

# SYSTEM UTILIZATION AND RELIABILITY MONTHLY REPORT

for the month ending  
December 2013

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

*Published date:*  
**March 28<sup>th</sup>, 2014**

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## Highlights This Month:

- Design capabilities are based on assumptions regarding storage, ambient air and ground temperatures, flow distribution, design area boundary conditions, and local area supply and deliveries. Actual flows at Eastern and Western Gates may exceed the design capability due to flow conditions that deviate from these assumptions.

**NOVA** Gas Transmission Ltd.

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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 SERVICE<sup>1</sup> CONTRACT UTILIZATION<sup>3</sup>

By NGTL Pipeline Segments  
December 2013

| Segment      | Contract             | Delivery    |                  | Receipt     |                    |
|--------------|----------------------|-------------|------------------|-------------|--------------------|
|              |                      | Utilization | Dec CD<br>(TJ/d) | Utilization | Dec CD<br>(MMcf/d) |
| UPRM         | FT                   | 2%          | 23.0             | 89%         | 72                 |
|              | FT + IT <sup>2</sup> | 10%         |                  | 96%         |                    |
| PRL          | FT                   | 50%         | 46.9             | 89%         | 115                |
|              | FT + IT              | 56%         |                  | 101%        |                    |
| NWML         | FT                   | 100%        | 1.5              | 59%         | 584                |
|              | FT + IT              | 139%        |                  | 62%         |                    |
| GRDL         | FT                   | 31%         | 8.9              | 65%         | 1,835              |
|              | FT + IT              | 44%         |                  | 69%         |                    |
| WRSY         | FT                   | 0%          | 0.0              | 84%         | 20                 |
|              | FT + IT              | 0%          |                  | 97%         |                    |
| WAEX         | FT                   | 24%         | 13.6             | 72%         | 349                |
|              | FT + IT              | 60%         |                  | 92%         |                    |
| JUDY         | FT                   | 49%         | 33.8             | 87%         | 72                 |
|              | FT + IT              | 52%         |                  | 117%        |                    |
| GPML         | FT                   | 55%         | 162.3            | 87%         | 3,036              |
|              | FT + IT              | 71%         |                  | 94%         |                    |
| CENT         | FT                   | 89%         | 1.3              | 95%         | 859                |
|              | FT + IT              | 89%         |                  | 118%        |                    |
| LPOL         | FT                   | 55%         | 76.2             | 95%         | 560                |
|              | FT + IT              | 75%         |                  | 116%        |                    |
| WGAT         | FT                   | 82%         | 3,596.6          | 96%         | 387                |
|              | FT + IT              | 89%         |                  | 113%        |                    |
| ALEG         | FT                   | 65%         | 330.6            | 94%         | 852                |
|              | FT + IT              | 73%         |                  | 114%        |                    |
| SLAT         | FT                   | 54%         | 177.2            | 94%         | 215                |
|              | FT + IT              | 55%         |                  | 113%        |                    |
| MLAT         | FT                   | 64%         | 262.8            | 74%         | 214                |
|              | FT + IT              | 64%         |                  | 84%         |                    |
| BLEG         | FT                   | 76%         | 137.8            | 92%         | 585                |
|              | FT + IT              | 76%         |                  | 102%        |                    |
| EGAT         | FT                   | 98%         | 4,758.9          | 90%         | 38                 |
|              | FT + IT              | 111%        |                  | 106%        |                    |
| MRTN         | FT                   | 27%         | 36.4             | 77%         | 77                 |
|              | FT + IT              | 31%         |                  | 93%         |                    |
| LIEG         | FT                   | 88%         | 1,214.3          | 54%         | 29                 |
|              | FT + IT              | 99%         |                  | 243%        |                    |
| KIRB         | FT                   | 74%         | 1,116.9          | 74%         | 32                 |
|              | FT + IT              | 78%         |                  | 139%        |                    |
| SMHI         | FT                   | 82%         | 12.0             | 92%         | 37                 |
|              | FT + IT              | 98%         |                  | 123%        |                    |
| REDL         | FT                   | 87%         | 10.0             | 90%         | 34                 |
|              | FT + IT              | 114%        |                  | 141%        |                    |
| COLD         | FT                   | 64%         | 88.4             | 93%         | 21                 |
|              | FT + IT              | 91%         |                  | 136%        |                    |
| EDM          | FT                   | 62%         | 1,752.8          | 95%         | 58                 |
|              | FT + IT              | 63%         |                  | 121%        |                    |
| NLAT         | FT                   | 56%         | 15.8             | 94%         | 135                |
|              | FT + IT              | 56%         |                  | 120%        |                    |
| WAIN         | FT                   | 51%         | 0.4              | 84%         | 7                  |
|              | FT + IT              | 51%         |                  | 151%        |                    |
| ELAT         | FT                   | 91%         | 268.8            | 94%         | 123                |
|              | FT + IT              | 94%         |                  | 127%        |                    |
| TOTAL SYSTEM | FT                   | 83%         | 14,146.9         | 83%         | 10,347             |
|              | FT + IT              | 91%         |                  | 96%         |                    |

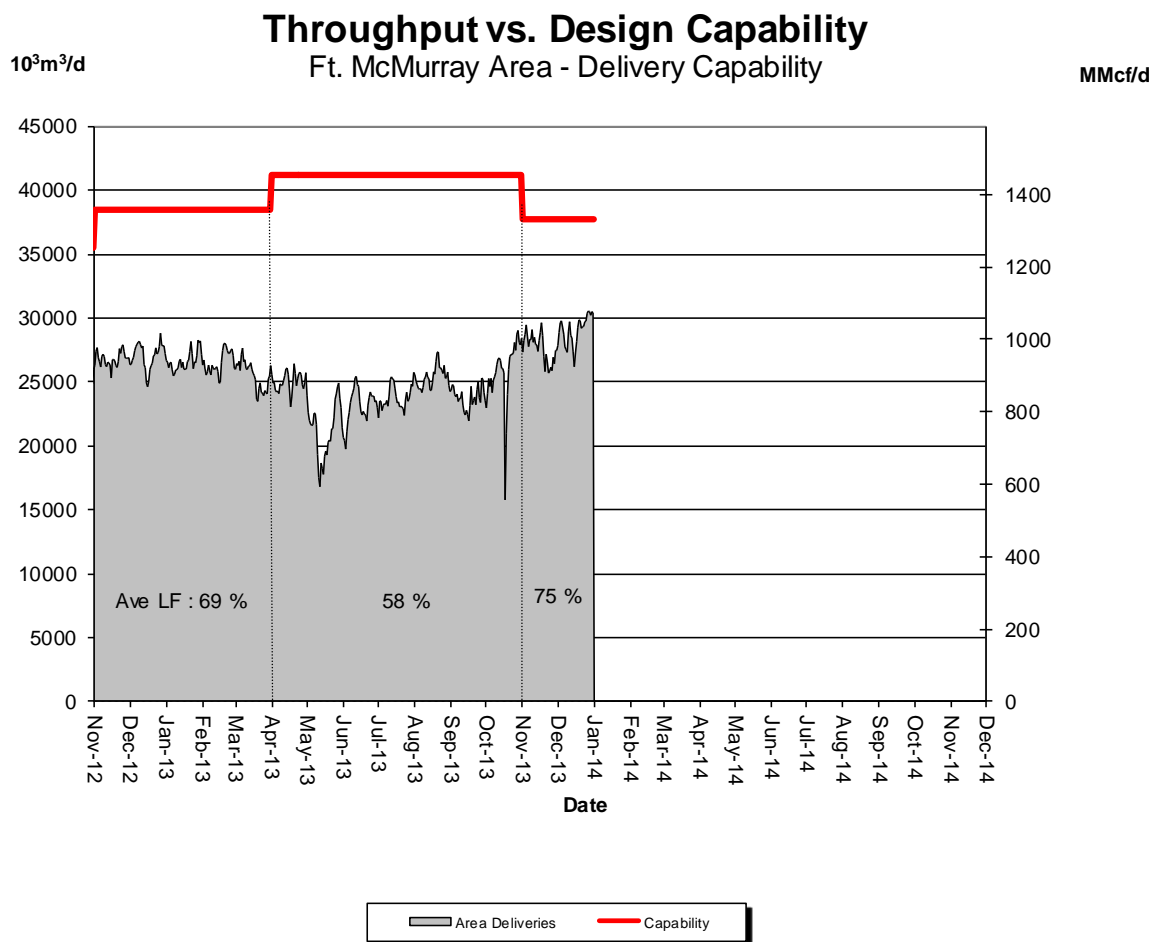
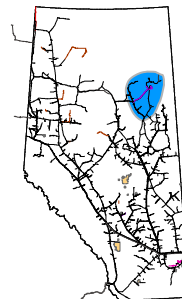
\*NOTE:

1. FT includes all receipt and delivery Firm Transportation Services: FTR, FTRN, LRS, FTD1, FTD2,  
2. IT includes receipt and delivery Interruptible Services: IT-R and IT-D respectively.

