

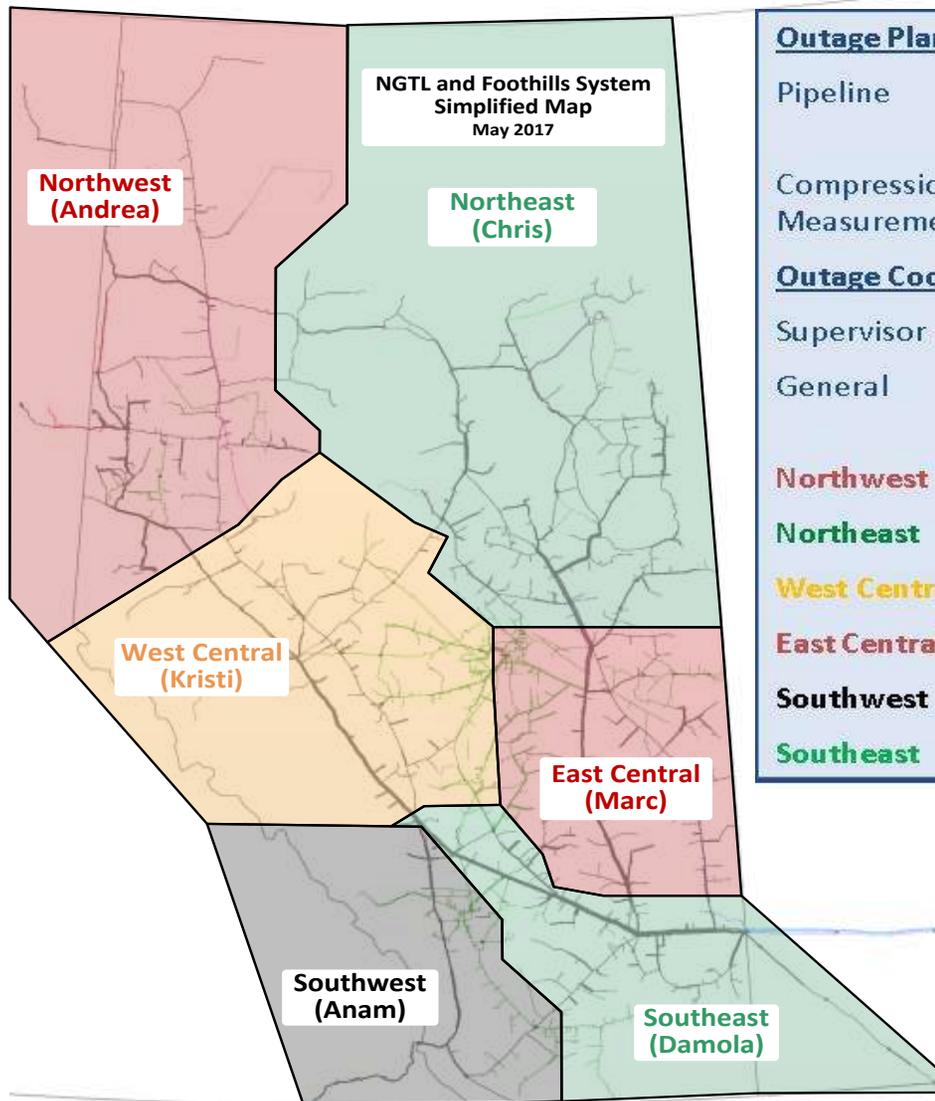


# NGTL System & Foothills Pipeline Monthly Outage Forecast September 2017



## September Monthly Outage Forecast

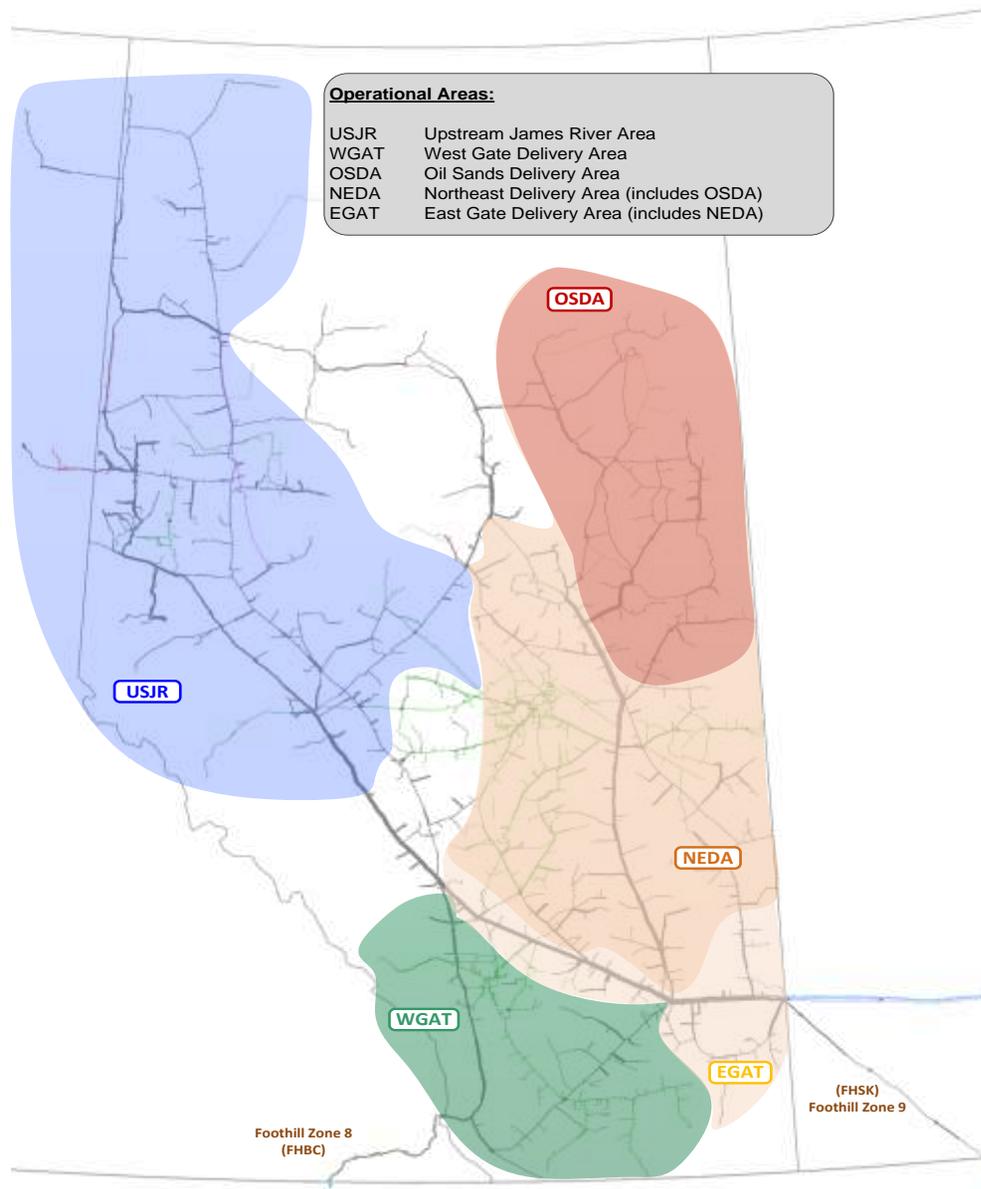
*The Monthly Outage Forecast is a tool provided by TransCanada to show the estimated operational capability. This information is provided for informational purposes only and is not to be relied upon for any other purpose whatsoever. The information is based upon certain assumptions that may or may not be accurate, and therefore is subject to various risks and uncertainties. TransCanada shall not be liable for damages sustained as a result of any use or reliance on such information. Please note, only known and planned outages at the time of publishing will be included in the Monthly Outage Forecast. As new outages are planned they will be added to subsequent MOF reports.*



