



NGTL System and Foothills Pipelines Ltd.

CUSTOMER OPERATIONS MEETING

JULY 7, 2022

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



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

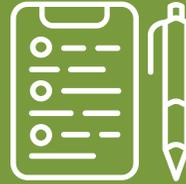
Refers to outage periods where FT impact is expected



Important Notes



Outage information in this presentation may not be accurate beyond the July 7, 2022 NGTL/Foothills Customer Operations (WebEx only) meeting



For current outage information, please refer to the most recent Daily Operating Plan (DOP) on [my.TC Customer Express](#)



This meeting covers operational and project-related topics on the NGTL and Foothills systems. For information on focused Commercial and Regulatory topics, please contact your Marketing Representative

The 4 injuries doctors see most in the summer

Warm weather and longer days will bring many people outdoors for cookouts, water sports and more.

But did you know warm weather also leads to **more** trips to urgent care or even the emergency room?



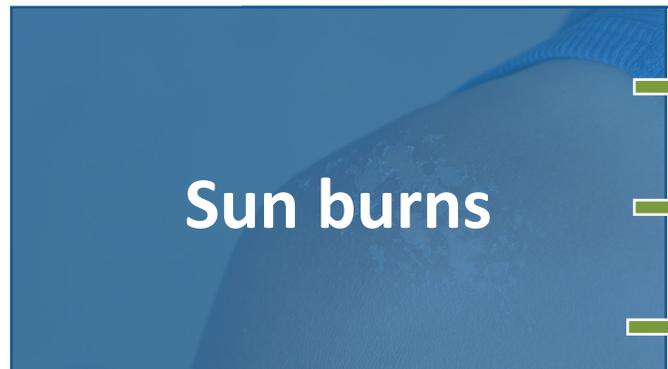
Swimming injuries & drowning

- Don't swim after eating
- Don't swim under the influence
- Enter the water feet first



Food poisoning

- Don't leave food out in the heat
- Wash hands before cooking or eating
- Properly wash produce



Sun burns

- Wear sunscreen (SPF < 30)
- Wear protective clothing
- Sit in the shade



Heat-related illness

- Wear sunscreen (SPF < 30)
- Avoid being outside for too long
- Stay hydrated



Avoiding complacency is the key to summertime safety!



Agenda

1. Projects Update
2. Review of June Operation
3. Review of DOP Outages
4. Open Floor & Verbal Updates



Project Updates

FOR INFORMATIONAL PURPOSES ONLY

2021 Expansion Project Update

100% scenario

**90% scenario
DVN and DVS**

**65% scenario
DVN or DVS**

30% scenario

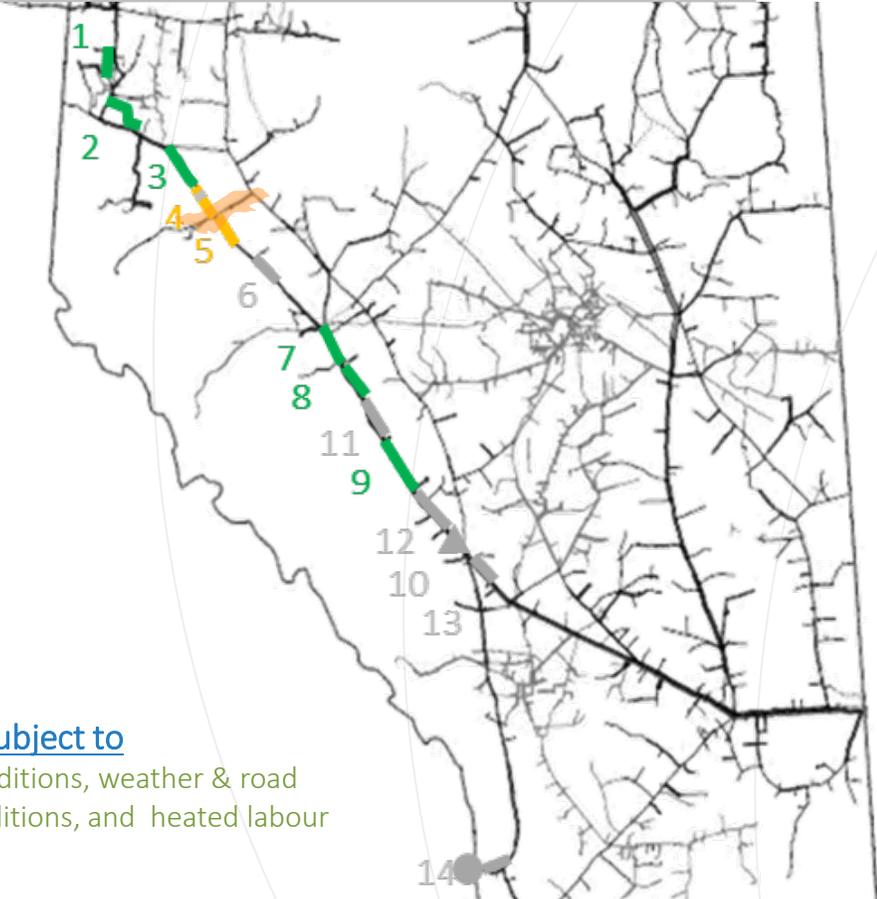
Facilities already in-service (Map I.D. # 1, 2, 3, 8, 9)