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

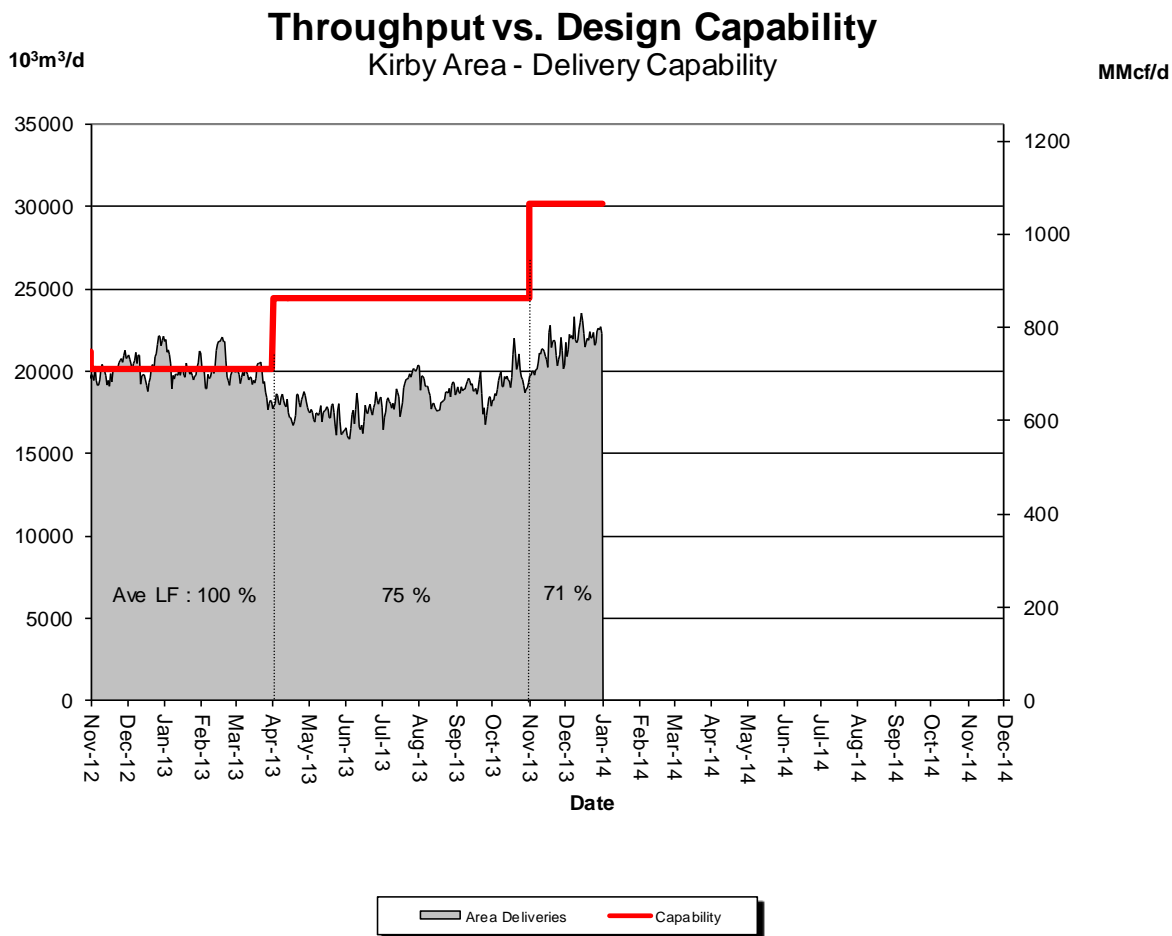
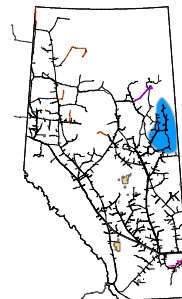
## FT. McMURRAY AREA – FLOW WITHIN



| <b>% Design Capability Utilization</b><br>Monthly Average Area Deliveries as a Percentage of Design Capability |     |     |      |     |     |     |
|--|-----|-----|------|-----|-----|-----|
| Average Flow/<br>Design Capability   | Jul | Aug | Sept | Oct | Nov | Dec |
|  | 58  | 62  | 58   | 63  | 73  | 77  |

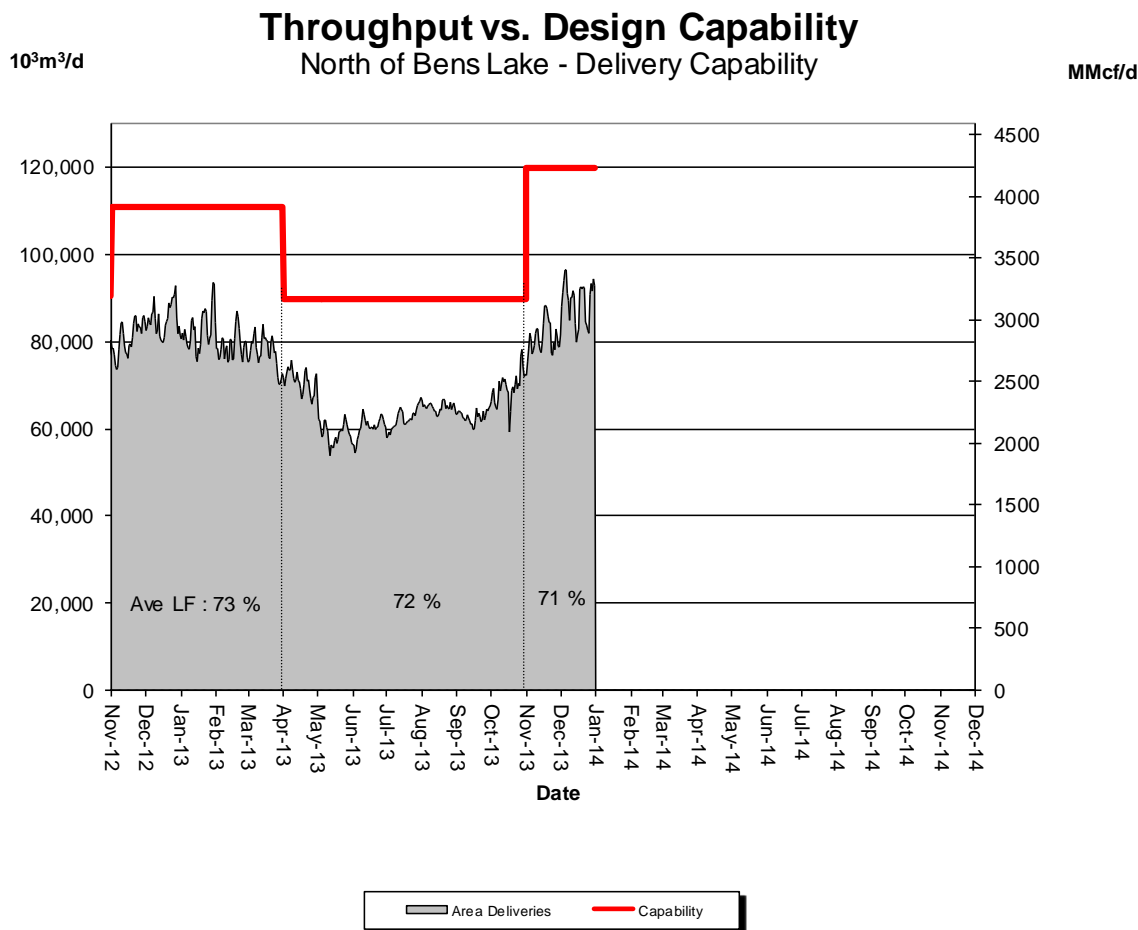
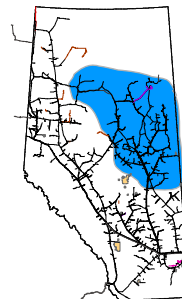
# DESIGN CAPABILITY UTILIZATION

