

NGTL System and Foothills Pipelines Ltd.

CUSTOMER

FEBRUARY 2, 2023

FOR INFORMATIONAL PURPOSES ONLY

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



5 WAYS YOU CAN HELP

CREATE PSYCHOLOGICAL SAFETY



1. MAKE

a conscious effort
every day



2. FACILITATE

everyone speaking up



3. ESTABLISH

norms for how failure
is handled



4. CREATE

space for new ideas
(even wild ones)



5. EMBRACE

productive, respectful
conflict

Psychological safety creates world-class culture

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 February 2, 2023 NGTL/Foothills Customer Operations (WebEx only) meeting

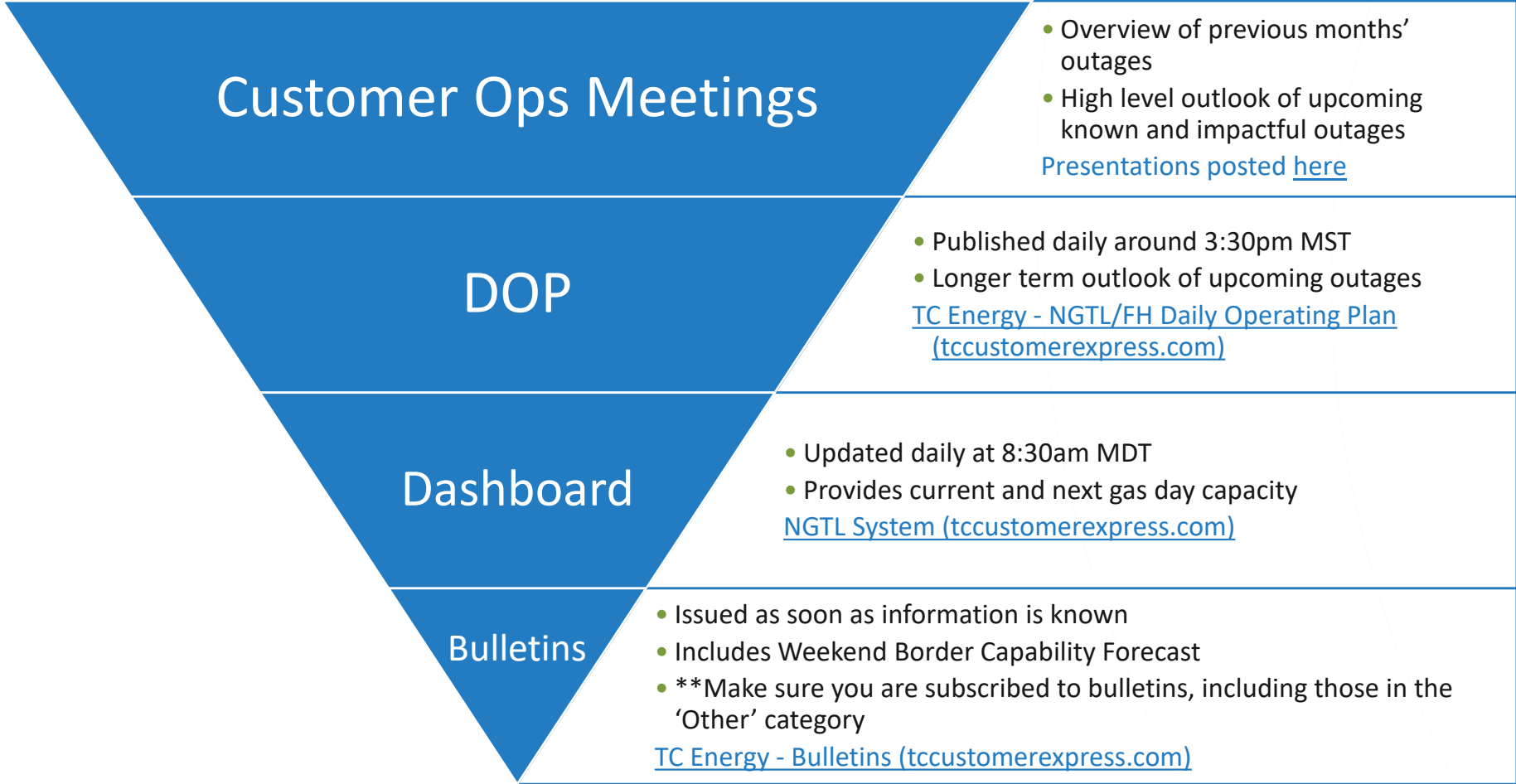


For current outage and capability information, please refer to the most recent Daily Operating Plan ([DOP](#)), the [Dashboard](#) and [bulletins](#)



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

Outage Communication Tools – Order



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



Agenda

1. Project Updates
2. Review of December/January Operations
3. Review of Upcoming DOP Outages



Project Updates

FOR INFORMATIONAL PURPOSES ONLY

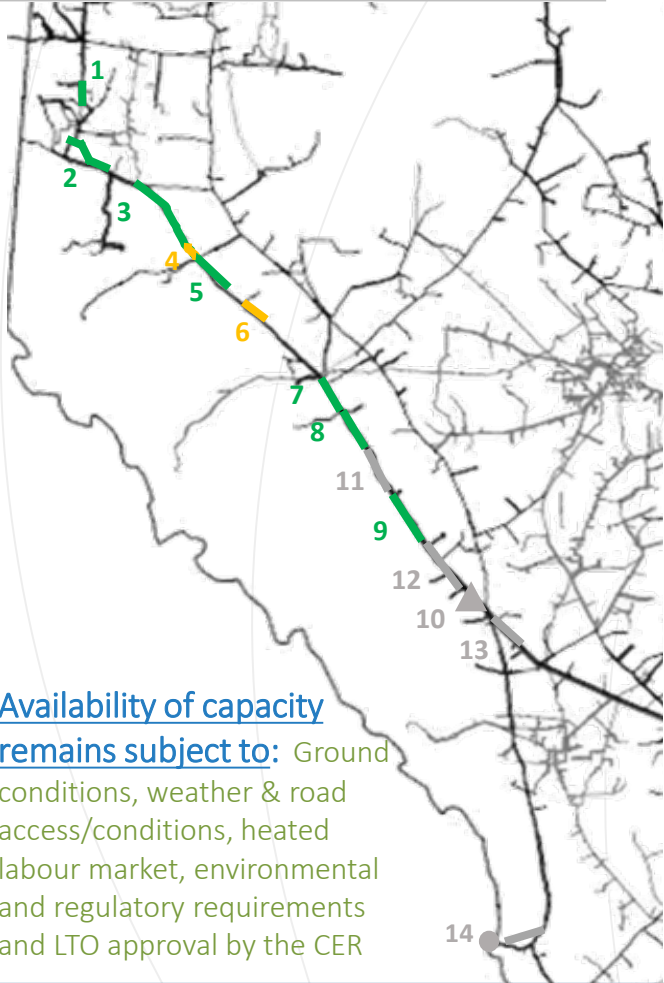
2021 Expansion Project Update – ISD Summary (since Dec. 8, 2022 update)



2021 Expansion Project Update (since Dec. 8, 2022 update)

Facilities already in-service: (Map I.D. # 1, 2, 3, 4, 5, 8, 9)

<p>3 km of Pipe Adjacent to Little Smoky River that connects DVN/DVS <small>(Map I.D. # 4)</small></p> <p>ISD Expected mid to late February 2023</p>	<p><u>Activities remaining:</u> ~ 3 km of mainline</p> <ul style="list-style-type: none"> All pipe has been lowered in and backfilled Hydrotest and caliper run completed Caliper results required only 1 dig to be investigated February 15th Caribou Restricted Activity Period (RAP). Request to continue with work into the RAP submitted to CER on Jan 13. Decision not expected until early February
<p>Colt <small>(Map I.D. # 6)</small></p> <p>ISD Expected late March 2023</p>	<p><u>Activities remaining:</u> ~ 9 km of mainline</p> <ul style="list-style-type: none"> Pipe installation activities continue Trenchless activities continue Installation through watercourse crossings in progress Weather conditions have risk of impacting ground conditions and productivity
<p>Simonette River <small>(Map I.D. # 6)</small></p> <p>ISD November 2023</p>	<p><u>Activities remaining:</u> ~ 2 km of mainline</p> <ul style="list-style-type: none"> HDD to commence in June 2023 In-service of this section has no impact on firm contract declaration The NPS 48 GPML Loop 2 ILI (originally planned for June 2023) will be deferred until Summer 2024



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 team continues to evaluate opportunities to expedite construction safely and in compliance with applicable regulatory requirements



Other Project Updates – ISD Summary (since Dec. 8, 2022 update)

