CHAPTER 4 – DESIGN FLOW REQUIREMENTS AND PEAK EXPECTED FLOWS

4.1 Introduction

This chapter presents an overview of the design flow requirements and the peak expected flow, as described in Section 2.6. Design flow requirements, described in Section 2.6.1, for the 2008/09 Gas Year are presented for each of the design areas described in Section 2.3, and form the basis for the facilities requirements outlined in Chapter 5.

Design flow requirements for each design area are based on the June 2007 design forecast and the applicable design assumptions discussed in Section 2.6.1. The equal proration assumption, design area delivery assumption, storage assumption and downstream capacity assumption were applied in each design area. The FS productive capability assumption was applied to each of the areas shown in Figure 2.6.5.

The design flow requirements for each design area are presented in Appendix 4. Figures presented in this chapter illustrate both historical and forecast trends within each design area.

An overview of the design flow requirements resulting from the June 2007 design forecast was presented at the TTFP meeting on November 20, 2007.

The peak expected flow determination, is included in the facility design process, and is described Section 2.6.2. The peak expected flow line is shown along with the design flow requirement line on all charts having a receipt dominant flow condition to illustrate the difference between the two flow levels.

Historical data have been included in this chapter to illustrate the correlation between design flow requirements and actual flows, including historical peak flows. Historical actual flows and historical design flow requirements are shown for the 2002/03 Gas Year through the 2006/07 Gas Year. Historical design flow requirements represent the values that influenced the design for each Gas Year from 2002/03 to 2006/07.

The vertical scale in the figures for the Upper Peace River, Central Peace River, Marten Hills, North of Bens Lake, South of Bens Lake, Western Alberta Mainline, Rimbey-Nevis, South and Alderson and Medicine Hat Design Areas have been set over a consistent range of values between 0 and 100,000 $10^3m^3/d$ (0 and 3.5 Bcf/d). The Edson, Eastern Mainline and Lower Peace River Design Areas have been set over a consistent range of values between 0 and 300,000 $10^3m^3/d$ (0 and 10 Bcf/d). The figures are presented in this manner to enable easy comparison of the relative impact of the design flow requirements.

The figures in Sections 4.2 to 4.4 show a comparison between winter and summer historical design flow requirements and historical actual flows for the 2002/03 Gas Year through to the 2006/07 Gas Year. The figures also show the winter and summer design flow requirements from the June 2007 design forecast for the 2007/08 Gas Year through the 2011/12 Gas Year. The peak expected flow, as described in Section 2.6.2, is also shown on these figures out to the 2011/12 Gas Year for the design areas where receipt dominant flow conditions exist.

4.2 Peace River Project Area

4.2.1 Peace River Design Area

4.2.1.1 Upper Peace River Design Sub Area

The design flow requirements for the Upper Peace River Design Sub Area is the flow out of the area at the Hidden Lake and Meikle River Compressor Stations.

Figure 4.2.1.1 illustrates the historical actual flows and historical design flow requirements between the 2002/03 and 2006/07 Gas Years and design flow requirements currently forecasted between the 2007/08 and 2011/12 Gas Years.

For the 2007/08 and 2008/09 Gas Years, the June 2007 design forecast shows winter and summer design flow requirements are slightly lower than the winter and summer design flow requirements in the 2006/07 Gas Year. Beyond the 2008/09 Gas Year the design flow requirements are expected to increase slightly out to the 2011/12 Gas Year. The peak expected flows follow a similar trend as the design flow requirements but at higher flow levels.

Figure 4.2.1.1
Upper Peace River Design Sub Area
Design Flow Requirements and Peak Expected Flows

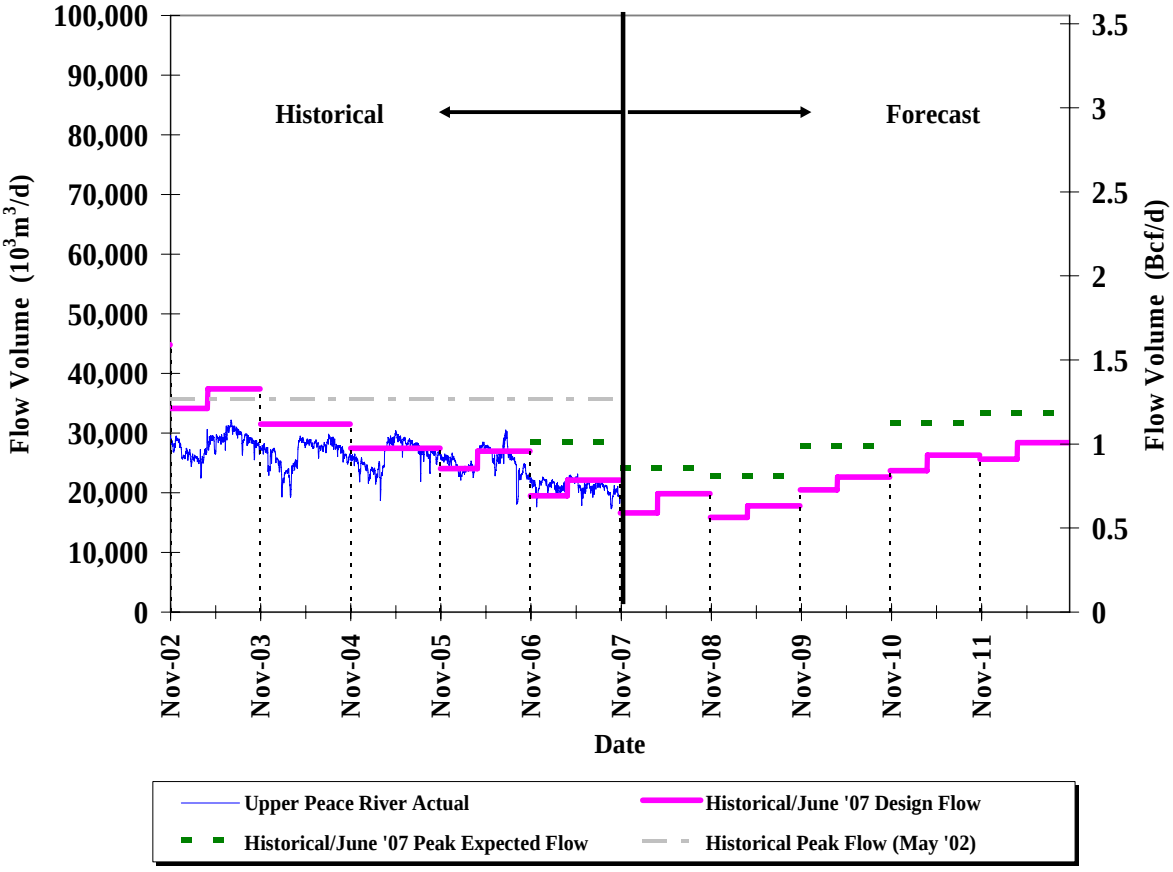

Table 4.2.1.1 shows winter and summer design flow requirements and peak expected flows for the 2008/09 Gas Year.

Table 4.2.1.1
Upper Peace River Design Sub Area
June 2007 Design Forecast
Design Flow Requirements and Peak Expected Flows

Gas Year and Season	Design Flow Requirements		Peak Expected Flows	
	Bcf/d	$10^6m^3/d$	Bcf/d	$10^6m^3/d$
2008/09 Winter	0.56	15.9	0.81	22.8
2008/09 Summer	0.63	17.8	0.81	22.8

4.2.1.2 Central Peace River Design Sub Area

The design flow requirements for the Central Peace River Design Sub Area is the flow out of the area at the Saddle Hills, Clarkson Valley and Valleyview Compressor Stations. Flow into the area is the flow from the Upper Peace River Design Sub Area.

Figure 4.2.1.2 illustrates the historical actual flows and historical design flow requirements between the 2002/03 and 2006/07 Gas Years and design flow requirements currently forecasted between the 2007/08 and 2011/12 Gas Years.

The June 2007 design forecast shows continued decline in design flow requirements between the 2007/08 and 2008/09 Gas Years and a significant decrease in the 2009/10 Gas Year as a result of the completion of the applied-for North Central Corridor. Beyond 2009/10 the forecasted design flow requirements remains steady during the 2010/11 Gas Year and the 2011/12 Gas Year. The peak expected flows follow a similar trend as the design flow requirements but at higher flow levels.

