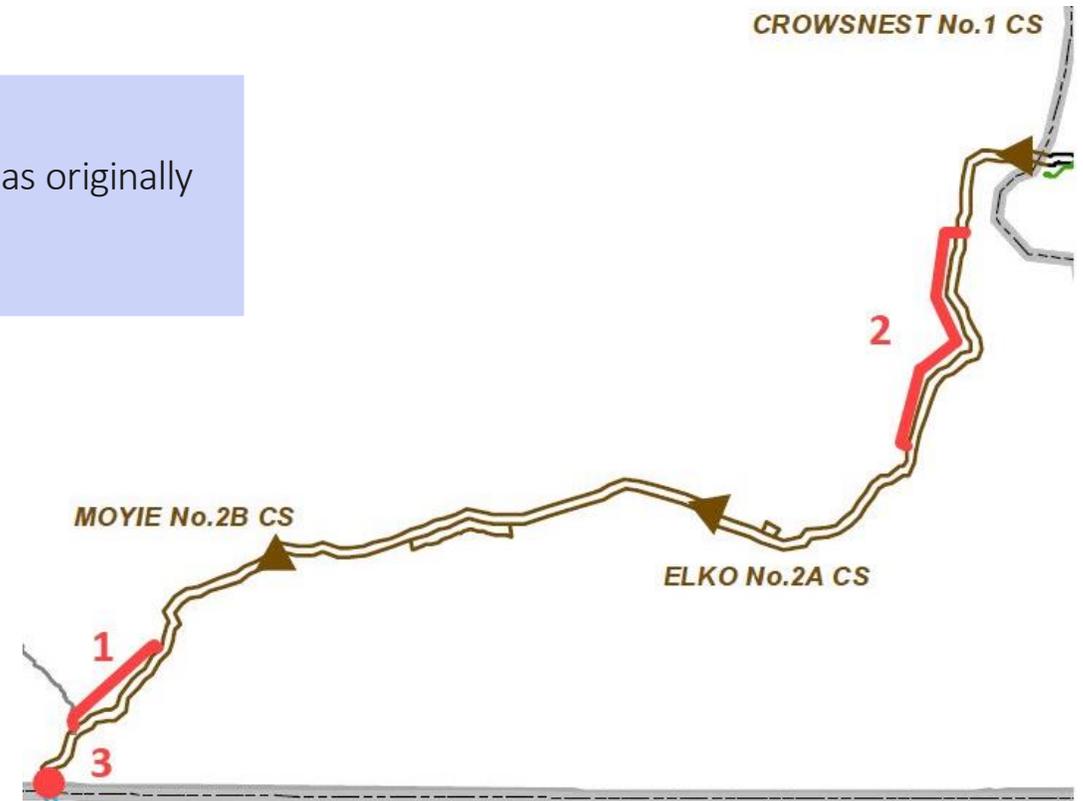
- Yahk in-service (Map I.D. #1)

Elko (Map I.D. #2)
ISD Nov 2023

- Installation of pipe is complete.
- Full project capacity will be in service by November as originally planned.

Once all sections are in-service, incremental contracts will be declared

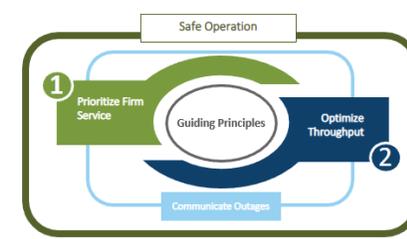
Availability of capacity remains subject to: Ground conditions, weather & road access/conditions, heated labour market, environmental and regulatory requirements and LTO approval by the CER