NGTL Projects:	
Edson Mainline Expansion	In Service
North Corridor Expansion	North Star (ISD Jan. 19, 2023) <i>*change since last update</i> Bear Canyon, Hidden Lake North U/A, Red Earth (ISD Apr 2023)
Intra-Basin Expansion	Sunrise (ISD Apr 2023) Saturn (ISD Nov 2023) Saddle Hills U/A (ISD April 2024) Emerson Creek C/S (ISD April 2024)
WestPath 2022/2023	Raven (In Service) ABC (In Service) Turner Valley, Lundbreck and Longview (ISD Nov 2023)
FH Projects:	
Yahk Section Loop	ISD mid to late Mar 2023 <i>*change since last update</i>
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



Other Project Updates – NGTL (since Dec. 8, 2022 update)

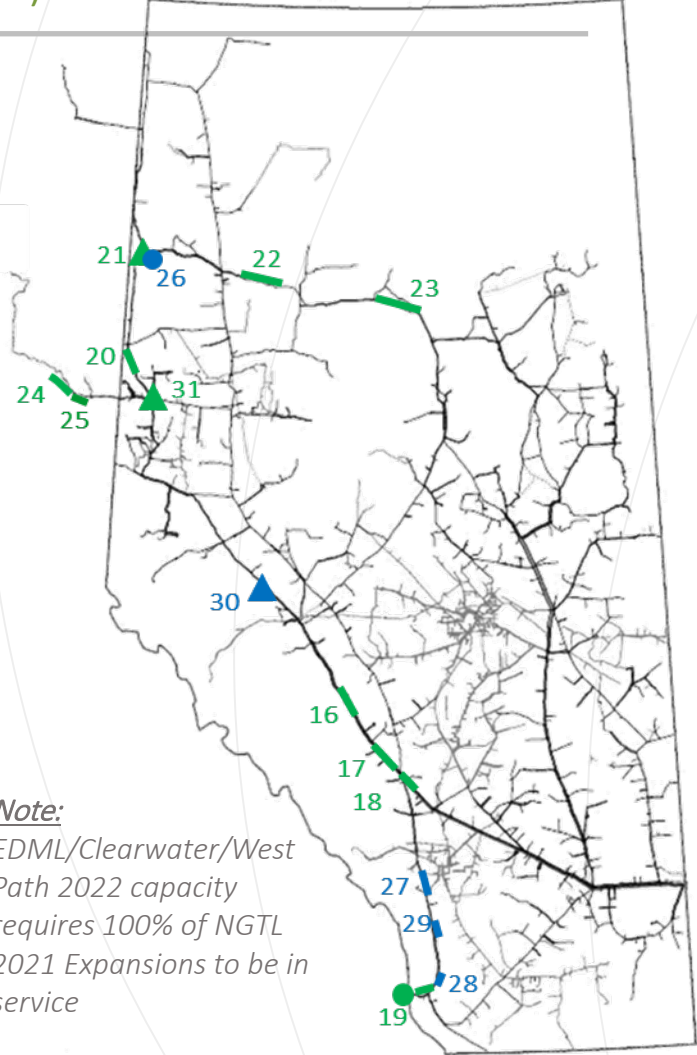
Edson Mainline Expansion

- Facilities in-service (Map I.D. # 16, 17, 18)

North Corridor Expansion

- ISD April 2023

Bear Canyon (Map I.D. # 20)	Stringing, bending, mainline welding and coating activities are complete. All other mainline activities continue to progress
North Star (Map I.D. # 22)	Caliper runs complete and all anomaly digs complete. LTO approval received on Dec. 20, 2022 Line placed into service on Jan. 19, 2023
Hidden Lake North U/A (Map I.D. #21)	93% construction complete, on track.
Red Earth (Map I.D. # 23)	Construction plans continue to be assessed to mitigate risks around February 15th Caribou RAP on sections of Red Earth. <ul style="list-style-type: none"> • All sections are required to be in service for full NCE capacity • All mainline activities are complete up to lowering-in • Backfill activities in progress • HDD is complete • Hydrotest complete within the Red Earth Caribou Range • Request to work within Caribou RAP submitted to CER on Jan. 13. Final decision by CER not expected until early February



Other Project Updates – NGTL (since Dec 8, 2022 update)

Intra-Basin Expansion

Sunrise (Map I.D. # 24) ISD April 2023	Trenching activities are complete. Lowering-in and backfill activities are near completion. HDD is near completion. Testing activities expected to start at the end of February.
Saturn (Map I.D. # 25) ISD November 2023	Pending BC OGC permits – continue consultation with Rightsholder. Mainline construction deferred to summer 2023 due to outstanding permits.
Emerson Creek C/S (Map I.D. #30) ISD April 2024	21% construction complete, on track.
Saddle Hills U/A (Map I.D. #31) ISD April 2024	Prime contractor has been awarded. Off-site fabrication commenced and field construction planned for March 2023.

West Path 2022/2023

Raven (Map I.D. # 18)/**ABC** (Map I.D. # 19) – In Service

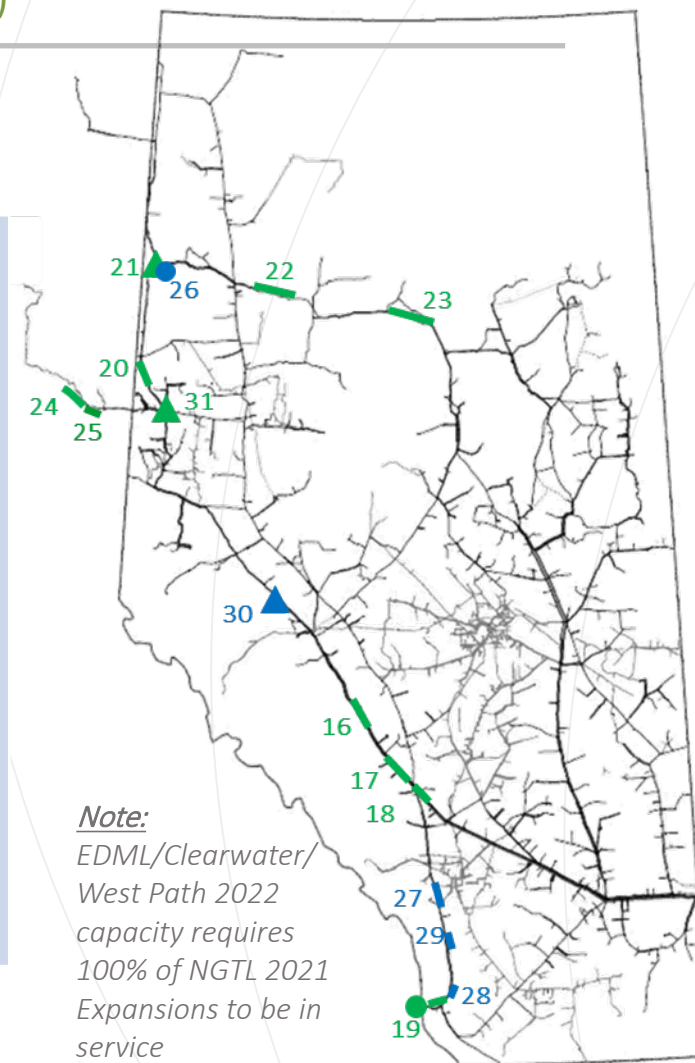
Turner Valley (Map I.D. # 27)
Lundbreck (Map I.D. # 28)
Longview (Map I.D. # 29)

ISD November 2023

The CER issued the Certificate and Order on December 1, 2022.

Pre-construction conditions have been submitted to the CER and clearing activities expected to commence mid-February.

GIC delay has increased execution schedule risk. On-going risk associated with condition compliance and outstanding municipal and federal permits and land rights.