Figure 4.2.1.2
Central Peace River Design Sub Area
Design Flow Requirements and Peak Expected Flows

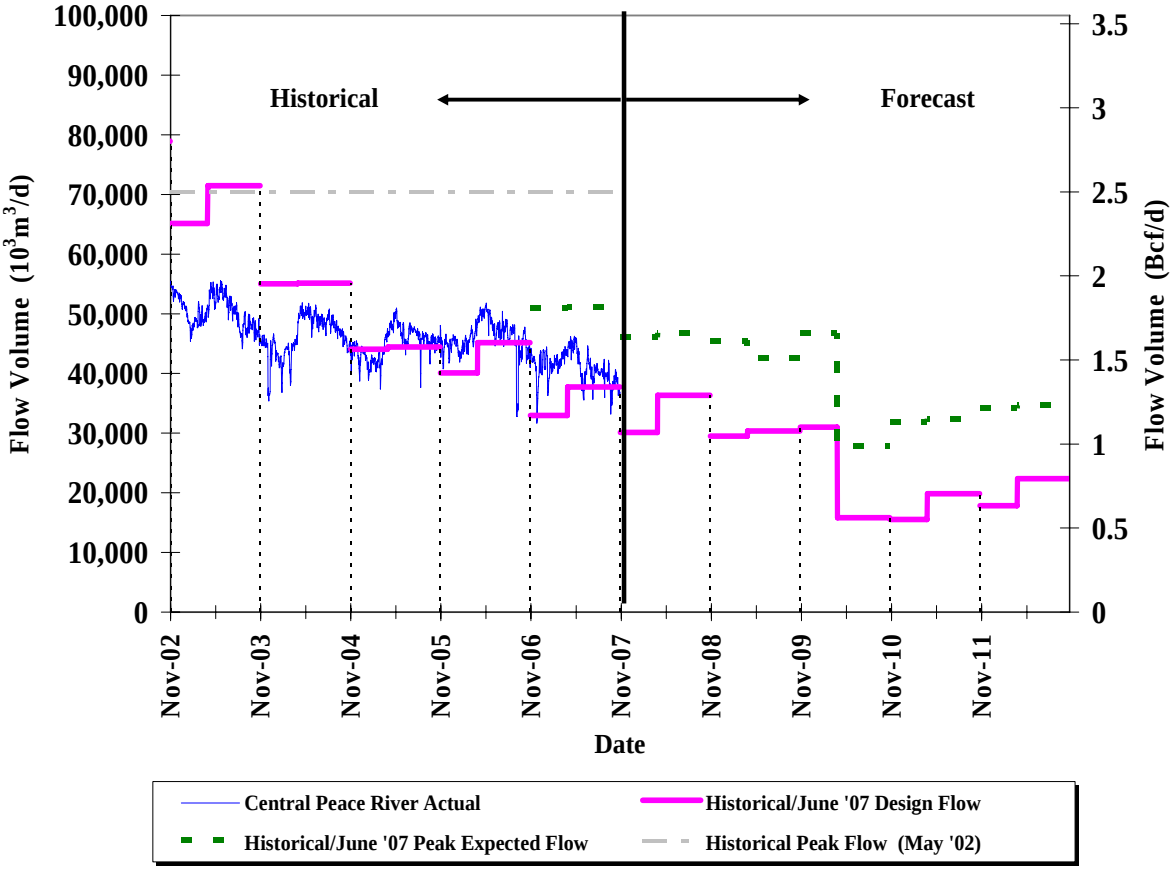

Table 4.2.1.2 shows winter and summer design flow requirements and peak expected flows for the 2008/09 Gas Year.

Table 4.2.1.2
Central Peace River Design Sub Area
June 2007 Design Forecast
Design Flow Requirements and Peak Expected Flows

Gas Year and Season	Design Flow Requirements		Peak Expected Flows	
	Bcf/d	$10^6m^3/d$	Bcf/d	$10^6m^3/d$
2008/09 Winter	1.05	29.5	1.61	45.5
2008/09 Summer	1.08	30.4	1.51	42.6

4.2.1.3 Lower Peace River Design Sub Area

The design flow requirements for the Lower Peace River Design Sub Area is the flow out of the area from the Grande Prairie Mainline and the Edson Mainline Extension at the Edson Meter Station, excluding the Marten Hills Lateral flow. Flow into the area is the flow from the Central Peace River Design Sub Area.

Figure 4.2.1.3 illustrates the historical actual flows and historical design flows requirements between the 2002/03 and 2006/07 Gas Years and design flow requirements currently forecasted between the 2007/08 and 2011/12 Gas Years.

For the 2007/08 Gas Year, the June 2007 design forecast shows similar winter and summer design flow requirements relative to the winter and summer design flow requirements in the 2005/06 Gas Year. Design flow requirements for the 2008/09 Gas Year decline slightly relative to the 2007/08 Gas Year. For the 2009/10 Gas Year the winter and summer design flow requirements significantly decrease relative to the 2008/09 Gas Year as a result of the completion of the applied-for North Central Corridor. Beyond the 2009/10 Gas Year the winter and summer design flow requirements remain steady out to the 2011/12 Gas Year. The peak expected flows follow a similar trend as the design flow requirements but at somewhat higher flow levels.

Figure 4.2.1.3
Lower Peace River Design Sub Area
Design Flow Requirements and Peak Expected Flows

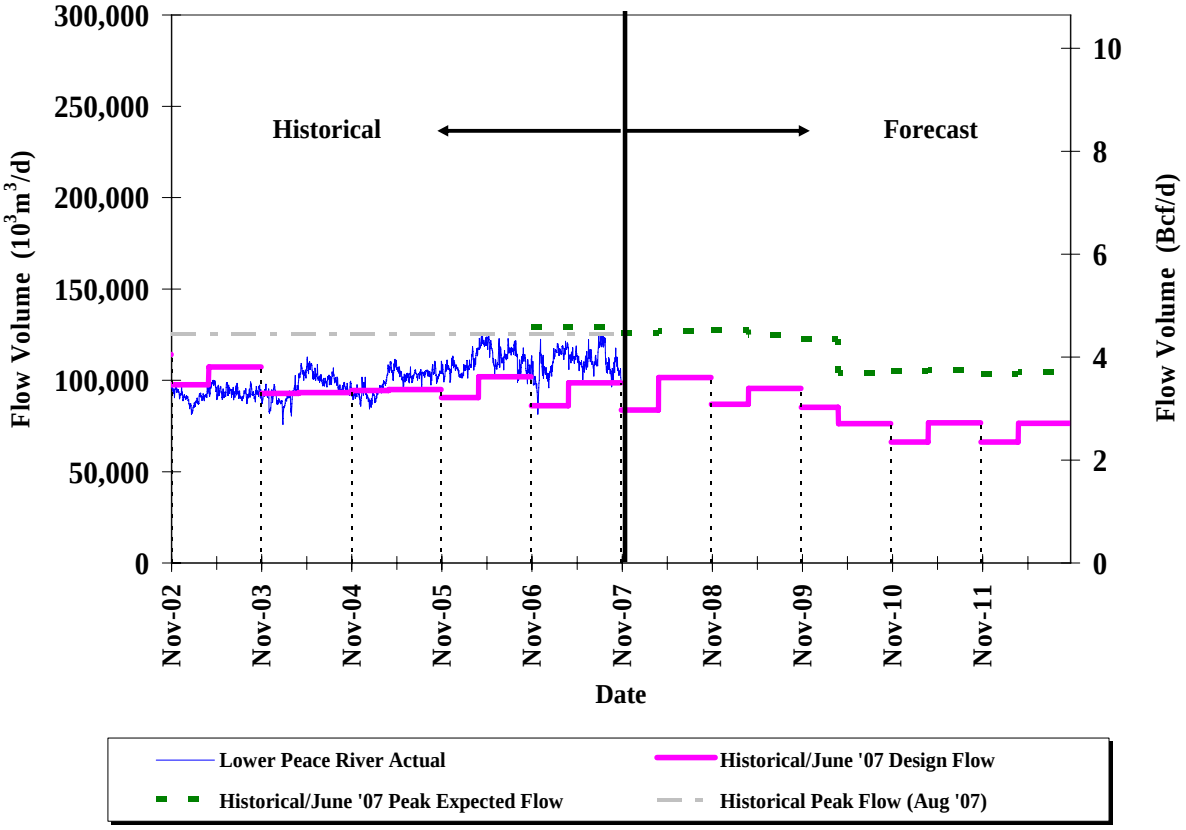

Table 4.2.1.3 shows winter and summer design flow requirements and peak expected flows for the 2008/09 Gas Year.

Table 4.2.1.3
Lower Peace River Design Sub Area
June 2007 Design Forecast
Design Flow Requirements and Peak Expected Flows

Gas Year and Season	Design Flow Requirements		Peak Expected Flows	
	Bcf/d	$10^6m^3/d$	Bcf/d	$10^6m^3/d$
2008/09 Winter	3.08	86.8	4.53	127.6
2008/09 Summer	3.39	95.5	4.44	125.0

4.2.2 Marten Hills Design Area

The design flow requirements for the Marten Hills Design Area is the flow out of the area at the Edson Meter Station (excluding the Lower Peace River Design Sub Area flow), the flow across the Marten Hills Crossover and the northward flow, if any, through the Slave Lake Compressor. Design flow requirements in the Marten Hills Design Area are determined as outlined in Section 4.1 and are limited by the average winter and summer hydraulic capability of the existing facilities within the area. This is consistent with the long-range plans of maximizing the utilization of existing facilities and optimizing the use of the Marten Hills Design Area within the system. The flow into the area, if any, is the flow from the North of Bens Lake Design Area at the Slave Lake Compressor Station.

Figure 4.2.2 illustrates the historical actual flows and historical design flow requirements between the 2002/03 and 2006/07 Gas Years and the design flow requirements currently forecasted between the 2007/08 and 2011/12 Gas Years.

