

SYSTEM UTILIZATION MONTHLY REPORT

for the month ending

November 2016

<http://www.transcanada.com/customerexpress/2885.html>

Published date:

January 19th, 2017

Highlights This Month:

- As November 2016 represents the start of a new gas year, all charts have been shifted to accommodate the next year's data and design capabilities have been provided for the Winter 2016/17 season.
- As outlined in the Facilities Design Methodology Document the Design Capability assumes all facilities are in-service and operating. Unplanned events, de-rates and facility in-service delays within the season are not reflected in this report. For information on changes to expected facility in-service dates refer to Appendix 2 on TransCanada Customer Express.
- Winter 2016/2017 design capability for Eastern Gate reflects updated local area storage withdrawal assumptions. Summer design capabilities are expected to be lower than previous summers as local area supply continues to decline.

NOVA Gas Transmission Ltd.

TABLE OF CONTENTS

<u>MONTHLY FEATURES</u>	PAGE
Firm Transportation Service Contract Utilization	3
Design Capability Utilization	
Upper Peace River	4
Upper & Central Peace River	5
Peace River Design	6
Upstream James River	7
Eastern Alberta Mainline (James River to Princess)	8
Western Alberta Mainline (AB/BC & AB/Montana Borders)	9
Rimbey Nevis – Flow Within	10
South & Alderson – Flow Within	11
Medicine Hat - Flow Within	12
Eastern Alberta Mainline (Princess to Empress/McNeill)	13
Ft. McMurray Area – Flow Within.....	14
Kirby Area – Flow Within.....	15
North of Bens Lake – Flow Within	16
North & South of Bens Lake – Flow Within.....	17
Future Firm Transportation Service Availability.....	18
How to Use This Report	19
<u>REFERENCES</u>	
NGTL Design Areas Map	20
NGTL Pipeline Segments Map	21
Definition of Terms	22

If you have any questions on the content of this report, contact Winston Cao at (403) 920-5315 or via fax at (403) 920-2357.

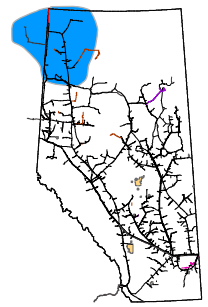
FIRM TRANSPORTATION SERVICE¹ CONTRACT UTILIZATION³

By NGTL Pipeline Segments
November 2016

Segment	Contract	Delivery		Receipt	
		Utilization	Nov CD (TJ/d)	Utilization	Nov CD (MMcf/d)
UPRM	FT	46%	1.5	82%	68
	FT + IT ²	111%		82%	
PRLL	FT	49%	32.4	84%	92
	FT + IT	52%		86%	
NWML	FT	56%	7.4	76%	381
	FT + IT	56%		80%	
GRDL	FT	33%	8.9	87%	2,110
	FT + IT	38%		88%	
WRSY	FT	0%	0.0	74%	24
	FT + IT	0%		79%	
WAEX	FT	27%	7.3	76%	767
	FT + IT	68%		77%	
JUDY	FT	60%	20.2	85%	58
	FT + IT	71%		90%	
GPML	FT	36%	161.5	83%	4,059
	FT + IT	53%		83%	
CENT	FT	0%	0.0	82%	1,779
	FT + IT	0%		84%	
LPOL	FT	44%	71.6	80%	831
	FT + IT	54%		85%	
WGAT	FT	68%	3,793.4	90%	304
	FT + IT	68%		99%	
ALEG	FT	53%	369.3	90%	800
	FT + IT	55%		103%	
SLAT	FT	30%	186.2	82%	215
	FT + IT	31%		98%	
MLAT	FT	70%	279.8	82%	201
	FT + IT	71%		89%	
BLEG	FT	58%	134.9	88%	561
	FT + IT	61%		96%	
EGAT	FT	95%	3,701.9	71%	31
	FT + IT	119%		88%	
MRTN	FT	20%	27.5	74%	47
	FT + IT	27%		112%	
LIEG	FT	75%	1,845.7	66%	33
	FT + IT	76%		123%	
KIRB	FT	77%	1,573.6	77%	42
	FT + IT	78%		99%	
SMHI	FT	42%	12.1	86%	19
	FT + IT	42%		164%	
REDL	FT	20%	19.0	49%	24
	FT + IT	28%		145%	
COLD	FT	47%	172.0	60%	18
	FT + IT	57%		100%	
EDM	FT	47%	1,834.8	83%	34
	FT + IT	48%		117%	
NLAT	FT	31%	14.7	95%	124
	FT + IT	31%		125%	
WAIN	FT	24%	0.4	89%	5
	FT + IT	24%		154%	
ELAT	FT	79%	274.2	86%	125
	FT + IT	83%		102%	
TOTAL SYSTEM	FT	72%	14,550.2	83%	12,754
	FT + IT	79%		88%	

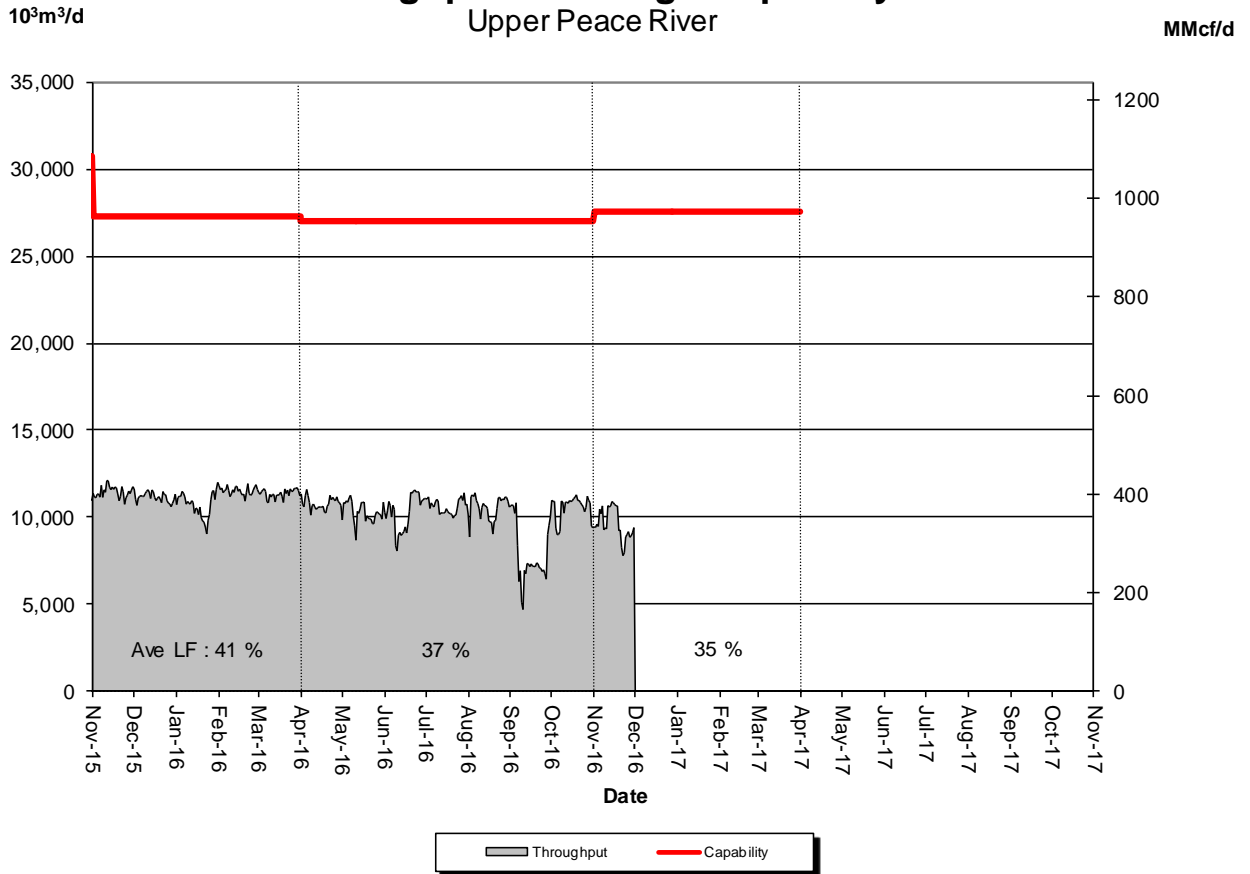
*NOTE:

1. FT includes all receipt and delivery Firm Transportation Services.
2. IT includes receipt and delivery Interruptible Services.
3. Utilization data is based on billed monthly volumes. Percent utilization calculated as FT and FT + IT billed volumes divided by applicable receipt or delivery Contract level.