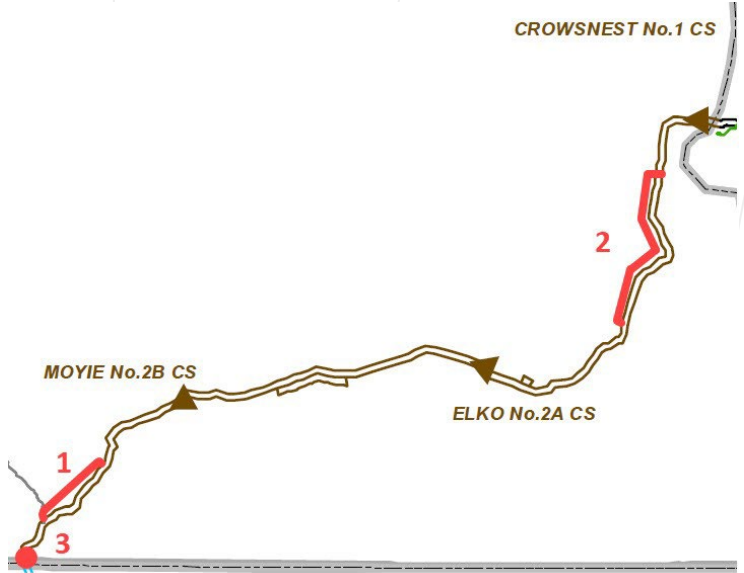


Other Project Updates – FH (since Dec. 8, 2022 update)

West Path 2022/2023

<p>Yahk (Map I.D. # 1) ISD mid to late March 2023</p>	<p>Significant snow fall events continued through December and January impacted productivity.</p> <p>Lowering-in and backfill activities are near completion and the last two watercourse crossing installations are near completion. Final hydrotest planned to start mid-February.</p>
<p>Elko (Map I.D. # 2) ISD November 2023</p>	<p>Contractor demobilized for season 1. Remobilization is planned for end of April/early May 2023.</p> <p>Our crossings were referred to the Department of Fisheries and Oceans (DFO) by the CER. Our applications were filed in December and we continue to work with DFO on approval of our crossings. Execution risk associated with critical ancillary permits and land rights exists.</p> <p>Delayed receipt of these would impede ability to meet target ISD.</p>

Note: NGTL WestPath 2022 capacity requires 100% of NGTL 2021 Expansions to be in service



Review of December/January Operations

NGTL System Historical Highs

Record-breaking cold snaps during the December contributed to the surge for natural gas.



USJR RECEIPT
12.5 Bcf/d
on December 17



OSDA DEMAND
3.1 Bcf/d
on December 17



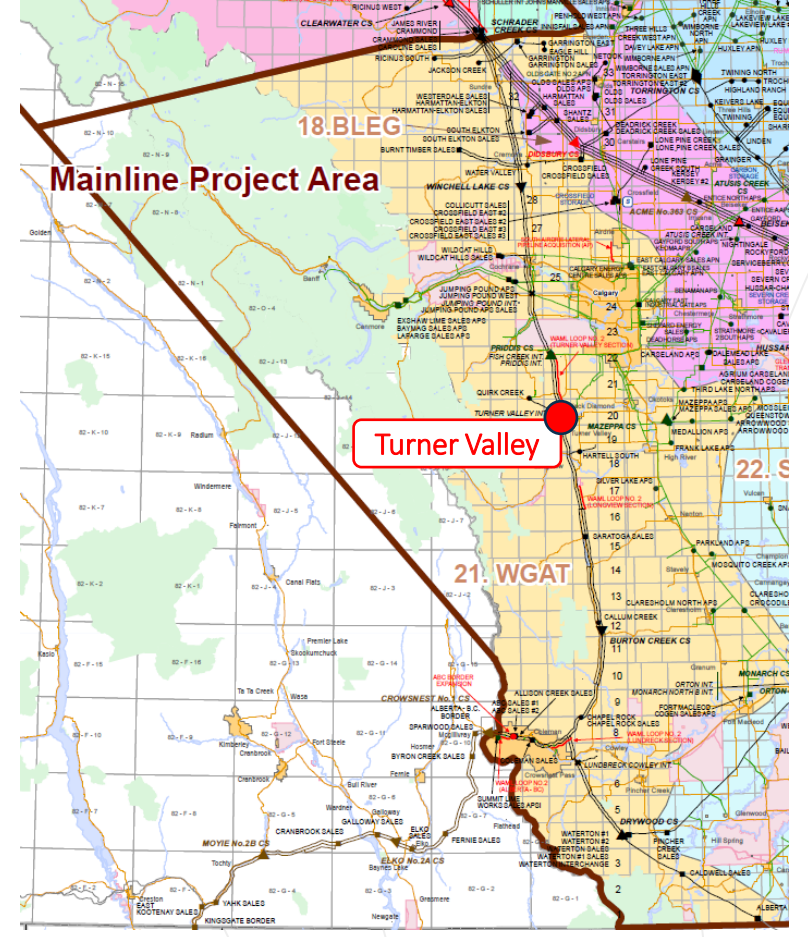
SYSTEM DEMAND
16.4 Bcf/d
on December 19

Turner Valley A3 Compressor Station Maintenance

Background:

- **Unplanned:** Turner Valley A3 Compressor Station Maintenance: December 8 - 20
- Capability communicated in DOP: 80 10⁶m³/d
- **Service Allowable:** 0% IT-D, 100% FT-D (Alberta BC and Alberta Montana Borders)

Bulletin Date	Effective Date	Service Allowable	Comments
Dec 8	Dec 9 (08:00 MST)	0% IT-D, 100% FT-D (NGTL: AB-BC + AB-MN)	Bulletin Issued
Dec 12			Update: Work is ongoing but expected to be completed between Dec 17 - 20
Dec 19	Dec 21 (08:00 MST)	100% IT-D, 100% FT-D (NGTL: AB-BC + AB-MN)	Update: Outage expected to be completed Dec 20



Alces River Compressor Station Maintenance

1 Prioritize Firm Service

Optimize Throughput

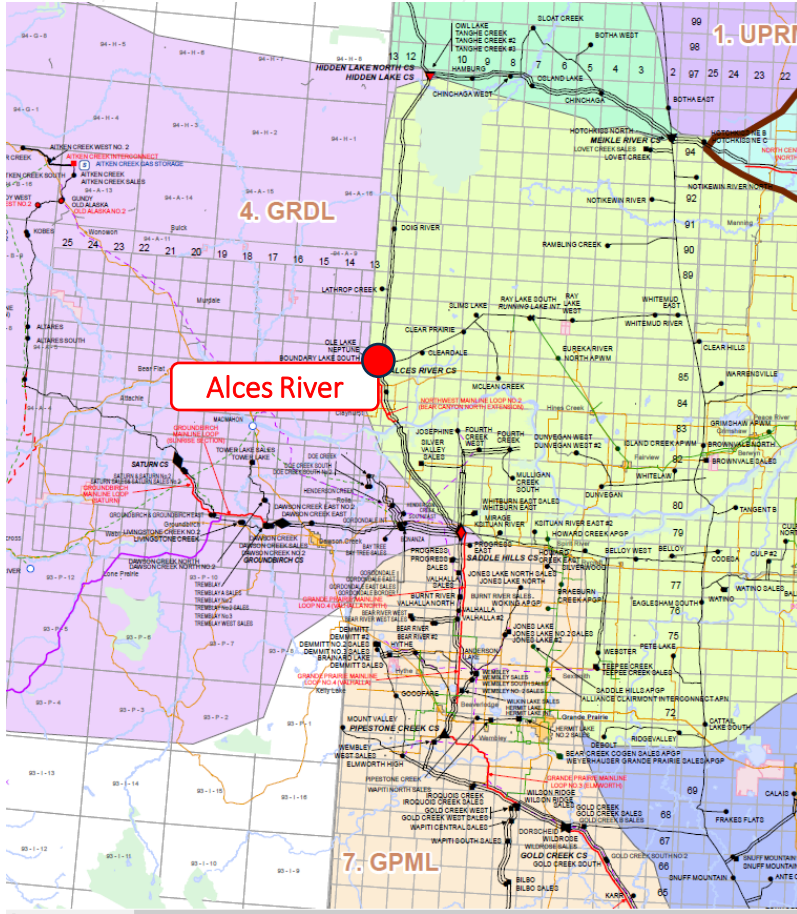
2

Guiding Principles

Communicate Outages

Background:

- **Unplanned:** Alces River Compressor Station Maintenance: December 23 - 24
- **Capability communicated in DOP:** Not added to DOP – updates provided via bulletins
- **Service Allowable:** 0% IT-D, 100% FT-D (North East Delivery Area)



Bulletin Date	Effective Date	Service Allowable	Comments
Dec 23			Advisory Bulletin Posted
Dec 24	Dec 24 (13:00 MST)	0% IT-D, 100% FT-D (NEDA)	Bulletin Issued
Dec 24		0% IT-D, 100% FT-D (NEDA)	Update: Alces returned to service but linepack recovery required
Dec 26		0% IT-D, 100% FT-D (NEDA)	Update: Linepack recovery continues and progressing well
Dec 27	Dec 28 (08:00 MST)	100% IT-D, 100% FT-D (NEDA)	Update: Linepack recovery complete