The June 2007 design forecast shows the design flow requirements for the winter and summer seasons decrease in the 2007/08 Gas Year then increase slightly out to 2010/11. Design flow requirements for the 2011/12 Gas Year are similar as the 2010/11 Gas Year. The peak expected flows follow a similar trend as the design flow requirements but at higher flow levels.

Figure 4.2.2
Marten Hills Design Area
Design Flow Requirements and Peak Expected Flows

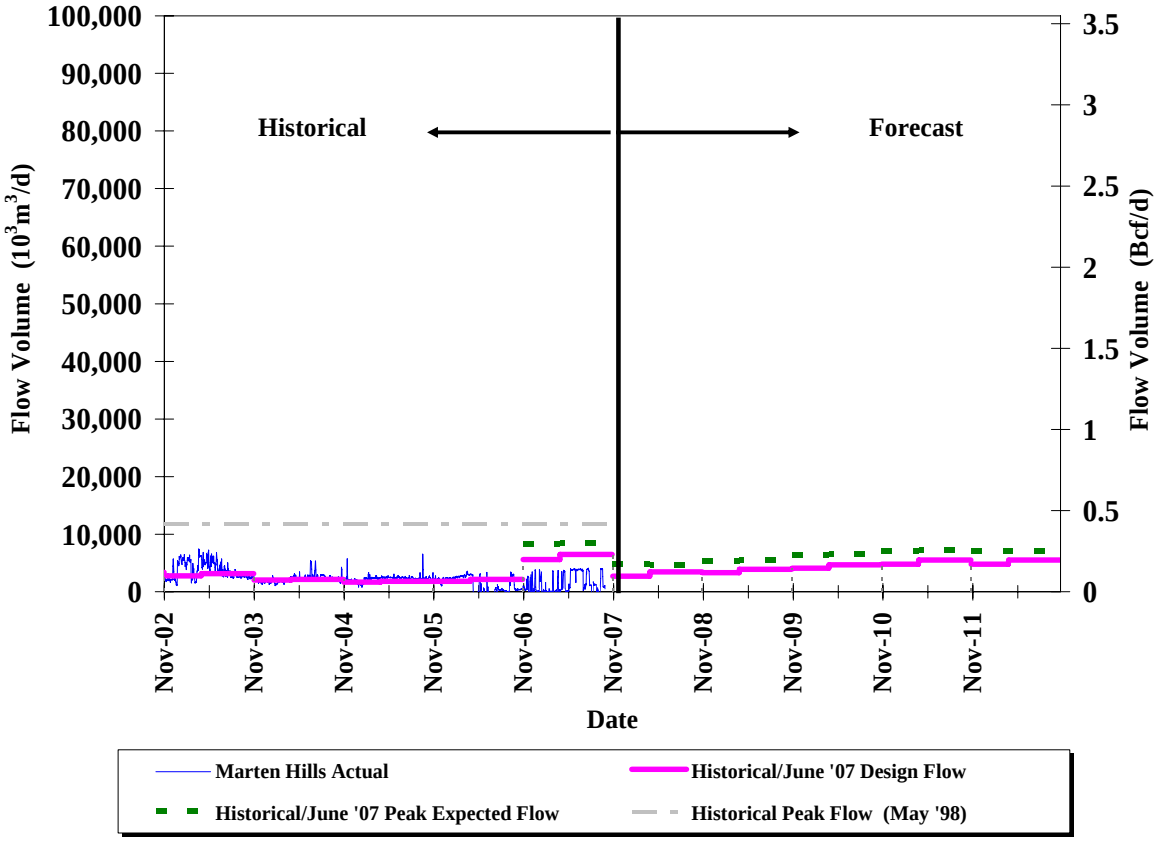

Table 4.2.2 shows the winter and summer design flow requirements and peak expected flows for the 2008/09 Gas Year.

Table 4.2.2
Marten Hills Design Area
June 2007 Design Forecast
Design Flow Requirements and Peak Expected Flows

Gas Year and Season	Design Flow Requirements		Peak Expected Flows	
	Bcf/d	$10^6m^3/d$	Bcf/d	$10^6m^3/d$
2007/08 Winter	0.12	3.3	0.19	5.4
2007/08 Summer	0.14	3.9	0.20	5.5

4.3 North and East Project Area

There are two distinct flow conditions that are examined in assessing facilities requirements in the North and East Project Area. First, there is the "flow through" condition that is governed by the North and East Project Area design flow requirements assumption as described in Section 2.6.1. Second, there is the "flow within" condition that is governed by the maximum day delivery to the North of Bens Lake Design Area also described in Section 2.6.1. Currently, the flow within condition governs facilities requirements in the North and East Project Area.

For the flow through condition, the following approach is used as a basis for generating the design flow requirements through the North and East Project Area. First, the design focuses on optimizing the flow in the South of Bens Lake Design Area in order to maximize the utilization of existing facilities in this area. Second, if the design flow requirements in the South of Bens Lake Design Area have been maximized and there is a requirement to transport additional FS productive capability from the area, the design will focus on directing these volumes through the Marten Hills Design Area in order to maximize the utilization of existing facilities in the Marten Hills Design Area. Finally, if both the South of Bens Lake and the Marten Hills Design Areas are flowing at their existing capability and there is a requirement to transport additional FS productive capability then the design will focus on transporting these volumes through the Peace River Design Area. The flow through design approach is consistent with the development of the North Central Corridor.

4.3.1 North of Bens Lake Design Area

The design flow requirements, for the flow through condition, in the North of Bens Lake Design Area, is the flow out of the area at the Bens Lake Compressor Station. Flow into the area, if any, is the flow from the Peace River Design Area, via the

Wolverine control valve, plus any flow from the Marten Hills Design Area at the Slave Lake Compressor Station.

Figure 4.3.1.1 illustrates the historical actual flows and the historical design flow requirements between the 2002/03 and 2006/07 Gas Years and the design flow requirements currently forecasted between the 2007/08 and 2011/12 Gas Years.

For the 2007/08 Gas Year, the June 2007 design forecast shows similar design flow requirements relative to the design flow requirements for the 2006/07 Gas Year.

The June 2007 design forecast projects the design flow requirements will continue to decline for the 2008/09 Gas Year through to the winter season of the 2009/10 Gas Year resulting in negative design flow requirements. This signifies that the flow through design assumption will yield a flow condition that moves from south to north rather than the historical north to south flow pattern experienced in this area.

For the summer season of the 2009/10 Gas Year, plus the 2010/11 and 2011/12 Gas Years, the design flow requirements increase relative to 2008/09 with the completion of the applied-for North Central Corridor. The peak expected flows follow a similar trend as the design flow requirements but at higher flow levels.

Figure 4.3.1.1
North of Bens Lake Design Area
Design Flow Requirements and Peak Expected Flows

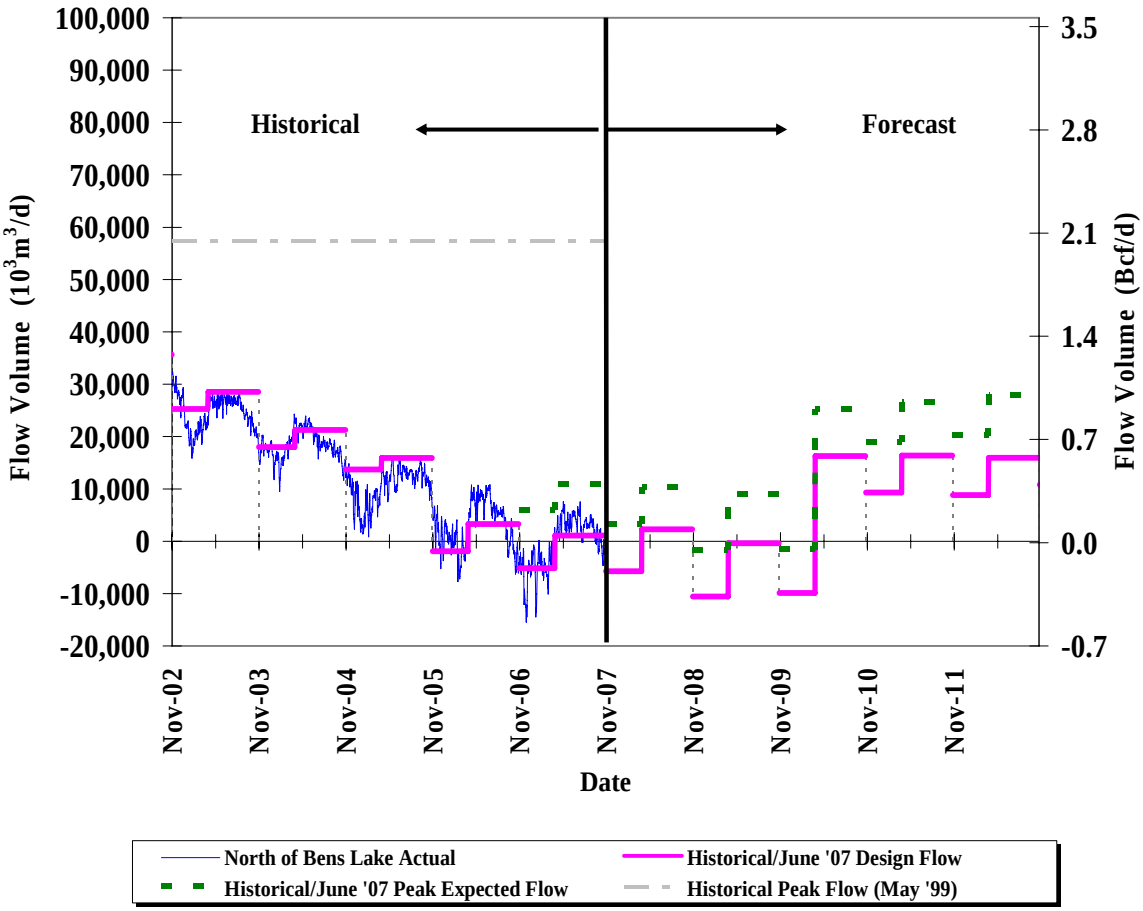

Table 4.3.1.1 shows the winter and summer design flow requirements and peak expected flows for the 2008/09 Gas Year.