## KIRBY AREA – FLOW WITHIN



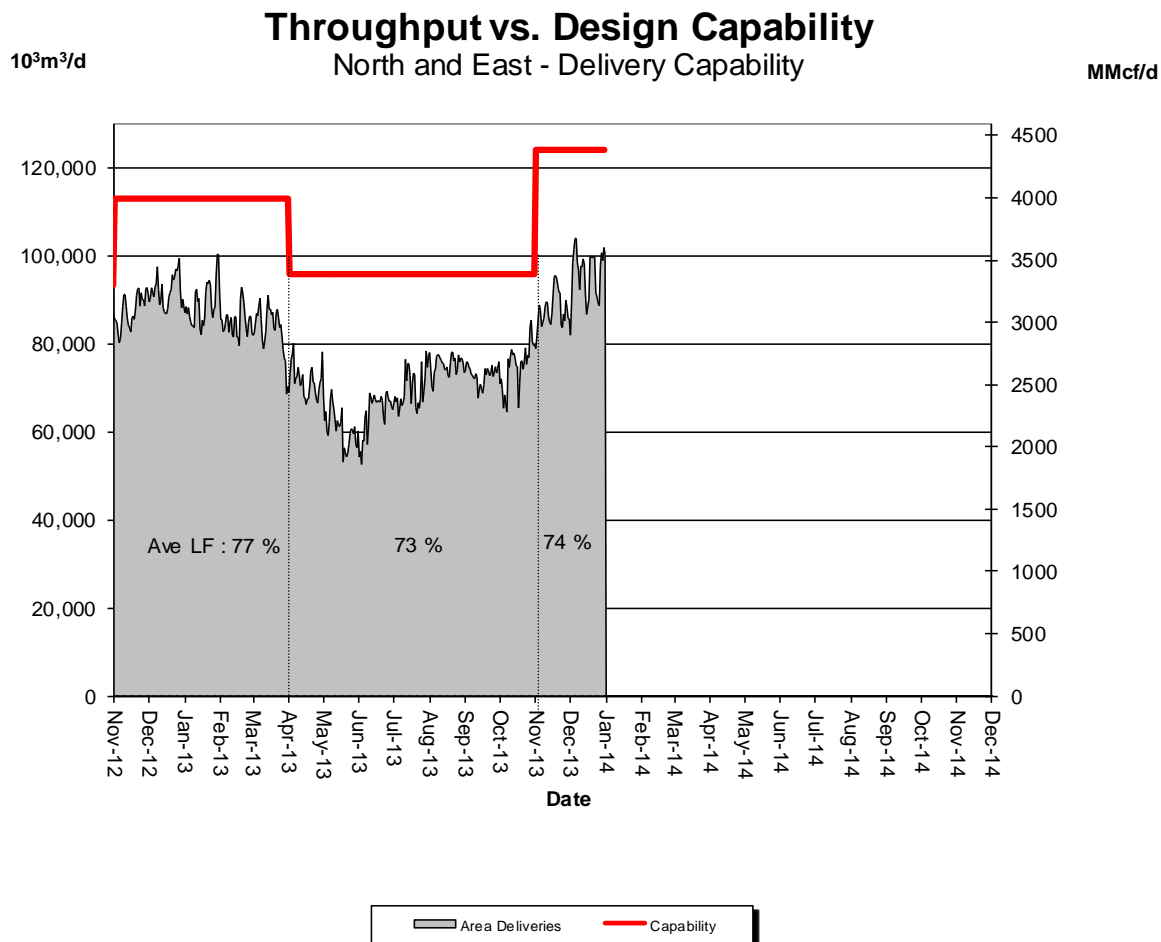
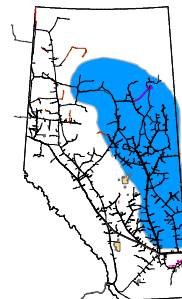
| % Design Capability Utilization                                      |     |     |      |     |     |     |
|--|-----|-----|------|-----|-----|-----|
| Monthly Average Area Deliveries as a Percentage of Design Capability |     |     |      |     |     |     |
| Average Flow/<br>Design Capability                                   | Jul | Aug | Sept | Oct | Nov | Dec |
|  | 76  | 76  | 76   | 80  | 69  | 73  |

# DESIGN CAPABILITY UTILIZATION NORTH OF BENS LAKE – FLOW WITHIN



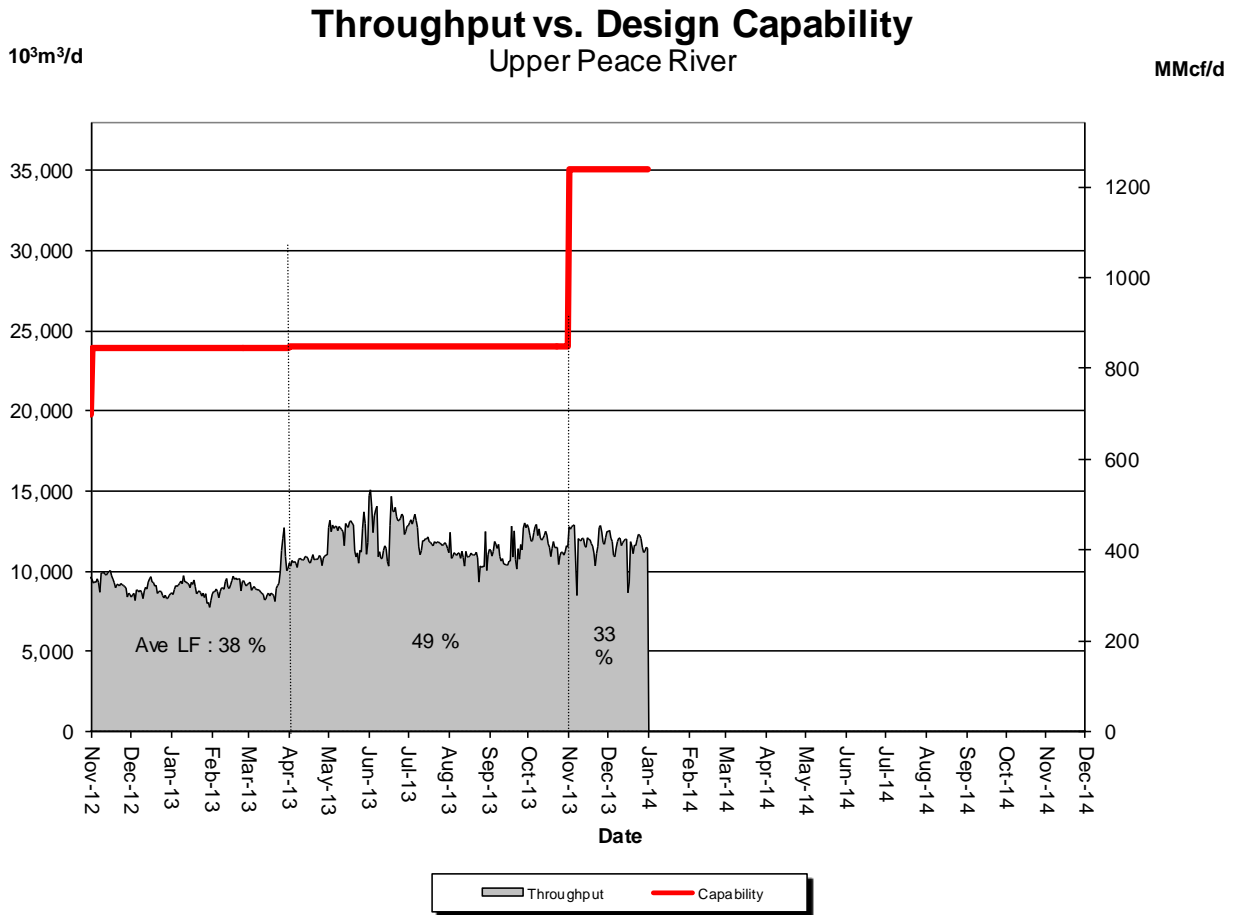
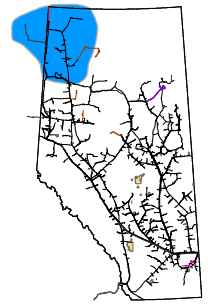
| <b>% Design Capability Utilization</b><br>Monthly Average Area Deliveries as a Percentage of Design Capability |           |           |            |           |           |           |
|--|-----------|-----------|------------|-----------|-----------|-----------|
| Average Flow/<br>Design Capability   | Jul<br>71 | Aug<br>72 | Sept<br>70 | Oct<br>77 | Nov<br>67 | Dec<br>74 |

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



| <b>% Design Capability Utilization</b><br>Monthly Average Actual Area Deliveries as a Percentage of Design Capability |     |     |      |     |     |     |
|---|-----|-----|------|-----|-----|-----|
| Average Flow/<br>Design Capability  | Jul | Aug | Sept | Oct | Nov | Dec |
|   | 74  | 78  | 76   | 78  | 71  | 77  |