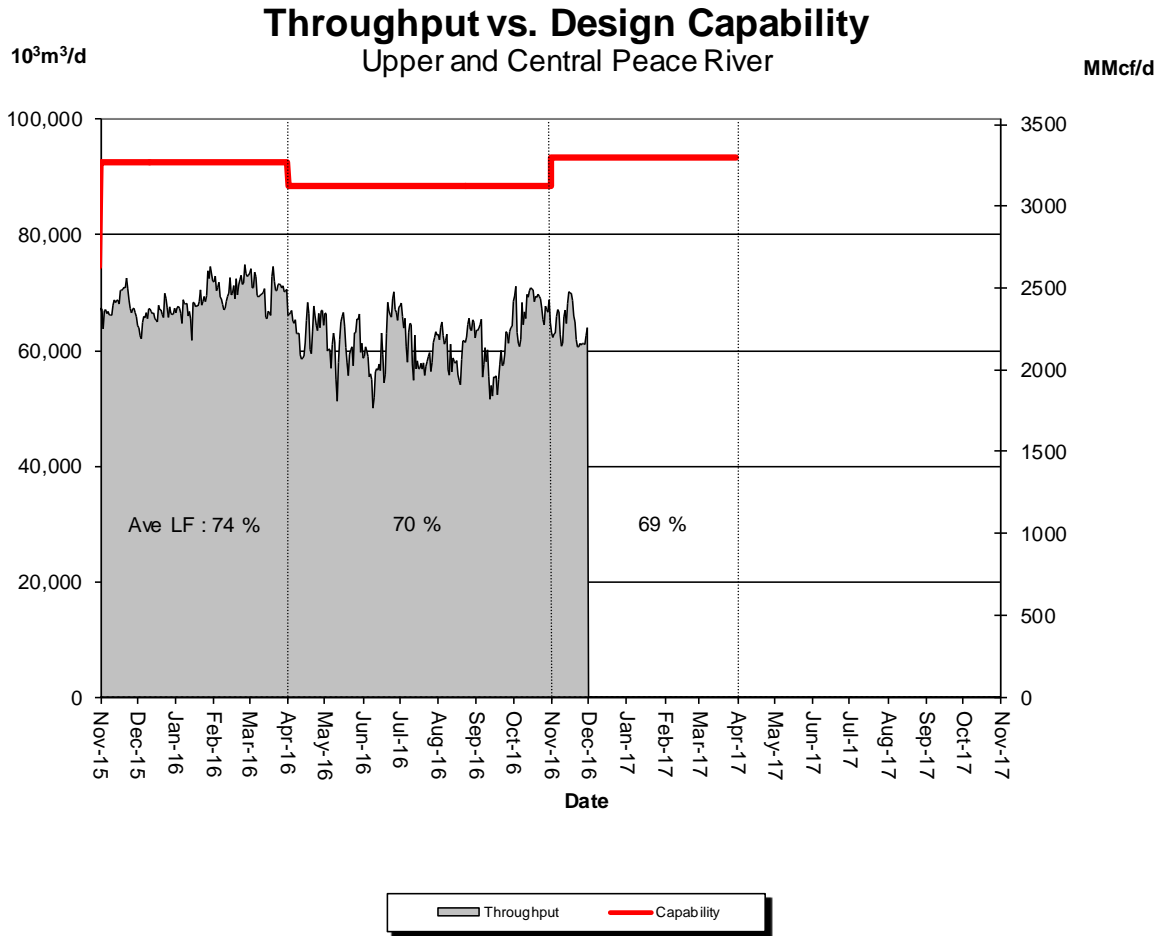
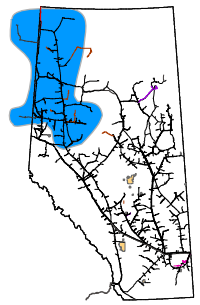
DESIGN CAPABILITY UTILIZATION UPPER PEACE RIVER

Throughput vs. Design Capability Upper Peace River



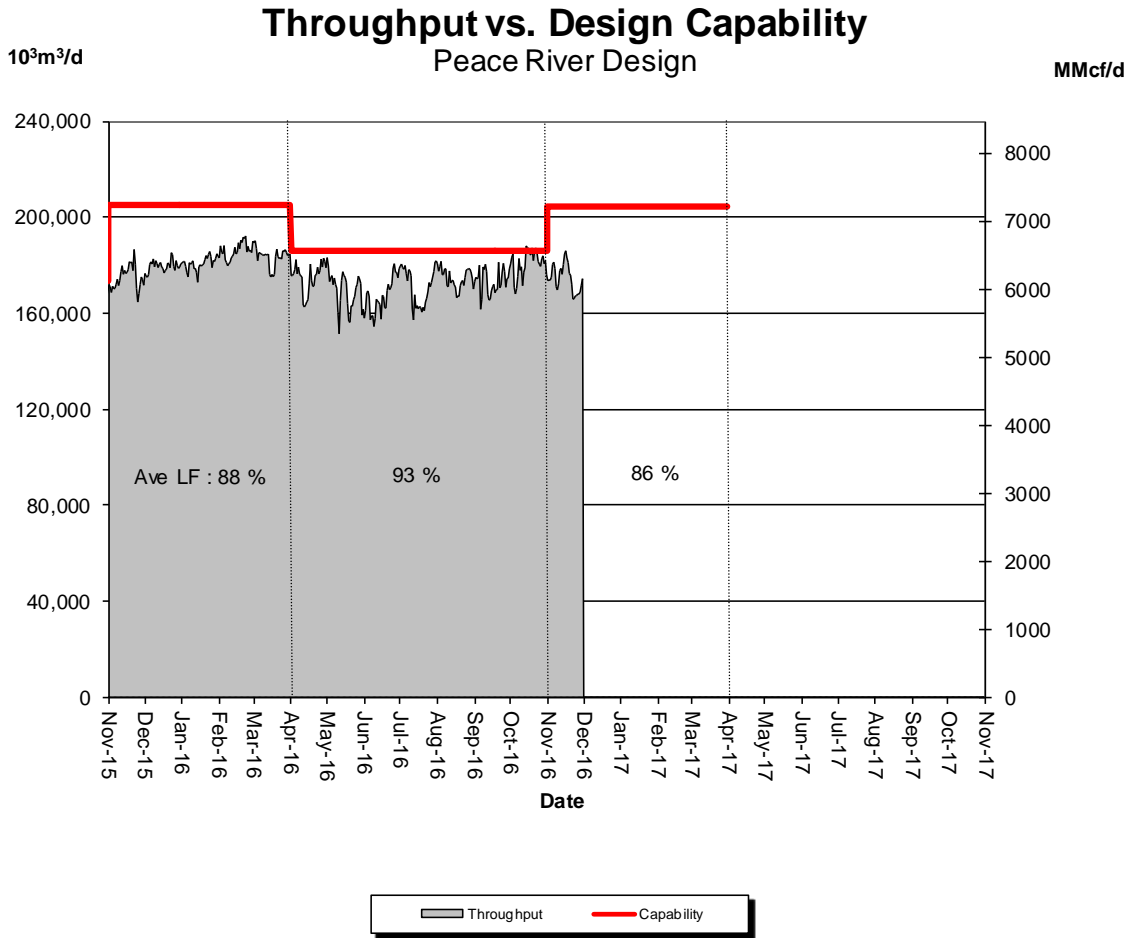
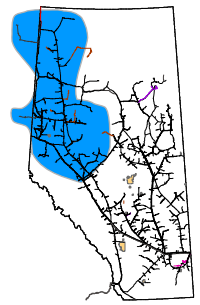
% Design Capability Utilization						
Design Capability	Jun	Jul	Aug	Sep	Oct	Nov
	38%	39%	39%	29%	39%	35%

