



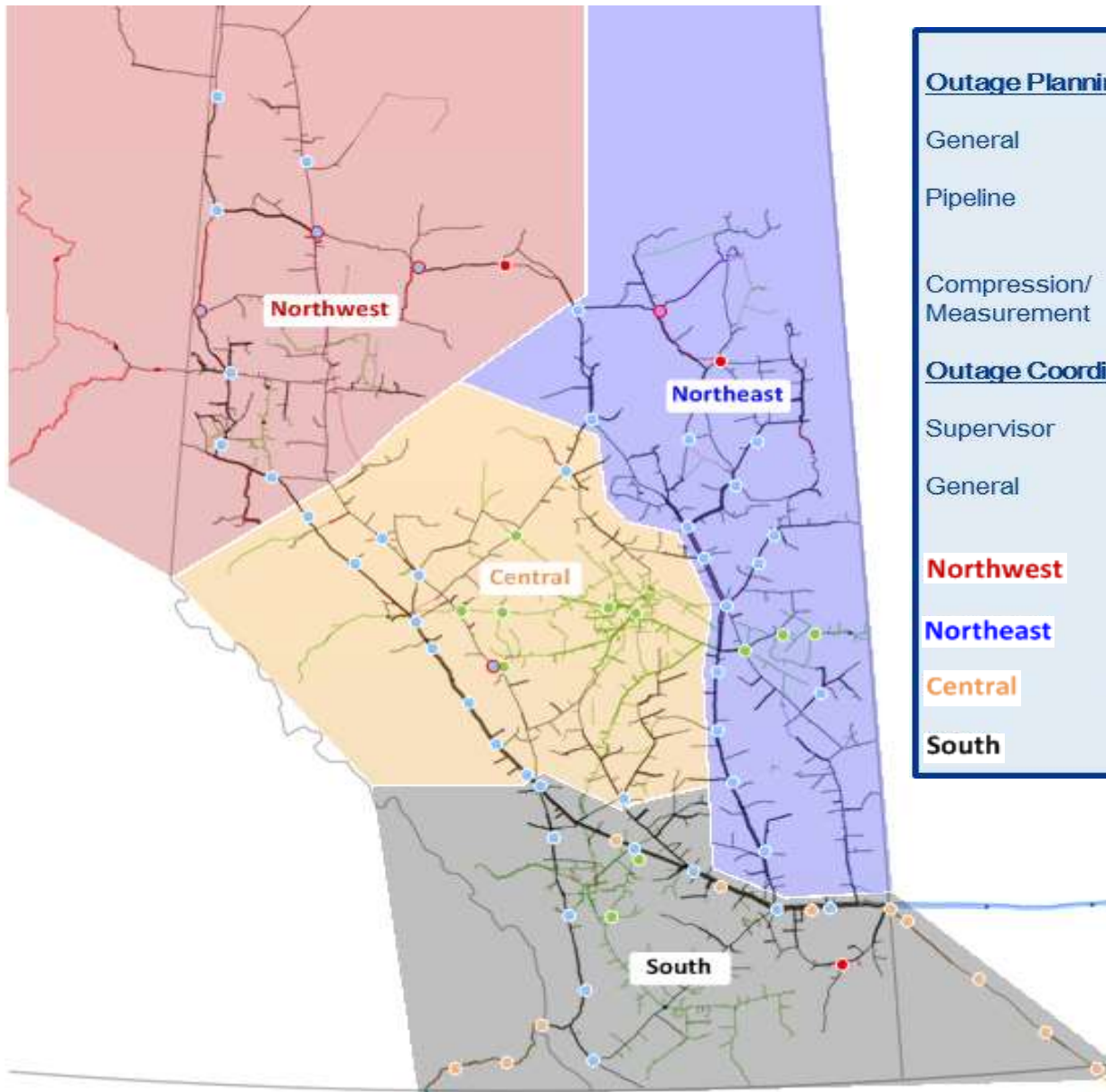
NGTL & Foothills Systems Monthly Outage Forecast September 2016



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.