Table 4.3.1.1
North of Bens Lake Design Area
June 2007 Design Forecast
Design Flow Requirements and Peak Expected Flows

Gas Year and Season	Design Flow Requirements		Peak Expected Flows	
	Bcf/d	$10^6m^3/d$	Bcf/d	$10^6m^3/d$
2008/09 Winter	-0.38	-10.6	-0.06	-1.6
2008/09 Summer	-0.01	-0.4	0.32	9.0

The design flow requirements, for the flow within condition, in the North of Bens Lake Design Area, is the localized growth of Alberta deliveries in the area. As outlined in Chapter 3, Alberta deliveries to the North of Bens Lake Design area are forecast to increase in the future. The FS productive capability required to meet the maximum day delivery draws from available FS productive capability on the Liege, Logan, Conklin and Kirby Laterals plus the FS productive capability that is brought into the area from the Peerless Lake Lateral, via the North Central Corridor (Buffalo Creek Section).

Figure 4.3.1.2 illustrates the historical actual flows between the 2002/03 and 2006/07 Gas Years, the historical design flow requirements between the 2005/06 and 2006/07 Gas Years and the design flow requirements currently forecasted between the 2007/08 and 2011/12 Gas Years.

Figure 4.3.1.2
Maximum Day Delivery to the North of Bens Lake Design Area

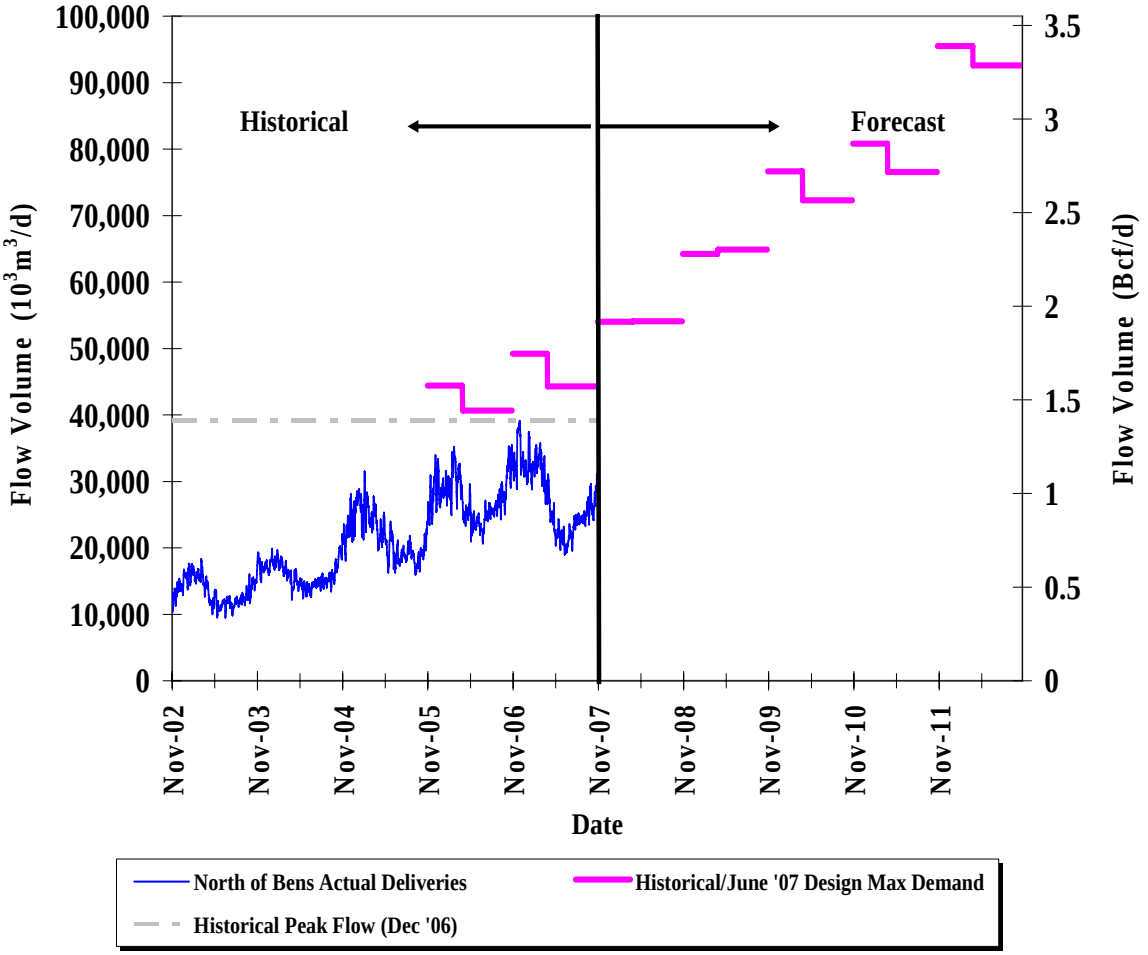

Table 4.3.1.2 shows the winter and summer design flow requirements for the 2008/09 Gas Year.

Table 4.3.1.2
Maximum Day Delivery to the North of Bens Lake Design Area
June 2007 Design Forecast
Design Flow Requirements

Gas Year and Season	Design Flow Requirements	
	Bcf/d	$10^6m^3/d$
2008/09 Winter	2.28	64.2
2008/09 Summer	2.30	64.9

4.3.2 South of Bens Lake Design Area

The design flow requirements for the South of Bens Lake Design Area is the sum of the flow out of the area at the Princess "A" and Oakland Compressor Stations on the North Lateral and at the Cavendish Compressor Station on the East Lateral. Flow into the area is the flow from the North of Bens Lake Design Area as well as from the Rimbey Nevis Design Area via the Nevis-Gadsby Crossover.

Figure 4.3.2 illustrates the historical actual flows and historical design flow requirements between the 2002/03 and 200607 Gas Years and design flow requirements currently forecasted between the 2007/08 and 2011/12 Gas Years.

The June 2007 design forecast shows steady winter and summer design flow requirements out to the winter season of the 2009/10 Gas Year relative to the 2006/07 Gas Year. For the summer season of the 2009/10 Gas Year and the 2010/11 and 2011/12 Gas Years the design flow requirements increase with the completion of the applied-for North Central Corridor. The peak expected flows follow a similar trend as the design flow requirements but at higher flow levels.

The decrease in design flow requirements and peak expected flows prior to the 2009/10 Gas Year, is primarily due to the decrease in flow from the North of Bens Lake Design Area. There is a slight incremental flow contribution to this area from the Rimbey-Nevis Design Area via the Nevis-Gadsby Crossover, however, this contribution is more than offset by the increase in the maximum day delivery being experienced in the North of Bens Lake Design Area.

Figure 4.3.2
South of Bens Lake Design Area
Design Flow Requirements and Peak Expected Flows

