

# BC Ministry of Forests, Lands and Natural Resource Operations



Lower Fraser River Hydraulic Model Schematic Layout

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## Simulating the Effects of Sea Level Rise and Climate Change on Fraser River Flood Scenarios

### FINAL REPORT

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Flood Safety Section, May 2014



## **DISCLAIMER**

This document provides the results of a research project to investigate the sensitivity of Fraser River Flood Levels to both watershed climate change and sea level rise. However, there are many sources of uncertainty in the analyses. While the results may be useful for further risk assessment and planning studies, the flood levels should not be used for design purposes. Much more work is necessary to reduce uncertainty, particularly those uncertainties associated with the estimates of potential increases in Lower Fraser River flood flows.

## **CREDITS AND ACKNOWLEDGEMENTS**

This study was a joint project with Northwest Hydraulic Consultants Ltd. (NHC) whose complete report is included as Appendix 1. The key Northwest personnel involved included Monica Mannerstrom, Malcolm Leytham, Mariza Costa Cabral and Vanessa O'Connor. As acknowledged in the NHC report other individuals and organizations also assisted with the study including:

- David Campbell and Charles Luo at the ministry's River Forecast Centre provided information on WARNS and generated WARNS simulations of extreme flood scenarios.
- Markus Schnorbus of PCIC (Pacific Climate Impacts Consortium) provided the 23 projected stream flow time series that were analyzed as part of the climate change review.
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The hydraulic modeling and profile results were completed by Khalid W Khan P.Eng. of the Flood Safety Section. Helpful input was provided by an advisory committee established by the Fraser Basin Council, as part of efforts to develop a Regional Flood Management Strategy.

This report was jointly prepared by Khalid Khan and Neil Peters, Flood Safety Section, Ministry of Forests Lands and Natural Resource Operations.

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# 1. INTRODUCTION

## Purpose of Study

Ongoing development and growth in the floodplain areas of the Fraser Valley and Metro Vancouver region and the increased potential for major flood damage have raised questions over the adequacy of the existing dikes and historic flood protection standards. Several hundred thousand people, billions of dollars worth of development and extensive critical infrastructure rely on over 50 separate dikes totalling approximately 500 km.

Since the early 1970's the province has generally accepted a 1:200 Annual Exceedance Probability (AEP) event (or in the case of the Fraser River, the 1894 flood magnitude) to be the minimum provincial dike design standard for new dikes. However, preliminary quantitative risk analyses indicate that much higher standards may be justified for protection of densely populated urban areas. It must also be recognized that most of the existing dikes do not meet the current minimum provincial standard, and would only provide protection against smaller flood events.

A re-examination of flood levels on the Lower Fraser River is now necessary because of sea level rise, potential climate change impacts on flood flows, and the need to update flood protection standards. However, the intent of this project is not to develop a new Fraser River dike design profile, but to provide a series of flood level profiles that can be used as a planning tool. Based on analyses of the best available scientific information, it is expected that the results of this project will help the province, local governments, diking authorities and others understand the relative significance of climate change impacts on Fraser River flooding and the implications of setting higher design standards.

The Fraser Basin Council (FBC) has recently prepared "A Business Plan – Advancing a Collaborative, Regional Approach to Flood Management in British Columbia's Lower Mainland" (Ref 1). The ministry's flood scenario project aligns closely with one of 10 technical projects identified in the Business Plan as a priority for Phase 1. An advisory committee comprised of local government, ministry and other organization representatives was established, and this group reviewed the study Terms of Reference and draft report. It is expected that the output from this project will be utilized in other FBC coordinated projects such as the proposed risk analysis project, described as: "Region-wide analysis of current and future risk and vulnerability to flood hazards (i.e., what is vulnerable and what are the impacts, consequences and costs of a catastrophic flood in the Lower Mainland) at a coarse resolution."

## Project Scope

The project area includes the 170 km long reach of the Lower Fraser River, from Hope to the Fraser River mouth (North Arm, Middle Arm and South Arm) and major tributaries affected by backwater from Fraser River Freshet flooding. These tributaries include the Coquitlam River, Pitt River, Sumas/Vedder Rivers, and Harrison River/Lake.

This project was a joint effort of the Flood Safety Section of the Ministry of Forests, Lands and Natural Resource Operations (FLNRO) and Northwest Hydraulic Consultants (NHC). NHC completed the hydrological component of the project and developed a series of flows and ocean water levels for AEPs of 1:50 to 1:10,000, whereas the Flood Safety Section used these values as input to the Fraser River Hydraulic Model to produce a series of flood levels from Hope to the ocean. Significant assistance was also provided by others, including the ministry's River Forecast Centre and the Pacific Climate Impacts Consortium (PCIC).

NHC's scope of work included updating flood frequency analyses at Hope, reviewing Fraser watershed climate change and estimating future ocean water levels. Based on this work, NHC provided the following:

1. Annual maximum daily discharges for a range of Annual Exceedance Probabilities (AEPs) from 1:50 to 1:10,000 using historic flow data (both freshet and winter conditions) for the Fraser River at Hope and its tributaries.
2. Annual maximum daily discharges for a range of AEPs from 1:50 to 1:10,000 considering two scenarios of climate change: "Moderate" and "Intense".
3. Winter ocean levels for a range of AEPs from 1:50 to 1:10,000 using a joint probability approach of high tide plus storm surge. Sea level rise scenarios of 0, 0.5, 1.0, 1.5 and 2.0 m were then applied to these levels.

The boundary conditions provided by NHC are summarized in the next section. A detailed description of the sources of information and analyses, plus discussion and recommendations are documented and presented in the NHC report attached as Appendix 1.

## Probability Terminology and Range of AEPs Considered

Annual Exceedance Probability (AEP) is the probability, or chance of a particular magnitude event being equalled or exceeded in any one year. In this report it is defined as a ratio, or as a corresponding percentage (e.g. 1:500 per year, or 0.2 % per year) and is equivalent to the term “return period” (e.g. an event with an AEP of 1:500 is the same as an event with a “500 year return period”).

However, it is usually more useful to think of rare events in terms of the statistical chance of an event with a given AEP (or “return period”) being equalled or exceeded within a duration period corresponding to a project design life or planning time line. The following table provides these statistics for periods of 50, 100 or 200 years.

**Table 1. Percent Chance That an Event with a Given AEP will be Equaled or Exceeded During a Given Project Design Life or Planning Time Line (Years)**

AEP	Project Design Life or Planning Time Line (Years)		
	50	100	200
<b>1:50</b>	64%	87%	98%
<b>1:100</b>	40%	63%	87%
<b>1:200</b>	22%	39%	63%
<b>1:500</b>	10%	18%	33%
<b>1:1000</b>	5%	10%	18%
<b>1:5000</b>	1%	2%	4%
<b>1:10000</b>	0.5%	1%	2%

A design water level with an AEP 1:50 is the smallest flood event considered in the scenarios. Design to a 1:50 event would only be appropriate for low consequence structures where overtopping should be expected during the life of the structure. An AEP of 1:10,000 is the largest event considered and may be an appropriate design standard where the consequences of failure are extremely high. For example, the Netherlands uses an AEP of 1:10,000 for the design standard for sea dikes protecting the country’s major coastal cities.

## 2. FLOOD PROFILE SCENARIOS AND BOUNDARY CONDITIONS

### a. Flood Profile Scenarios:

The flood levels along Fraser River have been re-examined in light of projected sea level rise and potential climate change. A series of flood profiles for the Fraser River from Hope to the ocean has been generated for a range of annual exceedance probability (AEP) floods, sea level rise scenarios and flow conditions affected by climate change as listed in the following tables. The combination of these yields a total of 105 freshet profile scenarios and 35 winter profile scenarios.

**Table 2: Freshet Scenarios**

Annual Exceedance Probabilities (AEPs) for Flows at Hope and Tributaries	Sea Level Rise Magnitudes (m)	Fraser Watershed Climate Change Scenarios (Freshet)
1:50	0	Historical
1:100	0.5	Moderate
1:200	1.0	Intense
1:500	1.5	
1:1,000	2.0	
1:5,000		
1:10,000		

**Table 3: Winter Scenarios**

Annual Exceedance Probabilities (AEPs) at Ocean	Sea Level Rise Magnitudes (m)	Fraser Watershed Scenario (Winter)
1:50	0	One set of flows based on historical data
1:100	0.5	
1:200	1.0	
1:500	1.5	
1:1,000	2.0	
1:5,000		
1:10,000		

Using the flows and ocean water levels as outlined above, various sets of boundary conditions for the Fraser River Hydraulic Model were developed. For each AEP, there were four groups: “Freshet Historic”, “Moderate”, “Intense” and “Winter”, and the hydraulic model was run for each group of boundary conditions for sea level rise values of 0, 0.5, 1.0, 1.5 and 2.0 m. This resulted in 140 model runs (scenarios) in total. The boundary conditions for each group are described below.

### **b. Freshet Flows (Historic)**

The freshet flows at Hope and its tributaries for AEPs from 1:50 to 1:10,000 are provided in the following table. Flows corresponding to each AEP constituted one model run. Since water levels for the tidal reach of Fraser River are dictated by the winter conditions, a freshet high tide sequence from May 2002 (peak of 1.89 m) was used as the base downstream boundary condition for all freshet model runs. Each set of flows for a given AEP was then run for sea level rise of 0, 0.5, 1.0, 1.5 and 2.0 m.

**Table 4: Historic Freshet Flows of Fraser River at Hope, Mission and Tributaries**

Location	Maximum Daily Freshet Flow (m <sup>3</sup> /s) Coincident with Peak Flow on Fraser River at Hope by AEP							Design Flows (NHC, 2006)
	1:50	1:100	1:200	1:500	1:1,000	1:5,000	1:10,000	
Fraser River at Hope	13,400	14,300	15,200	16,500	17,400	19,700	20,700	17,000
Silverhope Creek	58	61	65	69	73	85	88	85
Harrison River	884	943	1,002	1,061	1,120	1,297	1,356	1,300
Chilliwack River	265	283	301	318	336	389	407	390
Chehalis River	81	87	92	98	103	119	125	120
Ruby and Wahleach Creeks	114	122	130	137	145	168	176	168
Norrish River	77	82	87	92	97	112	117	112
Sumas River	21	22	23	25	26	30	31	30
Fraser River at Mission	14,900	15,900	16,900	18,300	19,300	21,900	23,000	18,900
Stave River	249	265	282	298	315	365	381	365
Pitt River	250	267	284	300	317	367	384	368
Alouette River	2	3	3	3	3	3	4	4
Coquitlam River	7	8	8	9	9	10	11	10

### c. Winter Flows (Historic) and Ocean Water Levels

NHC provided winter flows at Hope and its tributaries for AEPs ranging from 1:50 to 1:10,000. Since the combined flows for the smaller tributaries upstream of Mission were provided, these flows were distributed to individual tributaries using a scaling factor based on freshet flows.

**Table 5: Historic Winter Flows of Fraser River at Hope, Mission and Tributaries**

Location	Maximum Daily Winter Flow (m <sup>3</sup> /s) Coincident with Peak Fraser River Flow by AEP							Drainage Area (km <sup>2</sup> )
	1:50	1:100	1:200	1:500	1:1,000	1:5,000	1:10,000	
Fraser River at Hope	5,120	5,520	5,910	6,420	6,800	7,660	8,030	217,000
Harrison River	1,320	1,490	1,670	1,930	2,130	2,650	2,900	7,890
Chilliwack River	510	570	620	690	740	870	920	1,230
Other tributaries between Hope and Mission	780	870	950	1,050	1,140	1,340	1,410	1,880
Fraser River at Mission	7,730	8,450	9,150	10,090	10,810	12,520	13,260	228,000
Stave River	470	530	570	640	690	810	850	1,140
Pitt River	330	370	400	450	480	560	590	795
Alouette River	100	110	120	130	140	170	180	234
Coquitlam River	100	110	120	130	140	170	180	237

Estimates of ocean water levels were provided at North Arm outlet for AEPs from 1:50 to 10,000. Boundary conditions for the Fraser model runs were developed by using the flows at Hope and tributaries, and ocean water levels corresponding to the same AEP. For simplicity, and as recommended by NHC, water levels at North Arm were applied to all four outlets of the Fraser River. Each set of AEP boundary conditions was then run for sea level rise of 0, 0.5, 1.0, 1.5 and 2.0 m.



**Table 6: Ocean Water Levels**

AEP	Water Level (tide+surge) (m GD)	Wind Setup Allowance (m)	Total Water Level SLR=0m (m GD)	Total Water Level SLR=0.5m (m GD)	Total Water Level SLR=1.0m (m GD)	Total Water Level SLR=1.5m (m GD)	Total Water Level SLR=2.0m (m GD)
1:50	2.59	0.01	2.60	3.10	3.60	4.10	4.60
1:100	2.65	0.01	2.66	3.16	3.66	4.16	4.66
1:200	2.70	0.01	2.71	3.21	3.71	4.21	4.71
1:500	2.76	0.01	2.77	3.27	3.77	4.27	4.77
1:1000	2.79	0.01	2.80	3.30	3.80	4.30	4.80
1:5000	2.87	0.01	2.88	3.38	3.88	4.38	4.88
1:10000	2.90	0.01	2.91	3.41	3.91	4.41	4.91

#### d. Climate Change Scenarios

Two climate scenarios were selected by NHC as being representative of “moderate” and “intense” future stream flow changes, respectively. NHC provided projected flows at Hope for both climate scenarios for AEPs ranging from 1:50 to 1:10,000. The flows for the range of AEPs for both scenarios are listed in the following table. For comparison, freshet and winter historic flows are also provided.

**Table 7: Fraser Flows at Hope for a Range of AEPs  
(Historic, Moderate, Intense and Winter)**

Scenario	Maximum Daily Flows (m <sup>3</sup> /s) for Fraser River at Hope by AEP						
	1:50	1:100	1:200	1:500	1:1000	1:5000	1:10,000
Freshet (Historic )	13,400	14,300	15,200	16,500	17,400	19,700	19,700
Freshet (Moderate Climate Change Scenario)	15,500	16,700	18,100	19,900	21,200	24,400	25,700
Freshet (Intense Climate Change Scenario)	17,100	18,700	20,800	23,900	26,200	32,200	34,800
Winter (Historic)	5,120	5,520	5,910	6,420	6,800	7,660	8,030

For both moderate and intense climate scenarios, the boundary conditions of the Fraser River Hydraulic Model were prepared using the flows at Hope for each AEP as listed in the table. Tributary flows were

kept the same as Historical for the corresponding AEPs. For the ocean boundary conditions, similar to freshet historic model runs, a freshet high tide sequence from May 2002 (peak of 1.89 m) was used as the base downstream boundary condition for all freshet model runs. Each set of AEP boundary conditions was then run for sea level rise of 0, 0.5, 1.0, 1.5 and 2.0 m.

### 3. HYDRAULIC MODEL RESULTS

#### Hydraulic Model Background

The ministry's MIKE 11 Fraser River Hydraulic Model was used to determine water level profiles for each of the 140 scenario boundary conditions as described in the previous section. The development of an earlier version of this model is described in a report by Northwest Hydraulic Consultants (2008b). The upstream reach of the model (Hope to Mission) was recently updated based on new bathymetric, LiDAR and calibration data. The version of the model used for these scenario simulations is described in the ministry report, "Fraser River Design Flood Level Update- Hope to Mission, Final Report", March, 2014.

The following modelling assumptions and notes should be kept in mind when looking at the profiles and model output tables:

1. Existing dikes and levees are assumed to be high enough (i.e. the dikes would be raised) to not allow any overflows. This assumption may be reasonable for some of the smaller flood flow scenarios. However, for the more extreme scenarios, dike breaching and spillage over other model boundaries will occur. Actual water levels for these larger flows could vary significantly from the modelled profile, depending on breach location and volume of floodplain storage.
2. The final profiles shown for each AEP (except for Figure 1) are taken by adopting higher of the Freshet and Winter profiles corresponding to the same AEP.
3. There are a few profile irregularities induced by the model's numerical scheme at junctions between side channels and the main stem and at locations with abrupt changes in channel geometry. These irregularities are also magnified by the vertical to horizontal scale distortion of the Figures. These minor bumps do not represent real water surface changes and should be ignored for the purpose of this study.
4. For Fraser River flows at Hope greater than about 23,000 m<sup>3</sup>/s, the Mission CPR Bridge and other bridges create large hydraulic losses. Accurate modelling of these extremely high flows would require more detailed analyses.

#### Results

The hydraulic model results are presented in both graphical and table format. Figures 1 through 12 are flood profile plots showing the sensitivity of flood levels to flow magnitude (i.e. AEP), sea level rise and climate change. Tables 12 through 18 give the complete flood level output for the 140 runs for all 513 cross-sections on the main stem for the 167 km long reach from the ocean upstream to the Town of

Hope. Secondary channel water levels are not presented in this report. Relative differences in flood levels on the secondary channels can be approximated by the differences observed in the adjacent main channel.

To use the model output tables, it is necessary to know the chainage of the cross section nearest the site of interest. Additional tables and figures provide chainages of specific cross-sections and landmarks. Tables 8 through 11 give Fraser main-stem chainages at municipal boundaries and other key locations. The model cross-section chainages can also be determined from the eight orthophoto maps (Figures 13 through 20).

## Descriptions of Figures 1 through 12

**Figure 1 - Example of Winter and Freshet Profile - Historic AEP=1:500 with SLR=0 m** (Historical Flows at Hope: Freshet=16,500 m<sup>3</sup>/s, Winter=6,420 m<sup>3</sup>/s)

The winter profile governs design flood levels (i.e. are higher than) over the freshet profile for the reach downstream of approximately the Alex Fraser Bridge. The freshet profile governs upstream of this point. For visual simplicity, subsequent Figures 2 through 12 just show the combined profile, which is the higher of the winter and freshet profiles for the same AEP. If there is an interest in the full freshet or winter profiles, these are included in Tables 12 through 18.

**Figures 2, 2a, 3, 3a, 4 and 4a - Sensitivity of Fraser River Flood Profiles to Sea Level Rise for AEPs of 1:100, 1:500 and 1:5000**

These figures show how sea level rise could affect the flood profile for the three AEPs selected. The respective freshet flows at Hope for 1:100, 1:500 and 1:5000 are 14,300 m<sup>3</sup>/s, 16,500 m<sup>3</sup>/s, and 19,700 m<sup>3</sup>/s, respectively. Figures 2a, 3a and 4a show the same data drawn at a larger scale, focusing on the lower reaches.

Sea level rise impacts diminish with distance upstream from the Fraser River mouth. For example, the 1:100 flood profiles are shown in Figure 2a. A 1 m sea level rise by the year 2100 (recommended as a provincial guideline - Ausenco Sandwell, 2011) could result in a 0.4m increase in flood level at Kanaka Creek (in Maple Ridge) and a 0.2 to 0.3m increase in flood level at Mission. Upstream from Harrison River, sea level rise would have a negligible impact even under the most extreme scenario of 2 m sea level rise.

As flood flows increase, sea level rise impacts become smaller. For example, at Kanaka Creek, the 1:100 flood profile increases by about 0.4 m for 1 m sea level rise, but this decrease to about 0.22 m for a 1:500 flood.

### **Figures 5, 6 and 7 - Sensitivity of Fraser River Flood Profiles to Watershed Climate Change for AEPs of 1:100, 1:500 and 1:5000 with SLR of 1.0 m**

These figures show how the Historic, Moderate and Intense climate change scenarios (all combined with 1.0 m sea level rise) compare to each other for the three AEPs selected. A few observations:

- Even the Moderate watershed climate change scenario would have the potential to increase the design flood level for much of the Fraser Valley diking system by about one metre.
- The potential flood level impacts of climate change are larger for the more extreme floods. For example at Mission, the Moderate climate change scenario increases the 1:100 flood profile by approximately 0.8 m over the Historical, but the same Moderate scenario increases the 1:500 flood profile by about 1.1 m.
- Climate change scenarios with higher Fraser River flows tend to move the point of intersection of the freshet and winter profiles downstream

### **Figures 8,9 and 10 – Fraser River Flood Profiles for a Range of Annual Exceedance Probabilities (AEPs)**

These figures show how the profile increases as the AEP increases from 1:50 to 1:10,000. Figure 8 is based on the Historic flows and no sea level rise; Figure 9 uses Historic flows and 1.0 m sea level rise; and Figure 10 shows the Moderate scenario with 1.0 m sea level rise. The greatest increases in flood levels are seen in the gently sloping reach below the Harrison River confluence to approximately the Port Mann Bridge.

### **Figure 11 – Comparison of Possible Future Dike Design Profiles to Current Dike Design Profile Based on the 1894 Flow and no Sea Level Rise**

The current provincial standard for Fraser Valley dikes is the flood profile determined using the estimated 1894 flood flow of 17,000 m<sup>3</sup>/s at Hope and the most up to date version of the Fraser River Hydraulic Model. The current standard profile is documented in Northwest Hydraulic Consultants (2008b) for the reach downstream of Mission and in Ministry of Forests Lands and Natural Resource Operations (2014) for the reach from Hope to Mission.

Future dike safety policy decisions may involve setting new standards such that some of the existing dikes would be upgraded to consider sea level rise, watershed climate change and higher AEPs. As in some other jurisdictions such as the Netherlands, it may be appropriate to increase the standard of protection for densely developed urban floodplain areas. In Figure 11, the following profiles are shown:

- 1894 Design Flood with SLR=0 (current standard)
- Historic 1:500 with SLR=1.0m (freshet profile similar to current standard upstream of Port Mann)
- Moderate 1:500 with SLR=1.0 m
- Moderate 1:5000 with SLR=1.0 m

- Moderate 1:10,000 with SLR=2.0 m

The Moderate 1:500 with SLR=1.0 m is a plausible scenario for a future standard that acknowledges both sea level rise and climate change related flows. This scenario raises the current design profile by approximately 1 m for almost all of the diked reach.

The other two profiles may be of interest from risk assessment and long term planning perspectives, however, these profiles are considerably higher (2 to 3 m) than the current design level.

**Figure 12 - Sensitivity of 1:10,000 Fraser River Flood Profile to Watershed Climate Change with Sea Level Rise of 1.0 m**

This figure is included to show some of the model results for flows in the 20,000 to 35,000 m<sup>3</sup>/s range that are considerably larger than the current 1894 design flow of 17,000 m<sup>3</sup>/s at Hope. While these are extremely high flows, they are still within the range of extreme scenarios simulated by River Forecast Centre using the WARNS model.

## Comparison of Flood Level Scenarios for Specific Sites

Tables 12 to 18 present the model output water levels for the main stem of the river for each of the AEPs from 1:50 to 1:10,000, respectively. The format allows the user to determine the water levels at model cross-sections (each identified by its chainage distance in metres from river mouth) or to copy the data to plot any section of the river profile for any of the 140 flood profile scenarios. Because the winter profile for a given AEP is higher than the freshet profile in the lower reaches of the river, the higher of the freshet or winter model runs should be considered. The intersection points of the two profiles generally lie between approximately Patullo Bridge and just downstream of Alex Fraser Bridge.

The following example shows how to compare historic flood levels for a given AEP with potential future sea level rise and climate scenarios. The example location of interest is the municipal boundary between Maple Ridge and Pitt Meadows. We want to consider how much a flood level with an AEP of 1:500 might increase with a sea level rise (SLR) of 1.0 m and a Moderate climate change scenario. The steps to compare the scenarios would be:

1. Table 8 (or Figure 15) gives a cross-section chainage of “53954” for this location (i.e. approximately 54 km from the downstream end of the model).
2. Table 15 gives all the modelled water levels for an AEP of 1:500.
3. Go to the “Freshet Historical” (with SLR of 0 m) column to determine a Historic 1:500 flood water level of 5.84 m (this is close to the current 1894 design level of 6.0 m for this location – from Table 5.1 in NHC 2008b).
4. Go to the “Freshet Historical” (with SLR of 1.0 m) column to determine a level of 6.11 m.
5. **The increase in flood level from SLR of 1.0 m is (6.11 - 5.84 = 0.27) or approximately 0.3 m.**
6. Go to the “Freshet Scenario Moderate” (SLR of 0.0 m) column to determine a level of 6.79m.

7. **The increase in flood level from Moderate climate change (but no sea level rise) is**  $(6.79 - 5.84 = 0.95)$  or **approximately 1.0 m.**
8. Go to the “Freshet Scenario Moderate” (SLR of 1.0) m to determine a level of 7.05 m.
9. **The increase in flood level from the combined effects of both Moderate climate change and sea level rise of 1.0 m is**  $(7.05 - 5.84 = 1.21)$  or **approximately 1.2 m.**

## 4. CONCLUSIONS AND DISCUSSION

### Climate Change Impacts on Extreme Fraser River Flood Flows

The work completed to investigate possible future changes in extreme flood flows on the Fraser River is described in NHC’s report attached as Appendix 1. While uncertainty remains with respect to the scale of potential changes, the analyses indicate that the magnitude and frequency of large floods on the Fraser will most likely increase. The NHC report summary states:

“According to the above estimates, at the end of the century, the 50-year return period event will have a magnitude similar to the 1948 flood under the moderate climate change scenario and similar to the 1894 flood under the intense climate scenario. In other words, the 50-year flood will correspond to an event with present return periods from 200 to 500 years.

The uncertainty of the results should be recognized. However, these results are based on currently accepted methods for projecting climate change impacts on stream flows. The results suggest potential large deviations from the APEGBC (2012) recommended 10% increase in design flows to account for climate change impacts by the end of the century. The results from the majority of models reviewed in this study suggest that the APEGBC guideline may be on the low side for some watersheds.”

### Hydraulic Modelling of Scenarios

Sea level rise within the range of scenarios considered (0.5 m to 2 m) can have a significant effect on flood levels and dike design profiles as far upstream as the Sumas River confluence (approximately 15 km upstream from Mission). Potential sea level rise impacts upstream of this vicinity are small because of the increasing slope of the river channel. Therefore, communities in the middle and lower Fraser Valley will need to consider sea level rise as part of long term flood management planning.

The Fraser River channel between Hope and Mission is largely confined by dikes or high ground, limiting the “room for the river” and limiting additional areas for flow conveyance and/or flood water storage during large floods. Assuming that existing dikes are raised to prevent overflows into developed areas, the modelling confirms that Fraser River flood levels are sensitive to increases in upstream and tributary flows. Any increase in design flows due to climate change could result in significantly higher flood levels.

For example, the moderate climate change scenario increased the 1:500 AEP flow at Hope by about 21% (3,400 m<sup>3</sup>/s) and this resulted in more than 1 m increase (8.7 m to 10.0 m geodetic) in the flood level at Mission (cross-section 85758) without consideration of sea level rise. A sea level rise of 1.0 m would further increase the flood level at Mission for this scenario by about 0.1 m.

## Discussion

The flood water level profiles provided in this report can be used for improving understanding of the significance of climate change impacts on Fraser River flooding and the implications for flood risk management. Until better information is available, the results from this study can be used to support preliminary quantitative flood risk analyses, floodplain development planning and dike upgrade planning.

The 1968 to 1994 Fraser River Flood Control Program (FRFCP) regarded the dikes re-constructed to the 1969 design profile, which is about 1 m lower than the current (NHC 2008 and FLNRO 2014) profile, to "... approach the practical maximum degree of protection that can be provided..." by the diking system in the Fraser Valley. Overcoming the geotechnical and engineering challenges to increase dike reliability was considered to be cost prohibitive, given erosion potential, soil conditions and seismic risk. Therefore, upstream storage, river diversions (i.e. the McGregor River Diversion) and floodplain development control were also deemed essential as part of an integrated plan to address the flood risk (Fraser River Joint Advisory Board, 1976).

Given that the moderate climate change scenario with a 1.0 m sea level rise results in the order of a 1 m or more increase in design flood level for the entire Fraser Valley (approx. 2 m higher than the FRFCP profile) it may be necessary to re-open the discussion of other flood management strategies in addition to higher and safer dikes.

Future work is necessary to reduce uncertainties, particularly with respect to climate change impacts on extreme Fraser River flood flows. NHC (see Appendix 1) suggests a number of different tasks that should be prioritized and completed. Given the significant implications of this preliminary study, a coordinated long term applied research program is warranted.

## REFERENCES

1. Fraser Basin Council, 2013, “A Business Plan – Advancing a Collaborative, Regional Approach to Flood Management in British Columbia’s Lower Mainland”, Vancouver, BC, final draft August 2013.
2. Northwest Hydraulic Consultants Ltd. 2008a “Comprehensive Review of Fraser River at Hope Flood Hydrology and Flows – Scoping Study” Final Report for BC Ministry of Environment, October 2008
3. Northwest Hydraulic Consultants Ltd. 2008b “Fraser River Hydraulic Model Update” Report for BC Ministry of Environment, March 2008
4. Northwest Hydraulic Consultants Ltd. 2014 “Simulating the Effects of Sea Level Rise and Climate Change on Fraser River Flood Scenarios” Report for BC Ministry of Forests, Lands and Natural Resource Operations, April 2014 – **Attached as Appendix 1**
5. Northwest Hydraulic Consultants Ltd. 2006 “Final Report – Lower Fraser River Hydraulic Model” Report for Fraser Basin Council, December 2006
6. Ministry of Forests Lands and Natural Resource Operations 2014, “Fraser River Design Flood Level Update – Hope to Mission, Final Report” Flood Safety Section, Water Management Branch, April 2014.
7. Ausenco Sandwell 2011 “Climate Change Adaptation Guidelines for Sea Dikes and Coastal Flood Hazard Land Use” Report for BC Ministry of Environment, January 2011.
8. Fraser River Joint Advisory Board 1976 “Fraser River Upstream Storage Review Report” Canada-British Columbia Fraser River Joint Advisory Board, Victoria, December, 1976



**Table 8: Chainages at Municipal Boundaries - North of Fraser River (Sand Reach)**

Municipality / Diking District	Location	Mike11 Chainage	
North Fraser			
City of New Westminster	Coquitlam border	'FRASER'	37528
City of Coquitlam	Burnaby border	'FRASER'	37528
	Port Coquitlam border	'FRASER'	42617
City of Port Coquitlam	Coquitlam border	'FRASER'	42617
District of Pitt Meadows	Maple Ridge border	'FRASER'	53954
District of Maple Ridge	Pitt Meadows border	'FRASER'	53954
	Whonnock Creek	'FRASER'	71256
	Mission border	'FRASER'	73842
District of Mission	Maple Ridge border	'FRASER'	73842
	Silverdale Creek	'FRASER'	80578
	Mission bridge	'FRASER'	85182

**Table 9: Chainages at Municipal Boundaries - South of Fraser River (Sand Reach)**

Municipality / Diking District	Location	Mike11 Chainage	
South Fraser			
Corporation of Delta	Massey Tunnel	'FRASER'	18117
	Surrey border	'FRASER'	31926
	Westham Island: Reifel Island at Ladner Reach	'FRASER'	9650
City of Richmond	Steveston, Garry Point Park	'FRASER'	7589
	Massey Tunnel	'FRASER'	18117
City of New Westminster	Trifurcation	'FRASER'	34089
City of Surrey	Delta border	'FRASER'	31926
Township of Langley	Abbotsford border	'FRASER'	70804
City of Abbotsford	Langley border	'FRASER'	70804
	Mission Bridge	'FRASER'	85182

Note: Table 8 and 9 municipal boundary chainages are taken from Northwest Hydraulic Consultants (2008b)

**Table 10: Chainages at Municipal Boundaries - North of Fraser River  
(Gravel Reach)**

Municipality / Diking District	Location	Mike11 Chainage	
North Fraser			
District of Mission	Mission Bridge	FRASER_R	85400
	FVRD Electoral Area G border	FRASER_R	89916
FVRD Electoral Area G	Mission border	FRASER_R	89916
	Downstream end Nicomen Island	FRASER_R	95477
	FVRD Electoral Area C border	FRASER_R	107158
FVRD Electoral Area C	FVRD Electoral Area G border	FRASER_R	107158
	District of Kent border (Harrison River)	FRASER_R	117465
District of Kent	FVRD Electoral Area C border	FRASER_R	117465
	Upstream of Agassiz Bridge	FRASER_R	130624
	Maria Slough	FRASER_R	135327
Seabird First Nation	Maria Slough	FRASER_R	135327
	Upstream end Seabird Island	FRASER_R	147036
FVRD Electoral District C	Upstream end Seabird Island	FRASER_R	147036
	Laidlaw	FRASER_R	153743

**Table 11. Chainages at Municipal Boundaries - South of Fraser River  
(Gravel Reach)**

Municipality / Diking District	Location	Mike11 Chainage	
South Fraser			
City of Abbotsford	Mission Bridge	FRASER_R	85400
City of Abbotsford	FVRD Electoral Area H border	FRASER_R	92893
FVRD Electoral Area H	Abbotsford border	FRASER_R	92893
FVRD Electoral Area H	Chilliwack border	FRASER_R	99955
City of Chilliwack	FVRD Electoral Area H border	FRASER_R	99955
City of Chilliwack	FVRD Electoral Area D border	FRASER_R	129916
FVRD Electoral Area D	Chilliwack border	FRASER_R	129916
FVRD Electoral Area D	Upstream of Agassiz Bridge	FRASER_R	130624
FVRD Electoral Area D	FVRD Electoral Area B border	FRASER_R	144910
FVRD Electoral Area B	Electoral Area D border	FRASER_R	144910
FVRD Electoral Area B	Laidlaw	FRASER_R	153743

Table 12: Hydraulic Model Runs for AEP = 1:50

Historical 1:50							Scenario-A (Moderate) 1:50					Scenario-B (Intense) 1:50					Winter 1:50				
Chainage	Branch	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
-1545	Fraser	1.85	2.35	2.85	3.35	3.85	1.85	2.35	2.85	3.35	3.85	1.85	2.35	2.85	3.35	3.85	2.59	3.09	3.59	4.09	4.59
-1182	Fraser	1.86	2.35	2.85	3.35	3.85	1.86	2.35	2.85	3.35	3.85	1.86	2.35	2.85	3.35	3.85	2.59	3.09	3.59	4.09	4.59
944	Fraser	1.85	2.35	2.84	3.34	3.85	1.85	2.35	2.84	3.34	3.85	1.85	2.35	2.84	3.34	3.85	2.59	3.09	3.59	4.08	4.59
2838	Fraser	1.83	2.34	2.83	3.33	3.85	1.84	2.34	2.83	3.33	3.84	1.84	2.34	2.83	3.33	3.84	2.58	3.08	3.58	4.09	4.60
3069	Fraser	1.83	2.33	2.83	3.33	3.85	1.83	2.34	2.83	3.33	3.84	1.84	2.34	2.83	3.33	3.84	2.58	3.08	3.58	4.09	4.60
3069	Fraser	1.83	2.33	2.83	3.33	3.85	1.83	2.34	2.83	3.33	3.84	1.84	2.34	2.83	3.33	3.84	2.58	3.08	3.58	4.09	4.60
3853	Fraser	1.83	2.33	2.83	3.33	3.84	1.83	2.33	2.83	3.33	3.84	1.83	2.34	2.83	3.33	3.84	2.58	3.08	3.59	4.09	4.60
4348	Fraser	1.82	2.33	2.83	3.33	3.84	1.83	2.33	2.83	3.33	3.84	1.83	2.34	2.83	3.33	3.84	2.58	3.08	3.59	4.09	4.60
4930	Fraser	1.80	2.31	2.81	3.32	3.83	1.79	2.30	2.81	3.31	3.82	1.79	2.30	2.80	3.31	3.82	2.58	3.08	3.59	4.09	4.60
5477	Fraser	1.80	2.31	2.82	3.32	3.84	1.80	2.31	2.81	3.32	3.83	1.80	2.31	2.81	3.32	3.82	2.58	3.08	3.59	4.09	4.60
5923	Fraser	1.80	2.31	2.82	3.32	3.84	1.80	2.31	2.81	3.32	3.83	1.80	2.31	2.81	3.32	3.82	2.58	3.08	3.59	4.09	4.60
6357	Fraser	1.80	2.31	2.81	3.32	3.84	1.80	2.30	2.81	3.32	3.83	1.80	2.31	2.81	3.32	3.82	2.58	3.08	3.59	4.09	4.60
6768	Fraser	1.80	2.30	2.81	3.32	3.83	1.80	2.30	2.81	3.31	3.83	1.80	2.30	2.80	3.31	3.82	2.58	3.08	3.59	4.09	4.60
7173	Fraser	1.81	2.31	2.81	3.32	3.84	1.81	2.31	2.81	3.32	3.83	1.81	2.32	2.81	3.32	3.83	2.57	3.08	3.59	4.09	4.60
7589	Fraser	1.81	2.31	2.81	3.32	3.84	1.82	2.31	2.81	3.32	3.83	1.82	2.32	2.81	3.32	3.83	2.57	3.08	3.59	4.09	4.60
7944	Fraser	1.81	2.31	2.81	3.32	3.84	1.81	2.31	2.81	3.32	3.83	1.81	2.31	2.81	3.32	3.83	2.57	3.08	3.59	4.09	4.60
8357	Fraser	1.82	2.31	2.81	3.32	3.84	1.82	2.31	2.81	3.32	3.83	1.82	2.32	2.81	3.32	3.83	2.57	3.08	3.59	4.09	4.60
8676	Fraser	1.83	2.32	2.81	3.32	3.84	1.83	2.32	2.82	3.32	3.84	1.83	2.33	2.82	3.32	3.84	2.57	3.08	3.59	4.09	4.60
8676	Fraser	1.83	2.32	2.81	3.32	3.84	1.83	2.32	2.82	3.32	3.84	1.83	2.33	2.82	3.32	3.84	2.57	3.08	3.59	4.09	4.60
9163	Fraser	1.84	2.33	2.82	3.33	3.85	1.85	2.34	2.83	3.33	3.84	1.86	2.35	2.83	3.34	3.85	2.57	3.08	3.59	4.09	4.60
9394	Fraser	1.85	2.33	2.82	3.33	3.85	1.86	2.34	2.83	3.33	3.85	1.86	2.35	2.84	3.34	3.85	2.57	3.08	3.59	4.09	4.60
9394	Fraser	1.85	2.33	2.82	3.33	3.85	1.86	2.34	2.83	3.33	3.85	1.86	2.35	2.84	3.34	3.85	2.57	3.08	3.59	4.09	4.60
9650	Fraser	1.85	2.33	2.82	3.33	3.85	1.86	2.34	2.83	3.33	3.84	1.86	2.35	2.84	3.34	3.85	2.57	3.08	3.59	4.09	4.60
10067	Fraser	1.85	2.34	2.82	3.33	3.84	1.86	2.35	2.83	3.33	3.84	1.87	2.36	2.84	3.34	3.85	2.57	3.08	3.59	4.09	4.59
10364	Fraser	1.86	2.35	2.83	3.33	3.85	1.88	2.36	2.84	3.34	3.85	1.89	2.37	2.86	3.35	3.86	2.58	3.08	3.59	4.09	4.59
10578	Fraser	1.87	2.36	2.84	3.34	3.85	1.89	2.37	2.85	3.35	3.85	1.91	2.38	2.86	3.36	3.86	2.58	3.08	3.59	4.09	4.59
10578	Fraser	1.87	2.36	2.84	3.34	3.85	1.89	2.37	2.85	3.35	3.85	1.91	2.38	2.86	3.36	3.86	2.58	3.08	3.59	4.09	4.59
11183	Fraser	1.86	2.35	2.83	3.33	3.84	1.88	2.36	2.84	3.34	3.84	1.89	2.37	2.85	3.34	3.85	2.58	3.08	3.59	4.08	4.59
11579	Fraser	1.88	2.37	2.85	3.34	3.85	1.91	2.39	2.86	3.35	3.85	1.94	2.40	2.88	3.36	3.87	2.58	3.08	3.59	4.08	4.59
11980	Fraser	1.90	2.38	2.86	3.35	3.86	1.95	2.41	2.88	3.36	3.86	1.98	2.44	2.90	3.38	3.88	2.59	3.08	3.59	4.08	4.59
11980	Fraser	1.90	2.38	2.86	3.35	3.86	1.95	2.41	2.88	3.36	3.86	1.98	2.44	2.90	3.38	3.88	2.59	3.08	3.59	4.08	4.59
12389	Fraser	1.91	2.39	2.86	3.35	3.86	1.96	2.42	2.89	3.37	3.87	2.00	2.45	2.91	3.39	3.89	2.59	3.08	3.59	4.08	4.59
12780	Fraser	1.91	2.39	2.86	3.35	3.86	1.96	2.42	2.89	3.37	3.86	2.00	2.45	2.91	3.38	3.88	2.59	3.09	3.58	4.08	4.59
13186	Fraser	1.93	2.40	2.87	3.36	3.86	1.99	2.44	2.90	3.38	3.87	2.03	2.48	2.93	3.40	3.90	2.59	3.09	3.58	4.08	4.59
13598	Fraser	1.95	2.41	2.88	3.37	3.86	2.01	2.46	2.91	3.39	3.87	2.06	2.50	2.95	3.41	3.91	2.60	3.09	3.58	4.08	4.59
14005	Fraser	1.97	2.43	2.90	3.38	3.87	2.05	2.49	2.94	3.40	3.88	2.10	2.54	2.98	3.43	3.92	2.60	3.09	3.58	4.08	4.59
14401	Fraser	2.01	2.47	2.93	3.39	3.89	2.10	2.54	2.98	3.44	3.92	2.17	2.60	3.03	3.47	3.95	2.60	3.09	3.58	4.08	4.59
14813	Fraser	2.03	2.48	2.94	3.40	3.90	2.12	2.56	3.00	3.46	3.93	2.20	2.62	3.05	3.49	3.96	2.61	3.10	3.58	4.08	4.59
15210	Fraser	2.04	2.49	2.95	3.41	3.90	2.14	2.57	3.01	3.47	3.93	2.21	2.64	3.06	3.50	3.96	2.61	3.10	3.58	4.07	4.59
15575	Fraser	2.05	2.51	2.96	3.42	3.91	2.16	2.59	3.02	3.48	3.94	2.24	2.65	3.08	3.51	3.97	2.61	3.10	3.58	4.07	4.59
15978	Fraser	2.07	2.52	2.97	3.43	3.91	2.17	2.60	3.04	3.49	3.95	2.25	2.67	3.09	3.52	3.98	2.62	3.11	3.59	4.07	4.59
16443	Fraser	2.10	2.55	3.00	3.45	3.93	2.22	2.64	3.07	3.52	3.97	2.31	2.72	3.14	3.56	4.01	2.62	3.11	3.59	4.07	4.59
16846	Fraser	2.12	2.57	3.02	3.46	3.94	2.25	2.67	3.09	3.54	3.99	2.35	2.75	3.17	3.58	4.03	2.62	3.11	3.59	4.06	4.58
17214	Fraser	2.15	2.59	3.04	3.48	3.95	2.29	2.70	3.12	3.57	4.01	2.40	2.79	3.20	3.62	4.06	2.62	3.11	3.59	4.06	4.58
17513	Fraser	2.15	2.59	3.04	3.48	3.95	2.29	2.70	3.12	3.56	4.01	2.40	2.79	3.20	3.61	4.05	2.62	3.11	3.59	4.06	4.58
17513	Fraser	2.15	2.59	3.04	3.48	3.95	2.29	2.70	3.12	3.56	4.01	2.40	2.79	3.20	3.61	4.05	2.62	3.11	3.59	4.06	4.58
18117	Fraser	2.16	2.60	3.04	3.49	3.95	2.29	2.71	3.13	3.57	4.02	2.40	2.80	3.20	3.62	4.06	2.63	3.11	3.60	4.06	4.58
18508	Fraser	2.19	2.63	3.08	3.52	3.98	2.35	2.76	3.17	3.61	4.05	2.47	2.86	3.26	3.67	4.11	2.63	3.12	3.60	4.06	4.58
18921	Fraser	2.21	2.65	3.09	3.53	3.98	2.38	2.78	3.19	3.63	4.06	2.50	2.88	3.28	3.69	4.12	2.64	3.12	3.60	4.06	4.58
19322	Fraser	2.24	2.67	3.11	3.55	4.00	2.41	2.81	3.22	3.65	4.08	2.55	2.92	3.32	3.72	4.14	2.64	3.12	3.61	4.06	4.58
19727	Fraser	2.26	2.69	3.13	3.56	4.01	2.45	2.84	3.24	3.67	4.10	2.59	2.96	3.35	3.75	4.16	2.65	3.12	3.61	4.06	4.59
20127	Fraser	2.28	2.71	3.14	3.57	4.02	2.47	2.86	3.26	3.69	4.11	2.61	2.98	3.37	3.77	4.18	2.65	3.13	3.61	4.07	4.59
20524	Fraser	2.30	2.72	3.15	3.58	4.03	2.49	2.88	3.28	3.70	4.12	2.64	3.00	3.39	3.78	4.19	2.65	3.13	3.61	4.07	4.59
20919	Fraser	2.31	2.73	3.16	3.59	4.04	2.51	2.90	3.29	3.72	4.14	2.67	3.03	3.41	3.80	4.21	2.66	3.13	3.62	4.07	4.59
21371	Fraser	2.33	2.74	3.18	3.60	4.05	2.53	2.91	3.31	3.73	4.15	2.69	3.05	3.43	3.82	4.22	2.66	3.14	3.62	4.07	4.59

Historical 1:50							Scenario-A (Moderate) 1:50					Scenario-B (Intense) 1:50					Winter 1:50				
Chainage	Branch	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
21806	Fraser	2.35	2.76	3.19	3.61	4.06	2.55	2.93	3.33	3.75	4.16	2.72	3.07	3.45	3.83	4.24	2.67	3.14	3.62	4.07	4.60
22195	Fraser	2.36	2.77	3.20	3.62	4.06	2.57	2.95	3.34	3.76	4.17	2.74	3.09	3.46	3.85	4.25	2.67	3.15	3.63	4.07	4.60
22562	Fraser	2.37	2.78	3.21	3.63	4.07	2.59	2.97	3.35	3.77	4.18	2.76	3.11	3.48	3.87	4.26	2.67	3.15	3.63	4.07	4.60
22978	Fraser	2.38	2.79	3.22	3.64	4.08	2.60	2.98	3.36	3.78	4.19	2.77	3.12	3.49	3.88	4.28	2.68	3.16	3.63	4.08	4.60
23375	Fraser	2.39	2.80	3.22	3.65	4.09	2.61	2.98	3.37	3.78	4.19	2.78	3.12	3.50	3.88	4.28	2.68	3.16	3.64	4.08	4.60
23763	Fraser	2.40	2.81	3.23	3.66	4.10	2.63	3.00	3.38	3.80	4.20	2.80	3.14	3.52	3.90	4.30	2.68	3.17	3.64	4.09	4.61
24152	Fraser	2.43	2.83	3.25	3.68	4.11	2.66	3.03	3.41	3.82	4.23	2.84	3.18	3.55	3.93	4.33	2.68	3.18	3.64	4.09	4.61
24575	Fraser	2.45	2.85	3.27	3.70	4.13	2.69	3.06	3.44	3.84	4.25	2.88	3.21	3.58	3.96	4.35	2.68	3.18	3.65	4.10	4.61
24914	Fraser	2.49	2.89	3.30	3.72	4.15	2.74	3.10	3.48	3.88	4.28	2.94	3.27	3.63	4.01	4.39	2.69	3.18	3.65	4.11	4.62
25370	Fraser	2.51	2.91	3.31	3.74	4.16	2.77	3.13	3.50	3.90	4.29	2.98	3.30	3.66	4.04	4.41	2.69	3.18	3.66	4.12	4.62
25568	Fraser	2.52	2.91	3.32	3.74	4.17	2.78	3.14	3.51	3.91	4.30	2.99	3.31	3.67	4.04	4.42	2.69	3.18	3.66	4.12	4.62
25568	Fraser	2.52	2.91	3.32	3.74	4.17	2.78	3.14	3.51	3.91	4.30	2.99	3.31	3.67	4.04	4.42	2.69	3.18	3.66	4.12	4.62
25857	Fraser	2.52	2.92	3.32	3.74	4.17	2.79	3.14	3.51	3.91	4.30	2.99	3.32	3.68	4.05	4.42	2.69	3.18	3.66	4.12	4.63
26350	Fraser	2.52	2.91	3.32	3.74	4.17	2.78	3.14	3.51	3.91	4.30	2.99	3.31	3.67	4.04	4.42	2.70	3.19	3.66	4.13	4.63
26754	Fraser	2.53	2.93	3.32	3.75	4.18	2.80	3.15	3.52	3.91	4.31	3.00	3.32	3.69	4.05	4.43	2.70	3.19	3.66	4.14	4.64
27194	Fraser	2.55	2.94	3.33	3.76	4.19	2.82	3.17	3.54	3.93	4.32	3.03	3.34	3.71	4.07	4.44	2.70	3.20	3.67	4.15	4.65
27582	Fraser	2.57	2.95	3.35	3.77	4.20	2.84	3.19	3.56	3.94	4.33	3.05	3.37	3.73	4.09	4.46	2.71	3.20	3.67	4.15	4.66
28002	Fraser	2.59	2.97	3.36	3.79	4.21	2.86	3.21	3.58	3.96	4.34	3.08	3.39	3.75	4.11	4.48	2.71	3.21	3.68	4.16	4.66
28369	Fraser	2.62	3.00	3.39	3.81	4.23	2.91	3.25	3.62	3.99	4.37	3.14	3.45	3.80	4.15	4.52	2.72	3.21	3.69	4.17	4.67
28768	Fraser	2.64	3.02	3.40	3.82	4.24	2.93	3.27	3.64	4.00	4.39	3.17	3.47	3.82	4.16	4.53	2.72	3.22	3.69	4.17	4.68
29120	Fraser	2.62	3.00	3.38	3.81	4.23	2.90	3.24	3.61	3.99	4.37	3.13	3.44	3.79	4.14	4.51	2.73	3.22	3.70	4.18	4.69
29504	Fraser	2.68	3.06	3.45	3.86	4.28	2.99	3.34	3.68	4.06	4.44	3.25	3.54	3.88	4.23	4.57	2.73	3.23	3.70	4.16	4.67
29883	Fraser	2.72	3.10	3.47	3.88	4.30	3.04	3.38	3.72	4.09	4.47	3.31	3.60	3.93	4.27	4.61	2.74	3.23	3.70	4.17	4.68
30284	Fraser	2.73	3.11	3.48	3.89	4.30	3.06	3.40	3.73	4.10	4.48	3.33	3.61	3.94	4.28	4.62	2.75	3.24	3.71	4.18	4.69
30647	Fraser	2.78	3.15	3.52	3.92	4.33	3.12	3.45	3.78	4.15	4.52	3.41	3.68	4.01	4.34	4.67	2.75	3.24	3.72	4.18	4.70
31045	Fraser	2.81	3.17	3.54	3.94	4.35	3.15	3.48	3.81	4.17	4.54	3.45	3.72	4.05	4.37	4.70	2.76	3.25	3.72	4.19	4.71
31525	Fraser	2.82	3.18	3.55	3.94	4.36	3.17	3.50	3.83	4.18	4.56	3.47	3.74	4.06	4.39	4.72	2.76	3.25	3.73	4.19	4.71
31926	Fraser	2.84	3.20	3.56	3.95	4.37	3.19	3.52	3.85	4.20	4.57	3.49	3.76	4.08	4.40	4.73	2.76	3.26	3.74	4.19	4.72
32332	Fraser	2.87	3.22	3.58	3.97	4.38	3.23	3.55	3.87	4.22	4.60	3.54	3.80	4.12	4.44	4.76	2.77	3.26	3.74	4.20	4.73
32742	Fraser	2.91	3.25	3.61	4.00	4.40	3.29	3.59	3.92	4.26	4.63	3.61	3.86	4.17	4.48	4.80	2.77	3.27	3.74	4.20	4.73
32742	Fraser	2.91	3.25	3.61	4.00	4.40	3.29	3.59	3.92	4.26	4.63	3.61	3.86	4.17	4.48	4.80	2.77	3.27	3.74	4.20	4.73
33139	Fraser	2.87	3.22	3.58	3.97	4.39	3.24	3.55	3.88	4.23	4.60	3.54	3.80	4.12	4.44	4.77	2.78	3.27	3.75	4.21	4.73
33543	Fraser	2.89	3.23	3.59	3.98	4.39	3.27	3.56	3.89	4.24	4.62	3.57	3.82	4.14	4.46	4.78	2.78	3.27	3.75	4.21	4.73
33883	Fraser	2.86	3.21	3.57	3.97	4.38	3.22	3.53	3.86	4.21	4.59	3.52	3.78	4.10	4.42	4.75	2.78	3.27	3.75	4.21	4.73
34089	Fraser	2.87	3.21	3.58	3.97	4.38	3.23	3.53	3.87	4.22	4.60	3.54	3.79	4.11	4.43	4.76	2.79	3.28	3.76	4.21	4.74
34089	Fraser	2.87	3.21	3.58	3.97	4.38	3.23	3.53	3.87	4.22	4.60	3.54	3.79	4.11	4.43	4.76	2.79	3.28	3.76	4.21	4.74
34247	Fraser	2.97	3.30	3.65	4.03	4.43	3.38	3.66	3.98	4.31	4.68	3.71	3.95	4.25	4.55	4.86	2.79	3.28	3.76	4.22	4.74
34655	Fraser	2.98	3.31	3.66	4.04	4.44	3.40	3.67	3.99	4.32	4.69	3.73	3.97	4.26	4.57	4.87	2.79	3.28	3.76	4.22	4.74
35038	Fraser	3.02	3.34	3.69	4.06	4.46	3.46	3.73	4.04	4.36	4.73	3.81	4.04	4.33	4.62	4.92	2.79	3.28	3.76	4.22	4.75
35038	Fraser	3.02	3.34	3.69	4.06	4.46	3.46	3.73	4.04	4.36	4.73	3.81	4.04	4.33	4.62	4.92	2.79	3.28	3.76	4.22	4.75
35451	Fraser	3.05	3.36	3.70	4.08	4.47	3.50	3.76	4.07	4.39	4.74	3.85	4.08	4.36	4.65	4.95	2.79	3.28	3.77	4.23	4.75
35650	Fraser	3.14	3.45	3.79	4.15	4.53	3.60	3.87	4.17	4.48	4.80	3.96	4.19	4.46	4.74	5.03	2.84	3.32	3.79	4.26	4.77
35920	Fraser	3.14	3.44	3.79	4.15	4.53	3.60	3.87	4.17	4.48	4.99	3.96	4.19	4.46	4.74	5.03	2.84	3.32	3.80	4.26	4.78
35992	Fraser	3.16	3.45	3.80	4.16	4.53	3.63	3.89	4.18	4.48	4.81	3.99	4.23	4.47	4.74	5.16	2.84	3.32	3.80	4.26	4.67
36247	Fraser	3.17	3.46	3.81	4.16	4.53	3.65	3.91	4.20	4.49	4.81	4.01	4.25	4.48	4.76	5.17	2.84	3.33	3.80	4.26	4.67
36247	Fraser	3.17	3.46	3.81	4.16	4.53	3.65	3.91	4.20	4.49	4.81	4.01	4.25	4.48	4.76	5.17	2.84	3.33	3.80	4.26	4.67
36357	Fraser	3.19	3.48	3.82	4.17	4.54	3.67	3.93	4.21	4.51	4.82	4.04	4.27	4.50	4.77	5.18	2.84	3.33	3.80	4.26	4.67
36736	Fraser	3.16	3.45	3.80	4.15	4.52	3.63	3.89	4.19	4.48	4.81	3.99	4.23	4.47	4.74	5.16	2.84	3.33	3.80	4.26	4.67
37139	Fraser	3.15	3.45	3.80	4.15	4.52	3.62	3.88	4.18	4.48	4.80	3.98	4.22	4.46	4.73	5.15	2.84	3.33	3.80	4.26	4.67
37528	Fraser	3.17	3.46	3.81	4.16	4.52	3.65	3.91	4.20	4.49	4.81	4.01	4.25	4.48	4.75	5.17	2.84	3.33	3.80	4.26	4.68
37939	Fraser	3.19	3.48	3.83	4.17	4.53	3.68	3.93	4.22	4.51	4.83	4.05	4.28	4.51	4.78	5.19	2.85	3.33	3.81	4.26	4.68
38352	Fraser	3.22	3.51	3.84	4.19	4.54	3.72	3.97	4.24	4.54	4.85	4.09	4.32	4.54	4.81	5.21	2.85	3.33	3.81	4.26	4.69
38759	Fraser	3.21	3.50	3.84	4.18	4.54	3.71	3.96	4.24	4.53	4.85	4.08	4.31	4.53	4.80	5.20	2.85	3.33	3.81	4.26	4.69
39151	Fraser	3.26	3.55	3.87	4.21	4.57	3.77	4.02	4.28	4.57	4.88	4.15	4.37	4.60	4.86	5.25	2.85	3.33	3.81	4.26	4.69
39490	Fraser	3.22	3.51	3.84	4.19	4.55	3.72	3.97	4.24	4.54	4.86	4.09	4.32	4.55	4.82	5.22	2.84	3.33	3.81	4.27	4.69
39926	Fraser	3.37	3.65	3.96	4.28	4.62	3.90	4.14	4.38	4.67	4.96	4.29	4.51	4.73	4.98	5.33	2.84	3.33	3.81	4.27	4.69