NGTL & FH MAP



Outage Planning

General	Chau Johnston	403.920.6061
Pipeline	Mike Wylie Rahim Ruda	403.920.7346 403.920.6360
Compression/ Measurement	Bruce Hansen	403.920.5613

Outage Coordination

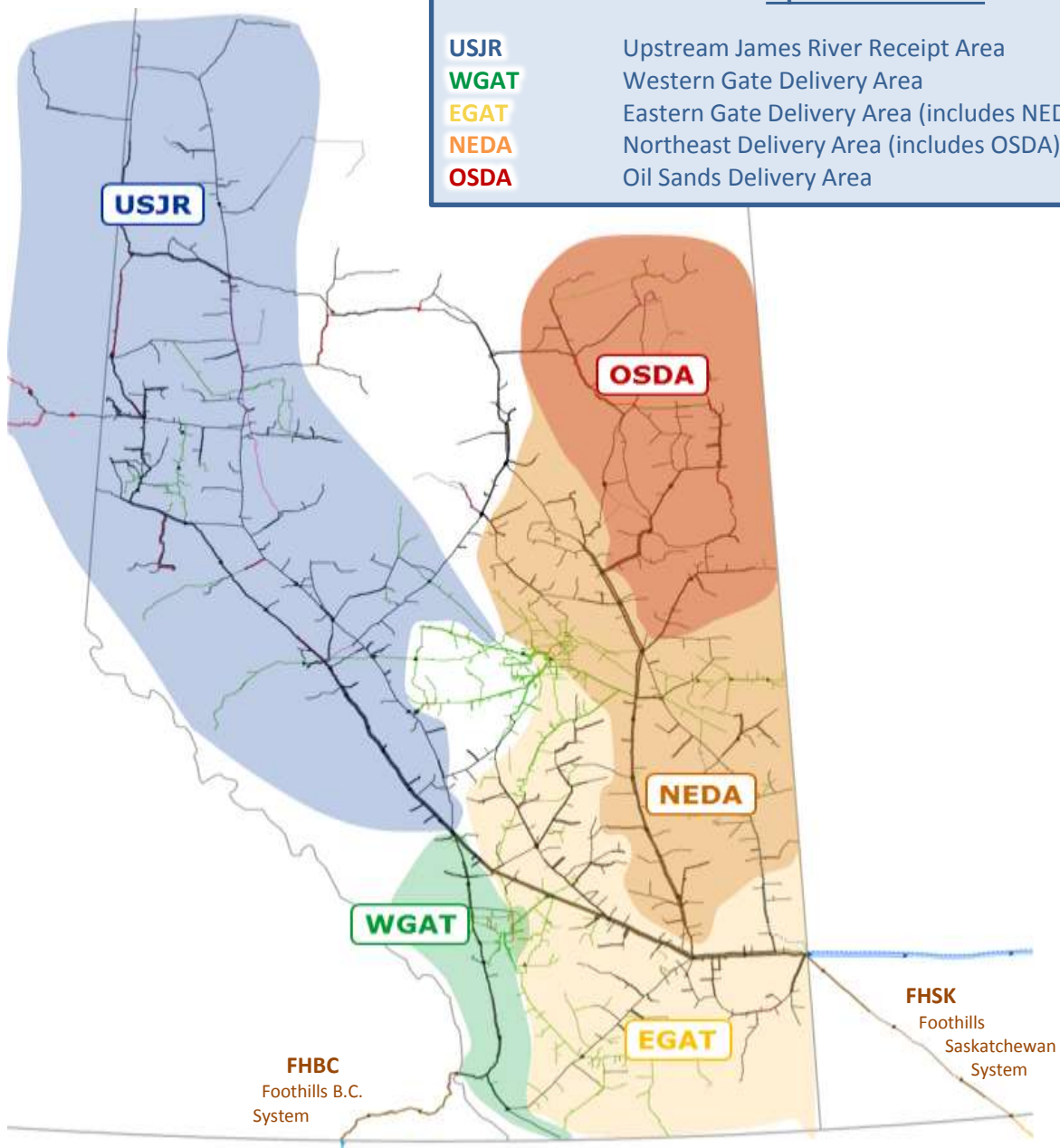
Supervisor	Jeff Stoffregen	403.920.6337
General	Chuang Li Ashley Lim	403.920.5291 403.920.6669
Northwest	Andrea Watters	403.920.7638
Northeast	Brooke Dillabough	403.920.5144
Central	Chris Pho	403.920.6016
South	Damola Daramola	403.920.6604