DESIGN CAPABILITY UTILIZATION UPPER and CENTRAL PEACE RIVER



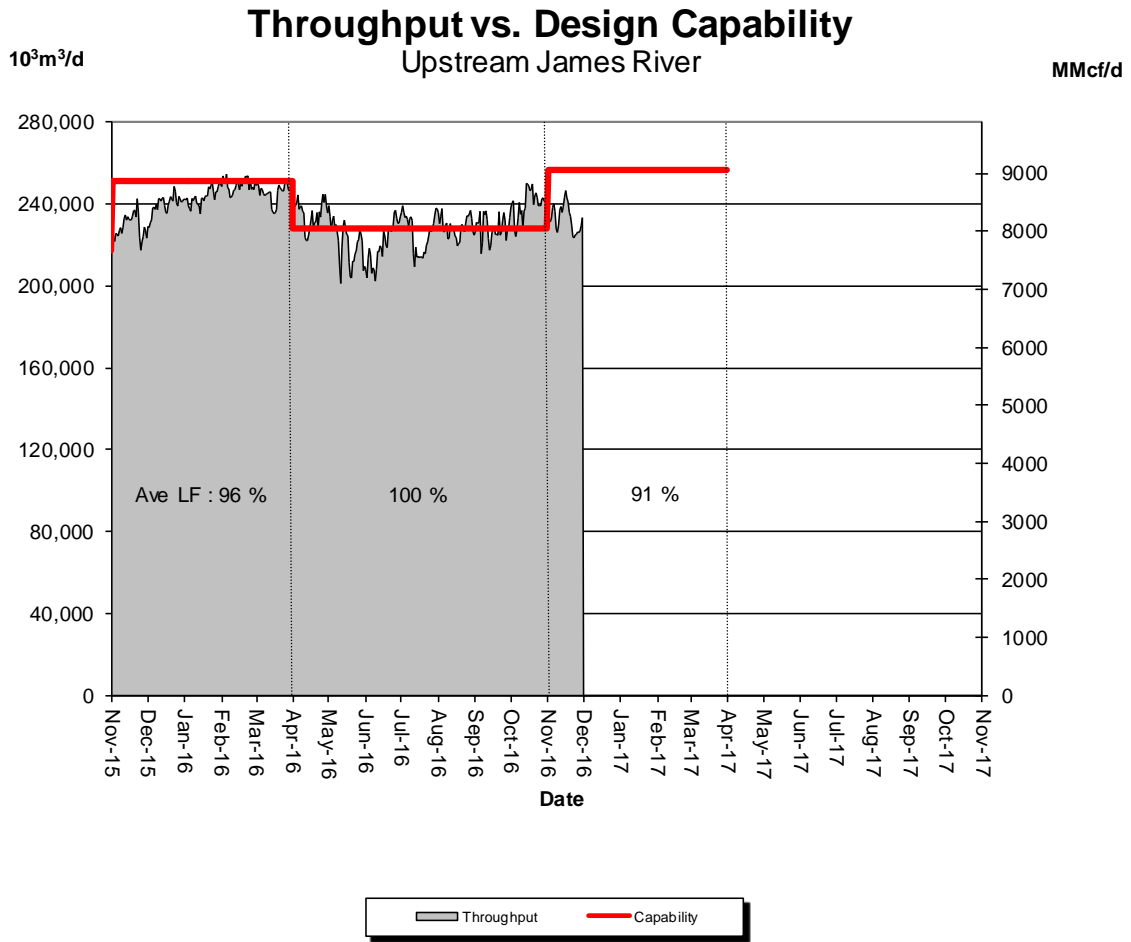
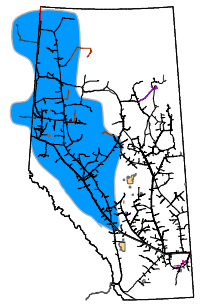
% Design Capability Utilization						
Design Capability	Jun	Jul	Aug	Sep	Oct	Nov
	68%	68%	69%	67%	76%	69%

DESIGN CAPABILITY UTILIZATION PEACE RIVER DESIGN (Upper, Central and Lower Peace River)



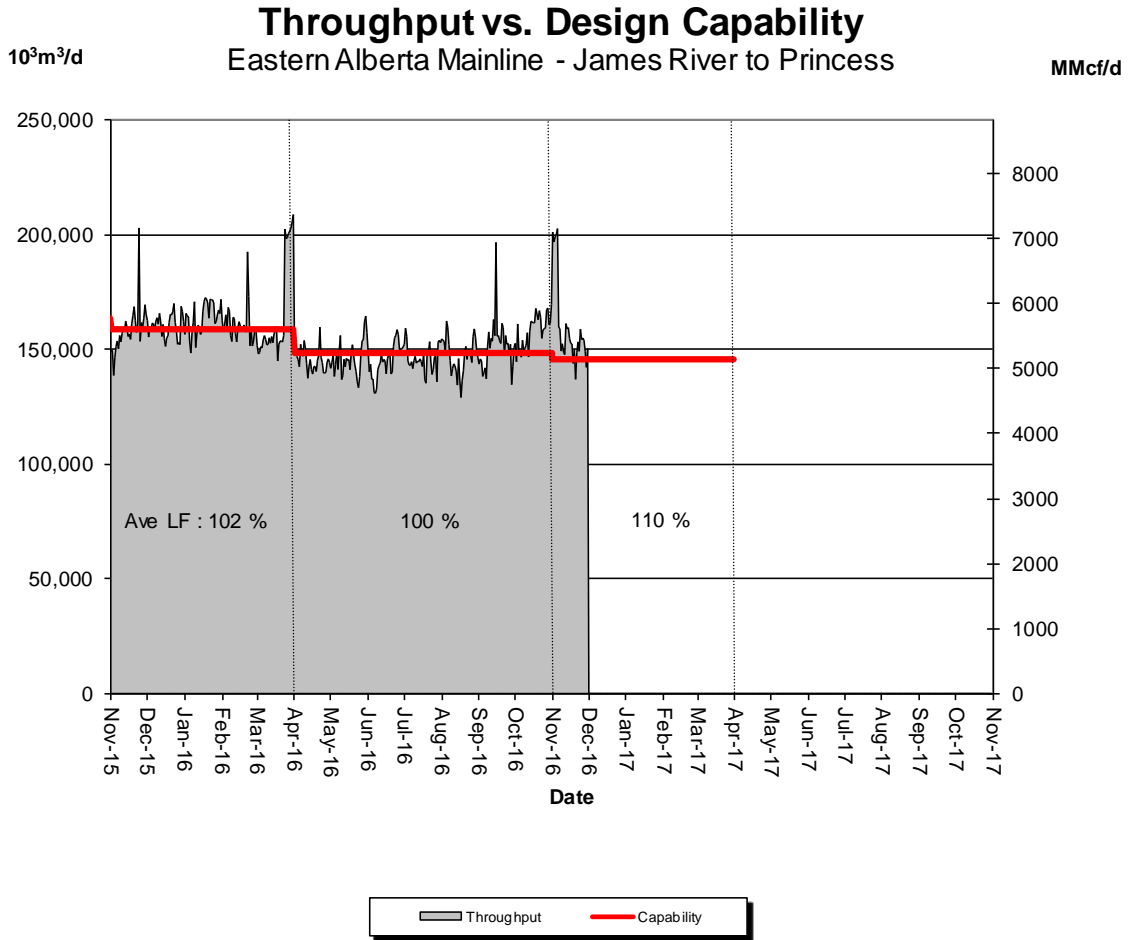
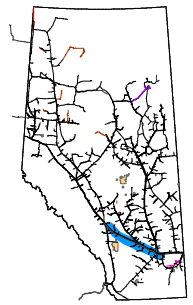
% Design Capability Utilization						
Design Capability	Jun	Jul	Aug	Sep	Oct	Nov
	90%	92%	94%	93%	97%	86%

DESIGN CAPABILITY UTILIZATION UPSTREAM JAMES RIVER (Edson Mainline, Peace River Design and Marten Hills)



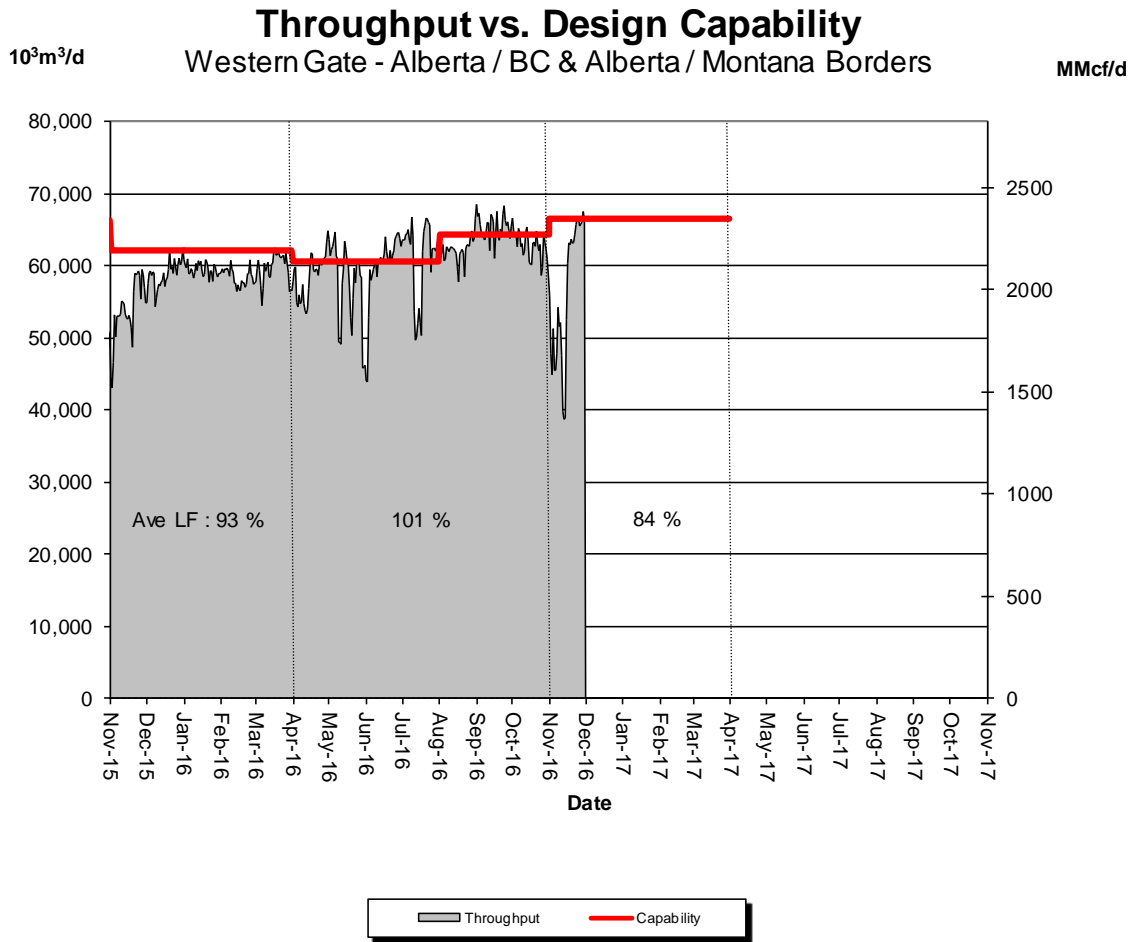
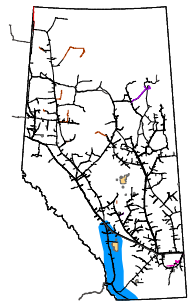
% Design Capability Utilization						
Design Capability	Jun	Jul	Aug	Sep	Oct	Nov
	97%	99%	100%	100%	105%	91%