Historical 1:50							Scenario-A (Moderate) 1:50					Scenario-B (Intense) 1:50					Winter 1:50				
Chainage	Branch	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
114093	Fraser_R	10.99	11.01	11.03	11.06	11.09	11.60	11.62	11.63	11.67	11.69	12.04	12.05	12.07	12.09	12.13	8.57	8.58	8.61	8.64	8.68
114403	Fraser_R	11.04	11.05	11.07	11.10	11.13	11.63	11.64	11.65	11.69	11.70	12.04	12.06	12.08	12.10	12.13	8.68	8.69	8.71	8.74	8.78
114731	Fraser_R	11.29	11.30	11.32	11.35	11.38	11.89	11.91	11.92	11.95	11.97	12.33	12.34	12.36	12.37	12.40	8.84	8.85	8.87	8.90	8.93
115152	Fraser_R	11.41	11.43	11.44	11.47	11.50	12.02	12.04	12.05	12.08	12.09	12.46	12.47	12.49	12.51	12.53	8.91	8.93	8.95	8.97	9.01
115530	Fraser_R	11.50	11.51	11.53	11.56	11.58	12.11	12.13	12.14	12.17	12.18	12.55	12.57	12.58	12.60	12.62	9.00	9.01	9.03	9.05	9.08
115921	Fraser_R	11.58	11.60	11.61	11.64	11.66	12.21	12.22	12.23	12.26	12.28	12.66	12.67	12.68	12.70	12.73	9.06	9.08	9.09	9.12	9.15
116277	Fraser_R	11.66	11.68	11.69	11.71	11.74	12.25	12.26	12.27	12.30	12.31	12.67	12.69	12.70	12.72	12.74	9.20	9.21	9.23	9.25	9.28
116526	Fraser_R	11.73	11.74	11.76	11.78	11.80	12.33	12.34	12.34	12.37	12.39	12.75	12.76	12.78	12.79	12.82	9.26	9.27	9.29	9.31	9.33
116822	Fraser_R	12.13	12.14	12.16	12.17	12.19	12.77	12.78	12.78	12.81	12.82	13.23	13.24	13.25	13.26	13.28	9.50	9.51	9.52	9.54	9.56
117205	Fraser_R	12.37	12.38	12.40	12.41	12.43	13.02	13.03	13.04	13.06	13.07	13.49	13.50	13.51	13.52	13.54	9.66	9.67	9.68	9.70	9.72
117465	Fraser_R	12.41	12.42	12.43	12.45	12.46	13.05	13.06	13.07	13.09	13.10	13.52	13.53	13.54	13.55	13.57	9.69	9.70	9.71	9.73	9.75
117465	Fraser_R	12.41	12.42	12.43	12.45	12.46	13.05	13.06	13.07	13.09	13.10	13.52	13.53	13.54	13.55	13.57	9.69	9.70	9.71	9.73	9.75
117693	Fraser_R	12.38	12.39	12.40	12.42	12.43	13.02	13.03	13.03	13.06	13.07	13.48	13.49	13.50	13.51	13.53	9.68	9.69	9.70	9.72	9.74
117965	Fraser_R	12.40	12.41	12.42	12.44	12.46	13.04	13.05	13.05	13.07	13.09	13.50	13.51	13.52	13.53	13.55	9.73	9.74	9.75	9.77	9.79
118227	Fraser_R	12.39	12.40	12.41	12.43	12.45	13.01	13.02	13.03	13.05	13.06	13.46	13.47	13.48	13.49	13.51	9.78	9.79	9.80	9.81	9.83
118629	Fraser_R	12.58	12.59	12.60	12.62	12.63	13.20	13.21	13.21	13.23	13.24	13.65	13.65	13.66	13.67	13.69	9.92	9.92	9.93	9.95	9.96
119023	Fraser_R	12.85	12.85	12.86	12.88	12.89	13.46	13.47	13.48	13.49	13.50	13.91	13.92	13.93	13.94	13.95	10.14	10.14	10.15	10.16	10.18
119296	Fraser_R	12.86	12.87	12.87	12.89	12.90	13.47	13.48	13.49	13.50	13.51	13.92	13.93	13.94	13.95	13.96	10.15	10.15	10.16	10.17	10.19
119296	Fraser_R	12.86	12.87	12.87	12.89	12.90	13.47	13.48	13.49	13.50	13.51	13.92	13.93	13.94	13.95	13.96	10.15	10.15	10.16	10.17	10.19
119760	Fraser_R	13.14	13.15	13.15	13.17	13.18	13.77	13.78	13.78	13.79	13.80	14.22	14.23	14.24	14.25	14.26	10.32	10.33	10.34	10.35	10.36
120109	Fraser_R	13.20	13.20	13.21	13.22	13.23	13.81	13.82	13.82	13.84	13.85	14.26	14.26	14.27	14.28	14.29	10.42	10.42	10.43	10.44	10.45
120552	Fraser_R	13.42	13.43	13.43	13.44	13.45	14.04	14.05	14.05	14.06	14.07	14.49	14.49	14.50	14.50	14.52	10.57	10.58	10.58	10.59	10.60
120979	Fraser_R	13.61	13.62	13.62	13.63	13.64	14.23	14.23	14.23	14.25	14.25	14.67	14.67	14.68	14.68	14.69	10.75	10.75	10.75	10.76	10.77
121391	Fraser_R	13.78	13.79	13.79	13.80	13.81	14.41	14.42	14.42	14.43	14.44	14.86	14.87	14.87	14.88	14.89	10.81	10.81	10.82	10.83	10.84
121770	Fraser_R	13.90	13.90	13.91	13.91	13.92	14.53	14.53	14.53	14.54	14.55	14.98	14.98	14.98	14.99	15.00	10.92	10.93	10.93	10.94	10.95
121960	Fraser_R	13.97	13.97	13.98	13.99	13.99	14.59	14.60	14.60	14.61	14.61	15.04	15.04	15.05	15.05	15.06	10.99	10.99	11.00	11.00	11.01
121960	Fraser_R	13.97	13.97	13.98	13.99	13.99	14.59	14.60	14.60	14.61	14.61	15.04	15.04	15.05	15.05	15.06	10.99	10.99	11.00	11.00	11.01
122189	Fraser_R	14.05	14.05	14.05	14.06	14.07	14.66	14.66	14.66	14.67	14.68	15.10	15.10	15.11	15.11	15.12	11.07	11.08	11.08	11.09	11.09
122649	Fraser_R	14.26	14.26	14.26	14.27	14.28	14.87	14.87	14.88	14.88	14.89	15.31	15.32	15.32	15.33	15.33	11.28	11.28	11.29	11.29	11.30
123115	Fraser_R	14.38	14.38	14.39	14.39	14.40	14.99	14.99	15.00	15.00	15.01	15.43	15.44	15.44	15.45	15.45	11.42	11.43	11.43	11.43	11.44
123115	Fraser_R	14.38	14.38	14.39	14.39	14.40	14.99	14.99	15.00	15.00	15.01	15.43	15.44	15.44	15.45	15.45	11.42	11.43	11.43	11.43	11.44
123582	Fraser_R	14.44	14.44	14.45	14.45	14.46	15.05	15.05	15.05	15.06	15.06	15.49	15.49	15.50	15.50	15.51	11.61	11.62	11.62	11.62	11.63
123950	Fraser_R	14.50	14.50	14.50	14.51	14.52	15.08	15.09	15.09	15.10	15.10	15.51	15.52	15.52	15.53	15.53	11.92	11.92	11.93	11.93	11.93
124343	Fraser_R	14.75	14.75	14.75	14.76	14.76	15.32	15.33	15.33	15.34	15.34	15.75	15.75	15.75	15.76	15.76	12.24	12.24	12.24	12.24	12.24
124343	Fraser_R	14.75	14.75	14.75	14.76	14.76	15.32	15.33	15.33	15.34	15.34	15.75	15.75	15.75	15.76	15.76	12.24	12.24	12.24	12.24	12.24
124720	Fraser_R	14.84	14.84	14.85	14.85	14.86	15.40	15.40	15.40	15.41	15.41	15.81	15.81	15.82	15.82	15.82	12.43	12.43	12.43	12.43	12.43
125093	Fraser_R	14.90	14.90	14.90	14.90	14.91	15.41	15.42	15.42	15.42	15.43	15.80	15.80	15.81	15.81	15.82	12.60	12.60	12.60	12.60	12.61
125436	Fraser_R	15.24	15.24	15.24	15.25	15.25	15.76	15.76	15.76	15.76	15.77	16.14	16.15	16.15	16.15	16.16	12.89	12.89	12.89	12.89	12.89
125807	Fraser_R	15.35	15.35	15.35	15.35	15.36	15.86	15.86	15.86	15.87	15.87	16.25	16.25	16.25	16.26	16.26	13.02	13.02	13.02	13.02	13.02
125807	Fraser_R	15.35	15.35	15.35	15.35	15.36	15.86	15.86	15.86	15.87	15.87	16.25	16.25	16.25	16.26	16.26	13.02	13.02	13.02	13.02	13.02
126146	Fraser_R	15.46	15.46	15.46	15.46	15.47	15.96	15.97	15.97	15.97	15.97	16.34	16.34	16.35	16.35	16.35	13.18	13.18	13.18	13.18	13.18
126146	Fraser_R	15.46	15.46	15.46	15.46	15.47	15.96	15.97	15.97	15.97	15.97	16.34	16.34	16.35	16.35	16.35	13.18	13.18	13.18	13.18	13.18
126471	Fraser_R	15.43	15.43	15.43	15.43	15.44	15.92	15.92	15.92	15.92	15.93	16.29	16.29	16.29	16.29	16.30	13.18	13.18	13.18	13.18	13.18
126811	Fraser_R	15.51	15.51	15.51	15.51	15.51	15.97	15.97	15.98	15.98	15.98	16.33	16.33	16.33	16.33	16.34	13.39	13.39	13.39	13.39	13.39
126811	Fraser_R	15.51	15.51	15.51	15.51	15.51	15.97	15.97	15.98	15.98	15.98	16.33	16.33	16.33	16.33	16.34	13.39	13.39	13.39	13.39	13.39
127331	Fraser_R	15.84	15.84	15.85	15.85	15.85	16.29	16.29	16.29	16.29	16.29	16.62	16.62	16.62	16.63	16.63	13.67	13.67	13.67	13.67	13.67
127331	Fraser_R	15.84	15.84	15.85	15.85	15.85	16.29	16.29	16.29	16.29	16.29	16.62	16.62	16.62	16.63	16.63	13.67	13.67	13.67	13.67	13.67
127666	Fraser_R	16.01	16.01	16.01	16.01	16.01	16.46	16.46	16.47	16.47	16.47	16.80	16.80	16.80	16.81	16.81	13.77	13.77	13.77	13.77	13.77
128018	Fraser_R	16.33	16.33	16.33	16.33	16.34	16.85	16.85	16.85	16.85	16.85	17.23	17.23	17.23	17.23	17.23	13.87	13.87	13.87	13.87	13.87
128434	Fraser_R	16.56	16.56	16.56	16.56	16.56	17.09	17.09	17.09	17.09	17.09	17.48	17.48	17.49	17.49	17.49	14.01	14.01	14.01	14.01	14.01
128434	Fraser_R	16.56	16.56	16.56	16.56	16.56	17.09	17.09	17.09	17.09	17.09	17.48	17.48	17.49	17.49	17.49	14.01	14.01	14.01	14.01	14.01
128804	Fraser_R	16.81	16.81	16.81	16.82	16.82	17.35	17.35	17.35	17.35	17.35	17.74	17.74	17.74	17.75	17.75	14.20	14.20	14.20	14.20	14.20
129148	Fraser_R	17.02	17.03	17.03	17.03	17.03	17.56	17.56	17.56	17.56	17.56	17.94	17.94	17.94	17.94	17.94	14.41	14.41	14.41	14.41	14.41
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Historical 1:50							Scenario-A (Moderate) 1:50					Scenario-B (Intense) 1:50					Winter 1:50				
Chainage	Branch	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
129916	Fraser_R	17.30	17.30	17.30	17.30	17.30	17.80	17.80	17.80	17.80	17.80	18.17	18.17	18.17	18.17	18.17	14.76	14.76	14.76	14.76	14.76
130256	Fraser_R	17.38	17.38	17.38	17.38	17.38	17.87	17.87	17.87	17.87	17.87	18.23	18.23	18.23	18.23	18.23	14.95	14.95	14.95	14.95	14.95
130472	Fraser_R	17.53	17.53	17.53	17.53	17.53	18.04	18.04	18.04	18.04	18.04	18.40	18.40	18.40	18.40	18.40	15.05	15.05	15.05	15.05	15.05
130624	Fraser_R	17.73	17.73	17.73	17.73	17.73	18.19	18.20	18.20	18.20	18.20	18.54	18.54	18.54	18.54	18.55	15.16	15.16	15.16	15.16	15.16
130827	Fraser_R	17.84	17.84	17.84	17.85	17.85	18.32	18.32	18.32	18.32	18.32	18.67	18.67	18.67	18.67	18.68	15.22	15.22	15.22	15.22	15.22
131166	Fraser_R	18.00	18.00	18.00	18.00	18.00	18.48	18.48	18.48	18.48	18.48	18.84	18.84	18.84	18.84	18.84	15.31	15.31	15.31	15.31	15.31
131597	Fraser_R	18.22	18.22	18.22	18.22	18.22	18.71	18.71	18.71	18.71	18.71	19.07	19.07	19.07	19.08	19.08	15.44	15.44	15.44	15.44	15.44
131858	Fraser_R	18.27	18.27	18.27	18.27	18.27	18.75	18.75	18.75	18.75	18.75	19.10	19.10	19.10	19.11	19.11	15.55	15.55	15.55	15.55	15.55
131858	Fraser_R	18.27	18.27	18.27	18.27	18.27	18.75	18.75	18.75	18.75	18.75	19.10	19.10	19.10	19.11	19.11	15.55	15.55	15.55	15.55	15.55
132206	Fraser_R	18.58	18.58	18.58	18.58	18.58	19.09	19.10	19.10	19.10	19.10	19.47	19.47	19.47	19.47	19.47	15.70	15.70	15.69	15.69	15.69
132206	Fraser_R	18.58	18.58	18.58	18.58	18.58	19.09	19.10	19.10	19.10	19.10	19.47	19.47	19.47	19.47	19.47	15.70	15.70	15.69	15.69	15.69
132561	Fraser_R	18.57	18.57	18.57	18.57	18.57	19.09	19.09	19.09	19.09	19.09	19.47	19.47	19.47	19.47	19.47	15.66	15.66	15.66	15.66	15.66
132561	Fraser_R	18.57	18.57	18.57	18.57	18.57	19.09	19.09	19.09	19.09	19.09	19.47	19.47	19.47	19.47	19.47	15.66	15.66	15.66	15.66	15.66
132862	Fraser_R	18.63	18.63	18.63	18.63	18.63	19.15	19.15	19.15	19.15	19.15	19.52	19.52	19.53	19.53	19.53	15.74	15.74	15.74	15.74	15.74
133192	Fraser_R	18.68	18.68	18.68	18.68	18.68	19.19	19.19	19.20	19.20	19.20	19.56	19.56	19.56	19.56	19.56	15.81	15.81	15.81	15.81	15.81
133558	Fraser_R	18.82	18.82	18.82	18.82	18.82	19.33	19.33	19.33	19.33	19.33	19.69	19.69	19.69	19.69	19.69	15.94	15.94	15.94	15.94	15.94
133899	Fraser_R	19.07	19.07	19.08	19.08	19.08	19.59	19.59	19.59	19.59	19.59	19.96	19.96	19.96	19.96	19.96	16.16	16.16	16.16	16.16	16.16
134143	Fraser_R	19.21	19.21	19.21	19.21	19.21	19.74	19.74	19.74	19.74	19.74	20.12	20.12	20.12	20.12	20.12	16.29	16.29	16.29	16.29	16.29
134143	Fraser_R	19.21	19.21	19.21	19.21	19.21	19.74	19.74	19.74	19.74	19.74	20.12	20.12	20.12	20.12	20.12	16.29	16.29	16.29	16.29	16.29
134975	Fraser_R	19.26	19.27	19.27	19.27	19.27	19.79	19.79	19.79	19.79	19.79	20.17	20.17	20.17	20.17	20.18	16.46	16.46	16.46	16.46	16.46
134975	Fraser_R	19.26	19.27	19.27	19.27	19.27	19.79	19.79	19.79	19.79	19.79	20.17	20.17	20.17	20.17	20.18	16.46	16.46	16.46	16.46	16.46
135327	Fraser_R	19.35	19.35	19.35	19.35	19.35	19.87	19.87	19.87	19.87	19.87	20.25	20.25	20.25	20.25	20.25	16.80	16.80	16.80	16.80	16.80
135630	Fraser_R	19.44	19.44	19.44	19.44	19.44	19.95	19.95	19.95	19.95	19.95	20.32	20.32	20.32	20.32	20.32	17.08	17.08	17.08	17.08	17.08
135982	Fraser_R	19.59	19.59	19.59	19.59	19.59	20.09	20.09	20.09	20.09	20.09	20.46	20.46	20.46	20.46	20.46	17.35	17.35	17.35	17.35	17.35
136497	Fraser_R	19.75	19.75	19.75	19.75	19.75	20.22	20.22	20.22	20.22	20.22	20.57	20.57	20.57	20.57	20.57	17.60	17.60	17.60	17.60	17.60
136921	Fraser_R	19.94	19.94	19.94	19.94	19.94	20.38	20.38	20.38	20.38	20.38	20.71	20.71	20.71	20.71	20.71	17.86	17.86	17.86	17.86	17.86
137374	Fraser_R	20.19	20.19	20.19	20.19	20.19	20.62	20.62	20.62	20.62	20.62	20.93	20.93	20.93	20.93	20.93	18.15	18.15	18.14	18.14	18.14
137870	Fraser_R	20.60	20.60	20.60	20.60	20.60	21.02	21.02	21.02	21.02	21.02	21.27	21.27	21.27	21.27	21.27	18.48	18.48	18.48	18.48	18.48
138445	Fraser_R	20.99	20.99	20.99	20.99	20.99	21.33	21.33	21.33	21.33	21.33	21.56	21.56	21.56	21.56	21.56	18.81	18.81	18.81	18.81	18.81
138445	Fraser_R	20.99	20.99	20.99	20.99	20.99	21.33	21.33	21.33	21.33	21.33	21.56	21.56	21.56	21.56	21.56	18.81	18.81	18.81	18.81	18.81
138766	Fraser_R	21.11	21.11	21.11	21.11	21.11	21.47	21.47	21.47	21.47	21.47	21.72	21.72	21.72	21.72	21.72	18.88	18.88	18.88	18.88	18.88
139142	Fraser_R	21.23	21.23	21.23	21.23	21.23	21.62	21.62	21.62	21.62	21.62	21.88	21.88	21.88	21.88	21.88	18.93	18.93	18.93	18.93	18.93
139526	Fraser_R	21.53	21.53	21.53	21.53	21.53	21.93	21.93	21.93	21.93	21.93	22.20	22.20	22.20	22.20	22.20	19.07	19.07	19.07	19.07	19.07
139912	Fraser_R	21.61	21.61	21.61	21.61	21.61	22.02	22.02	22.02	22.02	22.02	22.29	22.29	22.29	22.29	22.29	19.16	19.16	19.16	19.16	19.16
140292	Fraser_R	21.85	21.85	21.85	21.85	21.85	22.27	22.27	22.27	22.27	22.27	22.55	22.55	22.55	22.55	22.56	19.31	19.31	19.31	19.31	19.31
140292	Fraser_R	21.85	21.85	21.85	21.85	21.85	22.27	22.27	22.27	22.27	22.27	22.55	22.55	22.55	22.55	22.56	19.31	19.31	19.31	19.31	19.31
140845	Fraser_R	21.90	21.90	21.90	21.90	21.90	22.30	22.30	22.30	22.30	22.30	22.57	22.57	22.57	22.57	22.57	19.49	19.49	19.49	19.49	19.49
140845	Fraser_R	21.90	21.90	21.90	21.90	21.90	22.30	22.30	22.30	22.30	22.30	22.57	22.57	22.57	22.57	22.57	19.49	19.49	19.49	19.49	19.49
141065	Fraser_R	21.97	21.97	21.97	21.97	21.97	22.36	22.36	22.36	22.36	22.36	22.62	22.62	22.62	22.62	22.62	19.72	19.72	19.72	19.72	19.72
141439	Fraser_R	22.37	22.37	22.37	22.37	22.37	22.77	22.77	22.77	22.77	22.77	23.04	23.04	23.04	23.04	23.04	20.12	20.12	20.12	20.12	20.12
141833	Fraser_R	22.74	22.74	22.74	22.74	22.74	23.18	23.18	23.18	23.18	23.18	23.48	23.48	23.48	23.48	23.48	20.36	20.36	20.36	20.36	20.36
142241	Fraser_R	22.99	22.99	22.99	22.99	22.99	23.43	23.43	23.43	23.43	23.43	23.72	23.72	23.72	23.72	23.72	20.59	20.59	20.59	20.59	20.59
142576	Fraser_R	23.47	23.47	23.47	23.47	23.47	23.93	23.93	23.93	23.93	23.93	24.25	24.25	24.25	24.25	24.25	20.90	20.90	20.90	20.90	20.90
142948	Fraser_R	23.62	23.62	23.62	23.62	23.62	24.07	24.07	24.07	24.07	24.07	24.38	24.38	24.38	24.38	24.38	21.18	21.18	21.18	21.18	21.18
143365	Fraser_R	23.83	23.83	23.83	23.83	23.83	24.26	24.26	24.26	24.26	24.26	24.56	24.56	24.56	24.56	24.56	21.54	21.54	21.54	21.54	21.54
143763	Fraser_R	24.25	24.25	24.25	24.25	24.25	24.71	24.71	24.71	24.71	24.71	25.03	25.03	25.03	25.03	25.03	21.81	21.81	21.81	21.81	21.81
143763	Fraser_R	24.25	24.25	24.25	24.25	24.25	24.71	24.71	24.71	24.71	24.71	25.03	25.03	25.03	25.03	25.03	21.81	21.81	21.81	21.81	21.81
144102	Fraser_R	24.39	24.39	24.39	24.39	24.39	24.86	24.86	24.86	24.86	24.86	25.18	25.18	25.18	25.18	25.18	21.94	21.94	21.94	21.94	21.94
144434	Fraser_R	24.46	24.46	24.46	24.46	24.46	24.93	24.93	24.93	24.93	24.93	25.26	25.26	25.26	25.26	25.26	21.96	21.96	21.96	21.96	21.96
144910	Fraser_R	24.89	24.89	24.89	24.89	24.89	25.40	25.40	25.40	25.40	25.40	25.75	25.75	25.75	25.75	25.75	22.21	22.21	22.21	22.21	22.21
145425	Fraser_R	25.17	25.17	25.17	25.17	25.17	25.68	25.68	25.68	25.68	25.68	26.04	26.04	26.04	26.04	26.04	22.49	22.49	22.49	22.49	22.49
145819	Fraser_R	25.31	25.31	25.31	25.31	25.31	25.82	25.82	25.82	25.82	25.82	26.18	26.18	26.18	26.18	26.18	22.72	22.72	22.72	22.72	22.72
146215	Fraser_R	25.52	25.52	25.52	25.52	25.52	26.04	26.04	26.04	26.04	26.04	26.40	26.40	26.40							



Historical 1:50						Scenario-A (Moderate) 1:50					Scenario-B (Intense) 1:50					Winter 1:50					
Chainage	Branch	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
165008	Fraser_R	37.17	37.17	37.17	37.17	37.17	38.03	38.03	38.03	38.03	38.03	38.62	38.62	38.62	38.62	38.62	32.57	32.57	32.57	32.57	32.57
165247	Fraser_R	37.47	37.47	37.47	37.47	37.47	38.34	38.34	38.34	38.34	38.34	38.93	38.93	38.93	38.93	38.93	32.86	32.86	32.86	32.86	32.86
165454	Fraser_R	37.63	37.63	37.63	37.63	37.63	38.51	38.51	38.51	38.51	38.51	39.11	39.11	39.11	39.11	39.11	33.02	33.02	33.02	33.02	33.02
165662	Fraser_R	37.65	37.65	37.65	37.65	37.65	38.52	38.52	38.52	38.52	38.52	39.11	39.11	39.11	39.11	39.11	33.21	33.21	33.21	33.21	33.21
165662	Fraser_R	37.65	37.65	37.65	37.65	37.65	38.52	38.52	38.52	38.52	38.52	39.11	39.11	39.11	39.11	39.11	33.21	33.21	33.21	33.21	33.21
165965	Fraser_R	37.59	37.59	37.59	37.59	37.59	38.44	38.44	38.44	38.44	38.44	39.02	39.02	39.02	39.02	39.02	33.30	33.30	33.30	33.30	33.30
166336	Fraser_R	37.81	37.81	37.81	37.81	37.81	38.63	38.63	38.63	38.63	38.63	39.19	39.19	39.19	39.19	39.19	33.82	33.82	33.82	33.82	33.82
166766	Fraser_R	38.17	38.17	38.17	38.17	38.17	38.99	38.99	38.99	38.99	38.99	39.55	39.55	39.55	39.55	39.55	34.30	34.30	34.30	34.30	34.30
166766	Fraser_R	38.17	38.17	38.17	38.17	38.17	38.99	38.99	38.99	38.99	38.99	39.55	39.55	39.55	39.55	39.55	34.30	34.30	34.30	34.30	34.30
167135	Fraser_R	38.33	38.33	38.33	38.33	38.33	39.08	39.08	39.08	39.08	39.08	39.60	39.60	39.60	39.60	39.60	34.60	34.60	34.60	34.60	34.60

Table 13. Hydraulic Model Runs for AEP = 1:100

Historical 1:100							Scenario-A (Moderate) 1:100					Scenario-B (Intense) 1:100					Winter 1:100				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	-1545	1.85	2.35	2.85	3.35	3.85	1.85	2.35	2.85	3.35	3.85	1.85	2.35	2.85	3.35	3.85	2.65	3.15	3.65	4.15	4.65
Fraser	-1182	1.86	2.35	2.85	3.35	3.85	1.85	2.35	2.85	3.35	3.85	1.86	2.35	2.85	3.35	3.85	2.65	3.15	3.65	4.15	4.65
Fraser	944	1.85	2.35	2.84	3.34	3.85	1.85	2.35	2.84	3.34	3.85	1.85	2.35	2.84	3.34	3.84	2.64	3.15	3.65	4.14	4.65
Fraser	2838	1.83	2.34	2.83	3.33	3.84	1.83	2.34	2.84	3.33	3.84	1.84	2.34	2.84	3.33	3.83	2.64	3.14	3.65	4.15	4.66
Fraser	3069	1.83	2.34	2.83	3.33	3.84	1.83	2.34	2.84	3.33	3.84	1.84	2.34	2.84	3.33	3.83	2.64	3.14	3.65	4.15	4.66
Fraser	3069	1.83	2.34	2.83	3.33	3.84	1.83	2.34	2.84	3.33	3.84	1.84	2.34	2.84	3.33	3.83	2.64	3.14	3.65	4.15	4.66
Fraser	3853	1.83	2.33	2.83	3.33	3.84	1.83	2.34	2.84	3.33	3.84	1.83	2.34	2.84	3.33	3.83	2.64	3.14	3.65	4.15	4.66
Fraser	4348	1.82	2.33	2.83	3.33	3.84	1.83	2.33	2.84	3.33	3.84	1.83	2.34	2.84	3.33	3.83	2.64	3.14	3.65	4.15	4.66
Fraser	4930	1.80	2.31	2.81	3.32	3.83	1.79	2.30	2.81	3.31	3.82	1.78	2.30	2.80	3.30	3.81	2.64	3.14	3.65	4.15	4.66
Fraser	5477	1.80	2.31	2.81	3.32	3.83	1.80	2.31	2.81	3.31	3.82	1.79	2.30	2.81	3.31	3.81	2.64	3.14	3.65	4.15	4.66
Fraser	5923	1.80	2.31	2.81	3.32	3.83	1.80	2.31	2.81	3.31	3.82	1.80	2.31	2.81	3.31	3.81	2.63	3.14	3.65	4.15	4.67
Fraser	6357	1.80	2.31	2.81	3.32	3.83	1.80	2.31	2.81	3.31	3.82	1.80	2.30	2.81	3.31	3.81	2.63	3.14	3.65	4.15	4.67
Fraser	6768	1.80	2.30	2.81	3.32	3.83	1.79	2.30	2.80	3.31	3.81	1.79	2.30	2.80	3.30	3.80	2.63	3.14	3.65	4.15	4.67
Fraser	7173	1.81	2.31	2.81	3.32	3.83	1.81	2.31	2.81	3.32	3.82	1.81	2.31	2.81	3.32	3.81	2.63	3.14	3.65	4.15	4.67
Fraser	7589	1.81	2.31	2.81	3.32	3.83	1.82	2.32	2.81	3.32	3.82	1.82	2.32	2.81	3.32	3.82	2.63	3.14	3.65	4.15	4.67
Fraser	7944	1.81	2.31	2.81	3.32	3.83	1.81	2.31	2.81	3.31	3.82	1.81	2.31	2.81	3.31	3.81	2.63	3.14	3.65	4.15	4.67
Fraser	8357	1.82	2.31	2.81	3.32	3.83	1.82	2.32	2.81	3.31	3.83	1.82	2.32	2.81	3.32	3.82	2.63	3.14	3.65	4.14	4.67
Fraser	8676	1.82	2.32	2.81	3.32	3.83	1.83	2.33	2.82	3.32	3.83	1.84	2.33	2.82	3.32	3.82	2.63	3.14	3.65	4.14	4.67
Fraser	8676	1.82	2.32	2.81	3.32	3.83	1.83	2.33	2.82	3.32	3.83	1.84	2.33	2.82	3.32	3.82	2.63	3.14	3.65	4.14	4.67
Fraser	9163	1.84	2.33	2.82	3.33	3.84	1.86	2.35	2.83	3.33	3.84	1.87	2.35	2.83	3.34	3.83	2.63	3.14	3.65	4.14	4.67
Fraser	9394	1.85	2.34	2.83	3.33	3.84	1.86	2.35	2.83	3.33	3.84	1.88	2.36	2.84	3.34	3.84	2.63	3.14	3.65	4.14	4.67
Fraser	9394	1.85	2.34	2.83	3.33	3.84	1.86	2.35	2.83	3.33	3.84	1.88	2.36	2.84	3.34	3.84	2.63	3.14	3.65	4.14	4.67
Fraser	9650	1.85	2.34	2.83	3.33	3.84	1.86	2.35	2.83	3.33	3.84	1.88	2.36	2.84	3.34	3.84	2.63	3.14	3.65	4.14	4.66
Fraser	10067	1.85	2.34	2.83	3.33	3.84	1.87	2.36	2.84	3.33	3.84	1.89	2.36	2.84	3.34	3.84	2.63	3.14	3.65	4.14	4.66
Fraser	10364	1.87	2.36	2.84	3.34	3.84	1.89	2.38	2.85	3.34	3.85	1.91	2.39	2.86	3.36	3.85	2.64	3.14	3.65	4.14	4.66
Fraser	10578	1.88	2.36	2.84	3.34	3.85	1.91	2.39	2.86	3.35	3.86	1.93	2.40	2.87	3.37	3.85	2.64	3.14	3.65	4.14	4.65
Fraser	10578	1.88	2.36	2.84	3.34	3.85	1.91	2.39	2.86	3.35	3.86	1.93	2.40	2.87	3.37	3.85	2.64	3.14	3.65	4.14	4.65
Fraser	11183	1.87	2.36	2.84	3.33	3.84	1.89	2.38	2.85	3.34	3.85	1.91	2.39	2.86	3.35	3.84	2.64	3.14	3.65	4.14	4.65
Fraser	11579	1.89	2.38	2.86	3.34	3.85	1.93	2.40	2.87	3.36	3.86	1.97	2.42	2.89	3.37	3.86	2.65	3.14	3.65	4.14	4.65
Fraser	11980	1.93	2.40	2.87	3.36	3.86	1.97	2.44	2.90	3.38	3.87	2.02	2.47	2.93	3.40	3.88	2.65	3.14	3.65	4.14	4.65
Fraser	11980	1.93	2.40	2.87	3.36	3.86	1.97	2.44	2.90	3.38	3.87	2.02	2.47	2.93	3.40	3.88	2.65	3.14	3.65	4.14	4.65
Fraser	12389	1.94	2.41	2.88	3.36	3.86	1.99	2.45	2.91	3.38	3.87	2.05	2.49	2.94	3.41	3.88	2.65	3.14	3.65	4.14	4.65
Fraser	12780	1.94	2.40	2.88	3.36	3.86	1.99	2.44	2.90	3.38	3.87	2.04	2.48	2.94	3.40	3.88	2.65	3.15	3.65	4.14	4.64
Fraser	13186	1.97	2.42	2.89	3.37	3.87	2.02	2.47	2.93	3.39	3.88	2.09	2.52	2.97	3.43	3.90	2.65	3.15	3.65	4.13	4.65
Fraser	13598	1.99	2.43	2.90	3.37	3.87	2.05	2.49	2.94	3.41	3.89	2.12	2.55	2.99	3.44	3.91	2.66	3.15	3.65	4.13	4.65
Fraser	14005	2.01	2.46	2.92	3.39	3.88	2.09	2.52	2.97	3.42	3.90	2.17	2.59	3.03	3.47	3.94	2.66	3.15	3.65	4.13	4.65
Fraser	14401	2.06	2.50	2.96	3.42	3.90	2.15	2.58	3.03	3.47	3.94	2.24	2.66	3.10	3.52	3.99	2.66	3.15	3.65	4.13	4.65
Fraser	14813	2.08	2.51	2.97	3.43	3.91	2.18	2.60	3.05	3.48	3.96	2.28	2.69	3.12	3.54	4.01	2.66	3.16	3.65	4.13	4.65
Fraser	15210	2.09	2.53	2.98	3.44	3.91	2.20	2.62	3.06	3.49	3.97	2.30	2.71	3.14	3.55	4.02	2.66	3.16	3.65	4.13	4.65
Fraser	15575	2.11	2.54	2.99	3.45	3.92	2.22	2.64	3.08	3.51	3.98	2.33	2.73	3.16	3.57	4.03	2.66	3.16	3.64	4.13	4.65

Historical 1:100							Scenario-A (Moderate) 1:100							Scenario-B (Intense) 1:100							Winter 1:100				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	
Fraser	15978	2.12	2.55	3.00	3.45	3.93		2.24	2.65	3.09	3.52	3.98		2.35	2.75	3.17	3.58	4.04		2.67	3.17	3.64	4.13	4.65	
Fraser	16443	2.17	2.59	3.04	3.48	3.95		2.29	2.70	3.13	3.55	4.01		2.42	2.81	3.22	3.63	4.08		2.67	3.17	3.64	4.13	4.65	
Fraser	16846	2.19	2.61	3.05	3.50	3.96		2.33	2.73	3.16	3.57	4.03		2.47	2.85	3.26	3.66	4.11		2.68	3.17	3.64	4.13	4.65	
Fraser	17214	2.23	2.64	3.08	3.52	3.98		2.38	2.77	3.20	3.61	4.06		2.52	2.90	3.30	3.69	4.14		2.68	3.17	3.64	4.13	4.65	
Fraser	17513	2.22	2.64	3.08	3.52	3.98		2.37	2.77	3.19	3.60	4.05		2.52	2.90	3.30	3.69	4.14		2.68	3.17	3.64	4.12	4.65	
Fraser	17513	2.22	2.64	3.08	3.52	3.98		2.37	2.77	3.19	3.60	4.05		2.52	2.90	3.30	3.69	4.14		2.68	3.17	3.64	4.12	4.65	
Fraser	18117	2.23	2.64	3.08	3.53	3.98		2.38	2.77	3.20	3.61	4.07		2.52	2.90	3.31	3.70	4.15		2.69	3.17	3.65	4.12	4.65	
Fraser	18508	2.28	2.69	3.12	3.56	4.01		2.45	2.83	3.25	3.66	4.11		2.61	2.98	3.38	3.76	4.21		2.69	3.18	3.65	4.12	4.66	
Fraser	18921	2.30	2.70	3.14	3.57	4.02		2.48	2.86	3.27	3.67	4.12		2.64	3.01	3.40	3.78	4.23		2.70	3.18	3.66	4.12	4.66	
Fraser	19322	2.33	2.73	3.16	3.60	4.04		2.52	2.90	3.31	3.70	4.15		2.70	3.06	3.44	3.82	4.26		2.71	3.18	3.67	4.12	4.66	
Fraser	19727	2.36	2.76	3.19	3.61	4.05		2.56	2.93	3.34	3.73	4.17		2.75	3.10	3.48	3.85	4.29		2.71	3.19	3.67	4.12	4.67	
Fraser	20127	2.38	2.77	3.20	3.63	4.06		2.59	2.95	3.36	3.75	4.18		2.78	3.13	3.51	3.88	4.31		2.71	3.19	3.68	4.12	4.67	
Fraser	20524	2.40	2.79	3.21	3.64	4.07		2.61	2.97	3.38	3.76	4.20		2.81	3.16	3.53	3.90	4.33		2.72	3.20	3.68	4.12	4.67	
Fraser	20919	2.41	2.81	3.23	3.65	4.08		2.64	3.00	3.40	3.78	4.21		2.84	3.18	3.55	3.92	4.35		2.72	3.20	3.68	4.13	4.67	
Fraser	21371	2.43	2.82	3.24	3.66	4.09		2.66	3.02	3.41	3.79	4.22		2.87	3.21	3.57	3.93	4.37		2.73	3.21	3.68	4.13	4.67	
Fraser	21806	2.45	2.84	3.25	3.68	4.10		2.69	3.04	3.43	3.81	4.24		2.90	3.23	3.60	3.95	4.39		2.73	3.21	3.69	4.13	4.67	
Fraser	22195	2.47	2.85	3.26	3.69	4.11		2.70	3.06	3.45	3.82	4.25		2.92	3.26	3.62	3.97	4.40		2.73	3.21	3.69	4.14	4.67	
Fraser	22562	2.48	2.87	3.28	3.70	4.12		2.73	3.08	3.47	3.84	4.26		2.95	3.28	3.64	3.99	4.43		2.73	3.22	3.69	4.15	4.68	
Fraser	22978	2.49	2.88	3.29	3.71	4.13		2.74	3.09	3.48	3.85	4.27		2.97	3.30	3.65	4.00	4.44		2.74	3.22	3.69	4.15	4.68	
Fraser	23375	2.50	2.88	3.29	3.71	4.14		2.75	3.10	3.48	3.86	4.28		2.97	3.30	3.66	4.01	4.44		2.74	3.23	3.70	4.16	4.69	
Fraser	23763	2.51	2.90	3.30	3.72	4.15		2.77	3.11	3.50	3.87	4.29		3.00	3.33	3.68	4.03	4.46		2.75	3.23	3.70	4.17	4.70	
Fraser	24152	2.54	2.93	3.33	3.75	4.17		2.81	3.15	3.53	3.90	4.32		3.05	3.37	3.72	4.07	4.50		2.75	3.24	3.70	4.19	4.71	
Fraser	24575	2.57	2.95	3.35	3.76	4.19		2.84	3.18	3.56	3.93	4.34		3.09	3.41	3.76	4.10	4.53		2.75	3.25	3.71	4.20	4.72	
Fraser	24914	2.61	2.99	3.38	3.79	4.21		2.91	3.24	3.61	3.97	4.38		3.17	3.48	3.82	4.16	4.58		2.76	3.25	3.71	4.20	4.73	
Fraser	25370	2.64	3.02	3.40	3.81	4.23		2.94	3.27	3.64	4.00	4.40		3.21	3.52	3.86	4.19	4.61		2.76	3.25	3.71	4.21	4.73	
Fraser	25568	2.64	3.02	3.41	3.82	4.23		2.95	3.28	3.65	4.01	4.41		3.23	3.54	3.87	4.20	4.62		2.76	3.26	3.71	4.21	4.74	
Fraser	25568	2.64	3.02	3.41	3.82	4.23		2.95	3.28	3.65	4.01	4.41		3.23	3.54	3.87	4.20	4.62		2.76	3.26	3.71	4.21	4.74	
Fraser	25857	2.65	3.03	3.41	3.82	4.24		2.96	3.29	3.65	4.01	4.41		3.23	3.54	3.87	4.20	4.62		2.76	3.26	3.72	4.22	4.74	
Fraser	26350	2.64	3.02	3.41	3.82	4.23		2.95	3.28	3.64	4.01	4.41		3.22	3.53	3.86	4.19	4.61		2.77	3.26	3.72	4.22	4.75	
Fraser	26754	2.66	3.04	3.42	3.82	4.24		2.97	3.30	3.65	4.02	4.42		3.24	3.55	3.88	4.20	4.62		2.77	3.26	3.73	4.23	4.76	
Fraser	27194	2.67	3.05	3.43	3.83	4.25		2.99	3.32	3.67	4.03	4.43		3.27	3.57	3.90	4.22	4.64		2.77	3.26	3.74	4.24	4.76	
Fraser	27582	2.69	3.07	3.45	3.85	4.26		3.01	3.34	3.69	4.05	4.45		3.30	3.60	3.93	4.25	4.66		2.77	3.26	3.74	4.24	4.77	
Fraser	28002	2.71	3.09	3.46	3.86	4.28		3.04	3.37	3.71	4.07	4.46		3.34	3.63	3.95	4.27	4.68		2.77	3.26	3.75	4.25	4.78	
Fraser	28369	2.75	3.13	3.50	3.88	4.30		3.10	3.42	3.76	4.11	4.50		3.41	3.69	4.01	4.32	4.73		2.77	3.27	3.76	4.25	4.78	
Fraser	28768	2.77	3.14	3.51	3.89	4.31		3.12	3.44	3.78	4.13	4.51		3.44	3.72	4.03	4.34	4.75		2.77	3.27	3.76	4.26	4.79	
Fraser	29120	2.75	3.12	3.49	3.88	4.30		3.09	3.41	3.75	4.10	4.49		3.39	3.68	4.00	4.31	4.72		2.77	3.28	3.77	4.26	4.79	
Fraser	29504	2.84	3.19	3.56	3.95	4.35		3.19	3.50	3.84	4.17	4.56		3.52	3.80	4.10	4.40	4.80		2.79	3.29	3.77	4.25	4.79	
Fraser	29883	2.88	3.23	3.59	3.97	4.38		3.25	3.55	3.89	4.21	4.60		3.59	3.86	4.16	4.45	4.85		2.80	3.30	3.78	4.25	4.79	
Fraser	30284	2.90	3.24	3.60	3.98	4.39		3.27	3.57	3.90	4.22	4.61		3.62	3.88	4.17	4.46	4.86		2.80	3.30	3.79	4.26	4.80	
Fraser	30647	2.95	3.29	3.65	4.02	4.42		3.35	3.64	3.96	4.28	4.65		3.71	3.97	4.25	4.53	4.93		2.81	3.31	3.80	4.27	4.81	
Fraser	31045	2.98	3.32	3.67	4.04	4.44		3.39	3.68	4.00	4.31	4.68		3.76	4.02	4.30	4.57	4.96		2.81	3.31	3.80	4.27	4.82	

Historical 1:100							Scenario-A (Moderate) 1:100							Scenario-B (Intense) 1:100							Winter 1:100				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	
Fraser	31525	2.99	3.33	3.68	4.05	4.45		3.40	3.69	4.01	4.32	4.69		3.79	4.04	4.32	4.59	4.98		2.82	3.32	3.81	4.28	4.83	
Fraser	31926	3.02	3.35	3.70	4.06	4.46		3.43	3.72	4.03	4.34	4.71		3.82	4.06	4.34	4.62	5.00		2.82	3.33	3.81	4.28	4.83	
Fraser	32332	3.05	3.37	3.72	4.08	4.47		3.47	3.75	4.06	4.37	4.73		3.87	4.11	4.39	4.65	5.04		2.83	3.33	3.82	4.29	4.84	
Fraser	32742	3.09	3.41	3.76	4.11	4.50		3.54	3.81	4.12	4.42	4.77		3.95	4.19	4.46	4.71	5.09		2.84	3.34	3.82	4.29	4.85	
Fraser	32742	3.09	3.41	3.76	4.11	4.50		3.54	3.81	4.12	4.42	4.77		3.95	4.19	4.46	4.71	5.09		2.84	3.34	3.82	4.29	4.85	
Fraser	33139	3.05	3.38	3.73	4.08	4.47		3.48	3.76	4.07	4.38	4.74		3.88	4.12	4.40	4.66	5.04		2.84	3.34	3.83	4.29	4.85	
Fraser	33543	3.07	3.39	3.74	4.09	4.48		3.51	3.78	4.09	4.40	4.75		3.92	4.15	4.42	4.68	5.06		2.85	3.34	3.83	4.29	4.85	
Fraser	33883	3.03	3.36	3.71	4.07	4.47		3.46	3.74	4.05	4.36	4.72		3.86	4.09	4.37	4.64	5.02		2.85	3.34	3.83	4.29	4.85	
Fraser	34089	3.04	3.37	3.72	4.08	4.47		3.47	3.75	4.06	4.37	4.73		3.87	4.11	4.38	4.64	5.02		2.85	3.34	3.84	4.30	4.85	
Fraser	34089	3.04	3.37	3.72	4.08	4.47		3.47	3.75	4.06	4.37	4.73		3.87	4.11	4.38	4.64	5.02		2.85	3.34	3.84	4.30	4.85	
Fraser	34247	3.16	3.48	3.81	4.15	4.53		3.64	3.90	4.19	4.50	4.82		4.08	4.30	4.56	4.80	5.16		2.86	3.35	3.84	4.30	4.85	
Fraser	34655	3.17	3.49	3.82	4.16	4.54		3.66	3.92	4.20	4.51	4.83		4.10	4.32	4.58	4.82	5.18		2.86	3.35	3.84	4.30	4.86	
Fraser	35038	3.23	3.53	3.86	4.19	4.57		3.74	3.99	4.26	4.57	4.87		4.19	4.40	4.66	4.89	5.24		2.86	3.36	3.84	4.30	4.86	
Fraser	35038	3.23	3.53	3.86	4.19	4.57		3.74	3.99	4.26	4.57	4.87		4.19	4.40	4.66	4.89	5.24		2.86	3.36	3.84	4.30	4.86	
Fraser	35451	3.26	3.56	3.88	4.21	4.58		3.78	4.03	4.30	4.60	4.90		4.24	4.45	4.71	4.93	5.28		2.86	3.36	3.85	4.31	4.87	
Fraser	35650	3.37	3.65	3.97	4.29	4.66		3.90	4.13	4.40	4.70	4.99		4.36	4.55	4.82	5.01	5.38		2.90	3.39	3.88	4.34	4.89	
Fraser	35920	3.37	3.65	3.97	4.29	4.66		3.90	4.13	4.40	4.70	4.99		4.36	4.55	4.82	5.01	5.38		2.90	3.39	3.88	4.35	4.89	
Fraser	35992	3.39	3.66	3.98	4.31	4.68		3.94	4.17	4.42	4.71	5.09		4.41	4.58	4.82	5.16	5.39		2.90	3.40	3.88	4.35	4.72	
Fraser	36247	3.40	3.67	3.99	4.32	4.68		3.96	4.18	4.44	4.72	5.10		4.43	4.60	4.84	5.17	5.40		2.90	3.40	3.88	4.35	4.73	
Fraser	36247	3.40	3.67	3.99	4.32	4.68		3.96	4.18	4.44	4.72	5.10		4.43	4.60	4.84	5.17	5.40		2.90	3.40	3.88	4.35	4.73	
Fraser	36357	3.42	3.69	4.00	4.33	4.69		3.98	4.21	4.46	4.74	5.11		4.46	4.63	4.86	5.19	5.42		2.90	3.40	3.88	4.35	4.73	
Fraser	36736	3.39	3.66	3.98	4.31	4.68		3.94	4.17	4.42	4.71	5.09		4.41	4.59	4.82	5.15	5.38		2.90	3.40	3.89	4.35	4.73	
Fraser	37139	3.38	3.66	3.97	4.31	4.67		3.93	4.15	4.41	4.70	5.08		4.39	4.57	4.80	5.14	5.37		2.90	3.40	3.89	4.36	4.73	
Fraser	37528	3.40	3.68	3.99	4.32	4.68		3.96	4.18	4.44	4.72	5.10		4.43	4.60	4.84	5.17	5.40		2.90	3.40	3.89	4.36	4.74	
Fraser	37939	3.43	3.70	4.01	4.34	4.70		3.99	4.21	4.47	4.74	5.11		4.47	4.64	4.87	5.19	5.42		2.90	3.40	3.89	4.36	4.74	
Fraser	38352	3.47	3.72	4.03	4.36	4.72		4.03	4.25	4.50	4.77	5.14		4.51	4.68	4.91	5.22	5.45		2.90	3.40	3.89	4.37	4.74	
Fraser	38759	3.46	3.72	4.02	4.35	4.71		4.02	4.24	4.49	4.77	5.13		4.50	4.67	4.90	5.21	5.44		2.90	3.40	3.90	4.37	4.75	
Fraser	39151	3.52	3.76	4.07	4.39	4.74		4.09	4.31	4.55	4.82	5.18		4.58	4.75	4.97	5.27	5.50		2.91	3.40	3.90	4.37	4.75	
Fraser	39490	3.47	3.72	4.03	4.36	4.72		4.03	4.25	4.51	4.78	5.15		4.52	4.69	4.92	5.24	5.46		2.91	3.40	3.90	4.37	4.75	
Fraser	39926	3.64	3.87	4.17	4.47	4.80		4.23	4.44	4.67	4.94	5.27		4.73	4.89	5.11	5.37	5.59		2.91	3.40	3.90	4.37	4.75	
Fraser	39926	3.64	3.87	4.17	4.47	4.80		4.23	4.44	4.67	4.94	5.27		4.73	4.89	5.11	5.37	5.59		2.91	3.40	3.90	4.37	4.75	
Fraser	40332	3.62	3.86	4.16	4.46	4.79		4.22	4.43	4.66	4.93	5.26		4.72	4.88	5.09	5.36	5.58		2.91	3.40	3.90	4.37	4.75	
Fraser	40766	3.62	3.85	4.15	4.45	4.78		4.20	4.41	4.64	4.91	5.24		4.70	4.86	5.07	5.34	5.56		2.91	3.40	3.90	4.37	4.75	
Fraser	41158	3.62	3.86	4.16	4.46	4.79		4.22	4.43	4.66	4.93	5.27		4.72	4.88	5.10	5.37	5.59		2.91	3.41	3.90	4.37	4.75	
Fraser	41502	3.67	3.91	4.20	4.49	4.82		4.27	4.48	4.71	4.97	5.30		4.78	4.94	5.15	5.41	5.63		2.92	3.41	3.90	4.37	4.76	
Fraser	41882	3.73	3.96	4.25	4.54	4.86		4.34	4.55	4.78	5.03	5.35		4.86	5.02	5.22	5.48	5.69		2.92	3.41	3.90	4.36	4.76	
Fraser	42407	3.85	4.09	4.35	4.64	4.95		4.48	4.68	4.91	5.15	5.44		5.02	5.16	5.36	5.63	5.88		2.94	3.43	3.91	4.36	4.75	
Fraser	42617	3.86	4.10	4.36	4.65	4.96		4.49	4.69	4.91	5.16	5.45		5.03	5.17	5.37	5.64	5.89		2.94	3.43	3.91	4.36	4.75	
Fraser	43031	3.91	4.15	4.41	4.70	5.00		4.56	4.75	4.97	5.21	5.50		5.10	5.24	5.44	5.71	5.95		2.94	3.43	3.91	4.36	4.75	
Fraser	43373	3.89	4.13	4.39	4.68	4.98		4.53	4.72	4.95	5.19	5.48		5.07	5.21	5.41	5.68	5.92		2.94	3.43	3.91	4.36	4.75	
Fraser	43373	3.89	4.13	4.39	4.68	4.98		4.53	4.72	4.95	5.19	5.48		5.07	5.21	5.41	5.68	5.92		2.94	3.43	3.91	4.36	4.75	

Historical 1:100							Scenario-A (Moderate) 1:100							Scenario-B (Intense) 1:100							Winter 1:100				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	
Fraser	43945	3.84	4.08	4.34	4.63	4.94		4.46	4.66	4.89	5.13	5.43		5.00	5.14	5.34	5.61	5.86		2.93	3.41	3.90	4.36	4.75	
Fraser	44343	3.86	4.10	4.36	4.65	4.95		4.49	4.68	4.91	5.15	5.44		5.02	5.16	5.36	5.63	5.88		2.94	3.42	3.90	4.36	4.75	
Fraser	44754	3.88	4.11	4.37	4.66	4.96		4.50	4.70	4.92	5.16	5.45		5.03	5.17	5.37	5.64	5.88		2.95	3.42	3.90	4.36	4.76	
Fraser	45140	3.92	4.15	4.41	4.69	4.99		4.55	4.74	4.96	5.19	5.48		5.08	5.22	5.41	5.68	5.91		2.95	3.42	3.91	4.37	4.76	
Fraser	45541	3.96	4.19	4.45	4.73	5.02		4.60	4.79	5.00	5.24	5.52		5.14	5.27	5.46	5.73	5.96		2.97	3.43	3.91	4.37	4.76	
Fraser	45944	4.02	4.24	4.50	4.77	5.07		4.66	4.85	5.06	5.30	5.58		5.21	5.35	5.54	5.80	6.03		2.98	3.44	3.91	4.38	4.77	
Fraser	46354	4.09	4.31	4.56	4.84	5.13		4.75	4.93	5.14	5.37	5.65		5.30	5.43	5.62	5.87	6.10		3.00	3.45	3.92	4.38	4.77	
Fraser	46562	4.11	4.33	4.58	4.86	5.14		4.77	4.96	5.16	5.39	5.67		5.33	5.46	5.65	5.90	6.12		3.01	3.46	3.93	4.38	4.78	
Fraser	46562	4.11	4.33	4.58	4.86	5.14		4.77	4.96	5.16	5.39	5.67		5.33	5.46	5.65	5.90	6.12		3.01	3.46	3.93	4.38	4.78	
Fraser	46984	4.26	4.47	4.71	4.97	5.24		4.93	5.10	5.29	5.50	5.76		5.47	5.59	5.76	6.00	6.22		3.05	3.50	3.95	4.40	4.80	
Fraser	47419	4.29	4.50	4.74	5.00	5.26		4.97	5.13	5.32	5.54	5.80		5.52	5.64	5.81	6.05	6.26		3.07	3.51	3.96	4.41	4.80	
Fraser	47789	4.35	4.55	4.79	5.04	5.30		5.03	5.19	5.38	5.58	5.83		5.57	5.69	5.86	6.09	6.30		3.08	3.52	3.97	4.42	4.81	
Fraser	48174	4.35	4.56	4.79	5.05	5.31		5.04	5.20	5.39	5.60	5.85		5.59	5.71	5.88	6.11	6.31		3.09	3.52	3.97	4.42	4.81	
Fraser	48502	4.41	4.62	4.85	5.10	5.36		5.10	5.27	5.45	5.65	5.90		5.66	5.77	5.94	6.16	6.36		3.11	3.54	3.99	4.43	4.82	
Fraser	48560	4.41	4.62	4.85	5.10	5.36		5.11	5.27	5.45	5.66	5.90		5.67	5.78	5.94	6.16	6.37		3.11	3.54	3.99	4.43	4.83	
Fraser	48560	4.41	4.62	4.85	5.10	5.36		5.11	5.27	5.45	5.66	5.90		5.67	5.78	5.94	6.16	6.37		3.11	3.54	3.99	4.43	4.83	
Fraser	48981	4.28	4.49	4.73	4.98	5.25		4.95	5.11	5.30	5.51	5.76		5.48	5.60	5.76	5.99	6.20		3.08	3.52	3.96	4.40	4.81	
Fraser	49283	4.31	4.52	4.75	5.01	5.27		4.98	5.15	5.33	5.54	5.79		5.52	5.63	5.80	6.02	6.23		3.09	3.52	3.97	4.41	4.82	
Fraser	49565	4.37	4.58	4.81	5.06	5.32		5.05	5.21	5.39	5.60	5.84		5.59	5.70	5.86	6.09	6.29		3.11	3.54	3.98	4.43	4.82	
Fraser	49963	4.38	4.59	4.82	5.07	5.32		5.06	5.22	5.40	5.61	5.85		5.60	5.71	5.87	6.09	6.29		3.12	3.55	3.99	4.43	4.83	
Fraser	50339	4.48	4.68	4.90	5.15	5.40		5.17	5.33	5.50	5.70	5.94		5.72	5.83	5.99	6.20	6.39		3.15	3.57	4.01	4.46	4.84	
Fraser	50737	4.52	4.72	4.94	5.18	5.43		5.21	5.37	5.54	5.74	5.97		5.77	5.88	6.03	6.25	6.44		3.16	3.58	4.02	4.47	4.85	
Fraser	51139	4.58	4.78	5.00	5.24	5.49		5.29	5.44	5.61	5.81	6.03		5.85	5.95	6.10	6.31	6.50		3.18	3.61	4.03	4.49	4.86	
Fraser	51545	4.66	4.86	5.07	5.31	5.55		5.38	5.53	5.69	5.88	6.10		5.94	6.04	6.19	6.39	6.57		3.21	3.63	4.06	4.51	4.87	
Fraser	51943	4.70	4.89	5.10	5.34	5.58		5.42	5.56	5.73	5.92	6.13		5.98	6.08	6.23	6.43	6.61		3.23	3.64	4.07	4.52	4.88	
Fraser	52349	4.73	4.92	5.13	5.36	5.60		5.45	5.59	5.75	5.94	6.16		6.01	6.11	6.25	6.46	6.64		3.25	3.65	4.08	4.53	4.89	
Fraser	52707	4.78	4.97	5.17	5.40	5.64		5.50	5.65	5.81	5.99	6.20		6.07	6.17	6.31	6.51	6.69		3.27	3.67	4.10	4.54	4.90	
Fraser	53123	4.90	5.08	5.28	5.50	5.73		5.63	5.77	5.93	6.11	6.31		6.21	6.30	6.44	6.63	6.80		3.32	3.72	4.14	4.57	4.93	
Fraser	53689	4.95	5.13	5.32	5.54	5.77		5.68	5.82	5.97	6.15	6.35		6.26	6.35	6.49	6.67	6.84		3.34	3.74	4.15	4.59	4.94	
Fraser	53689	4.95	5.13	5.32	5.54	5.77		5.68	5.82	5.97	6.15	6.35		6.26	6.35	6.49	6.67	6.84		3.34	3.74	4.15	4.59	4.94	
Fraser	53954	5.07	5.24	5.44	5.65	5.87		5.82	5.95	6.10	6.27	6.46		6.40	6.49	6.62	6.80	6.96		3.39	3.78	4.19	4.62	4.97	
Fraser	54327	5.11	5.29	5.48	5.69	5.91		5.88	6.01	6.15	6.32	6.51		6.47	6.55	6.68	6.86	7.02		3.41	3.80	4.20	4.63	4.98	
Fraser	54734	5.11	5.29	5.48	5.69	5.90		5.87	6.00	6.15	6.32	6.51		6.47	6.55	6.68	6.86	7.02		3.41	3.80	4.21	4.64	4.98	
Fraser	55128	5.12	5.29	5.48	5.68	5.90		5.86	5.99	6.14	6.30	6.48		6.44	6.52	6.65	6.82	6.98		3.42	3.81	4.22	4.64	4.98	
Fraser	55527	5.14	5.31	5.50	5.70	5.91		5.89	6.02	6.16	6.32	6.50		6.47	6.55	6.67	6.85	7.00		3.43	3.82	4.23	4.65	4.99	
Fraser	55923	5.18	5.34	5.53	5.73	5.95		5.93	6.06	6.20	6.36	6.54		6.51	6.59	6.72	6.89	7.04		3.45	3.84	4.24	4.66	5.00	
Fraser	56318	5.20	5.36	5.55	5.75	5.96		5.95	6.08	6.22	6.38	6.56		6.54	6.62	6.74	6.91	7.06		3.46	3.85	4.25	4.67	5.01	
Fraser	56731	5.23	5.39	5.58	5.78	5.98		5.98	6.11	6.25	6.40	6.58		6.56	6.65	6.77	6.94	7.09		3.48	3.86	4.27	4.68	5.02	
Fraser	57123	5.28	5.44	5.63	5.82	6.03		6.05	6.17	6.30	6.46	6.63		6.63	6.71	6.83	7.00	7.15		3.50	3.89	4.29	4.70	5.03	
Fraser	57451	5.33	5.49	5.67	5.86	6.07		6.10	6.22	6.35	6.50	6.68		6.68	6.76	6.88	7.05	7.19		3.52	3.90	4.30	4.71	5.05	
Fraser	57813	5.32	5.48	5.66	5.85	6.06		6.08	6.21	6.34	6.49	6.67		6.67	6.75	6.87	7.04	7.19		3.51	3.90	4.30	4.71	5.05	



Historical 1:100							Scenario-A (Moderate) 1:100							Scenario-B (Intense) 1:100							Winter 1:100				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	
Fraser	58242	5.38	5.54	5.72	5.92	6.12		6.17	6.29	6.43	6.58	6.75		6.78	6.86	6.98	7.14	7.29		3.54	3.92	4.32	4.73	5.06	
Fraser	58547	5.42	5.58	5.76	5.95	6.15		6.21	6.33	6.46	6.61	6.78		6.82	6.90	7.01	7.17	7.32		3.56	3.94	4.34	4.74	5.08	
Fraser	58935	5.47	5.63	5.80	5.99	6.19		6.26	6.38	6.51	6.66	6.83		6.88	6.95	7.07	7.23	7.38		3.57	3.96	4.35	4.76	5.09	
Fraser	59378	5.46	5.62	5.79	5.98	6.18		6.25	6.37	6.50	6.65	6.81		6.86	6.94	7.05	7.21	7.35		3.58	3.96	4.36	4.76	5.09	
Fraser	59775	5.52	5.68	5.85	6.04	6.23		6.32	6.44	6.56	6.71	6.87		6.93	7.01	7.12	7.28	7.42		3.60	3.98	4.38	4.77	5.11	
Fraser	60164	5.58	5.73	5.91	6.09	6.29		6.39	6.50	6.63	6.77	6.93		7.00	7.08	7.19	7.34	7.48		3.62	4.00	4.39	4.79	5.12	
Fraser	60563	5.61	5.76	5.93	6.11	6.30		6.41	6.53	6.65	6.79	6.95		7.03	7.10	7.21	7.36	7.50		3.63	4.01	4.41	4.80	5.13	
Fraser	60975	5.69	5.84	6.00	6.19	6.37		6.50	6.62	6.74	6.88	7.03		7.13	7.20	7.31	7.46	7.59		3.67	4.04	4.43	4.82	5.15	
Fraser	61128	5.70	5.85	6.01	6.20	6.38		6.52	6.63	6.75	6.89	7.04		7.14	7.21	7.32	7.47	7.60		3.67	4.04	4.44	4.82	5.16	
Fraser	61128	5.70	5.85	6.01	6.20	6.38		6.52	6.63	6.75	6.89	7.04		7.14	7.21	7.32	7.47	7.60		3.67	4.04	4.44	4.82	5.16	
Fraser	61327	5.70	5.85	6.01	6.20	6.38		6.52	6.63	6.75	6.89	7.04		7.14	7.21	7.32	7.47	7.60		3.67	4.05	4.44	4.83	5.16	
Fraser	61633	5.70	5.85	6.02	6.20	6.39		6.52	6.63	6.75	6.90	7.05		7.15	7.22	7.33	7.48	7.61		3.68	4.05	4.44	4.83	5.16	
Fraser	61947	5.71	5.85	6.02	6.20	6.39		6.52	6.64	6.75	6.90	7.05		7.15	7.22	7.33	7.47	7.60		3.68	4.05	4.44	4.83	5.16	
Fraser	62124	5.72	5.87	6.03	6.21	6.40		6.53	6.65	6.76	6.91	7.06		7.16	7.23	7.34	7.48	7.61		3.69	4.06	4.45	4.83	5.16	
Fraser	62381	5.71	5.85	6.02	6.20	6.39		6.52	6.63	6.75	6.90	7.06		7.16	7.23	7.34	7.49	7.62		3.69	4.06	4.45	4.83	5.16	
Fraser	62625	5.76	5.90	6.07	6.24	6.43		6.58	6.69	6.81	6.95	7.10		7.21	7.29	7.39	7.54	7.67		3.71	4.07	4.46	4.85	5.17	
Fraser	62887	5.76	5.91	6.08	6.25	6.44		6.59	6.70	6.82	6.96	7.11		7.22	7.29	7.39	7.53	7.66		3.71	4.08	4.46	4.85	5.18	
Fraser	63234	5.79	5.94	6.10	6.28	6.46		6.62	6.73	6.85	6.99	7.14		7.26	7.33	7.43	7.57	7.70		3.72	4.09	4.47	4.86	5.19	
Fraser	63635	5.80	5.94	6.11	6.28	6.46		6.62	6.73	6.84	6.98	7.13		7.24	7.31	7.41	7.55	7.68		3.73	4.09	4.48	4.86	5.19	
Fraser	64027	5.85	5.99	6.15	6.32	6.50		6.67	6.78	6.90	7.03	7.17		7.29	7.36	7.46	7.60	7.72		3.75	4.11	4.50	4.87	5.20	
Fraser	64501	5.95	6.10	6.25	6.41	6.59		6.79	6.90	7.01	7.14	7.28		7.42	7.48	7.58	7.71	7.83		3.79	4.15	4.53	4.90	5.23	
Fraser	64820	6.01	6.15	6.31	6.47	6.64		6.85	6.96	7.08	7.21	7.34		7.49	7.55	7.65	7.78	7.89		3.82	4.17	4.55	4.92	5.24	
Fraser	65249	6.02	6.17	6.32	6.48	6.65		6.87	6.97	7.09	7.22	7.35		7.50	7.57	7.66	7.78	7.90		3.83	4.19	4.56	4.92	5.25	
Fraser	65504	6.05	6.20	6.35	6.51	6.67		6.90	7.01	7.12	7.25	7.38		7.54	7.60	7.69	7.82	7.93		3.85	4.20	4.57	4.93	5.26	
Fraser	65504	6.05	6.20	6.35	6.51	6.67		6.90	7.01	7.12	7.25	7.38		7.54	7.60	7.69	7.82	7.93		3.85	4.20	4.57	4.93	5.26	
Fraser	65697	6.16	6.30	6.45	6.60	6.76		7.01	7.12	7.23	7.35	7.48		7.66	7.72	7.80	7.93	8.04		3.90	4.25	4.61	4.96	5.29	
Fraser	65970	6.19	6.33	6.48	6.63	6.79		7.05	7.15	7.26	7.39	7.51		7.69	7.75	7.84	7.96	8.08		3.92	4.26	4.62	4.97	5.31	
Fraser	66297	6.21	6.35	6.50	6.65	6.81		7.07	7.17	7.28	7.40	7.53		7.71	7.77	7.86	7.98	8.09		3.94	4.27	4.63	4.98	5.31	
Fraser	66674	6.22	6.36	6.50	6.65	6.81		7.07	7.17	7.28	7.40	7.53		7.71	7.77	7.86	7.98	8.09		3.95	4.28	4.63	4.98	5.32	
Fraser	67082	6.22	6.36	6.51	6.65	6.81		7.08	7.18	7.29	7.41	7.54		7.72	7.78	7.87	7.99	8.10		3.96	4.29	4.64	4.99	5.32	
Fraser	67480	6.26	6.40	6.54	6.68	6.84		7.11	7.21	7.32	7.44	7.56		7.75	7.81	7.89	8.01	8.12		3.97	4.30	4.65	5.00	5.34	
Fraser	67886	6.27	6.40	6.54	6.69	6.85		7.11	7.22	7.32	7.44	7.57		7.75	7.81	7.90	8.01	8.12		3.99	4.31	4.66	5.00	5.34	
Fraser	68275	6.28	6.41	6.55	6.70	6.85		7.12	7.22	7.33	7.45	7.57		7.76	7.82	7.90	8.02	8.13		4.00	4.32	4.66	5.01	5.35	
Fraser	68690	6.29	6.43	6.57	6.71	6.87		7.14	7.24	7.34	7.46	7.58		7.77	7.83	7.92	8.03	8.14		4.01	4.33	4.67	5.01	5.36	
Fraser	69154	6.33	6.47	6.61	6.75	6.90		7.18	7.28	7.38	7.50	7.62		7.82	7.88	7.96	8.07	8.18		4.03	4.35	4.69	5.03	5.37	
Fraser	69599	6.36	6.49	6.63	6.77	6.92		7.21	7.31	7.41	7.53	7.65		7.85	7.91	7.99	8.10	8.21		4.04	4.36	4.69	5.04	5.38	
Fraser	70006	6.40	6.54	6.67	6.81	6.96		7.26	7.36	7.46	7.58	7.70		7.91	7.97	8.05	8.16	8.27		4.07	4.38	4.71	5.05	5.40	
Fraser	70401	6.43	6.56	6.70	6.84	6.99		7.29	7.39	7.49	7.61	7.73		7.94	8.00	8.08	8.19	8.30		4.08	4.39	4.72	5.07	5.41	
Fraser	70804	6.47	6.60	6.74	6.88	7.03		7.34	7.44	7.54	7.65	7.77		8.00	8.05	8.13	8.25	8.35		4.10	4.41	4.73	5.08	5.42	
Fraser	70882	6.48	6.61	6.74	6.88	7.03		7.35	7.44	7.54	7.66	7.78		8.00	8.06	8.14	8.25	8.35		4.10	4.41	4.74	5.08	5.42	
Fraser	70882	6.48	6.61	6.74	6.88	7.03		7.35	7.44	7.54	7.66	7.78		8.00	8.06	8.14	8.25	8.35		4.10	4.41	4.74	5.08	5.42	