For NGTL System Facilities Segment codes please view link below

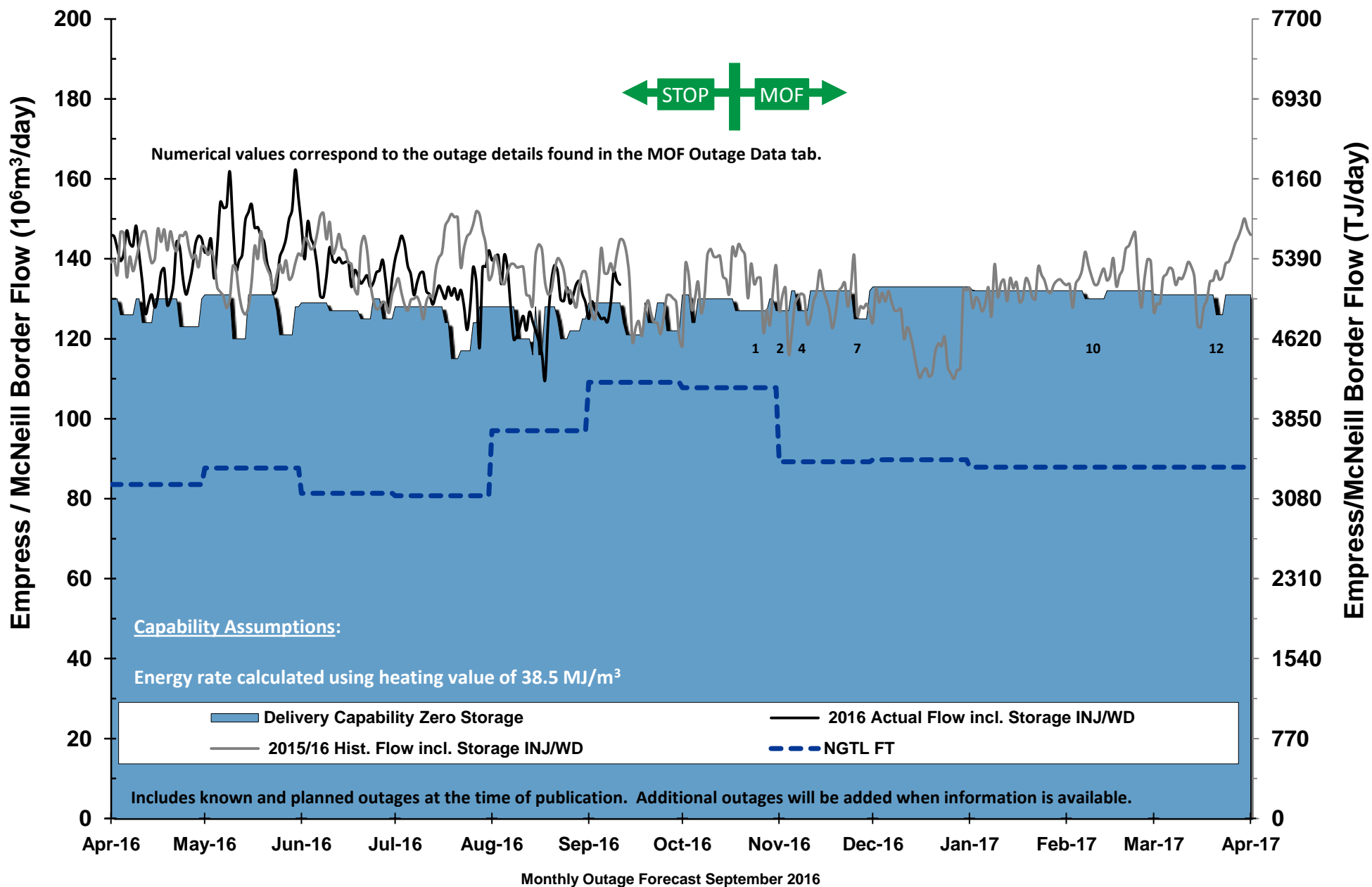
http://www.transcanada.com/customerexpress/docs/fh_system_maps/AB_System_Map_2015_Segments_Rev18.pdf