December Extreme Cold

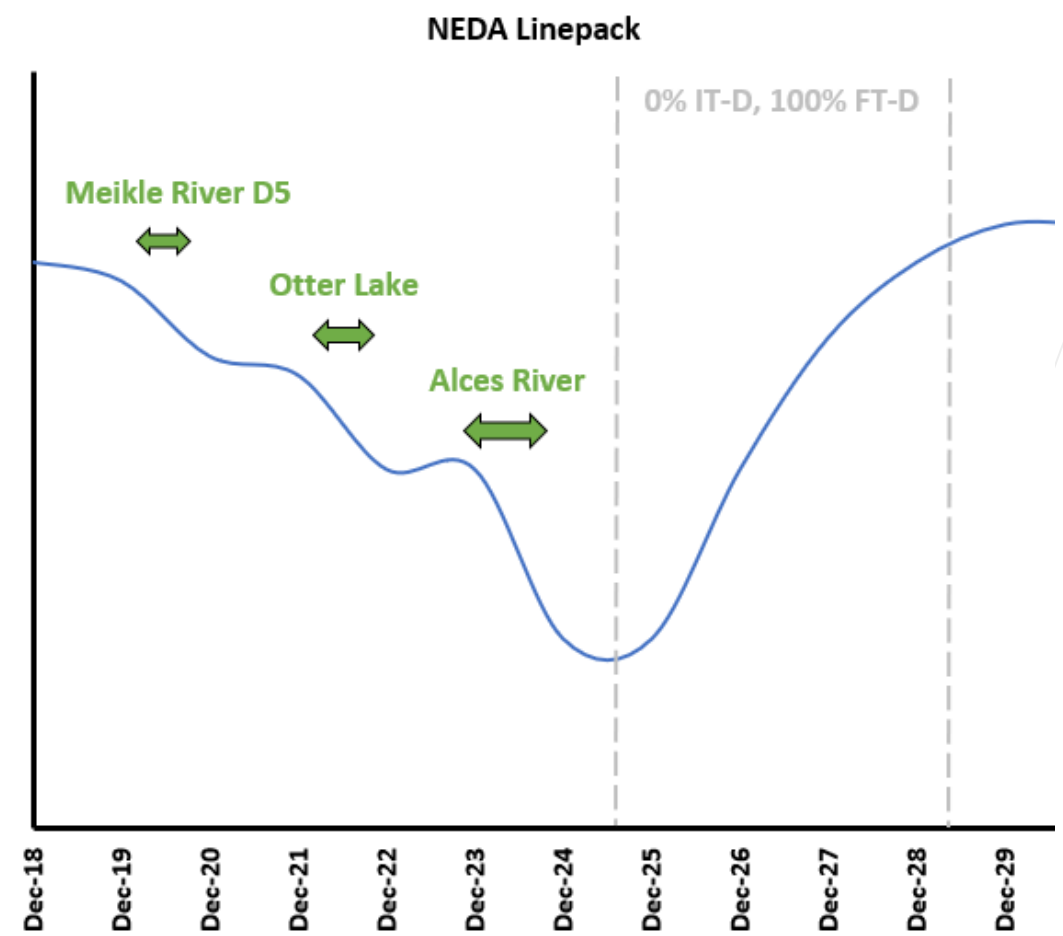
Our teams were proactive and worked attentively to prepare the system and minimize impacts

In anticipation of the cold-weather snap we:

- Held focused discussions on reliability and developed mitigation strategies
- Increased overall system linepack leading into the event (utilizing all tools: tolerance, OBAs, and purchasing)
- Proactively deferred any non-critical work
- Strategically staged resources geographically to minimize response times

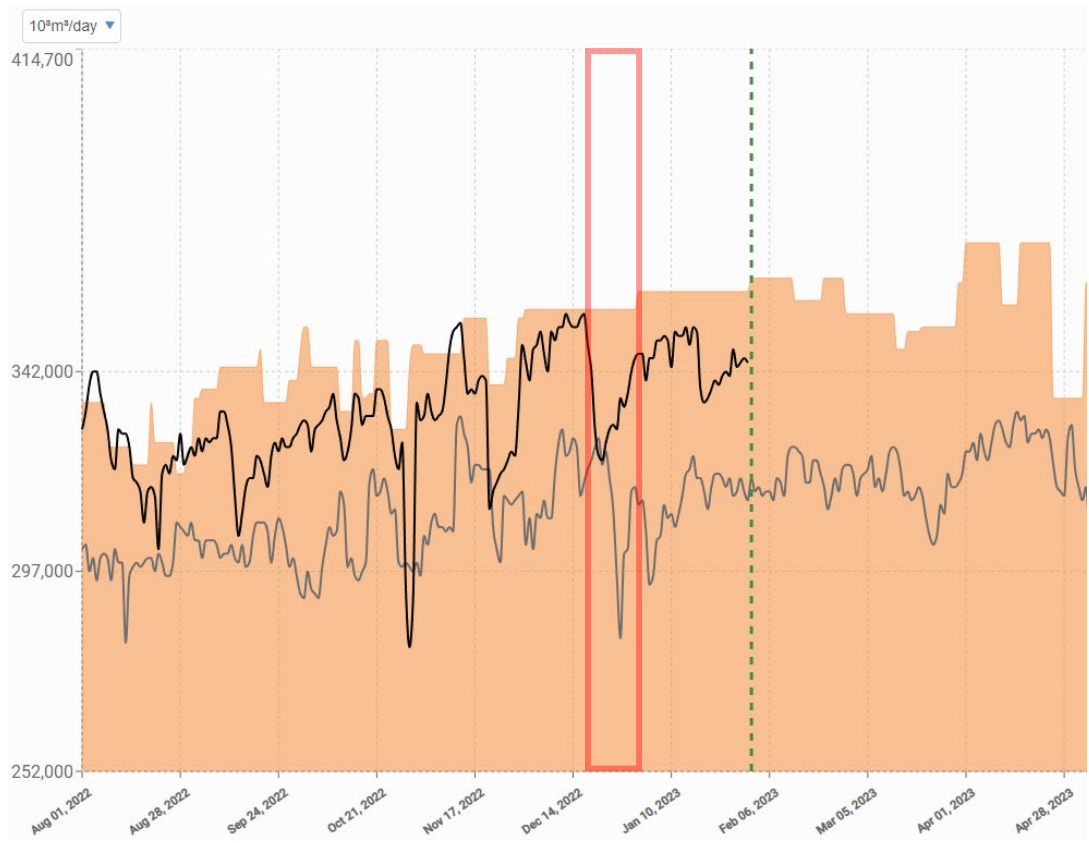
The system was able to absorb multiple short duration unplanned breakdowns before eventually requiring a reduction to NEDA IT-D.

Firm service was not impacted throughout the entire December extreme cold weather event.



USJR Authorization Level

Why wasn't the USJR IT-R allowable increased during the extreme cold when field receipts were visibly low?



Unplanned breakdowns (although short in duration):

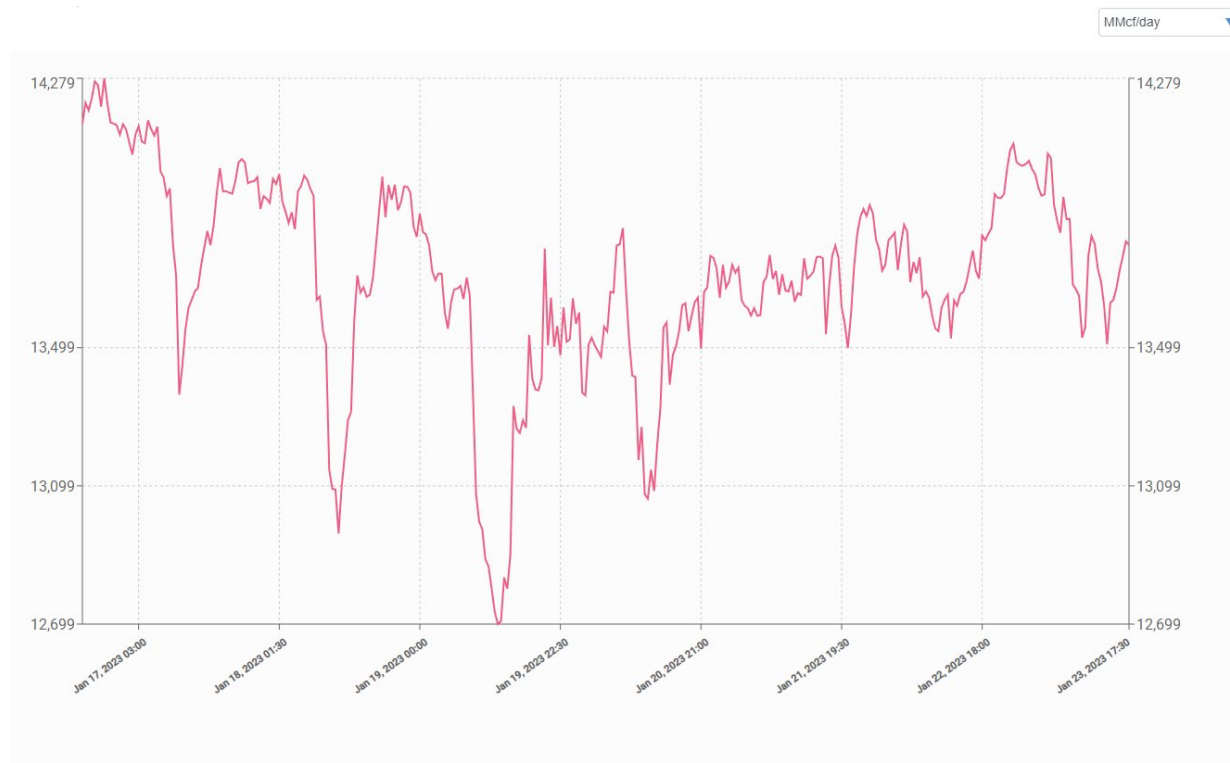
- Meikle River D5 Compressor Station
- Otter Lake Compressor Station
- Alces River Compressor Station

Outages located on the NCC flow path resulted in limited NEDA and USJR capability which prevented an increase to the IT-R authorization level.