DESIGN CAPABILITY UTILIZATION EASTERN ALBERTA MAINLINE (James River to Princess)



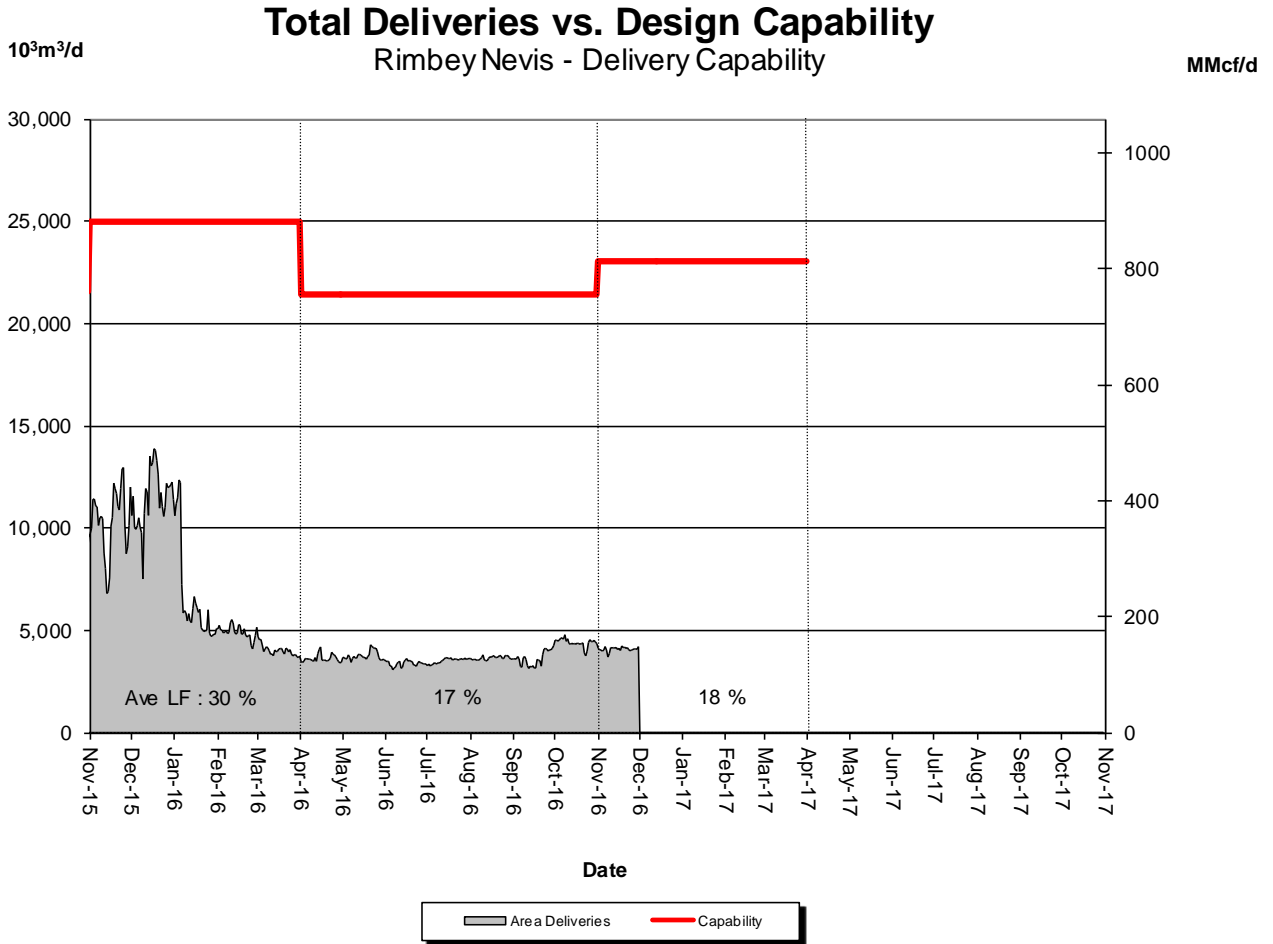
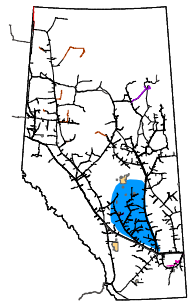
% Design Capability Utilization						
Design Capability	Jun	Jul	Aug	Sep	Oct	Nov
	98%	98%	99%	102%	107%	110%

DESIGN CAPABILITY UTILIZATION WESTERN ALBERTA MAINLINE (Alberta/B.C. and Alberta/Montana Borders)



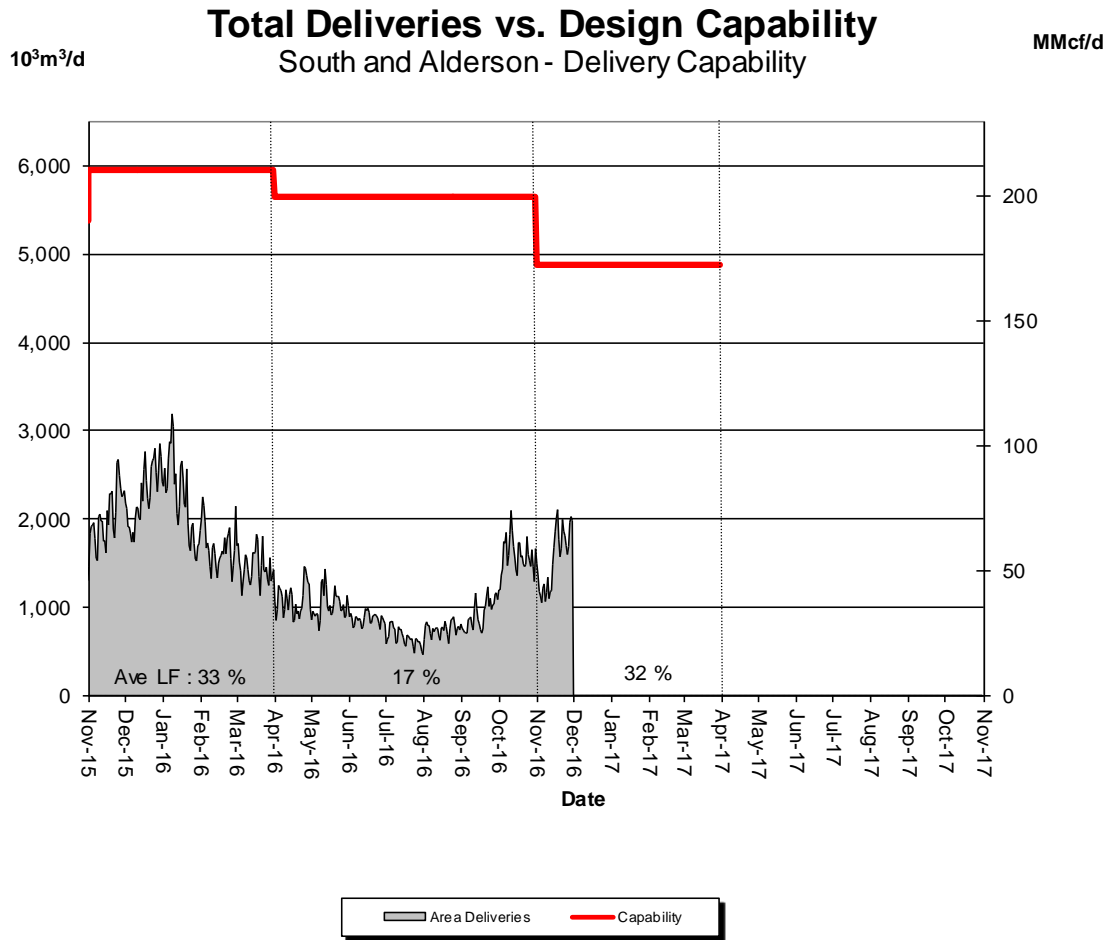
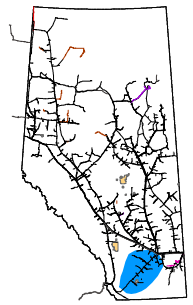
% Design Capability Utilization						
Design Capability	Jun	Jul	Aug	Sep	Oct	Nov
	99%	101%	97%	102%	98%	84%