Operational Areas

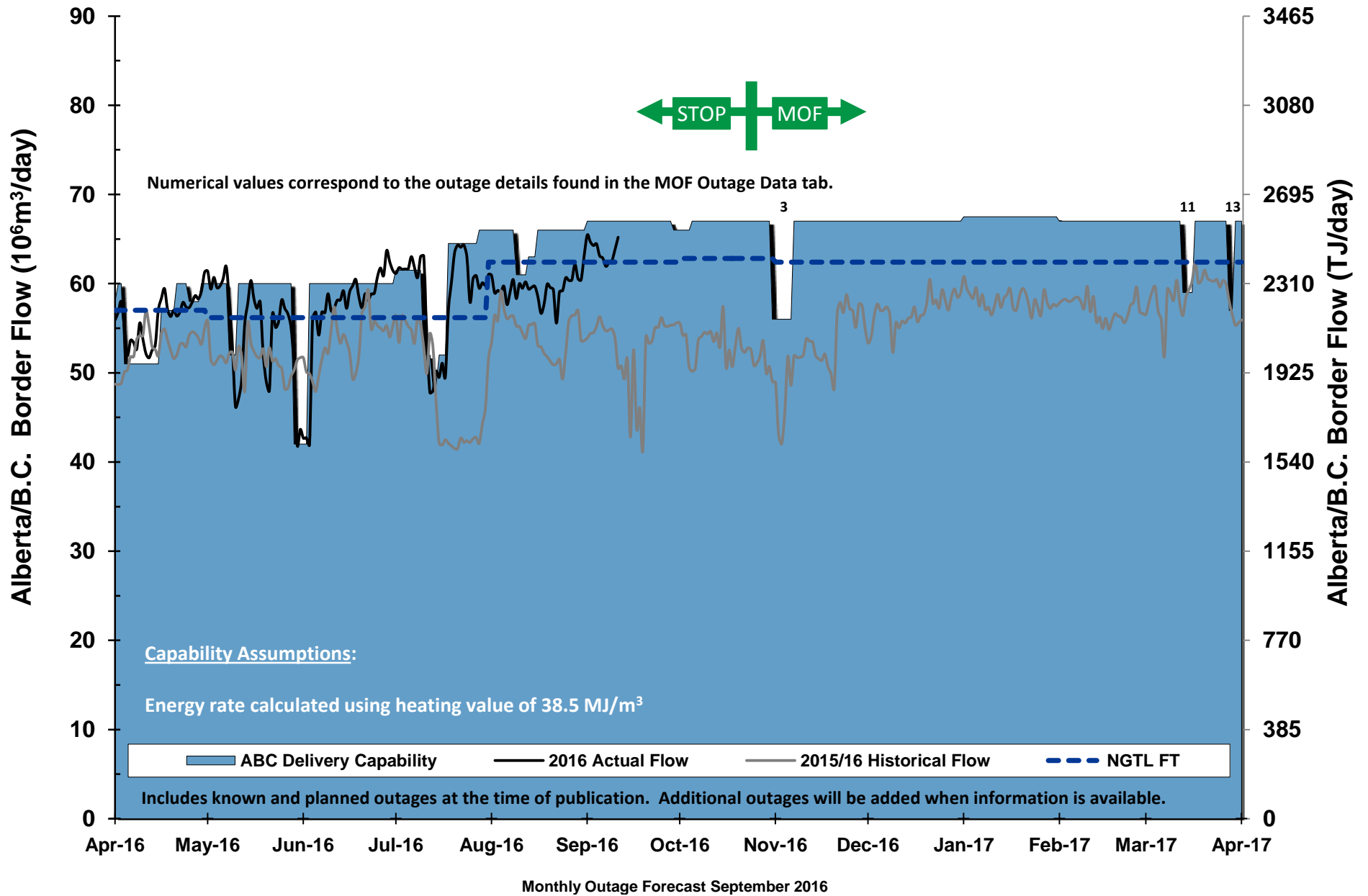
USJR	Upstream James River Receipt Area
WGAT	Western Gate Delivery Area
EGAT	Eastern Gate Delivery Area (includes NEDA and OSDA)
NEDA	Northeast Delivery Area (includes OSDA)
OSDA	Oil Sands Delivery Area