Review of September Operations

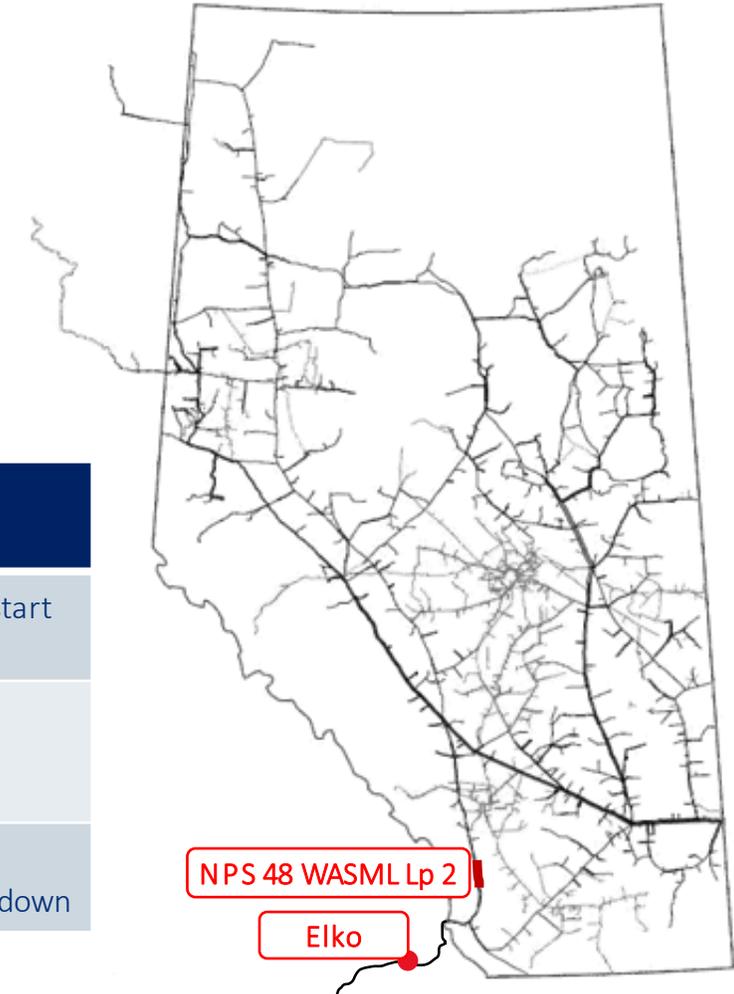


Elko – Compressor Station Maintenance NPS 48 WAS Mainline Loop 2 – Pipeline Modifications



Background:

- **Planned:**
 - Elko Compressor Station Maintenance: Sept 18– 22
 - NPS 48 Western Alberta System Mainline Loop 2 Pipeline Modifications: Sept 18- 28
- **Capability communicated in DOP:**
 - Sept 18 – 22: 68 10⁶m³/d (FHBC)
 - Sept 23 – 28: 74 10⁶m³/d (NGTL)
- **Service Allowable:**
 - Sept 18 – 22: 0% IT-D, Partial FT-D (FHBC)
 - Sept 23 – 28: Partial IT-D, 100% FT-D (NGTL)

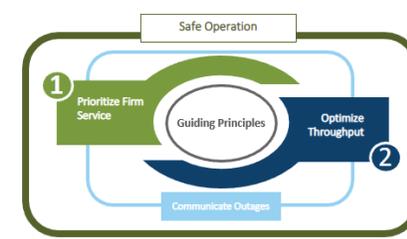


Bulletin Date	Effective Date	Service Allowable	Comments
Sept 13	Sept 18 (08:00 MST)	FHBC: 0% IT, Partial FT (68)	Elko C/S and NPS 48 WASML Loop 2 outages start as scheduled
Sept 22	Sept 23 (08:00 MST)	FHBC: 100% IT, 100% FT (68) NGTL: Partial IT-D, 100% FT-D (74) (AB-BC + AB-MN)	Elko C/S outage completed as scheduled, NPS 48 WASML Loop 2 outage ongoing
Sept 28		NGTL: Partial IT-D, 100% FT-D (74) (AB-BC + AB-MN)	NPS 48 WASML Loop 2 outage completed as scheduled. Burton Creek A1 unplanned breakdown



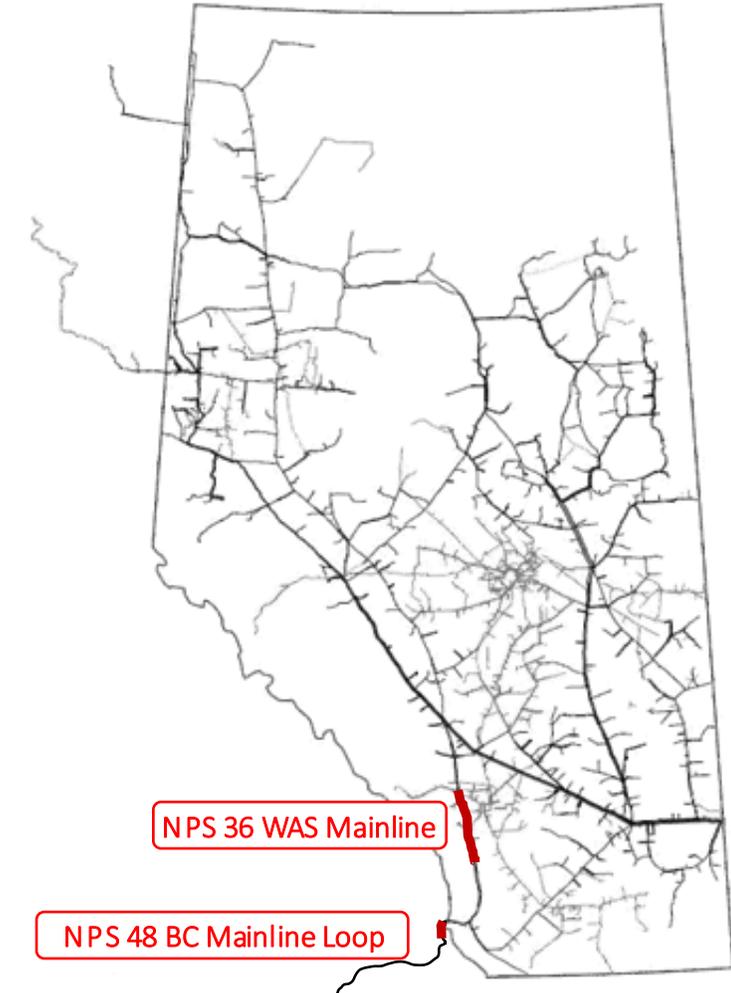
NPS 48 BC Mainline Loop – Pipeline Modifications