<b><u>Outage Planning</u></b>		
Pipeline	Mike Wylie	403.920.7346
	Rahim Ruda	403.920.6360
Compression/ Measurement	Bruce Hansen	403.920.5613
<b><u>Outage Coordination</u></b>		
Supervisor	Jeff Stoffregen	403.920.6337
General	Chuang Li	403.920.5291
	Brooke Penner	403.920.5144
<b>Northwest</b>	Andrea Watters	403.920.7638
<b>Northeast</b>	Chris Pho	403.920.6016
<b>West Central</b>	Kristi Eng	403.920.7749
<b>East Central</b>	Marc Fattouche	587.933.4759
<b>Southwest</b>	Anam M. Ali	403.920.5219
<b>Southeast</b>	Damola Daramola	403.920.6604

**For NGTL System Facilities Segment codes please view link below**

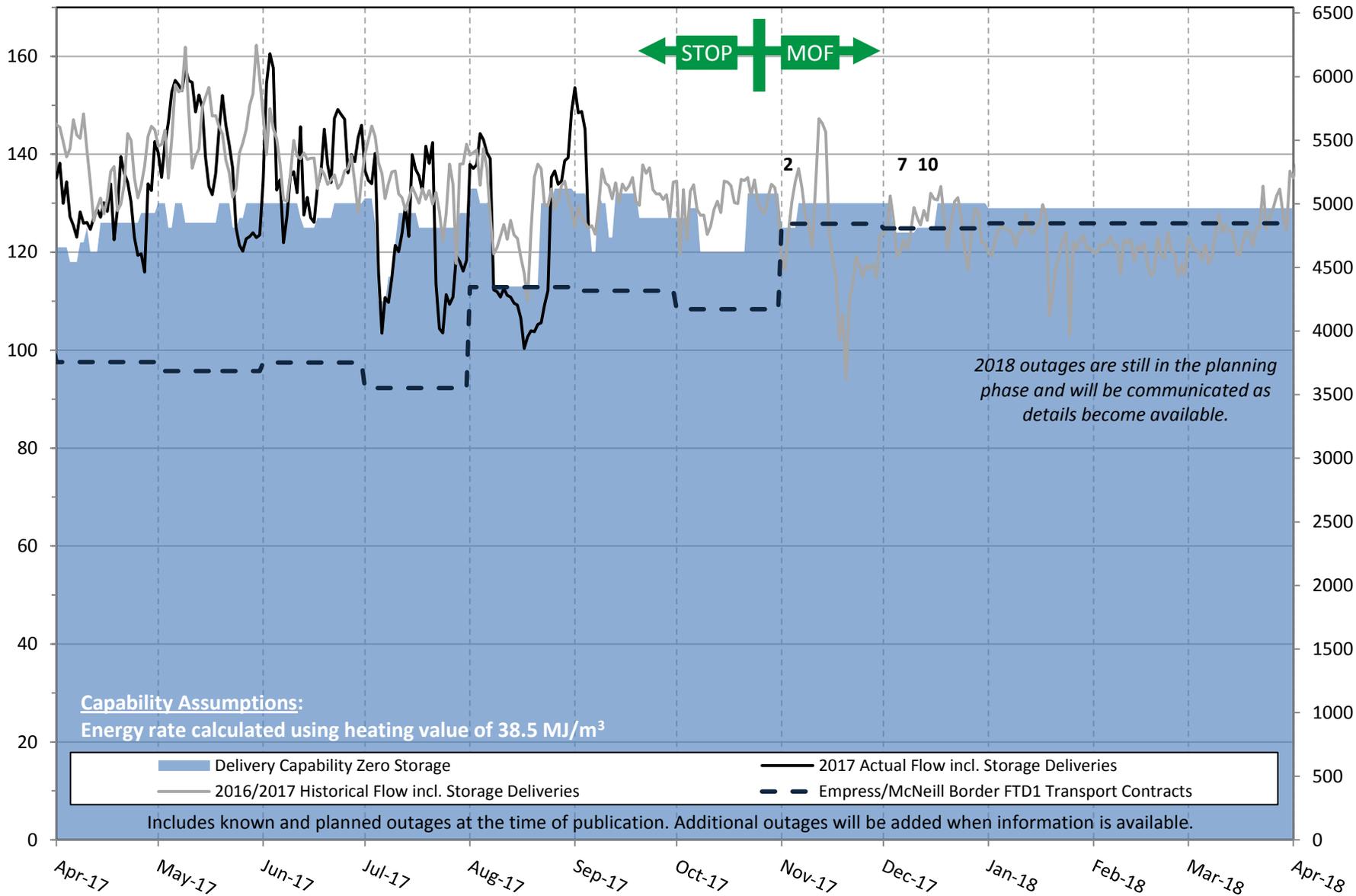
<http://www.tccustomerexpress.com/855.html>