Deep Valley North (DVN) (Map I.D. # 4)

- Section 4 in service
- Section 1 completed
- Sections 2/3 anomaly digs required
 - Section 3 commenced ovality digs in June (outside Caribou Zone)
 - Section 2 mobilizing post July 15 (inside Caribou Zone)

Deep Valley South (DVS) (Map I.D. # 5)

- **Activities remaining:** Hydrotest, caliper, anomaly digs and commissioning
 - Mobilized to site July 4 to commence remediation of obstructions



Not required for the 65 or 90% Scenario

Colt, 3 km of pipeline adjacent to the Little Smoky River

Estimated in-service of 65 and 90% scenarios

September/October 2022

Remains subject to

Ground conditions, weather & road access/conditions, and heated labour market

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

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



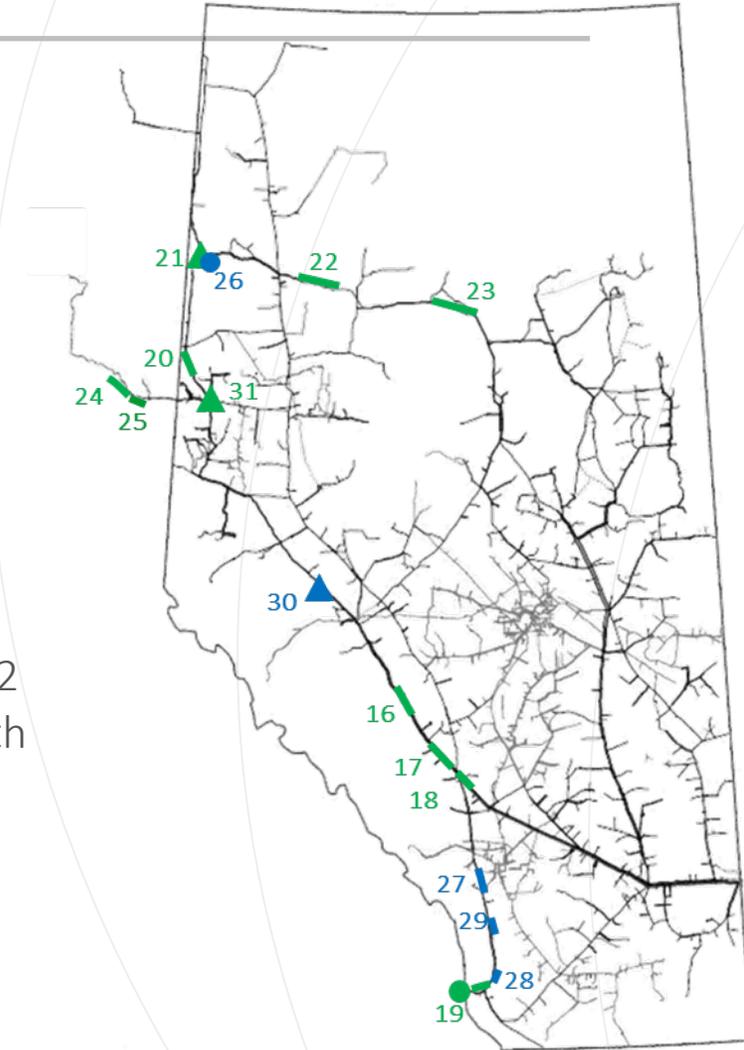
Other Project Updates – NGTL

Edson Mainline Expansion

- Elk River (Map I.D. # 16) – completed 32 km of mainline
 - Mobilized for Season 2 to complete remaining 8 km
- Alford Creek (Map I.D. # 17) – completed 43 km of mainline, major water courses, road and pipeline corridor
 - Mobilized Season 2 to complete remaining 3 km

