
2.1 INTRODUCTION

This section presents an overview of the design flow requirement, as described in the Facilities Design Methodology Document, Section 3.5 – Mainline Facilities Flow Determination. The document can be accessed online at:

<http://www.transcanada.com/customerexpress/5133.html>

This section also presents the proposed natural gas transportation mainline facilities to be applied for on the Alberta System in the 2012 calendar year to transport the design flow requirements for the 2012/13 Gas Year. Included is information regarding size, routes, locations and cost estimates for the proposed facilities.

The design flow requirements are represented by peak expected flows and are presented for design areas where new mainline facilities are required. Peak expected flows are based on the July 2011 design forecast presented in Section 1.

This Section show a comparison of historical flow for the 2006/07 Gas Year through to the 2010/11 Gas Year as well as the projected winter and summer peak expected flow to the 2015/16 Gas Year. Additionally, the current design capability is shown for the Gas Year when facilities are required within each applicable design area. Where there is a shortfall between peak expected flow and the existing design capability, a facility solution has been proposed. A facility application to the regulator for construction and operation is triggered by Firm Transportation (FT) contracts and submitted to ensure the facility is in place in time to meet the FT requirements.

An overview of the design peak expected flows and proposed facilities resulting from the July 2011 design forecast was presented at the TTFP meeting on November 22, 2011.

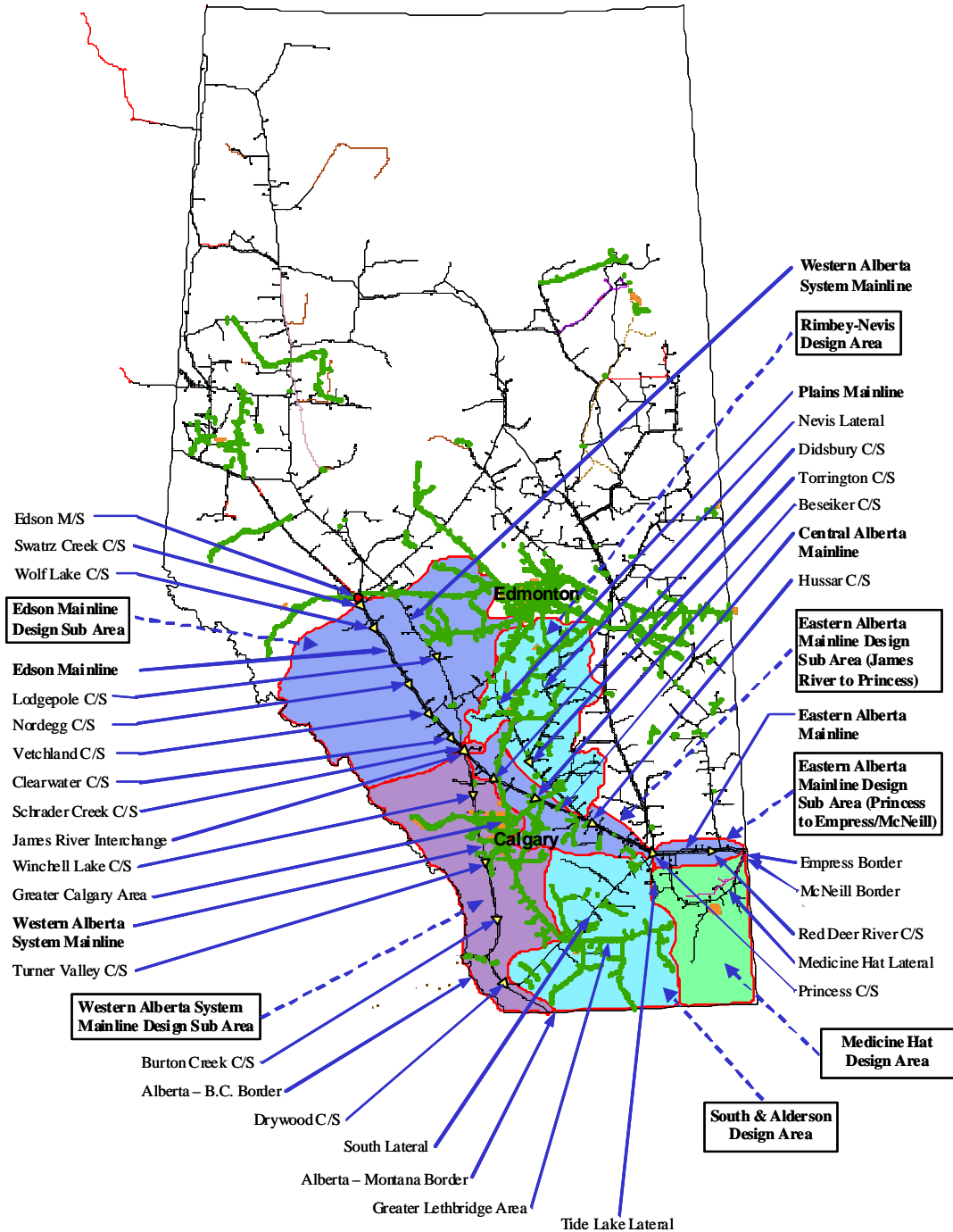
A summary of the status of mainline facilities that have been applied for or placed in-service since the December 2010 Annual Plan is included in Appendix 2 – Facility Status Update.