USJR Authorization Level

Why hasn't the USJR allowable increased when USJR flows appear to be lower than capability?



NGTL Field Receipts (Current System Report)

Unsteady Flows

- Cycle of daytime lows and overnight peaks
- Overnight peaks at or near capacity
- DOP chart only shows a daily average flow



Review of Upcoming DOP Outages

From DOP as of Wednesday February 1

2023 Outages

- Outages with the most significant impact to system capability were added to the DOP in November 2022
- All known outages planned for Q1 were added to the DOP before the last Customer Operations meeting on December 7, 2022
- All known planned outages for the remainder of 2023 have now been added to the DOP
- 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.



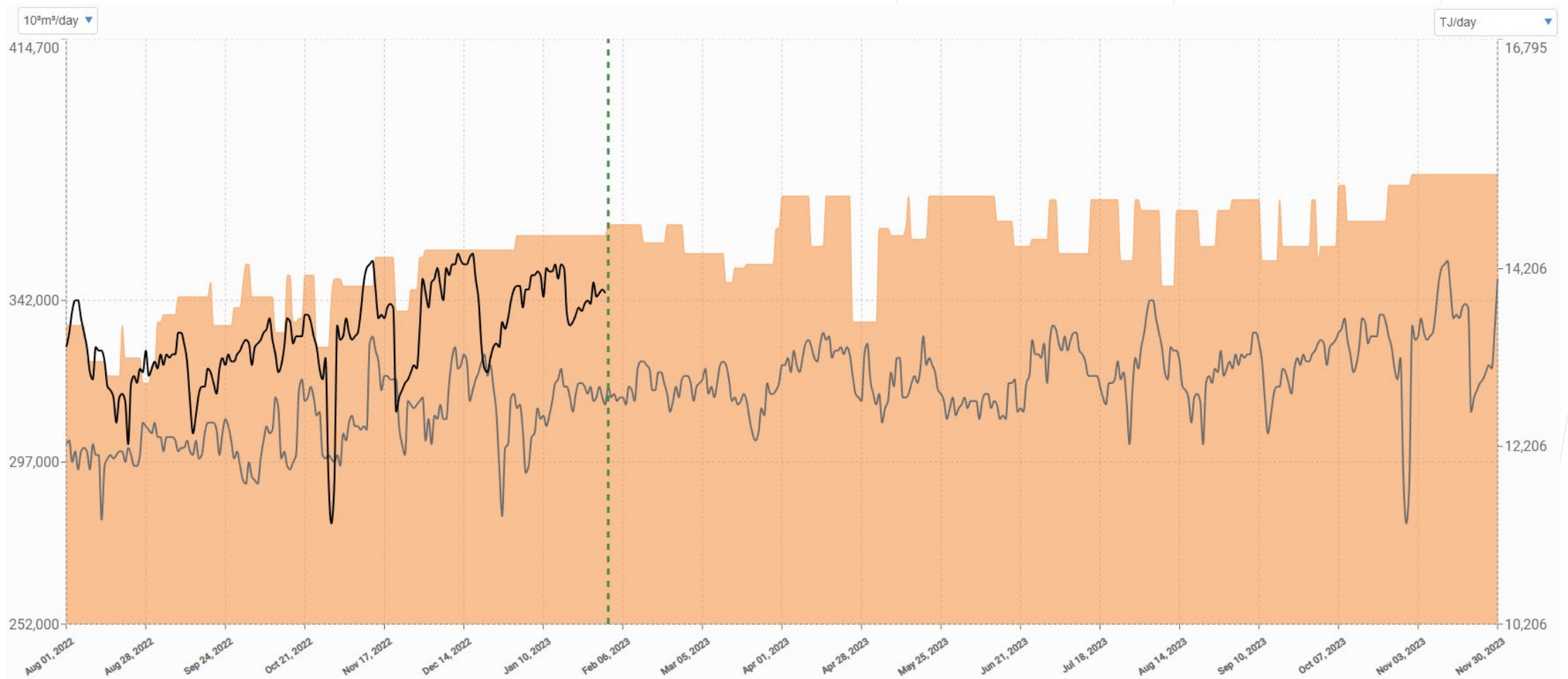
Daily Operating Plan (DOP) – Facility Assumptions

Date	Expansion Facilities
Current	90% scenario of 2021 expansion
March 1, 2023	Foothills BC Expansion: <ul style="list-style-type: none"> • BC Mainline Loop 2 (Yahk)
March 1, 2023	2021 Expansion: <ul style="list-style-type: none"> • GPML Loop 2 (3km section adjacent to Little Smoky River that connects to DVN/DVS)
April 1, 2023	2021 Expansion: <ul style="list-style-type: none"> • GPML Loop 2 (Colt section) North Corridor Expansion: <ul style="list-style-type: none"> • NWML Loop 2 (Bear Canyon), NCC Loop (North Star 2), NCC Loop (Red Earth 3), Hidden Lake North Unit Addition Intra-basin Expansion: <ul style="list-style-type: none"> • Groundbirch Mainline Loop (Sunrise)
November 1, 2023	Intra-basin Expansion: <ul style="list-style-type: none"> • Groundbirch Mainline Loop (Saturn) 2023 West Path: <ul style="list-style-type: none"> • WASML Loop 2 (Turner Valley), WASML Loop 2 (Lundbreck), WASML Loop 2 (Longview) Foothills BC Expansion: <ul style="list-style-type: none"> • BC Mainline Loop 2 (Elko)



Upstream James River

Capability - Actual Flow - Historical Flow



This slide may not be accurate beyond the February 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	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 WAS Mainline Extension – Pipeline Maintenance	13-Feb-23	20-Feb-23	358	5	N/A	310 - 340	Potential impact to FT-R USJR
Wolf Lake A2 – Compressor Station Maintenance	27-Feb-23	12-Mar-23	355	8	N/A	310 - 340	Potential impact to FT-R USJR
Alces River – Compressor Station Maintenance	13-Mar-23	16-Mar-23	351	11	223	180 - 220	Potential impact to FT-R USJR U/S Latornell
Meikle River D5 – Compressor Station Maintenance	13-Mar-23	15-Mar-23	347	15	219	180 - 220	Potential impact to FT-R USJR U/S Latornell
Hidden Lake North – Compressor Station Maintenance	20-Mar-23	29-Mar-23	352	10	224	180 - 220	Potential impact to FT-R USJR U/S Latornell
Goodfish – Compressor Station Maintenance	20-Mar-23	29-Mar-23	352	10	224	180 - 220	Potential impact to FT-R USJR U/S Latornell
NPS 48 Edson Mainline Loop 4 – Pipeline Maintenance	11-Apr-23	15-Apr-23	357	14	N/A	310 - 340	Potential impact to FT-R USJR
NPS 42 North Central Corridor – Pipeline Maintenance	25-Apr-23	3-May23	336	35	208	180 - 220	Potential impact to FT-R USJR U/S Latornell
Gold Creek – Compressor Station Maintenance	8-May-23	12-May-23	360	11	248	200 - 230	Potential impact to FT-R USJR U/S Berland*
Swartz Creek – Compressor Station Maintenance	15-May-23	20-May-23	359	12	N/A	310 - 340	Potential impact to FT-R USJR
Saddle Hills B3 – Compressor Station Maintenance	19-Jun-23	24-Jun-23	357	14	229	180 - 220	Potential impact to FT-R USJR U/S Latornell

*Risk to FT-R expected to be within a subset of USJR only. If adequate downstream IT-D/IT-S exists to offset an FT-R curtailment, area of IT-D/IT-S curtailment could include portions of segments 7, 8, and 9 based on hydraulic equivalency analysis and location of the bottleneck