NPS 36 WAS Mainline (Seg 1 and 2) – Pipeline Modifications



Background:

- **Planned:**
 - NPS 48 BC Mainline Loop Pipeline Modifications: Oct 1 – 11
 - NPS 36 Western Alberta System Mainline (Seg 1 and 2) Pipeline Modifications: Oct 1 – 11
- **Capability communicated in DOP:**
 - WGAT: 64 10⁶m³/d
- **Service Allowable:**
 - FHBC: 0% IT-D, Partial FT-D



Bulletin Date	Effective Date	Service Allowable	Comments
Sept 28	Oct 1 (08:00 MST)	NGTL: 100% IT-D, 100% FT-D (AB-BC + AB-MN) FHBC: 0% IT, Partial FT (64)	NPS 48 BC Mainline Loop and NPS 36 WAS Mainline (Seg 1 and 2) outages start as scheduled
			Maintenance currently ongoing



Review of DOP Outages

(From DOP as of Wednesday, October 4)



2023 Outages

- All known planned outages at this time are included in the DOP (including work deferrals due to the wildfires)
 - We continue to optimize the outage scheduled to reduce impacts; however, opportunity is limited due to work that has been shifted to late summer due to the wildfires
 - If there is adequate manpower and resources available, we will continue to move forward with all work even if it may result in impact to service
 - It's very important that all required maintenance is completed prior to the winter season to avoid system derates or limitations and ensure reliability through the winter
- 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.

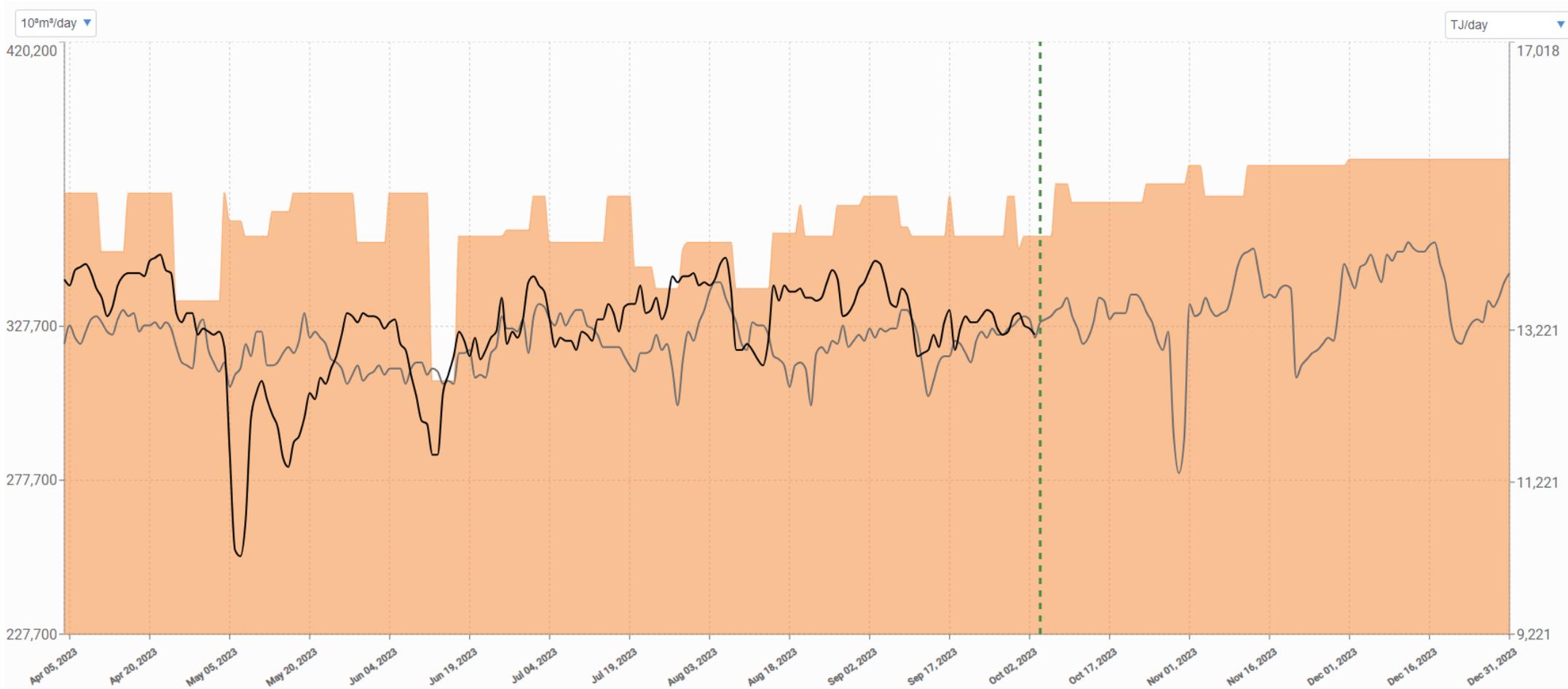
Daily Operating Plan (DOP): Facility Assumptions