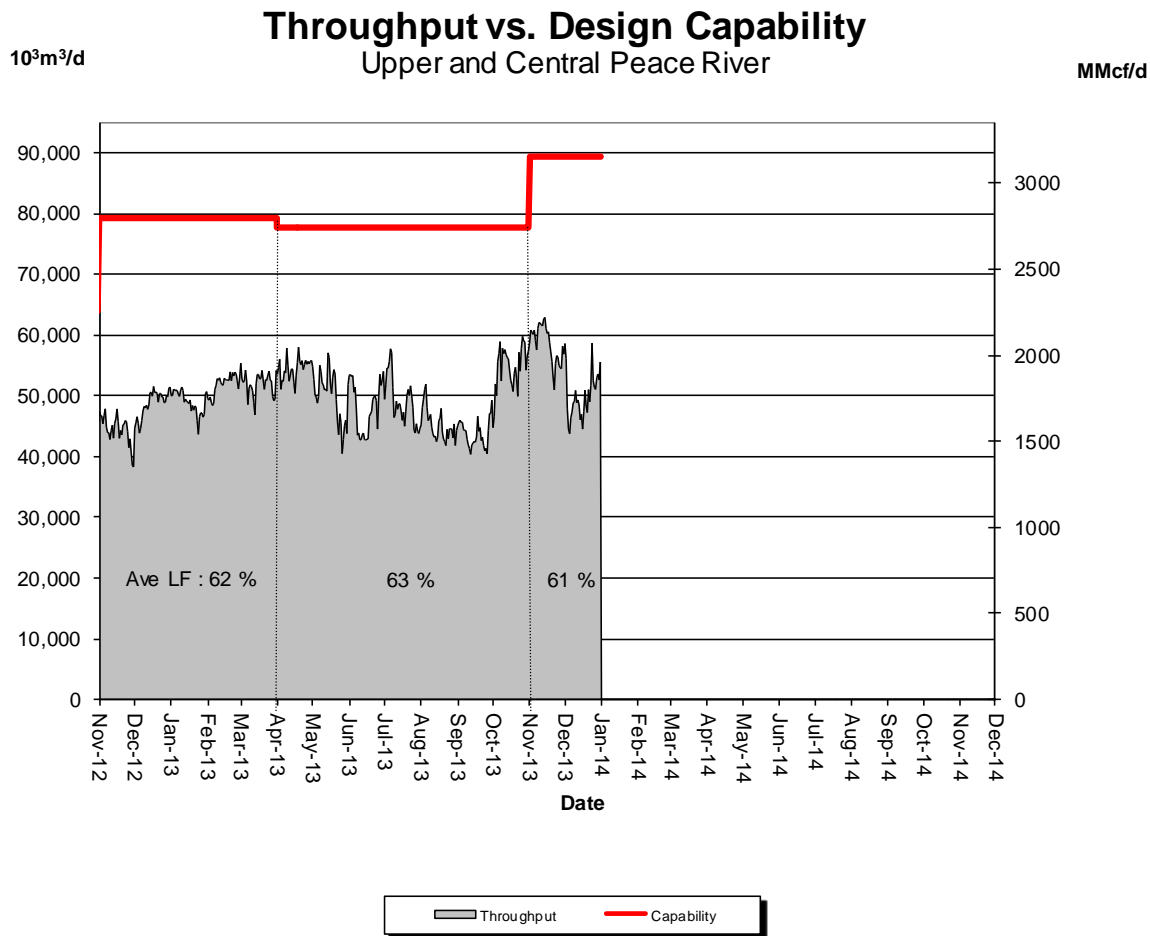
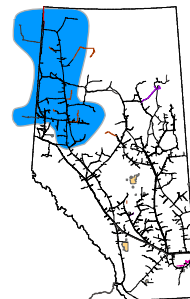
# DESIGN CAPABILITY UTILIZATION UPPER PEACE RIVER



| <b>% Design Capability Utilization</b><br>Monthly Average Actual Flow as a Percentage of Design Capability |     |     |      |     |     |     |
|--|-----|-----|------|-----|-----|-----|
| Average Flow/<br>Design Capability   | Jul | Aug | Sept | Oct | Nov | Dec |
|  | 50  | 45  | 47   | 49  | 34  | 33  |



# DESIGN CAPABILITY UTILIZATION UPPER and CENTRAL PEACE RIVER



| % Design Capability Utilization                           |     |     |      |     |     |     |
|---|-----|-----|------|-----|-----|-----|
| Monthly Average Actual Flow as a Percentage of Capability |     |     |      |     |     |     |
| Average Flow/<br>Design Capability                        | Jul | Aug | Sept | Oct | Nov | Dec |
|   | 63  | 58  | 56   | 70  | 66  | 56  |

# DESIGN CAPABILITY UTILIZATION

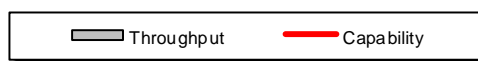
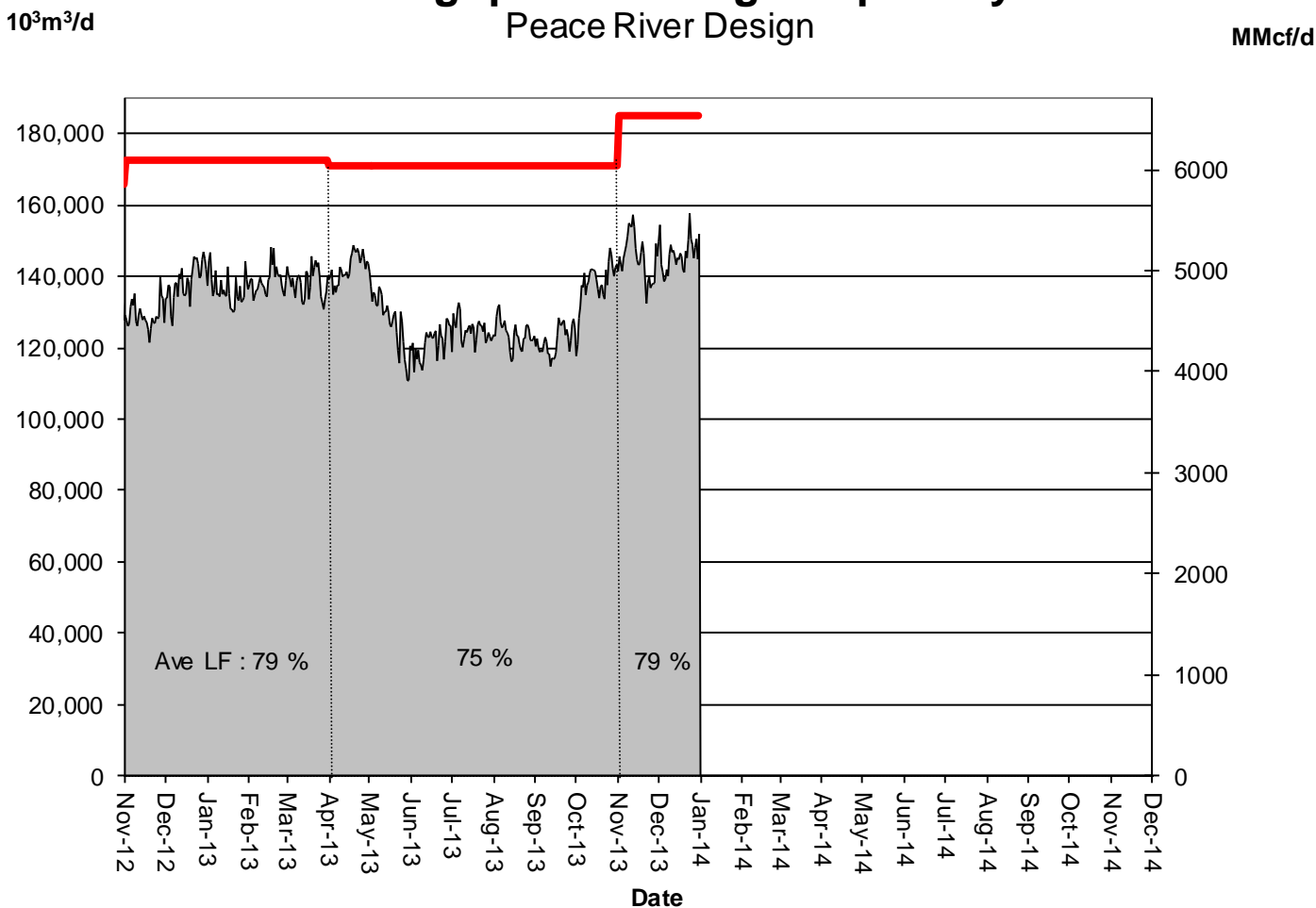
## PEACE RIVER DESIGN

(Upper, Central and Lower Peace River)



### Throughput vs. Design Capability

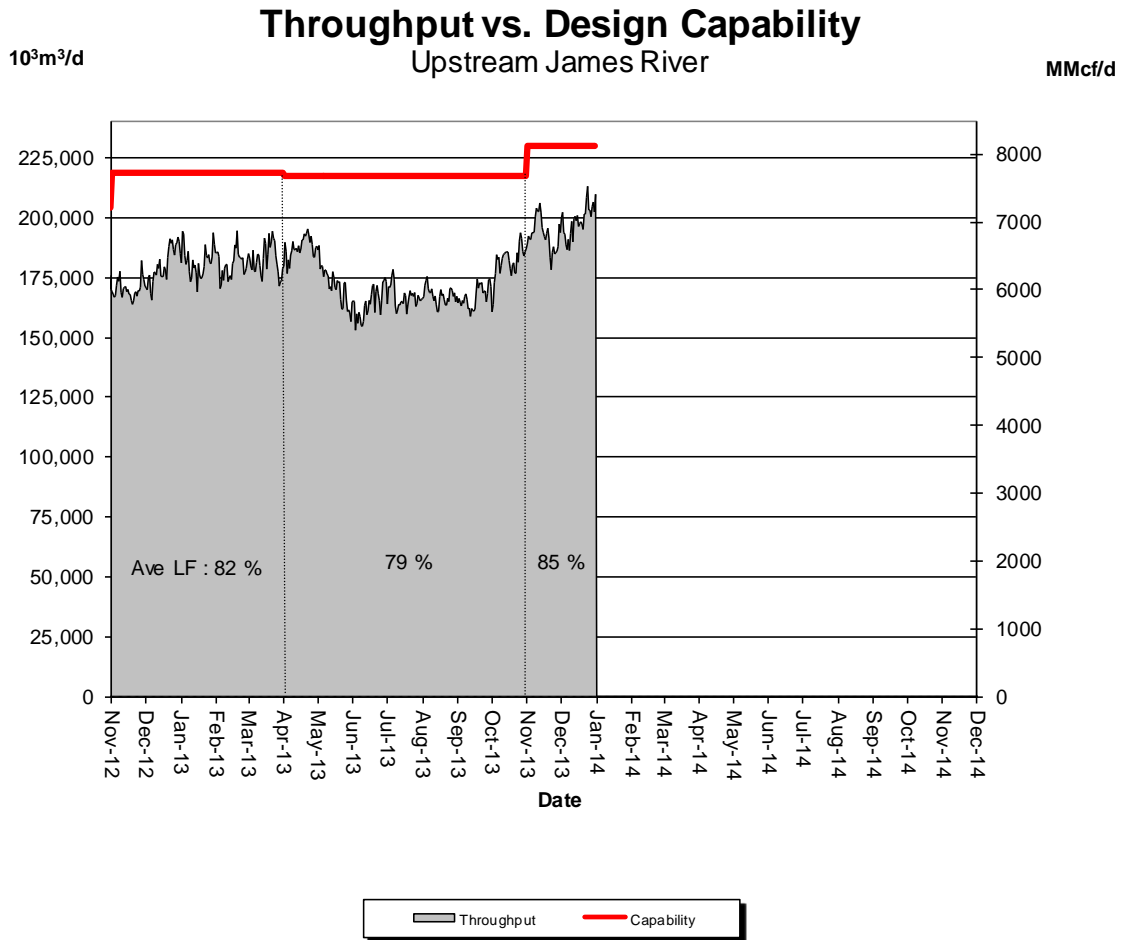
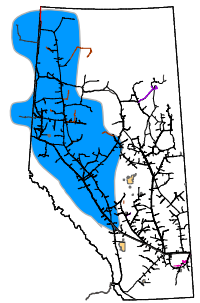
Peace River Design