Empress/McNeill Border



Alberta/B.C. Border

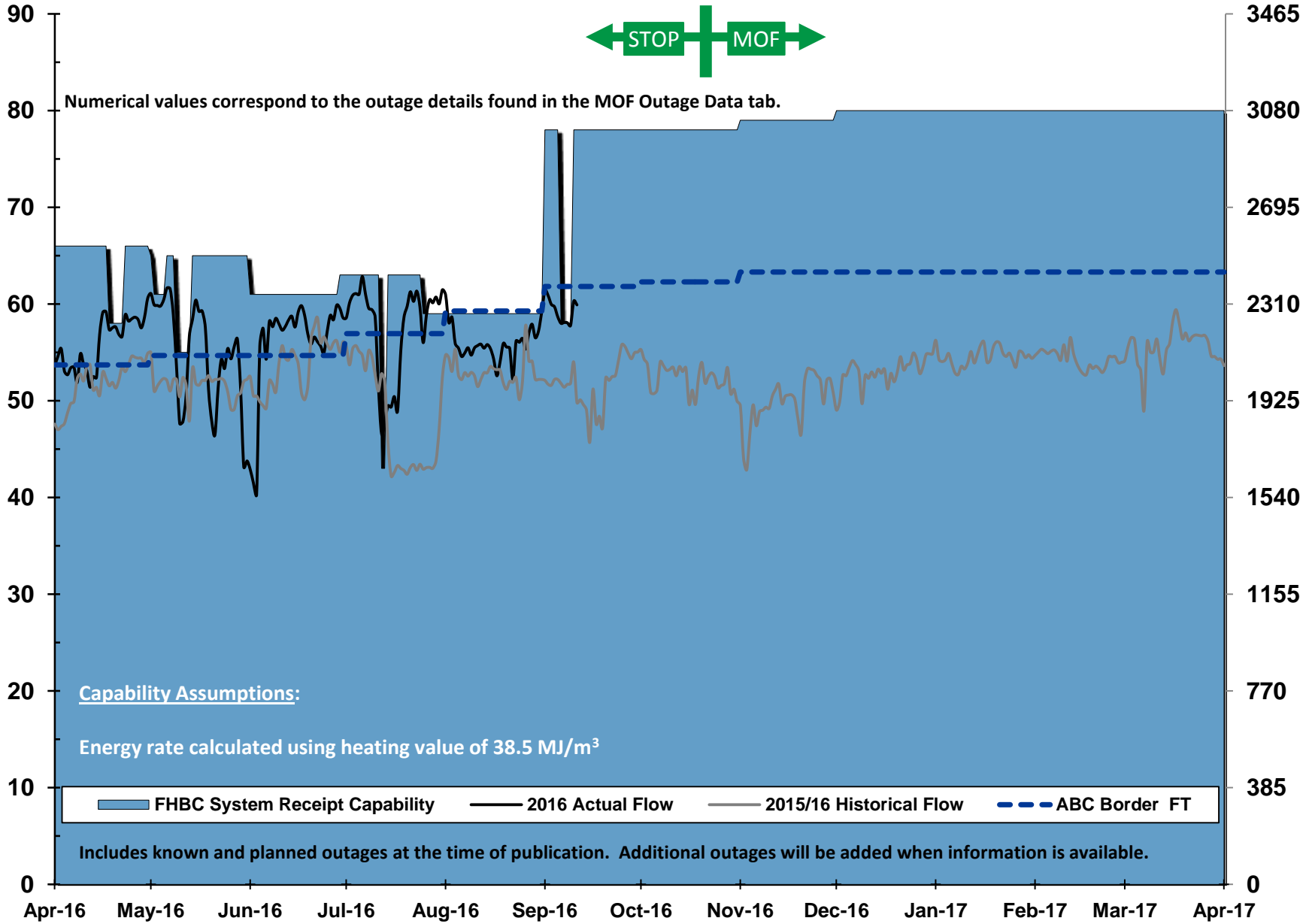


Kingsgate Border



Numerical values correspond to the outage details found in the MOF Outage Data tab.