Date	Expansion Facilities
November 2023	<p>2023 West Path:</p> <ul style="list-style-type: none">• WASML Loop 2 (Turner Valley), WASML Loop 2 (Lundbreck), WASML Loop 2 (Longview) <p>Foothills BC Expansion:</p> <ul style="list-style-type: none">• BC Mainline Loop 2 (Elko)
December 2023	<p>Intra-basin Expansion:</p> <ul style="list-style-type: none">• Groundbirch Mainline Loop (Saturn)



Upstream James River

Capability - Actual Flow - Historical Flow



This slide may not be accurate beyond the October 5 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

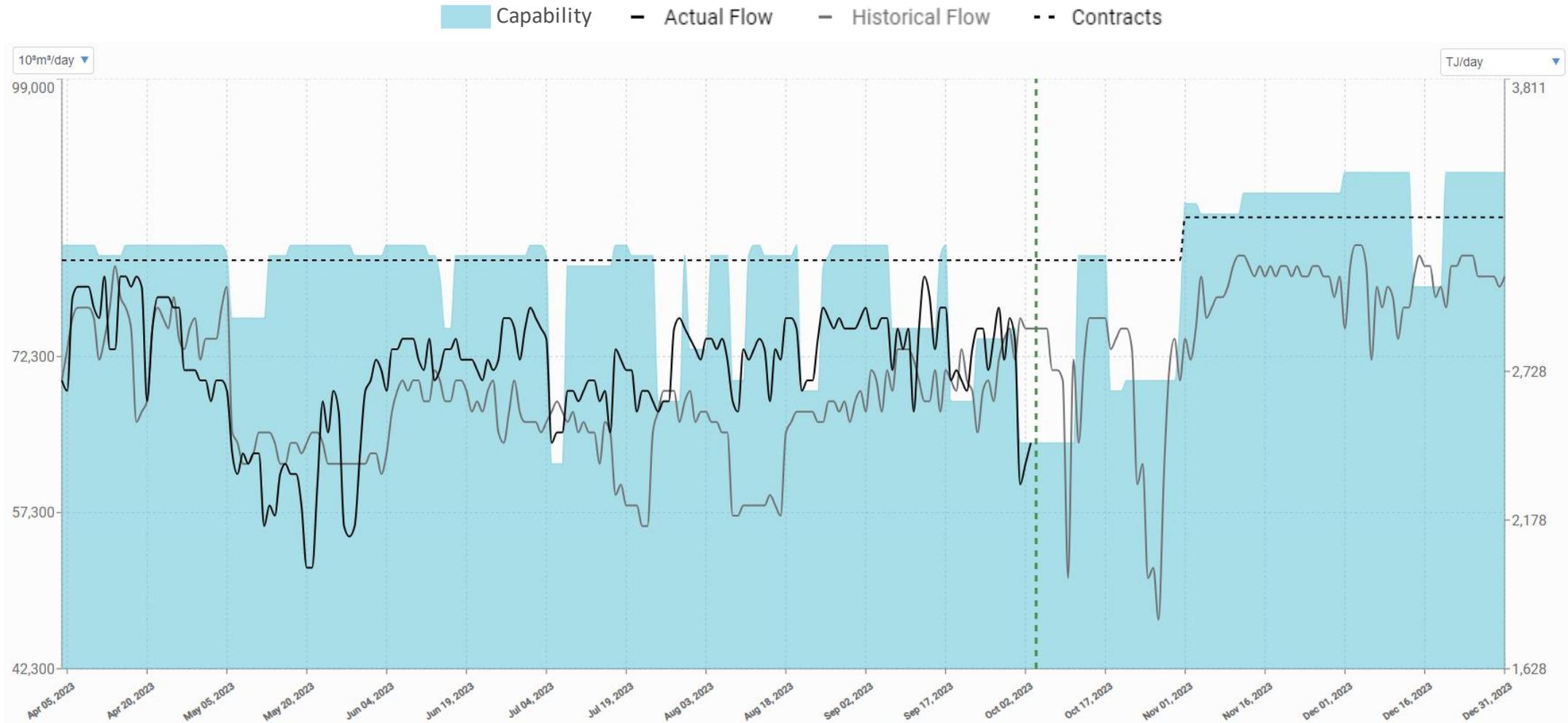
Outage Description	Start	End	USJR Outage Capability (10 ⁶ m ³ /d)	USJR Impact (10 ⁶ m ³ /d)	Area Outage Capability (10 ⁶ m ³ /d)	Outage Area Typical Flows (10 ⁶ m ³ /d)	Service Allowable Location/Area
Meikle River D5 – Compressor Station Maintenance	30-Sep-23	6-Oct-23	353 (Sep) 357 (Oct)	17	226	180 - 220	Potential impact to FT-R USJR U/S Latornell
Clearwater – Compressor Station Maintenance	10-Oct-23	14-Oct-23	364	40	N/A	320 - 350	Potential impact to FT-R USJR
Latornell A1 – Compressor Station Maintenance	10-Oct-23	23-Oct-23	368	6	N/A	320 - 350	Potential impact to FT-R USJR
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

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Please refer to the DOP on TC Customer Express for current outage information.