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Upstream James River Receipt Area (USJR)

No
impact to FT

Potential
impact to FT

Partial
impact to FT

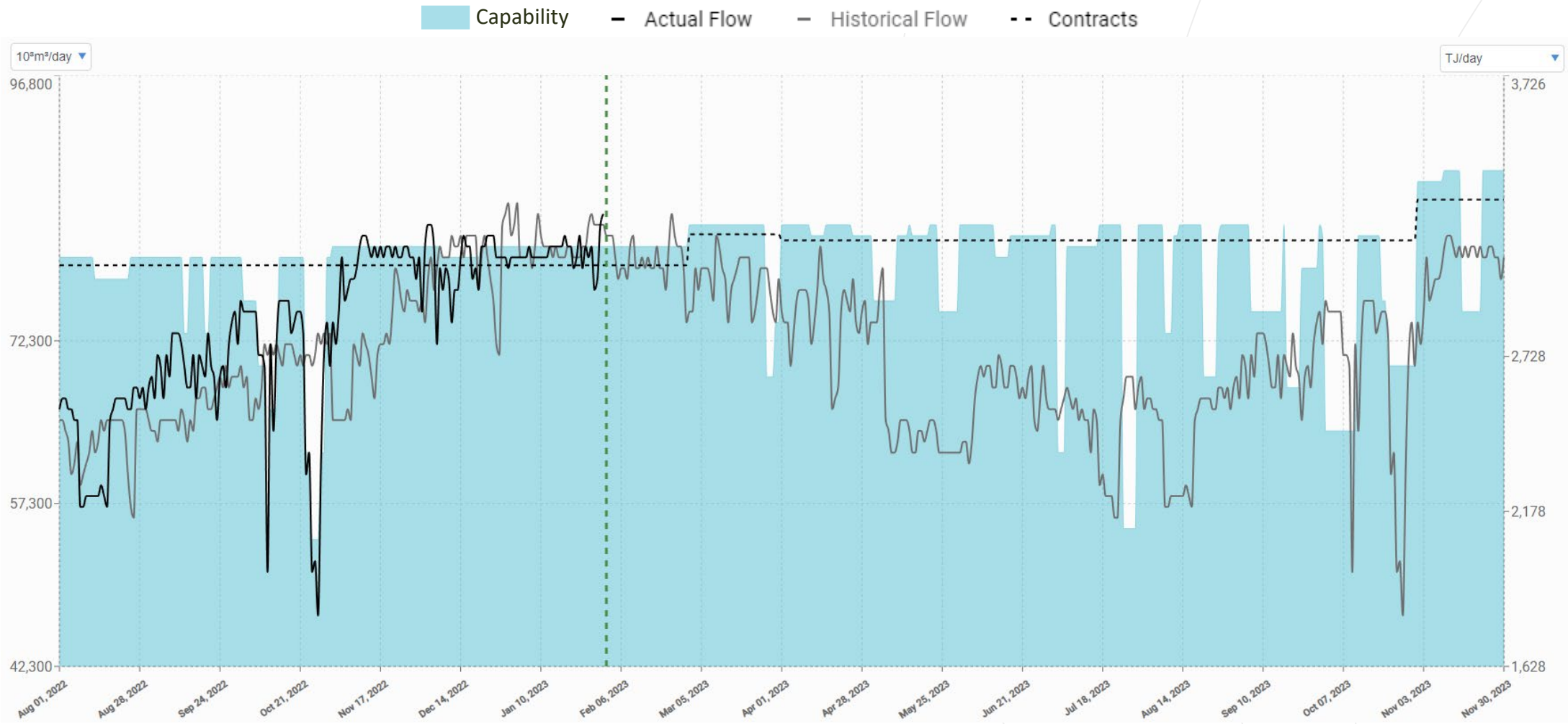
Outage Description	Start	End	USJR Outage Capability (10 ⁶ m ³ /d)	USJR Impact (10 ⁶ m ³ /d)	Area Outage Capability (10 ⁶ m ³ /d)	Outage Area Typical Flows (10 ⁶ m ³ /d)	Service Allowable Location/Area
NPS 48 Grande Prairie Mainline Loop 2 – Pipeline Maintenance	24 Jun-23	28 Jun-23	357	14	N/A	310–340	Potential impact to FT-R USJR
Latornell – Compressor Station Maintenance	25-Jun-23	30-Jun-23	359	12	N/A	310 - 340	Potential impact to FT-R USJR
NPS 36 Grande Prairie Mainline – Pipeline Maintenance	4-Jul-23	14-Jul-23	355	15	N/A	310 - 340	Potential impact to FT-R USJR
NPS 36 Northwest Mainline Loop – Pipeline Maintenance	25-Jul-23	29-Jul-23	353	17	226	180 - 220	Potential impact to FT-R USJR U/S Latornell
Nordegg B3 & B5 – Compressor Station Maintenance	8-Aug-23	12-Aug-23	346	21	N/A	310 - 340	Potential impact to FT-R USJR
Alces River – Compressor Station Maintenance	21-Aug-23	26-Aug-23	357	10	230	180 - 220	Potential impact to FT-R USJR U/S Latornell
Meikle River C – Compressor Station Maintenance	11-Sep-21	16-Sep-23	353	17	226	180 - 220	Potential impact to FT-R USJR U/S Latornell
Saddle Hills B3 – Compressor Station Maintenance	18-Sep-23	27-Sep-23	357	13	230	180 - 220	Potential impact to FT-R USJR U/S Latornell
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	10	N/A	310 - 340	Potential impact to FT-R USJR
Latornell A1 – Compressor Station Maintenance	10-Oct-23	23-Oct-23	368	6	N/A	310 - 340	Potential impact to FT-R USJR

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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
Burton Creek – Compressor Station Maintenance	27-Mar-23	29-Mar-23	69	14	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders
Burton Creek A3 – Compressor Station Maintenance	27-Mar-23	31-Mar-23	74	9	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders
NPS 42 Western Alberta System Mainline Loop – Pipeline Maintenance	2-May-23	9-May-23	76	7	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders Segment 22 and Partial 21
Crowsnest K – Compressor Station Maintenance	24-May-23	30-May-23	75	8	Potential Impact to FT Foothills BC
NPS 36 FPL Zone 8 Segment 2 – Pipeline Maintenance	12-Jun-23	16-Jun-23	80	3	Potential Impact to FT Foothills BC
Crowsnest A – Compressor Station Maintenance	3-Jul-23	5-Jul-23	62	21	Potential Impact to FT Foothills BC
NPS 36 Western Alberta System Mainline – Pipeline Modifications	5-Jul-23	16-Jul-23	81	2	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders
NPS 42 Western Alberta System Mainline Loop – Pipeline Maintenance	25-Jul-23	29-Jul-23	55	28	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders
Winchell Lake – Compressor Station Maintenance	8-Aug-23	10-Aug-23	73	10	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders Segment 22 and Partial 21

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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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
Moyie – Compressor Station Maintenance	21-Aug-23	25-Aug-23	69	14	Potential Impact to FT Foothills BC
Winchell Lake A2 – Compressor Station Maintenance	21-Aug-23	25-Aug-23	81	2	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders Segment 22 and Partial 21
NPS 36 Western Alberta System Mainline – Pipeline Maintenance	6-Sep-23	16-Sep-23	75	8	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders
Crowsnest B – Compressor Station Maintenance	11-Sep-23	13-Sep-23	75	8	Potential Impact to FT Foothills BC
Elko – Compressor Station Maintenance	18-Sep-23	22-Sep-23	68	15	Potential Impact to FT Foothills BC
Turner Valley A3 – Compressor Station Maintenance	18-Sep-23	20-Sep-23	79	4	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders
NPS 48 Western Alberta System Mainline Loop 2 – Pipeline Modifications	20-Sep-23	28-Sep-23	79	4	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders
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

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West Gate Delivery Area (WGAT)

No
impact to FT

Potential
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Partial
impact to FT