Historical 1:100							Scenario-A (Moderate) 1:100							Scenario-B (Intense) 1:100							Winter 1:100				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	
Fraser	71256	6.37	6.50	6.64	6.78	6.93		7.22	7.32	7.42	7.53	7.65		7.86	7.91	7.99	8.11	8.21		4.07	4.38	4.71	5.05	5.40	
Fraser	71642	6.46	6.59	6.73	6.86	7.01		7.32	7.42	7.52	7.63	7.75		7.97	8.02	8.10	8.21	8.31		4.11	4.42	4.74	5.09	5.43	
Fraser	72035	6.50	6.63	6.76	6.90	7.05		7.36	7.46	7.56	7.67	7.78		8.01	8.06	8.14	8.25	8.35		4.13	4.44	4.76	5.11	5.44	
Fraser	72477	6.55	6.68	6.81	6.94	7.09		7.42	7.51	7.61	7.72	7.83		8.07	8.12	8.20	8.31	8.40		4.16	4.47	4.79	5.13	5.46	
Fraser	72960	6.61	6.74	6.87	7.00	7.14		7.48	7.58	7.67	7.78	7.89		8.14	8.19	8.27	8.38	8.47		4.19	4.49	4.81	5.15	5.48	
Fraser	73369	6.69	6.82	6.95	7.08	7.22		7.58	7.67	7.76	7.87	7.98		8.23	8.29	8.36	8.47	8.56		4.25	4.55	4.86	5.20	5.52	
Fraser	73842	6.77	6.89	7.02	7.15	7.29		7.66	7.75	7.84	7.94	8.05		8.32	8.37	8.45	8.55	8.64		4.29	4.59	4.90	5.23	5.54	
Fraser	74310	6.77	6.89	7.02	7.15	7.29		7.66	7.74	7.84	7.94	8.05		8.32	8.37	8.44	8.54	8.63		4.30	4.59	4.90	5.23	5.55	
Fraser	74580	6.79	6.91	7.03	7.16	7.30		7.67	7.76	7.85	7.95	8.06		8.33	8.38	8.45	8.56	8.65		4.31	4.60	4.91	5.24	5.55	
Fraser	74790	6.83	6.95	7.07	7.20	7.34		7.71	7.80	7.89	7.99	8.10		8.38	8.43	8.50	8.60	8.69		4.33	4.62	4.93	5.25	5.57	
Fraser	74970	6.84	6.96	7.08	7.21	7.35		7.73	7.81	7.90	8.00	8.11		8.39	8.44	8.51	8.61	8.70		4.34	4.63	4.93	5.26	5.57	
Fraser	74970	6.84	6.96	7.08	7.21	7.35		7.73	7.81	7.90	8.00	8.11		8.39	8.44	8.51	8.61	8.70		4.34	4.63	4.93	5.26	5.57	
Fraser	75211	6.88	6.99	7.12	7.24	7.38		7.77	7.85	7.94	8.04	8.15		8.44	8.49	8.56	8.66	8.75		4.36	4.64	4.95	5.27	5.58	
Fraser	75604	6.87	6.99	7.11	7.23	7.37		7.76	7.84	7.93	8.03	8.14		8.42	8.47	8.54	8.64	8.73		4.36	4.65	4.95	5.27	5.58	
Fraser	76008	6.88	7.00	7.12	7.24	7.38		7.77	7.85	7.94	8.04	8.15		8.43	8.48	8.55	8.65	8.73		4.37	4.66	4.96	5.28	5.59	
Fraser	76419	6.90	7.02	7.14	7.26	7.40		7.78	7.87	7.96	8.06	8.16		8.45	8.49	8.56	8.66	8.75		4.38	4.67	4.97	5.29	5.60	
Fraser	76811	6.91	7.03	7.14	7.27	7.40		7.80	7.88	7.97	8.07	8.17		8.46	8.51	8.58	8.68	8.77		4.38	4.67	4.97	5.29	5.60	
Fraser	77165	6.96	7.08	7.19	7.32	7.45		7.85	7.94	8.03	8.12	8.23		8.52	8.57	8.64	8.74	8.82		4.41	4.69	4.99	5.31	5.61	
Fraser	77577	7.03	7.14	7.26	7.38	7.51		7.93	8.01	8.10	8.20	8.29		8.60	8.65	8.72	8.82	8.90		4.44	4.72	5.02	5.34	5.64	
Fraser	78036	7.10	7.21	7.33	7.45	7.58		8.01	8.09	8.18	8.28	8.37		8.70	8.74	8.81	8.91	8.99		4.47	4.75	5.04	5.36	5.66	
Fraser	78432	7.14	7.26	7.37	7.49	7.62		8.06	8.14	8.23	8.32	8.42		8.75	8.80	8.86	8.96	9.04		4.50	4.77	5.06	5.38	5.67	
Fraser	78677	7.16	7.27	7.39	7.51	7.64		8.08	8.16	8.25	8.34	8.44		8.77	8.82	8.88	8.98	9.06		4.51	4.78	5.07	5.39	5.68	
Fraser	78677	7.16	7.27	7.39	7.51	7.64		8.08	8.16	8.25	8.34	8.44		8.77	8.82	8.88	8.98	9.06		4.51	4.78	5.07	5.39	5.68	
Fraser	79359	7.12	7.23	7.35	7.47	7.60		8.04	8.12	8.20	8.30	8.40		8.73	8.78	8.84	8.94	9.02		4.49	4.76	5.06	5.38	5.67	
Fraser	79751	7.14	7.25	7.37	7.48	7.61		8.05	8.13	8.22	8.31	8.41		8.74	8.78	8.85	8.94	9.02		4.52	4.78	5.08	5.39	5.68	
Fraser	80151	7.16	7.27	7.38	7.50	7.63		8.06	8.14	8.23	8.32	8.41		8.74	8.79	8.85	8.95	9.03		4.53	4.79	5.09	5.40	5.69	
Fraser	80578	7.23	7.34	7.45	7.57	7.69		8.15	8.23	8.31	8.40	8.50		8.84	8.88	8.95	9.04	9.12		4.56	4.82	5.11	5.42	5.71	
Fraser	81062	7.26	7.37	7.48	7.59	7.72		8.18	8.26	8.34	8.43	8.52		8.87	8.91	8.97	9.06	9.14		4.58	4.84	5.12	5.43	5.72	
Fraser	81501	7.28	7.39	7.50	7.61	7.74		8.20	8.27	8.35	8.45	8.54		8.88	8.93	8.99	9.08	9.16		4.60	4.85	5.14	5.45	5.73	
Fraser	81974	7.38	7.49	7.59	7.71	7.83		8.30	8.38	8.45	8.54	8.63		8.99	9.03	9.09	9.18	9.25		4.66	4.91	5.19	5.49	5.78	
Fraser	82376	7.45	7.55	7.65	7.76	7.88		8.37	8.44	8.52	8.60	8.69		9.05	9.10	9.16	9.24	9.32		4.70	4.95	5.22	5.52	5.80	
Fraser	82780	7.43	7.53	7.64	7.75	7.87		8.35	8.42	8.49	8.58	8.67		9.03	9.07	9.13	9.21	9.29		4.72	4.96	5.23	5.52	5.81	
Fraser	83180	7.45	7.55	7.65	7.76	7.88		8.36	8.43	8.51	8.59	8.68		9.04	9.08	9.14	9.23	9.30		4.73	4.97	5.24	5.53	5.82	
Fraser	83621	7.51	7.61	7.71	7.82	7.94		8.43	8.50	8.57	8.66	8.74		9.11	9.15	9.21	9.30	9.37		4.77	5.00	5.27	5.56	5.84	
Fraser	83887	7.53	7.63	7.73	7.84	7.95		8.45	8.52	8.59	8.68	8.76		9.13	9.17	9.23	9.32	9.39		4.78	5.02	5.28	5.57	5.85	
Fraser	83887	7.53	7.63	7.73	7.84	7.95		8.45	8.52	8.59	8.68	8.76		9.13	9.17	9.23	9.32	9.39		4.78	5.02	5.28	5.57	5.85	
Fraser	84093	7.68	7.77	7.87	7.97	8.08		8.60	8.67	8.74	8.82	8.91		9.29	9.33	9.39	9.47	9.54		4.86	5.09	5.35	5.63	5.91	
Fraser	84339	7.67	7.77	7.87	7.97	8.08		8.59	8.66	8.73	8.82	8.90		9.28	9.32	9.38	9.46	9.53		4.87	5.09	5.35	5.63	5.91	
Fraser	84641	7.68	7.77	7.87	7.97	8.08		8.59	8.66	8.73	8.81	8.89		9.27	9.31	9.37	9.45	9.52		4.88	5.10	5.36	5.64	5.92	
Fraser	85038	7.74	7.83	7.93	7.98	8.09		8.64	8.67	8.73	8.81	8.89		9.28	9.32	9.37	9.45	9.52		4.94	5.17	5.41	5.69	5.98	
Fraser	85182	7.77	7.86	7.95	8.01	8.11		8.67	8.70	8.77	8.85	8.93		9.31	9.35	9.41	9.48	9.55		4.96	5.19	5.43	5.71	5.99	

Historical 1:100							Scenario-A (Moderate) 1:100							Scenario-B (Intense) 1:100							Winter 1:100				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	
Fraser	85265	7.76	7.85	7.95	8.00	8.11		8.66	8.69	8.76	8.84	8.92		9.30	9.34	9.40	9.47	9.54		4.95	5.18	5.43	5.71	5.98	
Fraser	85416	7.82	7.90	8.00	8.07	8.17		8.66	8.69	8.76	8.84	8.92		9.31	9.35	9.40	9.48	9.58		4.99	5.23	5.47	5.75	6.03	
Fraser_R	85450	7.82	7.90	8.00	8.07	8.17		8.66	8.69	8.76	8.84	8.92		9.31	9.35	9.40	9.48	9.58		4.99	5.23	5.47	5.75	6.03	
Fraser_R	85758	7.83	7.91	8.01	8.08	8.18		8.67	8.70	8.77	8.85	8.93		9.32	9.36	9.41	9.49	9.58		5.00	5.24	5.48	5.76	6.03	
Fraser_R	86107	7.86	7.95	8.04	8.11	8.22		8.71	8.74	8.81	8.89	8.97		9.36	9.40	9.46	9.53	9.63		5.02	5.26	5.50	5.77	6.05	
Fraser_R	86595	7.89	7.98	8.07	8.14	8.24		8.74	8.77	8.84	8.92	9.00		9.39	9.43	9.48	9.56	9.65		5.04	5.27	5.51	5.79	6.06	
Fraser_R	86949	7.93	8.02	8.11	8.18	8.28		8.79	8.82	8.89	8.96	9.05		9.45	9.49	9.54	9.61	9.70		5.06	5.29	5.53	5.80	6.07	
Fraser_R	87330	7.95	8.04	8.13	8.20	8.30		8.82	8.85	8.91	8.99	9.07		9.48	9.51	9.57	9.64	9.73		5.07	5.30	5.54	5.81	6.08	
Fraser_R	87683	7.97	8.05	8.15	8.21	8.31		8.83	8.86	8.92	9.00	9.08		9.49	9.53	9.58	9.66	9.74		5.08	5.31	5.54	5.82	6.09	
Fraser_R	88073	7.98	8.07	8.16	8.22	8.33		8.85	8.88	8.94	9.02	9.10		9.51	9.55	9.60	9.68	9.77		5.08	5.31	5.55	5.82	6.09	
Fraser_R	88434	8.01	8.10	8.19	8.25	8.35		8.87	8.90	8.97	9.04	9.12		9.53	9.57	9.62	9.69	9.78		5.11	5.34	5.57	5.84	6.11	
Fraser_R	88806	8.21	8.29	8.38	8.44	8.54		9.11	9.14	9.20	9.27	9.35		9.80	9.83	9.88	9.95	10.03		5.20	5.42	5.65	5.92	6.18	
Fraser_R	89286	8.22	8.31	8.39	8.46	8.56		9.13	9.16	9.22	9.29	9.37		9.82	9.86	9.91	9.98	10.06		5.19	5.42	5.65	5.92	6.18	
Fraser_R	89601	8.21	8.29	8.38	8.44	8.54		9.10	9.13	9.19	9.27	9.34		9.79	9.83	9.88	9.95	10.03		5.19	5.41	5.64	5.91	6.18	
Fraser_R	89916	8.26	8.34	8.43	8.49	8.59		9.17	9.20	9.26	9.33	9.40		9.86	9.90	9.95	10.02	10.10		5.22	5.44	5.67	5.94	6.20	
Fraser_R	90250	8.30	8.38	8.46	8.53	8.62		9.20	9.23	9.29	9.36	9.44		9.90	9.93	9.98	10.05	10.13		5.24	5.46	5.69	5.95	6.21	
Fraser_R	90626	8.31	8.39	8.48	8.54	8.63		9.22	9.24	9.30	9.37	9.45		9.91	9.95	10.00	10.06	10.15		5.25	5.47	5.70	5.96	6.22	
Fraser_R	90963	8.35	8.43	8.51	8.58	8.67		9.26	9.29	9.34	9.42	9.49		9.96	9.99	10.04	10.11	10.19		5.27	5.49	5.72	5.98	6.24	
Fraser_R	91389	8.38	8.46	8.55	8.61	8.70		9.29	9.32	9.38	9.45	9.52		9.99	10.03	10.07	10.14	10.22		5.30	5.52	5.74	6.00	6.25	
Fraser_R	91751	8.41	8.49	8.58	8.64	8.73		9.33	9.35	9.41	9.48	9.55		10.02	10.06	10.10	10.17	10.25		5.32	5.54	5.76	6.02	6.27	
Fraser_R	92078	8.46	8.54	8.62	8.68	8.77		9.38	9.40	9.46	9.53	9.60		10.07	10.11	10.15	10.22	10.30		5.35	5.57	5.79	6.04	6.29	
Fraser_R	92483	8.51	8.59	8.67	8.73	8.82		9.43	9.45	9.51	9.58	9.65		10.13	10.16	10.21	10.27	10.35		5.39	5.60	5.82	6.07	6.32	
Fraser_R	92893	8.54	8.61	8.69	8.75	8.84		9.45	9.48	9.53	9.60	9.67		10.15	10.18	10.23	10.29	10.37		5.41	5.62	5.84	6.09	6.33	
Fraser_R	93270	8.55	8.62	8.70	8.76	8.85		9.46	9.49	9.54	9.61	9.68		10.16	10.19	10.24	10.30	10.38		5.43	5.63	5.85	6.10	6.34	
Fraser_R	93643	8.58	8.65	8.73	8.79	8.88		9.49	9.52	9.57	9.64	9.71		10.19	10.22	10.26	10.33	10.40		5.45	5.65	5.87	6.12	6.36	
Fraser_R	93974	8.61	8.68	8.76	8.82	8.91		9.53	9.55	9.61	9.67	9.74		10.23	10.26	10.30	10.37	10.44		5.47	5.67	5.89	6.13	6.37	
Fraser_R	94338	8.66	8.73	8.81	8.86	8.95		9.58	9.60	9.66	9.72	9.79		10.28	10.31	10.36	10.42	10.49		5.50	5.70	5.91	6.16	6.39	
Fraser_R	94714	8.70	8.77	8.85	8.91	8.99		9.63	9.65	9.70	9.77	9.84		10.33	10.36	10.41	10.47	10.54		5.53	5.73	5.94	6.18	6.42	
Fraser_R	95088	8.74	8.81	8.89	8.94	9.03		9.67	9.69	9.74	9.81	9.88		10.38	10.41	10.45	10.51	10.59		5.55	5.75	5.96	6.20	6.43	
Fraser_R	95477	8.79	8.86	8.94	8.99	9.08		9.72	9.75	9.80	9.86	9.93		10.44	10.47	10.51	10.57	10.64		5.59	5.78	5.99	6.23	6.46	
Fraser_R	95847	8.78	8.85	8.93	8.98	9.07		9.72	9.74	9.79	9.86	9.92		10.44	10.47	10.51	10.57	10.64		5.58	5.78	5.98	6.22	6.45	
Fraser_R	96277	8.83	8.90	8.98	9.03	9.12		9.77	9.79	9.85	9.91	9.98		10.49	10.52	10.57	10.62	10.70		5.61	5.81	6.01	6.25	6.48	
Fraser_R	96597	8.84	8.91	8.99	9.04	9.13		9.80	9.82	9.87	9.93	10.00		10.52	10.55	10.59	10.65	10.72		5.63	5.82	6.02	6.26	6.49	
Fraser_R	97004	8.86	8.92	9.00	9.05	9.14		9.78	9.80	9.85	9.92	9.98		10.49	10.52	10.56	10.62	10.69		5.65	5.84	6.04	6.27	6.50	
Fraser_R	97348	8.88	8.95	9.02	9.08	9.16		9.81	9.83	9.88	9.94	10.01		10.52	10.55	10.59	10.65	10.72		5.67	5.85	6.06	6.29	6.52	
Fraser_R	97701	8.95	9.02	9.09	9.15	9.23		9.89	9.91	9.96	10.02	10.08		10.59	10.62	10.66	10.71	10.78		5.71	5.90	6.10	6.33	6.55	
Fraser_R	98091	9.00	9.06	9.13	9.18	9.26		9.93	9.95	10.00	10.06	10.12		10.63	10.65	10.69	10.75	10.81		5.75	5.93	6.13	6.36	6.58	
Fraser_R	98420	9.02	9.09	9.16	9.21	9.29		9.95	9.98	10.02	10.08	10.14		10.65	10.68	10.71	10.77	10.83		5.78	5.96	6.16	6.38	6.60	
Fraser_R	98751	9.03	9.10	9.17	9.22	9.30		9.96	9.98	10.03	10.09	10.15		10.66	10.69	10.72	10.78	10.84		5.79	5.97	6.16	6.39	6.61	
Fraser_R	99087	9.11	9.18	9.25	9.30	9.37		10.05	10.07	10.12	10.17	10.23		10.75	10.77	10.81	10.86	10.93		5.84	6.02	6.21	6.43	6.65	
Fraser_R	99341	9.16	9.22	9.29	9.34	9.41		10.10	10.12	10.16	10.22	10.28		10.80	10.83	10.87	10.92	10.98		5.86	6.04	6.23	6.45	6.67	

Historical 1:100							Scenario-A (Moderate) 1:100							Scenario-B (Intense) 1:100							Winter 1:100				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)				
Fraser_R	99644	9.19	9.26	9.32	9.37	9.45	10.14	10.16	10.20	10.26	10.32	10.85	10.87	10.91	10.96	11.03	5.89	6.07	6.26	6.47	6.69				
Fraser_R	99955	9.23	9.29	9.36	9.41	9.48	10.18	10.20	10.24	10.30	10.36	10.89	10.91	10.95	11.00	11.07	5.92	6.09	6.28	6.49	6.71				
Fraser_R	99955	9.23	9.29	9.36	9.41	9.48	10.18	10.20	10.24	10.30	10.36	10.89	10.91	10.95	11.00	11.07	5.92	6.09	6.28	6.49	6.71				
Fraser_R	100348	9.23	9.29	9.36	9.41	9.48	10.18	10.20	10.24	10.30	10.36	10.89	10.91	10.95	11.00	11.06	5.92	6.09	6.28	6.49	6.71				
Fraser_R	100688	9.26	9.32	9.39	9.44	9.51	10.21	10.23	10.27	10.33	10.39	10.92	10.95	10.98	11.03	11.10	5.94	6.11	6.30	6.51	6.72				
Fraser_R	101083	9.28	9.34	9.41	9.46	9.53	10.23	10.25	10.29	10.35	10.41	10.94	10.97	11.00	11.05	11.12	5.96	6.13	6.31	6.53	6.74				
Fraser_R	101411	9.28	9.34	9.41	9.46	9.53	10.23	10.25	10.29	10.35	10.40	10.94	10.96	11.00	11.05	11.11	5.96	6.13	6.32	6.53	6.74				
Fraser_R	101745	9.27	9.33	9.40	9.45	9.52	10.22	10.24	10.28	10.34	10.39	10.93	10.96	10.99	11.04	11.11	5.97	6.14	6.32	6.53	6.74				
Fraser_R	102107	9.36	9.42	9.49	9.53	9.61	10.30	10.32	10.37	10.42	10.48	11.01	11.04	11.07	11.12	11.18	6.05	6.21	6.39	6.59	6.80				
Fraser_R	102614	9.39	9.45	9.51	9.56	9.63	10.33	10.35	10.39	10.44	10.50	11.03	11.06	11.09	11.14	11.20	6.08	6.24	6.41	6.62	6.82				
Fraser_R	103057	9.41	9.47	9.54	9.58	9.65	10.35	10.37	10.41	10.46	10.51	11.05	11.07	11.11	11.16	11.22	6.12	6.28	6.45	6.65	6.84				
Fraser_R	103447	9.46	9.52	9.58	9.62	9.69	10.39	10.41	10.45	10.50	10.55	11.09	11.11	11.14	11.19	11.25	6.18	6.33	6.50	6.69	6.88				
Fraser_R	103782	9.52	9.58	9.64	9.68	9.75	10.45	10.47	10.50	10.55	10.61	11.14	11.16	11.19	11.24	11.30	6.25	6.40	6.56	6.74	6.93				
Fraser_R	104233	9.60	9.66	9.71	9.76	9.82	10.53	10.55	10.59	10.63	10.69	11.22	11.24	11.27	11.32	11.38	6.32	6.46	6.62	6.80	6.98				
Fraser_R	104653	9.66	9.71	9.77	9.81	9.88	10.58	10.60	10.64	10.68	10.73	11.27	11.29	11.32	11.37	11.42	6.39	6.53	6.68	6.85	7.03				
Fraser_R	105033	9.69	9.74	9.80	9.84	9.90	10.60	10.62	10.66	10.70	10.75	11.29	11.31	11.34	11.38	11.44	6.44	6.57	6.71	6.89	7.06				
Fraser_R	105317	9.70	9.75	9.80	9.85	9.91	10.61	10.63	10.67	10.71	10.76	11.30	11.32	11.35	11.39	11.45	6.46	6.58	6.73	6.90	7.07				
Fraser_R	105752	9.74	9.79	9.84	9.88	9.95	10.65	10.67	10.70	10.75	10.80	11.33	11.35	11.38	11.43	11.48	6.52	6.64	6.78	6.94	7.11				
Fraser_R	106155	9.77	9.82	9.88	9.92	9.98	10.68	10.69	10.73	10.78	10.82	11.36	11.38	11.41	11.45	11.50	6.57	6.69	6.83	6.99	7.15				
Fraser_R	106506	9.79	9.84	9.90	9.94	10.00	10.70	10.72	10.75	10.80	10.85	11.38	11.40	11.43	11.47	11.52	6.61	6.73	6.86	7.02	7.17				
Fraser_R	106807	9.81	9.86	9.91	9.95	10.01	10.71	10.72	10.76	10.80	10.85	11.38	11.40	11.43	11.48	11.53	6.65	6.77	6.89	7.04	7.20				
Fraser_R	106807	9.81	9.86	9.91	9.95	10.01	10.71	10.72	10.76	10.80	10.85	11.38	11.40	11.43	11.48	11.53	6.65	6.77	6.89	7.04	7.20				
Fraser_R	107158	9.74	9.79	9.84	9.88	9.95	10.63	10.65	10.69	10.73	10.78	11.30	11.32	11.35	11.40	11.45	6.63	6.74	6.86	7.02	7.17				
Fraser_R	107502	9.78	9.83	9.88	9.92	9.98	10.66	10.68	10.72	10.76	10.81	11.33	11.35	11.38	11.42	11.47	6.74	6.84	6.95	7.09	7.24				
Fraser_R	107855	9.86	9.91	9.96	10.00	10.05	10.74	10.75	10.79	10.83	10.88	11.40	11.42	11.45	11.49	11.54	6.84	6.94	7.04	7.18	7.31				
Fraser_R	108192	9.90	9.95	10.00	10.03	10.09	10.77	10.78	10.82	10.86	10.90	11.42	11.44	11.47	11.51	11.56	6.95	7.03	7.13	7.25	7.38				
Fraser_R	108505	10.03	10.07	10.12	10.16	10.21	10.89	10.91	10.94	10.98	11.03	11.55	11.57	11.60	11.64	11.68	7.05	7.13	7.23	7.34	7.47				
Fraser_R	108822	10.15	10.19	10.23	10.27	10.32	11.00	11.02	11.05	11.09	11.13	11.65	11.67	11.70	11.74	11.78	7.21	7.28	7.37	7.47	7.59				
Fraser_R	109145	10.21	10.25	10.29	10.33	10.38	11.05	11.07	11.10	11.14	11.18	11.70	11.72	11.74	11.78	11.82	7.35	7.41	7.49	7.58	7.68				
Fraser_R	109489	10.26	10.30	10.35	10.38	10.43	11.11	11.13	11.16	11.19	11.23	11.76	11.78	11.80	11.84	11.88	7.45	7.51	7.57	7.66	7.75				
Fraser_R	109795	10.33	10.37	10.41	10.44	10.49	11.17	11.18	11.21	11.25	11.29	11.82	11.84	11.86	11.90	11.94	7.50	7.56	7.62	7.70	7.79				
Fraser_R	109795	10.33	10.37	10.41	10.44	10.49	11.17	11.18	11.21	11.25	11.29	11.82	11.84	11.86	11.90	11.94	7.50	7.56	7.62	7.70	7.79				
Fraser_R	110180	10.40	10.44	10.48	10.51	10.56	11.23	11.24	11.27	11.30	11.34	11.85	11.86	11.89	11.92	11.96	7.64	7.69	7.75	7.83	7.91				
Fraser_R	110180	10.40	10.44	10.48	10.51	10.56	11.23	11.24	11.27	11.30	11.34	11.85	11.86	11.89	11.92	11.96	7.64	7.69	7.75	7.83	7.91				
Fraser_R	110821	10.60	10.63	10.67	10.70	10.74	11.37	11.38	11.41	11.44	11.47	11.96	11.97	11.99	12.03	12.06	7.90	7.94	7.99	8.06	8.13				
Fraser_R	110821	10.60	10.63	10.67	10.70	10.74	11.37	11.38	11.41	11.44	11.47	11.96	11.97	11.99	12.03	12.06	7.90	7.94	7.99	8.06	8.13				
Fraser_R	111192	10.61	10.64	10.67	10.70	10.74	11.36	11.37	11.39	11.42	11.45	11.93	11.95	11.97	12.00	12.04	8.01	8.05	8.09	8.15	8.22				
Fraser_R	111192	10.61	10.64	10.67	10.70	10.74	11.36	11.37	11.39	11.42	11.45	11.93	11.95	11.97	12.00	12.04	8.01	8.05	8.09	8.15	8.22				
Fraser_R	111514	10.62	10.66	10.69	10.71	10.75	11.38	11.39	11.41	11.44	11.47	11.95	11.97	11.99	12.02	12.06	8.03	8.07	8.11	8.17	8.24				
Fraser_R	111886	10.79	10.82	10.85	10.87	10.91	11.54	11.55	11.57	11.60	11.63	12.11	12.13	12.15	12.18	12.21	8.13	8.16	8.21	8.26	8.33				
Fraser_R	112217	10.93	10.96	10.99	11.01	11.05	11.67	11.68	11.70	11.73	11.76	12.24	12.25	12.27	12.30	12.33	8.24	8.27	8.32	8.37	8.44				

Historical 1:100							Scenario-A (Moderate) 1:100							Scenario-B (Intense) 1:100							Winter 1:100				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	
Fraser_R	112217	10.93	10.96	10.99	11.01	11.05		11.67	11.68	11.70	11.73	11.76		12.24	12.25	12.27	12.30	12.33		8.24	8.27	8.32	8.37	8.44	
Fraser_R	112565	11.00	11.03	11.05	11.08	11.11		11.74	11.75	11.77	11.79	11.82		12.31	12.32	12.34	12.36	12.40		8.31	8.34	8.38	8.44	8.50	
Fraser_R	112565	11.00	11.03	11.05	11.08	11.11		11.74	11.75	11.77	11.79	11.82		12.31	12.32	12.34	12.36	12.40		8.31	8.34	8.38	8.44	8.50	
Fraser_R	112925	11.03	11.05	11.08	11.10	11.14		11.77	11.78	11.80	11.82	11.85		12.33	12.34	12.36	12.39	12.42		8.35	8.38	8.42	8.47	8.53	
Fraser_R	112925	11.03	11.05	11.08	11.10	11.14		11.77	11.78	11.80	11.82	11.85		12.33	12.34	12.36	12.39	12.42		8.35	8.38	8.42	8.47	8.53	
Fraser_R	113344	11.06	11.08	11.11	11.13	11.16		11.78	11.79	11.81	11.84	11.86		12.34	12.36	12.37	12.40	12.43		8.45	8.48	8.52	8.56	8.61	
Fraser_R	113644	11.10	11.12	11.15	11.17	11.20		11.82	11.83	11.85	11.87	11.90		12.37	12.39	12.40	12.43	12.46		8.56	8.59	8.62	8.66	8.71	
Fraser_R	114093	11.29	11.31	11.33	11.35	11.37		11.96	11.97	11.99	12.01	12.03		12.49	12.51	12.52	12.54	12.57		8.83	8.85	8.87	8.91	8.95	
Fraser_R	114093	11.29	11.31	11.33	11.35	11.37		11.96	11.97	11.99	12.01	12.03		12.49	12.51	12.52	12.54	12.57		8.83	8.85	8.87	8.91	8.95	
Fraser_R	114403	11.32	11.34	11.36	11.38	11.40		11.97	11.98	12.00	12.02	12.04		12.48	12.49	12.51	12.53	12.56		8.93	8.95	8.97	9.00	9.04	
Fraser_R	114731	11.58	11.60	11.62	11.63	11.66		12.25	12.26	12.27	12.29	12.31		12.78	12.79	12.80	12.82	12.84		9.10	9.12	9.14	9.17	9.20	
Fraser_R	115152	11.71	11.72	11.74	11.76	11.78		12.38	12.39	12.41	12.42	12.44		12.91	12.92	12.94	12.96	12.98		9.18	9.20	9.22	9.25	9.28	
Fraser_R	115530	11.80	11.81	11.83	11.84	11.87		12.48	12.48	12.50	12.51	12.53		13.01	13.02	13.03	13.05	13.07		9.27	9.28	9.30	9.33	9.36	
Fraser_R	115921	11.89	11.90	11.92	11.93	11.95		12.58	12.59	12.60	12.62	12.63		13.12	13.13	13.14	13.16	13.18		9.34	9.35	9.37	9.40	9.43	
Fraser_R	116277	11.95	11.96	11.98	11.99	12.01		12.60	12.61	12.62	12.63	12.65		13.12	13.12	13.14	13.15	13.17		9.47	9.49	9.50	9.53	9.55	
Fraser_R	116526	12.02	12.03	12.05	12.06	12.08		12.68	12.68	12.70	12.71	12.73		13.20	13.20	13.22	13.23	13.25		9.53	9.55	9.56	9.59	9.61	
Fraser_R	116822	12.44	12.45	12.46	12.47	12.49		13.14	13.15	13.16	13.17	13.19		13.70	13.71	13.72	13.73	13.75		9.79	9.80	9.82	9.84	9.86	
Fraser_R	117205	12.68	12.70	12.71	12.72	12.73		13.40	13.41	13.42	13.43	13.45		13.97	13.98	13.99	14.00	14.01		9.96	9.97	9.99	10.01	10.03	
Fraser_R	117465	12.72	12.73	12.74	12.75	12.77		13.44	13.44	13.45	13.46	13.48		14.00	14.01	14.02	14.03	14.05		9.99	10.00	10.02	10.04	10.06	
Fraser_R	117465	12.72	12.73	12.74	12.75	12.77		13.44	13.44	13.45	13.46	13.48		14.00	14.01	14.02	14.03	14.05		9.99	10.00	10.02	10.04	10.06	
Fraser_R	117693	12.69	12.70	12.71	12.72	12.73		13.40	13.40	13.41	13.43	13.44		13.96	13.97	13.98	13.99	14.01		9.98	9.99	10.01	10.03	10.05	
Fraser_R	117965	12.71	12.72	12.73	12.74	12.76		13.41	13.42	13.43	13.44	13.45		13.97	13.98	13.99	14.00	14.01		10.03	10.04	10.05	10.07	10.09	
Fraser_R	118227	12.69	12.70	12.71	12.72	12.74		13.38	13.39	13.40	13.41	13.42		13.93	13.94	13.95	13.96	13.97		10.06	10.07	10.08	10.10	10.12	
Fraser_R	118629	12.88	12.89	12.90	12.91	12.92		13.56	13.57	13.57	13.59	13.60		14.10	14.10	14.11	14.12	14.14		10.20	10.20	10.22	10.23	10.25	
Fraser_R	119023	13.14	13.15	13.16	13.16	13.17		13.82	13.83	13.83	13.85	13.86		14.35	14.36	14.36	14.37	14.39		10.40	10.41	10.42	10.43	10.45	
Fraser_R	119296	13.15	13.16	13.17	13.17	13.18		13.83	13.84	13.85	13.86	13.87		14.36	14.37	14.37	14.38	14.39		10.41	10.42	10.43	10.44	10.46	
Fraser_R	119296	13.15	13.16	13.17	13.17	13.18		13.83	13.84	13.85	13.86	13.87		14.36	14.37	14.37	14.38	14.39		10.41	10.42	10.43	10.44	10.46	
Fraser_R	119760	13.43	13.44	13.45	13.46	13.47		14.13	14.14	14.14	14.15	14.16		14.67	14.67	14.68	14.69	14.70		10.59	10.59	10.60	10.61	10.63	
Fraser_R	120109	13.48	13.49	13.50	13.51	13.52		14.17	14.17	14.18	14.19	14.20		14.68	14.69	14.69	14.70	14.71		10.68	10.68	10.69	10.70	10.72	
Fraser_R	120552	13.71	13.71	13.72	13.73	13.74		14.39	14.40	14.40	14.41	14.42		14.91	14.92	14.92	14.93	14.94		10.83	10.84	10.84	10.85	10.87	
Fraser_R	120979	13.90	13.90	13.91	13.91	13.92		14.58	14.58	14.58	14.59	14.60		15.09	15.10	15.10	15.11	15.12		11.00	11.01	11.01	11.02	11.03	
Fraser_R	121391	14.07	14.08	14.08	14.09	14.10		14.77	14.77	14.78	14.78	14.79		15.30	15.30	15.30	15.31	15.32		11.08	11.08	11.09	11.10	11.11	
Fraser_R	121770	14.19	14.19	14.20	14.20	14.21		14.88	14.88	14.89	14.89	14.90		15.41	15.41	15.42	15.42	15.43		11.19	11.19	11.20	11.20	11.21	
Fraser_R	121960	14.25	14.26	14.27	14.27	14.28		14.94	14.95	14.95	14.96	14.96		15.47	15.47	15.47	15.48	15.49		11.25	11.26	11.26	11.27	11.28	
Fraser_R	121960	14.25	14.26	14.27	14.27	14.28		14.94	14.95	14.95	14.96	14.96		15.47	15.47	15.47	15.48	15.49		11.25	11.26	11.26	11.27	11.28	
Fraser_R	122189	14.33	14.33	14.34	14.34	14.35		15.00	15.01	15.01	15.02	15.02		15.52	15.52	15.53	15.53	15.54		11.33	11.34	11.34	11.35	11.36	
Fraser_R	122649	14.54	14.54	14.54	14.55	14.55		15.22	15.22	15.22	15.23	15.24		15.74	15.74	15.74	15.75	15.76		11.54	11.54	11.55	11.55	11.56	
Fraser_R	123115	14.65	14.66	14.66	14.67	14.67		15.34	15.34	15.34	15.35	15.35		15.86	15.86	15.86	15.87	15.87		11.67	11.68	11.68	11.69	11.69	
Fraser_R	123115	14.65	14.66	14.66	14.67	14.67		15.34	15.34	15.34	15.35	15.35		15.86	15.86	15.86	15.87	15.87		11.67	11.68	11.68	11.69	11.69	
Fraser_R	123582	14.71	14.72	14.72	14.73	14.73		15.39	15.39	15.40	15.40	15.41		15.91	15.91	15.91	15.92	15.93		11.83	11.84	11.84	11.84	11.85	
Fraser_R	123950	14.76	14.76	14.77	14.77	14.78		15.42	15.42	15.43	15.43	15.44		15.93	15.93	15.93	15.93	15.94		12.10	12.10	12.10	12.10	12.11	

Historical 1:100							Scenario-A (Moderate) 1:100							Scenario-B (Intense) 1:100							Winter 1:100				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	
Fraser_R	124343	15.01	15.01	15.02	15.02	15.02		15.65	15.65	15.66	15.66	15.67		16.15	16.15	16.15	16.16	16.16		12.40	12.40	12.40	12.40	12.41	
Fraser_R	124343	15.01	15.01	15.02	15.02	15.02		15.65	15.65	15.66	15.66	15.67		16.15	16.15	16.15	16.16	16.16		12.40	12.40	12.40	12.40	12.41	
Fraser_R	124720	15.09	15.10	15.10	15.10	15.11		15.72	15.72	15.72	15.73	15.73		16.20	16.21	16.21	16.21	16.22		12.58	12.58	12.58	12.58	12.58	
Fraser_R	125093	15.13	15.13	15.13	15.13	15.14		15.71	15.72	15.72	15.72	15.73		16.18	16.18	16.18	16.18	16.19		12.75	12.75	12.76	12.76	12.76	
Fraser_R	125436	15.47	15.47	15.48	15.48	15.48		16.06	16.06	16.06	16.06	16.07		16.51	16.52	16.52	16.52	16.53		13.04	13.04	13.05	13.05	13.05	
Fraser_R	125807	15.58	15.58	15.58	15.58	15.58		16.16	16.16	16.16	16.17	16.17		16.62	16.62	16.62	16.62	16.63		13.17	13.17	13.18	13.18	13.18	
Fraser_R	125807	15.58	15.58	15.58	15.58	15.58		16.16	16.16	16.16	16.17	16.17		16.62	16.62	16.62	16.62	16.63		13.17	13.17	13.18	13.18	13.18	
Fraser_R	126146	15.68	15.69	15.69	15.69	15.69		16.26	16.26	16.26	16.26	16.26		16.70	16.71	16.71	16.71	16.71		13.34	13.34	13.34	13.34	13.34	
Fraser_R	126146	15.68	15.69	15.69	15.69	15.69		16.26	16.26	16.26	16.26	16.26		16.70	16.71	16.71	16.71	16.71		13.34	13.34	13.34	13.34	13.34	
Fraser_R	126471	15.65	15.65	15.65	15.65	15.65		16.20	16.20	16.21	16.21	16.21		16.64	16.64	16.64	16.65	16.65		13.33	13.33	13.33	13.33	13.33	
Fraser_R	126811	15.71	15.72	15.72	15.72	15.72		16.25	16.25	16.25	16.25	16.25		16.67	16.67	16.67	16.67	16.68		13.54	13.54	13.54	13.54	13.55	
Fraser_R	126811	15.71	15.72	15.72	15.72	15.72		16.25	16.25	16.25	16.25	16.25		16.67	16.67	16.67	16.67	16.68		13.54	13.54	13.54	13.54	13.55	
Fraser_R	127331	16.04	16.04	16.04	16.04	16.05		16.54	16.54	16.55	16.55	16.55		16.94	16.94	16.94	16.94	16.95		13.83	13.83	13.83	13.83	13.84	
Fraser_R	127331	16.04	16.04	16.04	16.04	16.05		16.54	16.54	16.55	16.55	16.55		16.94	16.94	16.94	16.94	16.95		13.83	13.83	13.83	13.83	13.84	
Fraser_R	127666	16.21	16.21	16.21	16.21	16.22		16.72	16.72	16.73	16.73	16.73		17.13	17.13	17.13	17.13	17.13		13.94	13.94	13.94	13.94	13.94	
Fraser_R	128018	16.56	16.56	16.56	16.56	16.56		17.14	17.14	17.14	17.14	17.14		17.59	17.59	17.60	17.60	17.60		14.04	14.04	14.04	14.04	14.05	
Fraser_R	128434	16.79	16.79	16.79	16.80	16.80		17.39	17.39	17.39	17.40	17.40		17.86	17.86	17.86	17.86	17.87		14.19	14.19	14.19	14.19	14.19	
Fraser_R	128434	16.79	16.79	16.79	16.80	16.80		17.39	17.39	17.39	17.40	17.40		17.86	17.86	17.86	17.86	17.87		14.19	14.19	14.19	14.19	14.19	
Fraser_R	128804	17.05	17.05	17.05	17.06	17.06		17.65	17.65	17.65	17.65	17.66		18.11	18.11	18.11	18.12	18.12		14.39	14.39	14.39	14.39	14.39	
Fraser_R	129148	17.26	17.26	17.26	17.26	17.26		17.85	17.85	17.85	17.85	17.85		18.30	18.30	18.30	18.31	18.31		14.60	14.60	14.60	14.60	14.60	
Fraser_R	129526	17.51	17.52	17.52	17.52	17.52		18.10	18.11	18.11	18.11	18.11		18.56	18.56	18.56	18.57	18.57		14.76	14.76	14.76	14.76	14.77	
Fraser_R	129526	17.51	17.52	17.52	17.52	17.52		18.10	18.11	18.11	18.11	18.11		18.56	18.56	18.56	18.57	18.57		14.76	14.76	14.76	14.76	14.77	
Fraser_R	129916	17.52	17.52	17.52	17.52	17.52		18.08	18.08	18.08	18.08	18.08		18.52	18.52	18.52	18.52	18.52		14.95	14.95	14.95	14.95	14.95	
Fraser_R	129916	17.52	17.52	17.52	17.52	17.52		18.08	18.08	18.08	18.08	18.08		18.52	18.52	18.52	18.52	18.52		14.95	14.95	14.95	14.95	14.95	
Fraser_R	130256	17.59	17.59	17.59	17.59	17.59		18.14	18.14	18.14	18.15	18.15		18.57	18.57	18.57	18.57	18.57		15.13	15.13	15.13	15.13	15.13	
Fraser_R	130472	17.76	17.76	17.76	17.76	17.76		18.31	18.31	18.32	18.32	18.32		18.74	18.74	18.74	18.74	18.74		15.24	15.24	15.24	15.24	15.24	
Fraser_R	130624	17.93	17.94	17.94	17.94	17.94		18.46	18.46	18.46	18.46	18.46		18.86	18.86	18.86	18.86	18.86		15.36	15.36	15.36	15.36	15.36	
Fraser_R	130827	18.06	18.06	18.06	18.06	18.06		18.59	18.59	18.59	18.59	18.59		19.00	19.00	19.00	19.00	19.00		15.42	15.42	15.42	15.42	15.42	
Fraser_R	131166	18.22	18.22	18.22	18.22	18.22		18.75	18.75	18.75	18.75	18.76		19.16	19.16	19.16	19.16	19.16		15.52	15.52	15.52	15.52	15.52	
Fraser_R	131597	18.44	18.44	18.44	18.44	18.44		18.99	18.99	18.99	18.99	18.99		19.40	19.40	19.40	19.40	19.40		15.65	15.65	15.65	15.65	15.65	
Fraser_R	131858	18.49	18.49	18.49	18.49	18.49		19.02	19.02	19.02	19.02	19.02		19.42	19.42	19.42	19.42	19.42		15.76	15.76	15.76	15.76	15.76	
Fraser_R	131858	18.49	18.49	18.49	18.49	18.49		19.02	19.02	19.02	19.02	19.02		19.42	19.42	19.42	19.42	19.42		15.76	15.76	15.76	15.76	15.76	
Fraser_R	132206	18.81	18.81	18.81	18.81	18.81		19.38	19.38	19.38	19.38	19.38		19.80	19.80	19.80	19.80	19.80		15.92	15.92	15.92	15.92	15.92	
Fraser_R	132206	18.81	18.81	18.81	18.81	18.81		19.38	19.38	19.38	19.38	19.38		19.80	19.80	19.80	19.80	19.80		15.92	15.92	15.92	15.92	15.92	
Fraser_R	132561	18.80	18.80	18.80	18.80	18.80		19.38	19.38	19.38	19.38	19.38		19.81	19.81	19.81	19.81	19.81		15.88	15.88	15.88	15.88	15.88	
Fraser_R	132561	18.80	18.80	18.80	18.80	18.80		19.38	19.38	19.38	19.38	19.38		19.81	19.81	19.81	19.81	19.81		15.88	15.88	15.88	15.88	15.88	
Fraser_R	132862	18.86	18.86	18.86	18.86	18.86		19.44	19.44	19.44	19.44	19.44		19.86	19.86	19.86	19.86	19.86		15.96	15.96	15.96	15.96	15.96	
Fraser_R	133192	18.91	18.91	18.91	18.91	18.91		19.48	19.48	19.48	19.48	19.48		19.89	19.89	19.89	19.89	19.89		16.03	16.03	16.03	16.03	16.03	
Fraser_R	133558	19.05	19.05	19.05	19.05	19.05		19.60	19.60	19.60	19.60	19.60		20.01	20.01	20.01	20.01	20.01		16.17	16.17	16.17	16.17	16.17	
Fraser_R	133899	19.30	19.30	19.30	19.31	19.31		19.87	19.87	19.87	19.87	19.87		20.30	20.30	20.30	20.30	20.30		16.39	16.39	16.39	16.39	16.39	
Fraser_R	134143	19.45	19.45	19.45	19.45	19.45		20.03	20.03	20.03	20.03	20.03		20.46	20.46	20.46	20.46	20.47		16.52	16.52	16.52	16.52	16.52	

Historical 1:100							Scenario-A (Moderate) 1:100						Scenario-B (Intense) 1:100						Winter 1:100					
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	134143	19.45	19.45	19.45	19.45	19.45		20.03	20.03	20.03	20.03	20.03		20.46	20.46	20.46	20.46	20.47		16.52	16.52	16.52	16.52	16.52
Fraser_R	134975	19.50	19.50	19.50	19.50	19.50		20.08	20.08	20.08	20.08	20.09		20.52	20.52	20.52	20.52	20.52		16.66	16.66	16.66	16.66	16.66
Fraser_R	134975	19.50	19.50	19.50	19.50	19.50		20.08	20.08	20.08	20.08	20.09		20.52	20.52	20.52	20.52	20.52		16.66	16.66	16.66	16.66	16.66
Fraser_R	135327	19.58	19.58	19.58	19.58	19.58		20.16	20.16	20.16	20.16	20.16		20.59	20.59	20.59	20.59	20.59		16.96	16.96	16.96	16.96	16.96
Fraser_R	135630	19.66	19.66	19.66	19.66	19.66		20.23	20.23	20.23	20.23	20.23		20.66	20.66	20.66	20.66	20.66		17.22	17.22	17.22	17.22	17.22
Fraser_R	135982	19.81	19.81	19.81	19.81	19.81		20.37	20.37	20.37	20.37	20.37		20.80	20.80	20.80	20.80	20.80		17.49	17.49	17.49	17.49	17.49
Fraser_R	136497	19.95	19.95	19.95	19.95	19.95		20.49	20.49	20.49	20.49	20.49		20.90	20.90	20.90	20.90	20.90		17.74	17.74	17.74	17.74	17.74
Fraser_R	136921	20.14	20.14	20.14	20.14	20.14		20.63	20.63	20.63	20.63	20.63		21.03	21.03	21.03	21.03	21.03		18.00	18.00	18.00	18.00	18.00
Fraser_R	137374	20.38	20.38	20.38	20.38	20.38		20.85	20.85	20.85	20.85	20.86		21.23	21.23	21.23	21.23	21.23		18.29	18.29	18.29	18.29	18.29
Fraser_R	137870	20.81	20.81	20.81	20.81	20.81		21.21	21.21	21.21	21.21	21.21		21.53	21.53	21.53	21.53	21.53		18.63	18.63	18.63	18.63	18.63
Fraser_R	138445	21.15	21.15	21.15	21.15	21.15		21.50	21.50	21.50	21.50	21.50		21.79	21.79	21.79	21.79	21.79		18.97	18.97	18.97	18.97	18.97
Fraser_R	138445	21.15	21.15	21.15	21.15	21.15		21.50	21.50	21.50	21.50	21.50		21.79	21.79	21.79	21.79	21.79		18.97	18.97	18.97	18.97	18.97
Fraser_R	138766	21.28	21.28	21.28	21.28	21.28		21.66	21.66	21.66	21.66	21.66		21.97	21.97	21.97	21.97	21.97		19.04	19.04	19.04	19.04	19.04
Fraser_R	139142	21.41	21.41	21.41	21.41	21.41		21.82	21.82	21.82	21.82	21.82		22.14	22.14	22.14	22.14	22.14		19.10	19.10	19.10	19.10	19.10
Fraser_R	139526	21.71	21.71	21.71	21.71	21.71		22.14	22.14	22.14	22.14	22.14		22.46	22.46	22.46	22.46	22.46		19.26	19.26	19.26	19.26	19.26
Fraser_R	139912	21.79	21.79	21.80	21.80	21.80		22.23	22.23	22.23	22.23	22.23		22.52	22.52	22.52	22.52	22.52		19.35	19.35	19.35	19.35	19.35
Fraser_R	140292	22.04	22.04	22.04	22.04	22.04		22.49	22.49	22.49	22.49	22.49		22.80	22.80	22.80	22.80	22.80		19.51	19.51	19.51	19.51	19.51
Fraser_R	140292	22.04	22.04	22.04	22.04	22.04		22.49	22.49	22.49	22.49	22.49		22.80	22.80	22.80	22.80	22.80		19.51	19.51	19.51	19.51	19.51
Fraser_R	140845	22.08	22.08	22.08	22.08	22.08		22.50	22.50	22.50	22.50	22.50		22.80	22.80	22.80	22.80	22.80		19.68	19.68	19.68	19.68	19.68
Fraser_R	140845	22.08	22.08	22.08	22.08	22.08		22.50	22.50	22.50	22.50	22.50		22.80	22.80	22.80	22.80	22.80		19.68	19.68	19.68	19.68	19.68
Fraser_R	141065	22.14	22.14	22.14	22.14	22.14		22.56	22.56	22.56	22.56	22.56		22.85	22.85	22.85	22.85	22.85		19.88	19.88	19.88	19.88	19.88
Fraser_R	141439	22.55	22.55	22.55	22.55	22.55		22.98	22.98	22.98	22.98	22.98		23.29	23.29	23.29	23.29	23.29		20.29	20.29	20.29	20.29	20.29
Fraser_R	141833	22.94	22.94	22.94	22.94	22.94		23.40	23.40	23.40	23.40	23.40		23.76	23.76	23.76	23.76	23.76		20.53	20.53	20.53	20.53	20.53
Fraser_R	142241	23.19	23.19	23.19	23.19	23.19		23.65	23.65	23.65	23.65	23.65		23.96	23.96	23.96	23.96	23.96		20.76	20.76	20.76	20.76	20.76
Fraser_R	142576	23.68	23.68	23.68	23.68	23.68		24.17	24.18	24.18	24.18	24.18		24.51	24.51	24.51	24.51	24.51		21.10	21.10	21.10	21.10	21.10
Fraser_R	142948	23.82	23.82	23.82	23.82	23.82		24.31	24.31	24.31	24.31	24.31		24.65	24.65	24.65	24.65	24.65		21.36	21.36	21.36	21.36	21.36
Fraser_R	143365	24.03	24.03	24.03	24.03	24.03		24.49	24.49	24.49	24.49	24.49		24.82	24.82	24.82	24.82	24.82		21.71	21.71	21.71	21.71	21.71
Fraser_R	143763	24.45	24.45	24.45	24.45	24.45		24.96	24.96	24.96	24.96	24.96		25.32	25.32	25.32	25.32	25.32		21.99	21.99	21.99	21.99	21.99
Fraser_R	143763	24.45	24.45	24.45	24.45	24.45		24.96	24.96	24.96	24.96	24.96		25.32	25.32	25.32	25.32	25.32		21.99	21.99	21.99	21.99	21.99
Fraser_R	144102	24.60	24.60	24.60	24.60	24.60		25.10	25.10	25.10	25.10	25.10		25.47	25.47	25.47	25.47	25.47		22.12	22.12	22.12	22.12	22.12
Fraser_R	144434	24.67	24.67	24.67	24.67	24.67		25.18	25.18	25.18	25.18	25.18		25.55	25.55	25.55	25.55	25.55		22.14	22.14	22.14	22.14	22.14
Fraser_R	144910	25.12	25.12	25.12	25.12	25.12		25.67	25.67	25.67	25.67	25.67		26.07	26.07	26.07	26.07	26.07		22.41	22.41	22.41	22.41	22.41
Fraser_R	145425	25.40	25.40	25.40	25.40	25.40		25.95	25.95	25.95	25.95	25.95		26.37	26.37	26.37	26.37	26.37		22.70	22.70	22.70	22.70	22.70
Fraser_R	145819	25.54	25.54	25.54	25.54	25.54		26.09	26.09	26.09	26.09	26.09		26.51	26.51	26.51	26.51	26.51		22.92	22.92	22.92	22.92	22.92
Fraser_R	146215	25.75	25.75	25.75	25.75	25.75		26.32	26.32	26.32	26.32	26.32		26.74	26.74	26.74	26.74	26.74		23.16	23.16	23.16	23.16	23.16
Fraser_R	146617	26.14	26.14	26.14	26.14	26.14		26.71	26.71	26.71	26.71	26.71		27.14	27.14	27.14	27.14	27.14		23.39	23.39	23.39	23.39	23.39
Fraser_R	146617	26.14	26.14	26.14	26.14	26.14		26.71	26.71	26.71	26.71	26.71		27.14	27.14	27.14	27.14	27.14		23.39	23.39	23.39	23.39	23.39
Fraser_R	147036	26.02	26.02	26.02	26.02	26.02		26.55	26.55	26.55	26.55	26.55		26.94	26.94	26.94	26.94	26.94		23.49	23.49	23.49	23.49	23.49
Fraser_R	147492	26.27	26.27	26.27	26.27	26.27		26.86	26.86	26.86	26.86	26.86		27.30	27.30	27.30	27.30	27.30		23.61	23.61	23.61	23.61	23.61
Fraser_R	147951	26.81	26.81	26.81	26.81	26.81		27.45	27.45	27.45	27.45	27.45		27.93	27.93	27.93	27.93	27.93		23.83	23.83	23.83	23.83	23.83
Fraser_R	148211	27.16	27.16	27.16	27.16	27.16		27.81	27.81	27.81	27.81	27.81		28.30	28.30	28.30	28.30	28.30		24.08	24.08	24.08	24.08	24.08

Historical 1:100							Scenario-A (Moderate) 1:100							Scenario-B (Intense) 1:100							Winter 1:100				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	
Fraser_R	148211	27.16	27.16	27.16	27.16	27.16		27.81	27.81	27.81	27.81	27.81		28.30	28.30	28.30	28.30	28.30		24.08	24.08	24.08	24.08	24.08	
Fraser_R	148587	27.16	27.16	27.16	27.16	27.16		27.81	27.81	27.81	27.81	27.81		28.29	28.29	28.29	28.29	28.29		24.16	24.16	24.16	24.16	24.16	
Fraser_R	148922	27.30	27.30	27.30	27.30	27.30		27.93	27.93	27.93	27.93	27.93		28.41	28.41	28.41	28.41	28.41		24.45	24.45	24.45	24.45	24.45	
Fraser_R	149536	27.36	27.36	27.36	27.36	27.36		27.95	27.95	27.95	27.95	27.95		28.40	28.40	28.40	28.40	28.40		24.89	24.89	24.89	24.89	24.89	
Fraser_R	149536	27.36	27.36	27.36	27.36	27.36		27.95	27.95	27.95	27.95	27.95		28.40	28.40	28.40	28.40	28.40		24.89	24.89	24.89	24.89	24.89	
Fraser_R	149848	27.61	27.61	27.61	27.61	27.61		28.21	28.21	28.21	28.21	28.21		28.66	28.66	28.66	28.66	28.66		25.08	25.08	25.08	25.08	25.08	
Fraser_R	150218	28.17	28.17	28.17	28.17	28.17		28.81	28.81	28.81	28.81	28.81		29.31	29.31	29.31	29.31	29.31		25.40	25.40	25.40	25.40	25.40	
Fraser_R	150423	28.24	28.24	28.24	28.24	28.24		28.88	28.88	28.88	28.88	28.88		29.37	29.37	29.37	29.37	29.37		25.51	25.51	25.51	25.51	25.51	
Fraser_R	150423	28.24	28.24	28.24	28.24	28.24		28.88	28.88	28.88	28.88	28.88		29.37	29.37	29.37	29.37	29.37		25.51	25.51	25.51	25.51	25.51	
Fraser_R	150642	28.36	28.36	28.36	28.36	28.36		28.99	28.99	28.99	28.99	28.99		29.48	29.48	29.48	29.48	29.48		25.69	25.69	25.69	25.69	25.69	
Fraser_R	151064	28.68	28.68	28.68	28.68	28.68		29.31	29.31	29.31	29.31	29.31		29.79	29.79	29.79	29.79	29.79		26.01	26.01	26.01	26.01	26.01	
Fraser_R	151456	29.13	29.13	29.13	29.13	29.13		29.77	29.77	29.77	29.77	29.77		30.25	30.25	30.25	30.25	30.25		26.37	26.37	26.37	26.37	26.37	
Fraser_R	151456	29.13	29.13	29.13	29.13	29.13		29.77	29.77	29.77	29.77	29.77		30.25	30.25	30.25	30.25	30.25		26.37	26.37	26.37	26.37	26.37	
Fraser_R	151864	29.41	29.41	29.41	29.41	29.41		30.04	30.04	30.04	30.04	30.04		30.52	30.52	30.52	30.52	30.52		26.63	26.63	26.63	26.63	26.63	
Fraser_R	152256	29.68	29.68	29.68	29.68	29.68		30.30	30.30	30.30	30.30	30.30		30.77	30.77	30.77	30.77	30.77		26.87	26.87	26.87	26.87	26.87	
Fraser_R	152613	30.05	30.05	30.05	30.05	30.05		30.70	30.70	30.70	30.70	30.70		31.23	31.23	31.23	31.23	31.23		27.07	27.07	27.07	27.07	27.07	
Fraser_R	153007	30.25	30.25	30.25	30.25	30.25		30.87	30.88	30.88	30.88	30.88		31.29	31.29	31.29	31.29	31.29		27.32	27.32	27.32	27.32	27.32	
Fraser_R	153372	30.49	30.49	30.49	30.49	30.49		31.11	31.11	31.11	31.11	31.11		31.53	31.53	31.53	31.53	31.53		27.50	27.50	27.50	27.50	27.50	
Fraser_R	153743	30.86	30.86	30.86	30.86	30.86		31.56	31.56	31.56	31.56	31.56		32.06	32.06	32.06	32.06	32.06		27.64	27.64	27.64	27.64	27.64	
Fraser_R	154103	31.00	31.00	31.00	31.00	31.00		31.72	31.72	31.72	31.72	31.72		32.17	32.17	32.17	32.17	32.17		27.79	27.79	27.79	27.79	27.79	
Fraser_R	154483	31.42	31.42	31.42	31.42	31.42		32.12	32.12	32.12	32.12	32.12		32.58	32.58	32.58	32.58	32.58		28.03	28.03	28.03	28.03	28.03	
Fraser_R	154868	31.57	31.57	31.57	31.57	31.57		32.27	32.28	32.28	32.28	32.28		32.74	32.74	32.74	32.74	32.74		28.14	28.14	28.14	28.14	28.14	
Fraser_R	155277	31.74	31.74	31.74	31.74	31.74		32.44	32.44	32.44	32.44	32.44		32.91	32.91	32.91	32.91	32.91		28.26	28.26	28.26	28.26	28.26	
Fraser_R	155664	31.77	31.77	31.77	31.77	31.77		32.41	32.41	32.41	32.41	32.41		32.85	32.85	32.85	32.85	32.85		28.39	28.39	28.39	28.39	28.39	
Fraser_R	156030	31.81	31.81	31.81	31.81	31.81		32.45	32.45	32.45	32.45	32.45		32.86	32.86	32.86	32.86	32.86		28.44	28.44	28.44	28.44	28.44	
Fraser_R	156387	32.03	32.03	32.03	32.03	32.03		32.71	32.71	32.71	32.71	32.71		33.17	33.17	33.17	33.17	33.17		28.48	28.48	28.48	28.48	28.48	
Fraser_R	156778	32.22	32.22	32.22	32.22	32.22		32.91	32.91	32.91	32.91	32.91		33.38	33.38	33.38	33.38	33.38		28.60	28.60	28.60	28.60	28.60	
Fraser_R	157176	32.44	32.44	32.44	32.44	32.44		33.15	33.15	33.15	33.15	33.15		33.65	33.65	33.65	33.65	33.65		28.71	28.71	28.71	28.71	28.71	
Fraser_R	157487	32.72	32.72	32.72	32.72	32.72		33.50	33.50	33.50	33.50	33.50		34.04	34.04	34.04	34.04	34.04		28.80	28.80	28.80	28.80	28.80	
Fraser_R	157866	33.01	33.01	33.01	33.01	33.01		33.82	33.82	33.82	33.82	33.82		34.41	34.41	34.41	34.41	34.41		28.94	28.94	28.94	28.94	28.94	
Fraser_R	158224	33.21	33.21	33.21	33.21	33.21		34.04	34.04	34.04	34.04	34.04		34.64	34.64	34.64	34.64	34.64		29.09	29.09	29.09	29.09	29.09	
Fraser_R	158604	33.26	33.26	33.26	33.26	33.26		34.09	34.09	34.09	34.09	34.09		34.69	34.69	34.69	34.69	34.69		29.15	29.15	29.15	29.15	29.15	
Fraser_R	158948	33.53	33.53	33.53	33.53	33.53		34.41	34.41	34.41	34.41	34.41		35.06	35.06	35.06	35.06	35.06		29.26	29.26	29.26	29.26	29.26	
Fraser_R	159283	33.74	33.74	33.74	33.74	33.74		34.64	34.64	34.64	34.64	34.64		35.31	35.31	35.31	35.31	35.31		29.40	29.40	29.40	29.40	29.40	
Fraser_R	159628	34.15	34.15	34.15	34.15	34.15		35.07	35.07	35.07	35.07	35.07		35.76	35.76	35.76	35.76	35.76		29.72	29.72	29.72	29.72	29.72	
Fraser_R	160001	34.53	34.53	34.53	34.53	34.53		35.48	35.48	35.48	35.48	35.48		36.18	36.18	36.18	36.18	36.18		30.04	30.04	30.04	30.04	30.04	
Fraser_R	160341	34.64	34.64	34.64	34.64	34.64		35.60	35.60	35.60	35.60	35.60		36.32	36.32	36.32	36.32	36.32		30.22	30.22	30.22	30.22	30.22	
Fraser_R	160657	34.73	34.73	34.73	34.73	34.73		35.69	35.69	35.69	35.69	35.69		36.46	36.46	36.46	36.46	36.46		30.35	30.35	30.35	30.35	30.35	
Fraser_R	161039	34.97	34.97	34.97	34.97	34.97		35.91	35.91	35.91	35.91	35.91		36.69	36.69	36.69	36.69	36.69		30.65	30.65	30.65	30.65	30.65	
Fraser_R	161414	35.21	35.21	35.21	35.21	35.21		36.16	36.16	36.16	36.16	36.16		36.96	36.96	36.96	36.96	36.96		30.92	30.92	30.92	30.92	30.92	
Fraser_R	161789	35.52	35.52	35.52	35.52	35.52		36.51	36.51	36.51	36.51	36.51		37.26	37.26	37.26	37.26	37.26		31.18	31.18	31.18	31.18	31.18	



Historical 1:100							Scenario-A (Moderate) 1:100							Scenario-B (Intense) 1:100							Winter 1:100				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	
Fraser_R	162143	35.69	35.69	35.69	35.69	35.69		36.70	36.70	36.70	36.70	36.70		37.45	37.45	37.45	37.45	37.45		31.33	31.33	31.33	31.33	31.33	
Fraser_R	162446	35.96	35.96	35.96	35.96	35.96		36.92	36.92	36.92	36.92	36.92		37.65	37.65	37.65	37.65	37.65		31.54	31.54	31.54	31.54	31.54	
Fraser_R	162778	36.07	36.07	36.07	36.07	36.07		37.06	37.06	37.06	37.06	37.06		37.76	37.76	37.76	37.76	37.76		31.72	31.72	31.72	31.72	31.72	
Fraser_R	162778	36.07	36.07	36.07	36.07	36.07		37.06	37.06	37.06	37.06	37.06		37.76	37.76	37.76	37.76	37.76		31.72	31.72	31.72	31.72	31.72	
Fraser_R	163124	36.37	36.37	36.37	36.37	36.37		37.27	37.27	37.27	37.27	37.27		37.89	37.89	37.89	37.89	37.89		31.90	31.90	31.90	31.90	31.90	
Fraser_R	163447	36.54	36.54	36.54	36.54	36.54		37.49	37.49	37.49	37.49	37.49		38.16	38.16	38.16	38.16	38.16		31.99	31.99	31.99	31.99	31.99	
Fraser_R	163771	36.93	36.93	36.93	36.93	36.93		37.90	37.90	37.90	37.90	37.90		38.57	38.57	38.57	38.57	38.57		32.15	32.15	32.15	32.15	32.15	
Fraser_R	164124	36.96	36.96	36.96	36.96	36.96		37.93	37.93	37.93	37.93	37.93		38.60	38.60	38.60	38.60	38.60		32.08	32.08	32.08	32.08	32.08	
Fraser_R	164389	37.04	37.04	37.04	37.04	37.04		38.00	38.00	38.00	38.00	38.00		38.66	38.66	38.66	38.66	38.66		32.17	32.17	32.17	32.17	32.17	
Fraser_R	164694	37.35	37.35	37.35	37.35	37.35		38.29	38.29	38.29	38.29	38.29		38.95	38.95	38.95	38.95	38.95		32.56	32.56	32.56	32.56	32.56	
Fraser_R	164694	37.35	37.35	37.35	37.35	37.35		38.29	38.29	38.29	38.29	38.29		38.95	38.95	38.95	38.95	38.95		32.56	32.56	32.56	32.56	32.56	
Fraser_R	164731	37.37	37.37	37.37	37.37	37.37		38.31	38.31	38.31	38.31	38.31		38.98	38.98	38.98	38.98	38.98		32.59	32.59	32.59	32.59	32.59	
Fraser_R	165008	37.55	37.55	37.55	37.55	37.55		38.48	38.48	38.48	38.48	38.48		39.15	39.15	39.15	39.15	39.15		32.89	32.89	32.89	32.89	32.89	
Fraser_R	165247	37.85	37.85	37.85	37.85	37.85		38.79	38.79	38.79	38.79	38.79		39.46	39.46	39.46	39.46	39.46		33.17	33.17	33.17	33.17	33.17	
Fraser_R	165454	38.02	38.02	38.02	38.02	38.02		38.97	38.97	38.97	38.97	38.97		39.65	39.65	39.65	39.65	39.65		33.33	33.33	33.33	33.33	33.33	
Fraser_R	165662	38.04	38.04	38.04	38.04	38.04		38.97	38.97	38.97	38.97	38.97		39.65	39.65	39.65	39.65	39.65		33.49	33.49	33.49	33.49	33.49	
Fraser_R	165662	38.04	38.04	38.04	38.04	38.04		38.97	38.97	38.97	38.97	38.97		39.65	39.65	39.65	39.65	39.65		33.49	33.49	33.49	33.49	33.49	
Fraser_R	165965	37.97	37.97	37.97	37.97	37.97		38.89	38.89	38.89	38.89	38.89		39.55	39.55	39.55	39.55	39.55		33.56	33.56	33.56	33.56	33.56	
Fraser_R	166336	38.17	38.17	38.17	38.17	38.17		39.06	39.06	39.06	39.06	39.06		39.71	39.71	39.71	39.71	39.71		34.06	34.06	34.06	34.06	34.06	
Fraser_R	166766	38.53	38.53	38.53	38.53	38.53		39.41	39.42	39.42	39.42	39.42		40.07	40.07	40.07	40.07	40.07		34.52	34.52	34.52	34.52	34.52	
Fraser_R	166766	38.53	38.53	38.53	38.53	38.53		39.41	39.42	39.42	39.42	39.42		40.07	40.07	40.07	40.07	40.07		34.52	34.52	34.52	34.52	34.52	
Fraser_R	167135	38.66	38.66	38.66	38.66	38.66		39.48	39.48	39.48	39.48	39.48		40.07	40.07	40.07	40.07	40.07		34.83	34.83	34.83	34.83	34.83	