Alberta-B.C. Border

(includes both NGTL and Foothills BC outages)



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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 36 Western Alberta System Mainline (Seg 1) – Pipeline Modifications	1-Oct-23	11-Oct-23	64	19	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders Segment 22 and Partial 21
NPS 36 Western Alberta System Mainline (Seg 2) – Pipeline Modifications	1-Oct-23	11-Oct-23	64	19	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders
NPS 48 BC Mainline Loop – Pipeline Modifications	1-Oct-23	11-Oct-23	64	19	Partial Impact to FT Foothills BC
Crowsnest K – Compressor Station Maintenance	2-Oct-23	11-Oct-23	75	8	Potential Impact to FT Foothills BC
Burton Creek – Compressor Station Maintenance	18-Oct-23	20-Oct-23	69	14	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders
Turner Valley A1 & A2 – Compressor Station Maintenance	20-Oct-23	31-Oct-23	76	7	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders
Turner Valley – Compressor Station Maintenance	21-Oct-23	30-Oct-23	70	13	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders
NPS 42 Western Alberta System Mainline Loop – Pipeline Modifications	1-Nov-23	9-Nov-23	87	1	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

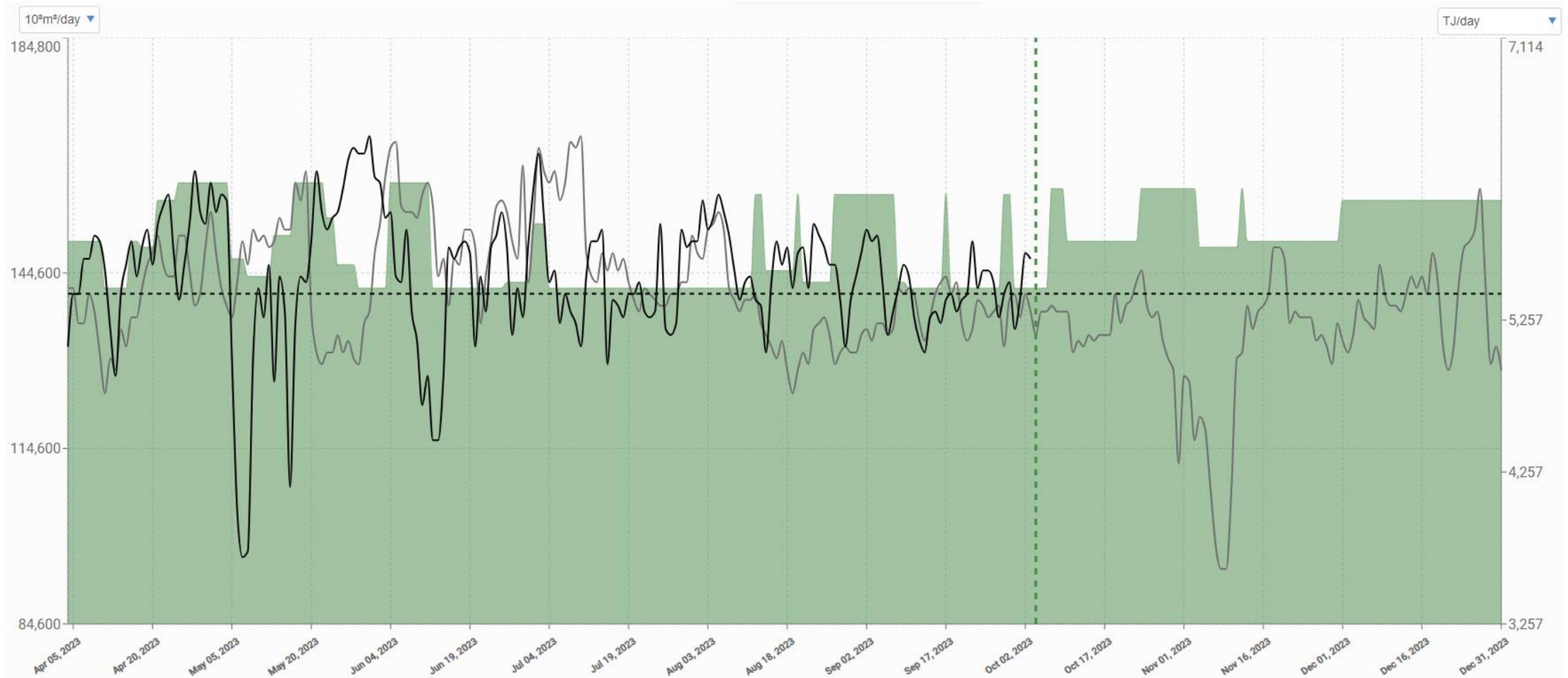
Note: Outages located in the USJR area show up in the WGAT table in DOP to indicate a broad area restriction could be applied to reduce flows through the bottleneck but have been excluded from this slide to avoid duplication

This slide may not be accurate beyond the October 5 NGTL/Foothills Customer Operations meeting on WebEx.
Please refer to the DOP on TC Customer Express for current outage information.