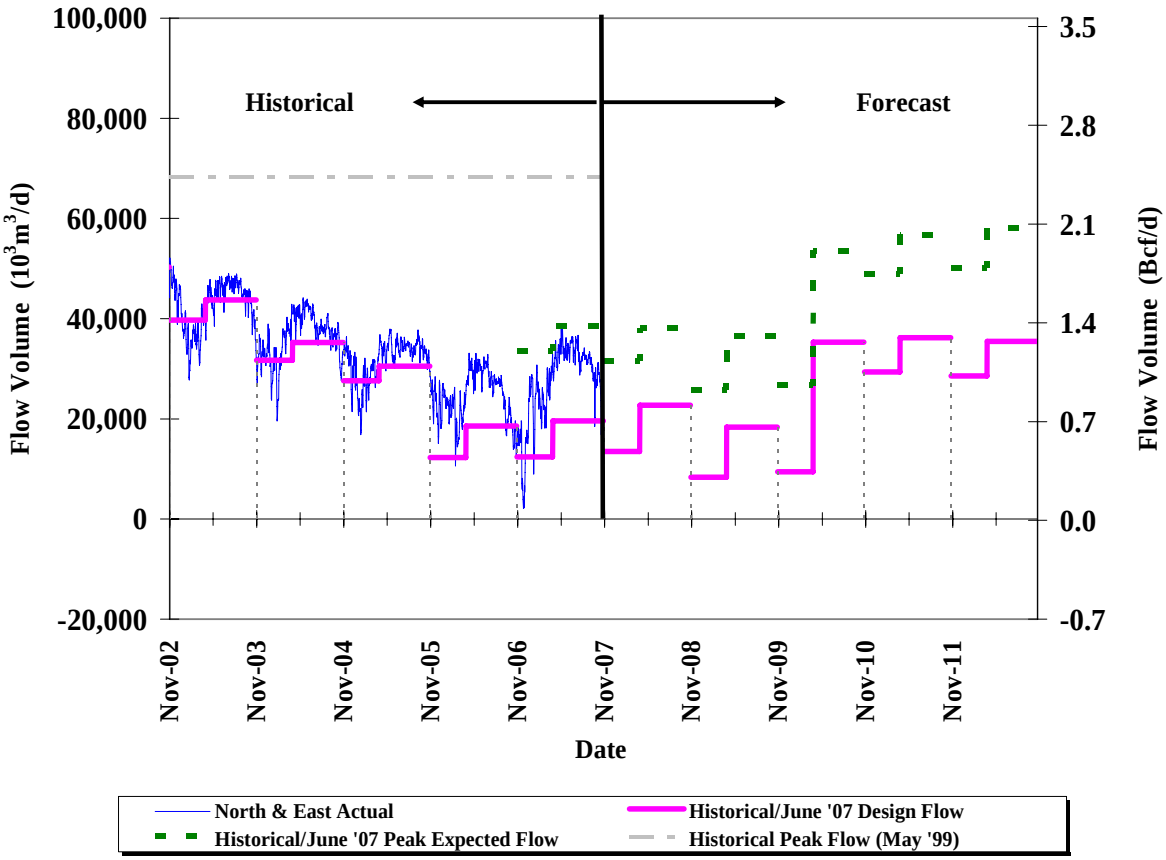

Table 4.3.2 shows winter and summer design flow requirements and the peak expected flows for the 2008/09 Gas Year.

Table 4.3.2
South of Bens Lake Design Area
June 2007 Design Forecast
Design Flow Requirements and Peak Expected Flows

Gas Year and Season	Design Flow Requirements		Peak Expected Flows	
	Bcf/d	$10^6m^3/d$	Bcf/d	$10^6m^3/d$
2008/09 Winter	0.30	8.3	0.92	25.8
2008/09 Summer	0.65	18.4	1.30	36.6

4.4 Mainline Project Area

4.4.1 Mainline Design Area

4.4.1.1 Edson Mainline Design Sub Area

The design flow requirements for the Edson Mainline Design Sub Area is the flow out of the area at the James River Interchange. Flow into the area is from the Peace River Design Area at the Knight Compressor Station and at the Edson Meter Station and from the Marten Hills Design Area at the Edson Meter Station.

Figure 4.4.1.1 illustrates the historical actual flows between the 2002/03 and 2006/07 Gas Years and the design flow requirements currently forecasted between the 2007/08 and 2011/12 Gas Years.

Beyond the 2006/07 Gas Year, design flow requirements are forecast to increase slightly for the 2007/08 Gas Year, then decrease out to the 2009/10 Gas Year with the completion of the applied-for North Central Corridor. Beyond the 2009/10 Gas Year design flow requirements are forecasted to decrease slightly out to the 2011/12 Gas Year. The peak expected flows follow a similar trend as the design flow requirements but at higher flow levels.

Figure 4.4.1.1
Edson Mainline Design Sub Area
Design Flow Requirements and Peak Expected Flows

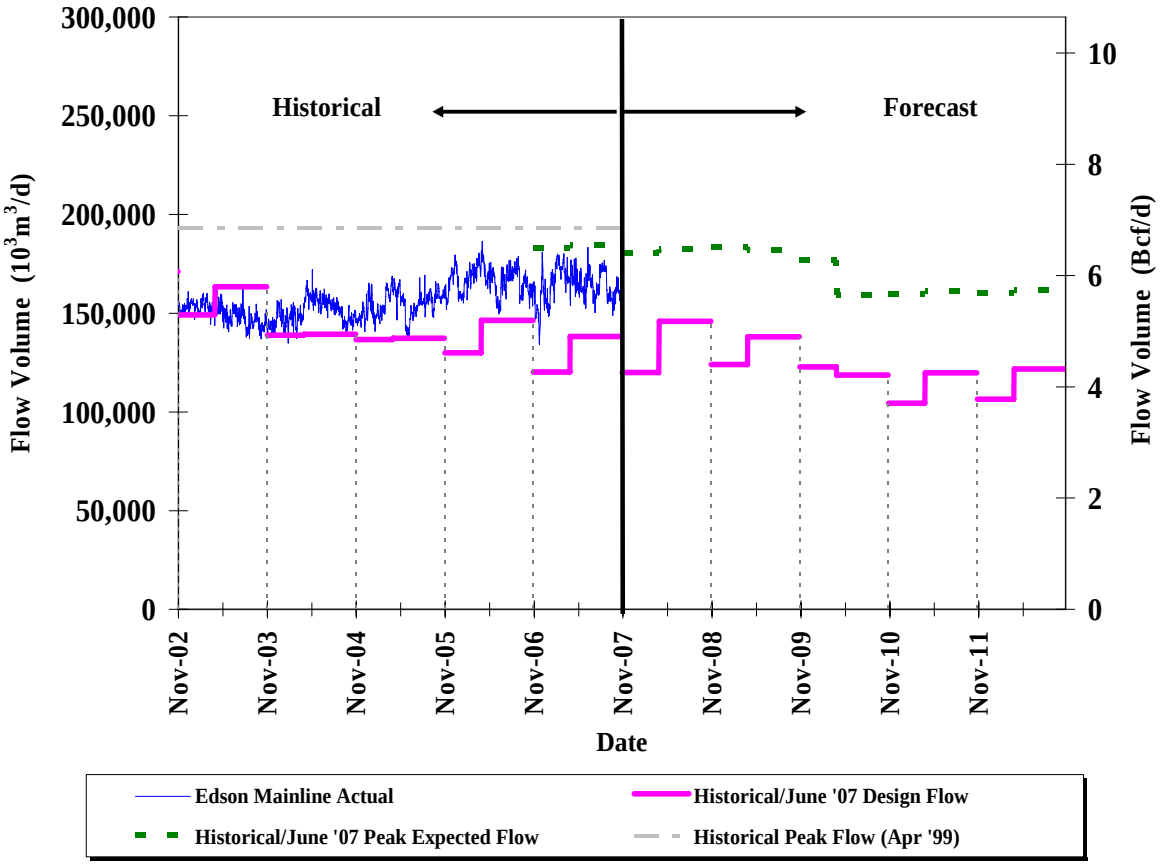

Table 4.4.1.1 shows the winter and summer design flow requirements and peak expected flows for the 2008/09 Gas Year.

Table 4.4.1.1
Edson Mainline Design Sub Area
June 2007 Design Forecast
Design Flow Requirements and Peak Expected Flows

Gas Year and Season	Design Flow Requirements		Peak Expected Flows	
	Bcf/d	$10^6m^3/d$	Bcf/d	$10^6m^3/d$
2008/09 Winter	4.40	124.0	6.52	183.6
2008/09 Summer	4.90	138.0	6.46	181.9

4.4.1.2 Eastern Alberta Mainline Design Sub Area (James River to Princess)

The design flow requirements for the Eastern Alberta Mainline Design Sub Area (James River to Princess) is the flow out of the area at the Princess "B" Compressor Station and the flow on the Foothills Pipe Lines (Alberta) Ltd. eastern leg. Flow into the area is from the Edson Mainline Design Sub Area, the Rimbey-Nevis Design Area and the South and Alderson Design Area.

Figure 4.4.1.2 illustrates the historical actual flows between the 2002/03 and the 2006/07 Gas Years and the design flow requirements currently forecasted between the 2007/08 and 2011/12 Gas Years. The difference between actual flows and design flow requirements over the past five gas years reflects shippers' significant dependence on interruptible and other transportation services at the Eastern Alberta Export Delivery Points.

Design flow requirements are forecast to increase slightly between the 2007/08 and 2008/09 Gas Years as FS productive capability upstream of the Edson Mainline Design Sub Area continues to grow and as the design flow requirements for the South of Bens Lake Design Area continue to decline. Beyond the 2008/09 Gas Year, design flow requirements are forecast to decrease slightly out to the 2009/10 Gas Year with the completion of the applied-for North Central Corridor. Design flow requirements during 2010/11 and 2011/12 are forecast to be similar to those experienced during 2009/10.