10<sup>6</sup>m<sup>3</sup>/d

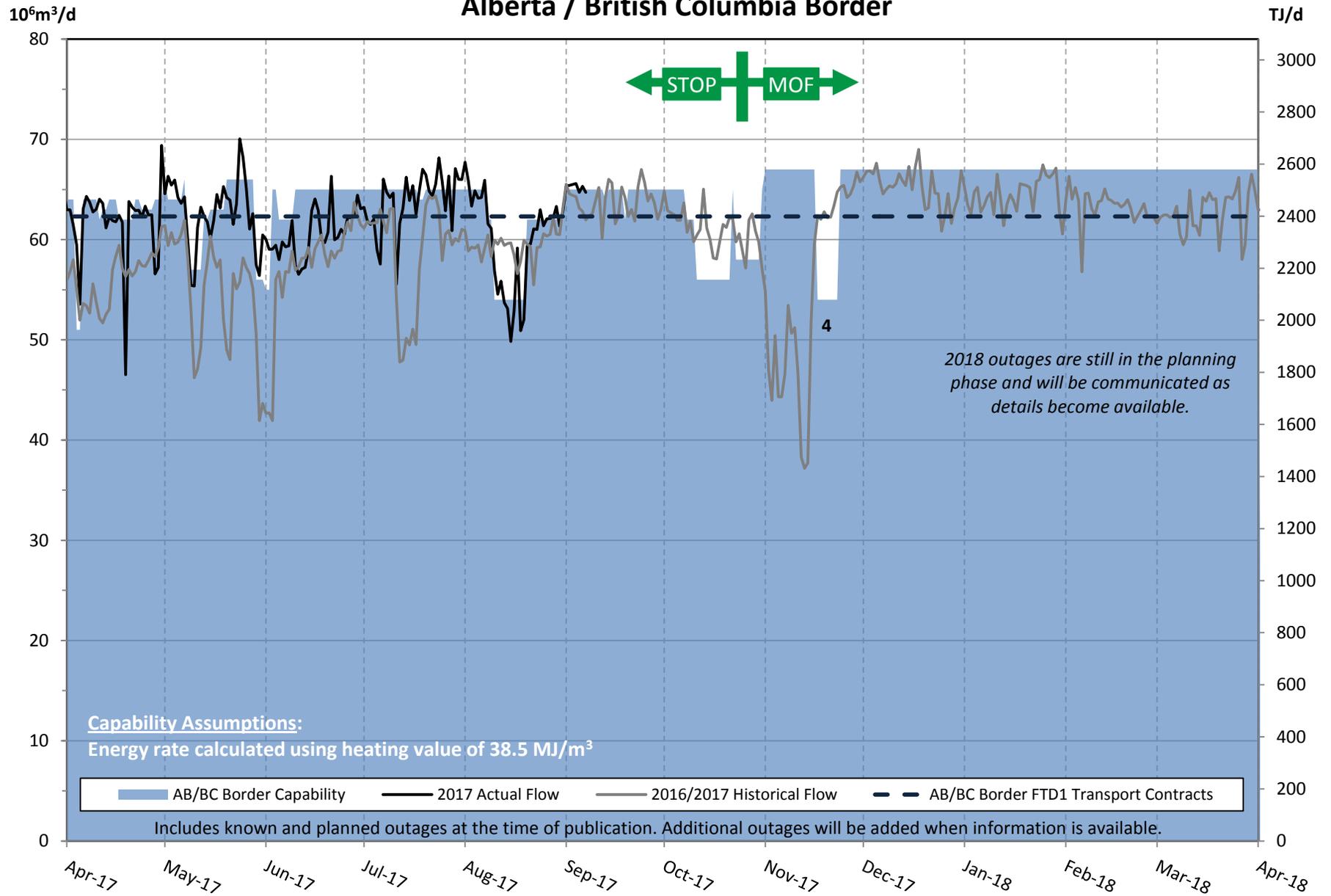
# Empress / McNeill Border

TJ/d



Monthly Outage Forecast September 2017

# Alberta / British Columbia Border



**Capability Assumptions:**

Energy