East Gate

■ Capability - Actual Flow - Historical Flow - - Contracts



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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
Clearwater – Compressor Station Maintenance	10-Oct-23	14-Oct-23	143	16	No impact to FT-D anticipated Empress/McNeill Borders Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28
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

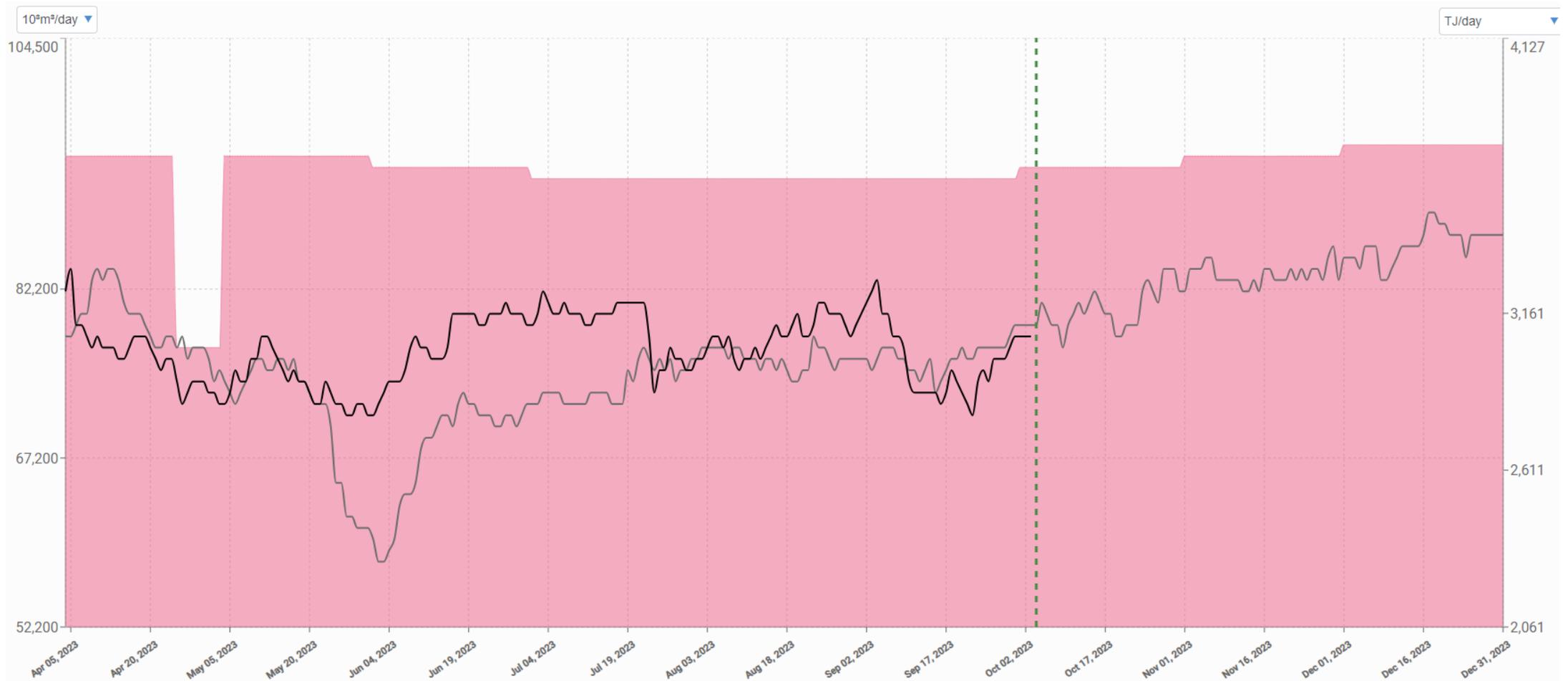
Note: Outages located in the USJR area show up in the EGAT table in DOP to indicate a broad area restriction could be applied to reduce flows through the bottleneck but have been excluded from this slide to avoid duplication

This slide may not be accurate beyond the October 5 NGTL/Foothills Customer Operations meeting on WebEx.
Please refer to the DOP on TC Customer Express for current outage information.



Oil Sands Delivery Area

■ Capability - Actual Flow - Historical Flow



This slide may not be accurate beyond the October 5 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