North Corridor Expansion (Bear Canyon (Map I.D. # 20), North Star (Map I.D. # 22), Red Earth (Map I.D. # 23), Hidden Lake North U/A (Map I.D. #21))

- Camp site preparation ongoing, mainline construction commencing in Q3 2022
- Construction plans are being assessed to mitigate risks on sections of Red Earth
 - All sections are required to be in service for full NCE capacity
- Hidden Lake North Unit Addition on track



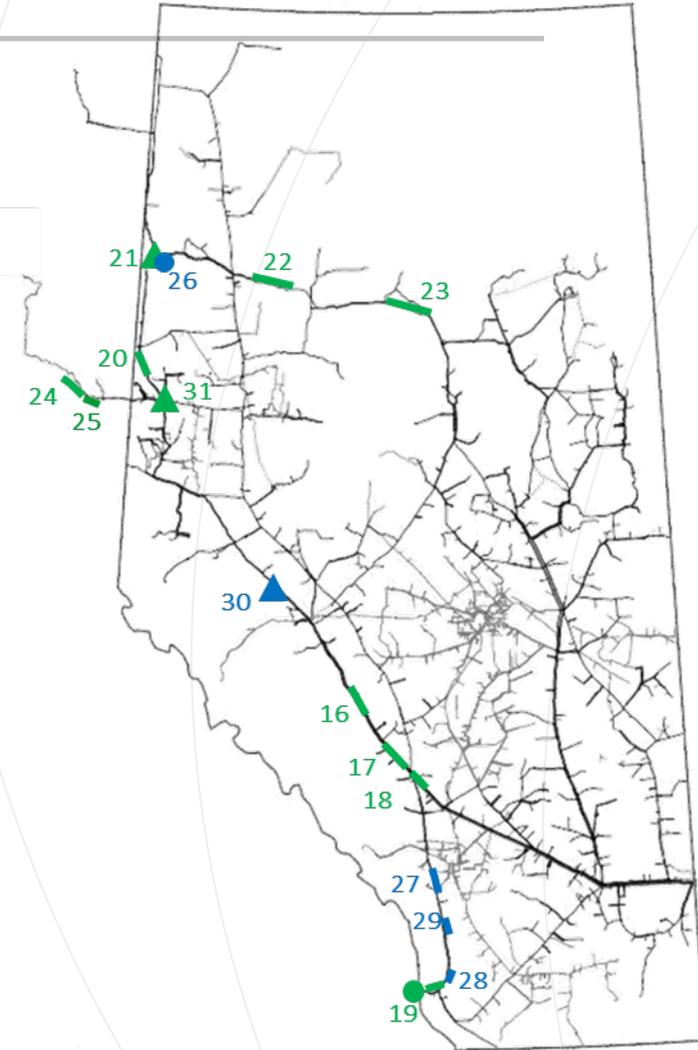
Other Project Updates – NGTL

Intra-Basin Expansion (Sunrise (Map I.D. # 24), Saturn (Map I.D. # 25), Emerson Creek C/S (Map I.D. #30), Saddle Hills U/A (Map I.D. #31))

- Due to lack of prime contract capability, ISD for Sunrise & Saturn is delayed to November 2023. Project team is exploring options to complete projects earlier than the delayed ISD
- Emerson Creek C/S construction commencing in July

West Path 2022/2023

- Raven (Map I.D. # 18) /ABC (Map I.D. # 19) – Mainline construction on track
- Turner Valley (Map I.D. # 27) /Lundbreck (Map I.D. # 28) /Longview (Map I.D. # 29) – CER issued report. Awaiting GIC approval



Other Project Updates – FH

West Path 2022/2023

- Yahk (Map I.D. # 1) – Clearing Q1 2022 and mobilization for mainline construction delayed into July
 - Continue to address rightsholders and landowner construction and environmental concerns
 - This delay is not expected to further impact pending contracts that are impacted by the delay in the full completion of 2021 SXP
- Elko (Map I.D. # 2) - Mobilized in June and clearing commenced July 4
 - Working closely with municipal and federal agencies to provide the required information for outstanding permits and land rights