rate calculated using heating value of  $38.5 \text{ MJ}/\text{m}^3$

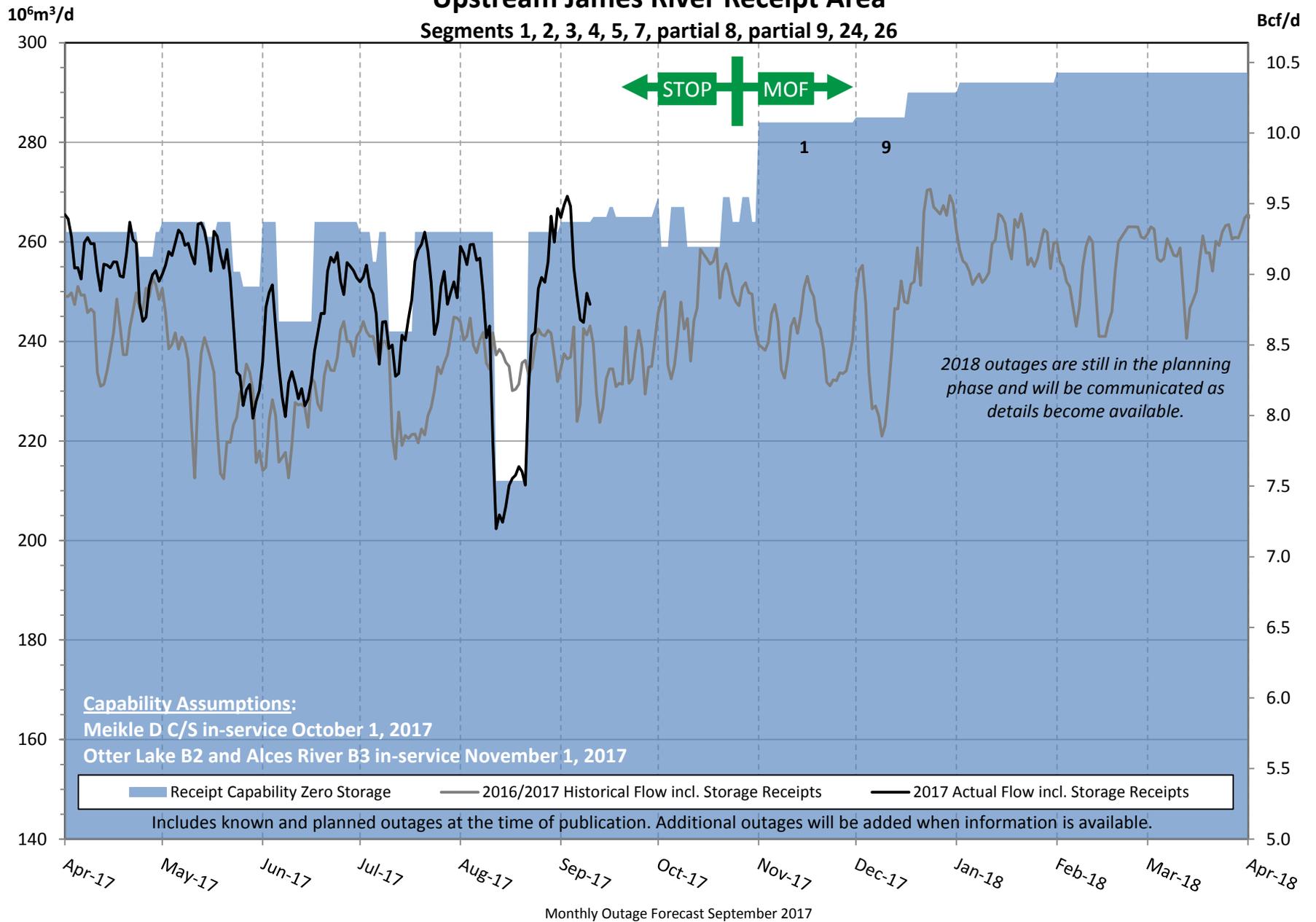
- AB/BC Border Capability
- 2017 Actual Flow
- 2016/2017 Historical Flow
- AB/BC Border FTD1 Transport Contracts