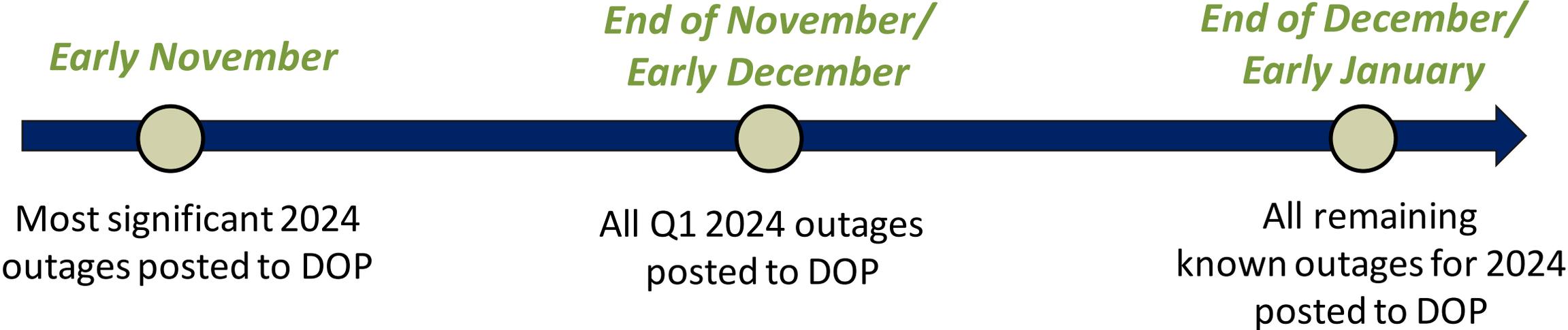
Partial
impact to FT

There are currently no outages planned that are
specific to OSDA or NEDA

This slide may not be accurate beyond the October 5 NGTL/Foothills Customer Operations meeting on WebEx.
Please refer to the DOP on TC Customer Express for current outage information.



2024 Outage Communication Schedule | Next Steps



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



CONTACTS



MARKETING REPS

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

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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:

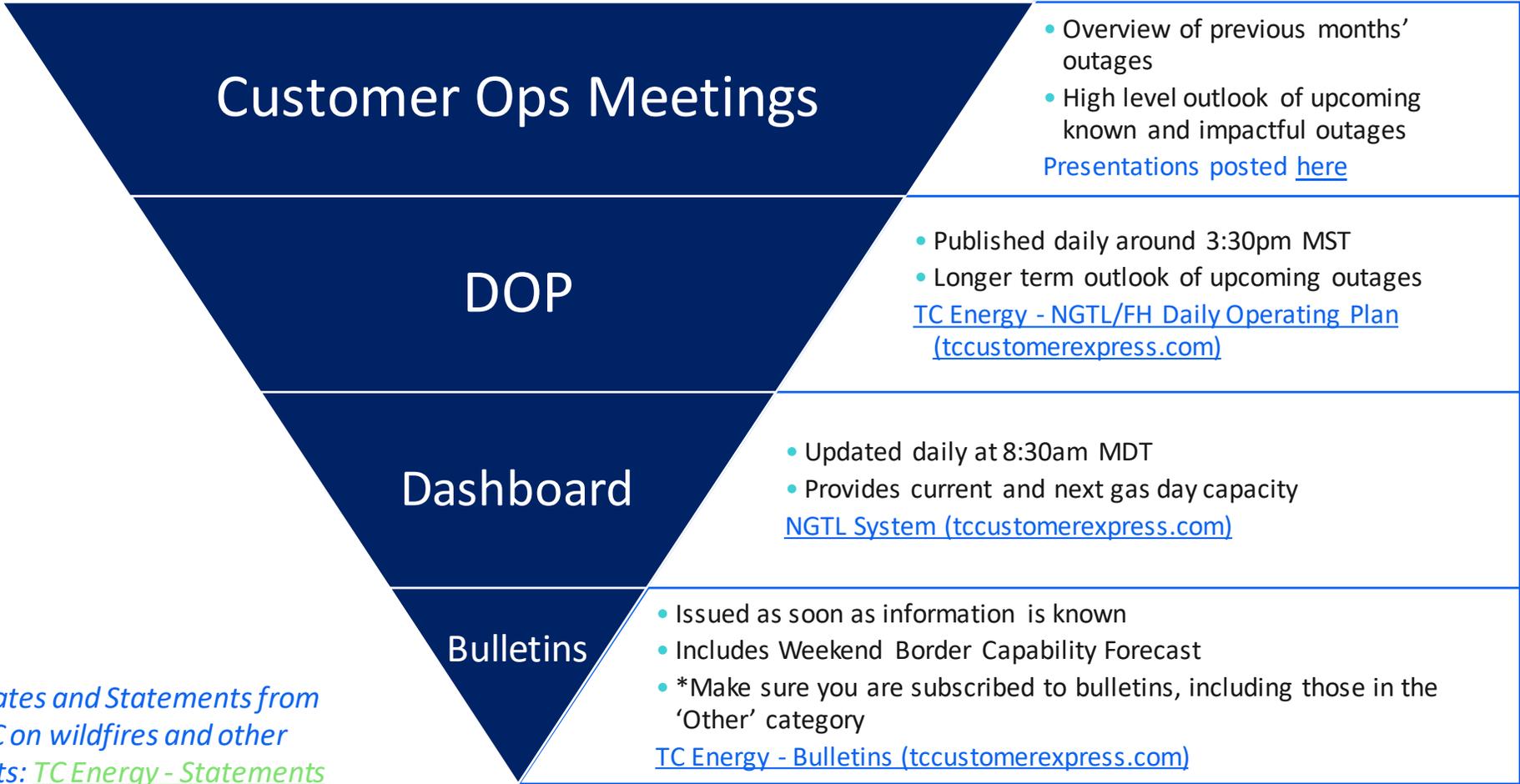
- Customer Express
- Bottom of the Daily Operation Plan (DOP)