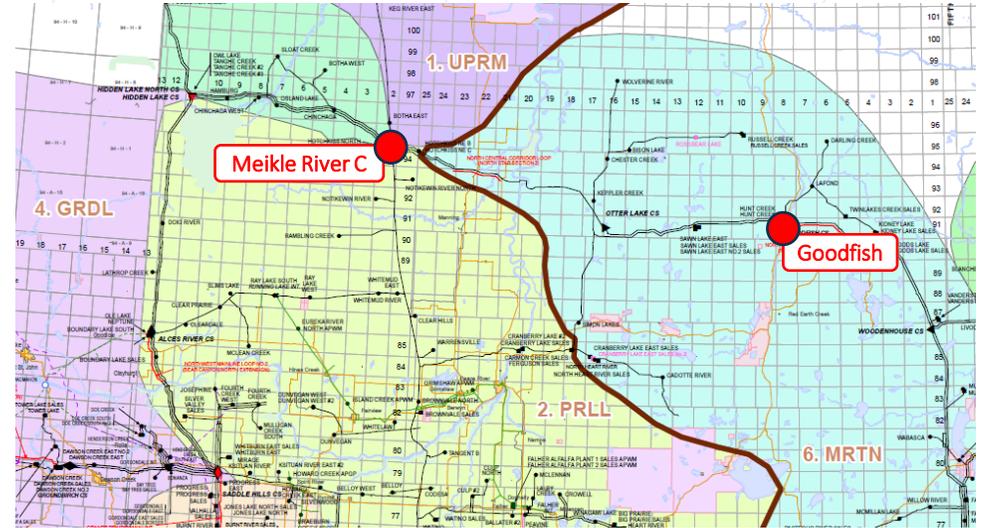


Review of June Operation

Goodfish and Meikle River C Compressor Station Outages

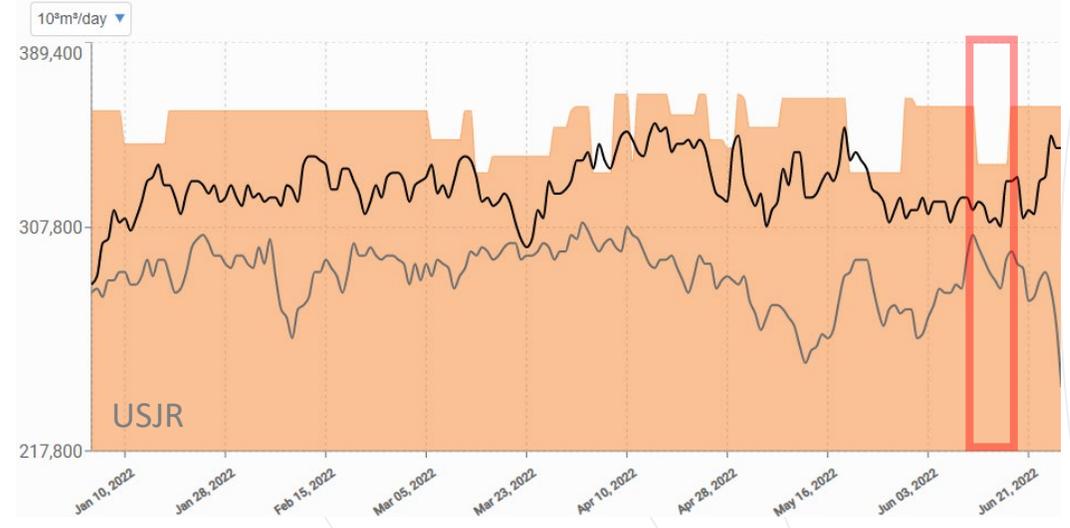
Background:

- Planned Goodfish and Meikle River C Compressor Station Maintenance June 12 – 17 (Both stations located on the NCC path)
- Capability communicated in DOP for USJR: 323 10⁶m³/d
- Service Allowable: Unrestricted across all areas



Why wasn't a restriction required?