2.2 MAINLINE PROJECT AREA

The Mainline Project Area comprises the Mainline, Rimbey-Nevis, South and Alderson, and Medicine Hat Design Areas (see Figure 2-1).

In the Mainline Project Area, the proposed facility modification is required to meet the required gas deliveries in the Rimbey-Nevis Design Area. Additional information on design flow conditions can be found in the Facility Design Methodology Document Section 3.5 – Mainline Facilities Flow Determination.

Figure 2.1: Mainline Project Area



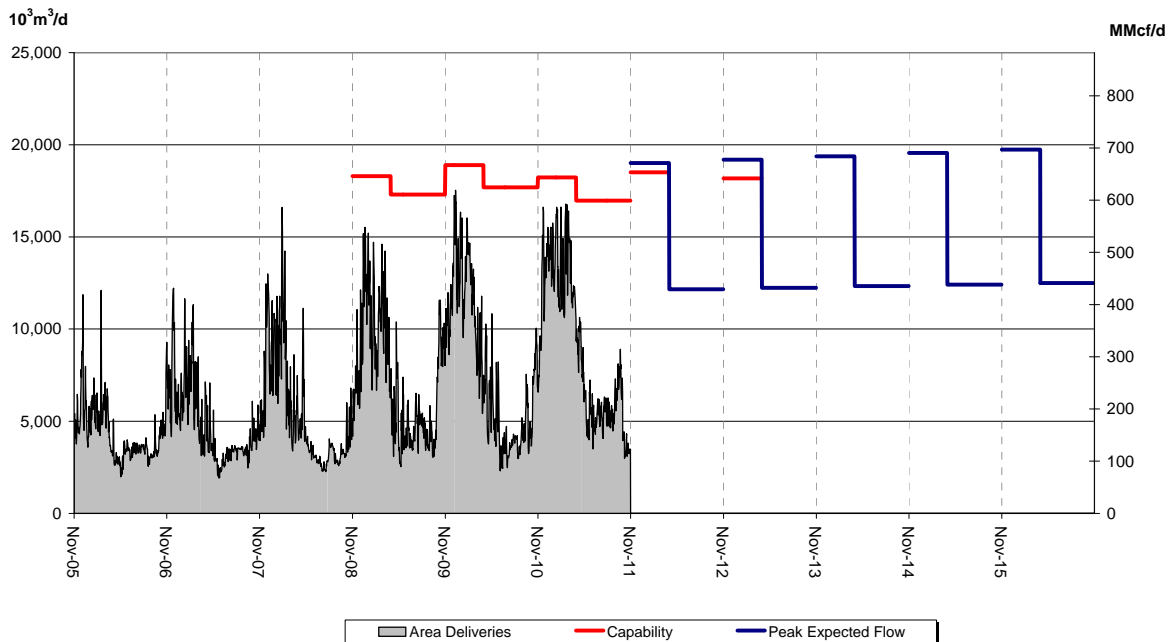
2.2.1 Rimbey-Nevis Design Area

2.2.1.1 Design Flows – Rimbey-Nevis Design Area

The peak expected flow for the flow within design condition in the Rimbey-Nevis Design Area is the net effect of maximum deliveries less the minimum available local supply within the area. Supply on the Nevis Lateral has been used to supplement the supply on the Rimbey Lateral to meet Rimbey Lateral demand. As the Nevis Lateral supply declines, the proposed Torrington Compressor Station modification will be required to transport additional supply from south of the Torrington Compressor Station to the Rimbey Lateral to meet the peak winter demand.

Figure 2-2 provides historical actual flow, the design capability for the area, and projected peak expected flow. The peak expected flow is anticipated to rise throughout this forecast period.