DESIGN CAPABILITY UTILIZATION RIMBEY-NEVIS – FLOW WITHIN



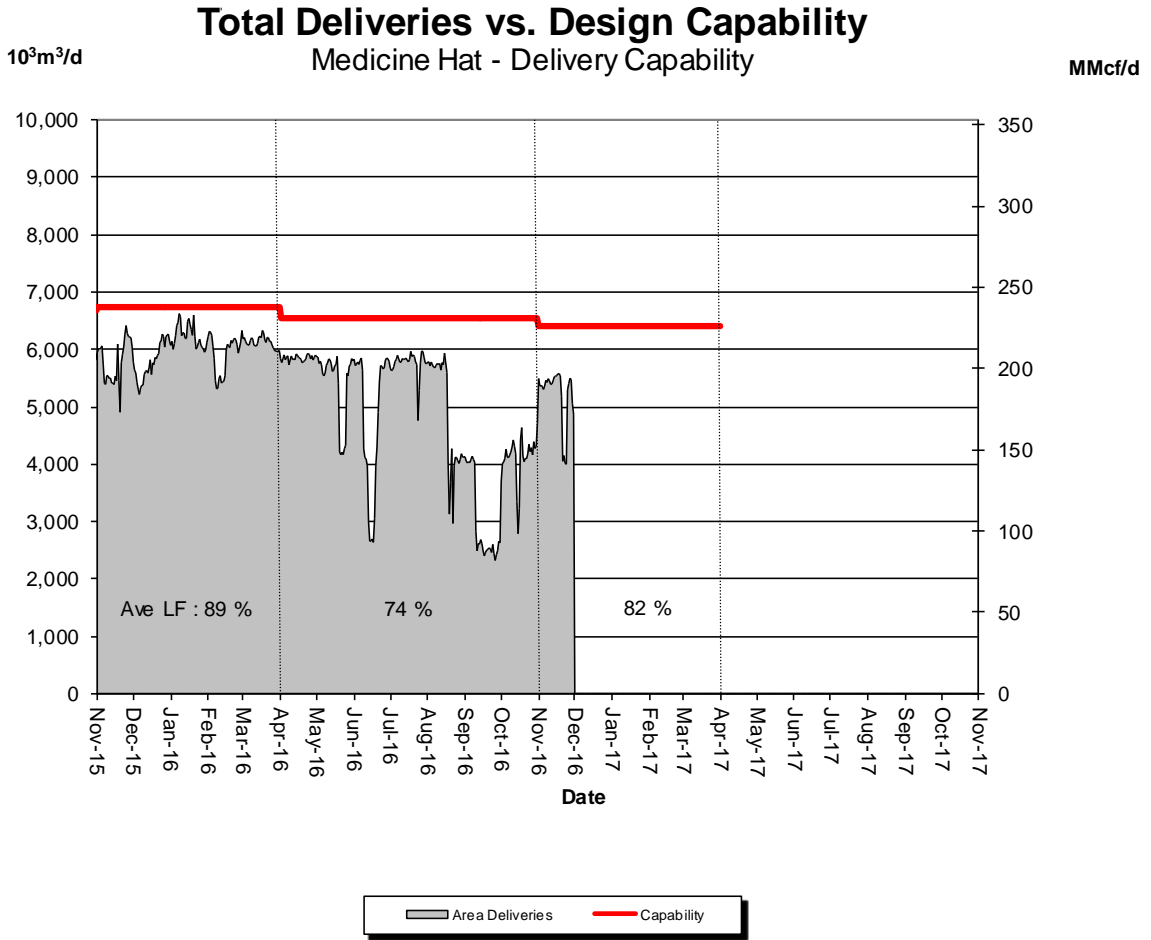
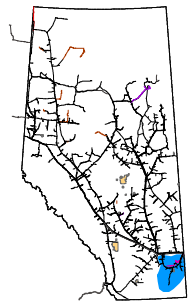
% Design Capability Utilization						
Design Capability	Jun	Jul	Aug	Sep	Oct	Nov
	16%	16%	17%	17%	21%	18%

DESIGN CAPABILITY UTILIZATION SOUTH and ALDERSON – FLOW WITHIN



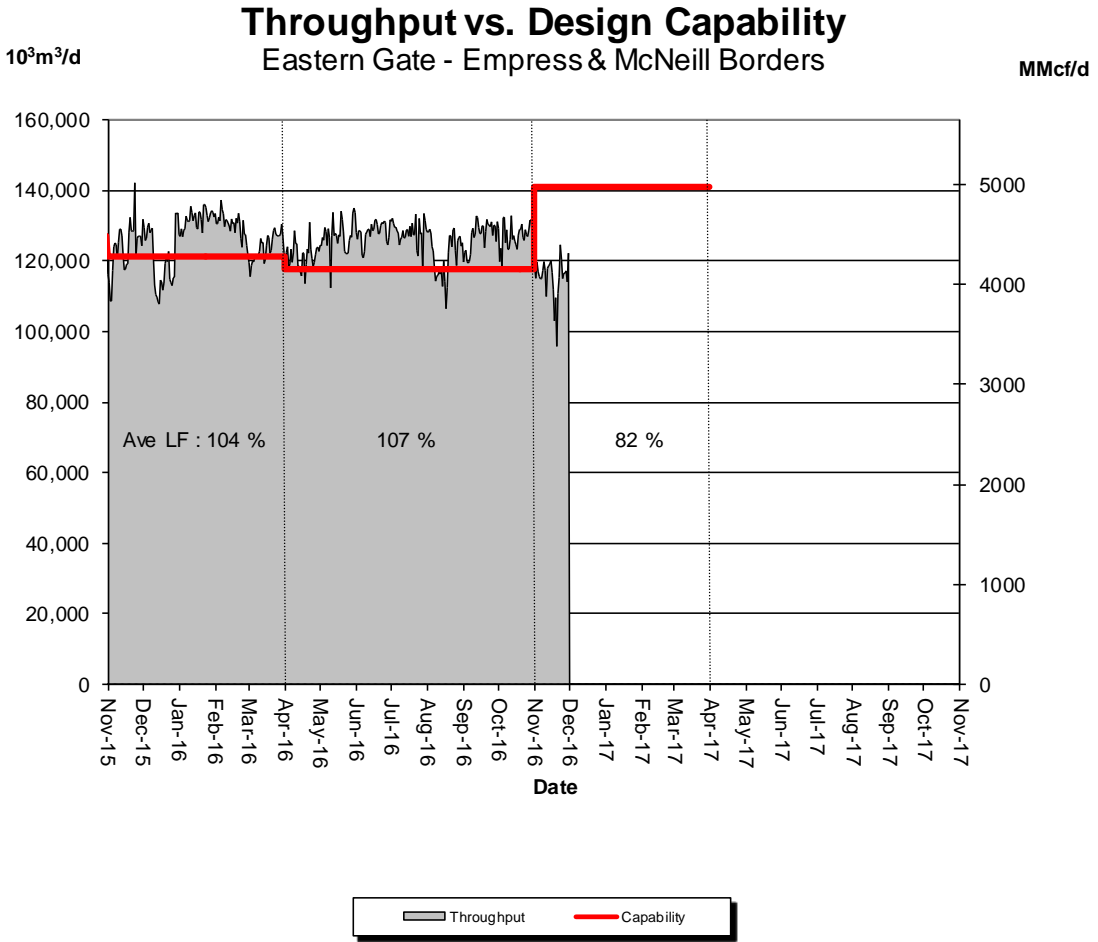
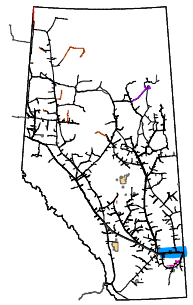
% Design Capability Utilization						
Design Capability	Jun	Jul	Aug	Sep	Oct	Nov
	15%	12%	13%	16%	28%	32%