Table 14. Hydraulic Model Runs for AEP = 1:200

Historical 1:200						Scenario-A (Moderate) 1:200					Scenario-B (Intense) 1:200					Winter 1:200					
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	-1545	1.852	2.352	2.852	3.352	3.852	1.852	2.352	2.852	3.352	3.852	1.852	2.352	2.852	3.352	3.852	2.707	3.207	3.707	4.207	4.707
Fraser	-1182	1.855	2.352	2.85	3.349	3.852	1.855	2.352	2.85	3.35	3.852	1.855	2.352	2.85	3.349	3.852	2.705	3.204	3.705	4.211	4.707
Fraser	944	1.853	2.349	2.842	3.342	3.849	1.851	2.349	2.843	3.343	3.845	1.85	2.348	2.841	3.342	3.845	2.701	3.205	3.703	4.198	4.709
Fraser	2838	1.835	2.338	2.835	3.333	3.84	1.838	2.34	2.836	3.335	3.835	1.84	2.34	2.834	3.334	3.836	2.692	3.198	3.704	4.205	4.716
Fraser	3069	1.833	2.336	2.834	3.332	3.84	1.836	2.339	2.836	3.334	3.834	1.84	2.34	2.834	3.334	3.835	2.691	3.198	3.704	4.206	4.718
Fraser	3069	1.833	2.336	2.834	3.332	3.84	1.836	2.339	2.836	3.334	3.834	1.84	2.34	2.834	3.334	3.835	2.691	3.198	3.704	4.206	4.718
Fraser	3853	1.828	2.334	2.833	3.331	3.84	1.832	2.338	2.836	3.333	3.832	1.837	2.337	2.833	3.332	3.833	2.696	3.197	3.707	4.207	4.722
Fraser	4348	1.827	2.332	2.833	3.332	3.84	1.83	2.337	2.836	3.332	3.831	1.836	2.336	2.832	3.332	3.832	2.697	3.196	3.707	4.207	4.724
Fraser	4930	1.794	2.303	2.809	3.313	3.824	1.783	2.297	2.804	3.306	3.808	1.774	2.283	2.79	3.296	3.8	2.695	3.197	3.708	4.207	4.726
Fraser	5477	1.801	2.308	2.814	3.32	3.829	1.794	2.306	2.811	3.313	3.813	1.792	2.297	2.801	3.306	3.808	2.692	3.2	3.708	4.208	4.728
Fraser	5923	1.802	2.307	2.813	3.321	3.83	1.797	2.307	2.811	3.314	3.813	1.796	2.298	2.802	3.308	3.808	2.689	3.202	3.707	4.208	4.73
Fraser	6357	1.801	2.305	2.81	3.32	3.829	1.796	2.305	2.809	3.312	3.811	1.796	2.296	2.799	3.306	3.806	2.686	3.204	3.707	4.209	4.73
Fraser	6768	1.797	2.3	2.805	3.316	3.826	1.791	2.298	2.802	3.307	3.806	1.79	2.289	2.792	3.3	3.801	2.683	3.206	3.707	4.209	4.73
Fraser	7173	1.811	2.311	2.813	3.323	3.833	1.812	2.314	2.815	3.318	3.815	1.818	2.311	2.808	3.315	3.814	2.682	3.207	3.707	4.209	4.73
Fraser	7589	1.815	2.313	2.813	3.324	3.834	1.817	2.316	2.816	3.319	3.816	1.826	2.316	2.81	3.318	3.816	2.681	3.207	3.707	4.209	4.73
Fraser	7944	1.813	2.31	2.808	3.32	3.832	1.813	2.311	2.811	3.314	3.813	1.82	2.31	2.804	3.313	3.812	2.68	3.206	3.707	4.209	4.729
Fraser	8357	1.819	2.315	2.81	3.321	3.834	1.822	2.317	2.814	3.318	3.816	1.831	2.319	2.81	3.318	3.818	2.679	3.204	3.708	4.209	4.728
Fraser	8676	1.83	2.323	2.815	3.324	3.838	1.837	2.328	2.822	3.324	3.821	1.851	2.334	2.82	3.327	3.826	2.68	3.203	3.709	4.209	4.727
Fraser	8676	1.83	2.323	2.815	3.324	3.838	1.837	2.328	2.822	3.324	3.821	1.851	2.334	2.82	3.327	3.826	2.68	3.203	3.709	4.209	4.727
Fraser	9163	1.849	2.339	2.826	3.332	3.845	1.864	2.349	2.837	3.336	3.832	1.886	2.363	2.841	3.344	3.841	2.68	3.2	3.71	4.208	4.725
Fraser	9394	1.855	2.343	2.828	3.333	3.846	1.872	2.355	2.841	3.339	3.834	1.896	2.371	2.845	3.348	3.845	2.68	3.199	3.71	4.208	4.724
Fraser	9394	1.855	2.343	2.828	3.333	3.846	1.872	2.355	2.841	3.339	3.834	1.896	2.371	2.845	3.348	3.845	2.68	3.199	3.71	4.208	4.724
Fraser	9650	1.855	2.344	2.829	3.333	3.845	1.872	2.355	2.841	3.338	3.833	1.896	2.371	2.846	3.347	3.844	2.683	3.199	3.711	4.206	4.722
Fraser	10067	1.863	2.35	2.833	3.334	3.844	1.882	2.362	2.846	3.339	3.832	1.91	2.381	2.851	3.35	3.845	2.687	3.199	3.712	4.204	4.718
Fraser	10364	1.879	2.364	2.844	3.342	3.849	1.908	2.383	2.863	3.352	3.843	1.945	2.411	2.875	3.37	3.861	2.691	3.2	3.713	4.202	4.715
Fraser	10578	1.889	2.373	2.851	3.346	3.852	1.922	2.396	2.874	3.36	3.848	1.965	2.428	2.888	3.381	3.87	2.694	3.2	3.713	4.2	4.713
Fraser	10578	1.889	2.373	2.851	3.346	3.852	1.922	2.396	2.874	3.36	3.848	1.965	2.428	2.888	3.381	3.87	2.694	3.2	3.713	4.2	4.713
Fraser	11183	1.88	2.363	2.843	3.337	3.844	1.907	2.381	2.86	3.345	3.836	1.944	2.408	2.869	3.361	3.852	2.695	3.202	3.714	4.197	4.71
Fraser	11579	1.908	2.386	2.862	3.35	3.853	1.956	2.417	2.89	3.367	3.852	2.011	2.457	2.912	3.393	3.877	2.696	3.204	3.714	4.195	4.709
Fraser	11980	1.948	2.411	2.882	3.366	3.864	2.011	2.457	2.923	3.392	3.873	2.084	2.513	2.967	3.43	3.907	2.698	3.207	3.714	4.193	4.709
Fraser	11980	1.948	2.411	2.882	3.366	3.864	2.011	2.457	2.923	3.392	3.873	2.084	2.513	2.967	3.43	3.907	2.698	3.207	3.714	4.193	4.709
Fraser	12389	1.964	2.419	2.888	3.369	3.865	2.032	2.474	2.932	3.397	3.875	2.111	2.533	2.983	3.438	3.911	2.699	3.21	3.714	4.19	4.707
Fraser	12780	1.963	2.417	2.886	3.366	3.861	2.03	2.472	2.929	3.393	3.871	2.107	2.529	2.978	3.431	3.904	2.701	3.212	3.713	4.186	4.705
Fraser	13186	1.991	2.439	2.901	3.379	3.87	2.068	2.507	2.954	3.413	3.888	2.158	2.574	3.02	3.461	3.933	2.704	3.214	3.713	4.183	4.705
Fraser	13598	2.013	2.458	2.912	3.387	3.875	2.098	2.533	2.972	3.427	3.903	2.197	2.608	3.049	3.48	3.953	2.709	3.216	3.712	4.18	4.704
Fraser	14005	2.046	2.487	2.935	3.402	3.884	2.145	2.574	3.005	3.457	3.928	2.258	2.659	3.095	3.517	3.987	2.713	3.217	3.711	4.177	4.704
Fraser	14401	2.097	2.534	2.978	3.438	3.916	2.218	2.642	3.067	3.512	3.977	2.355	2.749	3.177	3.593	4.058	2.718	3.219	3.711	4.175	4.705
Fraser	14813	2.122	2.555	2.996	3.454	3.928	2.252	2.671	3.093	3.534	3.995	2.399	2.786	3.211	3.621	4.084	2.723	3.22	3.71	4.174	4.704

Historical 1:200							Scenario-A (Moderate) 1:200					Scenario-B (Intense) 1:200					Winter 1:200				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	15210	2.137	2.568	3.007	3.463	3.933	2.272	2.688	3.107	3.545	4.004	2.424	2.807	3.228	3.635	4.095	2.727	3.222	3.709	4.173	4.702
Fraser	15575	2.155	2.584	3.021	3.475	3.942	2.297	2.71	3.126	3.562	4.018	2.456	2.834	3.252	3.656	4.114	2.73	3.223	3.709	4.173	4.7
Fraser	15978	2.171	2.597	3.031	3.484	3.948	2.318	2.727	3.14	3.572	4.026	2.482	2.855	3.269	3.669	4.123	2.734	3.225	3.708	4.173	4.699
Fraser	16443	2.219	2.639	3.067	3.516	3.973	2.385	2.786	3.191	3.618	4.065	2.569	2.931	3.337	3.73	4.178	2.739	3.227	3.707	4.174	4.698
Fraser	16846	2.25	2.666	3.09	3.536	3.989	2.428	2.823	3.223	3.645	4.088	2.624	2.978	3.379	3.765	4.209	2.742	3.229	3.707	4.174	4.697
Fraser	17214	2.288	2.699	3.119	3.562	4.01	2.482	2.871	3.265	3.683	4.121	2.693	3.04	3.435	3.815	4.255	2.744	3.23	3.707	4.175	4.697
Fraser	17513	2.286	2.697	3.116	3.559	4.007	2.477	2.865	3.26	3.677	4.115	2.686	3.031	3.426	3.806	4.245	2.745	3.23	3.707	4.175	4.696
Fraser	17513	2.286	2.697	3.116	3.559	4.007	2.477	2.865	3.26	3.677	4.115	2.686	3.031	3.426	3.806	4.245	2.745	3.23	3.707	4.175	4.696
Fraser	18117	2.292	2.702	3.123	3.567	4.017	2.484	2.872	3.268	3.687	4.132	2.695	3.04	3.437	3.823	4.268	2.748	3.236	3.71	4.179	4.695
Fraser	18508	2.348	2.754	3.169	3.609	4.051	2.565	2.948	3.337	3.749	4.184	2.804	3.14	3.531	3.906	4.339	2.752	3.241	3.714	4.183	4.695
Fraser	18921	2.372	2.773	3.186	3.623	4.061	2.597	2.974	3.36	3.767	4.198	2.843	3.173	3.559	3.928	4.356	2.755	3.246	3.718	4.185	4.694
Fraser	19322	2.41	2.806	3.214	3.648	4.082	2.649	3.021	3.401	3.803	4.229	2.91	3.233	3.612	3.977	4.399	2.759	3.251	3.722	4.187	4.695
Fraser	19727	2.445	2.836	3.239	3.67	4.099	2.696	3.062	3.437	3.834	4.254	2.97	3.285	3.659	4.016	4.432	2.763	3.256	3.727	4.189	4.697
Fraser	20127	2.465	2.854	3.256	3.685	4.111	2.724	3.087	3.46	3.856	4.274	3.006	3.317	3.689	4.045	4.459	2.767	3.26	3.731	4.191	4.699
Fraser	20524	2.486	2.873	3.272	3.699	4.123	2.753	3.113	3.482	3.876	4.292	3.042	3.349	3.718	4.071	4.482	2.772	3.263	3.736	4.193	4.702
Fraser	20919	2.508	2.891	3.287	3.713	4.134	2.782	3.138	3.504	3.896	4.309	3.078	3.38	3.746	4.096	4.505	2.776	3.266	3.742	4.196	4.706
Fraser	21371	2.528	2.908	3.302	3.726	4.144	2.808	3.16	3.523	3.913	4.324	3.109	3.407	3.769	4.116	4.522	2.781	3.27	3.748	4.199	4.713
Fraser	21806	2.551	2.928	3.319	3.741	4.156	2.838	3.187	3.547	3.935	4.343	3.148	3.441	3.8	4.144	4.546	2.786	3.274	3.754	4.204	4.72
Fraser	22195	2.568	2.942	3.331	3.752	4.165	2.86	3.207	3.563	3.949	4.355	3.174	3.463	3.82	4.16	4.561	2.791	3.277	3.76	4.208	4.725
Fraser	22562	2.589	2.961	3.347	3.767	4.178	2.889	3.233	3.587	3.97	4.374	3.211	3.497	3.851	4.188	4.586	2.795	3.28	3.766	4.213	4.731
Fraser	22978	2.599	2.97	3.356	3.776	4.186	2.902	3.246	3.599	3.983	4.386	3.228	3.513	3.867	4.204	4.601	2.8	3.283	3.771	4.22	4.736
Fraser	23375	2.604	2.975	3.361	3.781	4.191	2.909	3.252	3.604	3.989	4.392	3.236	3.519	3.873	4.21	4.606	2.804	3.287	3.777	4.227	4.741
Fraser	23763	2.622	2.991	3.374	3.794	4.203	2.932	3.274	3.623	4.008	4.41	3.265	3.545	3.899	4.234	4.629	2.809	3.29	3.782	4.236	4.746
Fraser	24152	2.658	3.024	3.404	3.821	4.225	2.983	3.321	3.665	4.047	4.445	3.331	3.605	3.955	4.286	4.677	2.813	3.295	3.786	4.245	4.751
Fraser	24575	2.686	3.049	3.427	3.842	4.243	3.022	3.357	3.698	4.077	4.471	3.382	3.651	3.997	4.324	4.712	2.817	3.3	3.791	4.254	4.756
Fraser	24914	2.738	3.096	3.468	3.879	4.274	3.095	3.425	3.758	4.132	4.52	3.477	3.738	4.078	4.398	4.78	2.82	3.304	3.794	4.26	4.76
Fraser	25370	2.769	3.124	3.493	3.9	4.292	3.137	3.464	3.792	4.164	4.549	3.53	3.786	4.123	4.439	4.817	2.823	3.309	3.798	4.265	4.765
Fraser	25568	2.779	3.133	3.501	3.907	4.298	3.151	3.476	3.803	4.174	4.557	3.548	3.801	4.137	4.452	4.828	2.824	3.31	3.799	4.267	4.766
Fraser	25568	2.779	3.133	3.501	3.907	4.298	3.151	3.476	3.803	4.174	4.557	3.548	3.801	4.137	4.452	4.828	2.824	3.31	3.799	4.267	4.766
Fraser	25857	2.782	3.135	3.503	3.908	4.298	3.154	3.478	3.803	4.174	4.558	3.549	3.802	4.137	4.451	4.826	2.824	3.313	3.8	4.267	4.769
Fraser	26350	2.777	3.131	3.501	3.904	4.295	3.145	3.47	3.796	4.168	4.552	3.536	3.79	4.125	4.44	4.815	2.825	3.317	3.803	4.273	4.775
Fraser	26754	2.792	3.143	3.513	3.912	4.303	3.165	3.487	3.81	4.181	4.564	3.559	3.81	4.143	4.455	4.829	2.826	3.321	3.807	4.279	4.78
Fraser	27194	2.811	3.16	3.53	3.925	4.314	3.191	3.511	3.83	4.201	4.581	3.592	3.838	4.17	4.479	4.852	2.827	3.326	3.811	4.286	4.786
Fraser	27582	2.833	3.18	3.549	3.94	4.328	3.222	3.539	3.856	4.224	4.602	3.632	3.874	4.203	4.509	4.879	2.829	3.33	3.815	4.292	4.791
Fraser	28002	2.858	3.202	3.57	3.956	4.341	3.255	3.568	3.882	4.248	4.623	3.673	3.91	4.236	4.538	4.906	2.832	3.333	3.818	4.297	4.796
Fraser	28369	2.906	3.244	3.608	3.988	4.369	3.322	3.629	3.935	4.297	4.666	3.756	3.985	4.306	4.602	4.965	2.836	3.336	3.82	4.302	4.801
Fraser	28768	2.927	3.262	3.626	4.001	4.382	3.35	3.654	3.957	4.318	4.685	3.791	4.016	4.336	4.629	4.991	2.839	3.337	3.821	4.306	4.805
Fraser	29120	2.897	3.235	3.605	3.982	4.366	3.308	3.616	3.924	4.287	4.657	3.738	3.967	4.29	4.586	4.949	2.842	3.339	3.822	4.312	4.81
Fraser	29504	2.985	3.329	3.673	4.055	4.436	3.431	3.728	4.028	4.374	4.749	3.896	4.106	4.418	4.7	5.063	2.85	3.348	3.818	4.314	4.807

Historical 1:200							Scenario-A (Moderate) 1:200					Scenario-B (Intense) 1:200					Winter 1:200				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	29883	3.034	3.371	3.712	4.087	4.467	3.497	3.788	4.082	4.426	4.799	3.983	4.182	4.494	4.772	5.135	2.857	3.355	3.825	4.322	4.812
Fraser	30284	3.051	3.386	3.728	4.098	4.475	3.521	3.808	4.099	4.438	4.806	4.012	4.204	4.51	4.783	5.141	2.864	3.361	3.832	4.33	4.818
Fraser	30647	3.115	3.442	3.78	4.142	4.515	3.61	3.889	4.177	4.505	4.867	4.13	4.307	4.607	4.873	5.225	2.873	3.368	3.839	4.337	4.823
Fraser	31045	3.15	3.473	3.81	4.167	4.538	3.663	3.934	4.224	4.543	4.902	4.196	4.365	4.666	4.924	5.274	2.879	3.374	3.845	4.343	4.829
Fraser	31525	3.163	3.485	3.824	4.179	4.552	3.685	3.953	4.245	4.561	4.92	4.227	4.391	4.694	4.951	5.298	2.885	3.379	3.852	4.349	4.836
Fraser	31926	3.188	3.505	3.843	4.194	4.566	3.718	3.982	4.271	4.582	4.939	4.265	4.422	4.726	4.981	5.324	2.89	3.385	3.859	4.354	4.843
Fraser	32332	3.223	3.535	3.87	4.217	4.589	3.768	4.028	4.315	4.617	4.972	4.326	4.476	4.781	5.032	5.368	2.895	3.39	3.867	4.359	4.85
Fraser	32742	3.281	3.584	3.914	4.253	4.622	3.847	4.101	4.382	4.672	5.021	4.422	4.559	4.864	5.108	5.432	2.902	3.395	3.873	4.363	4.858
Fraser	32742	3.281	3.584	3.914	4.253	4.622	3.847	4.101	4.382	4.672	5.021	4.422	4.559	4.864	5.108	5.432	2.902	3.395	3.873	4.363	4.858
Fraser	33139	3.228	3.538	3.873	4.219	4.595	3.777	4.036	4.321	4.621	4.974	4.336	4.482	4.788	5.036	5.367	2.9	3.395	3.876	4.365	4.861
Fraser	33543	3.254	3.557	3.89	4.233	4.609	3.809	4.064	4.347	4.64	4.991	4.372	4.512	4.817	5.062	5.388	2.905	3.4	3.881	4.367	4.866
Fraser	33883	3.213	3.52	3.858	4.206	4.588	3.754	4.013	4.299	4.599	4.954	4.304	4.451	4.757	5.007	5.338	2.905	3.401	3.884	4.369	4.87
Fraser	34089	3.223	3.527	3.864	4.211	4.595	3.767	4.025	4.31	4.607	4.962	4.319	4.463	4.77	5.018	5.347	2.908	3.404	3.886	4.37	4.874
Fraser	34089	3.223	3.527	3.864	4.211	4.595	3.767	4.025	4.31	4.607	4.962	4.319	4.463	4.77	5.018	5.347	2.908	3.404	3.886	4.37	4.874
Fraser	34247	3.37	3.653	3.974	4.305	4.674	3.963	4.209	4.481	4.75	5.091	4.562	4.687	4.986	5.22	5.524	2.918	3.41	3.889	4.371	4.876
Fraser	34655	3.388	3.667	3.985	4.315	4.683	3.986	4.23	4.501	4.765	5.105	4.591	4.713	5.011	5.243	5.541	2.921	3.413	3.893	4.374	4.881
Fraser	35038	3.45	3.724	4.032	4.354	4.717	4.08	4.309	4.574	4.825	5.16	4.695	4.809	5.104	5.33	5.615	2.927	3.418	3.895	4.376	4.886
Fraser	35038	3.45	3.724	4.032	4.354	4.717	4.08	4.309	4.574	4.825	5.16	4.695	4.809	5.104	5.33	5.615	2.927	3.418	3.895	4.376	4.886
Fraser	35451	3.488	3.759	4.062	4.375	4.736	4.136	4.358	4.615	4.86	5.196	4.752	4.864	5.153	5.375	5.651	2.931	3.422	3.897	4.379	4.891
Fraser	35650	3.594	3.862	4.156	4.464	4.8	4.255	4.483	4.709	4.962	5.303	4.882	5.002	5.272	5.494	5.75	2.98	3.472	3.944	4.408	4.922
Fraser	35920	3.592	3.86	4.155	4.463	4.982	4.254	4.483	4.709	4.963	5.304	4.883	5.003	5.274	5.496	5.751	2.981	3.473	3.944	4.409	4.925
Fraser	35992	3.625	3.882	4.172	4.468	4.802	4.289	4.489	4.717	5.025	5.311	4.887	5.178	5.284	5.5	5.808	2.984	3.476	3.947	4.41	4.784
Fraser	36247	3.641	3.896	4.183	4.478	4.81	4.31	4.508	4.734	5.038	5.327	4.908	5.2	5.303	5.517	5.822	2.986	3.478	3.947	4.412	4.787
Fraser	36247	3.641	3.896	4.183	4.478	4.81	4.31	4.508	4.734	5.038	5.327	4.908	5.2	5.303	5.517	5.822	2.986	3.478	3.947	4.412	4.787
Fraser	36357	3.665	3.918	4.199	4.492	4.821	4.339	4.536	4.76	5.057	5.349	4.938	5.23	5.332	5.541	5.842	2.987	3.479	3.947	4.412	4.787
Fraser	36736	3.626	3.881	4.172	4.469	4.802	4.291	4.489	4.717	5.023	5.308	4.886	5.176	5.282	5.497	5.801	2.985	3.478	3.947	4.414	4.787
Fraser	37139	3.616	3.87	4.165	4.462	4.796	4.277	4.476	4.706	5.012	5.294	4.87	5.158	5.267	5.482	5.785	2.984	3.479	3.947	4.416	4.788
Fraser	37528	3.643	3.894	4.183	4.479	4.81	4.31	4.509	4.733	5.037	5.324	4.908	5.198	5.302	5.515	5.811	2.986	3.481	3.947	4.418	4.79
Fraser	37939	3.672	3.921	4.203	4.497	4.826	4.346	4.542	4.764	5.059	5.349	4.943	5.233	5.335	5.543	5.831	2.988	3.483	3.948	4.42	4.793
Fraser	38352	3.709	3.954	4.228	4.52	4.847	4.392	4.587	4.806	5.093	5.385	4.992	5.283	5.384	5.583	5.865	2.99	3.486	3.949	4.422	4.797
Fraser	38759	3.701	3.945	4.221	4.513	4.842	4.38	4.575	4.794	5.084	5.375	4.979	5.269	5.37	5.572	5.851	2.99	3.486	3.95	4.424	4.8
Fraser	39151	3.762	4.004	4.265	4.555	4.878	4.456	4.65	4.867	5.146	5.441	5.064	5.359	5.458	5.646	5.915	2.994	3.488	3.952	4.426	4.804
Fraser	39490	3.708	3.954	4.23	4.523	4.854	4.399	4.596	4.817	5.106	5.399	5.008	5.302	5.404	5.602	5.874	2.991	3.485	3.953	4.428	4.807
Fraser	39926	3.891	4.127	4.377	4.655	4.951	4.609	4.795	5.006	5.257	5.556	5.221	5.513	5.606	5.779	6.024	3.004	3.49	3.959	4.43	4.811
Fraser	39926	3.891	4.127	4.377	4.655	4.951	4.609	4.795	5.006	5.257	5.556	5.221	5.513	5.606	5.779	6.024	3.004	3.49	3.959	4.43	4.811
Fraser	40332	3.879	4.116	4.366	4.644	4.943	4.594	4.78	4.991	5.246	5.543	5.204	5.496	5.59	5.764	6.012	3.002	3.487	3.961	4.431	4.811
Fraser	40766	3.867	4.104	4.352	4.628	4.931	4.573	4.758	4.967	5.225	5.518	5.173	5.462	5.557	5.73	5.98	3.001	3.483	3.962	4.433	4.812
Fraser	41158	3.878	4.117	4.366	4.642	4.948	4.595	4.784	4.996	5.252	5.551	5.212	5.505	5.6	5.773	6.019	3.002	3.48	3.964	4.435	4.813
Fraser	41502	3.93	4.166	4.41	4.683	4.977	4.653	4.837	5.045	5.292	5.592	5.271	5.56	5.653	5.822	6.058	3.006	3.48	3.966	4.437	4.814

Historical 1:200							Scenario-A (Moderate) 1:200					Scenario-B (Intense) 1:200					Winter 1:200				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	41882	3.994	4.228	4.469	4.74	5.023	4.735	4.916	5.124	5.355	5.66	5.365	5.649	5.739	5.905	6.126	3.01	3.48	3.968	4.439	4.816
Fraser	42407	4.132	4.35	4.595	4.849	5.125	4.883	5.056	5.259	5.467	5.792	5.531	5.802	6	6.109	6.306	3.037	3.504	3.98	4.444	4.824
Fraser	42617	4.141	4.359	4.603	4.856	5.133	4.894	5.066	5.27	5.475	5.801	5.543	5.814	6.011	6.119	6.314	3.039	3.504	3.981	4.445	4.825
Fraser	43031	4.198	4.415	4.657	4.908	5.183	4.965	5.135	5.339	5.532	5.863	5.626	5.895	6.087	6.194	6.378	3.044	3.504	3.982	4.447	4.826
Fraser	43373	4.175	4.393	4.635	4.887	5.163	4.936	5.107	5.31	5.509	5.837	5.591	5.861	6.054	6.162	6.349	3.043	3.501	3.982	4.448	4.826
Fraser	43373	4.175	4.393	4.635	4.887	5.163	4.936	5.107	5.31	5.509	5.837	5.591	5.861	6.054	6.162	6.349	3.043	3.501	3.982	4.448	4.826
Fraser	43945	4.116	4.336	4.579	4.834	5.112	4.864	5.037	5.242	5.447	5.776	5.509	5.783	5.979	6.088	6.279	3.028	3.486	3.972	4.443	4.819
Fraser	44343	4.14	4.358	4.598	4.851	5.127	4.887	5.059	5.262	5.463	5.793	5.531	5.804	5.999	6.107	6.296	3.037	3.492	3.975	4.446	4.819
Fraser	44754	4.157	4.372	4.611	4.86	5.134	4.901	5.07	5.271	5.47	5.794	5.539	5.807	5.998	6.105	6.291	3.045	3.498	3.978	4.449	4.818
Fraser	45140	4.198	4.411	4.647	4.894	5.165	4.947	5.114	5.313	5.508	5.831	5.59	5.854	6.042	6.148	6.331	3.058	3.508	3.984	4.455	4.82
Fraser	45541	4.244	4.455	4.69	4.935	5.203	5.002	5.168	5.365	5.556	5.878	5.654	5.916	6.102	6.207	6.388	3.072	3.519	3.992	4.46	4.822
Fraser	45944	4.301	4.51	4.742	4.985	5.253	5.071	5.237	5.436	5.622	5.946	5.743	6.004	6.188	6.29	6.468	3.088	3.532	4.001	4.467	4.826
Fraser	46354	4.378	4.584	4.812	5.053	5.317	5.164	5.325	5.519	5.697	6.015	5.84	6.093	6.272	6.371	6.545	3.113	3.552	4.014	4.476	4.834
Fraser	46562	4.403	4.607	4.836	5.075	5.337	5.193	5.352	5.544	5.719	6.036	5.869	6.12	6.297	6.396	6.568	3.121	3.558	4.019	4.479	4.837
Fraser	46562	4.403	4.607	4.836	5.075	5.337	5.193	5.352	5.544	5.719	6.036	5.869	6.12	6.297	6.396	6.568	3.121	3.558	4.019	4.479	4.837
Fraser	46984	4.552	4.747	4.963	5.184	5.432	5.334	5.481	5.662	5.829	6.133	6.005	6.244	6.414	6.508	6.673	3.176	3.603	4.052	4.504	4.86
Fraser	47419	4.587	4.78	4.995	5.215	5.467	5.381	5.53	5.711	5.875	6.173	6.061	6.295	6.461	6.553	6.715	3.191	3.614	4.061	4.509	4.866
Fraser	47789	4.645	4.835	5.047	5.263	5.505	5.437	5.579	5.754	5.915	6.208	6.11	6.34	6.503	6.594	6.753	3.213	3.632	4.075	4.518	4.877
Fraser	48174	4.653	4.844	5.056	5.272	5.515	5.451	5.595	5.773	5.934	6.226	6.135	6.363	6.525	6.616	6.774	3.215	3.633	4.078	4.518	4.88
Fraser	48502	4.713	4.901	5.111	5.324	5.563	5.52	5.66	5.832	5.988	6.272	6.199	6.421	6.579	6.666	6.821	3.237	3.651	4.094	4.528	4.89
Fraser	48560	4.719	4.907	5.116	5.329	5.568	5.526	5.666	5.838	5.993	6.276	6.205	6.426	6.583	6.671	6.825	3.239	3.653	4.096	4.529	4.892
Fraser	48560	4.719	4.907	5.116	5.329	5.568	5.526	5.666	5.838	5.993	6.276	6.205	6.426	6.583	6.671	6.825	3.239	3.653	4.096	4.529	4.892
Fraser	48981	4.578	4.768	4.98	5.196	5.438	5.349	5.491	5.664	5.824	6.113	5.99	6.218	6.379	6.47	6.629	3.2	3.618	4.067	4.503	4.867
Fraser	49283	4.61	4.799	5.01	5.225	5.466	5.387	5.528	5.7	5.858	6.143	6.032	6.255	6.414	6.504	6.661	3.213	3.628	4.076	4.51	4.874
Fraser	49565	4.673	4.859	5.067	5.279	5.517	5.459	5.597	5.766	5.92	6.2	6.109	6.327	6.483	6.57	6.725	3.237	3.648	4.093	4.523	4.885
Fraser	49963	4.683	4.868	5.076	5.286	5.524	5.469	5.607	5.774	5.928	6.206	6.118	6.336	6.491	6.578	6.731	3.245	3.654	4.098	4.526	4.887
Fraser	50339	4.781	4.963	5.167	5.374	5.608	5.587	5.721	5.884	6.033	6.305	6.251	6.462	6.613	6.697	6.847	3.28	3.684	4.122	4.553	4.904
Fraser	50737	4.823	5.003	5.206	5.41	5.643	5.635	5.768	5.929	6.077	6.346	6.305	6.513	6.663	6.746	6.894	3.298	3.701	4.134	4.568	4.911
Fraser	51139	4.894	5.07	5.269	5.47	5.699	5.712	5.842	5.999	6.143	6.406	6.386	6.589	6.735	6.817	6.961	3.331	3.731	4.155	4.591	4.924
Fraser	51545	4.976	5.148	5.343	5.54	5.764	5.803	5.929	6.083	6.222	6.48	6.483	6.68	6.823	6.902	7.043	3.37	3.765	4.184	4.617	4.943
Fraser	51943	5.014	5.184	5.377	5.572	5.795	5.845	5.97	6.122	6.26	6.515	6.529	6.724	6.865	6.943	7.083	3.39	3.783	4.198	4.631	4.953
Fraser	52349	5.043	5.211	5.402	5.595	5.816	5.874	5.998	6.149	6.286	6.54	6.563	6.757	6.897	6.975	7.114	3.41	3.799	4.211	4.643	4.961
Fraser	52707	5.098	5.264	5.453	5.643	5.861	5.935	6.057	6.205	6.34	6.59	6.629	6.82	6.958	7.035	7.171	3.435	3.822	4.231	4.661	4.976
Fraser	53123	5.222	5.383	5.566	5.75	5.963	6.073	6.19	6.332	6.46	6.7	6.77	6.952	7.085	7.159	7.289	3.489	3.87	4.271	4.697	5.007
Fraser	53689	5.27	5.429	5.61	5.791	6.001	6.123	6.239	6.378	6.504	6.74	6.822	7.001	7.131	7.204	7.332	3.515	3.893	4.291	4.715	5.021
Fraser	53689	5.27	5.429	5.61	5.791	6.001	6.123	6.239	6.378	6.504	6.74	6.822	7.001	7.131	7.204	7.332	3.515	3.893	4.291	4.715	5.021
Fraser	53954	5.398	5.552	5.728	5.903	6.107	6.263	6.374	6.507	6.629	6.855	6.968	7.14	7.265	7.336	7.458	3.573	3.944	4.335	4.752	5.056
Fraser	54327	5.446	5.6	5.775	5.949	6.153	6.325	6.436	6.568	6.689	6.913	7.044	7.213	7.338	7.408	7.529	3.588	3.959	4.349	4.766	5.069
Fraser	54734	5.444	5.597	5.771	5.946	6.151	6.324	6.436	6.569	6.69	6.915	7.049	7.219	7.344	7.414	7.536	3.597	3.966	4.354	4.77	5.072

Historical 1:200							Scenario-A (Moderate) 1:200					Scenario-B (Intense) 1:200					Winter 1:200				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	55128	5.445	5.595	5.768	5.938	6.137	6.301	6.409	6.539	6.657	6.878	6.996	7.163	7.286	7.355	7.475	3.608	3.977	4.362	4.776	5.076
Fraser	55527	5.467	5.616	5.788	5.958	6.156	6.326	6.434	6.563	6.68	6.899	7.025	7.19	7.312	7.381	7.5	3.619	3.987	4.372	4.785	5.085
Fraser	55923	5.507	5.655	5.825	5.993	6.19	6.371	6.478	6.605	6.721	6.939	7.074	7.237	7.358	7.426	7.545	3.638	4.005	4.388	4.799	5.099
Fraser	56318	5.528	5.676	5.845	6.012	6.208	6.395	6.501	6.627	6.743	6.959	7.1	7.262	7.384	7.453	7.572	3.65	4.017	4.399	4.808	5.108
Fraser	56731	5.559	5.705	5.872	6.037	6.231	6.425	6.53	6.655	6.769	6.983	7.13	7.291	7.411	7.478	7.596	3.667	4.033	4.413	4.82	5.12
Fraser	57123	5.615	5.76	5.925	6.088	6.28	6.491	6.594	6.717	6.83	7.041	7.203	7.36	7.476	7.541	7.655	3.693	4.056	4.434	4.838	5.138
Fraser	57451	5.661	5.805	5.968	6.129	6.32	6.544	6.646	6.767	6.879	7.088	7.262	7.417	7.532	7.596	7.709	3.713	4.075	4.451	4.852	5.153
Fraser	57813	5.65	5.794	5.958	6.12	6.311	6.533	6.635	6.758	6.87	7.08	7.253	7.409	7.524	7.589	7.702	3.711	4.074	4.45	4.851	5.153
Fraser	58242	5.727	5.871	6.035	6.195	6.386	6.637	6.738	6.859	6.97	7.179	7.38	7.538	7.656	7.721	7.837	3.738	4.098	4.474	4.871	5.175
Fraser	58547	5.767	5.909	6.07	6.228	6.417	6.675	6.775	6.895	7.004	7.21	7.42	7.574	7.689	7.753	7.865	3.759	4.117	4.49	4.885	5.19
Fraser	58935	5.815	5.956	6.115	6.272	6.459	6.731	6.83	6.948	7.058	7.266	7.492	7.642	7.754	7.817	7.926	3.78	4.136	4.508	4.899	5.206
Fraser	59378	5.803	5.944	6.102	6.258	6.446	6.715	6.814	6.933	7.041	7.245	7.46	7.607	7.718	7.779	7.887	3.782	4.138	4.511	4.901	5.209
Fraser	59775	5.868	6.006	6.163	6.318	6.503	6.788	6.885	7.002	7.108	7.307	7.537	7.681	7.789	7.849	7.955	3.807	4.162	4.534	4.92	5.23
Fraser	60164	5.933	6.071	6.225	6.377	6.559	6.859	6.954	7.068	7.173	7.368	7.611	7.753	7.858	7.917	8.021	3.831	4.185	4.555	4.938	5.25
Fraser	60563	5.956	6.093	6.246	6.396	6.577	6.882	6.976	7.09	7.193	7.387	7.634	7.774	7.879	7.937	8.041	3.845	4.197	4.567	4.947	5.261
Fraser	60975	6.042	6.177	6.327	6.475	6.653	6.981	7.073	7.184	7.286	7.476	7.745	7.882	7.984	8.041	8.142	3.885	4.232	4.598	4.973	5.287
Fraser	61128	6.054	6.188	6.338	6.485	6.663	6.993	7.085	7.196	7.297	7.487	7.758	7.895	7.997	8.053	8.154	3.891	4.238	4.603	4.977	5.291
Fraser	61128	6.054	6.188	6.338	6.485	6.663	6.993	7.085	7.196	7.297	7.487	7.758	7.895	7.997	8.053	8.154	3.891	4.238	4.603	4.977	5.291
Fraser	61327	6.054	6.188	6.338	6.485	6.663	6.993	7.085	7.195	7.296	7.486	7.757	7.893	7.995	8.052	8.153	3.892	4.239	4.604	4.978	5.293
Fraser	61633	6.058	6.193	6.343	6.49	6.669	7.002	7.094	7.205	7.306	7.496	7.77	7.906	8.009	8.065	8.167	3.896	4.242	4.607	4.98	5.296
Fraser	61947	6.061	6.195	6.344	6.491	6.669	7.001	7.093	7.203	7.304	7.493	7.765	7.902	8.004	8.06	8.161	3.901	4.246	4.61	4.983	5.299
Fraser	62124	6.073	6.205	6.354	6.5	6.679	7.012	7.104	7.214	7.314	7.502	7.776	7.912	8.014	8.07	8.171	3.909	4.253	4.616	4.987	5.304
Fraser	62381	6.059	6.192	6.342	6.488	6.668	7.009	7.102	7.214	7.317	7.508	7.79	7.928	8.031	8.089	8.191	3.906	4.249	4.613	4.984	5.303
Fraser	62625	6.11	6.241	6.389	6.535	6.715	7.065	7.157	7.266	7.366	7.553	7.844	7.981	8.083	8.139	8.24	3.927	4.269	4.63	4.999	5.318
Fraser	62887	6.12	6.252	6.399	6.546	6.725	7.07	7.16	7.267	7.366	7.55	7.835	7.969	8.07	8.126	8.226	3.93	4.271	4.633	5.001	5.322
Fraser	63234	6.149	6.277	6.423	6.571	6.752	7.109	7.199	7.306	7.404	7.587	7.884	8.018	8.119	8.175	8.275	3.944	4.283	4.644	5.011	5.332
Fraser	63635	6.154	6.281	6.426	6.571	6.748	7.095	7.182	7.288	7.384	7.565	7.85	7.982	8.081	8.136	8.234	3.951	4.29	4.649	5.015	5.337
Fraser	64027	6.207	6.331	6.474	6.617	6.794	7.152	7.237	7.34	7.434	7.611	7.905	8.036	8.133	8.188	8.285	3.98	4.314	4.671	5.032	5.355
Fraser	64501	6.313	6.432	6.571	6.714	6.893	7.277	7.359	7.458	7.548	7.719	8.038	8.166	8.263	8.316	8.413	4.028	4.357	4.708	5.064	5.386
Fraser	64820	6.375	6.491	6.628	6.77	6.95	7.348	7.428	7.525	7.613	7.78	8.113	8.239	8.335	8.388	8.484	4.058	4.383	4.731	5.084	5.405
Fraser	65249	6.389	6.503	6.64	6.781	6.96	7.36	7.44	7.536	7.623	7.788	8.122	8.248	8.343	8.396	8.492	4.072	4.395	4.74	5.091	5.412
Fraser	65504	6.423	6.535	6.67	6.811	6.99	7.395	7.474	7.568	7.655	7.817	8.157	8.281	8.376	8.428	8.523	4.096	4.414	4.756	5.104	5.423
Fraser	65504	6.423	6.535	6.67	6.811	6.99	7.395	7.474	7.568	7.655	7.817	8.157	8.281	8.376	8.428	8.523	4.096	4.414	4.756	5.104	5.423
Fraser	65697	6.529	6.638	6.77	6.907	7.083	7.512	7.589	7.681	7.765	7.923	8.285	8.407	8.499	8.55	8.643	4.156	4.463	4.797	5.139	5.455
Fraser	65970	6.564	6.672	6.803	6.939	7.113	7.55	7.626	7.717	7.801	7.957	8.326	8.446	8.537	8.588	8.68	4.178	4.481	4.812	5.151	5.467
Fraser	66297	6.585	6.692	6.821	6.957	7.13	7.571	7.647	7.737	7.82	7.976	8.348	8.468	8.559	8.609	8.7	4.195	4.493	4.822	5.16	5.475
Fraser	66674	6.589	6.695	6.824	6.959	7.132	7.571	7.646	7.736	7.82	7.976	8.347	8.467	8.558	8.608	8.699	4.206	4.502	4.827	5.164	5.478
Fraser	67082	6.595	6.701	6.829	6.965	7.137	7.579	7.654	7.744	7.827	7.982	8.355	8.474	8.564	8.614	8.705	4.215	4.51	4.832	5.168	5.482
Fraser	67480	6.628	6.733	6.86	6.993	7.163	7.607	7.681	7.769	7.851	8.004	8.377	8.494	8.583	8.632	8.723	4.237	4.529	4.846	5.181	5.493

Historical 1:200							Scenario-A (Moderate) 1:200					Scenario-B (Intense) 1:200					Winter 1:200				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	67886	6.636	6.74	6.867	6.999	7.168	7.611	7.685	7.773	7.854	8.007	8.379	8.496	8.585	8.634	8.724	4.25	4.541	4.854	5.189	5.499
Fraser	68275	6.646	6.749	6.875	7.007	7.175	7.617	7.691	7.778	7.859	8.01	8.381	8.497	8.585	8.633	8.722	4.26	4.55	4.862	5.196	5.504
Fraser	68690	6.661	6.764	6.889	7.02	7.188	7.633	7.706	7.793	7.873	8.024	8.397	8.512	8.599	8.648	8.736	4.273	4.561	4.872	5.204	5.512
Fraser	69154	6.704	6.805	6.929	7.058	7.224	7.677	7.75	7.835	7.914	8.063	8.444	8.558	8.644	8.692	8.779	4.299	4.585	4.894	5.224	5.529
Fraser	69599	6.729	6.83	6.954	7.083	7.248	7.708	7.78	7.865	7.944	8.092	8.479	8.592	8.677	8.725	8.811	4.313	4.599	4.906	5.235	5.54
Fraser	70006	6.776	6.876	6.999	7.126	7.291	7.766	7.837	7.922	8.001	8.147	8.55	8.662	8.747	8.795	8.881	4.337	4.621	4.927	5.254	5.557
Fraser	70401	6.808	6.907	7.03	7.156	7.32	7.799	7.869	7.953	8.03	8.175	8.581	8.693	8.778	8.826	8.911	4.353	4.636	4.941	5.267	5.569
Fraser	70804	6.849	6.948	7.07	7.195	7.358	7.848	7.919	8.002	8.08	8.225	8.646	8.756	8.84	8.887	8.971	4.371	4.653	4.957	5.282	5.583
Fraser	70882	6.857	6.955	7.077	7.202	7.365	7.856	7.926	8.01	8.087	8.232	8.654	8.764	8.848	8.894	8.978	4.376	4.657	4.961	5.285	5.586
Fraser	70882	6.857	6.955	7.077	7.202	7.365	7.856	7.926	8.01	8.087	8.232	8.654	8.764	8.848	8.894	8.978	4.376	4.657	4.961	5.285	5.586
Fraser	71256	6.74	6.84	6.963	7.09	7.254	7.713	7.785	7.869	7.947	8.094	8.482	8.594	8.68	8.727	8.812	4.335	4.618	4.924	5.25	5.552
Fraser	71642	6.837	6.935	7.056	7.179	7.341	7.821	7.891	7.973	8.05	8.193	8.599	8.708	8.791	8.838	8.921	4.386	4.664	4.967	5.289	5.587
Fraser	72035	6.877	6.974	7.094	7.216	7.377	7.866	7.935	8.016	8.091	8.233	8.647	8.755	8.837	8.882	8.965	4.409	4.686	4.986	5.307	5.603
Fraser	72477	6.927	7.022	7.141	7.262	7.421	7.92	7.988	8.068	8.143	8.282	8.705	8.812	8.893	8.938	9.019	4.44	4.714	5.012	5.33	5.624
Fraser	72960	6.991	7.085	7.203	7.322	7.48	7.994	8.061	8.14	8.213	8.35	8.787	8.892	8.971	9.016	9.096	4.471	4.743	5.039	5.356	5.646
Fraser	73369	7.079	7.172	7.287	7.404	7.559	8.089	8.154	8.231	8.303	8.436	8.887	8.989	9.067	9.11	9.189	4.54	4.806	5.097	5.409	5.695
Fraser	73842	7.159	7.25	7.363	7.477	7.63	8.175	8.239	8.314	8.384	8.515	8.98	9.079	9.156	9.199	9.276	4.583	4.845	5.132	5.441	5.723
Fraser	74310	7.157	7.248	7.361	7.474	7.627	8.17	8.234	8.309	8.379	8.51	8.972	9.071	9.148	9.19	9.268	4.591	4.851	5.137	5.445	5.726
Fraser	74580	7.174	7.264	7.376	7.489	7.641	8.185	8.248	8.322	8.392	8.521	8.983	9.082	9.158	9.2	9.277	4.604	4.863	5.147	5.455	5.734
Fraser	74790	7.216	7.305	7.416	7.527	7.678	8.229	8.292	8.366	8.434	8.562	9.031	9.128	9.203	9.245	9.321	4.627	4.884	5.166	5.472	5.749
Fraser	74970	7.227	7.316	7.427	7.537	7.688	8.241	8.303	8.377	8.445	8.572	9.043	9.14	9.215	9.257	9.333	4.634	4.89	5.172	5.477	5.753
Fraser	74970	7.227	7.316	7.427	7.537	7.688	8.241	8.303	8.377	8.445	8.572	9.043	9.14	9.215	9.257	9.333	4.634	4.89	5.172	5.477	5.753
Fraser	75211	7.264	7.353	7.463	7.573	7.723	8.288	8.35	8.424	8.492	8.619	9.102	9.199	9.273	9.315	9.391	4.65	4.905	5.186	5.49	5.765
Fraser	75604	7.256	7.345	7.455	7.564	7.714	8.272	8.334	8.407	8.474	8.601	9.076	9.172	9.246	9.287	9.363	4.654	4.909	5.188	5.492	5.766
Fraser	76008	7.268	7.356	7.465	7.574	7.723	8.282	8.343	8.415	8.482	8.608	9.083	9.178	9.252	9.293	9.369	4.667	4.92	5.199	5.502	5.773
Fraser	76419	7.286	7.374	7.482	7.59	7.738	8.299	8.36	8.432	8.498	8.623	9.098	9.194	9.267	9.308	9.383	4.678	4.931	5.208	5.511	5.78
Fraser	76811	7.295	7.383	7.492	7.6	7.749	8.314	8.375	8.447	8.514	8.639	9.12	9.215	9.288	9.329	9.404	4.679	4.932	5.21	5.514	5.782
Fraser	77165	7.35	7.437	7.544	7.651	7.798	8.374	8.434	8.505	8.571	8.695	9.185	9.278	9.351	9.391	9.465	4.707	4.958	5.234	5.537	5.804
Fraser	77577	7.42	7.506	7.611	7.716	7.863	8.455	8.514	8.584	8.649	8.771	9.276	9.368	9.439	9.479	9.552	4.74	4.989	5.263	5.564	5.831
Fraser	78036	7.497	7.582	7.686	7.789	7.935	8.545	8.604	8.673	8.737	8.857	9.38	9.471	9.541	9.58	9.652	4.776	5.023	5.294	5.593	5.86
Fraser	78432	7.543	7.627	7.73	7.832	7.977	8.597	8.655	8.723	8.787	8.906	9.438	9.528	9.597	9.636	9.708	4.8	5.045	5.314	5.612	5.88
Fraser	78677	7.562	7.646	7.748	7.849	7.994	8.618	8.675	8.743	8.806	8.925	9.459	9.549	9.618	9.656	9.729	4.813	5.056	5.324	5.622	5.889
Fraser	78677	7.562	7.646	7.748	7.849	7.994	8.618	8.675	8.743	8.806	8.925	9.459	9.549	9.618	9.656	9.729	4.813	5.056	5.324	5.622	5.889
Fraser	79359	7.518	7.602	7.706	7.809	7.955	8.576	8.634	8.703	8.767	8.887	9.419	9.51	9.58	9.619	9.692	4.795	5.04	5.309	5.608	5.875
Fraser	79751	7.538	7.622	7.724	7.825	7.968	8.583	8.64	8.708	8.771	8.89	9.416	9.506	9.575	9.614	9.686	4.817	5.06	5.326	5.622	5.888
Fraser	80151	7.552	7.635	7.737	7.837	7.979	8.592	8.649	8.716	8.779	8.897	9.421	9.51	9.579	9.617	9.689	4.832	5.073	5.338	5.633	5.899
Fraser	80578	7.629	7.712	7.812	7.911	8.053	8.684	8.74	8.806	8.868	8.984	9.525	9.612	9.679	9.717	9.788	4.866	5.104	5.367	5.66	5.927
Fraser	81062	7.66	7.741	7.841	7.938	8.079	8.712	8.768	8.833	8.895	9.01	9.554	9.643	9.711	9.749	9.821	4.882	5.118	5.379	5.673	5.94
Fraser	81501	7.681	7.761	7.86	7.956	8.096	8.729	8.784	8.849	8.909	9.023	9.564	9.65	9.715	9.752	9.821	4.903	5.138	5.397	5.688	5.955

Historical 1:200							Scenario-A (Moderate) 1:200					Scenario-B (Intense) 1:200					Winter 1:200				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	81974	7.784	7.862	7.957	8.051	8.187	8.833	8.886	8.949	9.008	9.118	9.67	9.753	9.817	9.853	9.92	4.975	5.202	5.458	5.738	6.004
Fraser	82376	7.847	7.924	8.018	8.11	8.244	8.9	8.953	9.015	9.073	9.181	9.742	9.824	9.886	9.921	9.988	5.018	5.241	5.493	5.767	6.033
Fraser	82780	7.83	7.907	8	8.092	8.226	8.874	8.927	8.989	9.047	9.155	9.709	9.79	9.853	9.888	9.955	5.028	5.249	5.499	5.771	6.035
Fraser	83180	7.846	7.922	8.014	8.106	8.239	8.888	8.94	9.001	9.059	9.167	9.721	9.802	9.864	9.899	9.966	5.045	5.264	5.513	5.783	6.046
Fraser	83621	7.909	7.984	8.076	8.166	8.298	8.959	9.01	9.071	9.128	9.235	9.802	9.882	9.943	9.978	10.043	5.086	5.3	5.546	5.814	6.074
Fraser	83887	7.929	8.004	8.095	8.184	8.316	8.978	9.029	9.09	9.146	9.252	9.82	9.9	9.961	9.995	10.06	5.102	5.315	5.559	5.825	6.085
Fraser	83887	7.929	8.004	8.095	8.184	8.316	8.978	9.029	9.09	9.146	9.252	9.82	9.9	9.961	9.995	10.06	5.102	5.315	5.559	5.825	6.085
Fraser	84093	8.078	8.15	8.238	8.324	8.452	9.139	9.188	9.245	9.3	9.401	9.986	10.062	10.121	10.154	10.216	5.187	5.391	5.631	5.892	6.147
Fraser	84339	8.073	8.145	8.232	8.319	8.446	9.129	9.177	9.235	9.289	9.389	9.97	10.046	10.104	10.137	10.199	5.193	5.397	5.636	5.895	6.15
Fraser	84641	8.074	8.145	8.232	8.318	8.444	9.121	9.17	9.226	9.28	9.38	9.955	10.031	10.089	10.122	10.184	5.204	5.406	5.643	5.902	6.155
Fraser	85038	8.08	8.156	8.244	8.326	8.448	9.181	9.19	9.234	9.286	9.384	9.963	10.04	10.125	10.174	10.252	5.278	5.476	5.7	5.963	6.204
Fraser	85182	8.112	8.187	8.275	8.355	8.476	9.215	9.224	9.267	9.319	9.417	10	10.077	10.161	10.209	10.287	5.297	5.494	5.717	5.978	6.218
Fraser	85265	8.103	8.178	8.266	8.347	8.468	9.205	9.214	9.257	9.309	9.407	9.988	10.065	10.149	10.198	10.275	5.292	5.489	5.713	5.974	6.214
Fraser	85416	8.175	8.239	8.276	8.394	8.512	9.213	9.222	9.265	9.316	9.414	10.215	10.261	10.317	10.351	10.411	5.35	5.545	5.765	6.016	6.261
Fraser_R	85450	8.175	8.239	8.276	8.394	8.512	9.213	9.222	9.265	9.316	9.414	10.215	10.261	10.317	10.351	10.411	5.35	5.545	5.765	6.016	6.261
Fraser_R	85758	8.186	8.249	8.285	8.404	8.521	9.222	9.231	9.274	9.325	9.423	10.221	10.268	10.323	10.358	10.417	5.358	5.552	5.772	6.022	6.266
Fraser_R	86107	8.223	8.286	8.322	8.439	8.556	9.264	9.273	9.316	9.366	9.463	10.268	10.314	10.369	10.404	10.462	5.38	5.572	5.791	6.039	6.282
Fraser_R	86595	8.252	8.314	8.35	8.466	8.582	9.292	9.301	9.343	9.393	9.489	10.293	10.338	10.393	10.427	10.485	5.399	5.59	5.807	6.054	6.296
Fraser_R	86949	8.299	8.36	8.396	8.511	8.626	9.346	9.355	9.397	9.447	9.541	10.353	10.398	10.451	10.485	10.542	5.421	5.61	5.827	6.072	6.313
Fraser_R	87330	8.32	8.381	8.417	8.532	8.647	9.372	9.381	9.422	9.472	9.566	10.381	10.426	10.48	10.513	10.57	5.431	5.62	5.837	6.081	6.321
Fraser_R	87683	8.335	8.396	8.431	8.545	8.66	9.388	9.397	9.438	9.487	9.581	10.398	10.442	10.495	10.529	10.586	5.44	5.628	5.844	6.088	6.328
Fraser_R	88073	8.349	8.41	8.445	8.559	8.674	9.408	9.417	9.458	9.507	9.601	10.423	10.467	10.521	10.554	10.611	5.441	5.629	5.845	6.089	6.329
Fraser_R	88434	8.378	8.438	8.473	8.585	8.698	9.429	9.438	9.478	9.527	9.619	10.435	10.479	10.531	10.564	10.62	5.472	5.658	5.872	6.113	6.351
Fraser_R	88806	8.592	8.65	8.684	8.792	8.903	9.681	9.69	9.728	9.775	9.864	10.717	10.759	10.81	10.841	10.895	5.574	5.757	5.967	6.2	6.438
Fraser_R	89286	8.608	8.666	8.701	8.808	8.92	9.707	9.716	9.754	9.801	9.89	10.756	10.798	10.848	10.88	10.934	5.572	5.755	5.966	6.2	6.438
Fraser_R	89601	8.587	8.645	8.68	8.788	8.899	9.679	9.688	9.726	9.773	9.862	10.719	10.761	10.812	10.844	10.898	5.564	5.748	5.959	6.194	6.432
Fraser_R	89916	8.647	8.704	8.738	8.845	8.955	9.748	9.757	9.795	9.841	9.929	10.794	10.836	10.885	10.917	10.97	5.595	5.777	5.987	6.22	6.457
Fraser_R	90250	8.682	8.739	8.773	8.878	8.987	9.784	9.792	9.829	9.875	9.963	10.828	10.869	10.918	10.949	11.002	5.617	5.799	6.007	6.239	6.475
Fraser_R	90626	8.695	8.752	8.786	8.89	8.999	9.796	9.804	9.842	9.887	9.974	10.839	10.88	10.929	10.96	11.012	5.629	5.81	6.017	6.248	6.484
Fraser_R	90963	8.737	8.793	8.826	8.93	9.038	9.839	9.847	9.884	9.929	10.015	10.881	10.921	10.969	11	11.052	5.658	5.837	6.043	6.271	6.506
Fraser_R	91389	8.77	8.825	8.858	8.961	9.068	9.874	9.882	9.918	9.963	10.048	10.916	10.956	11.004	11.035	11.086	5.682	5.86	6.064	6.291	6.524
Fraser_R	91751	8.802	8.857	8.89	8.991	9.097	9.905	9.913	9.949	9.993	10.077	10.943	10.982	11.03	11.06	11.111	5.709	5.885	6.087	6.312	6.543
Fraser_R	92078	8.849	8.903	8.936	9.036	9.141	9.954	9.962	9.997	10.041	10.124	10.993	11.032	11.079	11.109	11.159	5.739	5.913	6.114	6.337	6.567
Fraser_R	92483	8.9	8.954	8.986	9.084	9.189	10.007	10.015	10.05	10.093	10.174	11.043	11.082	11.128	11.158	11.207	5.778	5.949	6.148	6.368	6.595
Fraser_R	92893	8.926	8.979	9.011	9.109	9.212	10.032	10.04	10.074	10.116	10.197	11.065	11.103	11.149	11.178	11.227	5.8	5.97	6.167	6.385	6.611
Fraser_R	93270	8.938	8.99	9.022	9.119	9.222	10.04	10.048	10.082	10.124	10.204	11.068	11.106	11.152	11.181	11.23	5.815	5.984	6.18	6.397	6.622
Fraser_R	93643	8.965	9.017	9.048	9.145	9.247	10.067	10.075	10.109	10.15	10.23	11.094	11.131	11.177	11.205	11.254	5.838	6.005	6.2	6.415	6.638
Fraser_R	93974	9.001	9.053	9.084	9.18	9.281	10.108	10.116	10.15	10.191	10.27	11.138	11.175	11.22	11.249	11.297	5.859	6.026	6.219	6.433	6.656
Fraser_R	94338	9.048	9.099	9.13	9.224	9.325	10.158	10.166	10.199	10.24	10.318	11.19	11.227	11.271	11.299	11.347	5.89	6.055	6.247	6.459	6.68



Historical 1:200							Scenario-A (Moderate) 1:200					Scenario-B (Intense) 1:200					Winter 1:200				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	94714	9.095	9.146	9.176	9.27	9.369	10.209	10.216	10.249	10.289	10.367	11.244	11.281	11.325	11.353	11.4	5.923	6.086	6.277	6.486	6.706
Fraser_R	95088	9.134	9.184	9.214	9.307	9.406	10.253	10.26	10.293	10.333	10.411	11.297	11.333	11.377	11.405	11.452	5.946	6.108	6.297	6.506	6.725
Fraser_R	95477	9.187	9.237	9.267	9.359	9.457	10.313	10.32	10.352	10.392	10.468	11.356	11.392	11.435	11.462	11.509	5.983	6.144	6.331	6.537	6.754
Fraser_R	95847	9.179	9.229	9.259	9.352	9.45	10.31	10.318	10.35	10.39	10.467	11.363	11.399	11.443	11.47	11.517	5.973	6.133	6.32	6.527	6.744
Fraser_R	96277	9.229	9.279	9.308	9.399	9.496	10.365	10.372	10.405	10.444	10.519	11.416	11.452	11.494	11.521	11.567	6.009	6.168	6.354	6.559	6.775
Fraser_R	96597	9.245	9.295	9.325	9.418	9.516	10.387	10.394	10.426	10.465	10.54	11.434	11.469	11.512	11.539	11.584	6.023	6.18	6.365	6.569	6.784
Fraser_R	97004	9.25	9.298	9.327	9.417	9.512	10.358	10.365	10.397	10.436	10.512	11.402	11.438	11.48	11.507	11.553	6.041	6.198	6.381	6.583	6.797
Fraser_R	97348	9.276	9.324	9.352	9.441	9.535	10.392	10.399	10.43	10.468	10.542	11.424	11.459	11.501	11.527	11.573	6.061	6.217	6.399	6.6	6.813
Fraser_R	97701	9.35	9.397	9.425	9.513	9.606	10.463	10.47	10.501	10.538	10.609	11.487	11.521	11.562	11.588	11.632	6.109	6.263	6.443	6.642	6.853
Fraser_R	98091	9.392	9.439	9.466	9.552	9.644	10.5	10.506	10.536	10.572	10.642	11.516	11.549	11.59	11.616	11.659	6.145	6.297	6.475	6.672	6.88
Fraser_R	98420	9.419	9.465	9.493	9.578	9.669	10.523	10.53	10.559	10.595	10.664	11.528	11.561	11.601	11.626	11.669	6.179	6.328	6.504	6.699	6.904
Fraser_R	98751	9.429	9.475	9.503	9.587	9.678	10.533	10.539	10.568	10.604	10.673	11.536	11.569	11.609	11.634	11.677	6.188	6.336	6.512	6.706	6.911
Fraser_R	99087	9.511	9.556	9.583	9.666	9.755	10.62	10.627	10.655	10.69	10.758	11.628	11.66	11.699	11.724	11.766	6.245	6.391	6.564	6.755	6.957
Fraser_R	99341	9.556	9.6	9.627	9.709	9.798	10.673	10.679	10.708	10.743	10.81	11.689	11.721	11.76	11.785	11.826	6.266	6.411	6.583	6.774	6.976
Fraser_R	99644	9.594	9.638	9.664	9.746	9.834	10.715	10.722	10.75	10.784	10.851	11.735	11.767	11.805	11.83	11.871	6.294	6.439	6.609	6.798	6.998
Fraser_R	99955	9.634	9.677	9.704	9.784	9.872	10.757	10.763	10.791	10.825	10.891	11.777	11.808	11.846	11.871	11.912	6.321	6.465	6.634	6.822	7.02
Fraser_R	99955	9.634	9.677	9.704	9.784	9.872	10.757	10.763	10.791	10.825	10.891	11.777	11.808	11.846	11.871	11.912	6.321	6.465	6.634	6.822	7.02
Fraser_R	100348	9.631	9.675	9.701	9.783	9.87	10.756	10.762	10.79	10.824	10.891	11.776	11.808	11.846	11.87	11.911	6.321	6.464	6.633	6.821	7.02
Fraser_R	100688	9.662	9.705	9.731	9.812	9.899	10.787	10.793	10.821	10.855	10.921	11.808	11.839	11.877	11.901	11.942	6.343	6.485	6.653	6.84	7.037
Fraser_R	101083	9.684	9.727	9.753	9.833	9.919	10.81	10.816	10.843	10.877	10.942	11.83	11.861	11.899	11.923	11.964	6.362	6.503	6.669	6.855	7.051
Fraser_R	101411	9.682	9.725	9.751	9.831	9.917	10.807	10.813	10.84	10.874	10.939	11.826	11.857	11.895	11.919	11.96	6.367	6.507	6.672	6.858	7.053
Fraser_R	101745	9.672	9.715	9.741	9.82	9.907	10.798	10.804	10.832	10.866	10.931	11.82	11.851	11.889	11.913	11.953	6.37	6.509	6.674	6.858	7.053
Fraser_R	102107	9.763	9.805	9.83	9.907	9.991	10.879	10.885	10.912	10.945	11.008	11.894	11.924	11.961	11.984	12.024	6.447	6.582	6.742	6.921	7.111
Fraser_R	102614	9.786	9.828	9.852	9.929	10.012	10.899	10.905	10.931	10.964	11.027	11.91	11.94	11.977	12	12.04	6.478	6.61	6.768	6.945	7.132
Fraser_R	103057	9.811	9.852	9.877	9.952	10.034	10.917	10.923	10.949	10.982	11.044	11.926	11.956	11.993	12.016	12.055	6.515	6.644	6.799	6.973	7.157
Fraser_R	103447	9.855	9.896	9.92	9.994	10.074	10.953	10.959	10.984	11.016	11.078	11.957	11.987	12.023	12.046	12.085	6.575	6.7	6.849	7.018	7.198
Fraser_R	103782	9.915	9.955	9.978	10.051	10.13	11.005	11.011	11.036	11.067	11.126	11.995	12.024	12.059	12.082	12.12	6.639	6.76	6.905	7.069	7.244
Fraser_R	104233	9.997	10.035	10.058	10.129	10.206	11.086	11.092	11.116	11.146	11.204	12.076	12.104	12.139	12.161	12.198	6.706	6.823	6.965	7.124	7.296
Fraser_R	104653	10.05	10.088	10.11	10.179	10.255	11.134	11.14	11.164	11.193	11.251	12.118	12.145	12.179	12.201	12.238	6.775	6.887	7.024	7.179	7.345
Fraser_R	105033	10.077	10.114	10.136	10.204	10.279	11.154	11.16	11.183	11.213	11.269	12.132	12.16	12.194	12.215	12.252	6.815	6.924	7.058	7.21	7.373
Fraser_R	105317	10.086	10.123	10.145	10.213	10.287	11.163	11.168	11.191	11.221	11.277	12.14	12.167	12.201	12.222	12.259	6.831	6.94	7.072	7.222	7.384
Fraser_R	105752	10.126	10.162	10.184	10.25	10.324	11.199	11.204	11.227	11.256	11.311	12.173	12.2	12.233	12.255	12.291	6.887	6.991	7.119	7.265	7.423
Fraser_R	106155	10.156	10.192	10.213	10.279	10.352	11.224	11.23	11.252	11.281	11.336	12.195	12.222	12.255	12.276	12.312	6.938	7.039	7.163	7.305	7.459
Fraser_R	106506	10.18	10.215	10.236	10.301	10.373	11.245	11.25	11.273	11.301	11.356	12.214	12.241	12.274	12.295	12.33	6.975	7.073	7.194	7.333	7.485
Fraser_R	106807	10.19	10.225	10.246	10.311	10.382	11.25	11.255	11.277	11.306	11.36	12.214	12.241	12.273	12.294	12.33	7.01	7.106	7.224	7.359	7.508
Fraser_R	106807	10.19	10.225	10.246	10.311	10.382	11.25	11.255	11.277	11.306	11.36	12.214	12.241	12.273	12.294	12.33	7.01	7.106	7.224	7.359	7.508
Fraser_R	107158	10.119	10.155	10.176	10.242	10.314	11.173	11.178	11.201	11.229	11.284	12.13	12.157	12.19	12.211	12.247	6.978	7.073	7.191	7.327	7.476
Fraser_R	107502	10.158	10.192	10.213	10.277	10.347	11.198	11.203	11.225	11.253	11.307	12.146	12.173	12.206	12.227	12.262	7.073	7.161	7.271	7.399	7.54
Fraser_R	107855	10.232	10.266	10.286	10.348	10.416	11.267	11.271	11.293	11.321	11.373	12.213	12.239	12.271	12.291	12.327	7.17	7.252	7.356	7.476	7.611