| <b>% Design Capability Utilization</b><br>Monthly Average Actual Flow as a Percentage of Design Capability |     |     |      |     |     |     |
|--|-----|-----|------|-----|-----|-----|
| Average Flow/<br>Design Capability   | Jul | Aug | Sept | Oct | Nov | Dec |
|  | 73  | 72  | 71   | 81  | 78  | 79  |

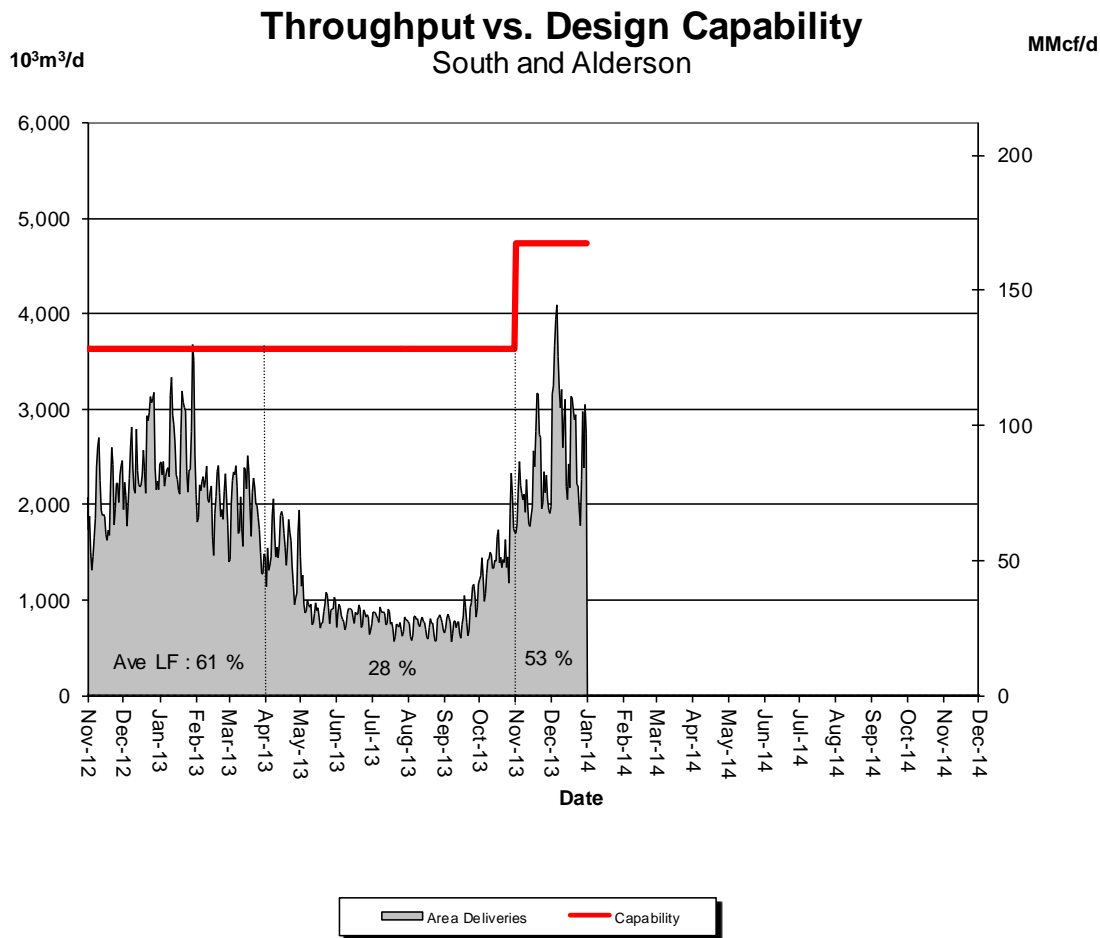
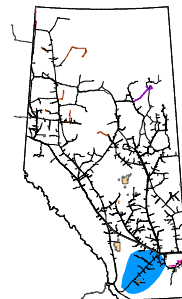
# DESIGN CAPABILITY UTILIZATION UPSTREAM JAMES RIVER

(Edson Mainline, Peace River Design and Marten Hills)



| <b>% Design Capability Utilization</b><br>Monthly Average Actual Flow as a Percentage of Design Capability |     |     |      |     |     |     |
|--|-----|-----|------|-----|-----|-----|
| Average Flow/<br>Design Capability   | Jul | Aug | Sept | Oct | Nov | Dec |
|  | 77  | 77  | 77   | 84  | 84  | 86  |

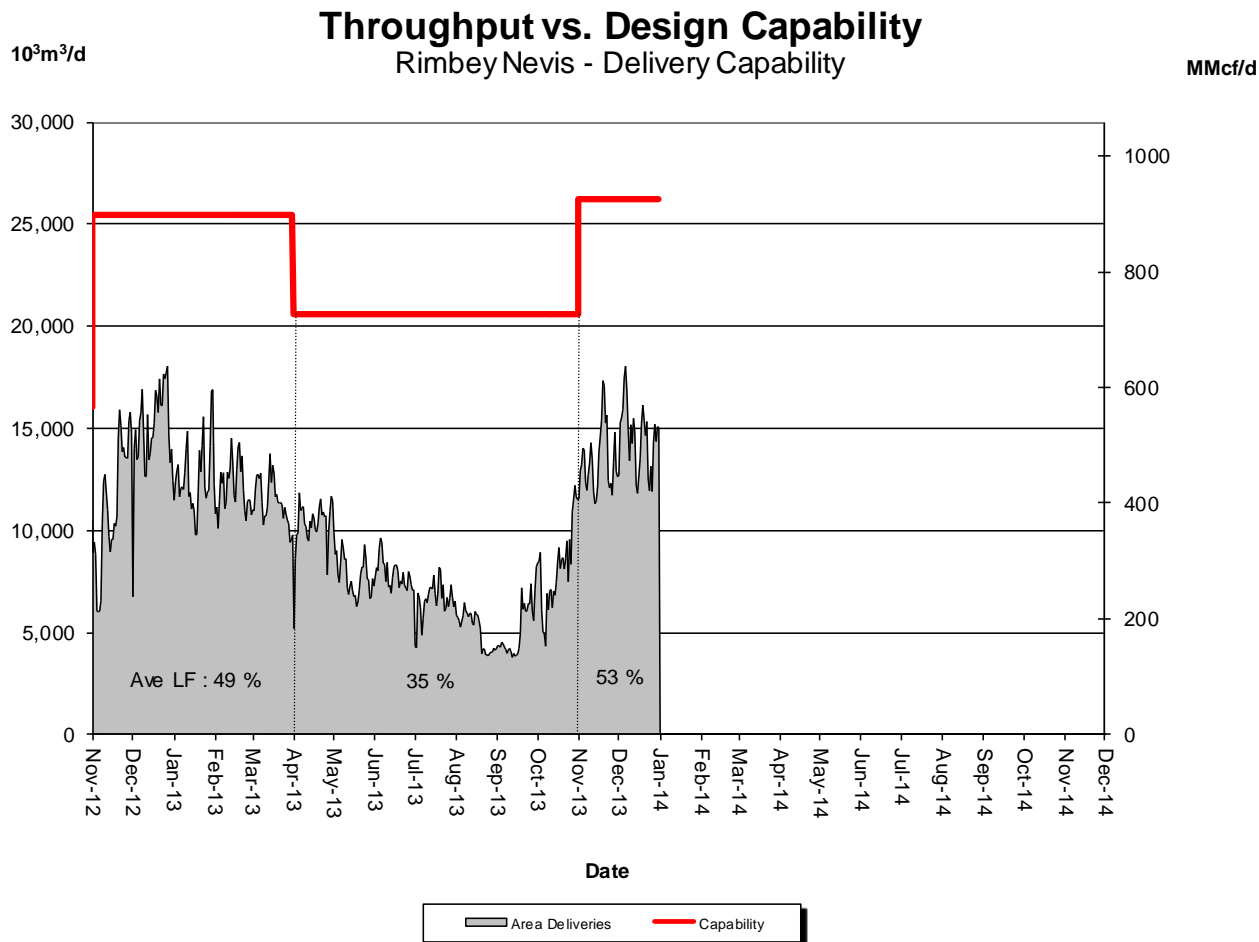
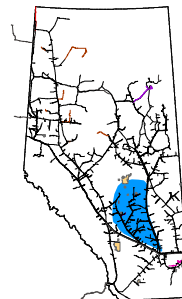
# DESIGN CAPABILITY UTILIZATION SOUTH and ALDERSON – FLOW WITHIN