DESIGN CAPABILITY UTILIZATION MEDICINE HAT – FLOW WITHIN



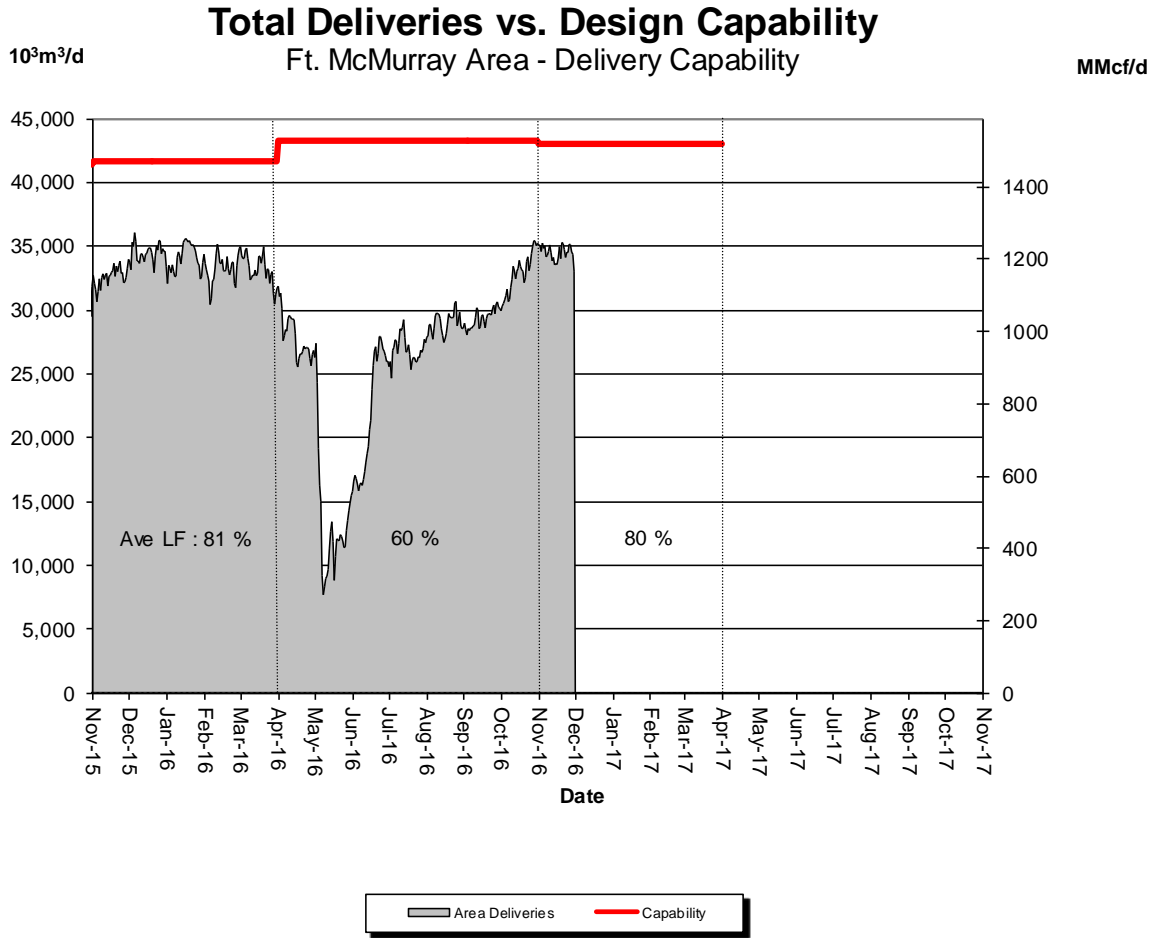
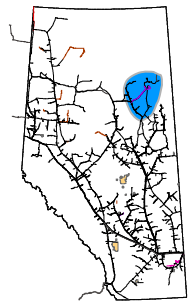
% Design Capability Utilization						
Design Capability	Jun	Jul	Aug	Sep	Oct	Nov
	73%	88%	75%	46%	63%	82%

DESIGN CAPABILITY UTILIZATION EASTERN ALBERTA MAINLINE (Princess to Empress / McNeill)



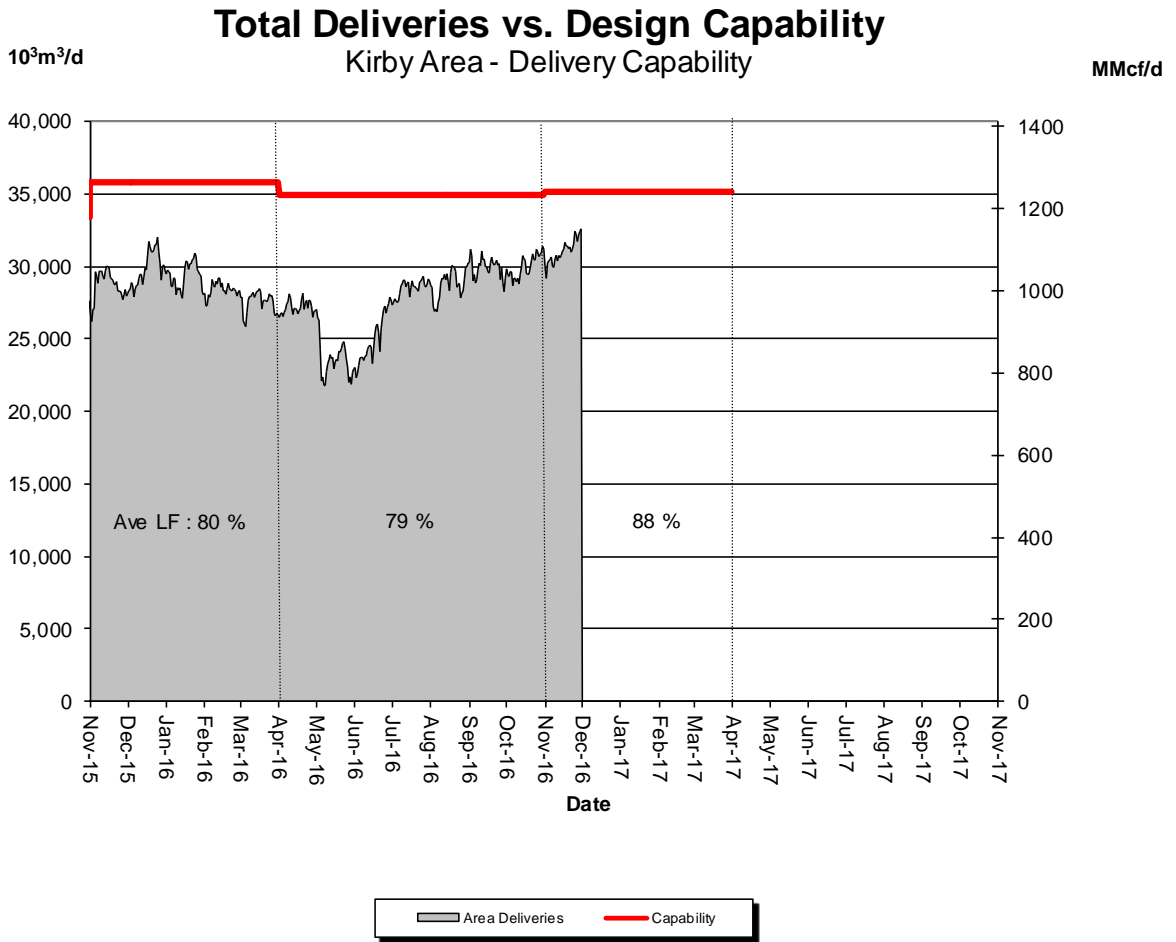
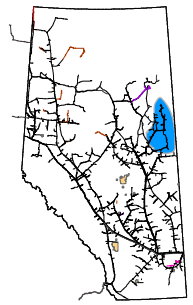
% Design Capability Utilization						
Design Capability	Jun	Jul	Aug	Sep	Oct	Nov
	109%	109%	103%	108%	108%	82%