Includes known and planned outages at the time of publication. Additional outages will be added when information is available.

Monthly Outage Forecast September 2017

# Upstream James River Receipt Area

Segments 1, 2, 3, 4, 5, 7, partial 8, partial 9, 24, 26

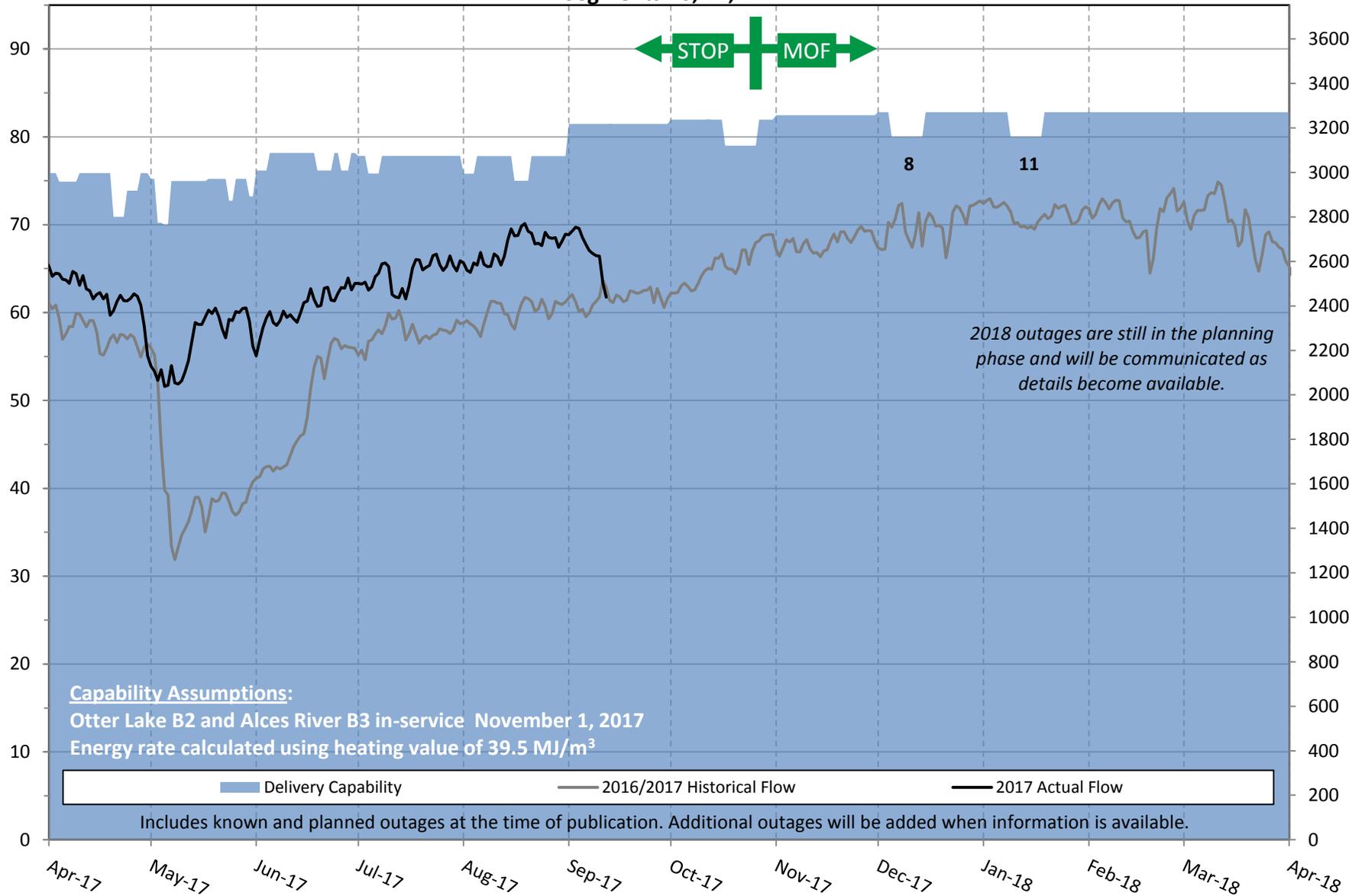


# Oil Sands Delivery Area

Segments 10, 11, 14

10<sup>6</sup>m<sup>3</sup>/d

TJ/d



Monthly Outage Forecast September 2017

## NGTL System & Foothills Pipeline - Monthly Outage Forecast September 2017

### Area Definitions

- USJR** Upstream James River Receipt Area: Groundbirch East, Gordondale, Big Eddy, January Creek, and Rat Creek West interconnects, and all receipt locations in Segments 1, 2, 3, 4, 5, 7, partial 8, partial 9, 24, 26.
- EGAT** East Gate Delivery Area: Empress, McNeill, Unity, Cold Lake, Aeco C, Warwick Southeast, Chancellor, Carbon, Severn Creek, and Crossfield interconnects, and all delivery locations in Segments 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, partial 21, 22, 23, partial 28.
- **LEGAT** Lower East Gate Delivery Area: Empress, McNeill, Unity, Segments 15, 16, 17, 18, 19, 20, 23, partial 21, partial 28
  - **NEDA** North and East Delivery Area: Unity, Cold Lake, Warwick Southeast interconnects, and all delivery locations in Segments 10, 11, 12, 13, 14, 15, 16, 17, 23, partial 28
  - **OSDA** Oil Sands Delivery Area: Cold Lake interconnect, and all delivery locations in Segments 10, 11, 14.
- WGAT** West Gate Delivery Area: Alberta B.C. and Alberta Montana interconnects (Delivery locations in partial Segment 21 and Segment 22 have temporarily been removed)
- FHBC** Foothills Zone 8
- FHSK** Foothills Zone 9

OUTAGE #	SEG #	OUTAGE DESCRIPTION	DATES		RECEIPT/DELIVERY IMPACT	CONTACT	AREA
			START	FINISH			