| <b>% Design Capability Utilization</b><br>Monthly Average Actual Flow as a Percentage of Design Capability |           |           |            |           |           |           |
|--|-----------|-----------|------------|-----------|-----------|-----------|
| Average Flow/<br>Design Capability   | Jul<br>22 | Aug<br>20 | Sept<br>23 | Oct<br>40 | Nov<br>47 | Dec<br>59 |

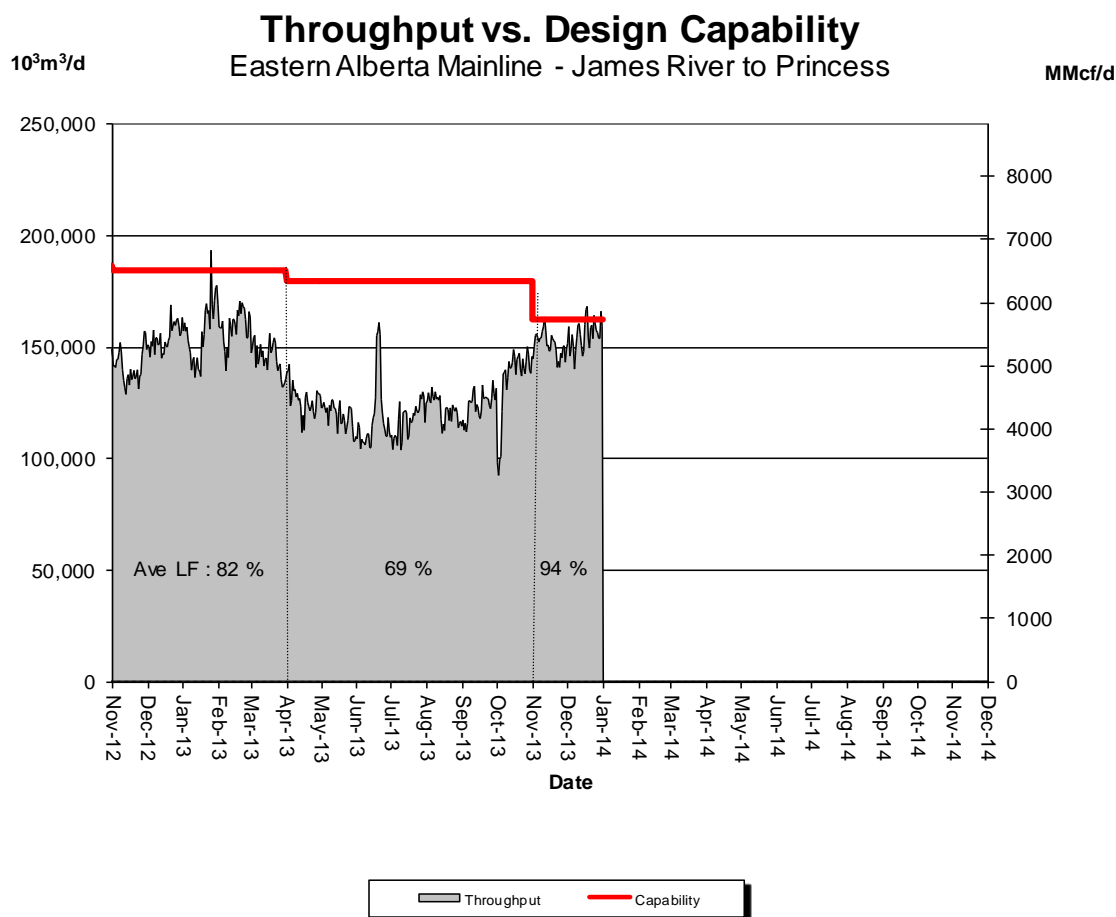
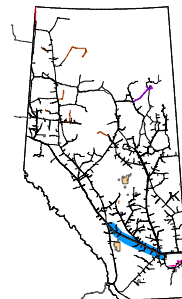
# DESIGN CAPABILITY UTILIZATION

## RIMBEY-NEVIS – FLOW WITHIN



| <b>% Design Capability Utilization</b><br>Monthly Average Area Deliveries as a Percentage of Design Capability |     |     |      |     |     |     |
|--|-----|-----|------|-----|-----|-----|
| Average Flow/<br>Design Capability   | Jul | Aug | Sept | Oct | Nov | Dec |
|  | 33  | 25  | 25   | 40  | 51  | 55  |

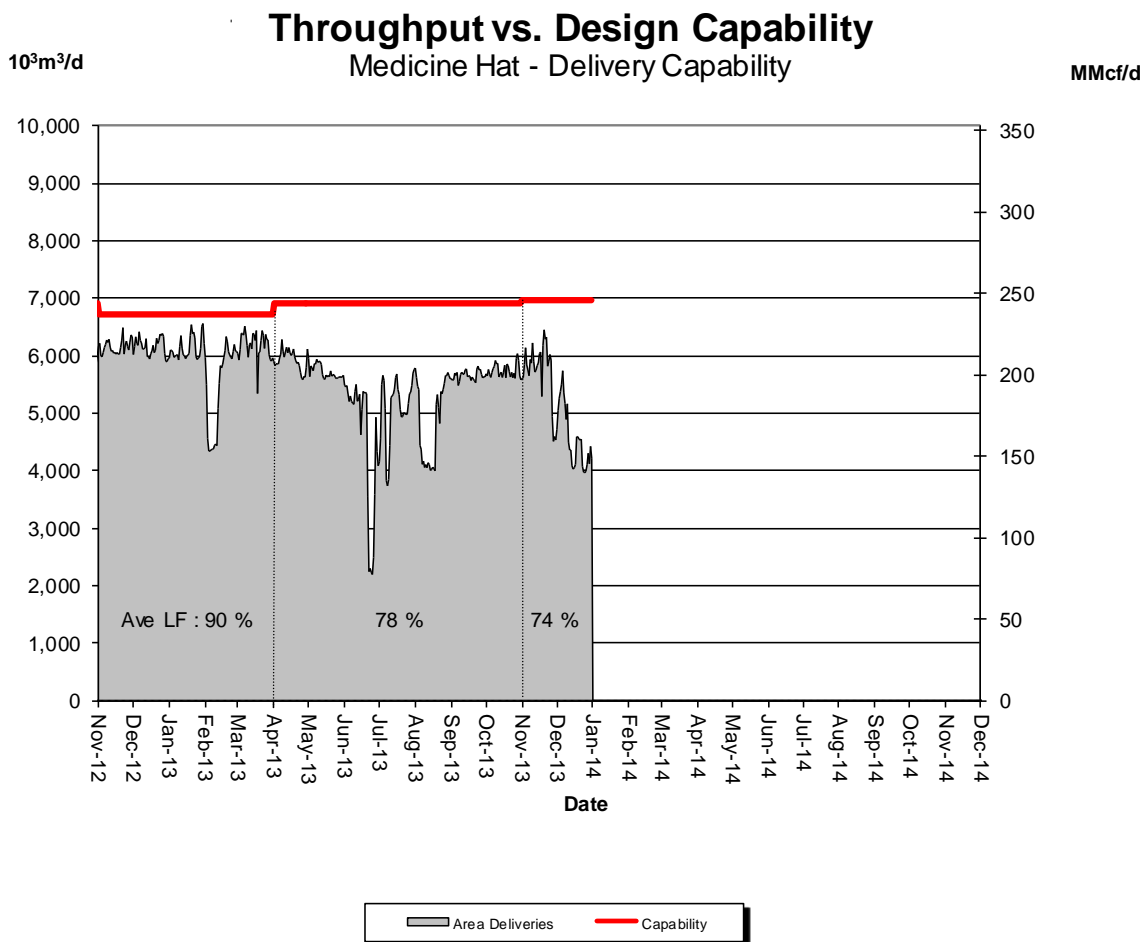
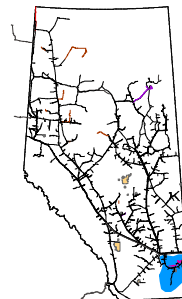
# DESIGN CAPABILITY UTILIZATION EASTERN ALBERTA MAINLINE (James River to Princess)



| % Design Capability Utilization<br>Monthly Average Actual Flow as a Percentage of Design Capability |     |     |      |     |     |     |
|---|-----|-----|------|-----|-----|-----|
| Average Flow/<br>Design Capability  | Jul | Aug | Sept | Oct | Nov | Dec |
|   | 66  | 68  | 69   | 75  | 93  | 96  |