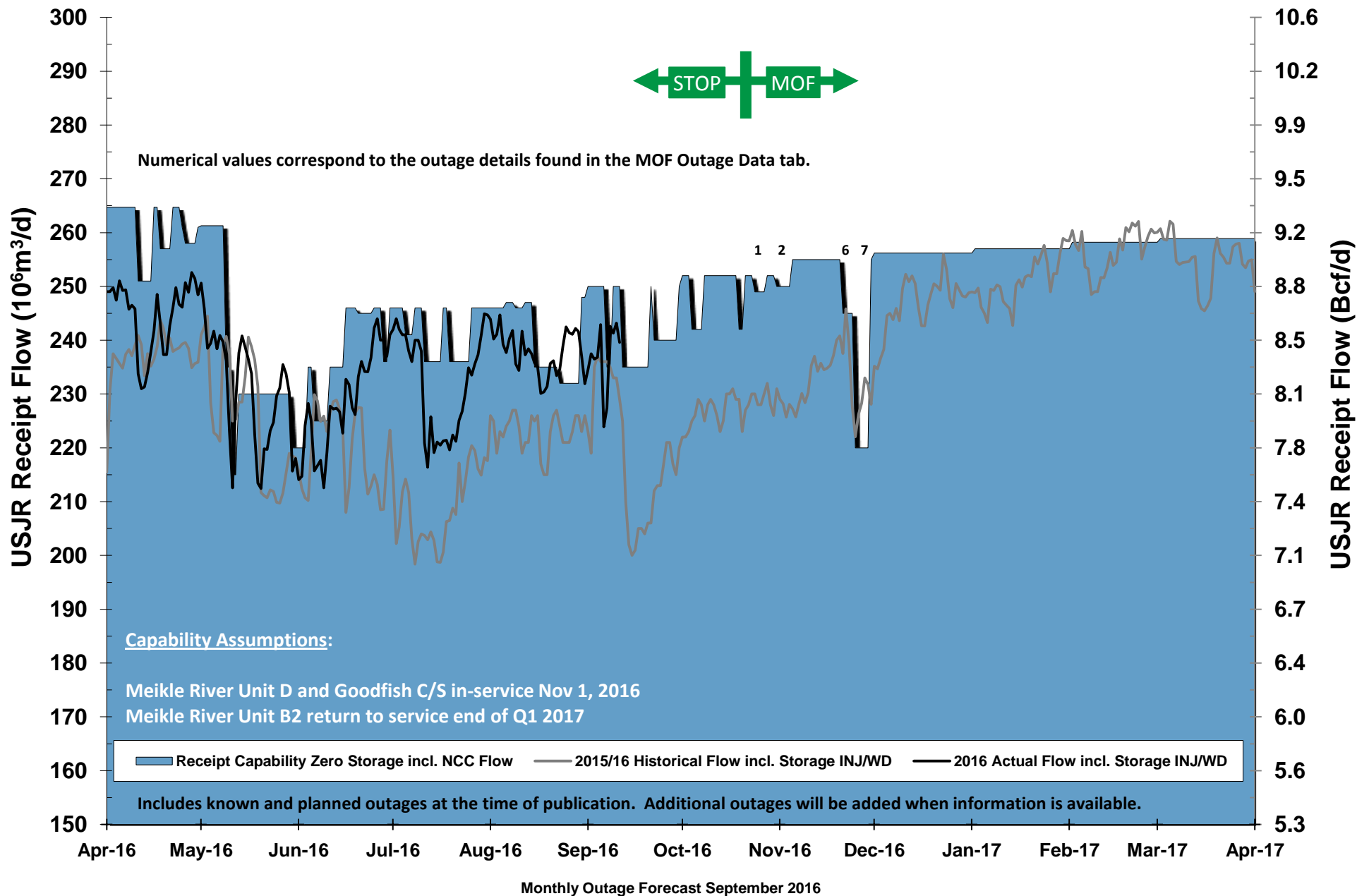
Kingsgate Border Flow ($10^6\text{m}^3/\text{day}$)



Kingsgate Border Flow (TJ/day)