Where to send the form: ab_bc_ops_planning@tcenergy.com

The screenshot shows a form titled "PLANT TURNAROUND INFORMATION FORM" with the TC Energy logo in the top right corner. The form includes a "Date:" field and an "Email to:" field with the address ab_bc_ops_planning@tcenergy.com. The "Your Contact Information:" section contains 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 radio button options: " Information for new Plant Turnaround" and " Update to existing Plant Turnaround information". The "Plant Turnaround Information:" section includes fields for "NGTL Meter Station Name:", "NGTL Meter Station Number:", "Start Date:", "End Date:", "Start Time:", and "End Time:". It also has a "Type of Plant Turnaround:" section with two radio button options: " Complete Turnaround (Zero Flow)" and " Partial Turnaround:". Under the "Partial Turnaround:" option, there are fields for "Expected Flow during turnaround:" (with a unit of $10^3\text{m}^3/\text{d}$) and "Typical Flow:" (with a unit of $10^3\text{m}^3/\text{d}$). At the bottom, there is an "Additional Comments:" section with a large text area. 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

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.

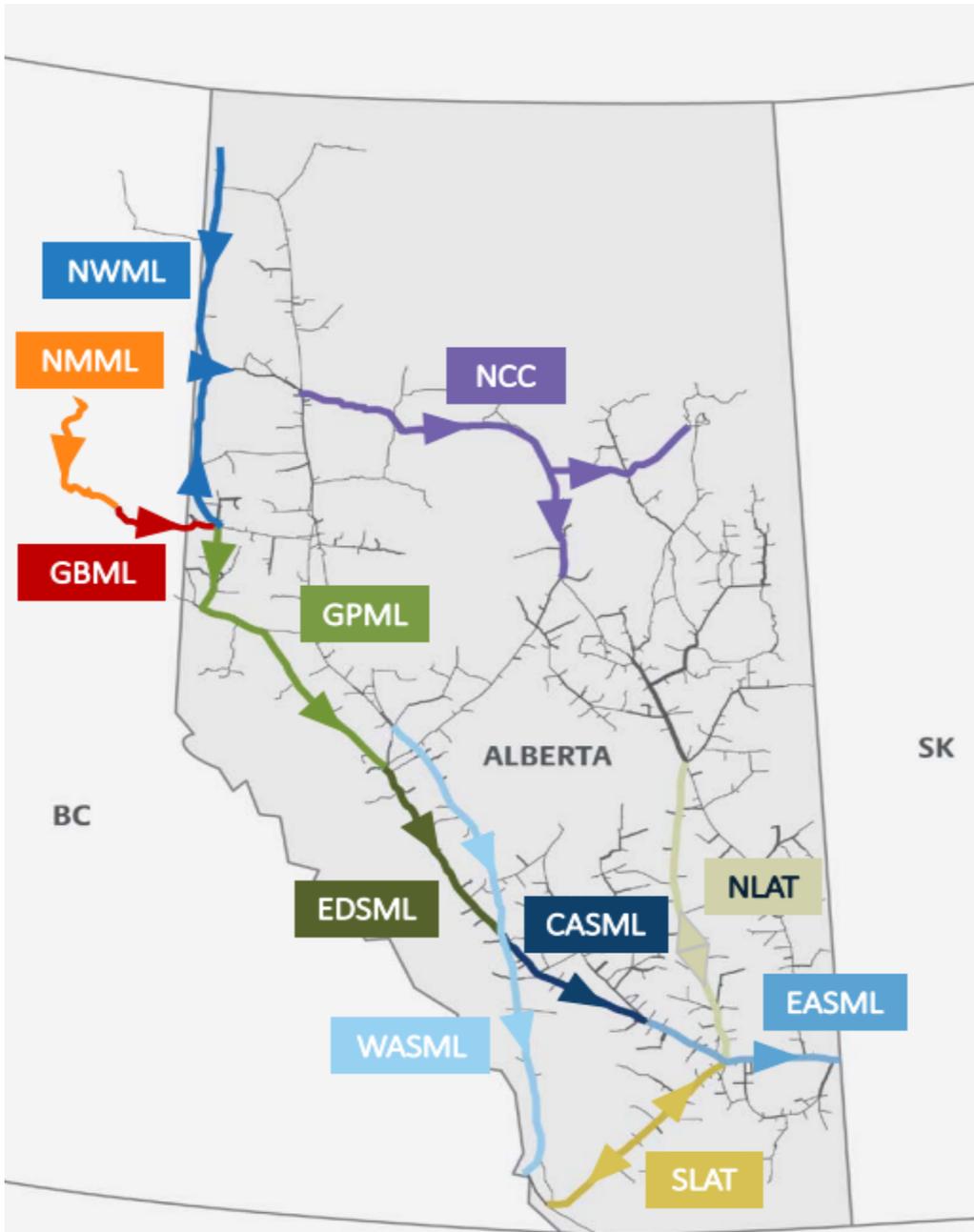


Glossary of Terms

- ❖ **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)