- Lower USJR Supply**
 - USJR flow below expected capability
 - No need to reduce USJR IT-R and/or EGAT IT-D
- Outages completed on schedule**
 - Outages were completed on schedule as planned and returned to service as expected



Review of DOP Outages

From DOP as of Wednesday, July 6

Daily Operating Plan (DOP) – Current Assumptions

- No change to facility assumptions since the Customer Operations Meeting on May 13, 2022
- April 1, 2022 through to September 30, 2022 assume all 2021 expansion facilities are in-service with the exception of the Deep Valley and Colt sections (comparable to 30% of the project's total capability on a design capacity basis)
- Beyond October 1, 2022 assumes all 2021 expansion facilities are in-service with the exception of the Colt section (comparable to 90% of the project's total capability on a design capacity basis)

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 ongoing and we will continue focus on safety, optimizing system capacity, and minimizing outage impacts.



Upstream James River

Capability Actual Flow Historical Flow



This slide may not be accurate beyond the July 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
Knight – Compressor Station Maintenance	4-Jul-22	8-Jul-22	331	4	N/A	280-320	Potential impact to FT-R USJR
Swartz Creek – Compressor Station Maintenance	25-Jul-22	28-Jul-22	328	7	N/A	280-320	Potential impact to FT-R USJR
Berland River – Compressor Station Maintenance	8-Aug-22	12-Aug-22	321	14	N/A	280-320	Potential impact to FT-R USJR
Berland River B2 – Compressor Station Maintenance	8-Aug-22	19-Aug-22	325	10	N/A	280-320	Potential impact to FT-R USJR
Latornell – Compressor Station Maintenance	22-Aug-22	27-Aug-22	326	9	216	165-205	Potential impact to FT-R USJR U/S of Berland*
Otter Lake A1 – Compressor Station Maintenance	27-Aug-22	2-Sep-22	324	11	N/A	280-320	Potential impact to FT-R USJR
Woodenhouse C3 – Compressor Station Maintenance	27-Aug-22	2-Sep-22	324	11	N/A	280-320	Potential impact to FT-R USJR
Hidden Lake North – Compressor Station Maintenance	28-Aug-22	7-Sep-22	328	9	205	160-190	Potential impact to FT-R USJR U/S of Latornell
Otter Lake – Compressor Station Maintenance	3-Oct-22	8-Oct-22	343	9	N/A	280-320	Potential impact to FT-R USJR
Saddle Hills B3 – Compressor Station Maintenance	13-Oct-22	13-Oct-22	337	15	214	160-190	Potential impact to FT-R USJR U/S of Latornell

*Risk to FT-R expected to be within a subset of USJR only. If adequate downstream IT-D exists to offset an FT-R curtailment, area of IT-D 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
Paul Lake – Compressor Station Maintenance	17-Oct-22	18-Oct-22	339	13	N/A	280-320	Potential impact to FT-R USJR
Alces River – Compressor Station Maintenance	17-Oct-22	18-Oct-22	340	12	N/A	280-320	Potential impact to FT-R USJR
Clearwater – Compressor Station Maintenance	25-Oct-22	28-Oct-22	345	7	N/A	280-320	Potential impact to FT-R USJR