Figure 4.4.1.2
Eastern Alberta Mainline Design Sub Area
(James River to Princess)
Design Flow Requirements

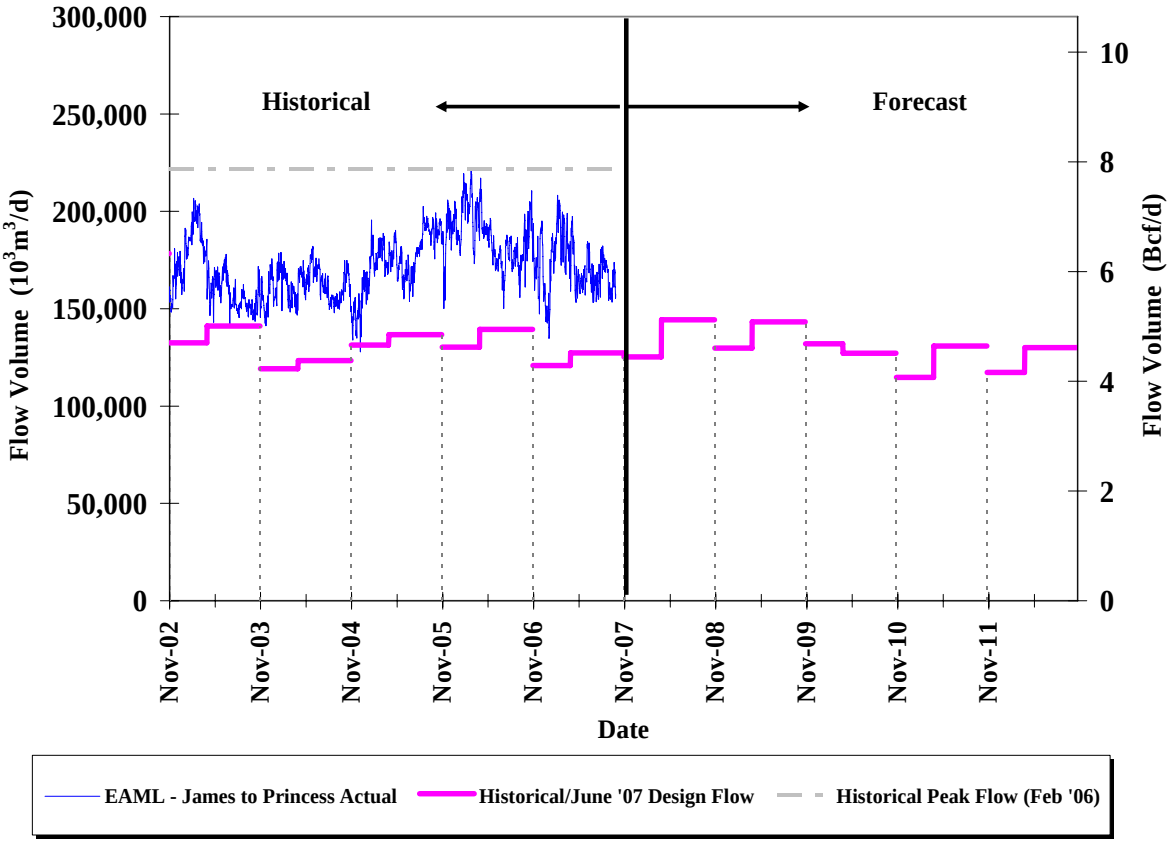

Table 4.4.1.2 shows the winter and summer design flow requirements for the 2008/09 Gas Year.

Table 4.4.1.2
Eastern Alberta Mainline Design Sub Area
(James River to Princess)
June 2007 Design Forecast
Design Flow Requirements

Gas Year and Season	Design Flow Requirements	
	Bcf/d	$10^6m^3/d$
2008/09 Winter	4.61	129.8
2008/09 Summer	5.08	143.2

4.4.1.3 Eastern Alberta Mainline Design Sub Area (Princess to Empress/McNeill)

The design flow requirements for the Eastern Alberta Mainline Design Sub Area (Princess to Empress/McNeill) is the flow out of the area at the Empress and McNeill Export Delivery Points. The flow into the area is from the North and East Project Area, the Eastern Alberta Mainline Design Sub Area (James River to Princess) and the Medicine Hat Design Area.

Figure 4.4.1.3 illustrates the historical actual flows between the 2002/03 and 2006/07 Gas Years and design flow requirements currently forecasted between the 2007/08 and 2011/12 Gas Years. The difference between actual flows and design flow requirements over the past five gas years reflects shippers' dependence on interruptible and other transportation services at the Eastern Alberta Export Delivery Points.

The June 2007 design forecast shows that winter and summer design flow requirements will increase in the 2007/08 Gas Year relative to the design flow requirements for the 2006/07 Gas Year. Beyond the 2007/08 Gas Year the design flow requirements decline steadily out to the 2011/12 Gas Year. This behaviour corresponds with the forecast of maximum day delivery at the Empress and McNeill Export Delivery Points.

Figure 4.4.1.3
Eastern Alberta Mainline Design Sub Area
(Princess to Empress/McNeill)
Design Flow Requirements

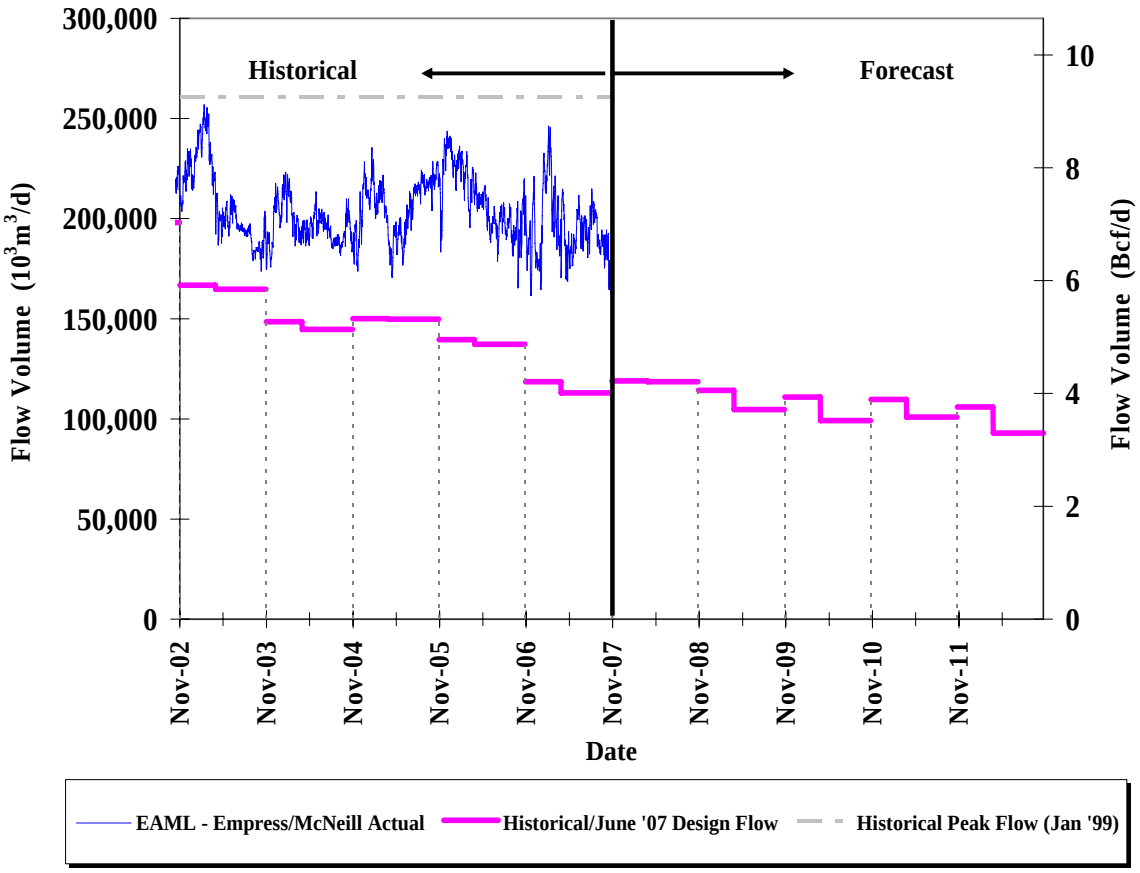

Table 4.4.1.3 shows the winter and summer design flow requirements for 2008/09 Gas Year.

Table 4.4.1.3
Eastern Alberta Mainline Design Sub Area
(Princess to Empress/McNeill)
June 2007 Design Forecast
Design Flow Requirements

Gas Year and Season	Design Flow Requirements	
	Bcf/d	$10^6m^3/d$
2008/09 Winter	4.06	114.3
2008/09 Summer	3.72	104.7

4.4.1.4 Western Alberta Mainline Design Sub Area

The design flow requirements for the Western Alberta Mainline Design Sub Area is the flow out of the area at the Alberta/British Columbia Export Delivery Point as well as the flow out of the area at the Alberta/Montana Export Delivery Point. Flow into the area is from the Edson Mainline Design Sub Area and the South and Alderson Design Area.

Figure 4.4.1.4 illustrates the historical actual flows and historical design flow requirements between the 2002/03 and 2006/07 Gas Years and design flow requirements currently forecasted between the 2007/08 and 2011/12 Gas Years.

For the 2007/08 and 2008/09 Gas Years, the June 2007 design forecast shows the design flow requirements decrease relative to the design flow requirements for the 2006/07 Gas Year. Beyond the 2007/08 Gas Year the design flow requirements continue to decrease out to the 2010/11 Gas Year before increasing slightly in 2011/12. This behaviour corresponds to the forecast of maximum day delivery at the Alberta/British Columbia and Alberta/Montana Export Delivery Points.