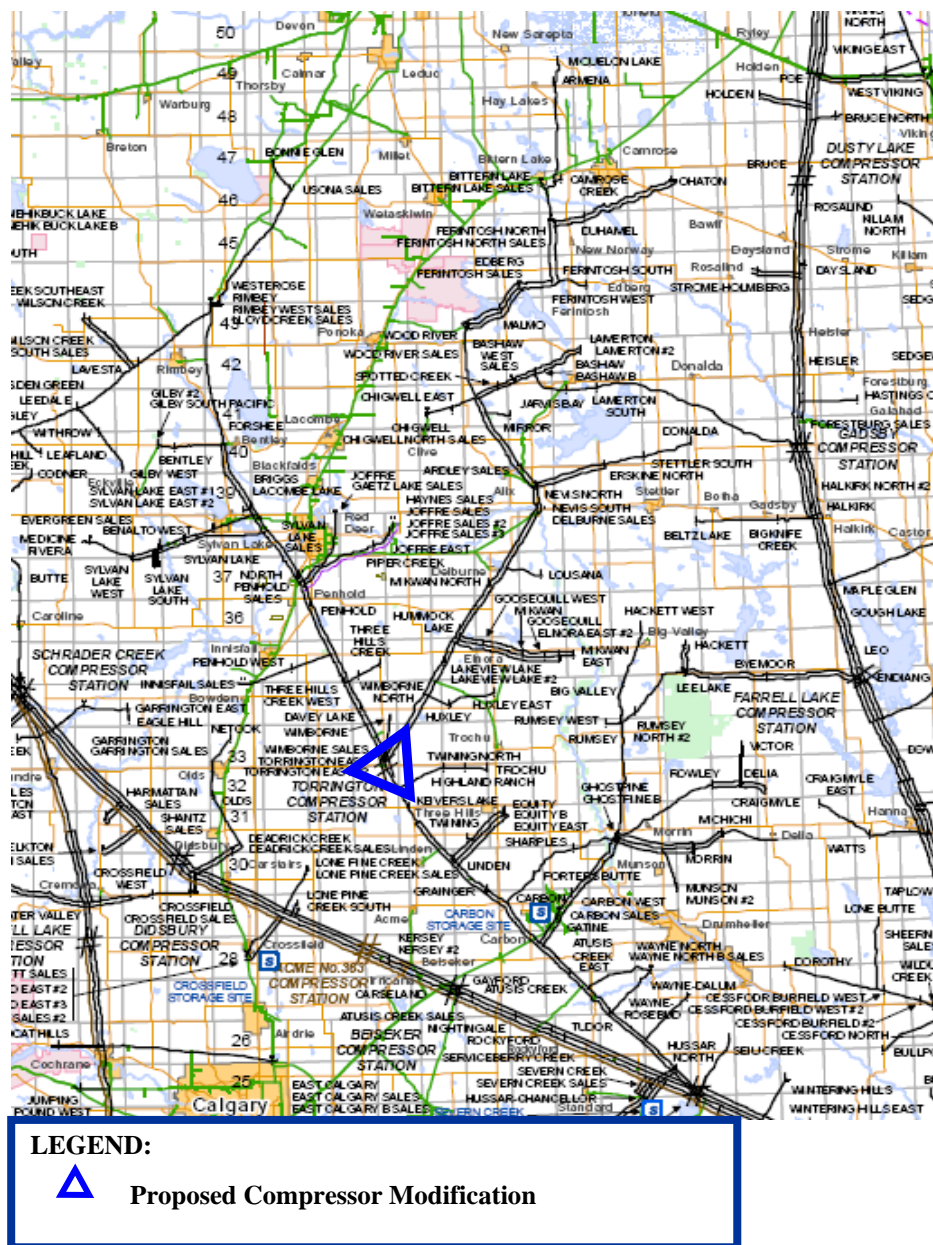
Figure 2-2: Deliveries / Design Capability / Peak Expected Flow for Rimbey-Nevis Design Area



2.2.1.2 Proposed Facilities – Rimbey-Nevis Design Area

Figure 2-3 shows the location of the proposed Torrington Compressor Station Modifications within the Rimbey-Nevis Design Area.

Figure 2-3: Location of Proposed Torrington Compressor Station Modifications



The Torrington Compressor Station Modifications permit application will be applied for at the NEB in 2012 (see Table 2-1) and is proposed to be in-service in November 2012.