DESIGN CAPABILITY UTILIZATION FT. McMURRAY AREA – FLOW WITHIN



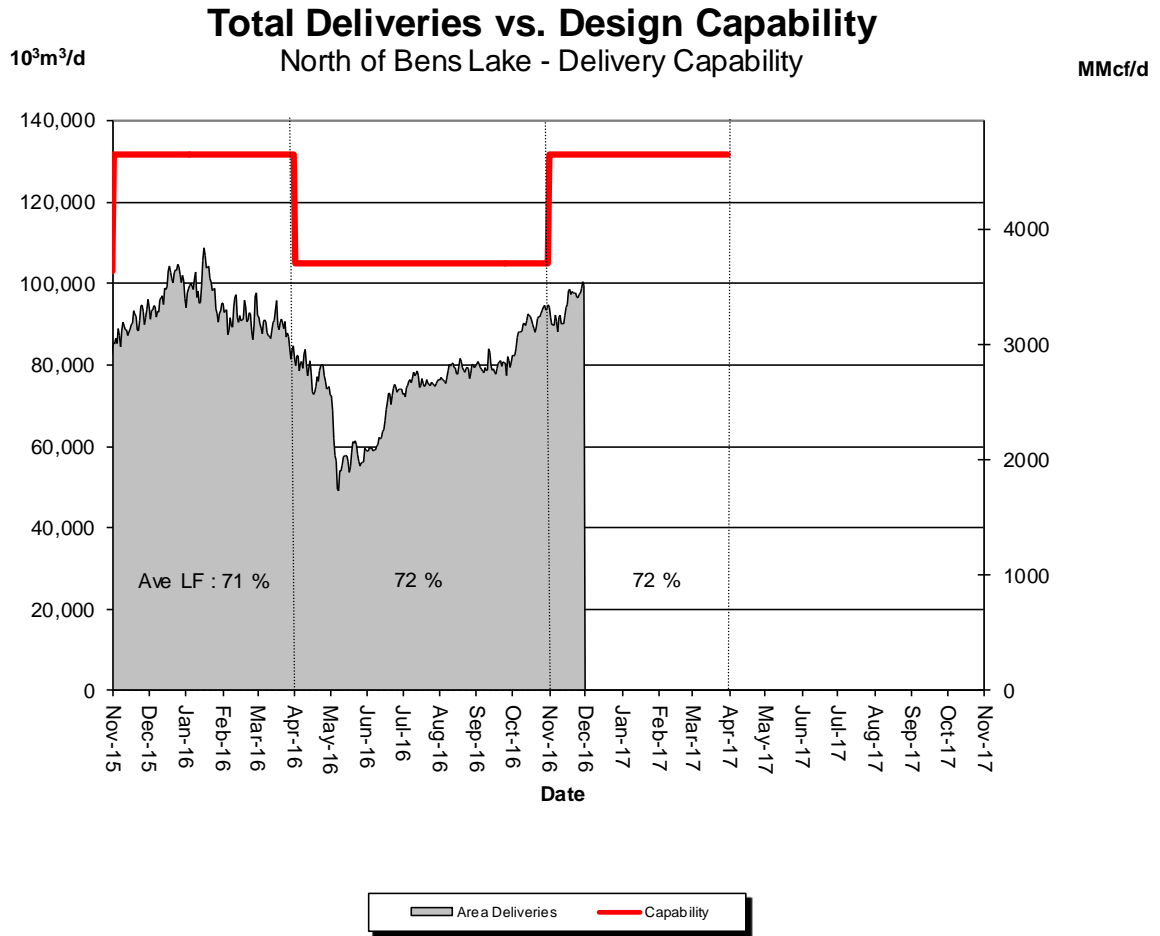
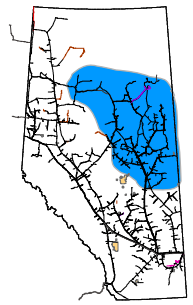
% Design Capability Utilization						
Design Capability	Jun	Jul	Aug	Sep	Oct	Nov
	50%	62%	67%	68%	76%	80%

DESIGN CAPABILITY UTILIZATION KIRBY AREA – FLOW WITHIN



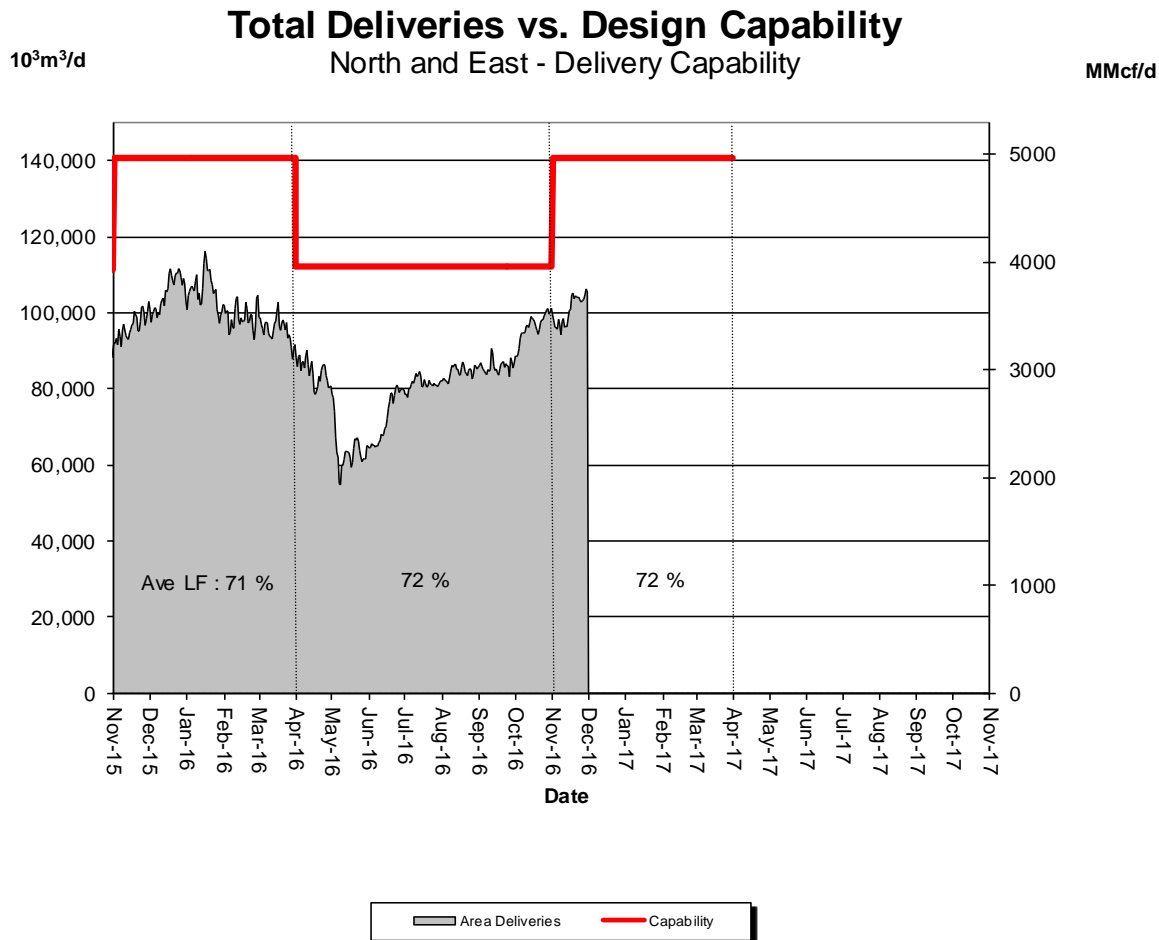
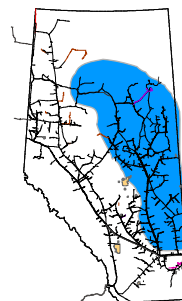
% Design Capability Utilization						
Design Capability	Jun	Jul	Aug	Sep	Oct	Nov
	71%	82%	82%	86%	86%	88%

DESIGN CAPABILITY UTILIZATION NORTH OF BENS LAKE – FLOW WITHIN



% Design Capability Utilization						
Design Capability	Jun	Jul	Aug	Sep	Oct	Nov
	64%	72%	75%	76%	86%	72%

DESIGN CAPABILITY UTILIZATION NORTH & SOUTH OF BENS LAKE – FLOW WITHIN



% Design Capability Utilization						
Design Capability	Jun	Jul	Aug	Sep	Oct	Nov
	64%	72%	75%	76%	86%	72%

FUTURE FIRM TRANSPORTATION SERVICE AVAILABILITY

Please consult with your Customer Account Manager to discuss your Firm Transportation Service needs.

Estimated Firm Transportation Service Availability

**Please refer to the following web site for
current FT-R / FT-D Availability Maps:**

<http://www.transcanada.com/customerexpress/2801.html>

HOW TO USE THIS REPORT

Overview

This report contains recent historical information on the level of utilization of firm transportation Service Agreements on the NGTL system, relative usage of interruptible service, level of utilization of design pipeline capacity.

Data is reported either by *Pipeline Segment* (26 segments make up the system, without 23 & 27) or *Design Area* (13 Design Areas for the system). Maps of both are included in the reference section.

Firm Transportation Service Contract Utilization

The Firm Transportation Service Contract Utilization report shows the percent utilization for each of the 26 NGTL pipeline segments and 3 major export delivery points comprising the total system. The utilization data is based on billed monthly volumes. Percent utilization is calculated as firm transportation service and firm transportation service + interruptible service divided by applicable receipt or delivery contract level. Historical Data involving billed volumes lags the current date by approximately two months.

Design Capability Utilization

The load factor/segment flow graphs show actual flow versus design capability values for various NGTL system areas. The graphs also show seasonal (winter/summer) design capability and average load factors (LF) for each season. Load factors are obtained by comparing the receipt, delivery, or throughput flow condition in each of the Alberta design areas against the corresponding design capability. Consequently, design capability utilization is measured as Average Actual Flow / Seasonal Design Capability. Data used in these reports lags the current date by at least one month.