1	8	<b>Clearwater #5</b> - Unit Modifications (40 days).	10/30/17	12/08/17	Probable IT receipt restriction in the Upstream James River Receipt Area. Capability 284 E6m3/d. Typical Flow 255-290 e6m3/d (including storage withdrawal). Potential IT delivery restriction in the Lower East Gate and West Gate Delivery Areas.	Kristi Eng	USJR EGAT WGAT
2	19	<b>NPS 36 Eastern Alberta System Mainline Loop #2</b> - Pipeline Maintenance (5 days).	11/01/17	11/05/17	Potential IT delivery restriction in the East Gate Delivery Area. Empress/McNeill delivery Capability 125 E6m3/d. Typical Flow 125-135 E6m3/d.	Damola Daramola	EGAT
3	12	<b>NPS 10 Hairy Hills Lateral</b> - Pipeline Modifications (7 days).	11/01/17	11/06/17	Nil required at Hairy Hill meter station. Typical Flow 55 E3m3/d.	Marc Fattouche	Local
4	21	<b>NPS 36 Western Alberta System Mainline</b> - Pipeline Maintenance (7 days). <b>New</b>	11/17/17	11/23/17	Potential IT/FT delivery restriction in the West Gate Delivery Area. Alberta B. C. Capability 51-54 E6m3/d. Typical Flow 57-64 E6m3/d.	Damola Daramola	WGAT
5	16	<b>NPS 8 Kessler Lateral</b> - Pipeline Modifications (6 days).	11/20/17	11/25/17	Nil required at Provost Kessler and Provost West meter stations. Typical Flow 130 E3m3/d.	Marc Fattouche	Local
6	19	<b>NPS 4 Iddesleigh South Lateral</b> - Pipeline Modifications (4 days).	12/04/17	12/07/17	Nil required at Iddesleigh South meter station. Typical Flow 115 E3m3/d.	Damola Daramola	Local
7	19	<b>NPS 34 Eastern Alberta System Mainline Loop &amp; Central Alberta System Mainline</b> - Pipeline Maintenance (7 days). <b>Dates Revised</b>	12/04/17	12/10/17	Potential IT delivery restriction in the East Gate Delivery Area. Empress/McNeill Capability 124 E6m3/d. Typical Flow 125-135 E6m3/d.	Damola Daramola	EGAT
8	10	<b>NPS 16 Pelican Mainline</b> - Pipeline Modifications (10 days).	12/05/17	12/14/17	Potential IT delivery restriction in the Oil Sands Delivery Area. Capability 80 E6m3/d. Typical Flow 65-75 E6m3/d.	Chris Pho	OSDA