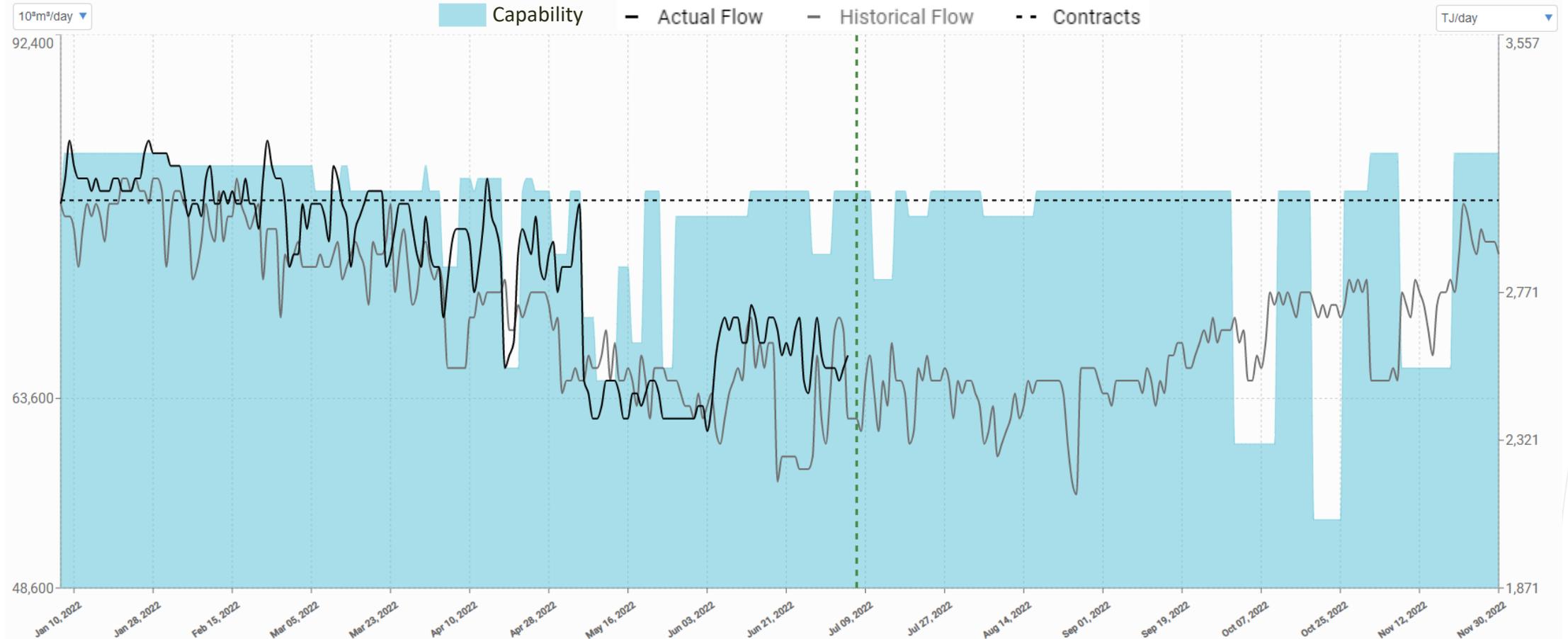
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Alberta-B.C. Border

(includes both NGTL and Foothills BC outages)



Note: The NPS 48 BC Mainline Loop (Yahk section) is no longer expected to be in-service November 1, 2022. However, for the purposes of the operational capability charts and outage impacts in the DOP, the in-service date is still assumed to be November 1, 2022 and will remain this way until there is enough certainty to communicate an updated in-service date.

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West Gate Delivery Area (WGAT) Foothills Zone 8 (FHBC)

No
impact to FT

Potential
impact to FT

Partial
impact to FT

Outage Description	Start	End	Capability/ Allowable (10 ⁶ m ³ /d)	Impact (10 ⁶ m ³ /d)	System	Service Allowable Location/Area
Crowsnest B – Compressor Station Maintenance*	11-Jul-22	15-Jul-22	73	7	FHBC	Potential Impact to FT Alberta/BC Border Foothills BC
NPS 36 FPL Zone 7 Western Leg 1B – Pipeline Maintenance*	19-Jul-22	23-Jul-22	78	2	NGTL	Potential Impact to FT Alberta/BC and Alberta/Montana Borders Segments 22 and partial 21
NPS 36 BC Mainline – Pipeline Modifications*	5-Aug-22	16-Aug-22	78	2	FHBC	Potential Impact to FT Alberta/BC Border Foothills BC
NPS 42 Western Alberta System Mainline Loop – Pipeline Maintenance	1-Oct-22	10-Oct-22	60	20	NGTL	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders
NPS 36 BC Mainline – Pipeline Maintenance	19-Oct-22	25-Oct-22	54	26	FHBC	Potential Impact to FT Alberta/BC Border Foothills BC
NPS 36 WAS Mainline – Pipeline Modifications	8-Nov-22	19-Nov-22	66	17	NGTL	Potential Impact to FT-D Alberta/BC Border
Turner Valley A1 and A2 – Compressor Station Maintenance	8-Nov-22	12-Nov-22	76	7	NGTL	Potential Impact to FT-D Alberta/BC and Alberta/Montana Borders

*Aligned with downstream maintenance that is expected to be limiting West Path capability

Note: Outages physically located in the USJR area are included in the WGAT table in DOP indicating that a broad area restriction could be applied to reduce flows through the bottleneck. For the purposes of this slide, those USJR outages have been excluded from this table to avoid duplication