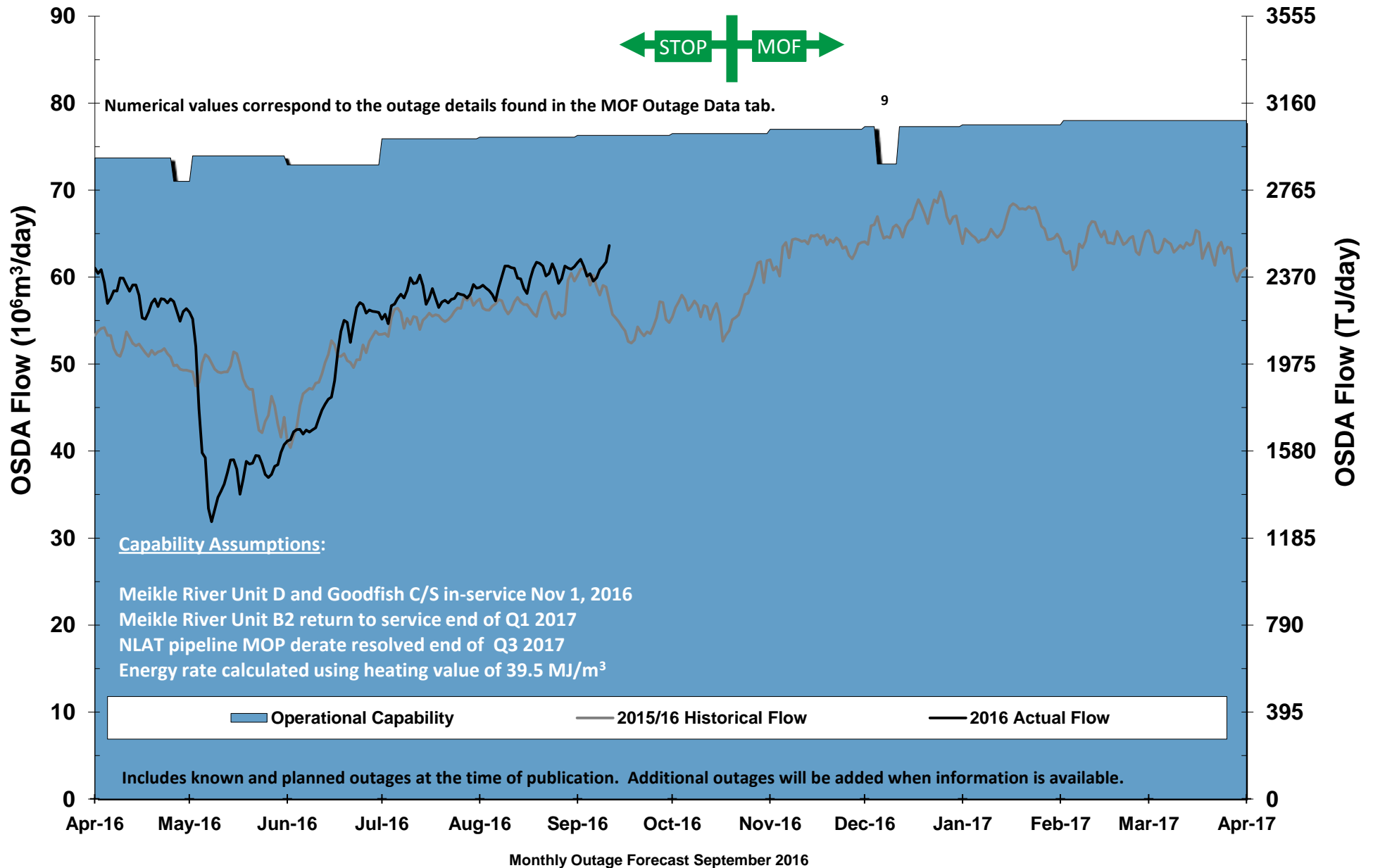
Upstream of James River Outlook

Segments 1, 2, 3, 4, 5, 7, partial 8, partial 9, 24, 26, partial 28



Oil Sands Delivery Area (OSDA) Outlook

Segments 10, 11, 14



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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, partial 28.
- 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.
- 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, 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, and delivery locations in partial Segment 21.