Figure 4.4.1.4
Western Alberta Mainline Design Sub Area
Design Flow Requirements

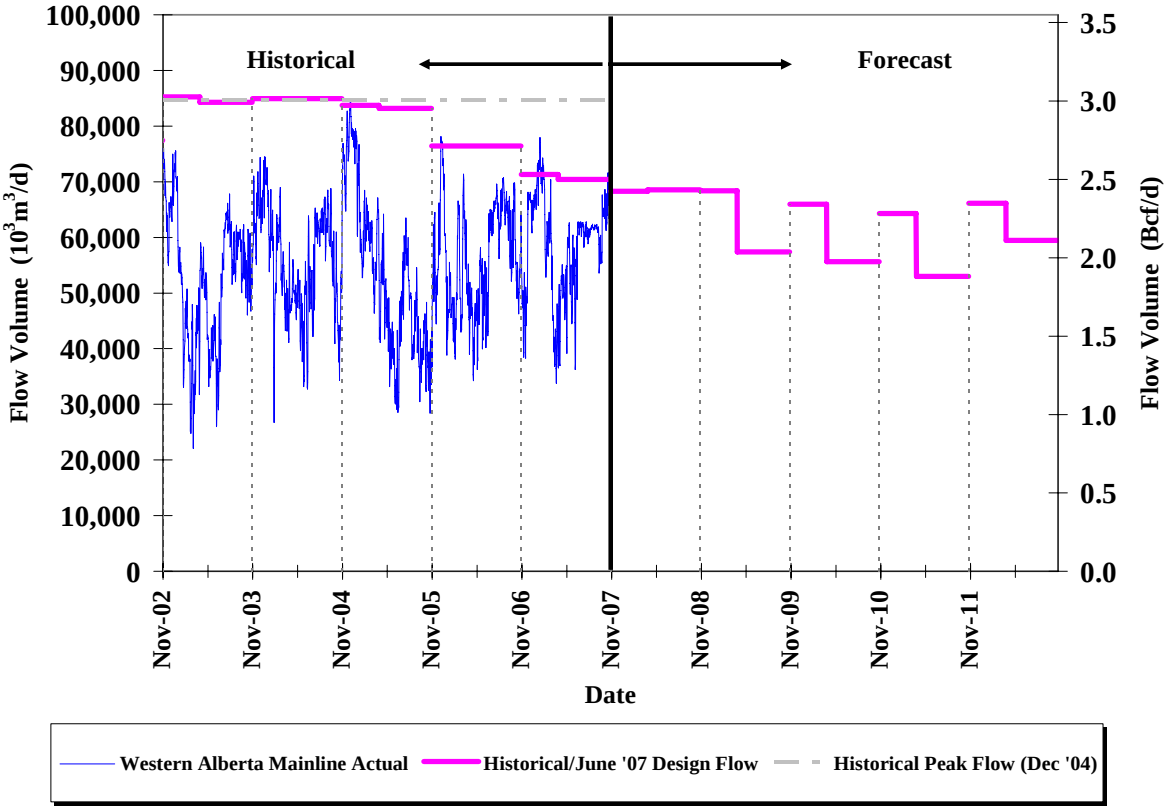

Table 4.4.1.4 shows the winter and summer design flow requirements for the 2008/09 Gas Year.

Table 4.4.1.4
Western Alberta Mainline Design Sub Area
June 2007 Design Forecast
Design Flow Requirements

Gas Year and Season	Flow	
	Bcf/d	$10^6m^3/d$
2008/09 Winter	2.43	68.4
2008/09 Summer	2.04	57.4

4.4.2 Rimbey-Nevis Design Area

The design flow requirements for the Rimbey-Nevis Design Area are the flow out of the area at the Hussar "A" Compressor Station and the Nevis-Gadsby Crossover.

Figure 4.4.2 illustrates the historical actual flows and historical design flow requirements between the 2002/03 and 2006/07 Gas Years and design flow requirements currently forecasted between the 2007/08 and 2011/12 Gas Years. The fluctuations between winter and summer actual flows are due to storage injections in the summer and storage withdrawals in the winter at the Carbon storage facility located within this design area.

The June 2007 design forecast shows an increase in design flow requirements for the 2007/08 and 2008/09 Gas Years relative to the design flow requirements shown for the 2006/07 Gas Year. Beyond the 2008/09 Gas Year the design flow requirements decrease slightly during the 2009/10 and 2010/11 Gas Years then increase slightly during the 2011/12 Gas Year. This behaviour in design flow requirements is primarily due to the pattern of FS productive capability development expected to occur primarily on the Nevis lateral. The peak expected flows follow a similar trend as the design flow requirements but at higher flow levels.

Figure 4.4.2
Rimbey-Nevis Design Area
Design Flow Requirements and Peak Expected Flows

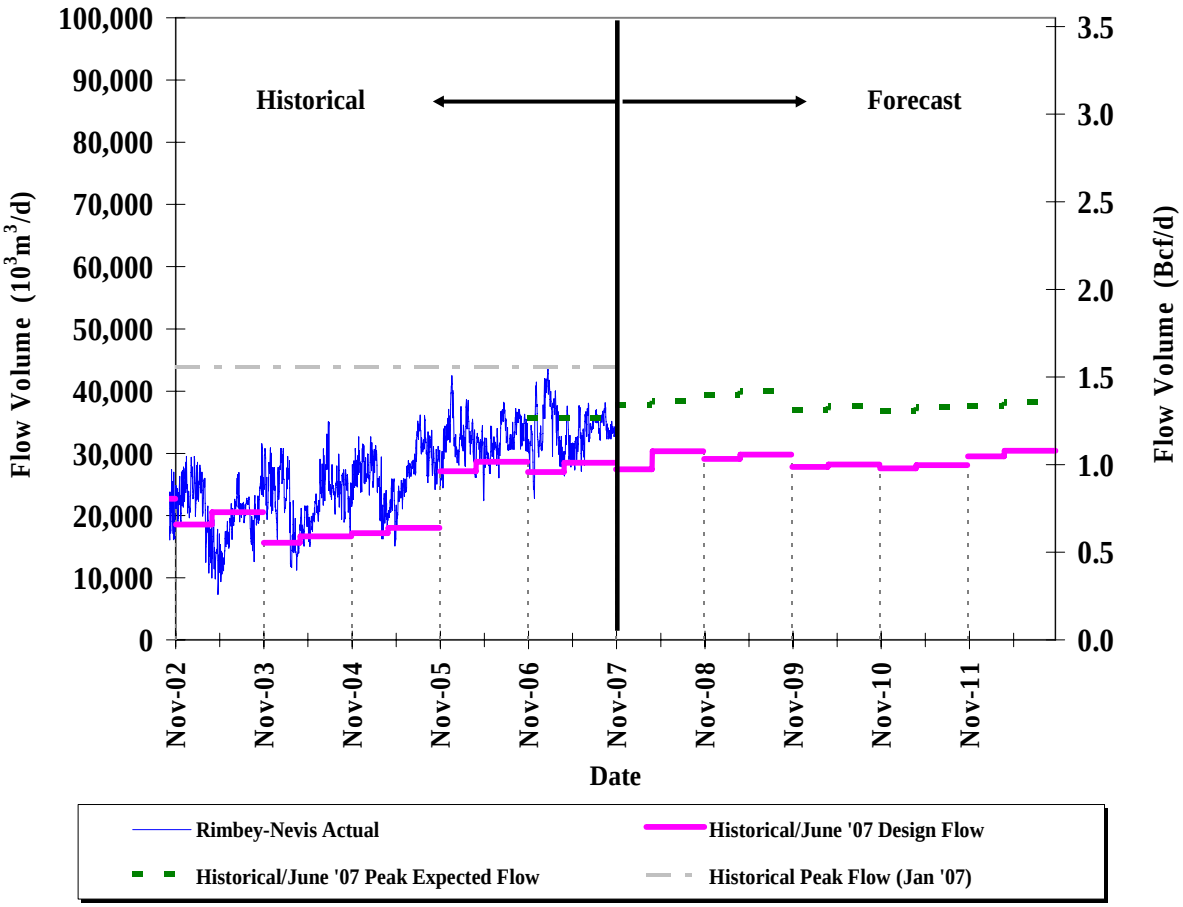

Table 4.4.2 shows the winter and summer design flow requirements and peak expected flows for the 2008/09 Gas Year.

Table 4.4.2
Rimbey-Nevis Design Area
June 2007 Design Forecast
Design Flow Requirements and Peak Expected Flows

Gas Year and Season	Design Flow Requirements		Peak Expected Flow	
	Bcf/d	$10^6m^3/d$	Bcf/d	$10^6m^3/d$
2008/09 Winter	1.03	29.1	1.40	39.4
2008/09 Summer	1.06	29.8	1.42	40.0

4.4.3 South and Alderson Design Area

The design flow requirements for the South and Alderson Design Area are the flow out of the area to the Princess Compressor Station and the flow out of the area to the Drywood Compressor Station.