Historical 1:200							Scenario-A (Moderate) 1:200					Scenario-B (Intense) 1:200					Winter 1:200				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	108192	10.27	10.302	10.322	10.382	10.449	11.291	11.296	11.318	11.344	11.396	12.229	12.255	12.286	12.307	12.341	7.262	7.338	7.435	7.548	7.676
Fraser_R	108505	10.398	10.43	10.448	10.506	10.57	11.418	11.423	11.443	11.469	11.519	12.357	12.382	12.412	12.432	12.465	7.368	7.44	7.532	7.641	7.763
Fraser_R	108822	10.511	10.54	10.558	10.613	10.674	11.521	11.526	11.546	11.57	11.618	12.456	12.48	12.51	12.529	12.561	7.516	7.58	7.663	7.762	7.875
Fraser_R	109145	10.568	10.597	10.615	10.668	10.727	11.567	11.571	11.591	11.615	11.662	12.495	12.519	12.548	12.567	12.599	7.638	7.696	7.772	7.863	7.967
Fraser_R	109489	10.626	10.654	10.671	10.723	10.782	11.626	11.63	11.649	11.673	11.719	12.567	12.59	12.619	12.638	12.67	7.725	7.777	7.846	7.929	8.026
Fraser_R	109795	10.688	10.716	10.732	10.783	10.84	11.685	11.689	11.708	11.732	11.777	12.608	12.631	12.659	12.677	12.707	7.774	7.824	7.891	7.971	8.064
Fraser_R	109795	10.688	10.716	10.732	10.783	10.84	11.685	11.689	11.708	11.732	11.777	12.608	12.631	12.659	12.677	12.707	7.774	7.824	7.891	7.971	8.064
Fraser_R	110180	10.755	10.781	10.797	10.845	10.899	11.72	11.724	11.742	11.764	11.807	12.609	12.632	12.659	12.676	12.706	7.912	7.958	8.02	8.094	8.181
Fraser_R	110180	10.755	10.781	10.797	10.845	10.899	11.72	11.724	11.742	11.764	11.807	12.609	12.632	12.659	12.676	12.706	7.912	7.958	8.02	8.094	8.181
Fraser_R	110821	10.93	10.953	10.967	11.01	11.058	11.835	11.838	11.854	11.874	11.914	12.684	12.706	12.731	12.748	12.776	8.17	8.21	8.263	8.328	8.404
Fraser_R	110821	10.93	10.953	10.967	11.01	11.058	11.835	11.838	11.854	11.874	11.914	12.684	12.706	12.731	12.748	12.776	8.17	8.21	8.263	8.328	8.404
Fraser_R	111192	10.926	10.948	10.962	11.003	11.049	11.811	11.814	11.83	11.85	11.889	12.649	12.67	12.695	12.712	12.74	8.271	8.307	8.355	8.414	8.483
Fraser_R	111192	10.926	10.948	10.962	11.003	11.049	11.811	11.814	11.83	11.85	11.889	12.649	12.67	12.695	12.712	12.74	8.271	8.307	8.355	8.414	8.483
Fraser_R	111514	10.942	10.964	10.978	11.019	11.066	11.833	11.836	11.852	11.872	11.911	12.674	12.694	12.72	12.736	12.764	8.291	8.327	8.374	8.432	8.5
Fraser_R	111886	11.108	11.129	11.142	11.18	11.224	11.992	11.996	12.011	12.029	12.066	12.823	12.843	12.867	12.882	12.909	8.396	8.43	8.477	8.533	8.599
Fraser_R	112217	11.249	11.268	11.28	11.316	11.357	12.119	12.122	12.136	12.154	12.188	12.936	12.955	12.978	12.993	13.018	8.517	8.55	8.594	8.647	8.71
Fraser_R	112217	11.249	11.268	11.28	11.316	11.357	12.119	12.122	12.136	12.154	12.188	12.936	12.955	12.978	12.993	13.018	8.517	8.55	8.594	8.647	8.71
Fraser_R	112565	11.313	11.332	11.343	11.378	11.418	12.183	12.186	12.2	12.217	12.251	13.001	13.02	13.042	13.056	13.081	8.586	8.617	8.66	8.71	8.771
Fraser_R	112565	11.313	11.332	11.343	11.378	11.418	12.183	12.186	12.2	12.217	12.251	13.001	13.02	13.042	13.056	13.081	8.586	8.617	8.66	8.71	8.771
Fraser_R	112925	11.343	11.361	11.372	11.407	11.446	12.208	12.211	12.224	12.241	12.274	13.019	13.037	13.059	13.074	13.098	8.623	8.653	8.694	8.743	8.802
Fraser_R	112925	11.343	11.361	11.372	11.407	11.446	12.208	12.211	12.224	12.241	12.274	13.019	13.037	13.059	13.074	13.098	8.623	8.653	8.694	8.743	8.802
Fraser_R	113344	11.365	11.384	11.395	11.428	11.467	12.222	12.225	12.238	12.255	12.288	13.026	13.044	13.066	13.08	13.105	8.713	8.74	8.777	8.822	8.875
Fraser_R	113644	11.406	11.424	11.434	11.467	11.504	12.254	12.257	12.269	12.286	12.318	13.05	13.067	13.089	13.103	13.127	8.818	8.842	8.877	8.917	8.967
Fraser_R	114093	11.571	11.587	11.596	11.625	11.658	12.378	12.381	12.392	12.407	12.437	13.138	13.154	13.175	13.188	13.21	9.077	9.098	9.126	9.16	9.202
Fraser_R	114093	11.571	11.587	11.596	11.625	11.658	12.378	12.381	12.392	12.407	12.437	13.138	13.154	13.175	13.188	13.21	9.077	9.098	9.126	9.16	9.202
Fraser_R	114403	11.595	11.61	11.619	11.646	11.677	12.37	12.373	12.384	12.398	12.426	13.103	13.119	13.139	13.152	13.174	9.175	9.194	9.22	9.251	9.29
Fraser_R	114731	11.863	11.877	11.885	11.91	11.939	12.659	12.662	12.672	12.685	12.711	13.386	13.401	13.419	13.431	13.451	9.358	9.376	9.4	9.429	9.465
Fraser_R	115152	11.992	12.005	12.013	12.037	12.064	12.797	12.799	12.809	12.821	12.846	13.519	13.533	13.55	13.562	13.581	9.447	9.464	9.487	9.515	9.55
Fraser_R	115530	12.083	12.095	12.103	12.126	12.152	12.889	12.891	12.9	12.912	12.936	13.606	13.619	13.636	13.646	13.665	9.532	9.548	9.57	9.596	9.63
Fraser_R	115921	12.178	12.19	12.198	12.22	12.246	12.999	13.001	13.01	13.022	13.045	13.718	13.731	13.747	13.758	13.776	9.604	9.619	9.641	9.666	9.698
Fraser_R	116277	12.221	12.232	12.239	12.259	12.284	13	13.002	13.01	13.021	13.043	13.69	13.702	13.718	13.728	13.746	9.734	9.748	9.767	9.79	9.819
Fraser_R	116526	12.295	12.306	12.312	12.332	12.356	13.08	13.082	13.09	13.101	13.122	13.767	13.779	13.795	13.804	13.821	9.797	9.81	9.829	9.851	9.879
Fraser_R	116822	12.734	12.744	12.749	12.767	12.788	13.573	13.574	13.582	13.591	13.61	14.272	14.282	14.295	14.304	14.318	10.068	10.08	10.097	10.117	10.142
Fraser_R	117205	12.987	12.996	13.001	13.018	13.037	13.84	13.842	13.848	13.857	13.874	14.537	14.546	14.558	14.566	14.579	10.253	10.265	10.28	10.299	10.323
Fraser_R	117465	13.02	13.028	13.034	13.05	13.069	13.872	13.874	13.88	13.889	13.906	14.567	14.576	14.588	14.596	14.609	10.285	10.297	10.312	10.331	10.354
Fraser_R	117465	13.02	13.028	13.034	13.05	13.069	13.872	13.874	13.88	13.889	13.906	14.567	14.576	14.588	14.596	14.609	10.285	10.297	10.312	10.331	10.354
Fraser_R	117693	12.986	12.994	13	13.016	13.035	13.833	13.835	13.841	13.85	13.867	14.529	14.538	14.55	14.558	14.571	10.273	10.285	10.3	10.319	10.342
Fraser_R	117965	13.004	13.013	13.018	13.034	13.053	13.843	13.845	13.851	13.86	13.877	14.531	14.54	14.552	14.559	14.572	10.312	10.323	10.338	10.356	10.378
Fraser_R	118227	12.981	12.989	12.994	13.01	13.029	13.804	13.805	13.812	13.82	13.837	14.491	14.501	14.513	14.521	14.534	10.336	10.347	10.361	10.378	10.4

Historical 1:200							Scenario-A (Moderate) 1:200					Scenario-B (Intense) 1:200					Winter 1:200				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	118629	13.161	13.169	13.174	13.188	13.205	13.976	13.977	13.983	13.991	14.006	14.626	14.634	14.645	14.652	14.664	10.463	10.472	10.485	10.501	10.52
Fraser_R	119023	13.419	13.426	13.43	13.443	13.458	14.228	14.229	14.234	14.241	14.254	14.856	14.864	14.873	14.88	14.89	10.654	10.662	10.674	10.687	10.704
Fraser_R	119296	13.429	13.436	13.44	13.453	13.468	14.237	14.239	14.244	14.25	14.263	14.862	14.87	14.879	14.885	14.896	10.663	10.671	10.682	10.695	10.712
Fraser_R	119296	13.429	13.436	13.44	13.453	13.468	14.237	14.239	14.244	14.25	14.263	14.862	14.87	14.879	14.885	14.896	10.663	10.671	10.682	10.695	10.712
Fraser_R	119760	13.719	13.725	13.729	13.74	13.754	14.537	14.538	14.543	14.548	14.56	15.181	15.187	15.196	15.201	15.211	10.838	10.846	10.856	10.868	10.883
Fraser_R	120109	13.764	13.769	13.773	13.784	13.796	14.561	14.562	14.566	14.571	14.582	15.175	15.182	15.189	15.195	15.204	10.924	10.931	10.94	10.952	10.966
Fraser_R	120552	13.987	13.992	13.995	14.005	14.016	14.786	14.787	14.791	14.796	14.806	15.409	15.415	15.422	15.427	15.435	11.079	11.085	11.093	11.104	11.117
Fraser_R	120979	14.171	14.176	14.179	14.187	14.198	14.964	14.964	14.968	14.972	14.981	15.587	15.593	15.599	15.604	15.611	11.247	11.252	11.26	11.269	11.281
Fraser_R	121391	14.353	14.358	14.36	14.368	14.378	15.163	15.164	15.167	15.172	15.18	15.804	15.809	15.815	15.819	15.826	11.326	11.331	11.339	11.348	11.359
Fraser_R	121770	14.466	14.47	14.472	14.48	14.489	15.274	15.275	15.278	15.282	15.29	15.916	15.921	15.927	15.931	15.937	11.435	11.44	11.447	11.455	11.466
Fraser_R	121960	14.532	14.536	14.538	14.546	14.555	15.334	15.334	15.337	15.341	15.349	15.972	15.977	15.983	15.987	15.993	11.502	11.506	11.513	11.521	11.531
Fraser_R	121960	14.532	14.536	14.538	14.546	14.555	15.334	15.334	15.337	15.341	15.349	15.972	15.977	15.983	15.987	15.993	11.502	11.506	11.513	11.521	11.531
Fraser_R	122189	14.598	14.602	14.605	14.611	14.62	15.389	15.39	15.393	15.396	15.404	16.022	16.026	16.032	16.036	16.042	11.582	11.587	11.593	11.601	11.61
Fraser_R	122649	14.808	14.812	14.814	14.82	14.828	15.604	15.605	15.607	15.611	15.618	16.236	16.24	16.245	16.248	16.254	11.779	11.783	11.789	11.795	11.804
Fraser_R	123115	14.927	14.93	14.932	14.938	14.946	15.722	15.722	15.725	15.728	15.734	16.353	16.357	16.361	16.365	16.37	11.91	11.913	11.918	11.924	11.932
Fraser_R	123115	14.927	14.93	14.932	14.938	14.946	15.722	15.722	15.725	15.728	15.734	16.353	16.357	16.361	16.365	16.37	11.91	11.913	11.918	11.924	11.932
Fraser_R	123582	14.984	14.987	14.989	14.995	15.002	15.775	15.776	15.778	15.782	15.788	16.405	16.408	16.413	16.416	16.421	12.047	12.05	12.054	12.059	12.066
Fraser_R	123950	15.023	15.026	15.027	15.033	15.04	15.794	15.795	15.797	15.8	15.806	16.41	16.414	16.419	16.422	16.427	12.273	12.276	12.279	12.282	12.287
Fraser_R	124343	15.263	15.265	15.267	15.272	15.278	16.018	16.019	16.021	16.024	16.029	16.626	16.629	16.633	16.636	16.641	12.558	12.56	12.562	12.565	12.568
Fraser_R	124343	15.263	15.265	15.267	15.272	15.278	16.018	16.019	16.021	16.024	16.029	16.626	16.629	16.633	16.636	16.641	12.558	12.56	12.562	12.565	12.568
Fraser_R	124720	15.339	15.341	15.343	15.347	15.353	16.077	16.077	16.079	16.082	16.087	16.674	16.677	16.681	16.684	16.688	12.73	12.731	12.733	12.735	12.738
Fraser_R	125093	15.356	15.358	15.36	15.364	15.369	16.055	16.055	16.057	16.06	16.064	16.626	16.629	16.633	16.635	16.639	12.903	12.904	12.906	12.907	12.91
Fraser_R	125436	15.698	15.7	15.701	15.705	15.709	16.393	16.393	16.395	16.397	16.401	16.961	16.963	16.967	16.969	16.972	13.199	13.2	13.201	13.202	13.204
Fraser_R	125807	15.802	15.804	15.805	15.808	15.812	16.497	16.497	16.499	16.501	16.504	17.064	17.066	17.069	17.071	17.075	13.326	13.327	13.328	13.329	13.331
Fraser_R	125807	15.802	15.804	15.805	15.808	15.812	16.497	16.497	16.499	16.501	16.504	17.064	17.066	17.069	17.071	17.075	13.326	13.327	13.328	13.329	13.331
Fraser_R	126146	15.905	15.907	15.908	15.911	15.915	16.585	16.585	16.587	16.588	16.592	17.141	17.143	17.146	17.148	17.151	13.487	13.488	13.489	13.49	13.491
Fraser_R	126146	15.905	15.907	15.908	15.911	15.915	16.585	16.585	16.587	16.588	16.592	17.141	17.143	17.146	17.148	17.151	13.487	13.488	13.489	13.49	13.491
Fraser_R	126471	15.861	15.863	15.864	15.867	15.87	16.525	16.525	16.526	16.528	16.532	17.069	17.071	17.074	17.076	17.079	13.477	13.478	13.479	13.48	13.481
Fraser_R	126811	15.918	15.92	15.921	15.923	15.927	16.554	16.554	16.556	16.557	16.561	17.078	17.08	17.083	17.085	17.088	13.688	13.688	13.689	13.69	13.691
Fraser_R	126811	15.918	15.92	15.921	15.923	15.927	16.554	16.554	16.556	16.557	16.561	17.078	17.08	17.083	17.085	17.088	13.688	13.688	13.689	13.69	13.691
Fraser_R	127331	16.235	16.236	16.236	16.238	16.241	16.833	16.833	16.834	16.836	16.838	17.326	17.327	17.33	17.331	17.334	13.985	13.986	13.986	13.987	13.988
Fraser_R	127331	16.235	16.236	16.236	16.238	16.241	16.833	16.833	16.834	16.836	16.838	17.326	17.327	17.33	17.331	17.334	13.985	13.986	13.986	13.987	13.988
Fraser_R	127666	16.409	16.41	16.41	16.412	16.415	17.017	17.017	17.018	17.019	17.022	17.515	17.517	17.519	17.52	17.522	14.092	14.092	14.093	14.093	14.094
Fraser_R	128018	16.783	16.784	16.785	16.786	16.789	17.468	17.468	17.469	17.47	17.472	18.031	18.033	18.034	18.036	18.038	14.212	14.212	14.212	14.213	14.214
Fraser_R	128434	17.025	17.025	17.026	17.027	17.029	17.731	17.731	17.732	17.733	17.735	18.312	18.314	18.315	18.316	18.318	14.364	14.365	14.365	14.366	14.366
Fraser_R	128434	17.025	17.025	17.026	17.027	17.029	17.731	17.731	17.732	17.733	17.735	18.312	18.314	18.315	18.316	18.318	14.364	14.365	14.365	14.366	14.366
Fraser_R	128804	17.285	17.285	17.286	17.287	17.289	17.987	17.987	17.988	17.989	17.99	18.556	18.557	18.558	18.559	18.56	14.566	14.566	14.567	14.567	14.568
Fraser_R	129148	17.489	17.49	17.49	17.491	17.493	18.181	18.182	18.182	18.183	18.184	18.718	18.719	18.72	18.721	18.722	14.777	14.777	14.777	14.777	14.778
Fraser_R	129526	17.744	17.745	17.745	17.746	17.747	18.437	18.437	18.437	18.438	18.439	18.993	18.994	18.995	18.996	18.997	14.943	14.943	14.944	14.944	14.944

Historical 1:200							Scenario-A (Moderate) 1:200					Scenario-B (Intense) 1:200					Winter 1:200				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	129526	17.744	17.745	17.745	17.746	17.747	18.437	18.437	18.437	18.438	18.439	18.993	18.994	18.995	18.996	18.997	14.943	14.943	14.944	14.944	14.944
Fraser_R	129916	17.736	17.737	17.737	17.738	17.739	18.4	18.4	18.4	18.401	18.402	18.929	18.93	18.931	18.932	18.933	15.129	15.129	15.129	15.129	15.129
Fraser_R	129916	17.736	17.737	17.737	17.738	17.739	18.4	18.4	18.4	18.401	18.402	18.929	18.93	18.931	18.932	18.933	15.129	15.129	15.129	15.129	15.129
Fraser_R	130256	17.805	17.806	17.806	17.807	17.808	18.454	18.454	18.454	18.455	18.456	18.972	18.973	18.974	18.975	18.976	15.305	15.305	15.305	15.305	15.305
Fraser_R	130472	17.974	17.974	17.974	17.975	17.976	18.626	18.626	18.627	18.627	18.628	19.152	19.153	19.154	19.155	19.156	15.411	15.411	15.411	15.411	15.412
Fraser_R	130624	18.134	18.134	18.134	18.135	18.136	18.759	18.759	18.759	18.76	18.76	19.262	19.262	19.262	19.263	19.263	15.54	15.54	15.54	15.54	15.541
Fraser_R	130827	18.258	18.258	18.258	18.259	18.259	18.894	18.894	18.895	18.895	18.896	19.41	19.41	19.411	19.411	19.412	15.604	15.604	15.604	15.605	15.605
Fraser_R	131166	18.42	18.42	18.42	18.421	18.421	19.059	19.059	19.06	19.06	19.06	19.581	19.582	19.582	19.582	19.583	15.708	15.708	15.708	15.708	15.708
Fraser_R	131597	18.649	18.649	18.649	18.65	18.65	19.3	19.3	19.3	19.3	19.301	19.837	19.838	19.838	19.838	19.839	15.851	15.851	15.851	15.851	15.851
Fraser_R	131858	18.69	18.69	18.69	18.69	18.691	19.324	19.324	19.324	19.325	19.325	19.849	19.849	19.849	19.85	19.85	15.958	15.959	15.959	15.959	15.959
Fraser_R	131858	18.69	18.69	18.69	18.69	18.691	19.324	19.324	19.324	19.325	19.325	19.849	19.849	19.849	19.85	19.85	15.958	15.959	15.959	15.959	15.959
Fraser_R	132206	19.028	19.029	19.029	19.029	19.029	19.699	19.699	19.699	19.699	19.7	20.244	20.244	20.245	20.245	20.245	16.125	16.125	16.125	16.126	16.126
Fraser_R	132206	19.028	19.029	19.029	19.029	19.029	19.699	19.699	19.699	19.699	19.7	20.244	20.244	20.245	20.245	20.245	16.125	16.125	16.125	16.126	16.126
Fraser_R	132561	19.024	19.024	19.024	19.025	19.025	19.702	19.702	19.702	19.703	19.703	20.25	20.251	20.251	20.251	20.252	16.085	16.086	16.086	16.086	16.086
Fraser_R	132561	19.024	19.024	19.024	19.025	19.025	19.702	19.702	19.702	19.703	19.703	20.25	20.251	20.251	20.251	20.252	16.085	16.086	16.086	16.086	16.086
Fraser_R	132862	19.083	19.084	19.084	19.084	19.084	19.756	19.756	19.756	19.756	19.757	20.307	20.308	20.308	20.308	20.309	16.162	16.162	16.162	16.162	16.162
Fraser_R	133192	19.129	19.129	19.129	19.13	19.13	19.79	19.79	19.791	19.791	19.791	20.335	20.335	20.335	20.335	20.336	16.235	16.235	16.235	16.235	16.235
Fraser_R	133558	19.261	19.261	19.261	19.262	19.262	19.908	19.908	19.909	19.909	19.909	20.43	20.43	20.431	20.431	20.431	16.371	16.371	16.371	16.371	16.371
Fraser_R	133899	19.524	19.524	19.524	19.524	19.524	20.187	20.187	20.187	20.187	20.187	20.712	20.712	20.713	20.713	20.713	16.595	16.595	16.595	16.595	16.596
Fraser_R	134143	19.671	19.672	19.672	19.672	19.672	20.352	20.352	20.352	20.352	20.352	20.894	20.894	20.894	20.894	20.895	16.721	16.721	16.721	16.722	16.722
Fraser_R	134143	19.671	19.672	19.672	19.672	19.672	20.352	20.352	20.352	20.352	20.352	20.894	20.894	20.894	20.894	20.895	16.721	16.721	16.721	16.722	16.722
Fraser_R	134975	19.725	19.725	19.725	19.726	19.726	20.409	20.409	20.409	20.41	20.41	20.958	20.958	20.958	20.958	20.959	16.85	16.85	16.85	16.85	16.85
Fraser_R	134975	19.725	19.725	19.725	19.726	19.726	20.409	20.409	20.409	20.41	20.41	20.958	20.958	20.958	20.958	20.959	16.85	16.85	16.85	16.85	16.85
Fraser_R	135327	19.803	19.803	19.803	19.803	19.803	20.479	20.479	20.479	20.479	20.48	21.024	21.024	21.024	21.024	21.025	17.118	17.118	17.118	17.118	17.119
Fraser_R	135630	19.88	19.881	19.881	19.881	19.881	20.544	20.545	20.545	20.545	20.545	21.082	21.083	21.083	21.083	21.083	17.359	17.359	17.359	17.359	17.359
Fraser_R	135982	20.025	20.025	20.025	20.025	20.026	20.684	20.684	20.684	20.684	20.684	21.222	21.222	21.222	21.223	21.223	17.622	17.622	17.622	17.622	17.622
Fraser_R	136497	20.156	20.157	20.157	20.157	20.157	20.791	20.791	20.791	20.791	20.791	21.316	21.316	21.317	21.317	21.317	17.872	17.872	17.872	17.872	17.872
Fraser_R	136921	20.321	20.321	20.321	20.321	20.321	20.922	20.922	20.922	20.922	20.922	21.431	21.431	21.431	21.431	21.432	18.128	18.128	18.128	18.128	18.128
Fraser_R	137374	20.569	20.569	20.569	20.57	20.57	21.125	21.125	21.125	21.125	21.125	21.612	21.613	21.613	21.613	21.613	18.416	18.416	18.416	18.416	18.416
Fraser_R	137870	20.98	20.98	20.98	20.98	20.98	21.44	21.44	21.44	21.44	21.44	21.878	21.878	21.878	21.878	21.878	18.77	18.77	18.77	18.77	18.77
Fraser_R	138445	21.29	21.29	21.29	21.29	21.29	21.709	21.709	21.709	21.709	21.709	22.109	22.109	22.109	22.109	22.109	19.125	19.125	19.125	19.125	19.125
Fraser_R	138445	21.29	21.29	21.29	21.29	21.29	21.709	21.709	21.709	21.709	21.709	22.109	22.109	22.109	22.109	22.109	19.125	19.125	19.125	19.125	19.125
Fraser_R	138766	21.431	21.431	21.431	21.431	21.431	21.877	21.877	21.877	21.877	21.877	22.349	22.35	22.35	22.35	22.35	19.195	19.195	19.195	19.195	19.195
Fraser_R	139142	21.577	21.577	21.577	21.577	21.577	22.047	22.047	22.047	22.047	22.048	22.47	22.47	22.47	22.47	22.47	19.253	19.253	19.253	19.253	19.253
Fraser_R	139526	21.883	21.883	21.883	21.883	21.883	22.383	22.383	22.383	22.383	22.383	22.735	22.735	22.735	22.735	22.735	19.435	19.435	19.435	19.435	19.435
Fraser_R	139912	21.968	21.968	21.968	21.968	21.968	22.453	22.453	22.453	22.453	22.453	22.788	22.788	22.788	22.788	22.789	19.518	19.518	19.518	19.518	19.518
Fraser_R	140292	22.221	22.221	22.221	22.221	22.221	22.721	22.721	22.721	22.721	22.721	23.038	23.038	23.038	23.038	23.038	19.687	19.687	19.687	19.687	19.687
Fraser_R	140292	22.221	22.221	22.221	22.221	22.221	22.721	22.721	22.721	22.721	22.721	23.038	23.038	23.038	23.038	23.038	19.687	19.687	19.687	19.687	19.687
Fraser_R	140845	22.248	22.248	22.248	22.248	22.248	22.727	22.727	22.727	22.727	22.727	23.024	23.024	23.024	23.024	23.024	19.843	19.843	19.843	19.843	19.843

Historical 1:200							Scenario-A (Moderate) 1:200					Scenario-B (Intense) 1:200					Winter 1:200				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	140845	22.248	22.248	22.248	22.248	22.248	22.727	22.727	22.727	22.727	22.727	23.024	23.024	23.024	23.024	23.024	19.843	19.843	19.843	19.843	19.843
Fraser_R	141065	22.308	22.308	22.308	22.308	22.308	22.774	22.774	22.774	22.774	22.775	23.07	23.07	23.07	23.07	23.07	20.035	20.035	20.035	20.035	20.035
Fraser_R	141439	22.72	22.72	22.72	22.72	22.72	23.207	23.207	23.207	23.207	23.207	23.54	23.54	23.54	23.54	23.54	20.441	20.441	20.441	20.441	20.441
Fraser_R	141833	23.122	23.122	23.122	23.122	23.122	23.665	23.665	23.665	23.665	23.665	24.068	24.068	24.068	24.068	24.068	20.696	20.696	20.696	20.696	20.696
Fraser_R	142241	23.374	23.374	23.374	23.374	23.374	23.875	23.875	23.875	23.875	23.875	24.225	24.225	24.225	24.225	24.225	20.931	20.931	20.931	20.931	20.931
Fraser_R	142576	23.875	23.875	23.875	23.875	23.875	24.42	24.42	24.42	24.42	24.42	24.816	24.816	24.816	24.816	24.816	21.275	21.275	21.275	21.275	21.275
Fraser_R	142948	24.017	24.017	24.017	24.017	24.017	24.554	24.554	24.554	24.554	24.554	24.95	24.95	24.95	24.95	24.95	21.52	21.52	21.52	21.52	21.52
Fraser_R	143365	24.21	24.21	24.21	24.21	24.21	24.726	24.726	24.726	24.726	24.726	25.11	25.11	25.11	25.11	25.11	21.864	21.864	21.864	21.864	21.864
Fraser_R	143763	24.653	24.653	24.653	24.653	24.653	25.216	25.216	25.216	25.216	25.216	25.645	25.645	25.645	25.645	25.645	22.155	22.155	22.155	22.155	22.155
Fraser_R	143763	24.653	24.653	24.653	24.653	24.653	25.216	25.216	25.216	25.216	25.216	25.645	25.645	25.645	25.645	25.645	22.155	22.155	22.155	22.155	22.155
Fraser_R	144102	24.799	24.799	24.799	24.799	24.799	25.364	25.364	25.364	25.364	25.364	25.8	25.8	25.8	25.8	25.8	22.287	22.287	22.287	22.287	22.287
Fraser_R	144434	24.875	24.875	24.875	24.875	24.875	25.448	25.448	25.448	25.448	25.448	25.893	25.893	25.893	25.893	25.893	22.314	22.314	22.314	22.314	22.314
Fraser_R	144910	25.334	25.334	25.334	25.334	25.334	25.958	25.958	25.958	25.958	25.958	26.455	26.455	26.455	26.455	26.455	22.598	22.598	22.598	22.598	22.598
Fraser_R	145425	25.616	25.616	25.616	25.616	25.616	26.249	26.249	26.249	26.249	26.249	26.758	26.758	26.758	26.758	26.758	22.884	22.884	22.884	22.884	22.884
Fraser_R	145819	25.754	25.754	25.754	25.754	25.754	26.392	26.392	26.392	26.392	26.392	26.907	26.907	26.907	26.907	26.907	23.099	23.099	23.099	23.099	23.099
Fraser_R	146215	25.971	25.971	25.971	25.971	25.971	26.616	26.616	26.616	26.616	26.616	27.136	27.136	27.136	27.136	27.136	23.335	23.335	23.335	23.335	23.335
Fraser_R	146617	26.363	26.363	26.363	26.363	26.363	27.016	27.016	27.016	27.016	27.016	27.546	27.546	27.546	27.546	27.546	23.577	23.577	23.577	23.577	23.577
Fraser_R	146617	26.363	26.363	26.363	26.363	26.363	27.016	27.016	27.016	27.016	27.016	27.546	27.546	27.546	27.546	27.546	23.577	23.577	23.577	23.577	23.577
Fraser_R	147036	26.227	26.227	26.227	26.227	26.227	26.828	26.828	26.828	26.828	26.828	27.313	27.313	27.313	27.313	27.313	23.664	23.664	23.664	23.664	23.664
Fraser_R	147492	26.503	26.503	26.503	26.503	26.503	27.173	27.173	27.173	27.173	27.173	27.719	27.719	27.719	27.719	27.719	23.799	23.799	23.799	23.799	23.799
Fraser_R	147951	27.066	27.066	27.066	27.066	27.066	27.795	27.795	27.795	27.795	27.795	28.395	28.395	28.395	28.395	28.395	24.036	24.036	24.036	24.036	24.036
Fraser_R	148211	27.417	27.417	27.417	27.417	27.417	28.161	28.161	28.161	28.161	28.161	28.778	28.778	28.778	28.778	28.778	24.292	24.292	24.292	24.292	24.292
Fraser_R	148211	27.417	27.417	27.417	27.417	27.417	28.161	28.161	28.161	28.161	28.161	28.778	28.778	28.778	28.778	28.778	24.292	24.292	24.292	24.292	24.292
Fraser_R	148587	27.417	27.417	27.417	27.417	27.417	28.154	28.154	28.154	28.154	28.154	28.768	28.768	28.768	28.768	28.768	24.361	24.361	24.361	24.361	24.361
Fraser_R	148922	27.544	27.544	27.544	27.544	27.544	28.269	28.269	28.269	28.269	28.269	28.874	28.874	28.874	28.874	28.874	24.632	24.632	24.632	24.632	24.632
Fraser_R	149536	27.588	27.588	27.588	27.588	27.588	28.272	28.272	28.272	28.272	28.272	28.844	28.844	28.844	28.844	28.844	25.027	25.027	25.027	25.027	25.027
Fraser_R	149536	27.588	27.588	27.588	27.588	27.588	28.272	28.272	28.272	28.272	28.272	28.844	28.844	28.844	28.844	28.844	25.027	25.027	25.027	25.027	25.027
Fraser_R	149848	27.845	27.845	27.845	27.845	27.845	28.531	28.531	28.531	28.531	28.531	29.103	29.103	29.103	29.103	29.103	25.225	25.225	25.225	25.225	25.225
Fraser_R	150218	28.421	28.421	28.421	28.421	28.421	29.165	29.165	29.165	29.165	29.165	29.794	29.794	29.794	29.794	29.794	25.565	25.565	25.565	25.565	25.565
Fraser_R	150423	28.49	28.49	28.49	28.49	28.49	29.23	29.23	29.23	29.23	29.23	29.861	29.861	29.861	29.861	29.861	25.675	25.675	25.675	25.675	25.675
Fraser_R	150423	28.49	28.49	28.49	28.49	28.49	29.23	29.23	29.23	29.23	29.23	29.861	29.861	29.861	29.861	29.861	25.675	25.675	25.675	25.675	25.675
Fraser_R	150642	28.602	28.602	28.602	28.602	28.602	29.337	29.337	29.337	29.337	29.337	29.979	29.979	29.979	29.979	29.979	25.851	25.851	25.851	25.851	25.851
Fraser_R	151064	28.927	28.927	28.927	28.927	28.927	29.654	29.654	29.654	29.654	29.654	30.253	30.253	30.253	30.253	30.253	26.177	26.177	26.177	26.177	26.177
Fraser_R	151456	29.382	29.382	29.382	29.382	29.382	30.118	30.118	30.118	30.118	30.118	30.707	30.707	30.707	30.707	30.707	26.546	26.546	26.546	26.546	26.546
Fraser_R	151456	29.382	29.382	29.382	29.382	29.382	30.118	30.118	30.118	30.118	30.118	30.707	30.707	30.707	30.707	30.707	26.546	26.546	26.546	26.546	26.546
Fraser_R	151864	29.656	29.656	29.656	29.656	29.656	30.384	30.384	30.384	30.384	30.384	30.97	30.97	30.97	30.97	30.97	26.812	26.812	26.812	26.812	26.812
Fraser_R	152256	29.92	29.92	29.92	29.92	29.92	30.635	30.635	30.635	30.635	30.635	31.212	31.212	31.212	31.212	31.212	27.058	27.058	27.058	27.058	27.058
Fraser_R	152613	30.306	30.306	30.306	30.306	30.306	31.082	31.082	31.082	31.082	31.082	31.736	31.736	31.736	31.736	31.736	27.259	27.259	27.259	27.259	27.259
Fraser_R	153007	30.494	30.494	30.494	30.494	30.494	31.176	31.176	31.176	31.176	31.176	31.709	31.709	31.709	31.709	31.709	27.515	27.515	27.515	27.515	27.515

Historical 1:200							Scenario-A (Moderate) 1:200					Scenario-B (Intense) 1:200					Winter 1:200				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	153372	30.732	30.732	30.732	30.732	30.732	31.41	31.41	31.41	31.41	31.41	31.937	31.937	31.937	31.937	31.937	27.703	27.703	27.703	27.703	27.703
Fraser_R	153743	31.139	31.139	31.139	31.139	31.139	31.923	31.923	31.923	31.923	31.923	32.55	32.55	32.55	32.55	32.55	27.851	27.851	27.851	27.851	27.851
Fraser_R	154103	31.286	31.286	31.286	31.286	31.286	32.047	32.047	32.047	32.047	32.047	32.64	32.64	32.64	32.64	32.64	28.012	28.012	28.012	28.012	28.012
Fraser_R	154483	31.697	31.697	31.697	31.697	31.697	32.447	32.447	32.447	32.447	32.447	33.002	33.002	33.002	33.002	33.002	28.26	28.26	28.26	28.26	28.26
Fraser_R	154868	31.85	31.85	31.85	31.85	31.85	32.608	32.608	32.608	32.608	32.608	33.174	33.174	33.174	33.174	33.174	28.376	28.376	28.376	28.376	28.376
Fraser_R	155277	32.014	32.014	32.014	32.014	32.014	32.775	32.775	32.775	32.775	32.775	33.347	33.347	33.347	33.347	33.347	28.497	28.497	28.497	28.497	28.497
Fraser_R	155664	32.022	32.022	32.022	32.022	32.022	32.727	32.727	32.727	32.727	32.727	33.265	33.265	33.265	33.265	33.265	28.621	28.621	28.621	28.621	28.621
Fraser_R	156030	32.065	32.065	32.065	32.065	32.065	32.746	32.746	32.746	32.746	32.746	33.247	33.247	33.247	33.247	33.247	28.675	28.675	28.675	28.675	28.675
Fraser_R	156387	32.298	32.298	32.298	32.298	32.298	33.041	33.041	33.041	33.041	33.041	33.607	33.607	33.607	33.607	33.607	28.726	28.726	28.726	28.726	28.726
Fraser_R	156778	32.494	32.494	32.494	32.494	32.494	33.245	33.245	33.245	33.245	33.245	33.822	33.822	33.822	33.822	33.822	28.848	28.848	28.848	28.848	28.848
Fraser_R	157176	32.719	32.719	32.719	32.719	32.719	33.503	33.503	33.503	33.503	33.503	34.122	34.122	34.122	34.122	34.122	28.964	28.964	28.964	28.964	28.964
Fraser_R	157487	33.028	33.028	33.028	33.028	33.028	33.887	33.887	33.887	33.887	33.887	34.573	34.573	34.573	34.573	34.573	29.062	29.062	29.062	29.062	29.062
Fraser_R	157866	33.328	33.328	33.328	33.328	33.328	34.243	34.243	34.243	34.243	34.243	34.984	34.984	34.984	34.984	34.984	29.207	29.207	29.207	29.207	29.207
Fraser_R	158224	33.536	33.536	33.536	33.536	33.536	34.469	34.469	34.469	34.469	34.469	35.229	35.229	35.229	35.229	35.229	29.361	29.361	29.361	29.361	29.361
Fraser_R	158604	33.586	33.586	33.586	33.586	33.586	34.519	34.519	34.519	34.519	34.519	35.281	35.281	35.281	35.281	35.281	29.423	29.423	29.423	29.423	29.423
Fraser_R	158948	33.874	33.874	33.874	33.874	33.874	34.871	34.871	34.871	34.871	34.871	35.693	35.693	35.693	35.693	35.693	29.537	29.537	29.537	29.537	29.537
Fraser_R	159283	34.088	34.088	34.088	34.088	34.088	35.117	35.117	35.117	35.117	35.117	35.967	35.967	35.967	35.967	35.967	29.679	29.679	29.679	29.679	29.679
Fraser_R	159628	34.508	34.508	34.508	34.508	34.508	35.564	35.564	35.564	35.564	35.564	36.438	36.438	36.438	36.438	36.438	29.997	29.997	29.997	29.997	29.997
Fraser_R	160001	34.899	34.899	34.899	34.899	34.899	35.976	35.976	35.976	35.976	35.976	36.871	36.871	36.871	36.871	36.871	30.318	30.318	30.318	30.318	30.318
Fraser_R	160341	35.013	35.013	35.013	35.013	35.013	36.107	36.107	36.107	36.107	36.107	37.025	37.025	37.025	37.025	37.025	30.487	30.487	30.487	30.487	30.487
Fraser_R	160657	35.1	35.1	35.1	35.1	35.1	36.231	36.231	36.231	36.231	36.231	37.205	37.205	37.205	37.205	37.205	30.614	30.614	30.614	30.614	30.614
Fraser_R	161039	35.332	35.332	35.332	35.332	35.332	36.467	36.467	36.467	36.467	36.467	37.431	37.431	37.431	37.431	37.431	30.915	30.915	30.915	30.915	30.915
Fraser_R	161414	35.564	35.564	35.564	35.564	35.564	36.735	36.735	36.735	36.735	36.735	37.706	37.706	37.706	37.706	37.706	31.181	31.181	31.181	31.181	31.181
Fraser_R	161789	35.876	35.876	35.876	35.876	35.876	37.048	37.048	37.048	37.048	37.048	37.972	37.972	37.972	37.972	37.972	31.445	31.445	31.445	31.445	31.445
Fraser_R	162143	36.06	36.06	36.06	36.06	36.06	37.237	37.237	37.237	37.237	37.237	38.175	38.175	38.175	38.175	38.175	31.597	31.597	31.597	31.597	31.597
Fraser_R	162446	36.334	36.334	36.334	36.334	36.334	37.437	37.437	37.437	37.437	37.437	38.358	38.358	38.358	38.358	38.358	31.81	31.81	31.81	31.81	31.81
Fraser_R	162778	36.455	36.455	36.455	36.455	36.455	37.561	37.561	37.561	37.561	37.561	38.453	38.453	38.453	38.453	38.453	31.982	31.982	31.982	31.982	31.982
Fraser_R	162778	36.455	36.455	36.455	36.455	36.455	37.561	37.561	37.561	37.561	37.561	38.453	38.453	38.453	38.453	38.453	31.982	31.982	31.982	31.982	31.982
Fraser_R	163124	36.73	36.73	36.73	36.73	36.73	37.715	37.715	37.715	37.715	37.715	38.47	38.47	38.47	38.47	38.47	32.171	32.171	32.171	32.171	32.171
Fraser_R	163447	36.916	36.916	36.916	36.916	36.916	37.97	37.97	37.97	37.97	37.97	38.766	38.766	38.766	38.766	38.766	32.266	32.266	32.266	32.266	32.266
Fraser_R	163771	37.314	37.314	37.314	37.314	37.314	38.377	38.377	38.377	38.377	38.377	39.173	39.173	39.173	39.173	39.173	32.443	32.443	32.443	32.443	32.443
Fraser_R	164124	37.345	37.345	37.345	37.345	37.345	38.407	38.407	38.407	38.407	38.407	39.199	39.199	39.199	39.199	39.199	32.375	32.375	32.375	32.375	32.375
Fraser_R	164389	37.424	37.424	37.424	37.424	37.424	38.474	38.474	38.474	38.474	38.474	39.257	39.257	39.257	39.257	39.257	32.465	32.465	32.465	32.465	32.465
Fraser_R	164694	37.719	37.719	37.719	37.719	37.719	38.76	38.76	38.76	38.76	38.76	39.533	39.533	39.533	39.533	39.533	32.854	32.854	32.854	32.854	32.854
Fraser_R	164694	37.719	37.719	37.719	37.719	37.719	38.76	38.76	38.76	38.76	38.76	39.533	39.533	39.533	39.533	39.533	32.854	32.854	32.854	32.854	32.854
Fraser_R	164731	37.746	37.746	37.746	37.746	37.746	38.789	38.789	38.789	38.789	38.789	39.564	39.564	39.564	39.564	39.564	32.884	32.884	32.884	32.884	32.884
Fraser_R	165008	37.915	37.915	37.915	37.915	37.915	38.96	38.96	38.96	38.96	38.96	39.753	39.753	39.753	39.753	39.753	33.186	33.186	33.186	33.186	33.186
Fraser_R	165247	38.223	38.223	38.223	38.223	38.223	39.266	39.266	39.266	39.266	39.266	40.061	40.061	40.061	40.061	40.061	33.462	33.462	33.462	33.462	33.462
Fraser_R	165454	38.397	38.397	38.397	38.397	38.397	39.456	39.456	39.456	39.456	39.456	40.27	40.27	40.27	40.27	40.27	33.615	33.615	33.615	33.615	33.615

Historical 1:200							Scenario-A (Moderate) 1:200					Scenario-B (Intense) 1:200					Winter 1:200				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	165662	38.406	38.406	38.406	38.406	38.406	39.456	39.456	39.456	39.456	39.456	40.263	40.263	40.263	40.263	40.263	33.755	33.755	33.755	33.755	33.755
Fraser_R	165662	38.406	38.406	38.406	38.406	38.406	39.456	39.456	39.456	39.456	39.456	40.263	40.263	40.263	40.263	40.263	33.755	33.755	33.755	33.755	33.755
Fraser_R	165965	38.331	38.331	38.331	38.331	38.331	39.36	39.36	39.36	39.36	39.36	40.153	40.153	40.153	40.153	40.153	33.811	33.811	33.811	33.811	33.811
Fraser_R	166336	38.52	38.52	38.52	38.52	38.52	39.521	39.521	39.521	39.521	39.521	40.298	40.298	40.298	40.298	40.298	34.289	34.289	34.289	34.289	34.289
Fraser_R	166766	38.877	38.877	38.877	38.877	38.877	39.878	39.878	39.878	39.878	39.878	40.662	40.662	40.662	40.662	40.662	34.732	34.732	34.732	34.732	34.732
Fraser_R	166766	38.877	38.877	38.877	38.877	38.877	39.878	39.878	39.878	39.878	39.878	40.662	40.662	40.662	40.662	40.662	34.732	34.732	34.732	34.732	34.732
Fraser_R	167135	38.981	38.981	38.981	38.981	38.981	39.901	39.901	39.901	39.901	39.901	40.614	40.614	40.614	40.614	40.614	35.05	35.05	35.05	35.05	35.05

Table 15. Hydraulic Model Runs for AEP = 1:500

Freshet Historical 1:500							Freshet Scenario-A (Moderate) 1:500					Freshet Scenario-B (Intense) 1:500					Winter 1:500				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	-1545	1.85	2.35	2.85	3.35	3.85	1.85	2.35	2.85	3.35	3.85	1.85	2.35	2.85	3.35	3.85	2.77	3.27	3.77	4.27	4.77
Fraser	-1182	1.86	2.35	2.85	3.35	3.85	1.86	2.35	2.85	3.35	3.85	1.86	2.35	2.85	3.35	3.85	2.76	3.26	3.76	4.27	4.77
Fraser	944	1.85	2.35	2.84	3.34	3.85	1.85	2.35	2.84	3.34	3.85	1.85	2.35	2.84	3.34	3.85	2.76	3.28	3.76	4.26	4.77
Fraser	2838	1.84	2.34	2.83	3.33	3.84	1.84	2.34	2.84	3.33	3.84	1.84	2.34	2.84	3.33	3.84	2.75	3.27	3.76	4.27	4.78
Fraser	3069	1.83	2.34	2.83	3.33	3.84	1.84	2.34	2.84	3.33	3.84	1.84	2.34	2.84	3.33	3.84	2.75	3.26	3.76	4.27	4.78
Fraser	3069	1.83	2.34	2.83	3.33	3.84	1.84	2.34	2.84	3.33	3.84	1.84	2.34	2.84	3.33	3.84	2.75	3.26	3.76	4.27	4.78
Fraser	3853	1.83	2.34	2.83	3.33	3.84	1.83	2.34	2.84	3.33	3.83	1.84	2.34	2.84	3.33	3.84	2.75	3.27	3.76	4.27	4.78
Fraser	4348	1.83	2.34	2.83	3.33	3.84	1.83	2.34	2.84	3.33	3.83	1.84	2.34	2.84	3.33	3.84	2.75	3.28	3.76	4.27	4.78
Fraser	4930	1.79	2.30	2.81	3.31	3.82	1.78	2.29	2.79	3.30	3.80	1.75	2.27	2.78	3.28	3.80	2.75	3.28	3.76	4.27	4.79
Fraser	5477	1.80	2.31	2.81	3.31	3.82	1.79	2.30	2.81	3.30	3.81	1.78	2.29	2.80	3.29	3.81	2.75	3.27	3.76	4.27	4.79
Fraser	5923	1.80	2.31	2.81	3.31	3.82	1.80	2.30	2.81	3.30	3.81	1.79	2.29	2.80	3.30	3.81	2.74	3.26	3.76	4.28	4.79
Fraser	6357	1.80	2.31	2.81	3.31	3.82	1.80	2.30	2.80	3.30	3.81	1.79	2.29	2.80	3.29	3.81	2.74	3.27	3.76	4.28	4.79
Fraser	6768	1.80	2.30	2.80	3.31	3.81	1.79	2.29	2.80	3.30	3.80	1.78	2.28	2.79	3.28	3.80	2.74	3.28	3.76	4.28	4.79
Fraser	7173	1.81	2.31	2.81	3.32	3.82	1.82	2.31	2.81	3.31	3.81	1.82	2.31	2.81	3.30	3.82	2.74	3.29	3.77	4.28	4.78
Fraser	7589	1.82	2.32	2.81	3.32	3.82	1.82	2.32	2.81	3.31	3.82	1.82	2.31	2.81	3.31	3.82	2.74	3.29	3.77	4.28	4.78
Fraser	7944	1.82	2.31	2.81	3.31	3.82	1.82	2.31	2.81	3.31	3.81	1.82	2.31	2.81	3.30	3.82	2.74	3.29	3.77	4.27	4.78
Fraser	8357	1.82	2.32	2.81	3.31	3.83	1.83	2.32	2.81	3.31	3.82	1.83	2.32	2.82	3.31	3.83	2.74	3.28	3.77	4.27	4.78
Fraser	8676	1.84	2.33	2.82	3.32	3.83	1.85	2.33	2.82	3.32	3.83	1.86	2.34	2.83	3.32	3.84	2.74	3.27	3.77	4.27	4.78
Fraser	8676	1.84	2.33	2.82	3.32	3.83	1.85	2.33	2.82	3.32	3.83	1.86	2.34	2.83	3.32	3.84	2.74	3.27	3.77	4.27	4.78
Fraser	9163	1.86	2.34	2.83	3.33	3.84	1.88	2.36	2.84	3.33	3.84	1.91	2.38	2.86	3.34	3.86	2.74	3.27	3.77	4.27	4.78
Fraser	9394	1.87	2.35	2.83	3.33	3.84	1.89	2.37	2.85	3.34	3.84	1.92	2.39	2.87	3.34	3.86	2.74	3.26	3.77	4.27	4.78
Fraser	9394	1.87	2.35	2.83	3.33	3.84	1.89	2.37	2.85	3.34	3.84	1.92	2.39	2.87	3.34	3.86	2.74	3.26	3.77	4.27	4.78
Fraser	9650	1.87	2.35	2.83	3.33	3.84	1.89	2.37	2.85	3.34	3.84	1.92	2.39	2.87	3.34	3.86	2.74	3.25	3.77	4.27	4.78
Fraser	10067	1.87	2.36	2.84	3.33	3.84	1.90	2.38	2.85	3.34	3.84	1.94	2.40	2.87	3.35	3.86	2.74	3.24	3.77	4.27	4.78
Fraser	10364	1.90	2.37	2.85	3.34	3.85	1.93	2.40	2.88	3.36	3.86	1.99	2.44	2.91	3.37	3.89	2.75	3.24	3.77	4.26	4.78
Fraser	10578	1.91	2.39	2.86	3.35	3.85	1.95	2.42	2.89	3.36	3.87	2.02	2.47	2.93	3.39	3.90	2.75	3.25	3.77	4.26	4.78
Fraser	10578	1.91	2.39	2.86	3.35	3.85	1.95	2.42	2.89	3.36	3.87	2.02	2.47	2.93	3.39	3.90	2.75	3.25	3.77	4.26	4.78
Fraser	11183	1.90	2.37	2.85	3.34	3.84	1.93	2.40	2.87	3.35	3.85	1.99	2.44	2.90	3.36	3.88	2.75	3.26	3.77	4.26	4.78
Fraser	11579	1.93	2.40	2.87	3.36	3.86	1.99	2.45	2.91	3.37	3.87	2.08	2.51	2.95	3.41	3.91	2.76	3.25	3.76	4.26	4.78
Fraser	11980	1.98	2.44	2.90	3.38	3.87	2.06	2.50	2.95	3.42	3.90	2.18	2.59	3.02	3.47	3.95	2.76	3.24	3.76	4.26	4.78
Fraser	11980	1.98	2.44	2.90	3.38	3.87	2.06	2.50	2.95	3.42	3.90	2.18	2.59	3.02	3.47	3.95	2.76	3.24	3.76	4.26	4.78
Fraser	12389	1.99	2.45	2.91	3.38	3.87	2.08	2.52	2.96	3.43	3.91	2.21	2.61	3.03	3.49	3.96	2.76	3.25	3.76	4.26	4.78
Fraser	12780	1.99	2.44	2.91	3.38	3.87	2.08	2.52	2.96	3.42	3.90	2.20	2.61	3.02	3.48	3.95	2.77	3.26	3.76	4.26	4.77
Fraser	13186	2.03	2.47	2.93	3.40	3.88	2.12	2.56	2.99	3.46	3.92	2.27	2.67	3.07	3.53	3.99	2.77	3.26	3.76	4.26	4.77
Fraser	13598	2.05	2.49	2.94	3.41	3.89	2.16	2.59	3.01	3.48	3.94	2.32	2.71	3.11	3.56	4.01	2.77	3.28	3.76	4.26	4.77
Fraser	14005	2.09	2.53	2.97	3.43	3.90	2.22	2.64	3.05	3.52	3.97	2.40	2.78	3.16	3.61	4.06	2.78	3.30	3.76	4.25	4.77
Fraser	14401	2.15	2.58	3.03	3.47	3.94	2.31	2.72	3.13	3.59	4.03	2.52	2.89	3.27	3.71	4.16	2.79	3.32	3.76	4.25	4.77
Fraser	14813	2.18	2.61	3.05	3.48	3.96	2.35	2.76	3.16	3.61	4.05	2.58	2.94	3.31	3.74	4.19	2.79	3.32	3.77	4.25	4.77



Freshet Historical 1:500							Freshet Scenario-A (Moderate) 1:500					Freshet Scenario-B (Intense) 1:500					Winter 1:500				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	15210	2.20	2.62	3.06	3.49	3.96	2.37	2.78	3.17	3.63	4.06	2.61	2.97	3.33	3.76	4.21	2.79	3.32	3.77	4.25	4.77
Fraser	15575	2.22	2.64	3.08	3.51	3.98	2.40	2.80	3.20	3.65	4.08	2.65	3.00	3.36	3.79	4.23	2.80	3.31	3.77	4.25	4.76
Fraser	15978	2.24	2.66	3.09	3.52	3.98	2.42	2.82	3.21	3.66	4.09	2.68	3.03	3.38	3.80	4.25	2.80	3.29	3.77	4.25	4.76
Fraser	16443	2.30	2.71	3.13	3.55	4.01	2.50	2.90	3.27	3.72	4.14	2.79	3.13	3.47	3.88	4.32	2.81	3.27	3.77	4.25	4.76
Fraser	16846	2.34	2.74	3.16	3.58	4.03	2.56	2.94	3.31	3.75	4.17	2.86	3.18	3.52	3.92	4.36	2.81	3.26	3.78	4.25	4.76
Fraser	17214	2.38	2.78	3.20	3.61	4.06	2.62	3.00	3.36	3.80	4.21	2.95	3.26	3.59	3.99	4.42	2.82	3.26	3.78	4.25	4.75
Fraser	17513	2.38	2.77	3.19	3.60	4.05	2.61	2.99	3.35	3.79	4.20	2.94	3.25	3.57	3.97	4.41	2.82	3.28	3.78	4.25	4.75
Fraser	17513	2.38	2.77	3.19	3.60	4.05	2.61	2.99	3.35	3.79	4.20	2.94	3.25	3.57	3.97	4.41	2.82	3.28	3.78	4.25	4.75
Fraser	18117	2.39	2.78	3.20	3.61	4.06	2.62	3.00	3.36	3.80	4.22	2.95	3.27	3.59	4.00	4.45	2.82	3.32	3.78	4.25	4.75
Fraser	18508	2.46	2.84	3.26	3.66	4.11	2.72	3.09	3.45	3.88	4.28	3.09	3.40	3.71	4.11	4.54	2.83	3.34	3.79	4.26	4.75
Fraser	18921	2.48	2.87	3.28	3.68	4.12	2.76	3.13	3.47	3.90	4.30	3.14	3.44	3.74	4.13	4.56	2.83	3.37	3.79	4.26	4.75
Fraser	19322	2.53	2.91	3.31	3.71	4.14	2.82	3.18	3.52	3.95	4.34	3.22	3.51	3.81	4.19	4.62	2.84	3.39	3.80	4.27	4.75
Fraser	19727	2.57	2.94	3.34	3.73	4.16	2.88	3.23	3.56	3.99	4.37	3.29	3.58	3.86	4.24	4.66	2.84	3.40	3.80	4.27	4.76
Fraser	20127	2.59	2.96	3.36	3.75	4.18	2.91	3.26	3.59	4.01	4.39	3.34	3.62	3.90	4.28	4.70	2.84	3.39	3.80	4.27	4.76
Fraser	20524	2.62	2.99	3.38	3.77	4.19	2.95	3.29	3.62	4.04	4.42	3.39	3.66	3.94	4.31	4.73	2.85	3.37	3.81	4.28	4.76
Fraser	20919	2.64	3.01	3.40	3.78	4.21	2.98	3.32	3.64	4.06	4.44	3.43	3.70	3.97	4.34	4.76	2.85	3.35	3.81	4.28	4.77
Fraser	21371	2.67	3.03	3.41	3.80	4.22	3.01	3.35	3.67	4.08	4.45	3.47	3.73	4.00	4.37	4.78	2.86	3.35	3.82	4.28	4.77
Fraser	21806	2.69	3.05	3.43	3.82	4.23	3.05	3.38	3.69	4.11	4.48	3.51	3.77	4.03	4.40	4.82	2.86	3.34	3.82	4.28	4.78
Fraser	22195	2.71	3.07	3.45	3.83	4.24	3.07	3.40	3.71	4.12	4.49	3.54	3.80	4.06	4.42	4.83	2.87	3.33	3.83	4.28	4.78
Fraser	22562	2.74	3.09	3.47	3.85	4.26	3.11	3.43	3.74	4.15	4.51	3.59	3.84	4.09	4.46	4.87	2.87	3.31	3.83	4.29	4.79
Fraser	22978	2.75	3.10	3.48	3.86	4.27	3.12	3.45	3.75	4.17	4.53	3.61	3.86	4.11	4.48	4.89	2.88	3.30	3.83	4.29	4.79
Fraser	23375	2.76	3.11	3.48	3.86	4.27	3.13	3.46	3.76	4.17	4.53	3.62	3.87	4.12	4.49	4.90	2.88	3.30	3.84	4.30	4.80
Fraser	23763	2.78	3.13	3.50	3.88	4.29	3.16	3.48	3.78	4.19	4.55	3.66	3.91	4.15	4.52	4.93	2.88	3.31	3.85	4.30	4.80
Fraser	24152	2.82	3.17	3.53	3.91	4.31	3.22	3.54	3.83	4.24	4.60	3.74	3.98	4.22	4.58	4.99	2.89	3.31	3.85	4.31	4.81
Fraser	24575	2.85	3.20	3.56	3.94	4.33	3.27	3.58	3.87	4.28	4.63	3.80	4.04	4.27	4.63	5.04	2.89	3.32	3.86	4.31	4.81
Fraser	24914	2.92	3.26	3.61	3.98	4.37	3.36	3.66	3.94	4.35	4.69	3.92	4.15	4.37	4.74	5.13	2.90	3.34	3.86	4.32	4.81
Fraser	25370	2.95	3.29	3.64	4.01	4.40	3.41	3.71	3.98	4.39	4.73	3.99	4.21	4.43	4.80	5.18	2.90	3.36	3.87	4.33	4.82
Fraser	25568	2.97	3.30	3.65	4.01	4.40	3.43	3.72	4.00	4.40	4.74	4.01	4.23	4.45	4.81	5.20	2.90	3.37	3.87	4.33	4.82
Fraser	25568	2.97	3.30	3.65	4.01	4.40	3.43	3.72	4.00	4.40	4.74	4.01	4.23	4.45	4.81	5.20	2.90	3.37	3.87	4.33	4.82
Fraser	25857	2.97	3.30	3.65	4.02	4.40	3.43	3.72	4.00	4.40	4.74	4.01	4.23	4.44	4.81	5.19	2.91	3.38	3.87	4.33	4.82
Fraser	26350	2.96	3.30	3.64	4.01	4.40	3.42	3.71	3.99	4.39	4.73	3.99	4.21	4.43	4.79	5.17	2.91	3.38	3.87	4.34	4.83
Fraser	26754	2.98	3.31	3.66	4.02	4.41	3.44	3.73	4.00	4.40	4.74	4.02	4.24	4.45	4.81	5.19	2.92	3.38	3.87	4.35	4.83
Fraser	27194	3.00	3.33	3.67	4.04	4.42	3.48	3.76	4.03	4.42	4.76	4.06	4.27	4.48	4.85	5.23	2.92	3.38	3.87	4.36	4.83
Fraser	27582	3.03	3.36	3.69	4.05	4.44	3.52	3.79	4.06	4.45	4.78	4.10	4.31	4.52	4.89	5.27	2.93	3.39	3.87	4.37	4.83
Fraser	28002	3.06	3.38	3.72	4.07	4.45	3.56	3.83	4.09	4.48	4.81	4.15	4.36	4.56	4.93	5.30	2.93	3.39	3.88	4.38	4.84
Fraser	28369	3.12	3.43	3.76	4.11	4.49	3.64	3.90	4.15	4.54	4.86	4.25	4.45	4.65	5.02	5.39	2.94	3.39	3.88	4.38	4.85
Fraser	28768	3.14	3.45	3.78	4.13	4.50	3.68	3.93	4.18	4.56	4.89	4.30	4.49	4.68	5.06	5.43	2.94	3.39	3.88	4.39	4.86
Fraser	29120	3.10	3.42	3.75	4.11	4.48	3.62	3.89	4.14	4.52	4.85	4.23	4.43	4.62	5.00	5.37	2.94	3.39	3.89	4.39	4.86
Fraser	29504	3.21	3.52	3.85	4.17	4.56	3.77	4.02	4.26	4.64	4.96	4.42	4.60	4.78	5.16	5.52	2.96	3.42	3.91	4.41	4.87

Freshet Historical 1:500							Freshet Scenario-A (Moderate) 1:500					Freshet Scenario-B (Intense) 1:500					Winter 1:500				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	29883	3.27	3.57	3.89	4.22	4.59	3.86	4.09	4.32	4.70	5.02	4.53	4.70	4.88	5.27	5.64	2.98	3.42	3.92	4.42	4.87
Fraser	30284	3.29	3.59	3.91	4.23	4.60	3.89	4.12	4.34	4.71	5.03	4.55	4.72	4.89	5.28	5.64	2.98	3.42	3.92	4.42	4.88
Fraser	30647	3.36	3.66	3.97	4.28	4.65	4.00	4.22	4.43	4.80	5.11	4.69	4.85	5.02	5.40	5.76	3.00	3.42	3.93	4.43	4.88
Fraser	31045	3.41	3.69	4.00	4.32	4.68	4.06	4.28	4.48	4.84	5.15	4.77	4.92	5.09	5.48	5.83	3.00	3.43	3.94	4.44	4.88
Fraser	31525	3.42	3.71	4.02	4.33	4.69	4.09	4.31	4.50	4.86	5.17	4.81	4.96	5.13	5.52	5.87	3.01	3.44	3.95	4.45	4.88
Fraser	31926	3.45	3.73	4.04	4.35	4.70	4.13	4.34	4.53	4.89	5.20	4.85	5.00	5.17	5.56	5.91	3.02	3.45	3.95	4.45	4.88
Fraser	32332	3.49	3.77	4.07	4.38	4.73	4.18	4.39	4.58	4.93	5.24	4.93	5.07	5.24	5.62	5.98	3.03	3.46	3.96	4.46	4.88
Fraser	32742	3.56	3.83	4.12	4.43	4.77	4.28	4.48	4.65	5.00	5.30	5.04	5.17	5.34	5.72	6.07	3.04	3.48	3.96	4.46	4.88
Fraser	32742	3.56	3.83	4.12	4.43	4.77	4.28	4.48	4.65	5.00	5.30	5.04	5.17	5.34	5.72	6.07	3.04	3.48	3.96	4.46	4.88
Fraser	33139	3.50	3.77	4.08	4.39	4.73	4.19	4.40	4.58	4.93	5.24	4.94	5.07	5.24	5.62	5.97	3.03	3.48	3.96	4.46	4.89
Fraser	33543	3.52	3.80	4.10	4.41	4.74	4.23	4.44	4.61	4.96	5.26	4.97	5.11	5.28	5.65	6.00	3.04	3.49	3.97	4.47	4.89
Fraser	33883	3.48	3.75	4.06	4.37	4.71	4.16	4.37	4.56	4.91	5.21	4.89	5.04	5.20	5.58	5.93	3.03	3.49	3.96	4.47	4.89
Fraser	34089	3.49	3.76	4.07	4.38	4.72	4.18	4.39	4.57	4.92	5.22	4.91	5.05	5.22	5.60	5.94	3.03	3.50	3.97	4.47	4.90
Fraser	34089	3.49	3.76	4.07	4.38	4.72	4.18	4.39	4.57	4.92	5.22	4.91	5.05	5.22	5.60	5.94	3.03	3.50	3.97	4.47	4.90
Fraser	34247	3.65	3.91	4.20	4.51	4.82	4.41	4.61	4.77	5.10	5.40	5.20	5.33	5.49	5.86	6.18	3.05	3.51	3.97	4.47	4.90
Fraser	34655	3.67	3.93	4.22	4.53	4.83	4.44	4.63	4.79	5.12	5.42	5.24	5.36	5.52	5.89	6.21	3.05	3.52	3.98	4.48	4.90
Fraser	35038	3.75	4.00	4.28	4.58	4.86	4.54	4.73	4.88	5.20	5.49	5.36	5.48	5.64	6.00	6.31	3.06	3.52	3.98	4.48	4.91
Fraser	35038	3.75	4.00	4.28	4.58	4.86	4.54	4.73	4.88	5.20	5.49	5.36	5.48	5.64	6.00	6.31	3.06	3.52	3.98	4.48	4.91
Fraser	35451	3.80	4.05	4.32	4.62	4.89	4.60	4.78	4.94	5.24	5.53	5.42	5.54	5.70	6.06	6.37	3.07	3.52	3.99	4.49	4.92
Fraser	35650	3.91	4.15	4.41	4.70	4.97	4.72	4.90	5.06	5.34	5.62	5.57	5.68	5.84	6.19	6.50	3.11	3.57	4.03	4.52	4.95
Fraser	35920	3.91	4.15	4.41	4.70	4.97	4.72	4.90	5.06	5.34	5.62	5.58	5.68	5.85	6.20	6.50	3.11	3.57	4.04	4.53	4.96
Fraser	35992	3.95	4.18	4.43	4.71	5.05	4.73	4.91	5.22	5.34	5.63	5.58	5.69	6.24	6.40	6.51	3.12	3.58	4.04	4.53	4.96
Fraser	36247	3.97	4.19	4.44	4.72	5.07	4.75	4.93	5.24	5.36	5.64	5.60	5.71	6.26	6.42	6.53	3.12	3.58	4.04	4.53	4.96
Fraser	36247	3.97	4.19	4.44	4.72	5.07	4.75	4.93	5.24	5.36	5.64	5.60	5.71	6.26	6.42	6.53	3.12	3.58	4.04	4.53	4.96
Fraser	36357	3.99	4.22	4.47	4.74	5.08	4.78	4.95	5.27	5.38	5.66	5.64	5.74	6.29	6.45	6.56	3.12	3.58	4.04	4.53	4.96
Fraser	36736	3.95	4.18	4.43	4.71	5.05	4.73	4.91	5.22	5.34	5.62	5.58	5.68	6.23	6.39	6.50	3.12	3.58	4.04	4.53	4.97
Fraser	37139	3.94	4.16	4.42	4.70	5.04	4.72	4.89	5.20	5.33	5.61	5.55	5.66	6.22	6.38	6.49	3.12	3.58	4.04	4.53	4.97
Fraser	37528	3.97	4.19	4.44	4.72	5.06	4.75	4.93	5.24	5.36	5.64	5.60	5.71	6.26	6.42	6.53	3.12	3.58	4.05	4.53	4.97
Fraser	37939	4.00	4.22	4.47	4.74	5.08	4.79	4.96	5.27	5.39	5.66	5.64	5.74	6.29	6.45	6.55	3.12	3.57	4.05	4.53	4.97
Fraser	38352	4.04	4.26	4.51	4.78	5.11	4.84	5.00	5.32	5.43	5.70	5.70	5.80	6.34	6.50	6.60	3.12	3.57	4.05	4.53	4.98
Fraser	38759	4.03	4.25	4.50	4.77	5.10	4.83	4.99	5.30	5.42	5.69	5.68	5.78	6.33	6.49	6.59	3.12	3.57	4.05	4.53	4.98
Fraser	39151	4.10	4.32	4.56	4.83	5.16	4.91	5.07	5.38	5.48	5.75	5.79	5.89	6.43	6.58	6.68	3.13	3.57	4.05	4.53	4.98
Fraser	39490	4.04	4.26	4.51	4.79	5.12	4.85	5.02	5.33	5.44	5.72	5.73	5.83	6.37	6.53	6.64	3.12	3.56	4.05	4.53	4.98
Fraser	39926	4.24	4.45	4.68	4.95	5.25	5.07	5.22	5.52	5.62	5.88	5.96	6.06	6.58	6.73	6.82	3.14	3.57	4.06	4.53	4.99
Fraser	39926	4.24	4.45	4.68	4.95	5.25	5.07	5.22	5.52	5.62	5.88	5.96	6.06	6.58	6.73	6.82	3.14	3.57	4.06	4.53	4.99
Fraser	40332	4.23	4.44	4.67	4.93	5.24	5.06	5.20	5.51	5.60	5.86	5.94	6.04	6.56	6.71	6.81	3.14	3.57	4.06	4.53	4.99
Fraser	40766	4.21	4.42	4.65	4.91	5.22	5.03	5.17	5.48	5.57	5.83	5.89	5.99	6.51	6.66	6.76	3.14	3.58	4.06	4.53	4.98
Fraser	41158	4.23	4.44	4.67	4.93	5.24	5.06	5.21	5.52	5.61	5.87	5.96	6.06	6.58	6.73	6.82	3.14	3.58	4.06	4.53	4.98
Fraser	41502	4.28	4.49	4.72	4.98	5.28	5.12	5.26	5.57	5.66	5.92	6.02	6.12	6.63	6.78	6.87	3.15	3.58	4.06	4.54	4.98