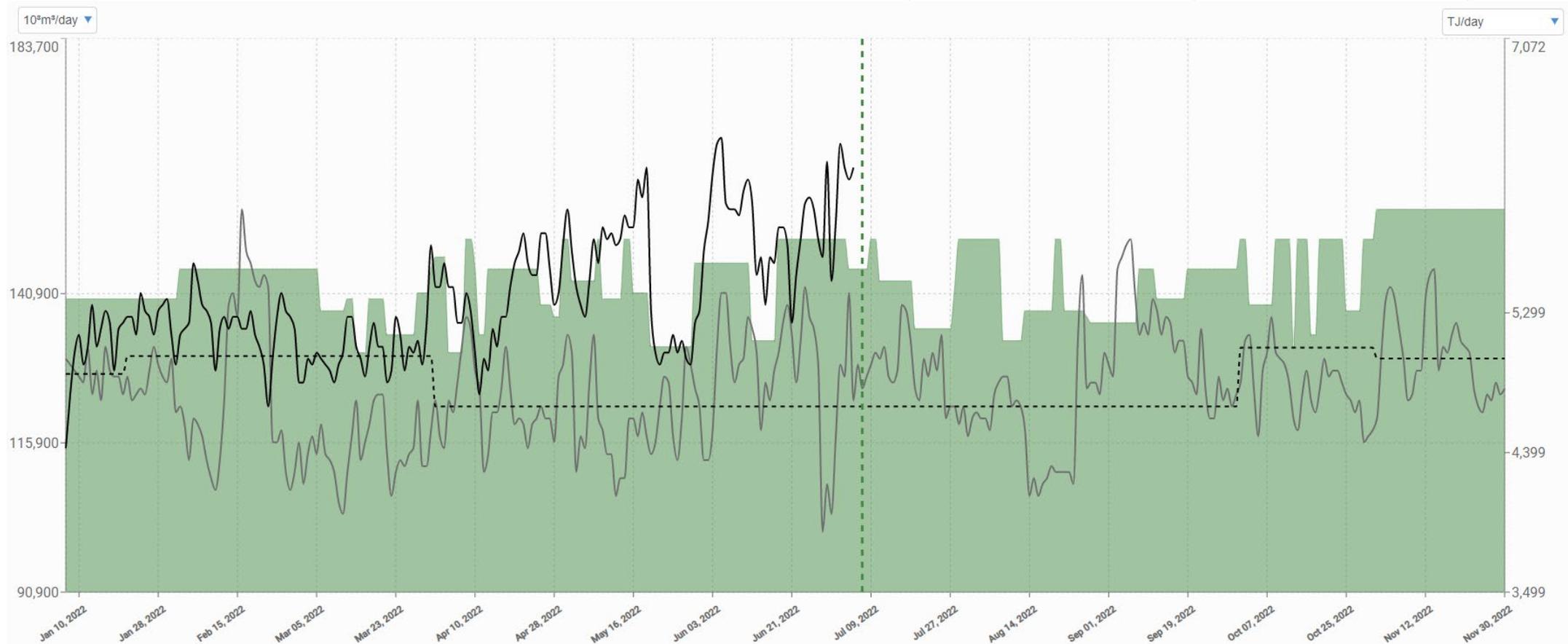
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East Gate

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



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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)	System	Service Allowable Location/Area
Crawling Valley – Compressor Station Maintenance	11-Jul-22	24-Jul-22	143	7	FHAB	No impact to FT-D anticipated Empress/McNeill Borders Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28
NPS 36 Eastern Alberta System Mainline Loop 2 – Pipeline Maintenance	19-Jul-22	27-Jul-22	135	15	NGTL	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	15-Aug-22	18-Aug-22	139	11	NGTL	No impact to FT-D anticipated Empress/McNeill Borders Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28
Schrader Creek – Compressor Station Maintenance	22-Aug-22	31-Aug-22	139	11	NGTL	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	12-Sep-22	18-Sep-22	140	5	FHAB	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	3-Oct-22	3-Oct-22	143	7	NGTL	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	25-Oct-22	28-Oct-22	138	12	NGTL	No impact to FT-D anticipated Empress/McNeill Borders Segments 15, 16, 17, 18, 19, 20, 23, partial 21, and partial 28

Note: Outages physically located in the USJR area are included in the EGAT table in DOP indicating that a broad area restriction could be applied to reduce flows through the bottleneck. For the purposes of this slide, those USJR outages have been excluded from this table 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	16-Nov-22	28-Nov-22	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) Oil Sands 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

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Open Floor & Verbal Updates

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