C/S Compressor Station  
M/S Meter Station  
Light Shade Changed Entry  
Dark Shade New Entry

## NGTL System & Foothills Pipeline - Monthly Outage Forecast September 2017

### Area Definitions

- USJR** Upstream James River Receipt Area: Groundbirch East, Gordondale, Big Eddy, January Creek, and Rat Creek West interconnects, and all receipt locations in Segments 1, 2, 3, 4, 5, 7, partial 8, partial 9, 24, 26.
- EGAT** East Gate Delivery Area: Empress, McNeill, Unity, Cold Lake, Aeco C, Warwick Southeast, Chancellor, Carbon, Severn Creek, and Crossfield interconnects, and all delivery locations in Segments 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, partial 21, 22, 23, partial 28.
- **LEGAT** Lower East Gate Delivery Area: Empress, McNeill, Unity, Segments 15, 16, 17, 18, 19, 20, 23, partial 21, partial 28
  - **NEDA** North and East Delivery Area: Unity, Cold Lake, Warwick Southeast interconnects, and all delivery locations in Segments 10, 11, 12, 13, 14, 15, 16, 17, 23, partial 28
  - **OSDA** Oil Sands Delivery Area: Cold Lake interconnect, and all delivery locations in Segments 10, 11, 14.
- WGAT** West Gate Delivery Area: Alberta B.C. and Alberta Montana interconnects (Delivery locations in partial Segment 21 and Segment 22 have temporarily been removed)
- FHBC** Foothills Zone 8
- FHSK** Foothills Zone 9

OUTAGE #	SEG #	OUTAGE DESCRIPTION	DATES		RECEIPT/DELIVERY IMPACT	CONTACT	AREA
			START	FINISH			
9	9	<b>NPS 30 Western Alberta System Mainline</b> - Pipeline Maintenance (10 days). <b>New</b>	12/07/17	12/16/17	Potential IT receipt restriction in the Upstream James River Receipt Area. Capability 285 E6m3/d. Typical Flow 255-290 e6m3/d (including storage withdrawal).	Kristi Eng	USJR
10	19	<b>NPS 42 Eastern Alberta System Mainline Loop #3</b> - Pipeline Maintenance (6 days). <b>New</b>	12/11/17	12/16/17	Potential IT delivery restriction in the East Gate Delivery Area. Empress/McNeill Capability 125 E6m3/d. Typical Flow 125-135 E6m3/d.	Damola Daramola	EGAT
11	10	<b>NPS 16 Pelican Mainline</b> - Pipeline Modifications (10 days).	01/09/18	01/18/18	Potential IT delivery restriction in the Oil Sands Delivery Area. Capability 80 E6m3/d. Typical Flow 65-75 E6m3/d.	Chris Pho	OSDA

C/S Compressor Station  
M/S Meter Station  
Light Shade Changed Entry  
Dark Shade New Entry