Freshet Historical 1:500							Freshet Scenario-A (Moderate) 1:500					Freshet Scenario-B (Intense) 1:500					Winter 1:500				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	41882	4.36	4.56	4.78	5.04	5.33	5.21	5.34	5.65	5.74	5.99	6.12	6.22	6.72	6.87	6.95	3.16	3.58	4.06	4.54	4.98
Fraser	42407	4.50	4.70	4.91	5.15	5.44	5.37	5.49	5.79	5.99	6.15	6.40	6.69	6.97	7.03	7.12	3.19	3.61	4.08	4.55	5.00
Fraser	42617	4.51	4.71	4.92	5.16	5.45	5.39	5.50	5.80	6.00	6.16	6.42	6.70	6.99	7.05	7.13	3.19	3.62	4.08	4.55	5.00
Fraser	43031	4.57	4.77	4.98	5.22	5.50	5.47	5.58	5.88	6.07	6.22	6.51	6.79	7.07	7.13	7.22	3.20	3.62	4.08	4.55	5.00
Fraser	43373	4.55	4.74	4.96	5.20	5.48	5.43	5.55	5.84	6.04	6.19	6.47	6.75	7.03	7.09	7.18	3.20	3.62	4.08	4.55	5.00
Fraser	43373	4.55	4.74	4.96	5.20	5.48	5.43	5.55	5.84	6.04	6.19	6.47	6.75	7.03	7.09	7.18	3.20	3.62	4.08	4.55	5.00
Fraser	43945	4.48	4.68	4.90	5.14	5.42	5.35	5.47	5.77	5.97	6.13	6.38	6.66	6.95	7.01	7.10	3.18	3.60	4.06	4.54	4.99
Fraser	44343	4.51	4.70	4.92	5.15	5.44	5.38	5.49	5.79	5.99	6.14	6.40	6.69	6.97	7.03	7.12	3.19	3.61	4.07	4.55	4.99
Fraser	44754	4.52	4.72	4.93	5.16	5.44	5.39	5.50	5.79	5.99	6.14	6.39	6.68	6.96	7.01	7.10	3.20	3.61	4.08	4.55	4.99
Fraser	45140	4.57	4.76	4.97	5.20	5.48	5.44	5.55	5.84	6.03	6.18	6.45	6.73	7.00	7.06	7.15	3.21	3.63	4.09	4.56	5.00
Fraser	45541	4.62	4.81	5.01	5.24	5.52	5.50	5.61	5.89	6.09	6.24	6.52	6.80	7.07	7.13	7.21	3.23	3.64	4.10	4.57	5.00
Fraser	45944	4.68	4.87	5.07	5.30	5.58	5.58	5.69	5.98	6.17	6.31	6.63	6.90	7.17	7.22	7.30	3.25	3.65	4.11	4.58	5.01
Fraser	46354	4.76	4.95	5.15	5.38	5.65	5.68	5.78	6.06	6.24	6.39	6.72	6.99	7.25	7.30	7.38	3.28	3.67	4.13	4.59	5.03
Fraser	46562	4.79	4.97	5.17	5.40	5.67	5.70	5.81	6.09	6.27	6.41	6.75	7.01	7.27	7.33	7.41	3.29	3.68	4.14	4.60	5.03
Fraser	46562	4.79	4.97	5.17	5.40	5.67	5.70	5.81	6.09	6.27	6.41	6.75	7.01	7.27	7.33	7.41	3.29	3.68	4.14	4.60	5.03
Fraser	46984	4.95	5.11	5.30	5.51	5.76	5.84	5.94	6.20	6.38	6.51	6.88	7.13	7.39	7.44	7.52	3.36	3.75	4.19	4.63	5.05
Fraser	47419	4.98	5.15	5.34	5.55	5.80	5.89	5.99	6.25	6.42	6.56	6.94	7.18	7.43	7.48	7.56	3.38	3.76	4.20	4.64	5.06
Fraser	47789	5.05	5.21	5.39	5.59	5.84	5.94	6.04	6.29	6.46	6.59	6.98	7.22	7.47	7.52	7.60	3.41	3.79	4.21	4.66	5.07
Fraser	48174	5.06	5.22	5.40	5.61	5.86	5.96	6.06	6.31	6.48	6.61	7.01	7.25	7.49	7.55	7.62	3.42	3.80	4.22	4.66	5.07
Fraser	48502	5.12	5.28	5.46	5.66	5.90	6.03	6.12	6.37	6.53	6.66	7.07	7.30	7.54	7.59	7.66	3.45	3.82	4.24	4.67	5.09
Fraser	48560	5.13	5.29	5.46	5.67	5.91	6.04	6.13	6.37	6.54	6.67	7.07	7.31	7.54	7.60	7.67	3.45	3.83	4.24	4.68	5.09
Fraser	48560	5.13	5.29	5.46	5.67	5.91	6.04	6.13	6.37	6.54	6.67	7.07	7.31	7.54	7.60	7.67	3.45	3.83	4.24	4.68	5.09
Fraser	48981	4.97	5.13	5.31	5.52	5.76	5.83	5.93	6.18	6.35	6.48	6.83	7.07	7.31	7.37	7.44	3.40	3.78	4.20	4.64	5.06
Fraser	49283	5.00	5.16	5.34	5.55	5.79	5.87	5.97	6.21	6.38	6.51	6.86	7.10	7.34	7.40	7.47	3.41	3.79	4.21	4.65	5.06
Fraser	49565	5.07	5.23	5.40	5.61	5.85	5.95	6.04	6.28	6.44	6.57	6.94	7.18	7.41	7.46	7.54	3.45	3.82	4.23	4.66	5.08
Fraser	49963	5.08	5.24	5.41	5.61	5.85	5.96	6.05	6.29	6.45	6.58	6.95	7.18	7.42	7.47	7.54	3.46	3.83	4.24	4.67	5.08
Fraser	50339	5.19	5.34	5.51	5.71	5.94	6.08	6.17	6.41	6.56	6.69	7.10	7.32	7.55	7.60	7.67	3.50	3.87	4.28	4.70	5.11
Fraser	50737	5.23	5.39	5.56	5.75	5.98	6.14	6.22	6.46	6.61	6.73	7.16	7.38	7.61	7.66	7.73	3.52	3.89	4.30	4.72	5.12
Fraser	51139	5.31	5.46	5.62	5.81	6.04	6.22	6.30	6.53	6.68	6.80	7.24	7.46	7.68	7.73	7.80	3.56	3.92	4.33	4.74	5.14
Fraser	51545	5.39	5.54	5.70	5.89	6.11	6.31	6.39	6.62	6.76	6.88	7.34	7.55	7.77	7.82	7.88	3.61	3.96	4.36	4.77	5.17
Fraser	51943	5.43	5.58	5.74	5.92	6.14	6.35	6.44	6.66	6.80	6.92	7.39	7.60	7.81	7.86	7.93	3.63	3.98	4.38	4.79	5.18
Fraser	52349	5.46	5.60	5.76	5.95	6.17	6.39	6.47	6.69	6.83	6.95	7.43	7.63	7.85	7.90	7.96	3.65	4.00	4.39	4.80	5.19
Fraser	52707	5.52	5.66	5.82	6.00	6.21	6.45	6.53	6.75	6.89	7.00	7.50	7.70	7.91	7.96	8.02	3.68	4.03	4.42	4.82	5.21
Fraser	53123	5.65	5.79	5.94	6.11	6.32	6.59	6.67	6.87	7.01	7.12	7.64	7.83	8.04	8.08	8.14	3.74	4.08	4.47	4.87	5.25
Fraser	53689	5.70	5.83	5.98	6.16	6.36	6.64	6.72	6.92	7.05	7.16	7.69	7.88	8.08	8.13	8.19	3.77	4.11	4.49	4.89	5.26
Fraser	53689	5.70	5.83	5.98	6.16	6.36	6.64	6.72	6.92	7.05	7.16	7.69	7.88	8.08	8.13	8.19	3.77	4.11	4.49	4.89	5.26
Fraser	53954	5.84	5.96	6.11	6.27	6.47	6.79	6.86	7.05	7.18	7.29	7.84	8.02	8.22	8.26	8.32	3.84	4.17	4.54	4.93	5.30
Fraser	54327	5.89	6.02	6.16	6.33	6.52	6.86	6.93	7.12	7.25	7.35	7.93	8.11	8.30	8.35	8.40	3.85	4.19	4.56	4.95	5.32
Fraser	54734	5.89	6.02	6.16	6.33	6.52	6.86	6.93	7.13	7.25	7.36	7.94	8.12	8.32	8.36	8.41	3.86	4.19	4.56	4.95	5.32

Freshet Historical 1:500							Freshet Scenario-A (Moderate) 1:500					Freshet Scenario-B (Intense) 1:500					Winter 1:500				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	55128	5.88	6.00	6.14	6.31	6.49	6.82	6.89	7.08	7.20	7.31	7.85	8.03	8.23	8.27	8.32	3.87	4.20	4.57	4.96	5.33
Fraser	55527	5.90	6.03	6.17	6.33	6.51	6.84	6.91	7.10	7.23	7.33	7.88	8.06	8.25	8.30	8.35	3.89	4.22	4.58	4.97	5.34
Fraser	55923	5.95	6.07	6.21	6.37	6.55	6.89	6.96	7.15	7.27	7.37	7.94	8.12	8.31	8.36	8.41	3.91	4.24	4.60	4.99	5.35
Fraser	56318	5.97	6.09	6.23	6.39	6.57	6.92	6.98	7.17	7.29	7.40	7.97	8.15	8.34	8.38	8.43	3.92	4.25	4.61	5.00	5.36
Fraser	56731	6.00	6.12	6.25	6.41	6.59	6.95	7.01	7.20	7.32	7.42	8.00	8.17	8.36	8.40	8.45	3.94	4.26	4.63	5.01	5.38
Fraser	57123	6.06	6.18	6.31	6.47	6.64	7.02	7.08	7.26	7.38	7.48	8.07	8.24	8.42	8.46	8.51	3.97	4.29	4.65	5.03	5.40
Fraser	57451	6.11	6.23	6.36	6.51	6.69	7.07	7.14	7.32	7.44	7.53	8.13	8.30	8.48	8.52	8.56	3.99	4.31	4.67	5.05	5.41
Fraser	57813	6.10	6.22	6.35	6.50	6.68	7.06	7.13	7.31	7.43	7.53	8.13	8.29	8.47	8.52	8.56	3.99	4.31	4.67	5.05	5.41
Fraser	58242	6.19	6.31	6.44	6.59	6.76	7.18	7.25	7.43	7.55	7.65	8.30	8.47	8.65	8.69	8.73	4.02	4.34	4.70	5.08	5.44
Fraser	58547	6.23	6.34	6.47	6.62	6.79	7.22	7.29	7.46	7.58	7.68	8.33	8.49	8.67	8.71	8.75	4.05	4.36	4.72	5.09	5.45
Fraser	58935	6.28	6.40	6.52	6.67	6.84	7.29	7.35	7.53	7.64	7.74	8.40	8.56	8.73	8.77	8.81	4.07	4.39	4.74	5.11	5.47
Fraser	59378	6.26	6.38	6.51	6.66	6.83	7.26	7.33	7.50	7.61	7.71	8.34	8.50	8.67	8.71	8.75	4.07	4.39	4.74	5.11	5.47
Fraser	59775	6.33	6.45	6.57	6.72	6.88	7.34	7.40	7.57	7.68	7.77	8.42	8.57	8.74	8.78	8.82	4.10	4.42	4.77	5.14	5.49
Fraser	60164	6.40	6.52	6.64	6.78	6.94	7.41	7.47	7.64	7.75	7.84	8.50	8.65	8.81	8.85	8.89	4.13	4.44	4.79	5.16	5.51
Fraser	60563	6.43	6.54	6.66	6.80	6.96	7.44	7.49	7.66	7.77	7.86	8.52	8.67	8.83	8.87	8.91	4.15	4.46	4.81	5.17	5.52
Fraser	60975	6.52	6.63	6.75	6.89	7.04	7.54	7.60	7.76	7.87	7.95	8.64	8.79	8.94	8.98	9.02	4.19	4.50	4.84	5.20	5.55
Fraser	61128	6.53	6.64	6.76	6.90	7.05	7.55	7.61	7.77	7.88	7.97	8.65	8.80	8.96	9.00	9.03	4.20	4.50	4.85	5.21	5.56
Fraser	61128	6.53	6.64	6.76	6.90	7.05	7.55	7.61	7.77	7.88	7.97	8.65	8.80	8.96	9.00	9.03	4.20	4.50	4.85	5.21	5.56
Fraser	61327	6.53	6.64	6.76	6.90	7.05	7.55	7.61	7.77	7.88	7.97	8.65	8.80	8.96	8.99	9.03	4.20	4.50	4.85	5.21	5.56
Fraser	61633	6.54	6.65	6.76	6.91	7.06	7.57	7.62	7.78	7.89	7.98	8.67	8.82	8.97	9.01	9.05	4.20	4.51	4.85	5.21	5.56
Fraser	61947	6.54	6.65	6.76	6.91	7.06	7.56	7.62	7.78	7.88	7.97	8.66	8.81	8.97	9.00	9.04	4.21	4.51	4.85	5.21	5.57
Fraser	62124	6.55	6.66	6.77	6.92	7.07	7.57	7.63	7.79	7.89	7.98	8.68	8.83	8.99	9.02	9.06	4.22	4.52	4.86	5.22	5.57
Fraser	62381	6.54	6.65	6.77	6.91	7.07	7.58	7.64	7.80	7.91	8.00	8.71	8.85	9.01	9.05	9.09	4.21	4.51	4.86	5.22	5.57
Fraser	62625	6.59	6.70	6.82	6.96	7.11	7.63	7.69	7.85	7.96	8.05	8.77	8.91	9.06	9.10	9.14	4.24	4.53	4.88	5.23	5.58
Fraser	62887	6.60	6.71	6.83	6.97	7.12	7.63	7.69	7.84	7.95	8.03	8.74	8.88	9.04	9.07	9.11	4.24	4.54	4.88	5.24	5.59
Fraser	63234	6.64	6.74	6.86	7.00	7.15	7.67	7.73	7.89	7.99	8.08	8.80	8.94	9.10	9.13	9.17	4.26	4.55	4.89	5.25	5.60
Fraser	63635	6.63	6.74	6.85	6.99	7.14	7.65	7.70	7.86	7.96	8.05	8.75	8.89	9.05	9.08	9.12	4.27	4.56	4.90	5.25	5.60
Fraser	64027	6.69	6.79	6.91	7.04	7.18	7.70	7.76	7.91	8.01	8.09	8.80	8.94	9.09	9.12	9.16	4.30	4.59	4.92	5.27	5.62
Fraser	64501	6.80	6.91	7.02	7.15	7.29	7.83	7.88	8.03	8.13	8.22	8.96	9.09	9.24	9.27	9.30	4.36	4.64	4.97	5.31	5.66
Fraser	64820	6.87	6.97	7.09	7.21	7.35	7.90	7.95	8.10	8.20	8.28	9.04	9.17	9.32	9.35	9.38	4.40	4.67	4.99	5.33	5.68
Fraser	65249	6.88	6.99	7.10	7.23	7.36	7.91	7.96	8.11	8.21	8.29	9.05	9.18	9.32	9.36	9.39	4.41	4.68	5.00	5.34	5.69
Fraser	65504	6.92	7.02	7.13	7.26	7.39	7.94	8.00	8.14	8.24	8.32	9.09	9.22	9.36	9.39	9.42	4.44	4.71	5.02	5.36	5.70
Fraser	65504	6.92	7.02	7.13	7.26	7.39	7.94	8.00	8.14	8.24	8.32	9.09	9.22	9.36	9.39	9.42	4.44	4.71	5.02	5.36	5.70
Fraser	65697	7.03	7.13	7.24	7.36	7.49	8.07	8.12	8.26	8.36	8.44	9.23	9.35	9.49	9.52	9.55	4.51	4.77	5.08	5.40	5.74
Fraser	65970	7.06	7.16	7.27	7.39	7.52	8.11	8.16	8.30	8.39	8.47	9.27	9.39	9.53	9.56	9.59	4.53	4.79	5.10	5.42	5.75
Fraser	66297	7.08	7.18	7.29	7.41	7.54	8.13	8.18	8.32	8.41	8.49	9.29	9.42	9.55	9.58	9.61	4.55	4.81	5.11	5.43	5.76
Fraser	66674	7.09	7.19	7.29	7.41	7.54	8.13	8.18	8.32	8.41	8.49	9.29	9.41	9.55	9.58	9.61	4.56	4.82	5.12	5.43	5.77
Fraser	67082	7.09	7.19	7.30	7.42	7.55	8.14	8.19	8.33	8.42	8.50	9.30	9.42	9.56	9.59	9.62	4.57	4.82	5.13	5.44	5.77
Fraser	67480	7.12	7.22	7.33	7.45	7.57	8.16	8.21	8.35	8.44	8.52	9.32	9.44	9.57	9.60	9.63	4.59	4.85	5.14	5.46	5.79

Freshet Historical 1:500							Freshet Scenario-A (Moderate) 1:500					Freshet Scenario-B (Intense) 1:500					Winter 1:500				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	67886	7.13	7.23	7.33	7.45	7.58	8.16	8.21	8.35	8.44	8.52	9.31	9.43	9.57	9.60	9.63	4.61	4.86	5.15	5.46	5.79
Fraser	68275	7.14	7.23	7.34	7.46	7.58	8.17	8.22	8.35	8.44	8.52	9.30	9.42	9.56	9.59	9.61	4.62	4.87	5.16	5.47	5.80
Fraser	68690	7.15	7.25	7.35	7.47	7.59	8.18	8.23	8.37	8.46	8.53	9.32	9.44	9.57	9.60	9.63	4.63	4.88	5.17	5.48	5.81
Fraser	69154	7.20	7.29	7.39	7.51	7.63	8.23	8.28	8.41	8.50	8.58	9.37	9.49	9.62	9.65	9.67	4.66	4.91	5.20	5.50	5.83
Fraser	69599	7.22	7.32	7.42	7.54	7.66	8.26	8.31	8.44	8.53	8.61	9.41	9.52	9.65	9.68	9.71	4.68	4.92	5.21	5.52	5.84
Fraser	70006	7.28	7.37	7.47	7.59	7.71	8.33	8.38	8.51	8.60	8.67	9.49	9.61	9.74	9.77	9.79	4.71	4.95	5.23	5.54	5.86
Fraser	70401	7.31	7.40	7.50	7.62	7.74	8.36	8.41	8.54	8.63	8.70	9.53	9.65	9.77	9.80	9.83	4.72	4.96	5.25	5.55	5.88
Fraser	70804	7.36	7.45	7.55	7.66	7.78	8.42	8.47	8.60	8.69	8.76	9.60	9.71	9.84	9.87	9.89	4.75	4.98	5.27	5.57	5.89
Fraser	70882	7.36	7.45	7.55	7.67	7.78	8.43	8.48	8.61	8.69	8.77	9.61	9.72	9.85	9.88	9.90	4.75	4.99	5.27	5.57	5.90
Fraser	70882	7.36	7.45	7.55	7.67	7.78	8.43	8.48	8.61	8.69	8.77	9.61	9.72	9.85	9.88	9.90	4.75	4.99	5.27	5.57	5.90
Fraser	71256	7.23	7.33	7.43	7.54	7.66	8.27	8.31	8.45	8.53	8.61	9.41	9.52	9.65	9.68	9.71	4.70	4.94	5.23	5.53	5.86
Fraser	71642	7.34	7.43	7.52	7.64	7.75	8.38	8.43	8.56	8.64	8.71	9.53	9.64	9.77	9.80	9.82	4.76	4.99	5.28	5.58	5.90
Fraser	72035	7.38	7.47	7.57	7.68	7.79	8.43	8.47	8.60	8.69	8.76	9.58	9.69	9.82	9.85	9.87	4.79	5.02	5.30	5.60	5.91
Fraser	72477	7.43	7.52	7.61	7.72	7.84	8.49	8.53	8.66	8.74	8.81	9.64	9.75	9.87	9.90	9.93	4.82	5.05	5.33	5.62	5.94
Fraser	72960	7.50	7.59	7.68	7.79	7.90	8.56	8.61	8.73	8.82	8.88	9.73	9.84	9.96	9.99	10.01	4.86	5.08	5.36	5.65	5.97
Fraser	73369	7.59	7.68	7.77	7.88	7.99	8.66	8.71	8.83	8.91	8.98	9.84	9.94	10.06	10.09	10.11	4.94	5.15	5.43	5.71	6.02
Fraser	73842	7.67	7.76	7.85	7.95	8.06	8.75	8.80	8.91	8.99	9.06	9.94	10.04	10.15	10.18	10.20	4.99	5.20	5.47	5.75	6.05
Fraser	74310	7.67	7.76	7.85	7.95	8.06	8.75	8.79	8.91	8.99	9.05	9.92	10.03	10.14	10.17	10.19	5.00	5.20	5.47	5.75	6.06
Fraser	74580	7.69	7.77	7.86	7.96	8.07	8.76	8.80	8.92	9.00	9.06	9.93	10.03	10.15	10.18	10.20	5.01	5.22	5.48	5.76	6.06
Fraser	74790	7.73	7.81	7.90	8.00	8.11	8.81	8.85	8.96	9.04	9.11	9.98	10.08	10.20	10.22	10.24	5.04	5.24	5.50	5.78	6.08
Fraser	74970	7.74	7.82	7.91	8.01	8.12	8.82	8.86	8.97	9.05	9.12	9.99	10.09	10.21	10.24	10.26	5.05	5.25	5.51	5.79	6.09
Fraser	74970	7.74	7.82	7.91	8.01	8.12	8.82	8.86	8.97	9.05	9.12	9.99	10.09	10.21	10.24	10.26	5.05	5.25	5.51	5.79	6.09
Fraser	75211	7.78	7.86	7.95	8.05	8.16	8.87	8.91	9.03	9.11	9.17	10.07	10.17	10.28	10.31	10.33	5.07	5.27	5.52	5.80	6.10
Fraser	75604	7.77	7.85	7.94	8.04	8.15	8.85	8.89	9.01	9.08	9.15	10.03	10.13	10.24	10.27	10.29	5.07	5.27	5.53	5.80	6.10
Fraser	76008	7.78	7.86	7.95	8.05	8.15	8.86	8.90	9.01	9.09	9.15	10.03	10.13	10.24	10.27	10.29	5.09	5.28	5.54	5.81	6.11
Fraser	76419	7.80	7.88	7.97	8.07	8.17	8.87	8.91	9.03	9.10	9.17	10.05	10.14	10.25	10.28	10.30	5.10	5.29	5.55	5.82	6.12
Fraser	76811	7.81	7.89	7.98	8.08	8.18	8.89	8.93	9.05	9.12	9.19	10.08	10.18	10.29	10.32	10.34	5.10	5.30	5.55	5.83	6.12
Fraser	77165	7.87	7.95	8.04	8.13	8.23	8.96	9.00	9.11	9.18	9.25	10.14	10.24	10.35	10.37	10.39	5.13	5.33	5.58	5.85	6.14
Fraser	77577	7.94	8.02	8.11	8.20	8.30	9.04	9.08	9.19	9.27	9.33	10.25	10.34	10.45	10.47	10.49	5.17	5.37	5.61	5.88	6.17
Fraser	78036	8.03	8.11	8.19	8.28	8.38	9.14	9.18	9.29	9.37	9.43	10.36	10.46	10.56	10.59	10.61	5.22	5.41	5.65	5.92	6.20
Fraser	78432	8.08	8.15	8.24	8.33	8.43	9.20	9.24	9.35	9.42	9.48	10.43	10.52	10.63	10.65	10.67	5.24	5.43	5.68	5.94	6.23
Fraser	78677	8.10	8.17	8.25	8.35	8.45	9.22	9.26	9.37	9.44	9.50	10.45	10.54	10.65	10.67	10.69	5.26	5.45	5.69	5.95	6.24
Fraser	78677	8.10	8.17	8.25	8.35	8.45	9.22	9.26	9.37	9.44	9.50	10.45	10.54	10.65	10.67	10.69	5.26	5.45	5.69	5.95	6.24
Fraser	79359	8.05	8.13	8.21	8.31	8.41	9.18	9.22	9.33	9.40	9.46	10.41	10.50	10.61	10.64	10.65	5.24	5.43	5.67	5.93	6.22
Fraser	79751	8.07	8.14	8.22	8.32	8.42	9.18	9.22	9.33	9.40	9.46	10.40	10.49	10.59	10.62	10.64	5.26	5.45	5.69	5.95	6.23
Fraser	80151	8.08	8.15	8.24	8.33	8.42	9.19	9.22	9.33	9.40	9.46	10.40	10.49	10.59	10.62	10.64	5.28	5.46	5.70	5.96	6.24
Fraser	80578	8.16	8.24	8.32	8.41	8.50	9.29	9.32	9.43	9.50	9.56	10.51	10.60	10.70	10.73	10.75	5.32	5.50	5.74	6.00	6.27
Fraser	81062	8.19	8.27	8.35	8.44	8.53	9.31	9.35	9.45	9.53	9.59	10.56	10.65	10.75	10.78	10.80	5.33	5.52	5.75	6.01	6.29
Fraser	81501	8.21	8.28	8.36	8.45	8.55	9.33	9.36	9.47	9.54	9.60	10.54	10.63	10.73	10.76	10.78	5.36	5.54	5.77	6.03	6.30

Freshet Historical 1:500							Freshet Scenario-A (Moderate) 1:500					Freshet Scenario-B (Intense) 1:500					Winter 1:500				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	81974	8.31	8.39	8.46	8.55	8.64	9.43	9.47	9.57	9.64	9.69	10.65	10.73	10.83	10.85	10.87	5.43	5.61	5.84	6.09	6.36
Fraser	82376	8.38	8.45	8.52	8.61	8.70	9.50	9.54	9.64	9.70	9.76	10.72	10.81	10.90	10.93	10.95	5.48	5.66	5.88	6.12	6.39
Fraser	82780	8.36	8.43	8.50	8.59	8.68	9.47	9.51	9.61	9.67	9.73	10.68	10.77	10.86	10.89	10.90	5.49	5.66	5.88	6.12	6.39
Fraser	83180	8.37	8.44	8.52	8.60	8.69	9.48	9.52	9.62	9.68	9.74	10.69	10.78	10.87	10.90	10.91	5.50	5.68	5.90	6.14	6.40
Fraser	83621	8.44	8.51	8.58	8.67	8.75	9.56	9.60	9.69	9.76	9.81	10.78	10.86	10.96	10.98	11.00	5.55	5.72	5.93	6.17	6.43
Fraser	83887	8.46	8.53	8.60	8.68	8.77	9.58	9.62	9.71	9.78	9.83	10.80	10.88	10.97	11.00	11.02	5.56	5.73	5.95	6.19	6.44
Fraser	83887	8.46	8.53	8.60	8.68	8.77	9.58	9.62	9.71	9.78	9.83	10.80	10.88	10.97	11.00	11.02	5.56	5.73	5.95	6.19	6.44
Fraser	84093	8.61	8.68	8.75	8.83	8.91	9.75	9.78	9.87	9.93	9.98	10.97	11.05	11.14	11.16	11.18	5.66	5.82	6.03	6.27	6.51
Fraser	84339	8.61	8.67	8.74	8.82	8.91	9.73	9.76	9.86	9.92	9.97	10.95	11.02	11.11	11.14	11.16	5.66	5.83	6.04	6.27	6.52
Fraser	84641	8.60	8.67	8.74	8.82	8.90	9.72	9.75	9.84	9.90	9.96	10.92	11.00	11.09	11.12	11.13	5.67	5.84	6.04	6.27	6.52
Fraser	85038	8.64	8.68	8.74	8.82	8.90	9.72	9.75	9.85	9.91	9.96	10.93	11.01	11.11	11.16	11.19	5.73	5.90	6.10	6.33	6.58
Fraser	85182	8.67	8.71	8.77	8.85	8.93	9.76	9.79	9.88	9.95	10.00	10.97	11.05	11.15	11.20	11.23	5.75	5.92	6.12	6.35	6.60
Fraser	85265	8.66	8.70	8.76	8.84	8.92	9.75	9.78	9.87	9.93	9.99	10.96	11.04	11.14	11.18	11.21	5.75	5.92	6.12	6.34	6.59
Fraser	85416	8.67	8.70	8.77	8.85	8.93	10.02	10.06	10.14	10.18	10.20	11.47	11.62	11.80	11.86	11.90	5.79	5.97	6.17	6.38	6.65
Fraser_R	85450	8.67	8.70	8.77	8.85	8.93	10.02	10.06	10.14	10.18	10.20	11.47	11.62	11.80	11.86	11.90	5.79	5.97	6.17	6.38	6.65
Fraser_R	85758	8.68	8.71	8.78	8.86	8.94	10.03	10.07	10.15	10.18	10.21	11.47	11.63	11.80	11.86	11.90	5.80	5.98	6.18	6.39	6.65
Fraser_R	86107	8.72	8.75	8.82	8.90	8.98	10.07	10.11	10.19	10.23	10.25	11.52	11.68	11.85	11.91	11.95	5.83	6.00	6.20	6.41	6.67
Fraser_R	86595	8.75	8.78	8.84	8.92	9.00	10.10	10.14	10.22	10.25	10.28	11.54	11.70	11.87	11.93	11.97	5.85	6.02	6.22	6.43	6.68
Fraser_R	86949	8.80	8.83	8.89	8.97	9.05	10.15	10.19	10.27	10.30	10.33	11.61	11.76	11.93	11.99	12.03	5.87	6.04	6.24	6.45	6.71
Fraser_R	87330	8.82	8.85	8.92	8.99	9.07	10.18	10.22	10.30	10.33	10.36	11.64	11.79	11.96	12.02	12.06	5.88	6.06	6.25	6.46	6.71
Fraser_R	87683	8.84	8.87	8.93	9.01	9.09	10.20	10.24	10.31	10.35	10.37	11.65	11.80	11.97	12.03	12.07	5.89	6.06	6.26	6.47	6.72
Fraser_R	88073	8.85	8.89	8.95	9.03	9.11	10.22	10.26	10.34	10.37	10.40	11.68	11.83	12.00	12.06	12.10	5.89	6.07	6.26	6.47	6.72
Fraser_R	88434	8.88	8.91	8.97	9.05	9.13	10.23	10.27	10.35	10.38	10.41	11.68	11.83	11.99	12.05	12.09	5.93	6.10	6.29	6.49	6.75
Fraser_R	88806	9.11	9.14	9.20	9.28	9.35	10.50	10.54	10.62	10.65	10.67	11.99	12.14	12.29	12.35	12.39	6.04	6.21	6.40	6.60	6.84
Fraser_R	89286	9.13	9.16	9.22	9.30	9.37	10.54	10.58	10.65	10.68	10.71	12.05	12.19	12.35	12.40	12.44	6.04	6.21	6.40	6.60	6.85
Fraser_R	89601	9.11	9.14	9.20	9.27	9.35	10.50	10.54	10.62	10.65	10.67	12.01	12.15	12.31	12.37	12.40	6.03	6.20	6.39	6.59	6.84
Fraser_R	89916	9.17	9.20	9.26	9.33	9.41	10.58	10.61	10.69	10.72	10.74	12.08	12.22	12.38	12.43	12.47	6.06	6.23	6.42	6.62	6.87
Fraser_R	90250	9.21	9.24	9.30	9.37	9.44	10.61	10.65	10.72	10.75	10.78	12.11	12.25	12.40	12.46	12.50	6.09	6.26	6.44	6.64	6.89
Fraser_R	90626	9.22	9.25	9.31	9.38	9.45	10.62	10.66	10.73	10.76	10.79	12.12	12.26	12.41	12.47	12.51	6.10	6.27	6.45	6.65	6.90
Fraser_R	90963	9.26	9.29	9.35	9.42	9.49	10.66	10.70	10.77	10.80	10.83	12.16	12.30	12.45	12.50	12.54	6.13	6.30	6.48	6.68	6.92
Fraser_R	91389	9.30	9.33	9.38	9.45	9.53	10.70	10.73	10.80	10.83	10.86	12.19	12.33	12.48	12.54	12.58	6.16	6.32	6.50	6.70	6.94
Fraser_R	91751	9.33	9.36	9.41	9.48	9.56	10.72	10.76	10.83	10.86	10.88	12.22	12.35	12.50	12.56	12.59	6.18	6.35	6.53	6.72	6.96
Fraser_R	92078	9.38	9.41	9.46	9.53	9.60	10.77	10.81	10.88	10.91	10.93	12.27	12.40	12.55	12.60	12.64	6.22	6.38	6.56	6.75	6.99
Fraser_R	92483	9.43	9.46	9.51	9.58	9.65	10.82	10.86	10.93	10.95	10.98	12.31	12.44	12.59	12.65	12.68	6.26	6.42	6.59	6.78	7.02
Fraser_R	92893	9.46	9.48	9.54	9.61	9.68	10.84	10.88	10.95	10.98	11.00	12.33	12.46	12.61	12.66	12.70	6.28	6.44	6.61	6.80	7.04
Fraser_R	93270	9.47	9.49	9.55	9.62	9.68	10.85	10.88	10.95	10.98	11.00	12.33	12.46	12.61	12.66	12.69	6.29	6.45	6.62	6.81	7.05
Fraser_R	93643	9.49	9.52	9.58	9.64	9.71	10.87	10.91	10.98	11.00	11.03	12.35	12.48	12.63	12.68	12.72	6.32	6.47	6.64	6.83	7.06
Fraser_R	93974	9.53	9.56	9.61	9.68	9.75	10.92	10.95	11.02	11.04	11.07	12.40	12.53	12.67	12.72	12.76	6.34	6.49	6.66	6.85	7.08
Fraser_R	94338	9.58	9.61	9.66	9.73	9.79	10.97	11.00	11.07	11.09	11.12	12.45	12.58	12.72	12.77	12.81	6.37	6.53	6.69	6.88	7.11

Freshet Historical 1:500							Freshet Scenario-A (Moderate) 1:500					Freshet Scenario-B (Intense) 1:500					Winter 1:500				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	94714	9.63	9.66	9.71	9.77	9.84	11.02	11.05	11.12	11.15	11.17	12.51	12.63	12.78	12.83	12.86	6.41	6.56	6.73	6.91	7.14
Fraser_R	95088	9.67	9.70	9.75	9.81	9.88	11.07	11.10	11.17	11.19	11.22	12.56	12.69	12.83	12.88	12.92	6.43	6.58	6.75	6.93	7.16
Fraser_R	95477	9.73	9.75	9.80	9.87	9.93	11.13	11.16	11.22	11.25	11.27	12.62	12.75	12.89	12.94	12.97	6.47	6.62	6.78	6.97	7.19
Fraser_R	95847	9.72	9.75	9.80	9.86	9.93	11.13	11.17	11.23	11.26	11.28	12.64	12.76	12.90	12.95	12.99	6.46	6.61	6.77	6.95	7.18
Fraser_R	96277	9.77	9.80	9.85	9.91	9.98	11.19	11.22	11.28	11.31	11.33	12.69	12.81	12.95	13.00	13.03	6.50	6.65	6.81	6.99	7.21
Fraser_R	96597	9.80	9.82	9.87	9.94	10.00	11.20	11.24	11.30	11.33	11.35	12.70	12.82	12.96	13.01	13.05	6.51	6.66	6.82	7.00	7.22
Fraser_R	97004	9.78	9.81	9.86	9.92	9.98	11.17	11.20	11.27	11.30	11.32	12.67	12.79	12.93	12.98	13.01	6.53	6.68	6.84	7.01	7.23
Fraser_R	97348	9.81	9.83	9.88	9.95	10.01	11.20	11.23	11.29	11.32	11.34	12.68	12.80	12.94	12.99	13.02	6.55	6.70	6.86	7.03	7.25
Fraser_R	97701	9.89	9.91	9.96	10.02	10.08	11.26	11.29	11.35	11.38	11.40	12.73	12.85	12.99	13.04	13.07	6.60	6.75	6.90	7.08	7.29
Fraser_R	98091	9.93	9.95	10.00	10.06	10.12	11.29	11.32	11.38	11.41	11.43	12.76	12.87	13.01	13.06	13.09	6.64	6.78	6.94	7.11	7.32
Fraser_R	98420	9.95	9.98	10.03	10.08	10.14	11.30	11.33	11.39	11.42	11.44	12.75	12.87	13.00	13.05	13.09	6.67	6.81	6.97	7.14	7.34
Fraser_R	98751	9.96	9.99	10.04	10.09	10.15	11.31	11.34	11.40	11.43	11.45	12.76	12.87	13.01	13.06	13.09	6.68	6.82	6.97	7.14	7.35
Fraser_R	99087	10.05	10.07	10.12	10.18	10.23	11.40	11.43	11.49	11.51	11.53	12.85	12.97	13.10	13.14	13.18	6.74	6.88	7.03	7.20	7.40
Fraser_R	99341	10.10	10.12	10.17	10.22	10.28	11.46	11.49	11.55	11.57	11.59	12.92	13.04	13.17	13.21	13.24	6.77	6.90	7.05	7.22	7.42
Fraser_R	99644	10.14	10.16	10.21	10.26	10.32	11.50	11.53	11.59	11.61	11.63	12.97	13.09	13.21	13.26	13.29	6.80	6.93	7.08	7.24	7.45
Fraser_R	99955	10.18	10.20	10.25	10.30	10.36	11.55	11.57	11.63	11.65	11.67	13.01	13.13	13.25	13.30	13.33	6.82	6.96	7.10	7.27	7.47
Fraser_R	99955	10.18	10.20	10.25	10.30	10.36	11.55	11.57	11.63	11.65	11.67	13.01	13.13	13.25	13.30	13.33	6.82	6.96	7.10	7.27	7.47
Fraser_R	100348	10.18	10.20	10.25	10.30	10.36	11.55	11.57	11.63	11.65	11.67	13.01	13.13	13.25	13.30	13.33	6.82	6.96	7.10	7.27	7.47
Fraser_R	100688	10.21	10.23	10.28	10.33	10.39	11.58	11.60	11.66	11.68	11.70	13.05	13.16	13.28	13.33	13.36	6.85	6.98	7.12	7.29	7.49
Fraser_R	101083	10.23	10.25	10.30	10.35	10.41	11.60	11.63	11.68	11.71	11.73	13.07	13.18	13.30	13.35	13.38	6.86	7.00	7.14	7.30	7.50
Fraser_R	101411	10.23	10.25	10.30	10.35	10.41	11.59	11.62	11.68	11.70	11.72	13.06	13.17	13.30	13.34	13.38	6.87	7.00	7.14	7.30	7.50
Fraser_R	101745	10.22	10.24	10.29	10.34	10.40	11.59	11.62	11.67	11.70	11.72	13.06	13.17	13.29	13.34	13.37	6.87	7.00	7.14	7.30	7.50
Fraser_R	102107	10.30	10.33	10.37	10.42	10.48	11.66	11.69	11.74	11.77	11.79	13.12	13.23	13.36	13.40	13.43	6.95	7.07	7.21	7.37	7.56
Fraser_R	102614	10.33	10.35	10.39	10.44	10.50	11.68	11.70	11.76	11.78	11.80	13.14	13.25	13.37	13.41	13.45	6.97	7.10	7.24	7.39	7.58
Fraser_R	103057	10.35	10.37	10.41	10.46	10.52	11.69	11.72	11.78	11.80	11.82	13.15	13.26	13.38	13.43	13.46	7.01	7.13	7.27	7.42	7.61
Fraser_R	103447	10.39	10.41	10.45	10.50	10.55	11.73	11.75	11.81	11.83	11.85	13.18	13.29	13.41	13.45	13.48	7.06	7.18	7.31	7.46	7.64
Fraser_R	103782	10.45	10.47	10.51	10.56	10.61	11.77	11.79	11.84	11.87	11.88	13.20	13.31	13.43	13.47	13.50	7.12	7.24	7.37	7.51	7.69
Fraser_R	104233	10.53	10.55	10.59	10.64	10.69	11.85	11.87	11.92	11.94	11.96	13.28	13.39	13.50	13.55	13.58	7.19	7.30	7.43	7.57	7.74
Fraser_R	104653	10.58	10.60	10.64	10.68	10.73	11.89	11.91	11.96	11.98	12.00	13.32	13.42	13.54	13.58	13.61	7.25	7.36	7.48	7.62	7.79
Fraser_R	105033	10.60	10.62	10.66	10.71	10.75	11.90	11.93	11.98	12.00	12.02	13.33	13.43	13.54	13.59	13.62	7.29	7.40	7.52	7.65	7.82
Fraser_R	105317	10.61	10.63	10.67	10.71	10.76	11.91	11.94	11.99	12.01	12.02	13.34	13.44	13.55	13.60	13.62	7.30	7.41	7.53	7.66	7.83
Fraser_R	105752	10.65	10.67	10.70	10.75	10.80	11.94	11.97	12.02	12.04	12.06	13.36	13.47	13.58	13.62	13.65	7.35	7.46	7.57	7.70	7.86
Fraser_R	106155	10.68	10.69	10.73	10.78	10.82	11.97	11.99	12.04	12.06	12.08	13.38	13.48	13.60	13.64	13.67	7.40	7.50	7.61	7.74	7.90
Fraser_R	106506	10.70	10.72	10.75	10.80	10.84	11.99	12.01	12.06	12.08	12.10	13.40	13.50	13.61	13.65	13.68	7.43	7.53	7.64	7.76	7.92
Fraser_R	106807	10.71	10.72	10.76	10.80	10.85	11.99	12.01	12.06	12.08	12.10	13.40	13.49	13.61	13.65	13.68	7.46	7.56	7.66	7.79	7.94
Fraser_R	106807	10.71	10.72	10.76	10.80	10.85	11.99	12.01	12.06	12.08	12.10	13.40	13.49	13.61	13.65	13.68	7.46	7.56	7.66	7.79	7.94
Fraser_R	107158	10.63	10.65	10.69	10.73	10.78	11.91	11.93	11.98	12.00	12.02	13.30	13.40	13.52	13.56	13.59	7.42	7.52	7.63	7.75	7.90
Fraser_R	107502	10.66	10.68	10.72	10.76	10.81	11.92	11.95	12.00	12.02	12.03	13.31	13.41	13.52	13.57	13.60	7.51	7.60	7.70	7.81	7.96
Fraser_R	107855	10.73	10.75	10.79	10.83	10.87	11.99	12.01	12.06	12.08	12.10	13.39	13.49	13.60	13.64	13.67	7.59	7.68	7.78	7.89	8.03

Freshet Historical 1:500							Freshet Scenario-A (Moderate) 1:500					Freshet Scenario-B (Intense) 1:500					Winter 1:500				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	108192	10.77	10.78	10.82	10.86	10.90	12.01	12.03	12.08	12.10	12.11	13.38	13.47	13.59	13.63	13.65	7.67	7.75	7.85	7.95	8.09
Fraser_R	108505	10.89	10.91	10.94	10.98	11.02	12.13	12.15	12.20	12.22	12.23	13.51	13.60	13.71	13.75	13.78	7.78	7.86	7.94	8.04	8.18
Fraser_R	108822	11.00	11.02	11.05	11.09	11.13	12.23	12.25	12.30	12.31	12.33	13.60	13.69	13.80	13.84	13.86	7.92	7.99	8.07	8.16	8.28
Fraser_R	109145	11.05	11.07	11.10	11.13	11.17	12.27	12.29	12.33	12.35	12.37	13.63	13.72	13.83	13.87	13.89	8.02	8.09	8.16	8.25	8.36
Fraser_R	109489	11.11	11.12	11.15	11.19	11.23	12.34	12.36	12.40	12.42	12.43	13.71	13.80	13.91	13.94	13.97	8.09	8.15	8.22	8.30	8.41
Fraser_R	109795	11.17	11.18	11.21	11.25	11.28	12.38	12.40	12.44	12.46	12.48	13.74	13.83	13.93	13.97	13.99	8.14	8.19	8.26	8.34	8.44
Fraser_R	109795	11.17	11.18	11.21	11.25	11.28	12.38	12.40	12.44	12.46	12.48	13.74	13.83	13.93	13.97	13.99	8.14	8.19	8.26	8.34	8.44
Fraser_R	110180	11.22	11.24	11.27	11.30	11.34	12.39	12.41	12.45	12.47	12.48	13.72	13.80	13.91	13.94	13.97	8.27	8.33	8.39	8.46	8.56
Fraser_R	110180	11.22	11.24	11.27	11.30	11.34	12.39	12.41	12.45	12.47	12.48	13.72	13.80	13.91	13.94	13.97	8.27	8.33	8.39	8.46	8.56
Fraser_R	110821	11.37	11.38	11.41	11.44	11.47	12.47	12.49	12.53	12.55	12.56	13.77	13.85	13.95	13.99	14.01	8.53	8.58	8.63	8.69	8.78
Fraser_R	110821	11.37	11.38	11.41	11.44	11.47	12.47	12.49	12.53	12.55	12.56	13.77	13.85	13.95	13.99	14.01	8.53	8.58	8.63	8.69	8.78
Fraser_R	111192	11.35	11.37	11.39	11.42	11.45	12.44	12.46	12.50	12.51	12.53	13.71	13.80	13.89	13.93	13.96	8.61	8.66	8.71	8.76	8.84
Fraser_R	111192	11.35	11.37	11.39	11.42	11.45	12.44	12.46	12.50	12.51	12.53	13.71	13.80	13.89	13.93	13.96	8.61	8.66	8.71	8.76	8.84
Fraser_R	111514	11.37	11.38	11.41	11.44	11.47	12.46	12.48	12.52	12.54	12.55	13.74	13.82	13.92	13.96	13.98	8.63	8.67	8.72	8.78	8.86
Fraser_R	111886	11.54	11.55	11.57	11.60	11.63	12.61	12.63	12.67	12.68	12.69	13.88	13.96	14.05	14.09	14.11	8.75	8.79	8.84	8.89	8.97
Fraser_R	112217	11.67	11.68	11.70	11.73	11.75	12.73	12.75	12.78	12.79	12.81	13.98	14.06	14.15	14.18	14.21	8.88	8.91	8.96	9.01	9.08
Fraser_R	112217	11.67	11.68	11.70	11.73	11.75	12.73	12.75	12.78	12.79	12.81	13.98	14.06	14.15	14.18	14.21	8.88	8.91	8.96	9.01	9.08
Fraser_R	112565	11.73	11.74	11.76	11.79	11.82	12.79	12.81	12.84	12.86	12.87	14.04	14.12	14.21	14.24	14.27	8.94	8.98	9.02	9.07	9.14
Fraser_R	112565	11.73	11.74	11.76	11.79	11.82	12.79	12.81	12.84	12.86	12.87	14.04	14.12	14.21	14.24	14.27	8.94	8.98	9.02	9.07	9.14
Fraser_R	112925	11.76	11.77	11.79	11.82	11.84	12.81	12.83	12.86	12.87	12.89	14.06	14.13	14.22	14.25	14.28	8.98	9.01	9.05	9.10	9.17
Fraser_R	112925	11.76	11.77	11.79	11.82	11.84	12.81	12.83	12.86	12.87	12.89	14.06	14.13	14.22	14.25	14.28	8.98	9.01	9.05	9.10	9.17
Fraser_R	113344	11.78	11.79	11.81	11.83	11.86	12.82	12.84	12.87	12.88	12.89	14.06	14.13	14.22	14.26	14.28	9.05	9.08	9.12	9.17	9.23
Fraser_R	113644	11.81	11.82	11.84	11.87	11.89	12.85	12.86	12.89	12.91	12.92	14.07	14.15	14.24	14.27	14.29	9.15	9.18	9.22	9.26	9.32
Fraser_R	114093	11.96	11.97	11.98	12.01	12.03	12.94	12.95	12.98	13.00	13.01	14.13	14.20	14.29	14.32	14.34	9.41	9.43	9.46	9.50	9.55
Fraser_R	114093	11.96	11.97	11.98	12.01	12.03	12.94	12.95	12.98	13.00	13.01	14.13	14.20	14.29	14.32	14.34	9.41	9.43	9.46	9.50	9.55
Fraser_R	114403	11.97	11.98	11.99	12.01	12.03	12.91	12.93	12.95	12.97	12.98	14.07	14.14	14.22	14.25	14.28	9.49	9.52	9.55	9.58	9.62
Fraser_R	114731	12.25	12.25	12.27	12.29	12.31	13.19	13.21	13.23	13.24	13.25	14.34	14.41	14.49	14.51	14.53	9.69	9.71	9.74	9.77	9.81
Fraser_R	115152	12.38	12.39	12.40	12.42	12.44	13.33	13.34	13.36	13.37	13.38	14.47	14.53	14.61	14.63	14.65	9.79	9.81	9.83	9.86	9.90
Fraser_R	115530	12.47	12.48	12.49	12.51	12.53	13.41	13.42	13.45	13.46	13.47	14.55	14.61	14.68	14.71	14.73	9.87	9.89	9.92	9.95	9.98
Fraser_R	115921	12.57	12.58	12.59	12.61	12.63	13.52	13.53	13.56	13.57	13.58	14.66	14.72	14.79	14.82	14.84	9.95	9.97	9.99	10.02	10.05
Fraser_R	116277	12.59	12.60	12.61	12.63	12.65	13.50	13.51	13.54	13.55	13.55	14.60	14.66	14.73	14.76	14.78	10.07	10.09	10.11	10.14	10.17
Fraser_R	116526	12.67	12.68	12.69	12.71	12.72	13.58	13.59	13.61	13.62	13.63	14.68	14.74	14.80	14.83	14.85	10.14	10.15	10.17	10.20	10.23
Fraser_R	116822	13.14	13.14	13.15	13.17	13.18	14.08	14.08	14.10	14.11	14.12	15.19	15.24	15.30	15.33	15.34	10.43	10.44	10.46	10.48	10.51
Fraser_R	117205	13.40	13.40	13.41	13.43	13.44	14.34	14.35	14.36	14.37	14.38	15.45	15.49	15.55	15.57	15.59	10.63	10.64	10.66	10.68	10.71
Fraser_R	117465	13.43	13.44	13.45	13.46	13.47	14.37	14.38	14.39	14.40	14.41	15.48	15.52	15.58	15.60	15.61	10.66	10.67	10.69	10.71	10.74
Fraser_R	117465	13.43	13.44	13.45	13.46	13.47	14.37	14.38	14.39	14.40	14.41	15.48	15.52	15.58	15.60	15.61	10.66	10.67	10.69	10.71	10.74
Fraser_R	117693	13.39	13.40	13.41	13.42	13.43	14.33	14.34	14.36	14.36	14.37	15.44	15.49	15.54	15.56	15.58	10.65	10.66	10.68	10.70	10.73
Fraser_R	117965	13.41	13.41	13.42	13.44	13.45	14.34	14.34	14.36	14.37	14.37	15.43	15.48	15.54	15.56	15.57	10.68	10.69	10.71	10.73	10.75
Fraser_R	118227	13.38	13.38	13.39	13.40	13.42	14.30	14.30	14.32	14.33	14.34	15.40	15.44	15.50	15.52	15.54	10.69	10.71	10.72	10.74	10.77



Freshet Historical 1:500							Freshet Scenario-A (Moderate) 1:500					Freshet Scenario-B (Intense) 1:500					Winter 1:500				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	118629	13.55	13.56	13.57	13.58	13.59	14.44	14.44	14.46	14.47	14.47	15.49	15.54	15.59	15.61	15.62	10.81	10.82	10.84	10.85	10.88
Fraser_R	119023	13.81	13.81	13.82	13.83	13.84	14.67	14.68	14.69	14.69	14.70	15.70	15.74	15.79	15.81	15.82	10.98	11.00	11.01	11.02	11.04
Fraser_R	119296	13.82	13.82	13.83	13.84	13.85	14.68	14.68	14.70	14.70	14.71	15.70	15.74	15.79	15.81	15.82	10.99	11.00	11.02	11.03	11.05
Fraser_R	119296	13.82	13.82	13.83	13.84	13.85	14.68	14.68	14.70	14.70	14.71	15.70	15.74	15.79	15.81	15.82	10.99	11.00	11.02	11.03	11.05
Fraser_R	119760	14.11	14.12	14.12	14.13	14.14	14.99	14.99	15.00	15.01	15.01	16.02	16.06	16.10	16.12	16.13	11.17	11.18	11.19	11.20	11.22
Fraser_R	120109	14.15	14.15	14.16	14.17	14.18	14.99	14.99	15.01	15.01	15.01	15.99	16.02	16.07	16.08	16.09	11.24	11.25	11.26	11.28	11.29
Fraser_R	120552	14.37	14.37	14.38	14.39	14.40	15.22	15.22	15.23	15.24	15.24	16.21	16.24	16.28	16.30	16.31	11.40	11.41	11.42	11.43	11.44
Fraser_R	120979	14.55	14.55	14.56	14.57	14.57	15.40	15.40	15.41	15.41	15.42	16.38	16.41	16.45	16.46	16.47	11.56	11.57	11.58	11.59	11.60
Fraser_R	121391	14.74	14.74	14.75	14.76	14.76	15.61	15.61	15.62	15.62	15.63	16.61	16.64	16.67	16.68	16.69	11.65	11.66	11.67	11.68	11.69
Fraser_R	121770	14.85	14.85	14.86	14.87	14.87	15.72	15.72	15.73	15.73	15.74	16.73	16.75	16.78	16.80	16.80	11.76	11.76	11.77	11.78	11.79
Fraser_R	121960	14.91	14.92	14.92	14.93	14.93	15.78	15.78	15.79	15.79	15.79	16.77	16.79	16.82	16.84	16.84	11.82	11.83	11.84	11.85	11.86
Fraser_R	121960	14.91	14.92	14.92	14.93	14.93	15.78	15.78	15.79	15.79	15.79	16.77	16.79	16.82	16.84	16.84	11.82	11.83	11.84	11.85	11.86
Fraser_R	122189	14.98	14.98	14.98	14.99	14.99	15.83	15.83	15.84	15.84	15.84	16.80	16.82	16.85	16.86	16.87	11.90	11.91	11.91	11.92	11.93
Fraser_R	122649	15.19	15.19	15.19	15.20	15.20	16.04	16.04	16.05	16.05	16.06	17.00	17.03	17.05	17.07	17.07	12.09	12.10	12.10	12.11	12.12
Fraser_R	123115	15.31	15.31	15.31	15.32	15.32	16.16	16.16	16.17	16.17	16.17	17.12	17.14	17.17	17.18	17.18	12.21	12.22	12.23	12.23	12.24
Fraser_R	123115	15.31	15.31	15.31	15.32	15.32	16.16	16.16	16.17	16.17	16.17	17.12	17.14	17.17	17.18	17.18	12.21	12.22	12.23	12.23	12.24
Fraser_R	123582	15.36	15.36	15.37	15.37	15.38	16.21	16.21	16.22	16.22	16.22	17.17	17.19	17.22	17.23	17.23	12.33	12.33	12.34	12.34	12.35
Fraser_R	123950	15.39	15.39	15.39	15.40	15.40	16.22	16.22	16.23	16.23	16.23	17.16	17.18	17.21	17.22	17.22	12.51	12.52	12.52	12.53	12.53
Fraser_R	124343	15.62	15.62	15.62	15.63	15.63	16.44	16.44	16.45	16.45	16.45	17.37	17.39	17.41	17.42	17.42	12.78	12.78	12.78	12.79	12.79
Fraser_R	124343	15.62	15.62	15.62	15.63	15.63	16.44	16.44	16.45	16.45	16.45	17.37	17.39	17.41	17.42	17.42	12.78	12.78	12.78	12.79	12.79
Fraser_R	124720	15.69	15.69	15.69	15.70	15.70	16.49	16.49	16.50	16.50	16.50	17.40	17.42	17.45	17.45	17.46	12.94	12.94	12.94	12.94	12.95
Fraser_R	125093	15.68	15.69	15.69	15.69	15.70	16.45	16.45	16.45	16.46	16.46	17.33	17.35	17.37	17.38	17.38	13.10	13.11	13.11	13.11	13.11
Fraser_R	125436	16.02	16.03	16.03	16.03	16.03	16.78	16.78	16.79	16.79	16.79	17.66	17.67	17.69	17.70	17.71	13.40	13.41	13.41	13.41	13.41
Fraser_R	125807	16.13	16.13	16.13	16.13	16.14	16.88	16.89	16.89	16.89	16.89	17.76	17.78	17.79	17.80	17.81	13.53	13.53	13.53	13.53	13.54
Fraser_R	125807	16.13	16.13	16.13	16.13	16.14	16.88	16.89	16.89	16.89	16.89	17.76	17.78	17.79	17.80	17.81	13.53	13.53	13.53	13.53	13.54
Fraser_R	126146	16.22	16.22	16.23	16.23	16.23	16.97	16.97	16.97	16.97	16.97	17.82	17.84	17.86	17.86	17.87	13.68	13.69	13.69	13.69	13.69
Fraser_R	126146	16.22	16.22	16.23	16.23	16.23	16.97	16.97	16.97	16.97	16.97	17.82	17.84	17.86	17.86	17.87	13.68	13.69	13.69	13.69	13.69
Fraser_R	126471	16.17	16.17	16.17	16.18	16.18	16.90	16.90	16.90	16.90	16.91	17.74	17.76	17.78	17.78	17.79	13.67	13.68	13.68	13.68	13.68
Fraser_R	126811	16.22	16.22	16.22	16.22	16.22	16.91	16.91	16.92	16.92	16.92	17.73	17.74	17.76	17.77	17.77	13.87	13.87	13.87	13.88	13.88
Fraser_R	126811	16.22	16.22	16.22	16.22	16.22	16.91	16.91	16.92	16.92	16.92	17.73	17.74	17.76	17.77	17.77	13.87	13.87	13.87	13.88	13.88
Fraser_R	127331	16.51	16.51	16.52	16.52	16.52	17.17	17.17	17.17	17.18	17.18	17.92	17.93	17.95	17.95	17.96	14.18	14.18	14.18	14.18	14.18
Fraser_R	127331	16.51	16.51	16.52	16.52	16.52	17.17	17.17	17.17	17.18	17.18	17.92	17.93	17.95	17.95	17.96	14.18	14.18	14.18	14.18	14.18
Fraser_R	127666	16.69	16.69	16.69	16.70	16.70	17.36	17.36	17.36	17.36	17.36	18.10	18.11	18.13	18.13	18.14	14.29	14.29	14.29	14.29	14.29
Fraser_R	128018	17.10	17.10	17.10	17.11	17.11	17.85	17.86	17.86	17.86	17.86	18.68	18.69	18.70	18.70	18.71	14.43	14.43	14.43	14.43	14.43
Fraser_R	128434	17.35	17.35	17.36	17.36	17.36	18.13	18.13	18.13	18.13	18.13	18.97	18.98	18.99	18.99	19.00	14.58	14.58	14.58	14.59	14.59
Fraser_R	128434	17.35	17.35	17.36	17.36	17.36	18.13	18.13	18.13	18.13	18.13	18.97	18.98	18.99	18.99	19.00	14.58	14.58	14.58	14.59	14.59
Fraser_R	128804	17.61	17.61	17.61	17.61	17.62	18.38	18.38	18.38	18.38	18.38	19.20	19.21	19.22	19.22	19.23	14.79	14.79	14.79	14.79	14.79
Fraser_R	129148	17.81	17.81	17.81	17.81	17.82	18.55	18.55	18.55	18.55	18.55	19.33	19.33	19.34	19.35	19.35	15.00	15.00	15.00	15.00	15.00
Fraser_R	129526	18.07	18.07	18.07	18.07	18.07	18.82	18.82	18.82	18.82	18.82	19.62	19.62	19.63	19.63	19.63	15.17	15.17	15.17	15.17	15.17