# DESIGN CAPABILITY UTILIZATION

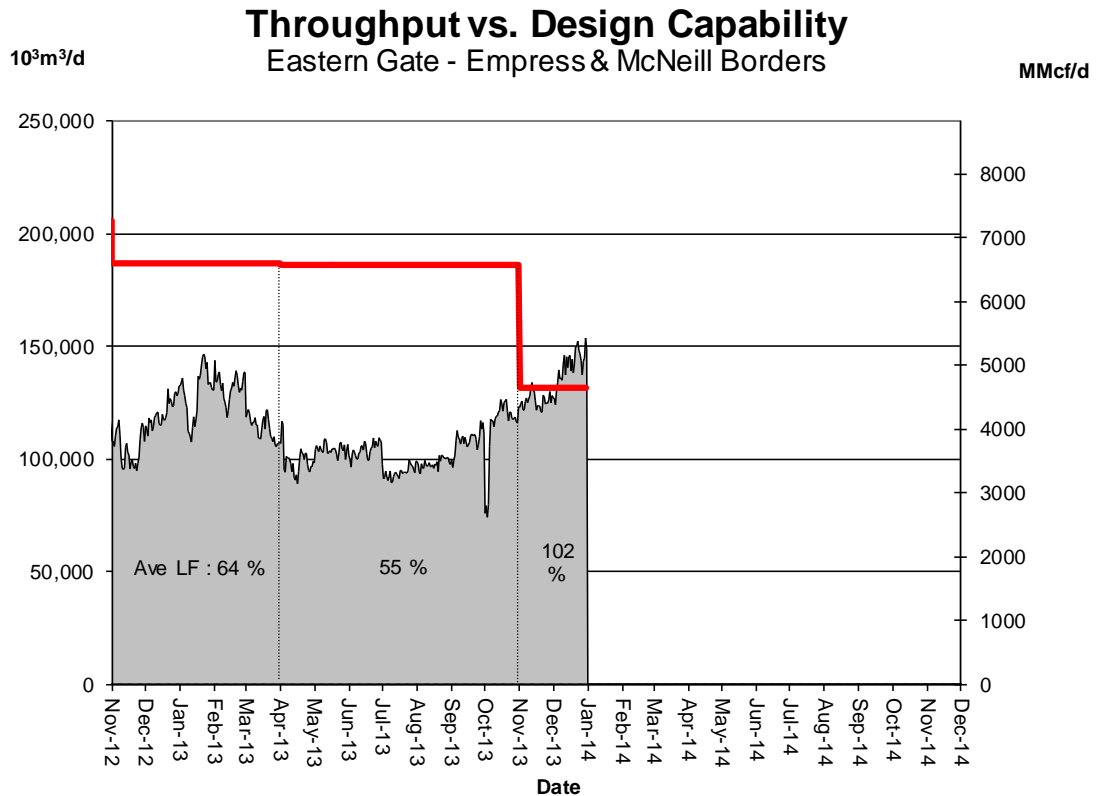
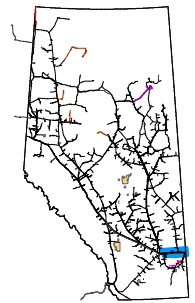
## MEDICINE HAT – FLOW WITHIN



| <b>% Design Capability Utilization</b><br>Monthly Average Area Deliveries as a Percentage of Design Capability |     |     |      |     |     |     |
|--|-----|-----|------|-----|-----|-----|
| Average Flow/<br>Design Capability   | Jul | Aug | Sept | Oct | Nov | Dec |
|  | 74  | 70  | 82   | 83  | 83  | 66  |

# DESIGN CAPABILITY UTILIZATION EASTERN ALBERTA MAINLINE

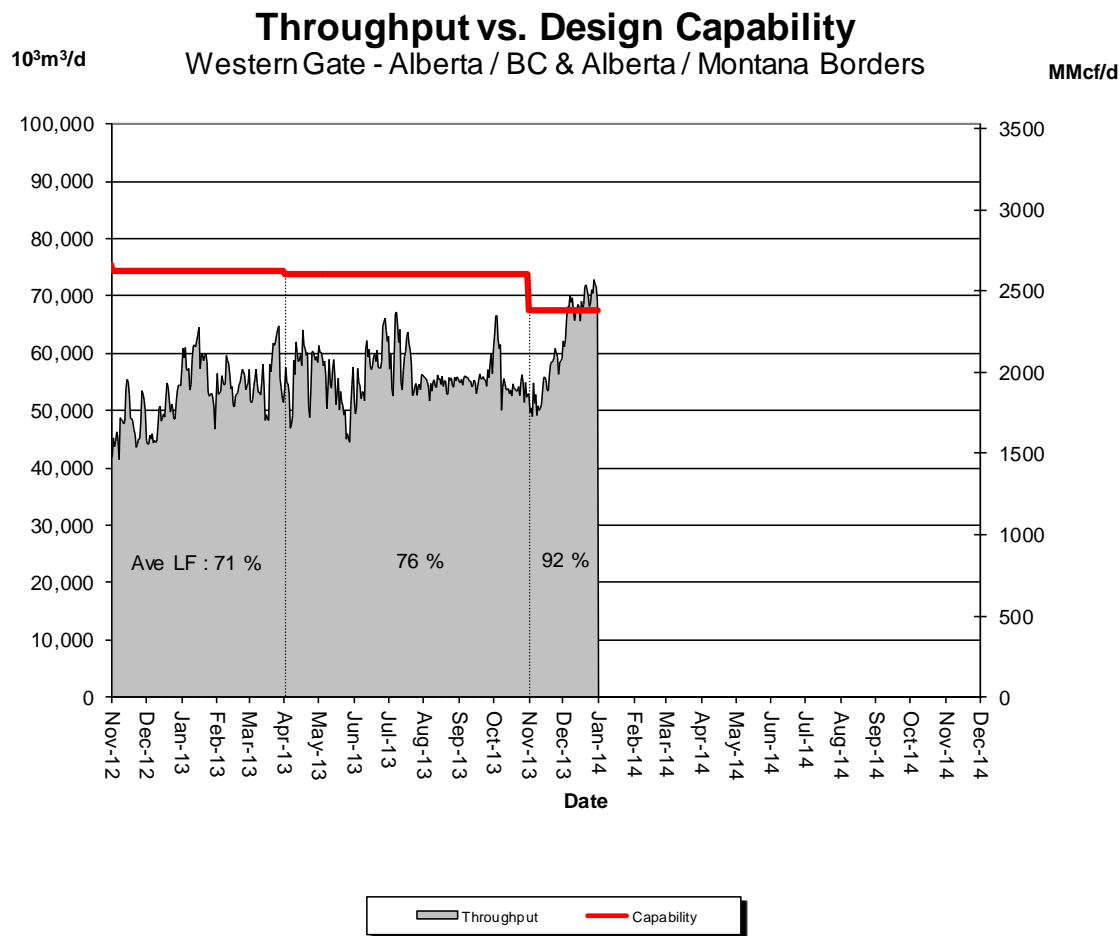
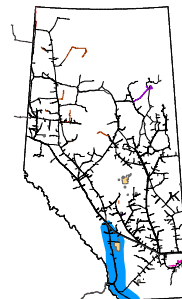
(Princess to Empress / McNeill)



| % Design Capability Utilization<br>Average Actual Flow as a Percentage of Design Capability |     |     |      |     |     |     |
|---|-----|-----|------|-----|-----|-----|
| Average Flow /<br>Design Capability   | Jul | Aug | Sept | Oct | Nov | Dec |
|   | 51  | 53  | 58   | 61  | 96  | 107 |



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



| <b>% Design Capability Utilization</b><br>Average Actual Flow as a Percentage of Design Capability |     |     |      |     |     |     |
|--|-----|-----|------|-----|-----|-----|
| Average Flow / Design Capability   | Jul | Aug | Sept | Oct | Nov | Dec |
|  | 79  | 74  | 75   | 76  | 81  | 102 |

# FUTURE FIRM TRANSPORTATION SERVICE AVAILABILITY (MAINLINE RESTRICTIONS)

## Receipt and Delivery Firm Transportation Guidelines

| Firm Transportation Location                      | Authorize Firm Transportation Service By | To Ensure Firm Transportation Service By |
|---|--|--|
| Summer construction (generally south of Edmonton) | November 2014                            | November 2016                            |
| Winter construction (generally north of Edmonton) | November 2014                            | April 2017                               |

## 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>

➤ If your needs for firm transportation service arise after the above dates to “Authorize Firm Transportation Service By”, NGTL will evaluate your new receipt firm transportation service or firm service transfer requests on a date-stamped basis.