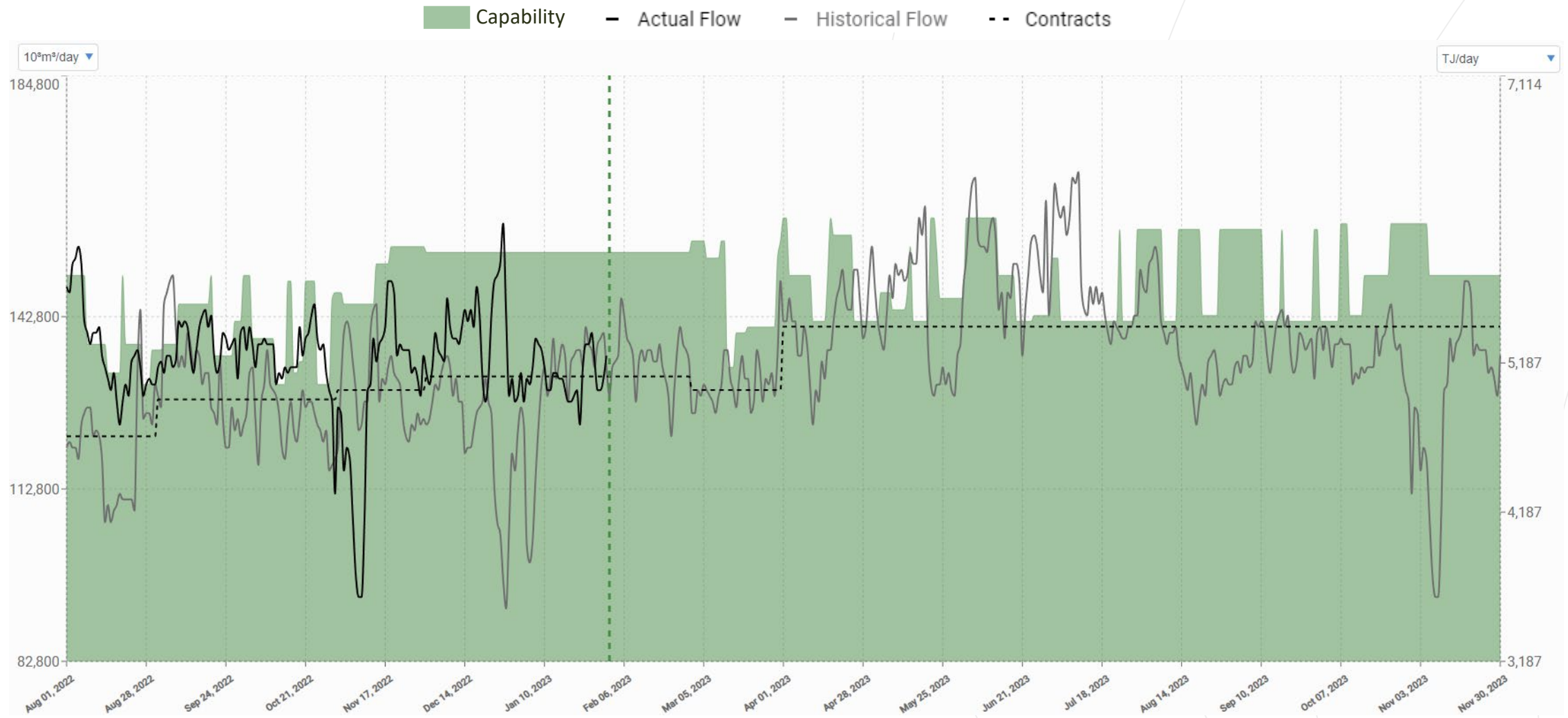
Outage Description	Start	End	Capability (10 ⁶ m ³ /d)	Impact (10 ⁶ m ³ /d)	Service Allowable Location/Area
NPS 48 BC Mainline Loop – Pipeline Modifications	1-Oct-23	11-Oct-23	64	19	Potential Impact to FT Foothills BC
Turner Valley A1 & A2 – Compressor Station Maintenance	20-Oct-23	31-Oct-23	76	7	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders
Turner Valley – Compressor Station Maintenance	22-Oct-23	31-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 36 Western Alberta System Mainline – Pipeline Maintenance	16-Nov-23	22-Nov-23	75	13	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders Segment 22 and Partial 21

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East Gate



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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
Beiseker B3 – Compressor Station Maintenance	6-Mar-23	10-Mar-23	153	3	No impact to FT-D anticipated Empress/McNeill Borders Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28
NPS 34 Eastern Alberta System Mainline – Pipeline Maintenance	21-Mar-23	30-Mar-23	153	3	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	3-Apr-23	16-Apr-23	150	10	No impact to FT-D anticipated Empress/McNeill Borders Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28
NPS 42 Central Alberta System Mainline Loop – Pipeline Modifications	18-Apr-23	25-Apr-23	157	3	No impact to FT-D anticipated Empress/McNeill Borders Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28
NPS 36 EAS Mainline Loop 2 – Pipeline Maintenance	8-May-23	17-May-23	155	5	No impact to FT-D anticipated Empress/McNeill Borders Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28
Beiseker A – Compressor Station Maintenance	23-May-23	27-May-23	154	6	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 & Central Alberta System Mainline Loop – Pipeline Maintenance	24-May-23	1-Jun-23	146	14	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 February 2 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
Crawling Valley – Compressor Station Maintenance	19-Jun-23	16-Jul-23	155 (Jun) 153 (Jul)	5	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	5-Jul-23	14-Jul-23	142	16	No impact to FT-D anticipated Empress/McNeill Borders Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28
NPS 48 Edson, Central Alberta System, and Eastern Alberta System Mainline Loop 3 and 4 – Pipeline Maintenance ¹	15-Jul-23	23-Jul-23	142	16	No impact to FT-D anticipated Empress/McNeill Borders Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28
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
Clearwater A1 & A5 – Compressor Station Maintenance	16-Oct-23	20-Oct-23	155	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	6-Nov-23	19-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
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

¹Expected to be managed by reducing all EGAT IT-D but has potential to impact EGAT FT-D service

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

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Foothills Zone 9 (FHSK)

No impact to FT

Potential impact to FT

Partial impact to FT

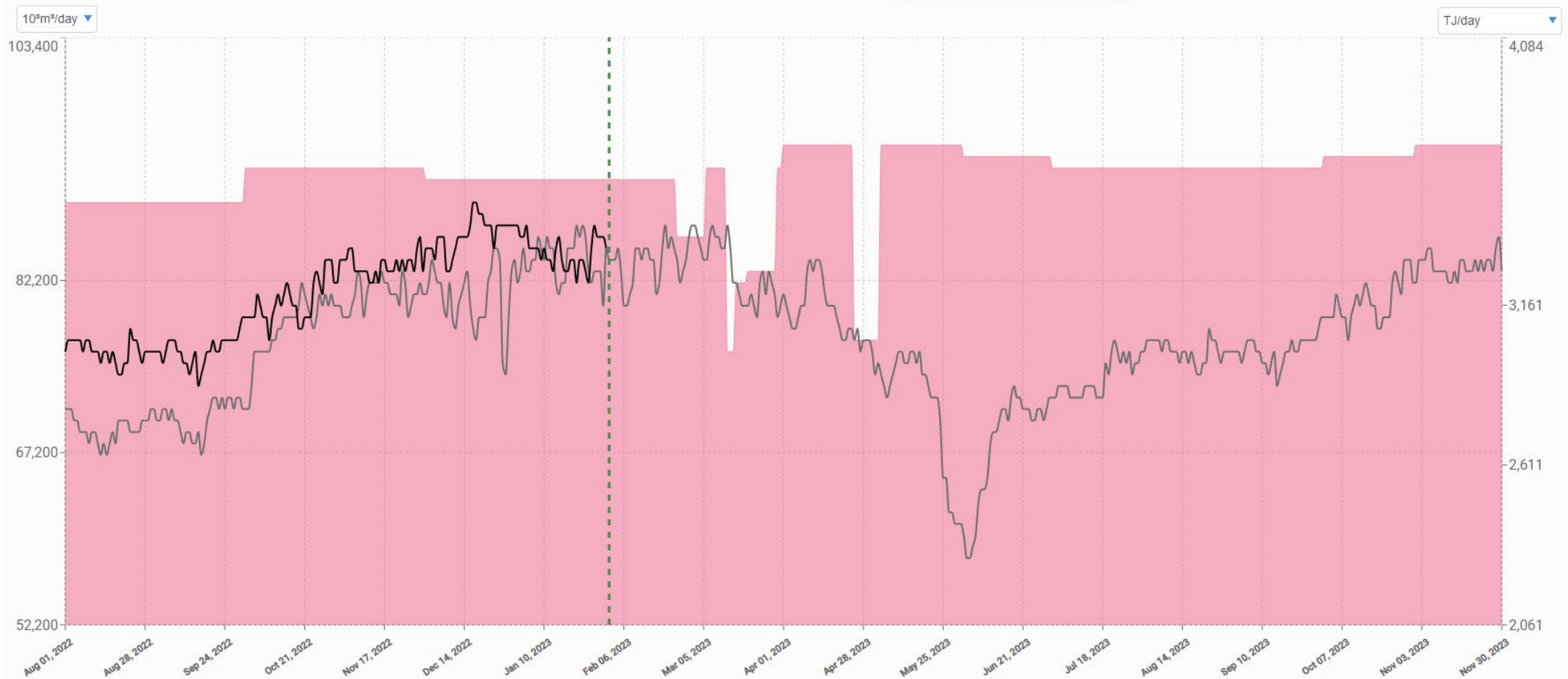
Outage Description	Start	End	Capability (10 ⁶ m ³ /d)	System	Service Allowable Location/Area
NPS 42 Foothills Mainline Zone 9 – Pipeline Maintenance	25-Mar-23	29-Mar-23	25	FHSK	No impact to FT anticipated Monchy Border Foothills Saskatchewan