Freshet Historical 1:500							Freshet Scenario-A (Moderate) 1:500					Freshet Scenario-B (Intense) 1:500					Winter 1:500				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	129526	18.07	18.07	18.07	18.07	18.07	18.82	18.82	18.82	18.82	18.82	19.62	19.62	19.63	19.63	19.63	15.17	15.17	15.17	15.17	15.17
Fraser_R	129916	18.04	18.04	18.05	18.05	18.05	18.76	18.76	18.76	18.77	18.77	19.54	19.55	19.55	19.56	19.56	15.35	15.35	15.35	15.35	15.35
Fraser_R	129916	18.04	18.04	18.05	18.05	18.05	18.76	18.76	18.76	18.77	18.77	19.54	19.55	19.55	19.56	19.56	15.35	15.35	15.35	15.35	15.35
Fraser_R	130256	18.11	18.11	18.11	18.11	18.11	18.81	18.81	18.81	18.81	18.81	19.56	19.56	19.57	19.57	19.58	15.52	15.52	15.52	15.52	15.52
Fraser_R	130472	18.28	18.28	18.28	18.28	18.28	18.98	18.98	18.98	18.98	18.98	19.71	19.72	19.72	19.73	19.73	15.63	15.63	15.63	15.63	15.63
Fraser_R	130624	18.42	18.42	18.42	18.42	18.42	19.08	19.08	19.08	19.08	19.08	19.82	19.83	19.83	19.84	19.84	15.76	15.76	15.76	15.76	15.76
Fraser_R	130827	18.55	18.55	18.55	18.55	18.55	19.22	19.22	19.22	19.22	19.22	19.98	19.99	20.00	20.00	20.00	15.83	15.83	15.83	15.83	15.83
Fraser_R	131166	18.71	18.71	18.71	18.71	18.71	19.39	19.39	19.39	19.39	19.39	20.16	20.17	20.18	20.18	20.18	15.94	15.94	15.94	15.94	15.94
Fraser_R	131597	18.95	18.95	18.95	18.95	18.95	19.64	19.64	19.64	19.64	19.64	20.44	20.45	20.45	20.45	20.46	16.09	16.09	16.09	16.09	16.09
Fraser_R	131858	18.98	18.98	18.98	18.98	18.98	19.65	19.65	19.65	19.65	19.65	20.44	20.44	20.45	20.45	20.45	16.19	16.19	16.19	16.19	16.19
Fraser_R	131858	18.98	18.98	18.98	18.98	18.98	19.65	19.65	19.65	19.65	19.65	20.44	20.44	20.45	20.45	20.45	16.19	16.19	16.19	16.19	16.19
Fraser_R	132206	19.34	19.34	19.34	19.34	19.34	20.04	20.04	20.04	20.04	20.04	20.85	20.86	20.86	20.86	20.87	16.37	16.37	16.37	16.37	16.37
Fraser_R	132206	19.34	19.34	19.34	19.34	19.34	20.04	20.04	20.04	20.04	20.04	20.85	20.86	20.86	20.86	20.87	16.37	16.37	16.37	16.37	16.37
Fraser_R	132561	19.34	19.34	19.34	19.34	19.34	20.05	20.05	20.05	20.05	20.05	20.86	20.86	20.87	20.87	20.87	16.33	16.33	16.33	16.33	16.33
Fraser_R	132561	19.34	19.34	19.34	19.34	19.34	20.05	20.05	20.05	20.05	20.05	20.86	20.86	20.87	20.87	20.87	16.33	16.33	16.33	16.33	16.33
Fraser_R	132862	19.39	19.39	19.39	19.39	19.39	20.10	20.10	20.10	20.10	20.10	20.93	20.93	20.94	20.94	20.94	16.41	16.41	16.41	16.41	16.41
Fraser_R	133192	19.43	19.43	19.43	19.43	19.43	20.14	20.14	20.14	20.14	20.14	20.93	20.94	20.94	20.94	20.94	16.48	16.48	16.48	16.48	16.48
Fraser_R	133558	19.56	19.56	19.56	19.56	19.56	20.24	20.24	20.24	20.24	20.24	21.00	21.01	21.01	21.01	21.02	16.62	16.62	16.62	16.62	16.62
Fraser_R	133899	19.83	19.83	19.83	19.83	19.83	20.53	20.53	20.53	20.53	20.53	21.29	21.29	21.30	21.30	21.30	16.85	16.85	16.85	16.85	16.85
Fraser_R	134143	19.98	19.98	19.98	19.98	19.98	20.70	20.70	20.70	20.70	20.71	21.49	21.49	21.50	21.50	21.50	16.97	16.97	16.97	16.97	16.97
Fraser_R	134143	19.98	19.98	19.98	19.98	19.98	20.70	20.70	20.70	20.70	20.71	21.49	21.49	21.50	21.50	21.50	16.97	16.97	16.97	16.97	16.97
Fraser_R	134975	20.04	20.04	20.04	20.04	20.04	20.77	20.77	20.77	20.77	20.77	21.55	21.56	21.56	21.56	21.56	17.08	17.08	17.08	17.08	17.08
Fraser_R	134975	20.04	20.04	20.04	20.04	20.04	20.77	20.77	20.77	20.77	20.77	21.55	21.56	21.56	21.56	21.56	17.08	17.08	17.08	17.08	17.08
Fraser_R	135327	20.11	20.11	20.11	20.11	20.11	20.83	20.83	20.83	20.83	20.84	21.61	21.62	21.62	21.62	21.62	17.32	17.32	17.32	17.32	17.32
Fraser_R	135630	20.19	20.19	20.19	20.19	20.19	20.90	20.90	20.90	20.90	20.90	21.66	21.67	21.67	21.67	21.67	17.54	17.54	17.54	17.54	17.54
Fraser_R	135982	20.33	20.33	20.33	20.33	20.33	21.04	21.04	21.04	21.04	21.04	21.80	21.80	21.81	21.81	21.81	17.79	17.79	17.79	17.79	17.79
Fraser_R	136497	20.45	20.45	20.45	20.45	20.45	21.14	21.14	21.14	21.14	21.14	21.88	21.88	21.89	21.89	21.89	18.04	18.04	18.04	18.04	18.04
Fraser_R	136921	20.59	20.59	20.59	20.59	20.59	21.26	21.26	21.26	21.26	21.26	21.98	21.98	21.98	21.99	21.99	18.29	18.29	18.29	18.29	18.29
Fraser_R	137374	20.82	20.82	20.82	20.82	20.82	21.45	21.45	21.45	21.45	21.45	22.14	22.14	22.14	22.14	22.15	18.58	18.58	18.58	18.58	18.58
Fraser_R	137870	21.18	21.18	21.18	21.18	21.18	21.73	21.73	21.73	21.73	21.73	22.36	22.36	22.36	22.37	22.37	18.95	18.95	18.95	18.95	18.95
Fraser_R	138445	21.47	21.47	21.47	21.48	21.48	21.97	21.97	21.97	21.97	21.97	22.58	22.58	22.58	22.58	22.58	19.31	19.31	19.31	19.31	19.31
Fraser_R	138445	21.47	21.47	21.47	21.48	21.48	21.97	21.97	21.97	21.97	21.97	22.58	22.58	22.58	22.58	22.58	19.31	19.31	19.31	19.31	19.31
Fraser_R	138766	21.63	21.63	21.63	21.63	21.63	22.19	22.19	22.19	22.19	22.19	22.76	22.76	22.77	22.77	22.77	19.38	19.38	19.38	19.38	19.38
Fraser_R	139142	21.79	21.79	21.79	21.79	21.79	22.33	22.33	22.33	22.33	22.33	22.86	22.86	22.86	22.86	22.86	19.44	19.44	19.44	19.44	19.44
Fraser_R	139526	22.11	22.11	22.11	22.11	22.11	22.62	22.62	22.62	22.62	22.62	23.09	23.09	23.10	23.10	23.10	19.65	19.65	19.65	19.65	19.65
Fraser_R	139912	22.20	22.20	22.20	22.20	22.20	22.67	22.67	22.67	22.67	22.67	23.14	23.14	23.15	23.15	23.15	19.73	19.73	19.73	19.73	19.73
Fraser_R	140292	22.46	22.46	22.46	22.46	22.46	22.94	22.94	22.94	22.94	22.94	23.36	23.36	23.36	23.36	23.36	19.91	19.91	19.91	19.91	19.91
Fraser_R	140292	22.46	22.46	22.46	22.46	22.46	22.94	22.94	22.94	22.94	22.94	23.36	23.36	23.36	23.36	23.36	19.91	19.91	19.91	19.91	19.91
Fraser_R	140845	22.47	22.47	22.47	22.47	22.47	22.93	22.93	22.93	22.93	22.93	23.33	23.33	23.33	23.33	23.33	20.05	20.05	20.05	20.05	20.05

Freshet Historical 1:500							Freshet Scenario-A (Moderate) 1:500					Freshet Scenario-B (Intense) 1:500					Winter 1:500				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	140845	22.47	22.47	22.47	22.47	22.47	22.93	22.93	22.93	22.93	22.93	23.33	23.33	23.33	23.33	23.33	20.05	20.05	20.05	20.05	20.05
Fraser_R	141065	22.53	22.53	22.53	22.53	22.53	22.98	22.98	22.98	22.98	22.98	23.37	23.37	23.37	23.37	23.37	20.23	20.23	20.23	20.23	20.23
Fraser_R	141439	22.95	22.95	22.95	22.95	22.95	23.44	23.44	23.44	23.44	23.44	23.86	23.86	23.86	23.86	23.86	20.64	20.64	20.64	20.64	20.64
Fraser_R	141833	23.37	23.37	23.37	23.37	23.37	23.95	23.95	23.95	23.95	23.95	24.45	24.45	24.45	24.45	24.45	20.90	20.90	20.90	20.90	20.90
Fraser_R	142241	23.62	23.62	23.62	23.62	23.62	24.12	24.12	24.12	24.12	24.12	24.56	24.56	24.56	24.56	24.56	21.14	21.14	21.14	21.14	21.14
Fraser_R	142576	24.14	24.14	24.14	24.14	24.14	24.70	24.70	24.70	24.70	24.70	25.19	25.19	25.19	25.19	25.19	21.50	21.50	21.50	21.50	21.50
Fraser_R	142948	24.28	24.28	24.28	24.28	24.28	24.83	24.83	24.83	24.83	24.83	25.33	25.33	25.33	25.33	25.33	21.73	21.73	21.73	21.73	21.73
Fraser_R	143365	24.46	24.46	24.46	24.46	24.46	24.99	24.99	24.99	24.99	24.99	25.47	25.47	25.47	25.47	25.47	22.06	22.06	22.06	22.06	22.06
Fraser_R	143763	24.92	24.92	24.92	24.92	24.92	25.52	25.52	25.52	25.52	25.52	26.05	26.05	26.05	26.05	26.05	22.36	22.36	22.36	22.36	22.36
Fraser_R	143763	24.92	24.92	24.92	24.92	24.92	25.52	25.52	25.52	25.52	25.52	26.05	26.05	26.05	26.05	26.05	22.36	22.36	22.36	22.36	22.36
Fraser_R	144102	25.07	25.07	25.07	25.07	25.07	25.67	25.67	25.67	25.67	25.67	26.21	26.21	26.21	26.21	26.21	22.50	22.50	22.50	22.50	22.50
Fraser_R	144434	25.15	25.15	25.15	25.15	25.15	25.76	25.76	25.76	25.76	25.76	26.32	26.32	26.32	26.32	26.32	22.53	22.53	22.53	22.53	22.53
Fraser_R	144910	25.63	25.63	25.63	25.63	25.63	26.30	26.30	26.30	26.30	26.30	26.95	26.95	26.95	26.95	26.95	22.83	22.83	22.83	22.83	22.83
Fraser_R	145425	25.92	25.92	25.92	25.92	25.92	26.60	26.60	26.60	26.60	26.60	27.27	27.27	27.27	27.27	27.27	23.12	23.12	23.12	23.12	23.12
Fraser_R	145819	26.06	26.06	26.06	26.06	26.06	26.75	26.75	26.75	26.75	26.75	27.43	27.43	27.43	27.43	27.43	23.32	23.32	23.32	23.32	23.32
Fraser_R	146215	26.28	26.28	26.28	26.28	26.28	26.97	26.97	26.97	26.97	26.97	27.66	27.66	27.66	27.66	27.66	23.56	23.56	23.56	23.56	23.56
Fraser_R	146617	26.67	26.67	26.67	26.67	26.67	27.38	27.38	27.38	27.38	27.38	28.09	28.09	28.09	28.09	28.09	23.81	23.81	23.81	23.81	23.81
Fraser_R	146617	26.67	26.67	26.67	26.67	26.67	27.38	27.38	27.38	27.38	27.38	28.09	28.09	28.09	28.09	28.09	23.81	23.81	23.81	23.81	23.81
Fraser_R	147036	26.51	26.51	26.51	26.51	26.51	27.16	27.16	27.16	27.16	27.16	27.81	27.81	27.81	27.81	27.81	23.88	23.88	23.88	23.88	23.88
Fraser_R	147492	26.82	26.82	26.82	26.82	26.82	27.55	27.55	27.55	27.55	27.55	28.28	28.28	28.28	28.28	28.28	24.03	24.03	24.03	24.03	24.03
Fraser_R	147951	27.41	27.41	27.41	27.41	27.41	28.21	28.21	28.21	28.21	28.21	29.02	29.02	29.02	29.02	29.02	24.29	24.29	24.29	24.29	24.29
Fraser_R	148211	27.77	27.77	27.77	27.77	27.77	28.58	28.58	28.58	28.58	28.58	29.42	29.42	29.42	29.42	29.42	24.55	24.55	24.55	24.55	24.55
Fraser_R	148211	27.77	27.77	27.77	27.77	27.77	28.58	28.58	28.58	28.58	28.58	29.42	29.42	29.42	29.42	29.42	24.55	24.55	24.55	24.55	24.55
Fraser_R	148587	27.76	27.76	27.76	27.76	27.76	28.57	28.57	28.57	28.57	28.57	29.41	29.41	29.41	29.41	29.41	24.61	24.61	24.61	24.61	24.61
Fraser_R	148922	27.88	27.88	27.88	27.88	27.88	28.68	28.68	28.68	28.68	28.68	29.51	29.51	29.51	29.51	29.51	24.86	24.86	24.86	24.86	24.86
Fraser_R	149536	27.91	27.91	27.91	27.91	27.91	28.66	28.66	28.66	28.66	28.66	29.45	29.45	29.45	29.45	29.45	25.20	25.20	25.20	25.20	25.20
Fraser_R	149536	27.91	27.91	27.91	27.91	27.91	28.66	28.66	28.66	28.66	28.66	29.45	29.45	29.45	29.45	29.45	25.20	25.20	25.20	25.20	25.20
Fraser_R	149848	28.17	28.17	28.17	28.17	28.17	28.92	28.92	28.92	28.92	28.92	29.70	29.70	29.70	29.70	29.70	25.41	25.41	25.41	25.41	25.41
Fraser_R	150218	28.77	28.77	28.77	28.77	28.77	29.59	29.59	29.59	29.59	29.59	30.46	30.46	30.46	30.46	30.46	25.78	25.78	25.78	25.78	25.78
Fraser_R	150423	28.83	28.83	28.83	28.83	28.83	29.66	29.66	29.66	29.66	29.66	30.53	30.53	30.53	30.53	30.53	25.89	25.89	25.89	25.89	25.89
Fraser_R	150423	28.83	28.83	28.83	28.83	28.83	29.66	29.66	29.66	29.66	29.66	30.53	30.53	30.53	30.53	30.53	25.89	25.89	25.89	25.89	25.89
Fraser_R	150642	28.94	28.94	28.94	28.94	28.94	29.78	29.78	29.78	29.78	29.78	30.65	30.65	30.65	30.65	30.65	26.06	26.06	26.06	26.06	26.06
Fraser_R	151064	29.27	29.27	29.27	29.27	29.27	30.06	30.06	30.06	30.06	30.06	30.89	30.89	30.89	30.89	30.89	26.39	26.39	26.39	26.39	26.39
Fraser_R	151456	29.73	29.73	29.73	29.73	29.73	30.52	30.52	30.52	30.52	30.52	31.33	31.33	31.33	31.33	31.33	26.77	26.77	26.77	26.77	26.77
Fraser_R	151456	29.73	29.73	29.73	29.73	29.73	30.52	30.52	30.52	30.52	30.52	31.33	31.33	31.33	31.33	31.33	26.77	26.77	26.77	26.77	26.77
Fraser_R	151864	30.00	30.00	30.00	30.00	30.00	30.78	30.78	30.78	30.78	30.78	31.59	31.59	31.59	31.59	31.59	27.04	27.04	27.04	27.04	27.04
Fraser_R	152256	30.26	30.26	30.26	30.26	30.26	31.03	31.03	31.03	31.03	31.03	31.82	31.82	31.82	31.82	31.82	27.29	27.29	27.29	27.29	27.29
Fraser_R	152613	30.66	30.66	30.66	30.66	30.66	31.53	31.53	31.53	31.53	31.53	32.41	32.41	32.41	32.41	32.41	27.50	27.50	27.50	27.50	27.50
Fraser_R	153007	30.83	30.83	30.83	30.83	30.83	31.53	31.53	31.53	31.53	31.53	32.35	32.35	32.35	32.35	32.35	27.76	27.76	27.76	27.76	27.76

Freshet Historical 1:500							Freshet Scenario-A (Moderate) 1:500					Freshet Scenario-B (Intense) 1:500					Winter 1:500				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	153372	31.07	31.07	31.07	31.07	31.07	31.77	31.77	31.77	31.77	31.77	32.42	32.42	32.42	32.42	32.42	27.96	27.96	27.96	27.96	27.96
Fraser_R	153743	31.52	31.52	31.52	31.52	31.52	32.35	32.35	32.35	32.35	32.35	33.14	33.14	33.14	33.14	33.14	28.11	28.11	28.11	28.11	28.11
Fraser_R	154103	31.67	31.67	31.67	31.67	31.67	32.44	32.44	32.44	32.44	32.44	33.22	33.22	33.22	33.22	33.22	28.29	28.29	28.29	28.29	28.29
Fraser_R	154483	32.07	32.07	32.07	32.07	32.07	32.83	32.83	32.83	32.83	32.83	33.53	33.53	33.53	33.53	33.53	28.55	28.55	28.55	28.55	28.55
Fraser_R	154868	32.23	32.23	32.23	32.23	32.23	33.00	33.00	33.00	33.00	33.00	33.71	33.71	33.71	33.71	33.71	28.67	28.67	28.67	28.67	28.67
Fraser_R	155277	32.39	32.39	32.39	32.39	32.39	33.17	33.17	33.17	33.17	33.17	33.90	33.90	33.90	33.90	33.90	28.80	28.80	28.80	28.80	28.80
Fraser_R	155664	32.37	32.37	32.37	32.37	32.37	33.10	33.10	33.10	33.10	33.10	33.78	33.78	33.78	33.78	33.78	28.92	28.92	28.92	28.92	28.92
Fraser_R	156030	32.40	32.40	32.40	32.40	32.40	33.09	33.09	33.09	33.09	33.09	33.72	33.72	33.72	33.72	33.72	28.97	28.97	28.97	28.97	28.97
Fraser_R	156387	32.66	32.66	32.66	32.66	32.66	33.43	33.43	33.43	33.43	33.43	34.16	34.16	34.16	34.16	34.16	29.03	29.03	29.03	29.03	29.03
Fraser_R	156778	32.86	32.86	32.86	32.86	32.86	33.64	33.64	33.64	33.64	33.64	34.39	34.39	34.39	34.39	34.39	29.16	29.16	29.16	29.16	29.16
Fraser_R	157176	33.10	33.10	33.10	33.10	33.10	33.93	33.93	33.93	33.93	33.93	34.75	34.75	34.75	34.75	34.75	29.28	29.28	29.28	29.28	29.28
Fraser_R	157487	33.44	33.44	33.44	33.44	33.44	34.36	34.36	34.36	34.36	34.36	35.28	35.28	35.28	35.28	35.28	29.39	29.39	29.39	29.39	29.39
Fraser_R	157866	33.77	33.77	33.77	33.77	33.77	34.75	34.75	34.75	34.75	34.75	35.75	35.75	35.75	35.75	35.75	29.54	29.54	29.54	29.54	29.54
Fraser_R	158224	33.98	33.98	33.98	33.98	33.98	34.99	34.99	34.99	34.99	34.99	36.02	36.02	36.02	36.02	36.02	29.70	29.70	29.70	29.70	29.70
Fraser_R	158604	34.03	34.03	34.03	34.03	34.03	35.04	35.04	35.04	35.04	35.04	36.07	36.07	36.07	36.07	36.07	29.76	29.76	29.76	29.76	29.76
Fraser_R	158948	34.35	34.35	34.35	34.35	34.35	35.43	35.43	35.43	35.43	35.43	36.55	36.55	36.55	36.55	36.55	29.88	29.88	29.88	29.88	29.88
Fraser_R	159283	34.57	34.57	34.57	34.57	34.57	35.70	35.70	35.70	35.70	35.70	36.86	36.86	36.86	36.86	36.86	30.03	30.03	30.03	30.03	30.03
Fraser_R	159628	35.01	35.01	35.01	35.01	35.01	36.16	36.16	36.16	36.16	36.16	37.36	37.36	37.36	37.36	37.36	30.35	30.35	30.35	30.35	30.35
Fraser_R	160001	35.41	35.41	35.41	35.41	35.41	36.58	36.58	36.58	36.58	36.58	37.84	37.84	37.84	37.84	37.84	30.67	30.67	30.67	30.67	30.67
Fraser_R	160341	35.53	35.53	35.53	35.53	35.53	36.73	36.73	36.73	36.73	36.73	37.99	37.99	37.99	37.99	37.99	30.83	30.83	30.83	30.83	30.83
Fraser_R	160657	35.61	35.61	35.61	35.61	35.61	36.90	36.90	36.90	36.90	36.90	38.19	38.19	38.19	38.19	38.19	30.95	30.95	30.95	30.95	30.95
Fraser_R	161039	35.84	35.84	35.84	35.84	35.84	37.13	37.13	37.13	37.13	37.13	38.41	38.41	38.41	38.41	38.41	31.25	31.25	31.25	31.25	31.25
Fraser_R	161414	36.08	36.08	36.08	36.08	36.08	37.40	37.40	37.40	37.40	37.40	38.70	38.70	38.70	38.70	38.70	31.51	31.51	31.51	31.51	31.51
Fraser_R	161789	36.43	36.43	36.43	36.43	36.43	37.68	37.68	37.68	37.68	37.68	38.92	38.92	38.92	38.92	38.92	31.78	31.78	31.78	31.78	31.78
Fraser_R	162143	36.62	36.62	36.62	36.62	36.62	37.88	37.88	37.88	37.88	37.88	39.05	39.05	39.05	39.05	39.05	31.93	31.93	31.93	31.93	31.93
Fraser_R	162446	36.85	36.85	36.85	36.85	36.85	38.06	38.06	38.06	38.06	38.06	39.23	39.23	39.23	39.23	39.23	32.15	32.15	32.15	32.15	32.15
Fraser_R	162778	36.99	36.99	36.99	36.99	36.99	38.16	38.16	38.16	38.16	38.16	39.34	39.34	39.34	39.34	39.34	32.32	32.32	32.32	32.32	32.32
Fraser_R	162778	36.99	36.99	36.99	36.99	36.99	38.16	38.16	38.16	38.16	38.16	39.34	39.34	39.34	39.34	39.34	32.32	32.32	32.32	32.32	32.32
Fraser_R	163124	37.21	37.21	37.21	37.21	37.21	38.23	38.23	38.23	38.23	38.23	39.19	39.19	39.19	39.19	39.19	32.51	32.51	32.51	32.51	32.51
Fraser_R	163447	37.42	37.42	37.42	37.42	37.42	38.51	38.51	38.51	38.51	38.51	39.62	39.62	39.62	39.62	39.62	32.61	32.61	32.61	32.61	32.61
Fraser_R	163771	37.83	37.83	37.83	37.83	37.83	38.92	38.92	38.92	38.92	38.92	40.14	40.14	40.14	40.14	40.14	32.81	32.81	32.81	32.81	32.81
Fraser_R	164124	37.86	37.86	37.86	37.86	37.86	38.95	38.95	38.95	38.95	38.95	40.17	40.17	40.17	40.17	40.17	32.75	32.75	32.75	32.75	32.75
Fraser_R	164389	37.93	37.93	37.93	37.93	37.93	39.01	39.01	39.01	39.01	39.01	40.24	40.24	40.24	40.24	40.24	32.83	32.83	32.83	32.83	32.83
Fraser_R	164694	38.22	38.22	38.22	38.22	38.22	39.29	39.29	39.29	39.29	39.29	40.58	40.58	40.58	40.58	40.58	33.22	33.22	33.22	33.22	33.22
Fraser_R	164694	38.22	38.22	38.22	38.22	38.22	39.29	39.29	39.29	39.29	39.29	40.58	40.58	40.58	40.58	40.58	33.22	33.22	33.22	33.22	33.22
Fraser_R	164731	38.25	38.25	38.25	38.25	38.25	39.32	39.32	39.32	39.32	39.32	40.61	40.61	40.61	40.61	40.61	33.25	33.25	33.25	33.25	33.25
Fraser_R	165008	38.41	38.41	38.41	38.41	38.41	39.51	39.51	39.51	39.51	39.51	40.81	40.81	40.81	40.81	40.81	33.56	33.56	33.56	33.56	33.56
Fraser_R	165247	38.72	38.72	38.72	38.72	38.72	39.81	39.81	39.81	39.81	39.81	41.09	41.09	41.09	41.09	41.09	33.83	33.83	33.83	33.83	33.83
Fraser_R	165454	38.90	38.90	38.90	38.90	38.90	40.01	40.01	40.01	40.01	40.01	41.32	41.32	41.32	41.32	41.32	33.98	33.98	33.98	33.98	33.98

Freshet Historical 1:500							Freshet Scenario-A (Moderate) 1:500					Freshet Scenario-B (Intense) 1:500					Winter 1:500							
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	165662	38.90	38.90	38.90	38.90	38.90		40.01	40.01	40.01	40.01	40.01		41.30	41.30	41.30	41.30	41.30		34.10	34.10	34.10	34.10	34.10
Fraser_R	165662	38.90	38.90	38.90	38.90	38.90		40.01	40.01	40.01	40.01	40.01		41.30	41.30	41.30	41.30	41.30		34.10	34.10	34.10	34.10	34.10
Fraser_R	165965	38.82	38.82	38.82	38.82	38.82		39.90	39.90	39.90	39.90	39.90		41.17	41.17	41.17	41.17	41.17		34.14	34.14	34.14	34.14	34.14
Fraser_R	166336	38.99	38.99	38.99	38.99	38.99		40.05	40.05	40.05	40.05	40.05		41.29	41.29	41.29	41.29	41.29		34.58	34.58	34.58	34.58	34.58
Fraser_R	166766	39.35	39.35	39.35	39.35	39.35		40.41	40.41	40.41	40.41	40.41		41.65	41.65	41.65	41.65	41.65		35.00	35.00	35.00	35.00	35.00
Fraser_R	166766	39.35	39.35	39.35	39.35	39.35		40.41	40.41	40.41	40.41	40.41		41.65	41.65	41.65	41.65	41.65		35.00	35.00	35.00	35.00	35.00
Fraser_R	167135	39.42	39.42	39.42	39.42	39.42		40.39	40.39	40.39	40.39	40.39		41.51	41.51	41.51	41.51	41.51		35.33	35.33	35.33	35.33	35.33

Table 16. Hydraulic Model Runs for AEP = 1:500

Freshet Historical 1:1000						Freshet Scenario-A (Moderate) 1:1000					Freshet Scenario-B (Intense) 1:1000					Winter 1:1000					
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	-1545	1.85	2.35	2.85	3.35	3.85	1.85	2.35	2.85	3.35	3.85	1.85	2.35	2.85	3.35	3.85	2.79	3.29	3.79	4.29	4.79
Fraser	-1182	1.86	2.35	2.85	3.35	3.85	1.86	2.35	2.85	3.35	3.85	1.86	2.35	2.85	3.35	3.85	2.79	3.29	3.79	4.30	4.79
Fraser	944	1.85	2.35	2.84	3.34	3.85	1.85	2.35	2.84	3.34	3.85	1.85	2.35	2.84	3.34	3.84	2.79	3.29	3.79	4.29	4.79
Fraser	2838	1.84	2.34	2.84	3.33	3.84	1.84	2.34	2.84	3.33	3.84	1.84	2.34	2.84	3.34	3.83	2.78	3.29	3.79	4.30	4.80
Fraser	3069	1.84	2.34	2.84	3.33	3.84	1.84	2.34	2.84	3.33	3.84	1.85	2.34	2.84	3.34	3.83	2.77	3.29	3.79	4.30	4.81
Fraser	3069	1.84	2.34	2.84	3.33	3.84	1.84	2.34	2.84	3.33	3.84	1.85	2.34	2.84	3.34	3.83	2.77	3.29	3.79	4.30	4.81
Fraser	3853	1.83	2.34	2.84	3.33	3.84	1.84	2.34	2.84	3.33	3.83	1.84	2.34	2.84	3.34	3.83	2.77	3.29	3.79	4.31	4.81
Fraser	4348	1.83	2.34	2.84	3.33	3.83	1.84	2.34	2.84	3.33	3.83	1.84	2.34	2.84	3.33	3.83	2.77	3.29	3.79	4.31	4.81
Fraser	4930	1.79	2.30	2.80	3.30	3.81	1.77	2.28	2.79	3.29	3.80	1.74	2.25	2.77	3.27	3.78	2.77	3.28	3.79	4.31	4.81
Fraser	5477	1.80	2.31	2.81	3.31	3.82	1.79	2.29	2.80	3.30	3.81	1.77	2.28	2.79	3.29	3.79	2.77	3.28	3.79	4.31	4.81
Fraser	5923	1.80	2.31	2.81	3.31	3.82	1.79	2.30	2.81	3.31	3.81	1.78	2.28	2.79	3.29	3.79	2.77	3.28	3.79	4.31	4.81
Fraser	6357	1.80	2.31	2.81	3.31	3.81	1.79	2.29	2.80	3.30	3.81	1.78	2.28	2.79	3.29	3.79	2.77	3.29	3.79	4.31	4.81
Fraser	6768	1.79	2.30	2.80	3.30	3.81	1.78	2.29	2.80	3.30	3.80	1.77	2.27	2.78	3.28	3.78	2.77	3.29	3.79	4.31	4.81
Fraser	7173	1.81	2.31	2.81	3.31	3.82	1.81	2.31	2.81	3.31	3.82	1.82	2.31	2.81	3.31	3.80	2.77	3.29	3.79	4.31	4.81
Fraser	7589	1.82	2.32	2.81	3.31	3.82	1.82	2.31	2.82	3.32	3.82	1.83	2.32	2.82	3.31	3.81	2.77	3.29	3.79	4.31	4.81
Fraser	7944	1.81	2.31	2.81	3.31	3.82	1.82	2.31	2.81	3.31	3.81	1.82	2.31	2.81	3.31	3.80	2.77	3.29	3.79	4.31	4.81
Fraser	8357	1.82	2.32	2.81	3.31	3.82	1.83	2.32	2.82	3.32	3.82	1.83	2.32	2.82	3.32	3.81	2.76	3.29	3.80	4.31	4.81
Fraser	8676	1.84	2.33	2.82	3.32	3.83	1.85	2.33	2.83	3.33	3.83	1.87	2.35	2.84	3.33	3.82	2.76	3.29	3.80	4.31	4.81
Fraser	8676	1.84	2.33	2.82	3.32	3.83	1.85	2.33	2.83	3.33	3.83	1.87	2.35	2.84	3.33	3.82	2.76	3.29	3.80	4.31	4.81
Fraser	9163	1.86	2.35	2.84	3.33	3.84	1.89	2.36	2.85	3.35	3.85	1.92	2.40	2.88	3.36	3.85	2.77	3.30	3.80	4.31	4.81
Fraser	9394	1.87	2.35	2.84	3.33	3.84	1.90	2.37	2.86	3.35	3.85	1.94	2.41	2.88	3.37	3.86	2.77	3.30	3.80	4.30	4.81
Fraser	9394	1.87	2.35	2.84	3.33	3.84	1.90	2.37	2.86	3.35	3.85	1.94	2.41	2.88	3.37	3.86	2.77	3.30	3.80	4.30	4.81
Fraser	9650	1.87	2.35	2.84	3.33	3.84	1.90	2.37	2.86	3.35	3.85	1.94	2.41	2.89	3.37	3.85	2.77	3.30	3.80	4.30	4.81
Fraser	10067	1.88	2.36	2.84	3.33	3.84	1.91	2.38	2.86	3.35	3.85	1.96	2.42	2.90	3.38	3.86	2.77	3.30	3.80	4.30	4.81
Fraser	10364	1.90	2.38	2.86	3.35	3.85	1.95	2.41	2.89	3.37	3.87	2.03	2.47	2.94	3.41	3.89	2.77	3.30	3.80	4.30	4.80
Fraser	10578	1.92	2.39	2.87	3.35	3.86	1.97	2.43	2.91	3.38	3.88	2.07	2.50	2.96	3.43	3.90	2.78	3.30	3.80	4.30	4.80
Fraser	10578	1.92	2.39	2.87	3.35	3.86	1.97	2.43	2.91	3.38	3.88	2.07	2.50	2.96	3.43	3.90	2.78	3.30	3.80	4.30	4.80
Fraser	11183	1.90	2.38	2.86	3.34	3.85	1.95	2.41	2.89	3.36	3.86	2.04	2.47	2.93	3.40	3.87	2.78	3.30	3.80	4.30	4.81
Fraser	11579	1.95	2.41	2.89	3.36	3.86	2.02	2.47	2.93	3.40	3.89	2.14	2.56	3.00	3.45	3.91	2.79	3.30	3.80	4.30	4.81
Fraser	11980	2.00	2.45	2.92	3.38	3.88	2.10	2.53	2.98	3.44	3.92	2.25	2.66	3.09	3.52	3.97	2.79	3.30	3.80	4.30	4.81
Fraser	11980	2.00	2.45	2.92	3.38	3.88	2.10	2.53	2.98	3.44	3.92	2.25	2.66	3.09	3.52	3.97	2.79	3.30	3.80	4.30	4.81
Fraser	12389	2.02	2.47	2.93	3.39	3.88	2.13	2.55	2.99	3.45	3.93	2.29	2.69	3.11	3.53	3.97	2.80	3.30	3.80	4.29	4.81
Fraser	12780	2.02	2.46	2.92	3.39	3.88	2.12	2.55	2.98	3.44	3.92	2.28	2.68	3.10	3.52	3.96	2.80	3.30	3.80	4.29	4.81
Fraser	13186	2.06	2.50	2.95	3.41	3.89	2.18	2.60	3.03	3.47	3.95	2.36	2.76	3.17	3.57	4.01	2.81	3.30	3.80	4.29	4.81
Fraser	13598	2.08	2.52	2.96	3.43	3.90	2.22	2.63	3.06	3.50	3.96	2.42	2.81	3.21	3.61	4.03	2.81	3.30	3.80	4.29	4.81
Fraser	14005	2.13	2.56	3.00	3.45	3.92	2.28	2.69	3.11	3.54	3.99	2.51	2.89	3.28	3.67	4.08	2.82	3.30	3.80	4.29	4.81
Fraser	14401	2.20	2.63	3.06	3.51	3.96	2.38	2.78	3.19	3.62	4.05	2.66	3.03	3.42	3.79	4.19	2.83	3.31	3.80	4.29	4.81
Fraser	14813	2.23	2.65	3.08	3.53	3.98	2.43	2.82	3.23	3.65	4.08	2.73	3.09	3.47	3.84	4.22	2.83	3.31	3.80	4.29	4.80

Freshet Historical 1:1000							Freshet Scenario-A (Moderate) 1:1000					Freshet Scenario-B (Intense) 1:1000					Winter 1:1000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	15210	2.25	2.67	3.09	3.54	3.99	2.46	2.84	3.25	3.67	4.09	2.76	3.12	3.49	3.86	4.24	2.84	3.32	3.80	4.29	4.80
Fraser	15575	2.27	2.69	3.11	3.55	4.00	2.49	2.87	3.27	3.69	4.10	2.81	3.16	3.53	3.89	4.27	2.84	3.32	3.80	4.29	4.80
Fraser	15978	2.29	2.71	3.13	3.56	4.01	2.52	2.89	3.29	3.71	4.11	2.84	3.19	3.55	3.91	4.28	2.84	3.32	3.81	4.29	4.80
Fraser	16443	2.36	2.76	3.17	3.61	4.04	2.61	2.97	3.36	3.77	4.16	2.97	3.31	3.66	4.00	4.36	2.85	3.33	3.81	4.30	4.79
Fraser	16846	2.40	2.80	3.21	3.63	4.06	2.66	3.02	3.40	3.81	4.20	3.05	3.38	3.72	4.05	4.41	2.85	3.33	3.81	4.30	4.79
Fraser	17214	2.45	2.84	3.25	3.67	4.09	2.74	3.09	3.46	3.86	4.24	3.15	3.47	3.81	4.13	4.48	2.86	3.33	3.82	4.30	4.79
Fraser	17513	2.45	2.84	3.24	3.66	4.09	2.73	3.08	3.45	3.85	4.23	3.14	3.45	3.80	4.12	4.46	2.86	3.33	3.82	4.30	4.79
Fraser	17513	2.45	2.84	3.24	3.66	4.09	2.73	3.08	3.45	3.85	4.23	3.14	3.45	3.80	4.12	4.46	2.86	3.33	3.82	4.30	4.79
Fraser	18117	2.45	2.85	3.25	3.68	4.10	2.74	3.09	3.47	3.87	4.25	3.15	3.47	3.82	4.15	4.50	2.87	3.34	3.83	4.30	4.79
Fraser	18508	2.53	2.92	3.31	3.74	4.15	2.85	3.20	3.56	3.96	4.33	3.32	3.63	3.97	4.28	4.60	2.87	3.34	3.84	4.30	4.79
Fraser	18921	2.56	2.94	3.33	3.75	4.17	2.89	3.23	3.59	3.98	4.34	3.38	3.68	4.01	4.31	4.62	2.88	3.35	3.84	4.30	4.79
Fraser	19322	2.61	2.99	3.37	3.79	4.20	2.96	3.29	3.65	4.04	4.39	3.47	3.77	4.09	4.38	4.69	2.89	3.36	3.84	4.30	4.79
Fraser	19727	2.66	3.03	3.41	3.82	4.22	3.03	3.35	3.70	4.08	4.42	3.56	3.84	4.16	4.44	4.74	2.89	3.36	3.85	4.30	4.79
Fraser	20127	2.68	3.05	3.43	3.84	4.24	3.06	3.38	3.73	4.11	4.45	3.61	3.90	4.21	4.48	4.78	2.89	3.37	3.85	4.30	4.80
Fraser	20524	2.71	3.07	3.45	3.86	4.26	3.10	3.42	3.76	4.14	4.47	3.66	3.94	4.25	4.52	4.81	2.90	3.37	3.85	4.30	4.80
Fraser	20919	2.74	3.10	3.47	3.88	4.27	3.14	3.45	3.79	4.16	4.50	3.71	3.99	4.29	4.56	4.84	2.90	3.38	3.85	4.30	4.81
Fraser	21371	2.76	3.12	3.49	3.89	4.29	3.17	3.48	3.81	4.19	4.51	3.75	4.02	4.32	4.59	4.86	2.91	3.38	3.86	4.31	4.81
Fraser	21806	2.79	3.15	3.51	3.91	4.30	3.21	3.51	3.85	4.22	4.54	3.80	4.07	4.37	4.63	4.90	2.91	3.38	3.86	4.31	4.81
Fraser	22195	2.81	3.16	3.53	3.92	4.32	3.24	3.54	3.87	4.23	4.55	3.84	4.10	4.39	4.65	4.92	2.91	3.39	3.87	4.31	4.81
Fraser	22562	2.84	3.19	3.55	3.94	4.33	3.28	3.57	3.90	4.26	4.58	3.89	4.15	4.44	4.69	4.96	2.92	3.39	3.87	4.32	4.81
Fraser	22978	2.85	3.20	3.56	3.96	4.35	3.29	3.59	3.92	4.28	4.59	3.92	4.18	4.46	4.72	4.98	2.92	3.40	3.88	4.32	4.82
Fraser	23375	2.86	3.21	3.57	3.96	4.35	3.30	3.60	3.92	4.29	4.60	3.93	4.19	4.47	4.72	4.99	2.92	3.40	3.88	4.33	4.82
Fraser	23763	2.88	3.23	3.58	3.98	4.37	3.33	3.62	3.95	4.31	4.62	3.97	4.23	4.51	4.76	5.02	2.93	3.41	3.89	4.34	4.82
Fraser	24152	2.93	3.27	3.62	4.01	4.40	3.40	3.69	4.01	4.37	4.67	4.07	4.32	4.60	4.84	5.09	2.94	3.41	3.90	4.34	4.82
Fraser	24575	2.97	3.31	3.65	4.04	4.43	3.45	3.74	4.05	4.41	4.71	4.14	4.39	4.66	4.90	5.14	2.94	3.42	3.91	4.35	4.82
Fraser	24914	3.04	3.37	3.71	4.09	4.48	3.55	3.83	4.14	4.49	4.77	4.29	4.53	4.79	5.01	5.24	2.95	3.43	3.91	4.36	4.83
Fraser	25370	3.08	3.41	3.74	4.12	4.50	3.61	3.88	4.19	4.54	4.81	4.36	4.60	4.86	5.07	5.30	2.96	3.43	3.92	4.37	4.83
Fraser	25568	3.09	3.42	3.75	4.13	4.51	3.63	3.90	4.20	4.55	4.82	4.39	4.62	4.87	5.09	5.32	2.96	3.43	3.92	4.37	4.83
Fraser	25568	3.09	3.42	3.75	4.13	4.51	3.63	3.90	4.20	4.55	4.82	4.39	4.62	4.87	5.09	5.32	2.96	3.43	3.92	4.37	4.83
Fraser	25857	3.09	3.42	3.75	4.13	4.51	3.63	3.90	4.20	4.55	4.82	4.38	4.62	4.87	5.09	5.31	2.96	3.44	3.92	4.38	4.84
Fraser	26350	3.09	3.41	3.75	4.13	4.51	3.61	3.88	4.19	4.54	4.81	4.36	4.60	4.85	5.06	5.29	2.96	3.44	3.92	4.38	4.84
Fraser	26754	3.10	3.43	3.76	4.14	4.52	3.64	3.91	4.21	4.56	4.82	4.39	4.62	4.87	5.09	5.31	2.96	3.44	3.92	4.39	4.85
Fraser	27194	3.13	3.45	3.78	4.15	4.54	3.67	3.94	4.24	4.58	4.85	4.44	4.67	4.91	5.13	5.35	2.96	3.45	3.92	4.40	4.85
Fraser	27582	3.16	3.48	3.81	4.17	4.55	3.71	3.97	4.27	4.62	4.87	4.50	4.72	4.96	5.17	5.39	2.97	3.45	3.93	4.41	4.86
Fraser	28002	3.19	3.51	3.83	4.20	4.57	3.75	4.01	4.30	4.65	4.90	4.55	4.78	5.01	5.22	5.43	2.98	3.45	3.93	4.41	4.87
Fraser	28369	3.25	3.57	3.88	4.24	4.62	3.84	4.09	4.38	4.72	4.96	4.67	4.89	5.11	5.32	5.54	2.99	3.46	3.93	4.42	4.87
Fraser	28768	3.28	3.59	3.90	4.26	4.63	3.88	4.13	4.41	4.75	4.99	4.72	4.94	5.16	5.37	5.58	3.00	3.46	3.93	4.43	4.88
Fraser	29120	3.24	3.55	3.87	4.23	4.61	3.82	4.07	4.36	4.71	4.95	4.64	4.86	5.08	5.29	5.51	3.00	3.46	3.93	4.43	4.88
Fraser	29504	3.37	3.67	3.97	4.32	4.68	3.98	4.22	4.49	4.83	5.06	4.86	5.07	5.27	5.47	5.68	3.03	3.49	3.95	4.44	4.90

Freshet Historical 1:1000							Freshet Scenario-A (Moderate) 1:1000					Freshet Scenario-B (Intense) 1:1000					Winter 1:1000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	29883	3.43	3.72	4.02	4.37	4.72	4.06	4.30	4.58	4.91	5.14	5.00	5.21	5.40	5.61	5.82	3.05	3.50	3.96	4.45	4.90
Fraser	30284	3.45	3.74	4.04	4.38	4.73	4.09	4.33	4.59	4.93	5.14	5.02	5.22	5.41	5.61	5.81	3.06	3.51	3.96	4.46	4.91
Fraser	30647	3.54	3.82	4.11	4.44	4.79	4.21	4.44	4.70	5.03	5.23	5.18	5.38	5.56	5.76	5.95	3.07	3.52	3.98	4.47	4.92
Fraser	31045	3.59	3.86	4.14	4.48	4.83	4.27	4.50	4.76	5.08	5.28	5.28	5.47	5.64	5.84	6.04	3.08	3.53	3.99	4.48	4.92
Fraser	31525	3.61	3.88	4.16	4.49	4.84	4.30	4.54	4.79	5.11	5.30	5.32	5.52	5.69	5.89	6.08	3.09	3.53	3.99	4.49	4.93
Fraser	31926	3.64	3.91	4.18	4.51	4.86	4.34	4.57	4.82	5.14	5.33	5.37	5.57	5.74	5.93	6.13	3.10	3.54	4.00	4.50	4.93
Fraser	32332	3.69	3.95	4.22	4.54	4.89	4.40	4.63	4.88	5.20	5.37	5.46	5.65	5.82	6.01	6.20	3.11	3.54	4.01	4.51	4.94
Fraser	32742	3.77	4.01	4.28	4.59	4.94	4.50	4.72	4.97	5.27	5.44	5.58	5.76	5.92	6.12	6.30	3.12	3.55	4.02	4.52	4.94
Fraser	32742	3.77	4.01	4.28	4.59	4.94	4.50	4.72	4.97	5.27	5.44	5.58	5.76	5.92	6.12	6.30	3.12	3.55	4.02	4.52	4.94
Fraser	33139	3.70	3.95	4.22	4.54	4.90	4.41	4.64	4.89	5.20	5.37	5.46	5.65	5.81	6.00	6.19	3.11	3.55	4.02	4.52	4.94
Fraser	33543	3.73	3.98	4.24	4.56	4.91	4.45	4.67	4.92	5.22	5.39	5.50	5.68	5.85	6.04	6.22	3.12	3.55	4.02	4.52	4.95
Fraser	33883	3.68	3.93	4.20	4.52	4.88	4.38	4.61	4.85	5.16	5.34	5.41	5.60	5.76	5.95	6.14	3.11	3.55	4.02	4.52	4.95
Fraser	34089	3.69	3.94	4.21	4.53	4.89	4.40	4.62	4.87	5.18	5.35	5.43	5.61	5.78	5.97	6.15	3.12	3.55	4.03	4.52	4.95
Fraser	34089	3.69	3.94	4.21	4.53	4.89	4.40	4.62	4.87	5.18	5.35	5.43	5.61	5.78	5.97	6.15	3.12	3.55	4.03	4.52	4.95
Fraser	34247	3.88	4.12	4.36	4.68	5.01	4.65	4.86	5.09	5.39	5.53	5.76	5.94	6.09	6.26	6.43	3.14	3.57	4.04	4.53	4.96
Fraser	34655	3.90	4.14	4.38	4.70	5.02	4.68	4.89	5.12	5.41	5.54	5.80	5.97	6.13	6.29	6.45	3.15	3.57	4.05	4.53	4.96
Fraser	35038	3.98	4.21	4.45	4.76	5.07	4.78	4.99	5.22	5.51	5.62	5.94	6.11	6.26	6.41	6.57	3.16	3.58	4.06	4.54	4.96
Fraser	35038	3.98	4.21	4.45	4.76	5.07	4.78	4.99	5.22	5.51	5.62	5.94	6.11	6.26	6.41	6.57	3.16	3.58	4.06	4.54	4.96
Fraser	35451	4.03	4.26	4.49	4.80	5.10	4.84	5.04	5.27	5.55	5.66	6.01	6.18	6.33	6.47	6.62	3.16	3.59	4.06	4.54	4.97
Fraser	35650	4.15	4.36	4.60	4.90	5.20	4.98	5.16	5.40	5.67	5.76	6.18	6.34	6.48	6.61	6.76	3.21	3.65	4.10	4.58	5.00
Fraser	35920	4.15	4.36	4.60	4.90	5.20	4.98	5.17	5.40	5.67	5.76	6.19	6.35	6.49	6.62	6.77	3.21	3.65	4.10	4.58	5.00
Fraser	35992	4.18	4.40	4.66	4.91	5.25	5.14	5.27	5.40	5.67	5.90	6.42	6.45	6.50	6.63	6.77	3.22	3.66	4.11	4.58	5.01
Fraser	36247	4.20	4.41	4.67	4.92	5.27	5.16	5.29	5.42	5.69	5.91	6.45	6.48	6.52	6.65	6.79	3.22	3.66	4.11	4.58	5.01
Fraser	36247	4.20	4.41	4.67	4.92	5.27	5.16	5.29	5.42	5.69	5.91	6.45	6.48	6.52	6.65	6.79	3.22	3.66	4.11	4.58	5.01
Fraser	36357	4.22	4.44	4.70	4.94	5.29	5.19	5.32	5.45	5.72	5.93	6.48	6.51	6.56	6.68	6.82	3.22	3.66	4.12	4.59	5.02
Fraser	36736	4.18	4.40	4.66	4.90	5.25	5.13	5.27	5.40	5.67	5.89	6.41	6.45	6.49	6.62	6.76	3.22	3.66	4.12	4.58	5.02
Fraser	37139	4.16	4.39	4.65	4.89	5.24	5.11	5.25	5.38	5.66	5.88	6.40	6.43	6.47	6.61	6.75	3.22	3.66	4.12	4.58	5.02
Fraser	37528	4.20	4.42	4.68	4.92	5.27	5.16	5.29	5.42	5.69	5.90	6.44	6.47	6.52	6.65	6.79	3.22	3.66	4.12	4.59	5.02
Fraser	37939	4.23	4.44	4.70	4.95	5.29	5.20	5.33	5.46	5.72	5.92	6.48	6.51	6.55	6.68	6.82	3.22	3.66	4.13	4.59	5.03
Fraser	38352	4.28	4.49	4.74	4.98	5.33	5.25	5.38	5.51	5.76	5.95	6.54	6.57	6.61	6.73	6.87	3.23	3.67	4.13	4.59	5.03
Fraser	38759	4.26	4.48	4.73	4.97	5.32	5.23	5.36	5.49	5.75	5.94	6.52	6.55	6.60	6.72	6.85	3.23	3.66	4.13	4.59	5.03
Fraser	39151	4.34	4.55	4.79	5.04	5.38	5.33	5.46	5.58	5.83	6.01	6.64	6.67	6.71	6.83	6.96	3.24	3.67	4.14	4.60	5.03
Fraser	39490	4.28	4.49	4.75	5.00	5.34	5.27	5.40	5.53	5.78	5.96	6.58	6.61	6.65	6.77	6.91	3.23	3.66	4.13	4.59	5.02
Fraser	39926	4.49	4.69	4.91	5.16	5.49	5.50	5.61	5.73	5.96	6.11	6.81	6.84	6.88	6.98	7.11	3.26	3.68	4.15	4.60	5.03
Fraser	39926	4.49	4.69	4.91	5.16	5.49	5.50	5.61	5.73	5.96	6.11	6.81	6.84	6.88	6.98	7.11	3.26	3.68	4.15	4.60	5.03
Fraser	40332	4.47	4.67	4.90	5.14	5.48	5.48	5.60	5.72	5.94	6.10	6.80	6.83	6.86	6.97	7.09	3.26	3.68	4.15	4.60	5.03
Fraser	40766	4.46	4.65	4.88	5.12	5.46	5.44	5.56	5.68	5.91	6.07	6.74	6.77	6.80	6.91	7.04	3.26	3.68	4.14	4.60	5.03
Fraser	41158	4.48	4.68	4.90	5.15	5.49	5.49	5.61	5.73	5.95	6.11	6.82	6.85	6.88	6.98	7.11	3.26	3.68	4.14	4.60	5.03
Fraser	41502	4.53	4.73	4.95	5.19	5.53	5.55	5.66	5.78	6.00	6.14	6.88	6.91	6.94	7.04	7.16	3.27	3.68	4.15	4.60	5.03



Freshet Historical 1:1000							Freshet Scenario-A (Moderate) 1:1000					Freshet Scenario-B (Intense) 1:1000					Winter 1:1000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	41882	4.61	4.80	5.02	5.26	5.59	5.64	5.76	5.87	6.08	6.23	6.99	7.01	7.05	7.14	7.26	3.28	3.69	4.15	4.60	5.04
Fraser	42407	4.76	4.95	5.15	5.38	5.72	5.81	6.02	6.09	6.22	6.64	7.25	7.31	7.37	7.60	7.98	3.33	3.73	4.17	4.62	5.04
Fraser	42617	4.77	4.96	5.16	5.39	5.73	5.82	6.03	6.10	6.23	6.65	7.27	7.32	7.39	7.62	7.99	3.33	3.73	4.17	4.62	5.05
Fraser	43031	4.84	5.02	5.22	5.45	5.79	5.90	6.11	6.18	6.30	6.72	7.37	7.42	7.48	7.70	8.08	3.34	3.74	4.18	4.63	5.05
Fraser	43373	4.81	4.99	5.19	5.43	5.77	5.87	6.08	6.15	6.27	6.69	7.32	7.37	7.44	7.66	8.04	3.34	3.74	4.18	4.63	5.05
Fraser	43373	4.81	4.99	5.19	5.43	5.77	5.87	6.08	6.15	6.27	6.69	7.32	7.37	7.44	7.66	8.04	3.34	3.74	4.18	4.63	5.05
Fraser	43945	4.74	4.93	5.13	5.36	5.71	5.79	6.00	6.07	6.20	6.61	7.22	7.28	7.34	7.57	7.96	3.31	3.72	4.16	4.61	5.03
Fraser	44343	4.77	4.95	5.15	5.38	5.72	5.81	6.02	6.09	6.22	6.63	7.25	7.30	7.36	7.60	7.97	3.33	3.73	4.16	4.62	5.04
Fraser	44754	4.78	4.96	5.16	5.39	5.73	5.81	6.02	6.09	6.21	6.62	7.23	7.28	7.34	7.57	7.95	3.34	3.73	4.17	4.62	5.04
Fraser	45140	4.83	5.00	5.20	5.43	5.76	5.86	6.07	6.14	6.26	6.66	7.28	7.34	7.40	7.62	8.00	3.35	3.75	4.18	4.63	5.05
Fraser	45541	4.88	5.06	5.25	5.48	5.80	5.93	6.13	6.20	6.32	6.72	7.36	7.41	7.47	7.69	8.06	3.37	3.77	4.20	4.64	5.06
Fraser	45944	4.95	5.12	5.31	5.54	5.87	6.02	6.22	6.29	6.40	6.80	7.47	7.52	7.58	7.80	8.16	3.40	3.79	4.22	4.65	5.07
Fraser	46354	5.04	5.21	5.40	5.62	5.94	6.11	6.31	6.37	6.48	6.87	7.56	7.61	7.67	7.88	8.23	3.43	3.82	4.24	4.67	5.09
Fraser	46562	5.07	5.24	5.42	5.64	5.96	6.14	6.33	6.40	6.51	6.89	7.59	7.64	7.69	7.90	8.26	3.44	3.83	4.25	4.68	5.09
Fraser	46562	5.07	5.24	5.42	5.64	5.96	6.14	6.33	6.40	6.51	6.89	7.59	7.64	7.69	7.90	8.26	3.44	3.83	4.25	4.68	5.09
Fraser	46984	5.21	5.37	5.54	5.75	6.05	6.27	6.46	6.52	6.62	6.99	7.71	7.76	7.81	8.01	8.36	3.53	3.90	4.30	4.72	5.13
Fraser	47419	5.25	5.41	5.58	5.79	6.09	6.32	6.51	6.57	6.67	7.03	7.76	7.81	7.86	8.06	8.39	3.55	3.92	4.32	4.73	5.14
Fraser	47789	5.31	5.46	5.63	5.83	6.13	6.37	6.55	6.61	6.71	7.07	7.81	7.85	7.90	8.10	8.43	3.58	3.95	4.34	4.74	5.16
Fraser	48174	5.33	5.48	5.64	5.85	6.15	6.40	6.57	6.63	6.73	7.09	7.83	7.88	7.93	8.12	8.45	3.59	3.95	4.34	4.75	5.16
Fraser	48502	5.39	5.54	5.70	5.90	6.19	6.46	6.63	6.69	6.78	7.13	7.88	7.93	7.98	8.17	8.49	3.62	3.98	4.37	4.77	5.18
Fraser	48560	5.40	5.55	5.71	5.91	6.20	6.46	6.63	6.69	6.79	7.14	7.89	7.93	7.98	8.17	8.50	3.63	3.99	4.37	4.78	5.19
Fraser	48560	5.40	5.55	5.71	5.91	6.20	6.46	6.63	6.69	6.79	7.14	7.89	7.93	7.98	8.17	8.50	3.63	3.99	4.37	4.78	5.19
Fraser	48981	5.23	5.38	5.54	5.74	6.04	6.24	6.42	6.48	6.58	6.94	7.62	7.67	7.72	7.92	8.26	3.57	3.93	4.32	4.73	5.14
Fraser	49283	5.27	5.41	5.58	5.78	6.07	6.28	6.46	6.51	6.61	6.97	7.66	7.70	7.75	7.95	8.28	3.58	3.94	4.33	4.74	5.15
Fraser	49565	5.34	5.48	5.64	5.84	6.12	6.36	6.53	6.59	6.68	7.03	7.73	7.78	7.83	8.02	8.35	3.62	3.98	4.36	4.77	5.17
Fraser	49963	5.35	5.49	5.65	5.85	6.13	6.37	6.54	6.59	6.69	7.04	7.74	7.79	7.83	8.03	8.35	3.63	3.98	4.37	4.77	5.18
Fraser	50339	5.46	5.60	5.76	5.95	6.23	6.50	6.66	6.72	6.81	7.15	7.89	7.94	7.98	8.17	8.48	3.68	4.03	4.41	4.81	5.21
Fraser	50737	5.51	5.65	5.80	5.99	6.27	6.55	6.72	6.77	6.86	7.20	7.95	8.00	8.04	8.23	8.54	3.70	4.05	4.43	4.83	5.23
Fraser	51139	5.58	5.72	5.87	6.05	6.33	6.63	6.79	6.85	6.94	7.27	8.03	8.08	8.12	8.30	8.61	3.74	4.09	4.46	4.86	5.25
Fraser	51545	5.67	5.81	5.95	6.13	6.40	6.73	6.88	6.94	7.02	7.35	8.13	8.17	8.22	8.39	8.69	3.79	4.13	4.50	4.89	5.28
Fraser	51943	5.71	5.85	5.99	6.17	6.43	6.77	6.93	6.98	7.06	7.39	8.18	8.22	8.27	8.44	8.74	3.81	4.15	4.52	4.91	5.30
Fraser	52349	5.74	5.87	6.02	6.19	6.46	6.81	6.96	7.01	7.10	7.42	8.22	8.27	8.31	8.48	8.78	3.83	4.17	4.54	4.92	5.31
Fraser	52707	5.80	5.93	6.07	6.25	6.51	6.87	7.02	7.07	7.16	7.48	8.30	8.34	8.38	8.55	8.84	3.87	4.20	4.57	4.95	5.33
Fraser	53123	5.94	6.06	6.20	6.36	6.61	7.01	7.16	7.20	7.28	7.59	8.43	8.47	8.51	8.67	8.96	3.93	4.26	4.62	5.00	5.37
Fraser	53689	5.99	6.11	6.25	6.41	6.65	7.06	7.20	7.25	7.33	7.63	8.48	8.52	8.56	8.71	9.00	3.97	4.29	4.65	5.02	5.39
Fraser	53689	5.99	6.11	6.25	6.41	6.65	7.06	7.20	7.25	7.33	7.63	8.48	8.52	8.56	8.71	9.00	3.97	4.29	4.65	5.02	5.39
Fraser	53954	6.13	6.24	6.37	6.53	6.77	7.20	7.34	7.39	7.46	7.76	8.63	8.66	8.70	8.85	9.13	4.04	4.36	4.71	5.07	5.44
Fraser	54327	6.19	6.30	6.43	6.59	6.82	7.28	7.42	7.46	7.54	7.83	8.72	8.76	8.80	8.95	9.22	4.06	4.38	4.73	5.09	5.45
Fraser	54734	6.19	6.30	6.43	6.59	6.83	7.29	7.43	7.47	7.55	7.84	8.74	8.78	8.81	8.96	9.23	4.07	4.39	4.73	5.10	5.46

Freshet Historical 1:1000							Freshet Scenario-A (Moderate) 1:1000					Freshet Scenario-B (Intense) 1:1000					Winter 1:1000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	55128	6.17	6.28	6.41	6.56	6.79	7.23	7.36	7.41	7.48	7.77	8.63	8.67	8.70	8.85	9.12	4.08	4.39	4.74	5.10	5.46
Fraser	55527	6.19	6.30	6.43	6.58	6.81	7.26	7.39	7.43	7.51	7.79	8.66	8.70	8.73	8.88	9.15	4.10	4.41	4.75	5.11	5.47
Fraser	55923	6.24	6.35	6.47	6.62	6.85	7.31	7.44	7.48	7.56	7.84	8.73	8.77	8.81	8.95	9.22	4.12	4.43	4.77	5.13	5.49
Fraser	56318	6.26	6.37	6.49	6.64	6.87	7.33	7.47	7.51	7.59	7.87	8.76	8.80	8.83	8.98	9.24	4.13	4.44	4.78	5.15	5.50
Fraser	56731	6.29	6.40	6.52	6.67	6.89	7.36	7.49	7.54	7.61	7.89	8.78	8.82	8.85	8.99	9.26	4.16	4.46	4.80	5.16	5.51
Fraser	57123	6.35	6.46	6.58	6.73	6.95	7.43	7.56	7.60	7.67	7.95	8.84	8.88	8.91	9.05	9.31	4.19	4.49	4.83	5.19	5.53
Fraser	57451	6.41	6.51	6.63	6.78	7.00	7.49	7.62	7.66	7.73	8.00	8.90	8.94	8.97	9.11	9.36	4.22	4.52	4.85	5.21	5.55
Fraser	57813	6.40	6.50	6.62	6.77	6.99	7.48	7.61	7.65	7.72	7.99	8.91	8.94	8.97	9.11	9.37	4.21	4.51	4.85	5.20	5.55
Fraser	58242	6.49	6.60	6.72	6.86	7.08	7.62	7.75	7.79	7.87	8.13	9.11	9.14	9.17	9.31	9.56	4.25	4.55	4.88	5.23	5.58
Fraser	58547	6.53	6.64	6.75	6.90	7.11	7.66	7.78	7.83	7.90	8.16	9.12	9.15	9.18	9.32	9.57	4.27	4.57	4.90	5.25	5.59
Fraser	58935	6.59	6.69	6.80	6.95	7.17	7.73	7.85	7.89	7.96	8.22	9.19	9.22	9.25	9.38	9.62	4.30	4.60	4.92	5.27	5.61
Fraser	59378	6.57	6.67	6.79	6.93	7.15	7.69	7.81	7.85	7.92	8.17	9.11	9.14	9.17	9.30	9.54	4.30	4.60	4.92	5.27	5.61
Fraser	59775	6.64	6.74	6.86	7.00	7.21	7.77	7.88	7.92	7.99	8.24	9.19	9.22	9.25	9.37	9.61	4.34	4.63	4.95	5.30	5.64
Fraser	60164	6.71	6.81	6.92	7.06	7.27	7.84	7.96	7.99	8.06	8.30	9.26	9.30	9.32	9.45	9.68	4.37	4.66	4.98	5.33	5.66
Fraser	60563	6.74	6.83	6.94	7.08	7.29	7.86	7.98	8.02	8.08	8.32	9.28	9.31	9.34	9.46	9.70	4.39	4.68	5.00	5.34	5.68
Fraser	60975	6.83	6.93	7.04	7.17	7.37	7.97	8.09	8.12	8.19	8.42	9.41	9.44	9.47	9.59	9.82	4.44	4.72	5.04	5.37	5.71
Fraser	61128	6.85	6.94	7.05	7.18	7.38	7.99	8.10	8.14	8.20	8.43	9.43	9.46	9.48	9.60	9.83	4.45	4.73	5.04	5.38	5.71
Fraser	61128	6.85	6.94	7.05	7.18	7.38	7.99	8.10	8.14	8.20	8.43	9.43	9.46	9.48	9.60	9.83	4.45	4.73	5.04	5.38	5.71
Fraser	61327	6.85	6.94	7.05	7.18	7.38	7.99	8.10	8.13	8.20	8.43	9.42	9.45	9.48	9.60	9.83	4.45	4.73	5.04	5.38	5.71
Fraser	61633	6.85	6.95	7.06	7.19	7.39	8.00	8.11	8.15	8.21	8.45	9.45	9.48	9.50	9.62	9.85	4.45	4.73	5.05	5.38	5.72
Fraser	61947	6.85	6.95	7.05	7.19	7.39	8.00	8.11	8.14	8.21	8.44	9.43	9.46	9.49	9.61	9.84	4.46	4.74	5.05	5.39	5.72
Fraser	62124	6.87	6.96	7.07	7.20	7.40	8.01	8.12	8.15	8.22	8.45	9.46	9.50	9.52	9.64	9.87	4.47	4.75	5.06	5.39	5.72
Fraser	62381	6.86	6.95	7.06	7.20	7.40	8.02	8.14	8.18	8.24	8.47	9.49	9.52	9.55	9.67	9.90	4.46	4.74	5.05	5.39	5.72
Fraser	62625	6.92	7.01	7.12	7.25	7.45	8.08	8.19	8.23	8.29	8.52	9.55	9.58	9.60	9.72	9.95	4.49	4.77	5.07	5.41	5.74
Fraser	62887	6.92	7.02	7.12	7.25	7.45	8.07	8.18	8.21	8.27	8.50	9.51	9.54	9.57	9.68	9.91	4.49	4.77	5.08	5.41	5.74
Fraser	63234	6.96	7.05	7.16	7.29	7.48	8.12	8.23	8.26	8.33	8.56	9.58	9.61	9.64	9.75	9.98	4.51	4.79	5.09	5.42	5.75
Fraser	63635	6.95	7.04	7.14	7.27	7.46	8.08	8.19	8.22	8.28	8.51	9.53	9.56	9.58	9.70	9.93	4.52	4.80	5.10	5.43	5.76
Fraser	64027	7.01	7.10	7.19	7.32	7.51	8.13	8.24	8.28	8.34	8.56	9.55	9.58	9.61	9.72	9.94	4.56	4.83	5.13	5.45	5.78
Fraser	64501	7.13	7.22	7.31	7.43	7.62	8.27	8.38	8.41	8.47	8.69	9.72	9.75	9.77	9.88	10.10	4.62	4.89	5.18	5.50	5.82
Fraser	64820	7.20	7.29	7.38	7.50	7.68	8.35	8.45	8.49	8.55	8.76	9.81	9.83	9.86	9.96	10.18	4.66	4.93	5.22	5.52	5.85
Fraser	65249	7.21	7.30	7.39	7.51	7.69	8.36	8.46	8.49	8.55	8.77	9.81	9.84	9.86	9.97	10.19	4.68	4.94	5.23	5.53	5.86
Fraser	65504	7.25	7.33	7.42	7.54	7.71	8.39	8.49	8.53	8.59	8.80	9.85	9.87	9.90	10.00	10.22	4.71	4.97	5.25	5.55	5.87
Fraser	65504	7.25	7.33	7.42	7.54	7.71	8.39	8.49	8.53	8.59	8.80	9.85	9.87	9.90	10.00	10.22	4.71	4.97	5.25	5.55	5.87
Fraser	65697	7.36	7.44	7.53	7.65	7.82	8.52	8.62	8.65	8.71	8.92	9.99	10.02	10.04	10.14	10.36	4.79	5.03	5.31	5.60	5.92
Fraser	65970	7.40	7.48	7.57	7.68	7.85	8.56	8.66	8.69	8.75	8.96	10.04	10.06	10.09	10.19	10.40	4.81	5.06	5.33	5.62	5.94
Fraser	66297	7.42	7.50	7.59	7.70	7.87	8.58	8.68	8.71	8.77	8.98	10.06	10.09	10.11	10.21	10.42	4.83	5.07	5.35	5.63	5.95
Fraser	66674	7.42	7.50	7.59	7.70	7.87	8.58	8.68	8.71	8.77	8.97	10.06	10.09	10.11	10.21	10.42	4.84	5.08	5.35	5.64	5.95
Fraser	67082	7.43	7.51	7.60	7.71	7.88	8.59	8.69	8.72	8.78	8.98	10.06	10.09	10.11	10.21	10.42	4.85	5.09	5.36	5.64	5.96
Fraser	67480	7.46	7.54	7.62	7.73	7.90	8.61	8.71	8.74	8.79	9.00	10.08	10.10	10.13	10.22	10.43	4.88	5.11	5.38	5.66	5.97