OUTAGE #	SEG #	OUTAGE DESCRIPTION	DATES		RECEIPT/DELIVERY IMPACT	CONTACT	AREA
			START	FINISH			
1	3	Hidden Lake C/S - Station Maintenance (4 days). Dates and Capacity Revised	10/24/16	10/27/16	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 249 E6m3/d. Typical Flow 230-265 E6m3/d. Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill delivery Capability 131 E6m3/d. Typical Flow 125-135 e6m3/d	Andrea Watters	USJR EGAT
2	1	Meikle River C#3 C/S - Unit Maintenance (5 days). New	10/31/16	11/04/16	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 250 E6m3/d. Typical Flow 230-265 E6m3/d. Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill delivery Capability 127 E6m3/d. Typical Flow 125-135 e6m3/d	Andrea Watters	USJR EGAT
3	21	NPS 42 Western Alberta System (WAS) Mainline Loop - Pipeline Maintenance (7 days). Capacity Revised	10/31/16	11/06/16	Potential IT/FT delivery restriction in the West Gate Delivery Area. Alberta B. C. Capability 56 E6m3/d. Typical Flow 57-64 E6m3/d.	Damola Daramola	WGAT
4	18	Schrader Creek #1 - Station Maintenance (4 days). Dates and Capacity Revised	11/07/16	11/10/16	Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill delivery Capability 127 E6m3/d. Typical Flow 125-135 e6m3/d.	Damola Daramola	EGAT
5	20	NPS 12 Bigstone Lateral - Pipeline Modifications (6 days within window).	11/15/16	11/20/16	Nils required at Grizzly, Grizzly Sales and Bigstone Sales meter stations. Typical Receipt Flow 150 E3m3/d and Delivery Flow 50 E3m3/d.	Chris Pho	Local
6	8	Nordegg C/S- Station Maintenance (4 days). Dates Revised	11/22/16	11/25/16	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 245 E6m3/d. Typical Flow 230-265 e6m3/d.	Chris Pho	USJR
7	6 & 12	NPS 24/30 NCC Peerless Lake/Marten Hills Lateral Loop #2/Paul Lake Crossover - Pipeline Maintenance (5 days).	11/25/16	11/29/16	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 220 E6m3/d. Typical Flow 230-265 E6m3/d. Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill delivery Capability 125 E6m3/d. Typical Flow 125-135 e6m3/d.	Chuang Li	USJR EGAT
8	20	NPS 10/12 Tide Lake Lateral - Pipeline Modifications (6 days within window).	12/01/16	12/15/16	Nils required at Tide Lake North, Tide Lake East, Tide Lake B, Tide Lake and Tide Lake South meter stations. Typical Flow 260-660 E3m3/d.	Damola Daramola	Local
9	10	NPS 36 NCC Loop and Fort McKay Mainline - Pipeline Maintenance (7 days).	12/05/16	12/11/16	Potential IT/FT delivery restriction in the Oil Sands Delivery Area. Capability 73 E6m3/d. Typical Flow 60-70 E6m3/d.	Brooke Dillabough	OSDA
10	6	NPS 24 Marten Hills Lateral Loop - Pipeline Modifications (6 days). New	02/07/17	02/13/17	Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill delivery Capability 130 E6m3/d. Typical Flow 125-135 e6m3/d.	Rahim Ruda	EGAT
11	21	Turner Valley #2 - Unit Maintenance (4 days). New	03/13/17	03/16/17	Potential IT/FT delivery restriction in the West Gate Delivery Area. Alberta B. C. Capability 59 E6m3/d. Typical Flow 57-64 E6m3/d.	Damola Daramola	WGAT

- C/SCompressor Station
- M/SMeter Station
- Light ShadeChanged Entry
- Dark ShadeNew Entry

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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, partial 28.
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.
 • **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, 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, and delivery locations in partial Segment 21.

OUTAGE #	SEG #	OUTAGE DESCRIPTION	DATES		RECEIPT/DELIVERY IMPACT	CONTACT	AREA
			START	FINISH			
12	20	Jenner C/S - Station Maintenance (3 days). New	03/21/17	03/23/17	Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill delivery Capability 126 E6m3/d. Typical Flow 125-135 e6m3/d.	Damola Daramola	EGAT
13	21	Burton Creek C/S - Station Maintenance (2 days). New	03/28/17	03/29/17	Potential IT/FT delivery restriction in the West Gate Delivery Area. Alberta B. C. Capability 57 E6m3/d. Typical Flow 57-64 E6m3/d.	Damola Daramola	WGAT

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