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Oil Sands Delivery Area

■ Capability — Actual Flow — Historical Flow



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

No
impact to FT

Potential
impact to FT

Partial
impact to FT

Outage Description	Start	End	OSDA Capability (10 ⁶ m ³ /d)	NEDA Capability (10 ⁶ m ³ /d)	Impact (10 ⁶ m ³ /d)	Service Allowable Location/Area
NPS 30 Leismer Kettle River Crossover – Pipeline Modification ¹	24-Feb-23	5-Mar-23	86	-	5	No impact to FT-D anticipated Segments 10 and 14 Potential impact to FT-D Segment 11
Meikle River D5 – Compressor Station Maintenance	13-Mar-23	15-Mar-23	76	133	16	Potential impact to FT-D NEDA
Alces River – Compressor Station Maintenance	13-Mar-23	19-Mar-23	82	139	10	Potential impact to FT-D NEDA
Hidden Lake North – Compressor Station Maintenance	20-Mar-23	29-Mar-23	83	140	9	Potential impact to FT-D NEDA
Goodfish – Compressor Station Maintenance	20-Mar-23	29-Mar-23	83	140	9	Potential impact to FT-D NEDA
NPS 42 North Central Corridor – Pipeline Maintenance ²	25-Apr-23	3-May-23	77	120	17	Potential impact to FT-D NEDA

¹Winter access required – subject to change if during a period of extreme cold and ground conditions permit deferral

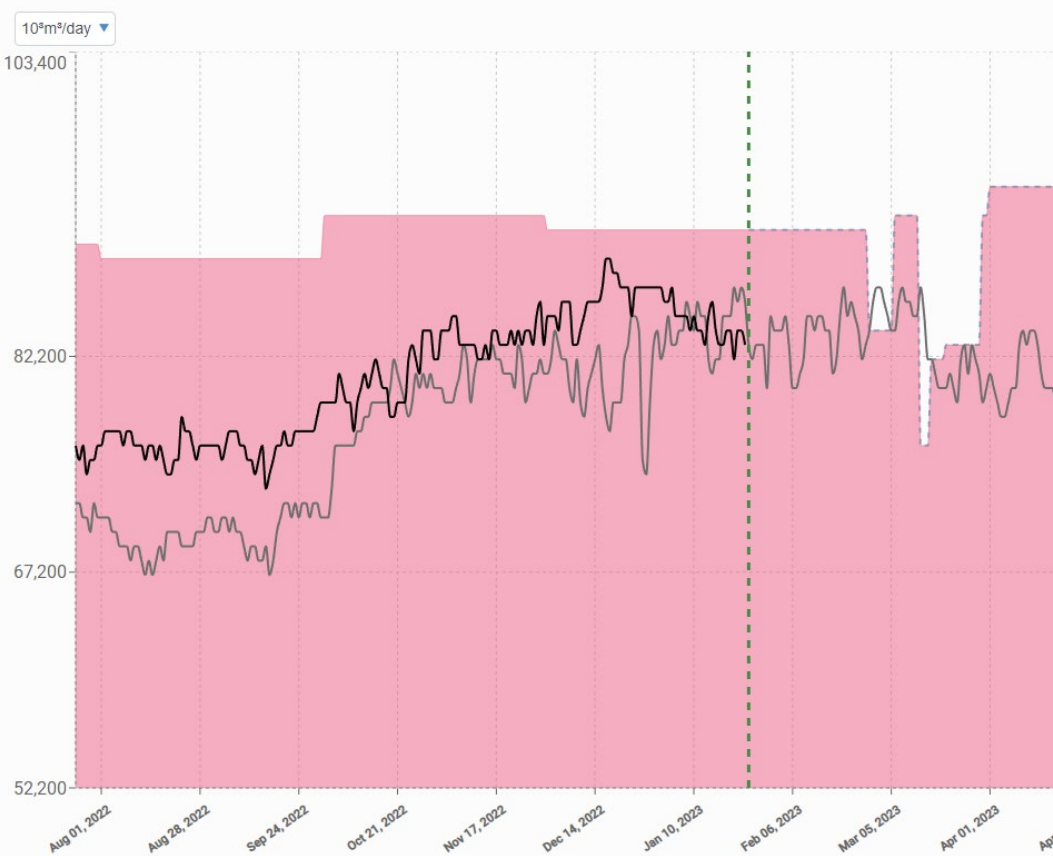
²Collecting plant turnaround schedules and will make best efforts to schedule and align with periods of lower flow to reduce impacts

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



Outages affecting OSDA/NEDA in March

Why are these outages scheduled so early in the year and what are they for?



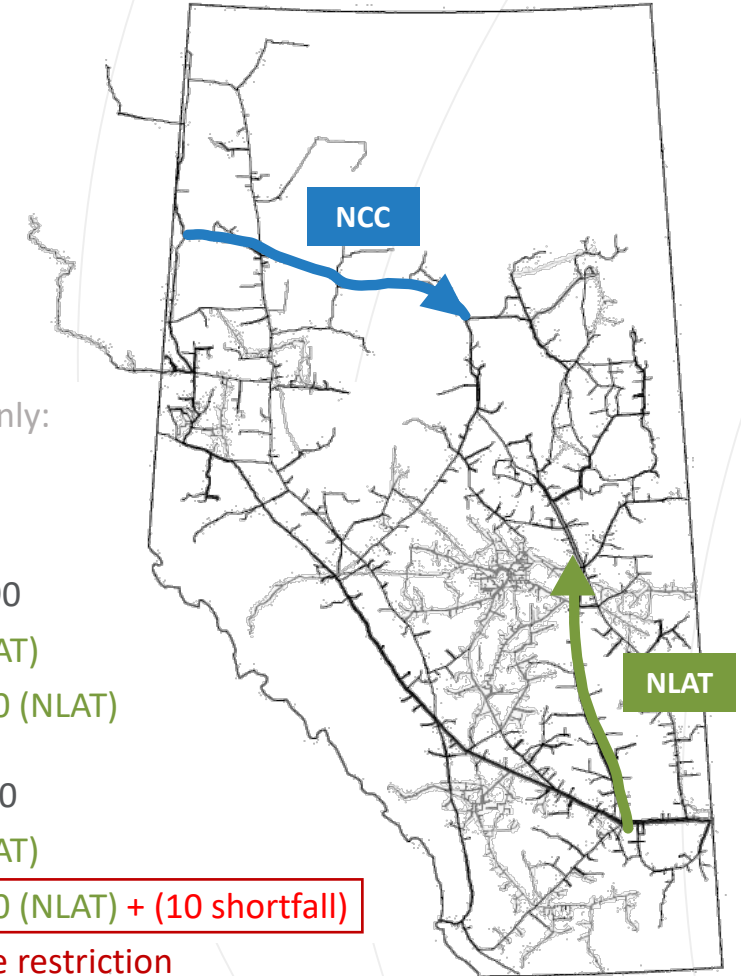
- Integrity work that requires winter access to execute
 - Required to mitigate any operational limitations for next winter
- Expansion project tie-ins to meet associated in-service dates for components of the North Corridor Expansion (NCE)



Outages affecting NEDA in March

Why are these outages significant?

- Always maximizing NCC flow - most efficient path for supply into NEDA
- In the summer, when NEDA demand is low, there is typically capability available on the NLAT to supplement reduced flow on the NCC
- In the winter, when NEDA demand is high, the NLAT is typically already flowing at max capability resulting in the inability to supplement a reduction of NCC flow
 - If NEDA demand is higher than the combined flow on the NCC and NLAT, service allowable would be reduced in NEDA to ensure equitability and safe operation



For illustrative purposes only:

NCC Max Capability: 80

NLAT Max Capability: 20

Summer NEDA Demand: 90

Typical: 80 (NCC) + 10 (NLAT)

NCC Outage: 70 (NCC) + 20 (NLAT)

Winter NEDA Demand: 100

Typical: 80 (NCC) + 20 (NLAT)

NCC Outage: 70 (NCC) + 20 (NLAT) + (10 shortfall)

Would require restriction

CONTACTS



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