Gas from the South Lateral can be directed towards the Western Alberta Mainline Design Sub Area via the Drywood Compressor Station, located on the Waterton Montana Lateral. The ability also exists to flow gas from the South Lateral and direct it to the Eastern Mainline System at the Princess Compressor Station.

Figure 4.4.3 illustrates the historical actual flows and historical design flow requirements between the 2002/03 and 2006/07 Gas Years and design flow requirements currently forecasted between the 2007/08 and 2011/12 Gas Years.

The June 2007 design forecast shows that winter and summer design flow requirements remain relatively flat through the 2011/12 Gas Year. The peak expected flows follow a similar trend as the design flow requirements but at higher flow levels.

Figure 4.4.3
South and Alderson Design Area
Design Flow Requirements and Peak Expected Flows

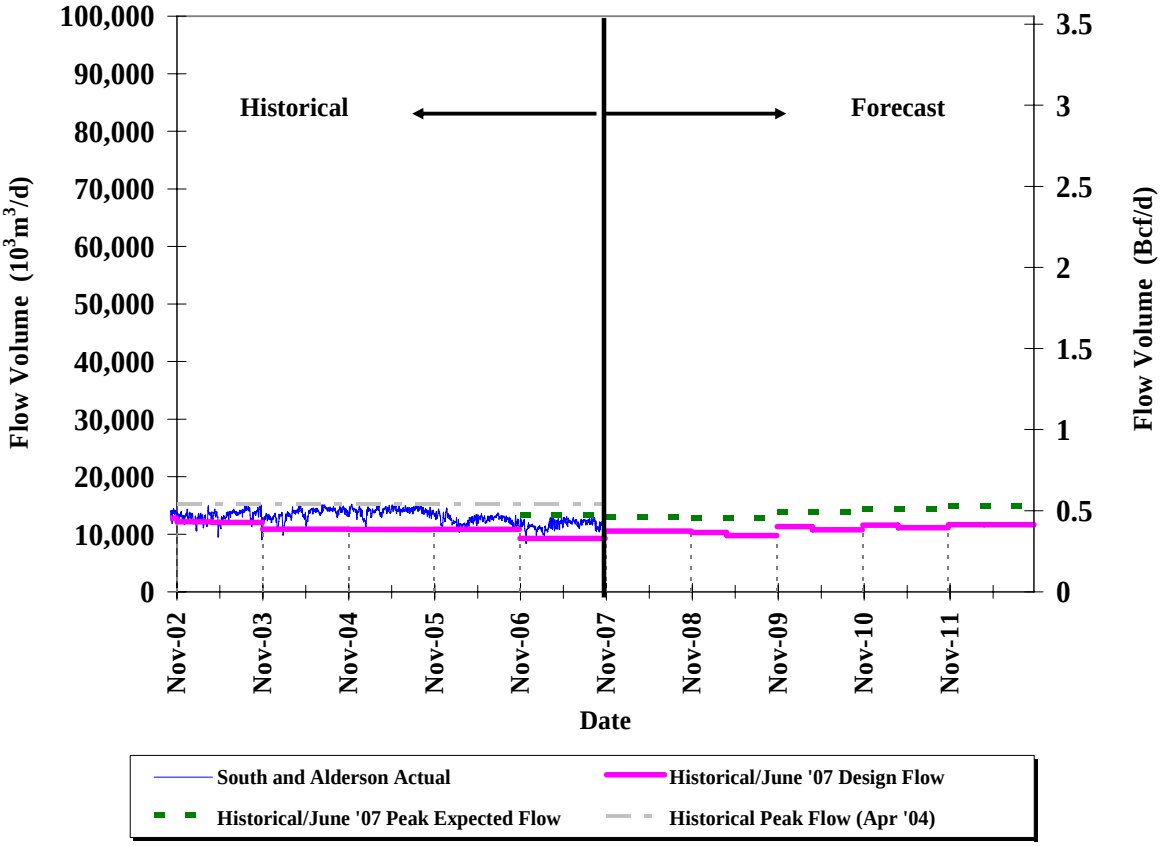

Table 4.4.3 shows the winter and summer design flow requirements and peak expected flows for the 2008/09 Gas Year.

Table 4.4.3
South and Alderson Design Area
June 2007 Design Forecast
Design Flow Requirements and Peak Expected Flows

Gas Year and Season	Design Flow Requirements		Peak Expected Flows	
	Bcf/d	$10^6m^3/d$	Bcf/d	$10^6m^3/d$
2008/09 Winter	0.37	10.3	0.45	12.8
2008/09 Summer	0.35	9.8	0.45	12.8

4.4.4 Medicine Hat Design Area

The Medicine Hat Design Area is unique in that most of the gas produced within this area is required to meet maximum day delivery within the area.

Average receipt flows under conditions of maximum day delivery within the area best describe the design condition most likely to occur in the Medicine Hat Design Area and are therefore used to represent a reasonable constraining design condition. The design flow requirements for the Medicine Hat Design Area is the net flow to the Alberta deliveries within this area. The maximum day delivery forecast is critical to the design of facilities for the Medicine Hat Design Area (see Section 2.6.2).

Figure 4.4.4 illustrates the historical actual flows and historical design flow requirements between the 2002/03 and 2006/07 Gas Years and design flow requirements currently forecasted between the 2007/08 and 2011/12 Gas Years.

The June 2007 design forecast shows that winter and summer design flow requirements will increase slightly out to the 2011/12 Gas Year reflecting a moderate growth of deliveries within the area.

Figure 4.4.4
Medicine Hat Design Area
Maximum Day Delivery

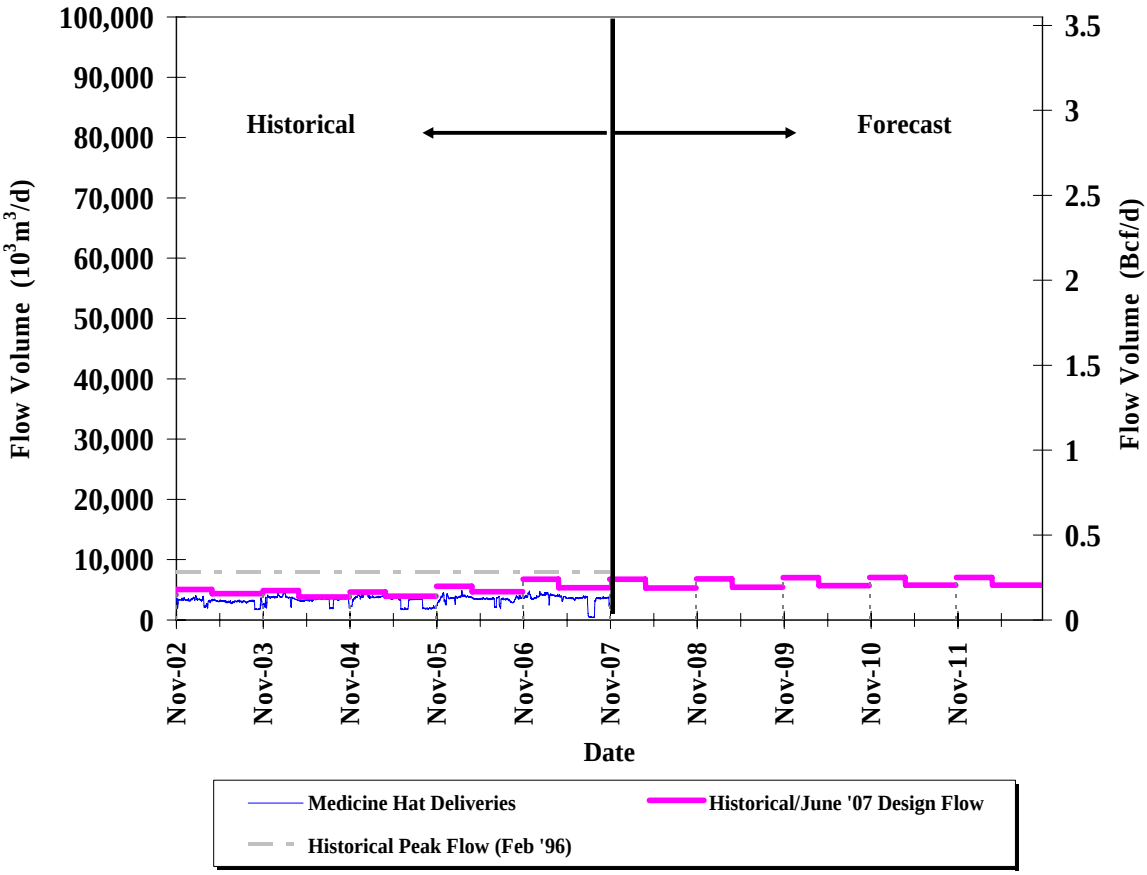

Table 4.4.4 shows the winter and summer maximum day delivery for the 2008/09 Gas Year.

Table 4.4.4
Medicine Hat Design Area
June 2007 Design Forecast
Maximum Day Delivery

Gas Year and Season	Flow	
	Bcf/d	$10^6m^3/d$
2008/09 Winter	0.24	6.8
2008/09 Summer	0.19	5.4