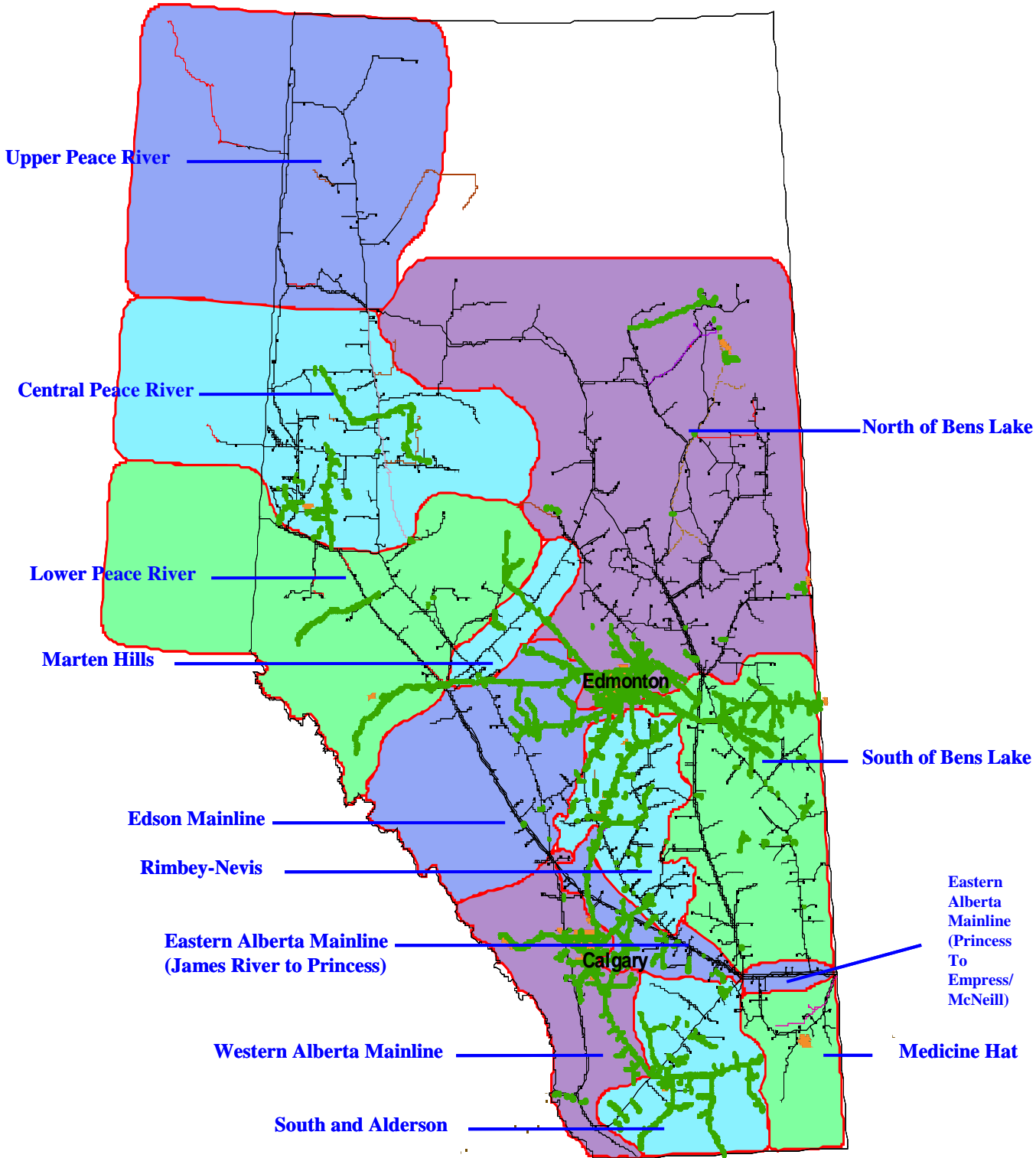
Design Flow Capability utilization is a function of several factors that include:

- Total market demand for Alberta natural gas.
- Seasonal changes in market demand for Alberta natural gas.
- Receipt nominating practices of customers individually and in aggregate to meet that level of demand.
- Scheduled maintenance which could effect actual flow requirement in a design area at any given time.
- Design assumptions used in determining required segment flow requirement.

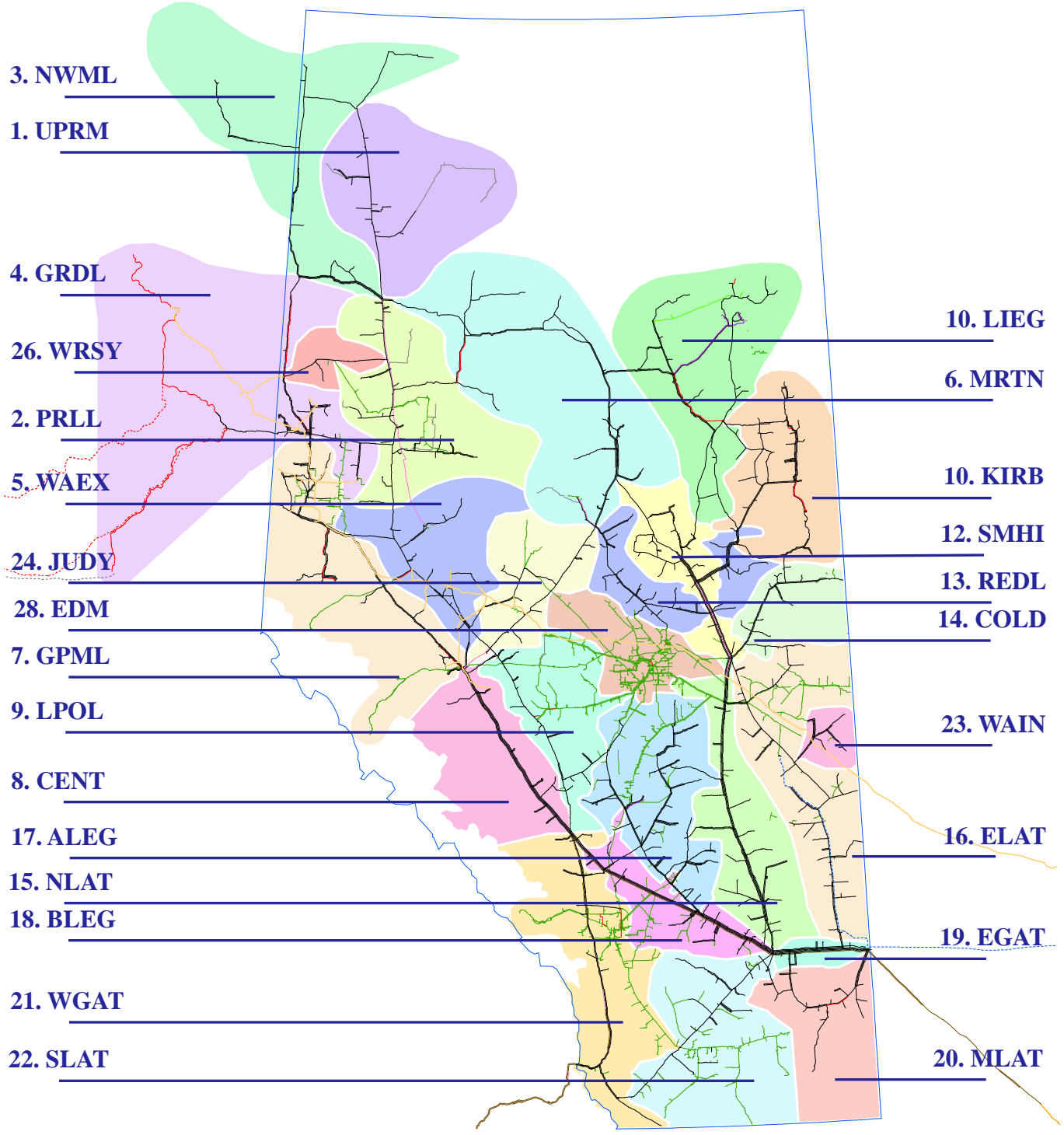
Future Firm Transportation Service Availability

The Future Firm Transportation Service Availability report presents guidelines and timing for all future firm transportation service requests.

NGTL Design Areas



(Last updated Nov 2011)



Last Update May, 2015

DEFINITION OF TERMS

Design Capability Utilization

Actual Flow

The amount of gas flowing within or out of the design area.

Design Capability

The volume of gas that can be transported from the design area on the pipeline system considering given design assumptions.

AVGLF (Average Load Factor)

The ratio between average *Actual Flow* and *Design Capability*. It is calculated for every design season (summer/winter) as shown on the graphs.

Intra NGTL System Deliveries

The amount of sales gas flowing off the system within an area.

Receipt Flow

Aggregate of actual receipts within an area and the *Actual Flow* of the upstream area.

Other

System Load Factor

The volume weighted average of the *Average Load Factor (AVGLF)* of all design areas on the system