*Please consult with your Customer Sales Representative to discuss your Firm Transportation Service needs.*

# HOW TO USE THIS REPORT

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## **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, and the availability of transportation services as an indication of system reliability.

Data is reported either by *Pipeline Segment* (26 on the system) or *Design Area* (13 on 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 dominant 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.

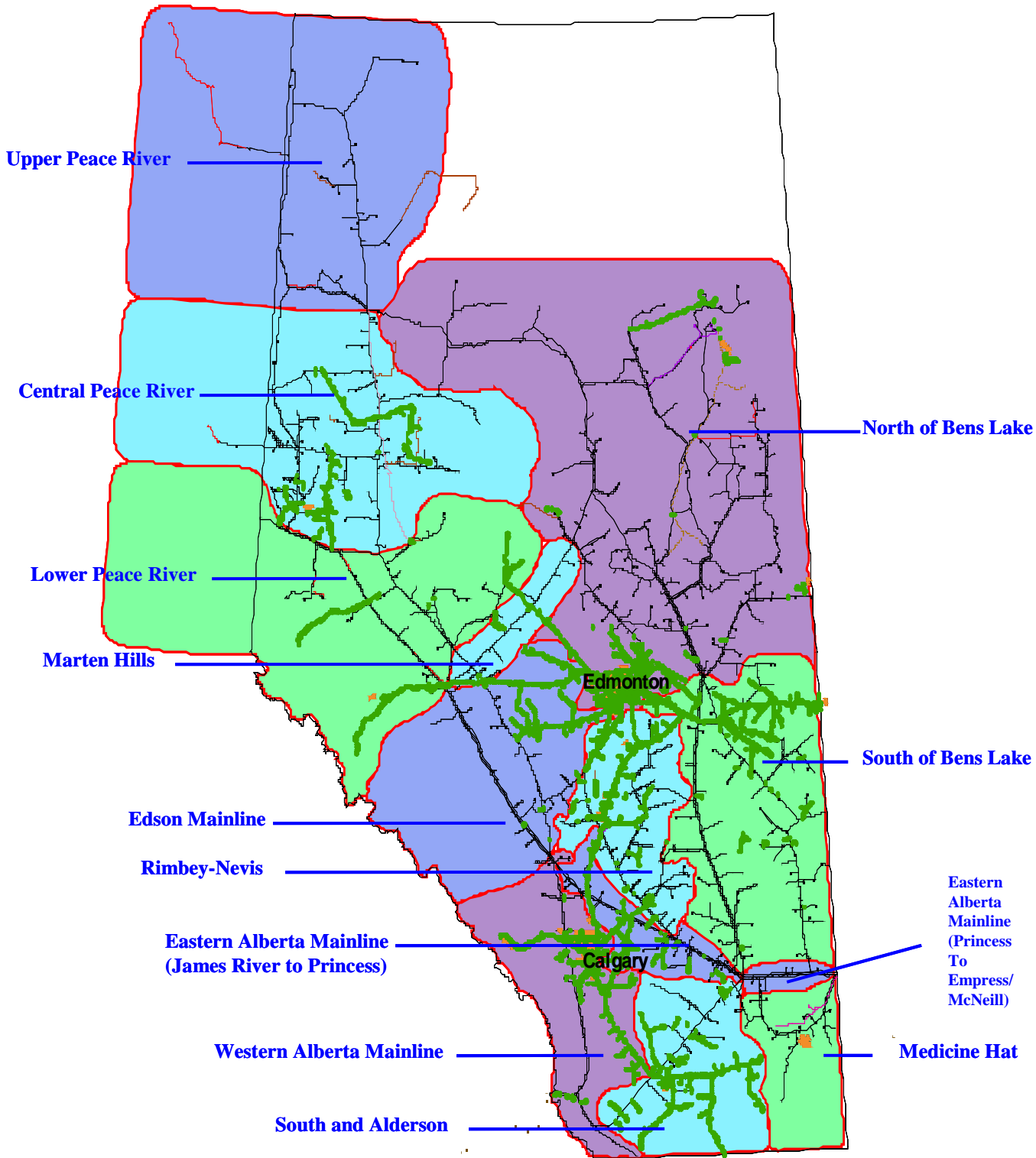
Design Flow Capability utilization is a function of several factors that include:

- 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.
- Effect of scheduled maintenance on 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**

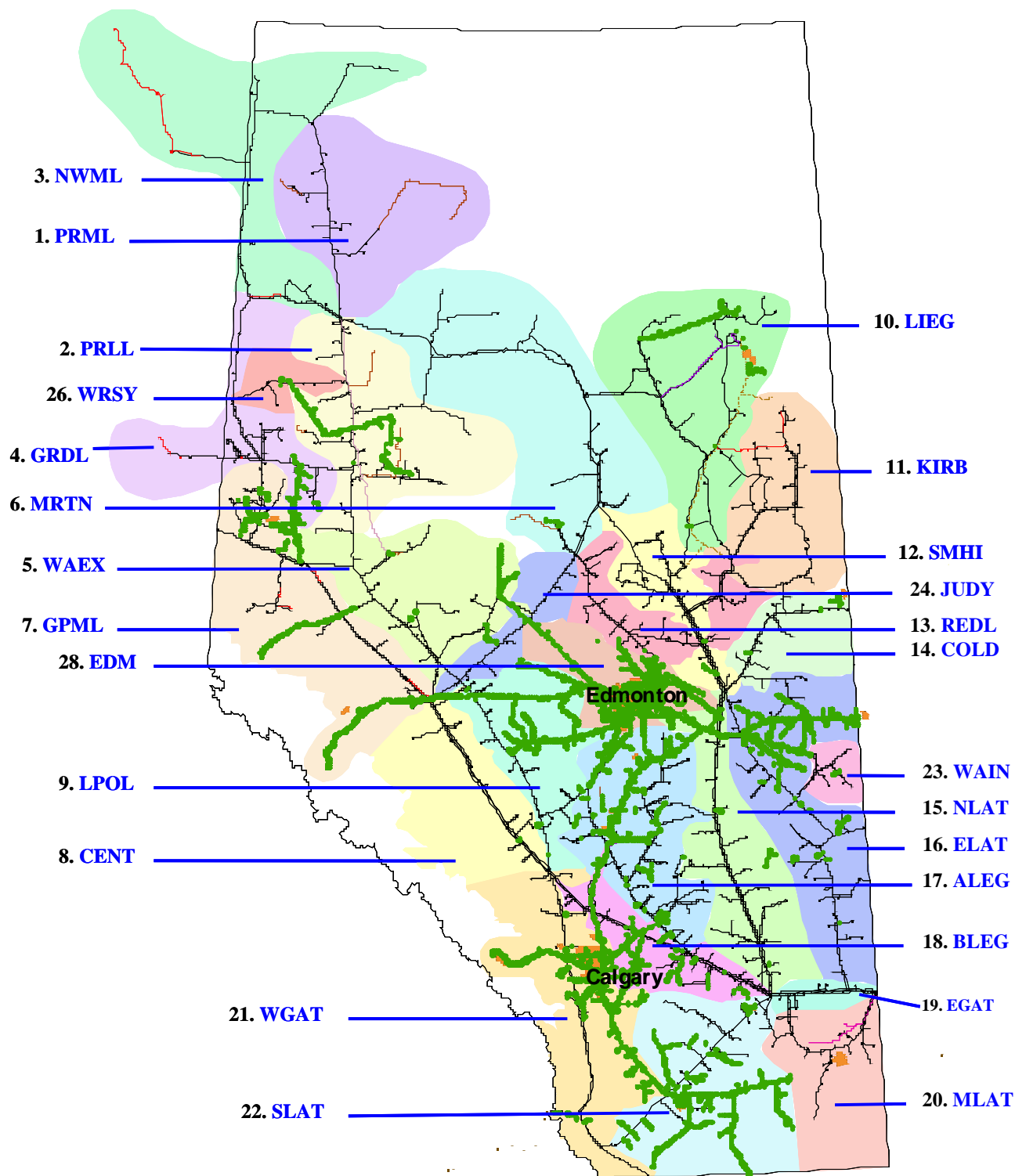
The Future Firm Transportation Service Availability report presents guidelines and timing for all future firm transportation service requests.

# NGTL Design Areas



(Last updated Nov 2011)

# NGTL Pipeline Segments



(Last updated Nov 2011)

# DEFINITION OF TERMS

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## *Design Capability Utilization*

### ***Actual Flow***

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

### ***Design Capability***

The volume of gas that can be transported at various points on the pipeline system considering 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.

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## *Historical Transportation Service Availability*

### ***Average % CD Restricted***

The average percentage of the entire segment receipt contract demand restricted during periods of restriction.

### ***Firm Service Restriction***

Percentage of time firm service is restricted.

### ***Max % CD Restricted***

The maximum percentage to which the entire segment contract demand was restricted.

### ***Firm Service Available***

The percentage of time that all requested firm transportation service requests were transported within a segment.

### ***Interruptible Service Available***

The percentage of time that interruptible service requests were transported.

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## *Other*

### ***System Load Factor***

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