Table 2-1: Rimbey-Nevis Design Area Proposed Facilities

Map Location	Proposed Facility	Description	Required In-Service Date	Capital Cost (\$Millions)
1	Torrington Compressor Station Modifications	Bi-directional flow	Nov 2012	7.1
Capital Costs are in 2011 dollars and include AFUDC.			Total	7.1

2.2.2 Western Alberta Mainline Design Sub Area

2.2.2.1 Urban Pipeline Project – Greater Calgary Area

The Northeast Calgary Connector is proposed by AP as a risk mitigation project, not a system expansion project, and therefore, the Design Flows are not presented.

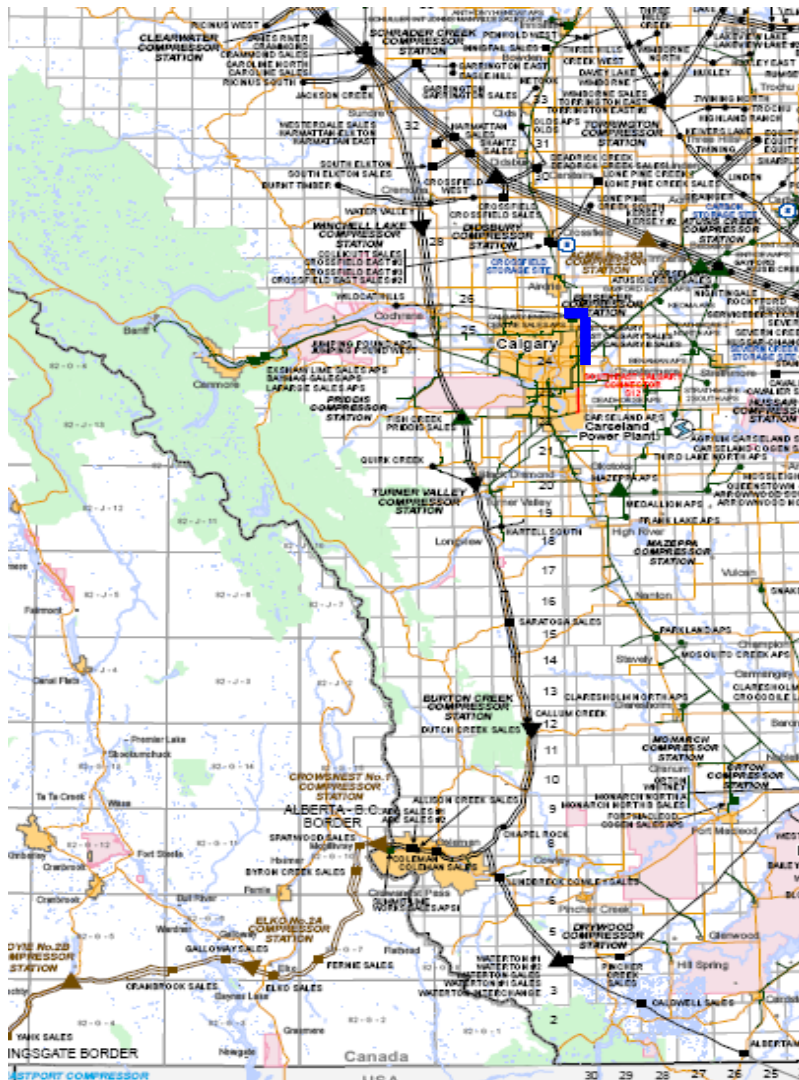
AP continues to relocate high-pressure transmission facilities to the transportation utility corridor (TUC) as part of a five-year plan to provide safe and reliable service within urban service areas. This initiative moves high-pressure transmission pipe to the TUC, away from developed and populated urban areas. Development opportunities within the TUC are restricted, which reduces the risk of a high consequence event as compared to existing pipelines.

The facility design for the Northeast Calgary Connector was proposed by AP. It was reviewed by TransCanada to confirm that the scope proposed is consistent with the Alberta System design requirements in the NGTL Facility Design Methodology Document.

2.2.2.2 Proposed Facilities - Western Alberta Mainline Design Sub Area

Figure 2-4 shows the location of the proposed Northeast Calgary Connector within the Western Alberta Mainline Design Sub Area.

Figure 2-4: Western Alberta Mainline Design Sub Area



LEGEND:

— Proposed Pipeline

The Northeast Calgary Connector permit application will be applied for at the AUC in 2012 (see Table 2-2) and is proposed to be in-service in November 2013.

Table 2-2: Western Alberta Mainline Design Sub Area Proposed Facilities

Map Location	Proposed Facility	Description	Required In-Service Date	Capital Cost (\$Millions)
1	Northeast Calgary Connector	17 km NPS 24	Nov 13	50.5
Capital Costs are in 2011 dollars and include AFUDC.			Total	50.5