Freshet Historical 1:1000							Freshet Scenario-A (Moderate) 1:1000					Freshet Scenario-B (Intense) 1:1000					Winter 1:1000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	67886	7.46	7.54	7.63	7.74	7.90	8.61	8.71	8.74	8.80	9.00	10.07	10.10	10.12	10.22	10.42	4.89	5.12	5.39	5.67	5.98
Fraser	68275	7.47	7.55	7.63	7.74	7.91	8.61	8.71	8.74	8.79	8.99	10.05	10.08	10.10	10.20	10.40	4.90	5.13	5.40	5.68	5.99
Fraser	68690	7.49	7.56	7.65	7.75	7.92	8.62	8.72	8.75	8.81	9.00	10.07	10.09	10.11	10.21	10.41	4.92	5.15	5.41	5.69	5.99
Fraser	69154	7.53	7.60	7.69	7.80	7.96	8.67	8.77	8.80	8.85	9.05	10.12	10.14	10.16	10.26	10.46	4.95	5.17	5.44	5.71	6.02
Fraser	69599	7.56	7.63	7.72	7.82	7.99	8.71	8.80	8.83	8.89	9.08	10.16	10.18	10.20	10.30	10.50	4.97	5.19	5.45	5.73	6.03
Fraser	70006	7.62	7.69	7.77	7.88	8.04	8.78	8.87	8.91	8.96	9.15	10.25	10.28	10.30	10.39	10.59	5.00	5.22	5.48	5.75	6.05
Fraser	70401	7.65	7.72	7.80	7.91	8.07	8.81	8.91	8.94	8.99	9.18	10.30	10.32	10.35	10.44	10.64	5.02	5.24	5.49	5.77	6.07
Fraser	70804	7.70	7.77	7.85	7.95	8.11	8.88	8.97	9.00	9.05	9.24	10.37	10.40	10.42	10.51	10.70	5.05	5.26	5.52	5.79	6.08
Fraser	70882	7.70	7.78	7.86	7.96	8.12	8.89	8.98	9.01	9.06	9.25	10.38	10.40	10.43	10.51	10.71	5.05	5.27	5.52	5.79	6.09
Fraser	70882	7.70	7.78	7.86	7.96	8.12	8.89	8.98	9.01	9.06	9.25	10.38	10.40	10.43	10.51	10.71	5.05	5.27	5.52	5.79	6.09
Fraser	71256	7.57	7.64	7.72	7.83	7.99	8.71	8.80	8.83	8.89	9.08	10.16	10.18	10.21	10.30	10.50	4.99	5.21	5.47	5.74	6.04
Fraser	71642	7.67	7.74	7.83	7.93	8.08	8.83	8.92	8.95	9.00	9.19	10.28	10.31	10.33	10.42	10.61	5.06	5.27	5.52	5.79	6.09
Fraser	72035	7.72	7.79	7.87	7.97	8.12	8.87	8.96	9.00	9.05	9.23	10.33	10.36	10.38	10.47	10.66	5.09	5.30	5.55	5.81	6.11
Fraser	72477	7.77	7.84	7.92	8.02	8.17	8.93	9.02	9.05	9.10	9.28	10.40	10.42	10.44	10.53	10.72	5.13	5.34	5.58	5.84	6.13
Fraser	72960	7.84	7.91	7.99	8.09	8.24	9.01	9.10	9.13	9.18	9.36	10.49	10.52	10.54	10.62	10.81	5.17	5.37	5.61	5.88	6.16
Fraser	73369	7.94	8.00	8.08	8.18	8.32	9.12	9.20	9.23	9.28	9.46	10.60	10.62	10.65	10.73	10.91	5.25	5.46	5.69	5.94	6.23
Fraser	73842	8.02	8.09	8.16	8.26	8.40	9.21	9.29	9.32	9.37	9.54	10.70	10.72	10.74	10.82	11.01	5.31	5.50	5.73	5.98	6.27
Fraser	74310	8.02	8.08	8.16	8.25	8.40	9.20	9.28	9.31	9.36	9.53	10.69	10.71	10.73	10.81	10.99	5.31	5.51	5.74	5.99	6.27
Fraser	74580	8.03	8.10	8.17	8.27	8.41	9.21	9.29	9.32	9.37	9.54	10.69	10.71	10.73	10.81	11.00	5.33	5.52	5.75	6.00	6.28
Fraser	74790	8.08	8.14	8.21	8.31	8.45	9.26	9.34	9.37	9.42	9.59	10.74	10.76	10.78	10.86	11.04	5.35	5.55	5.77	6.02	6.30
Fraser	74970	8.09	8.15	8.23	8.32	8.46	9.27	9.35	9.38	9.43	9.60	10.75	10.78	10.80	10.87	11.05	5.36	5.56	5.78	6.03	6.31
Fraser	74970	8.09	8.15	8.23	8.32	8.46	9.27	9.35	9.38	9.43	9.60	10.75	10.78	10.80	10.87	11.05	5.36	5.56	5.78	6.03	6.31
Fraser	75211	8.13	8.20	8.27	8.36	8.50	9.33	9.41	9.44	9.49	9.66	10.84	10.86	10.88	10.96	11.14	5.38	5.58	5.80	6.05	6.32
Fraser	75604	8.12	8.18	8.26	8.35	8.49	9.30	9.38	9.41	9.46	9.63	10.79	10.82	10.84	10.91	11.09	5.39	5.58	5.80	6.05	6.32
Fraser	76008	8.13	8.19	8.26	8.36	8.49	9.31	9.39	9.42	9.46	9.63	10.79	10.81	10.83	10.91	11.09	5.40	5.59	5.81	6.06	6.33
Fraser	76419	8.15	8.21	8.28	8.37	8.51	9.32	9.40	9.43	9.48	9.64	10.80	10.82	10.84	10.91	11.09	5.41	5.60	5.82	6.07	6.34
Fraser	76811	8.16	8.22	8.30	8.39	8.52	9.35	9.43	9.46	9.50	9.67	10.85	10.87	10.89	10.96	11.14	5.42	5.61	5.83	6.07	6.35
Fraser	77165	8.22	8.28	8.35	8.44	8.58	9.41	9.49	9.52	9.56	9.73	10.90	10.92	10.94	11.01	11.19	5.45	5.64	5.86	6.10	6.37
Fraser	77577	8.30	8.36	8.43	8.52	8.65	9.50	9.58	9.61	9.65	9.82	11.01	11.03	11.05	11.12	11.30	5.49	5.68	5.90	6.14	6.41
Fraser	78036	8.38	8.44	8.51	8.60	8.73	9.61	9.69	9.71	9.76	9.92	11.14	11.16	11.18	11.25	11.42	5.54	5.73	5.94	6.18	6.44
Fraser	78432	8.44	8.49	8.56	8.65	8.78	9.67	9.75	9.77	9.82	9.97	11.21	11.23	11.25	11.32	11.49	5.57	5.76	5.97	6.20	6.47
Fraser	78677	8.46	8.51	8.58	8.67	8.80	9.69	9.77	9.79	9.84	9.99	11.23	11.25	11.27	11.34	11.51	5.58	5.77	5.98	6.22	6.48
Fraser	78677	8.46	8.51	8.58	8.67	8.80	9.69	9.77	9.79	9.84	9.99	11.23	11.25	11.27	11.34	11.51	5.58	5.77	5.98	6.22	6.48
Fraser	79359	8.41	8.47	8.54	8.63	8.76	9.65	9.73	9.76	9.80	9.96	11.19	11.21	11.23	11.30	11.47	5.56	5.75	5.96	6.19	6.46
Fraser	79751	8.42	8.48	8.55	8.64	8.77	9.65	9.72	9.75	9.79	9.95	11.17	11.19	11.21	11.28	11.45	5.58	5.77	5.98	6.21	6.47
Fraser	80151	8.43	8.49	8.56	8.65	8.77	9.65	9.72	9.75	9.79	9.95	11.16	11.18	11.20	11.27	11.44	5.60	5.78	5.99	6.22	6.48
Fraser	80578	8.52	8.58	8.65	8.73	8.86	9.75	9.83	9.86	9.90	10.05	11.29	11.31	11.33	11.39	11.56	5.64	5.83	6.03	6.26	6.52
Fraser	81062	8.55	8.61	8.67	8.76	8.88	9.79	9.86	9.89	9.93	10.09	11.35	11.37	11.39	11.45	11.62	5.66	5.84	6.05	6.28	6.53
Fraser	81501	8.57	8.62	8.69	8.77	8.90	9.79	9.86	9.89	9.93	10.08	11.32	11.34	11.36	11.43	11.59	5.69	5.87	6.07	6.30	6.55

Freshet Historical 1:1000							Freshet Scenario-A (Moderate) 1:1000					Freshet Scenario-B (Intense) 1:1000					Winter 1:1000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	81974	8.67	8.72	8.79	8.87	8.99	9.90	9.97	9.99	10.03	10.18	11.41	11.43	11.45	11.51	11.67	5.77	5.94	6.14	6.36	6.61
Fraser	82376	8.74	8.79	8.85	8.94	9.05	9.97	10.04	10.06	10.10	10.24	11.49	11.51	11.53	11.59	11.75	5.81	5.99	6.18	6.40	6.64
Fraser	82780	8.71	8.77	8.83	8.91	9.03	9.93	10.00	10.03	10.07	10.21	11.44	11.46	11.48	11.54	11.70	5.82	5.99	6.18	6.40	6.64
Fraser	83180	8.73	8.78	8.84	8.92	9.04	9.94	10.01	10.04	10.08	10.22	11.45	11.47	11.49	11.55	11.71	5.83	6.01	6.20	6.41	6.65
Fraser	83621	8.79	8.85	8.91	8.99	9.11	10.03	10.09	10.12	10.16	10.30	11.55	11.57	11.58	11.64	11.80	5.88	6.05	6.24	6.45	6.69
Fraser	83887	8.81	8.87	8.93	9.01	9.12	10.04	10.11	10.14	10.18	10.31	11.56	11.58	11.60	11.66	11.81	5.90	6.07	6.25	6.46	6.70
Fraser	83887	8.81	8.87	8.93	9.01	9.12	10.04	10.11	10.14	10.18	10.31	11.56	11.58	11.60	11.66	11.81	5.90	6.07	6.25	6.46	6.70
Fraser	84093	8.97	9.02	9.08	9.16	9.27	10.21	10.27	10.30	10.34	10.47	11.74	11.75	11.77	11.83	11.98	6.00	6.16	6.34	6.55	6.78
Fraser	84339	8.96	9.01	9.07	9.15	9.26	10.19	10.26	10.28	10.32	10.45	11.71	11.73	11.74	11.80	11.95	6.00	6.16	6.34	6.55	6.78
Fraser	84641	8.96	9.01	9.07	9.14	9.25	10.18	10.24	10.26	10.30	10.43	11.68	11.70	11.71	11.77	11.92	6.01	6.17	6.35	6.56	6.79
Fraser	85038	8.96	9.04	9.17	9.18	9.26	10.25	10.32	10.33	10.35	10.44	12.24	12.26	12.28	12.34	12.45	6.08	6.23	6.41	6.61	6.84
Fraser	85182	9.00	9.07	9.20	9.21	9.29	10.28	10.35	10.37	10.39	10.48	12.28	12.30	12.32	12.37	12.49	6.10	6.25	6.43	6.63	6.86
Fraser	85265	8.99	9.06	9.19	9.21	9.28	10.27	10.34	10.35	10.37	10.47	12.27	12.29	12.30	12.36	12.47	6.10	6.25	6.42	6.63	6.86
Fraser	85416	9.01	9.09	9.20	9.21	9.29	10.42	10.47	10.49	10.50	10.59	12.74	12.76	12.77	12.82	12.92	6.16	6.29	6.48	6.68	6.90
Fraser_R	85450	9.01	9.09	9.20	9.21	9.29	10.42	10.47	10.49	10.50	10.59	12.74	12.76	12.77	12.82	12.92	6.16	6.29	6.48	6.68	6.90
Fraser_R	85758	9.02	9.10	9.21	9.22	9.30	10.42	10.48	10.49	10.51	10.60	12.74	12.76	12.77	12.82	12.92	6.17	6.30	6.48	6.68	6.90
Fraser_R	86107	9.06	9.14	9.25	9.26	9.34	10.47	10.53	10.54	10.56	10.65	12.79	12.81	12.82	12.87	12.97	6.19	6.32	6.51	6.70	6.92
Fraser_R	86595	9.09	9.17	9.27	9.29	9.36	10.49	10.55	10.56	10.58	10.67	12.81	12.82	12.84	12.88	12.98	6.21	6.34	6.52	6.72	6.94
Fraser_R	86949	9.15	9.22	9.32	9.34	9.41	10.56	10.61	10.62	10.64	10.73	12.87	12.89	12.90	12.94	13.05	6.24	6.37	6.55	6.75	6.96
Fraser_R	87330	9.17	9.24	9.35	9.36	9.44	10.58	10.64	10.65	10.67	10.76	12.91	12.92	12.94	12.98	13.08	6.25	6.38	6.56	6.76	6.97
Fraser_R	87683	9.19	9.26	9.36	9.38	9.45	10.60	10.66	10.67	10.69	10.77	12.92	12.93	12.95	12.99	13.09	6.26	6.39	6.57	6.77	6.98
Fraser_R	88073	9.21	9.28	9.38	9.40	9.47	10.63	10.68	10.69	10.71	10.80	12.94	12.96	12.97	13.02	13.12	6.26	6.39	6.57	6.77	6.98
Fraser_R	88434	9.23	9.30	9.40	9.42	9.49	10.64	10.69	10.70	10.72	10.80	12.93	12.94	12.96	13.00	13.10	6.30	6.42	6.60	6.79	7.01
Fraser_R	88806	9.48	9.54	9.64	9.66	9.73	10.93	10.98	10.99	11.01	11.09	13.25	13.26	13.28	13.32	13.41	6.42	6.54	6.72	6.91	7.12
Fraser_R	89286	9.50	9.57	9.67	9.68	9.75	10.97	11.02	11.03	11.05	11.13	13.31	13.33	13.34	13.38	13.48	6.42	6.55	6.72	6.91	7.12
Fraser_R	89601	9.47	9.54	9.64	9.66	9.72	10.93	10.98	10.99	11.01	11.09	13.27	13.29	13.30	13.34	13.43	6.41	6.54	6.71	6.90	7.11
Fraser_R	89916	9.54	9.61	9.71	9.72	9.79	11.01	11.06	11.07	11.08	11.16	13.34	13.35	13.37	13.40	13.50	6.45	6.57	6.74	6.93	7.14
Fraser_R	90250	9.58	9.64	9.74	9.75	9.82	11.04	11.09	11.10	11.12	11.19	13.36	13.38	13.39	13.43	13.53	6.47	6.60	6.77	6.96	7.16
Fraser_R	90626	9.59	9.66	9.75	9.77	9.83	11.05	11.10	11.11	11.13	11.20	13.37	13.39	13.40	13.44	13.53	6.49	6.61	6.78	6.97	7.17
Fraser_R	90963	9.63	9.70	9.79	9.81	9.87	11.09	11.14	11.15	11.17	11.24	13.41	13.42	13.43	13.47	13.57	6.52	6.64	6.81	6.99	7.20
Fraser_R	91389	9.67	9.73	9.83	9.84	9.91	11.13	11.18	11.19	11.20	11.28	13.44	13.46	13.47	13.51	13.60	6.54	6.66	6.83	7.02	7.22
Fraser_R	91751	9.70	9.76	9.86	9.87	9.93	11.15	11.20	11.21	11.23	11.30	13.46	13.47	13.48	13.52	13.61	6.57	6.69	6.86	7.04	7.24
Fraser_R	92078	9.75	9.81	9.90	9.92	9.98	11.20	11.25	11.26	11.28	11.35	13.50	13.52	13.53	13.57	13.66	6.60	6.72	6.89	7.07	7.27
Fraser_R	92483	9.80	9.86	9.96	9.97	10.03	11.25	11.30	11.31	11.33	11.40	13.54	13.56	13.57	13.61	13.70	6.64	6.76	6.92	7.10	7.30
Fraser_R	92893	9.83	9.89	9.98	9.99	10.05	11.27	11.32	11.33	11.35	11.42	13.56	13.57	13.58	13.62	13.71	6.67	6.78	6.94	7.12	7.32
Fraser_R	93270	9.83	9.90	9.99	10.00	10.06	11.28	11.32	11.34	11.35	11.42	13.55	13.57	13.58	13.61	13.70	6.68	6.80	6.96	7.13	7.33
Fraser_R	93643	9.86	9.92	10.01	10.03	10.09	11.30	11.35	11.36	11.38	11.45	13.57	13.59	13.60	13.63	13.72	6.70	6.82	6.98	7.15	7.35
Fraser_R	93974	9.90	9.96	10.05	10.07	10.12	11.35	11.39	11.40	11.42	11.49	13.62	13.63	13.64	13.68	13.77	6.73	6.84	7.00	7.17	7.37
Fraser_R	94338	9.95	10.01	10.10	10.11	10.17	11.40	11.45	11.46	11.47	11.54	13.67	13.68	13.70	13.73	13.82	6.76	6.87	7.03	7.20	7.40

Freshet Historical 1:1000							Freshet Scenario-A (Moderate) 1:1000					Freshet Scenario-B (Intense) 1:1000					Winter 1:1000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	94714	10.00	10.06	10.15	10.16	10.22	11.45	11.50	11.51	11.53	11.59	13.73	13.74	13.75	13.79	13.88	6.80	6.91	7.07	7.23	7.42
Fraser_R	95088	10.04	10.10	10.19	10.20	10.26	11.51	11.55	11.56	11.58	11.65	13.78	13.80	13.81	13.84	13.93	6.82	6.93	7.09	7.26	7.45
Fraser_R	95477	10.10	10.16	10.25	10.26	10.32	11.57	11.61	11.62	11.64	11.70	13.84	13.85	13.86	13.90	13.98	6.86	6.97	7.13	7.29	7.48
Fraser_R	95847	10.10	10.16	10.25	10.26	10.32	11.58	11.62	11.63	11.65	11.71	13.86	13.87	13.88	13.92	14.00	6.85	6.96	7.11	7.28	7.47
Fraser_R	96277	10.15	10.21	10.30	10.31	10.37	11.63	11.67	11.68	11.70	11.76	13.90	13.92	13.93	13.96	14.05	6.89	7.00	7.15	7.32	7.50
Fraser_R	96597	10.18	10.24	10.32	10.33	10.39	11.65	11.69	11.70	11.71	11.78	13.92	13.93	13.94	13.98	14.06	6.90	7.01	7.16	7.33	7.51
Fraser_R	97004	10.15	10.21	10.29	10.30	10.36	11.61	11.66	11.67	11.68	11.75	13.88	13.89	13.91	13.94	14.03	6.92	7.03	7.18	7.34	7.53
Fraser_R	97348	10.18	10.24	10.33	10.34	10.39	11.63	11.68	11.69	11.70	11.77	13.88	13.90	13.91	13.94	14.03	6.94	7.05	7.20	7.36	7.54
Fraser_R	97701	10.26	10.31	10.40	10.41	10.46	11.70	11.74	11.75	11.76	11.83	13.93	13.94	13.95	13.99	14.07	7.00	7.10	7.25	7.41	7.59
Fraser_R	98091	10.30	10.35	10.43	10.44	10.50	11.72	11.77	11.78	11.79	11.85	13.95	13.96	13.97	14.00	14.09	7.03	7.14	7.28	7.44	7.62
Fraser_R	98420	10.32	10.38	10.45	10.47	10.52	11.73	11.77	11.78	11.80	11.86	13.94	13.95	13.96	14.00	14.08	7.07	7.17	7.31	7.47	7.64
Fraser_R	98751	10.33	10.39	10.46	10.47	10.53	11.74	11.78	11.79	11.80	11.87	13.94	13.95	13.96	13.99	14.08	7.07	7.18	7.32	7.48	7.65
Fraser_R	99087	10.42	10.47	10.55	10.56	10.61	11.83	11.87	11.88	11.90	11.96	14.02	14.04	14.05	14.08	14.16	7.14	7.24	7.38	7.53	7.70
Fraser_R	99341	10.47	10.52	10.60	10.61	10.66	11.90	11.94	11.95	11.96	12.02	14.10	14.11	14.12	14.15	14.23	7.16	7.26	7.40	7.56	7.73
Fraser_R	99644	10.51	10.56	10.64	10.65	10.70	11.94	11.98	11.99	12.01	12.07	14.15	14.16	14.17	14.20	14.28	7.19	7.29	7.43	7.58	7.75
Fraser_R	99955	10.55	10.60	10.68	10.69	10.74	11.98	12.02	12.03	12.05	12.11	14.19	14.20	14.21	14.24	14.32	7.22	7.32	7.46	7.61	7.78
Fraser_R	99955	10.55	10.60	10.68	10.69	10.74	11.98	12.02	12.03	12.05	12.11	14.19	14.20	14.21	14.24	14.32	7.22	7.32	7.46	7.61	7.78
Fraser_R	100348	10.55	10.60	10.68	10.69	10.74	11.98	12.02	12.03	12.05	12.11	14.19	14.20	14.21	14.24	14.32	7.22	7.32	7.46	7.61	7.78
Fraser_R	100688	10.58	10.63	10.71	10.72	10.77	12.02	12.06	12.07	12.08	12.14	14.22	14.23	14.24	14.27	14.35	7.24	7.34	7.48	7.63	7.80
Fraser_R	101083	10.61	10.66	10.73	10.74	10.79	12.04	12.08	12.09	12.10	12.16	14.24	14.25	14.26	14.29	14.37	7.26	7.36	7.50	7.64	7.81
Fraser_R	101411	10.60	10.65	10.73	10.74	10.79	12.03	12.07	12.08	12.10	12.15	14.23	14.24	14.25	14.29	14.36	7.26	7.36	7.50	7.64	7.81
Fraser_R	101745	10.59	10.64	10.72	10.73	10.78	12.03	12.07	12.08	12.09	12.15	14.23	14.24	14.25	14.28	14.36	7.26	7.36	7.49	7.64	7.81
Fraser_R	102107	10.68	10.73	10.80	10.81	10.85	12.10	12.14	12.15	12.16	12.22	14.29	14.30	14.31	14.34	14.42	7.34	7.43	7.56	7.71	7.87
Fraser_R	102614	10.70	10.75	10.82	10.83	10.87	12.12	12.16	12.16	12.18	12.23	14.30	14.31	14.32	14.35	14.43	7.37	7.46	7.59	7.73	7.89
Fraser_R	103057	10.72	10.76	10.83	10.85	10.89	12.13	12.17	12.18	12.19	12.25	14.31	14.32	14.33	14.36	14.44	7.40	7.49	7.62	7.76	7.91
Fraser_R	103447	10.75	10.80	10.87	10.88	10.93	12.16	12.20	12.21	12.22	12.28	14.33	14.34	14.35	14.39	14.46	7.45	7.54	7.66	7.80	7.95
Fraser_R	103782	10.81	10.85	10.92	10.93	10.98	12.20	12.23	12.24	12.26	12.31	14.35	14.36	14.37	14.41	14.48	7.50	7.59	7.71	7.85	8.00
Fraser_R	104233	10.89	10.93	11.00	11.01	11.05	12.28	12.32	12.32	12.34	12.39	14.42	14.43	14.44	14.47	14.55	7.57	7.65	7.77	7.90	8.05
Fraser_R	104653	10.94	10.98	11.05	11.06	11.10	12.32	12.35	12.36	12.37	12.43	14.45	14.46	14.47	14.50	14.57	7.63	7.71	7.83	7.95	8.10
Fraser_R	105033	10.96	11.00	11.07	11.08	11.12	12.33	12.37	12.38	12.39	12.44	14.45	14.46	14.48	14.51	14.58	7.66	7.74	7.86	7.98	8.12
Fraser_R	105317	10.97	11.01	11.07	11.08	11.13	12.34	12.38	12.38	12.40	12.45	14.46	14.47	14.49	14.52	14.59	7.68	7.76	7.87	7.99	8.13
Fraser_R	105752	11.00	11.05	11.11	11.12	11.16	12.37	12.41	12.42	12.43	12.48	14.49	14.50	14.51	14.54	14.61	7.72	7.80	7.91	8.03	8.17
Fraser_R	106155	11.03	11.07	11.13	11.14	11.18	12.39	12.43	12.44	12.45	12.50	14.50	14.51	14.52	14.55	14.63	7.76	7.84	7.95	8.07	8.20
Fraser_R	106506	11.05	11.09	11.16	11.16	11.20	12.41	12.45	12.46	12.47	12.52	14.52	14.53	14.54	14.57	14.64	7.79	7.87	7.97	8.09	8.22
Fraser_R	106807	11.06	11.10	11.16	11.17	11.21	12.41	12.45	12.46	12.47	12.52	14.51	14.52	14.53	14.56	14.63	7.82	7.89	8.00	8.11	8.24
Fraser_R	106807	11.06	11.10	11.16	11.17	11.21	12.41	12.45	12.46	12.47	12.52	14.51	14.52	14.53	14.56	14.63	7.82	7.89	8.00	8.11	8.24
Fraser_R	107158	10.98	11.02	11.09	11.10	11.14	12.33	12.36	12.37	12.38	12.43	14.42	14.43	14.44	14.47	14.54	7.78	7.85	7.96	8.07	8.20
Fraser_R	107502	11.01	11.05	11.11	11.12	11.16	12.34	12.38	12.38	12.40	12.45	14.42	14.43	14.44	14.47	14.54	7.85	7.92	8.02	8.13	8.25
Fraser_R	107855	11.08	11.12	11.18	11.19	11.23	12.41	12.44	12.45	12.46	12.51	14.50	14.51	14.52	14.55	14.63	7.93	8.00	8.09	8.20	8.32

Freshet Historical 1:1000							Freshet Scenario-A (Moderate) 1:1000					Freshet Scenario-B (Intense) 1:1000					Winter 1:1000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	108192	11.10	11.14	11.20	11.21	11.25	12.42	12.45	12.46	12.47	12.52	14.48	14.49	14.50	14.53	14.60	8.00	8.07	8.16	8.26	8.37
Fraser_R	108505	11.23	11.27	11.33	11.33	11.37	12.55	12.58	12.59	12.60	12.65	14.60	14.61	14.62	14.65	14.72	8.11	8.17	8.26	8.36	8.47
Fraser_R	108822	11.34	11.37	11.43	11.43	11.47	12.65	12.68	12.69	12.70	12.74	14.68	14.69	14.70	14.73	14.79	8.24	8.30	8.38	8.47	8.57
Fraser_R	109145	11.38	11.42	11.47	11.48	11.51	12.69	12.72	12.72	12.73	12.78	14.71	14.72	14.73	14.75	14.82	8.34	8.39	8.46	8.55	8.65
Fraser_R	109489	11.44	11.48	11.53	11.54	11.57	12.76	12.79	12.80	12.81	12.85	14.79	14.80	14.81	14.83	14.90	8.39	8.44	8.51	8.59	8.68
Fraser_R	109795	11.50	11.53	11.59	11.59	11.63	12.80	12.83	12.83	12.84	12.89	14.80	14.81	14.82	14.85	14.92	8.43	8.48	8.55	8.63	8.72
Fraser_R	109795	11.50	11.53	11.59	11.59	11.63	12.80	12.83	12.83	12.84	12.89	14.80	14.81	14.82	14.85	14.92	8.43	8.48	8.55	8.63	8.72
Fraser_R	110180	11.54	11.58	11.62	11.63	11.66	12.79	12.82	12.83	12.84	12.88	14.77	14.78	14.79	14.82	14.88	8.56	8.61	8.67	8.74	8.83
Fraser_R	110180	11.54	11.58	11.62	11.63	11.66	12.79	12.82	12.83	12.84	12.88	14.77	14.78	14.79	14.82	14.88	8.56	8.61	8.67	8.74	8.83
Fraser_R	110821	11.67	11.70	11.74	11.75	11.78	12.86	12.89	12.90	12.91	12.95	14.80	14.81	14.82	14.84	14.91	8.81	8.85	8.91	8.97	9.05
Fraser_R	110821	11.67	11.70	11.74	11.75	11.78	12.86	12.89	12.90	12.91	12.95	14.80	14.81	14.82	14.84	14.91	8.81	8.85	8.91	8.97	9.05
Fraser_R	111192	11.65	11.68	11.72	11.73	11.75	12.83	12.85	12.86	12.87	12.91	14.73	14.74	14.75	14.78	14.84	8.89	8.92	8.97	9.03	9.10
Fraser_R	111192	11.65	11.68	11.72	11.73	11.75	12.83	12.85	12.86	12.87	12.91	14.73	14.74	14.75	14.78	14.84	8.89	8.92	8.97	9.03	9.10
Fraser_R	111514	11.67	11.70	11.74	11.75	11.77	12.85	12.88	12.88	12.89	12.93	14.76	14.77	14.78	14.80	14.87	8.90	8.94	8.99	9.05	9.12
Fraser_R	111886	11.83	11.86	11.90	11.90	11.93	13.00	13.02	13.03	13.04	13.08	14.89	14.90	14.91	14.93	14.99	9.03	9.06	9.11	9.17	9.23
Fraser_R	112217	11.96	11.98	12.02	12.03	12.05	13.11	13.13	13.14	13.15	13.18	14.98	14.99	14.99	15.02	15.08	9.16	9.19	9.24	9.29	9.35
Fraser_R	112217	11.96	11.98	12.02	12.03	12.05	13.11	13.13	13.14	13.15	13.18	14.98	14.99	14.99	15.02	15.08	9.16	9.19	9.24	9.29	9.35
Fraser_R	112565	12.02	12.05	12.08	12.09	12.11	13.17	13.20	13.20	13.21	13.25	15.04	15.05	15.05	15.08	15.14	9.22	9.25	9.30	9.35	9.41
Fraser_R	112565	12.02	12.05	12.08	12.09	12.11	13.17	13.20	13.20	13.21	13.25	15.04	15.05	15.05	15.08	15.14	9.22	9.25	9.30	9.35	9.41
Fraser_R	112925	12.05	12.07	12.11	12.11	12.14	13.19	13.21	13.22	13.23	13.26	15.04	15.05	15.06	15.09	15.15	9.25	9.28	9.33	9.38	9.44
Fraser_R	112925	12.05	12.07	12.11	12.11	12.14	13.19	13.21	13.22	13.23	13.26	15.04	15.05	15.06	15.09	15.15	9.25	9.28	9.33	9.38	9.44
Fraser_R	113344	12.06	12.09	12.12	12.13	12.15	13.20	13.22	13.23	13.23	13.27	15.04	15.05	15.06	15.08	15.14	9.32	9.35	9.39	9.43	9.49
Fraser_R	113644	12.10	12.12	12.16	12.16	12.18	13.22	13.24	13.25	13.26	13.29	15.06	15.06	15.07	15.10	15.16	9.41	9.44	9.48	9.52	9.57
Fraser_R	114093	12.23	12.25	12.28	12.29	12.31	13.30	13.32	13.33	13.34	13.37	15.09	15.10	15.11	15.13	15.19	9.66	9.68	9.71	9.75	9.80
Fraser_R	114093	12.23	12.25	12.28	12.29	12.31	13.30	13.32	13.33	13.34	13.37	15.09	15.10	15.11	15.13	15.19	9.66	9.68	9.71	9.75	9.80
Fraser_R	114403	12.23	12.25	12.28	12.28	12.30	13.26	13.28	13.29	13.29	13.33	15.01	15.02	15.03	15.05	15.11	9.74	9.76	9.79	9.83	9.87
Fraser_R	114731	12.51	12.53	12.56	12.56	12.58	13.54	13.56	13.57	13.57	13.60	15.26	15.27	15.28	15.30	15.35	9.95	9.97	10.00	10.03	10.07
Fraser_R	115152	12.65	12.67	12.69	12.70	12.71	13.68	13.69	13.70	13.71	13.73	15.38	15.39	15.39	15.41	15.47	10.05	10.07	10.10	10.13	10.16
Fraser_R	115530	12.74	12.76	12.78	12.79	12.80	13.76	13.78	13.78	13.79	13.82	15.45	15.46	15.46	15.48	15.53	10.14	10.15	10.18	10.21	10.25
Fraser_R	115921	12.85	12.86	12.89	12.89	12.91	13.87	13.89	13.90	13.90	13.93	15.56	15.56	15.57	15.59	15.64	10.21	10.23	10.25	10.28	10.31
Fraser_R	116277	12.86	12.87	12.90	12.90	12.92	13.84	13.86	13.86	13.87	13.89	15.48	15.49	15.50	15.52	15.57	10.33	10.35	10.37	10.40	10.43
Fraser_R	116526	12.93	12.95	12.97	12.98	12.99	13.92	13.93	13.94	13.94	13.97	15.55	15.56	15.56	15.58	15.63	10.39	10.41	10.43	10.46	10.49
Fraser_R	116822	13.42	13.43	13.45	13.46	13.47	14.43	14.44	14.44	14.45	14.47	16.09	16.10	16.10	16.12	16.17	10.70	10.72	10.74	10.76	10.79
Fraser_R	117205	13.68	13.70	13.72	13.72	13.73	14.69	14.70	14.71	14.71	14.73	16.29	16.30	16.30	16.32	16.36	10.91	10.92	10.94	10.96	10.99
Fraser_R	117465	13.72	13.73	13.75	13.75	13.76	14.72	14.73	14.74	14.74	14.76	16.32	16.32	16.33	16.35	16.39	10.94	10.96	10.97	10.99	11.02
Fraser_R	117465	13.72	13.73	13.75	13.75	13.76	14.72	14.73	14.74	14.74	14.76	16.32	16.32	16.33	16.35	16.39	10.94	10.96	10.97	10.99	11.02
Fraser_R	117693	13.68	13.69	13.71	13.71	13.73	14.68	14.70	14.70	14.70	14.72	16.28	16.29	16.30	16.31	16.35	10.93	10.94	10.96	10.98	11.01
Fraser_R	117965	13.69	13.70	13.72	13.72	13.74	14.68	14.70	14.70	14.70	14.72	16.27	16.28	16.29	16.30	16.34	10.96	10.97	10.99	11.01	11.03
Fraser_R	118227	13.65	13.66	13.68	13.69	13.70	14.64	14.66	14.66	14.67	14.69	16.24	16.25	16.25	16.27	16.31	10.97	10.98	11.00	11.02	11.04

Freshet Historical 1:1000							Freshet Scenario-A (Moderate) 1:1000					Freshet Scenario-B (Intense) 1:1000					Winter 1:1000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	118629	13.83	13.84	13.86	13.86	13.87	14.77	14.78	14.78	14.79	14.81	16.31	16.32	16.32	16.34	16.38	11.07	11.09	11.10	11.12	11.14
Fraser_R	119023	14.08	14.09	14.10	14.10	14.11	14.99	15.00	15.01	15.01	15.02	16.49	16.49	16.50	16.51	16.55	11.24	11.25	11.26	11.28	11.30
Fraser_R	119296	14.09	14.10	14.11	14.11	14.12	15.00	15.01	15.01	15.01	15.03	16.49	16.49	16.50	16.51	16.55	11.24	11.25	11.27	11.28	11.30
Fraser_R	119296	14.09	14.10	14.11	14.11	14.12	15.00	15.01	15.01	15.01	15.03	16.49	16.49	16.50	16.51	16.55	11.24	11.25	11.27	11.28	11.30
Fraser_R	119760	14.38	14.39	14.40	14.40	14.41	15.31	15.32	15.33	15.33	15.34	16.80	16.81	16.81	16.82	16.86	11.42	11.43	11.44	11.45	11.47
Fraser_R	120109	14.41	14.42	14.43	14.43	14.44	15.30	15.31	15.31	15.32	15.33	16.75	16.76	16.76	16.78	16.81	11.49	11.50	11.51	11.52	11.54
Fraser_R	120552	14.63	14.64	14.65	14.65	14.66	15.54	15.54	15.55	15.55	15.56	16.93	16.94	16.94	16.96	16.99	11.64	11.65	11.66	11.67	11.69
Fraser_R	120979	14.81	14.82	14.83	14.83	14.83	15.71	15.72	15.72	15.72	15.73	17.08	17.08	17.09	17.10	17.13	11.80	11.81	11.82	11.83	11.85
Fraser_R	121391	15.00	15.01	15.02	15.02	15.03	15.93	15.94	15.94	15.94	15.95	17.32	17.32	17.32	17.33	17.36	11.89	11.90	11.91	11.92	11.94
Fraser_R	121770	15.11	15.12	15.13	15.13	15.14	16.04	16.05	16.05	16.05	16.06	17.42	17.42	17.43	17.44	17.46	12.00	12.00	12.01	12.02	12.03
Fraser_R	121960	15.17	15.18	15.19	15.19	15.20	16.10	16.10	16.10	16.11	16.12	17.45	17.45	17.45	17.46	17.49	12.06	12.07	12.08	12.09	12.10
Fraser_R	121960	15.17	15.18	15.19	15.19	15.20	16.10	16.10	16.10	16.11	16.12	17.45	17.45	17.45	17.46	17.49	12.06	12.07	12.08	12.09	12.10
Fraser_R	122189	15.23	15.24	15.24	15.25	15.25	16.14	16.15	16.15	16.15	16.16	17.46	17.47	17.47	17.48	17.50	12.14	12.14	12.15	12.16	12.17
Fraser_R	122649	15.44	15.45	15.46	15.46	15.46	16.35	16.36	16.36	16.36	16.37	17.66	17.66	17.67	17.68	17.70	12.32	12.33	12.34	12.34	12.36
Fraser_R	123115	15.56	15.57	15.57	15.57	15.58	16.47	16.47	16.48	16.48	16.49	17.77	17.77	17.78	17.78	17.81	12.44	12.45	12.45	12.46	12.47
Fraser_R	123115	15.56	15.57	15.57	15.57	15.58	16.47	16.47	16.48	16.48	16.49	17.77	17.77	17.78	17.78	17.81	12.44	12.45	12.45	12.46	12.47
Fraser_R	123582	15.61	15.62	15.63	15.63	15.63	16.52	16.53	16.53	16.53	16.54	17.82	17.82	17.82	17.83	17.85	12.54	12.55	12.55	12.56	12.57
Fraser_R	123950	15.64	15.64	15.65	15.65	15.65	16.52	16.53	16.53	16.53	16.54	17.80	17.80	17.81	17.81	17.84	12.70	12.71	12.71	12.72	12.72
Fraser_R	124343	15.86	15.87	15.87	15.87	15.88	16.74	16.74	16.74	16.74	16.75	18.00	18.00	18.00	18.01	18.03	12.95	12.96	12.96	12.96	12.97
Fraser_R	124343	15.86	15.87	15.87	15.87	15.88	16.74	16.74	16.74	16.74	16.75	18.00	18.00	18.00	18.01	18.03	12.95	12.96	12.96	12.96	12.97
Fraser_R	124720	15.92	15.93	15.93	15.93	15.94	16.78	16.79	16.79	16.79	16.80	18.03	18.03	18.03	18.04	18.06	13.10	13.10	13.11	13.11	13.12
Fraser_R	125093	15.91	15.91	15.92	15.92	15.92	16.73	16.73	16.74	16.74	16.74	17.93	17.93	17.94	17.94	17.96	13.26	13.26	13.27	13.27	13.27
Fraser_R	125436	16.25	16.25	16.26	16.26	16.26	17.06	17.07	17.07	17.07	17.07	18.25	18.26	18.26	18.27	18.28	13.56	13.57	13.57	13.57	13.57
Fraser_R	125807	16.35	16.35	16.36	16.36	16.36	17.16	17.17	17.17	17.17	17.18	18.35	18.36	18.36	18.37	18.38	13.68	13.69	13.69	13.69	13.69
Fraser_R	125807	16.35	16.35	16.36	16.36	16.36	17.16	17.17	17.17	17.17	17.18	18.35	18.36	18.36	18.37	18.38	13.68	13.69	13.69	13.69	13.69
Fraser_R	126146	16.44	16.44	16.45	16.45	16.45	17.24	17.24	17.24	17.24	17.25	18.41	18.41	18.41	18.42	18.44	13.84	13.84	13.84	13.84	13.84
Fraser_R	126146	16.44	16.44	16.45	16.45	16.45	17.24	17.24	17.24	17.24	17.25	18.41	18.41	18.41	18.42	18.44	13.84	13.84	13.84	13.84	13.84
Fraser_R	126471	16.38	16.39	16.39	16.39	16.40	17.17	17.17	17.17	17.17	17.18	18.32	18.32	18.33	18.33	18.35	13.83	13.83	13.83	13.83	13.83
Fraser_R	126811	16.42	16.42	16.43	16.43	16.43	17.17	17.17	17.18	17.18	17.18	18.29	18.29	18.29	18.30	18.32	14.01	14.01	14.01	14.02	14.02
Fraser_R	126811	16.42	16.42	16.43	16.43	16.43	17.17	17.17	17.18	17.18	17.18	18.29	18.29	18.29	18.30	18.32	14.01	14.01	14.01	14.02	14.02
Fraser_R	127331	16.71	16.71	16.71	16.71	16.71	17.41	17.41	17.41	17.41	17.42	18.43	18.43	18.44	18.44	18.46	14.32	14.32	14.32	14.33	14.33
Fraser_R	127331	16.71	16.71	16.71	16.71	16.71	17.41	17.41	17.41	17.41	17.42	18.43	18.43	18.44	18.44	18.46	14.32	14.32	14.32	14.33	14.33
Fraser_R	127666	16.89	16.89	16.89	16.89	16.89	17.60	17.60	17.60	17.60	17.61	18.60	18.61	18.61	18.61	18.63	14.44	14.44	14.44	14.44	14.44
Fraser_R	128018	17.32	17.32	17.32	17.32	17.33	18.12	18.13	18.13	18.13	18.13	19.21	19.21	19.21	19.22	19.23	14.59	14.59	14.59	14.59	14.59
Fraser_R	128434	17.58	17.58	17.58	17.58	17.58	18.41	18.41	18.41	18.41	18.41	19.50	19.50	19.51	19.51	19.52	14.75	14.75	14.75	14.75	14.75
Fraser_R	128434	17.58	17.58	17.58	17.58	17.58	18.41	18.41	18.41	18.41	18.41	19.50	19.50	19.51	19.51	19.52	14.75	14.75	14.75	14.75	14.75
Fraser_R	128804	17.83	17.84	17.84	17.84	17.84	18.65	18.65	18.65	18.65	18.65	19.72	19.72	19.72	19.73	19.74	14.95	14.95	14.96	14.96	14.96
Fraser_R	129148	18.03	18.03	18.03	18.03	18.03	18.80	18.81	18.81	18.81	18.81	19.82	19.82	19.82	19.82	19.83	15.16	15.16	15.16	15.17	15.17
Fraser_R	129526	18.28	18.28	18.29	18.29	18.29	19.08	19.08	19.08	19.08	19.09	20.11	20.11	20.11	20.11	20.12	15.33	15.33	15.33	15.33	15.34

Freshet Historical 1:1000							Freshet Scenario-A (Moderate) 1:1000					Freshet Scenario-B (Intense) 1:1000					Winter 1:1000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	129526	18.28	18.28	18.29	18.29	18.29	19.08	19.08	19.08	19.08	19.09	20.11	20.11	20.11	20.11	20.12	15.33	15.33	15.33	15.33	15.34
Fraser_R	129916	18.25	18.25	18.26	18.26	18.26	19.01	19.02	19.02	19.02	19.02	20.04	20.05	20.05	20.05	20.06	15.51	15.51	15.51	15.52	15.52
Fraser_R	129916	18.25	18.25	18.26	18.26	18.26	19.01	19.02	19.02	19.02	19.02	20.04	20.05	20.05	20.05	20.06	15.51	15.51	15.51	15.52	15.52
Fraser_R	130256	18.31	18.31	18.31	18.31	18.31	19.06	19.06	19.06	19.06	19.06	20.06	20.06	20.07	20.07	20.08	15.67	15.67	15.67	15.68	15.68
Fraser_R	130472	18.48	18.48	18.48	18.48	18.49	19.24	19.24	19.24	19.24	19.24	20.18	20.18	20.18	20.18	20.19	15.79	15.79	15.79	15.79	15.79
Fraser_R	130624	18.61	18.61	18.61	18.61	18.61	19.35	19.35	19.35	19.35	19.35	20.44	20.44	20.44	20.44	20.44	15.90	15.90	15.90	15.90	15.91
Fraser_R	130827	18.74	18.74	18.74	18.74	18.74	19.50	19.50	19.50	19.50	19.50	20.57	20.57	20.57	20.57	20.57	15.98	15.98	15.98	15.98	15.98
Fraser_R	131166	18.91	18.91	18.91	18.91	18.91	19.67	19.68	19.68	19.68	19.68	20.71	20.71	20.71	20.71	20.71	16.09	16.09	16.09	16.09	16.09
Fraser_R	131597	19.14	19.14	19.15	19.15	19.15	19.93	19.93	19.93	19.93	19.93	20.95	20.95	20.95	20.95	20.95	16.25	16.25	16.25	16.25	16.25
Fraser_R	131858	19.17	19.17	19.17	19.17	19.17	19.94	19.94	19.94	19.94	19.94	20.93	20.93	20.93	20.93	20.94	16.35	16.35	16.35	16.35	16.36
Fraser_R	131858	19.17	19.17	19.17	19.17	19.17	19.94	19.94	19.94	19.94	19.94	20.93	20.93	20.93	20.93	20.94	16.35	16.35	16.35	16.35	16.36
Fraser_R	132206	19.54	19.54	19.54	19.54	19.54	20.34	20.34	20.34	20.34	20.34	21.33	21.33	21.33	21.33	21.33	16.54	16.54	16.54	16.54	16.54
Fraser_R	132206	19.54	19.54	19.54	19.54	19.54	20.34	20.34	20.34	20.34	20.34	21.33	21.33	21.33	21.33	21.33	16.54	16.54	16.54	16.54	16.54
Fraser_R	132561	19.54	19.54	19.54	19.54	19.54	20.34	20.35	20.35	20.35	20.35	21.34	21.34	21.34	21.34	21.34	16.50	16.50	16.50	16.50	16.50
Fraser_R	132561	19.54	19.54	19.54	19.54	19.54	20.34	20.35	20.35	20.35	20.35	21.34	21.34	21.34	21.34	21.34	16.50	16.50	16.50	16.50	16.50
Fraser_R	132862	19.60	19.60	19.60	19.60	19.60	20.40	20.40	20.40	20.40	20.41	21.41	21.41	21.41	21.41	21.42	16.57	16.57	16.57	16.57	16.58
Fraser_R	133192	19.63	19.64	19.64	19.64	19.64	20.43	20.43	20.43	20.43	20.43	21.40	21.40	21.40	21.40	21.40	16.65	16.65	16.65	16.65	16.65
Fraser_R	133558	19.76	19.76	19.76	19.76	19.76	20.52	20.52	20.52	20.52	20.52	21.45	21.45	21.45	21.45	21.46	16.79	16.79	16.79	16.79	16.79
Fraser_R	133899	20.03	20.03	20.03	20.03	20.03	20.80	20.80	20.80	20.80	20.80	21.73	21.73	21.73	21.73	21.74	17.02	17.02	17.02	17.02	17.02
Fraser_R	134143	20.19	20.19	20.19	20.19	20.19	20.98	20.98	20.98	20.98	20.98	21.95	21.95	21.95	21.95	21.95	17.15	17.15	17.15	17.15	17.15
Fraser_R	134143	20.19	20.19	20.19	20.19	20.19	20.98	20.98	20.98	20.98	20.98	21.95	21.95	21.95	21.95	21.95	17.15	17.15	17.15	17.15	17.15
Fraser_R	134975	20.25	20.25	20.25	20.25	20.25	21.05	21.05	21.05	21.05	21.05	22.01	22.01	22.01	22.01	22.01	17.25	17.25	17.25	17.25	17.25
Fraser_R	134975	20.25	20.25	20.25	20.25	20.25	21.05	21.05	21.05	21.05	21.05	22.01	22.01	22.01	22.01	22.01	17.25	17.25	17.25	17.25	17.25
Fraser_R	135327	20.32	20.32	20.32	20.32	20.32	21.11	21.11	21.11	21.11	21.11	22.07	22.07	22.07	22.07	22.07	17.47	17.47	17.47	17.47	17.47
Fraser_R	135630	20.39	20.39	20.39	20.39	20.39	21.17	21.17	21.17	21.17	21.17	22.11	22.11	22.11	22.11	22.11	17.67	17.67	17.67	17.67	17.67
Fraser_R	135982	20.53	20.53	20.53	20.53	20.53	21.31	21.31	21.31	21.31	21.31	22.24	22.24	22.24	22.24	22.24	17.92	17.92	17.92	17.92	17.92
Fraser_R	136497	20.64	20.64	20.64	20.64	20.64	21.40	21.40	21.40	21.40	21.40	22.31	22.31	22.31	22.31	22.31	18.16	18.16	18.16	18.16	18.16
Fraser_R	136921	20.78	20.78	20.78	20.78	20.78	21.51	21.51	21.51	21.51	21.51	22.40	22.40	22.40	22.40	22.40	18.41	18.41	18.41	18.41	18.41
Fraser_R	137374	20.99	20.99	20.99	20.99	20.99	21.69	21.69	21.69	21.69	21.69	22.54	22.54	22.54	22.54	22.54	18.70	18.70	18.70	18.70	18.70
Fraser_R	137870	21.33	21.33	21.33	21.33	21.33	21.95	21.95	21.95	21.95	21.95	22.73	22.73	22.73	22.73	22.73	19.07	19.07	19.07	19.07	19.07
Fraser_R	138445	21.61	21.61	21.61	21.61	21.61	22.18	22.18	22.18	22.18	22.18	22.93	22.93	22.93	22.93	22.94	19.45	19.45	19.45	19.45	19.45
Fraser_R	138445	21.61	21.61	21.61	21.61	21.61	22.18	22.18	22.18	22.18	22.18	22.93	22.93	22.93	22.93	22.94	19.45	19.45	19.45	19.45	19.45
Fraser_R	138766	21.77	21.77	21.77	21.77	21.77	22.42	22.42	22.42	22.42	22.42	23.09	23.09	23.09	23.09	23.09	19.52	19.52	19.52	19.52	19.52
Fraser_R	139142	21.94	21.94	21.94	21.94	21.94	22.53	22.53	22.53	22.53	22.53	23.17	23.17	23.17	23.17	23.17	19.58	19.58	19.58	19.58	19.58
Fraser_R	139526	22.26	22.26	22.26	22.26	22.26	22.79	22.79	22.79	22.79	22.79	23.38	23.38	23.38	23.38	23.38	19.80	19.80	19.80	19.80	19.80
Fraser_R	139912	22.35	22.35	22.35	22.35	22.35	22.84	22.84	22.84	22.84	22.84	23.43	23.43	23.43	23.43	23.43	19.89	19.89	19.89	19.89	19.89
Fraser_R	140292	22.61	22.61	22.61	22.61	22.61	23.09	23.09	23.09	23.09	23.09	23.62	23.62	23.62	23.62	23.62	20.08	20.08	20.08	20.08	20.08
Fraser_R	140292	22.61	22.61	22.61	22.61	22.61	23.09	23.09	23.09	23.09	23.09	23.62	23.62	23.62	23.62	23.62	20.08	20.08	20.08	20.08	20.08
Fraser_R	140845	22.62	22.62	22.62	22.62	22.62	23.07	23.07	23.07	23.07	23.07	23.56	23.57	23.57	23.57	23.57	20.21	20.21	20.21	20.21	20.21



Freshet Historical 1:1000							Freshet Scenario-A (Moderate) 1:1000					Freshet Scenario-B (Intense) 1:1000					Winter 1:1000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	140845	22.62	22.62	22.62	22.62	22.62	23.07	23.07	23.07	23.07	23.07	23.56	23.57	23.57	23.57	23.57	20.21	20.21	20.21	20.21	20.21
Fraser_R	141065	22.67	22.67	22.67	22.67	22.67	23.11	23.11	23.11	23.11	23.11	23.60	23.60	23.60	23.60	23.60	20.37	20.37	20.37	20.37	20.37
Fraser_R	141439	23.10	23.10	23.10	23.10	23.10	23.59	23.59	23.59	23.59	23.59	24.11	24.11	24.11	24.11	24.11	20.78	20.78	20.78	20.78	20.78
Fraser_R	141833	23.54	23.54	23.54	23.54	23.54	24.13	24.13	24.13	24.13	24.13	24.73	24.73	24.73	24.73	24.73	21.05	21.05	21.05	21.05	21.05
Fraser_R	142241	23.77	23.77	23.77	23.77	23.77	24.28	24.28	24.28	24.28	24.28	24.81	24.81	24.81	24.81	24.81	21.29	21.29	21.29	21.29	21.29
Fraser_R	142576	24.31	24.31	24.31	24.31	24.31	24.87	24.87	24.87	24.87	24.87	25.46	25.46	25.46	25.47	25.47	21.66	21.66	21.66	21.66	21.66
Fraser_R	142948	24.44	24.44	24.44	24.44	24.44	25.01	25.01	25.01	25.01	25.01	25.59	25.59	25.59	25.59	25.59	21.88	21.88	21.88	21.88	21.88
Fraser_R	143365	24.62	24.62	24.62	24.62	24.62	25.16	25.16	25.16	25.16	25.16	25.73	25.73	25.73	25.73	25.73	22.20	22.20	22.20	22.20	22.20
Fraser_R	143763	25.10	25.10	25.10	25.10	25.10	25.71	25.71	25.71	25.71	25.71	26.33	26.33	26.33	26.33	26.33	22.51	22.51	22.51	22.51	22.51
Fraser_R	143763	25.10	25.10	25.10	25.10	25.10	25.71	25.71	25.71	25.71	25.71	26.33	26.33	26.33	26.33	26.33	22.51	22.51	22.51	22.51	22.51
Fraser_R	144102	25.24	25.24	25.24	25.24	25.24	25.86	25.86	25.86	25.86	25.86	26.51	26.51	26.51	26.51	26.51	22.65	22.65	22.65	22.65	22.65
Fraser_R	144434	25.32	25.32	25.32	25.32	25.32	25.96	25.96	25.96	25.96	25.96	26.62	26.62	26.62	26.62	26.62	22.69	22.69	22.69	22.69	22.69
Fraser_R	144910	25.82	25.82	25.82	25.82	25.82	26.53	26.53	26.53	26.53	26.53	27.29	27.29	27.29	27.29	27.29	23.00	23.00	23.00	23.00	23.00
Fraser_R	145425	26.11	26.11	26.11	26.11	26.11	26.83	26.83	26.83	26.83	26.83	27.63	27.63	27.63	27.63	27.63	23.29	23.29	23.29	23.29	23.29
Fraser_R	145819	26.25	26.25	26.25	26.25	26.25	26.98	26.98	26.98	26.98	26.98	27.79	27.79	27.79	27.79	27.79	23.49	23.49	23.49	23.49	23.49
Fraser_R	146215	26.48	26.48	26.48	26.48	26.48	27.21	27.21	27.21	27.21	27.21	28.03	28.03	28.03	28.03	28.03	23.72	23.72	23.72	23.72	23.72
Fraser_R	146617	26.87	26.87	26.87	26.87	26.87	27.62	27.62	27.62	27.62	27.62	28.47	28.47	28.47	28.47	28.47	23.98	23.98	23.98	23.98	23.98
Fraser_R	146617	26.87	26.87	26.87	26.87	26.87	27.62	27.62	27.62	27.62	27.62	28.47	28.47	28.47	28.47	28.47	23.98	23.98	23.98	23.98	23.98
Fraser_R	147036	26.70	26.70	26.70	26.70	26.70	27.38	27.38	27.38	27.38	27.38	28.15	28.15	28.15	28.15	28.15	24.04	24.04	24.04	24.04	24.04
Fraser_R	147492	27.03	27.03	27.03	27.03	27.03	27.80	27.80	27.80	27.80	27.80	28.67	28.67	28.67	28.67	28.67	24.20	24.20	24.20	24.20	24.20
Fraser_R	147951	27.63	27.63	27.63	27.63	27.63	28.48	28.48	28.48	28.48	28.48	29.45	29.45	29.45	29.45	29.45	24.47	24.47	24.47	24.47	24.47
Fraser_R	148211	28.00	28.00	28.00	28.00	28.00	28.87	28.87	28.87	28.87	28.87	29.87	29.87	29.87	29.87	29.87	24.74	24.74	24.74	24.74	24.74
Fraser_R	148211	28.00	28.00	28.00	28.00	28.00	28.87	28.87	28.87	28.87	28.87	29.87	29.87	29.87	29.87	29.87	24.74	24.74	24.74	24.74	24.74
Fraser_R	148587	27.99	27.99	27.99	27.99	27.99	28.86	28.86	28.86	28.86	28.86	29.85	29.85	29.85	29.85	29.85	24.80	24.80	24.80	24.80	24.80
Fraser_R	148922	28.11	28.11	28.11	28.11	28.11	28.96	28.96	28.96	28.96	28.96	29.95	29.95	29.95	29.95	29.95	25.03	25.03	25.03	25.03	25.03
Fraser_R	149536	28.12	28.12	28.12	28.12	28.12	28.93	28.93	28.93	28.93	28.93	29.86	29.86	29.86	29.86	29.86	25.34	25.34	25.34	25.34	25.34
Fraser_R	149536	28.12	28.12	28.12	28.12	28.12	28.93	28.93	28.93	28.93	28.93	29.86	29.86	29.86	29.86	29.86	25.34	25.34	25.34	25.34	25.34
Fraser_R	149848	28.38	28.38	28.38	28.38	28.38	29.19	29.19	29.19	29.19	29.19	30.12	30.12	30.12	30.12	30.12	25.55	25.55	25.55	25.55	25.55
Fraser_R	150218	29.00	29.00	29.00	29.00	29.00	29.89	29.89	29.89	29.89	29.89	30.93	30.93	30.93	30.93	30.93	25.94	25.94	25.94	25.94	25.94
Fraser_R	150423	29.06	29.06	29.06	29.06	29.06	29.96	29.96	29.96	29.96	29.96	30.99	30.99	30.99	30.99	30.99	26.04	26.04	26.04	26.04	26.04
Fraser_R	150423	29.06	29.06	29.06	29.06	29.06	29.96	29.96	29.96	29.96	29.96	30.99	30.99	30.99	30.99	30.99	26.04	26.04	26.04	26.04	26.04
Fraser_R	150642	29.17	29.17	29.17	29.17	29.17	30.07	30.07	30.07	30.07	30.07	31.11	31.11	31.11	31.11	31.11	26.21	26.21	26.21	26.21	26.21
Fraser_R	151064	29.49	29.49	29.49	29.49	29.49	30.34	30.34	30.34	30.34	30.34	31.33	31.33	31.33	31.33	31.33	26.55	26.55	26.55	26.55	26.55
Fraser_R	151456	29.96	29.96	29.96	29.96	29.96	30.80	30.80	30.80	30.80	30.80	31.78	31.78	31.78	31.78	31.78	26.93	26.93	26.93	26.93	26.93
Fraser_R	151456	29.96	29.96	29.96	29.96	29.96	30.80	30.80	30.80	30.80	30.80	31.78	31.78	31.78	31.78	31.78	26.93	26.93	26.93	26.93	26.93
Fraser_R	151864	30.22	30.22	30.22	30.22	30.22	31.06	31.06	31.06	31.06	31.06	32.03	32.03	32.03	32.03	32.03	27.20	27.20	27.20	27.20	27.20
Fraser_R	152256	30.48	30.48	30.48	30.48	30.48	31.30	31.30	31.30	31.30	31.30	32.25	32.25	32.25	32.25	32.25	27.46	27.46	27.46	27.46	27.46
Fraser_R	152613	30.90	30.90	30.90	30.90	30.90	31.83	31.83	31.83	31.83	31.83	32.88	32.88	32.88	32.88	32.88	27.67	27.67	27.67	27.67	27.67
Fraser_R	153007	31.04	31.04	31.04	31.04	31.04	31.79	31.79	31.79	31.79	31.79	32.81	32.81	32.81	32.81	32.81	27.94	27.94	27.94	27.94	27.94

Freshet Historical 1:1000							Freshet Scenario-A (Moderate) 1:1000					Freshet Scenario-B (Intense) 1:1000					Winter 1:1000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	153372	31.27	31.27	31.27	31.27	31.27	32.02	32.02	32.02	32.02	32.02	32.77	32.77	32.77	32.77	32.77	28.14	28.14	28.14	28.14	28.14
Fraser_R	153743	31.76	31.76	31.76	31.76	31.76	32.64	32.64	32.64	32.64	32.64	33.56	33.56	33.56	33.56	33.56	28.31	28.31	28.31	28.31	28.31
Fraser_R	154103	31.90	31.90	31.90	31.90	31.90	32.73	32.73	32.73	32.73	32.73	33.64	33.64	33.64	33.64	33.64	28.50	28.50	28.50	28.50	28.50
Fraser_R	154483	32.30	32.30	32.30	32.30	32.30	33.08	33.08	33.08	33.08	33.08	33.91	33.91	33.91	33.91	33.91	28.77	28.77	28.77	28.77	28.77
Fraser_R	154868	32.46	32.46	32.46	32.46	32.46	33.26	33.26	33.26	33.26	33.26	34.11	34.11	34.11	34.11	34.11	28.89	28.89	28.89	28.89	28.89
Fraser_R	155277	32.62	32.62	32.62	32.62	32.62	33.43	33.43	33.43	33.43	33.43	34.29	34.29	34.29	34.29	34.29	29.01	29.01	29.01	29.01	29.01
Fraser_R	155664	32.58	32.58	32.58	32.58	32.58	33.34	33.34	33.34	33.34	33.34	34.15	34.15	34.15	34.15	34.15	29.13	29.13	29.13	29.13	29.13
Fraser_R	156030	32.61	32.61	32.61	32.61	32.61	33.32	33.32	33.32	33.32	33.32	34.06	34.06	34.06	34.06	34.06	29.18	29.18	29.18	29.18	29.18
Fraser_R	156387	32.89	32.89	32.89	32.89	32.89	33.69	33.69	33.69	33.69	33.69	34.56	34.56	34.56	34.56	34.56	29.25	29.25	29.25	29.25	29.25
Fraser_R	156778	33.09	33.09	33.09	33.09	33.09	33.91	33.91	33.91	33.91	33.91	34.80	34.80	34.80	34.80	34.80	29.38	29.38	29.38	29.38	29.38
Fraser_R	157176	33.34	33.34	33.34	33.34	33.34	34.21	34.21	34.21	34.21	34.21	35.19	35.19	35.19	35.19	35.19	29.51	29.51	29.51	29.51	29.51
Fraser_R	157487	33.70	33.70	33.70	33.70	33.70	34.67	34.67	34.67	34.67	34.67	35.78	35.78	35.78	35.78	35.78	29.63	29.63	29.63	29.63	29.63
Fraser_R	157866	34.04	34.04	34.04	34.04	34.04	35.09	35.09	35.09	35.09	35.09	36.30	36.30	36.30	36.30	36.30	29.78	29.78	29.78	29.78	29.78
Fraser_R	158224	34.27	34.27	34.27	34.27	34.27	35.34	35.34	35.34	35.34	35.34	36.58	36.58	36.58	36.58	36.58	29.94	29.94	29.94	29.94	29.94
Fraser_R	158604	34.32	34.32	34.32	34.32	34.32	35.39	35.39	35.39	35.39	35.39	36.63	36.63	36.63	36.63	36.63	30.00	30.00	30.00	30.00	30.00
Fraser_R	158948	34.65	34.65	34.65	34.65	34.65	35.81	35.81	35.81	35.81	35.81	37.16	37.16	37.16	37.16	37.16	30.14	30.14	30.14	30.14	30.14
Fraser_R	159283	34.89	34.89	34.89	34.89	34.89	36.09	36.09	36.09	36.09	36.09	37.49	37.49	37.49	37.49	37.49	30.28	30.28	30.28	30.28	30.28
Fraser_R	159628	35.33	35.33	35.33	35.33	35.33	36.57	36.57	36.57	36.57	36.57	38.01	38.01	38.01	38.01	38.01	30.60	30.60	30.60	30.60	30.60
Fraser_R	160001	35.74	35.74	35.74	35.74	35.74	37.00	37.00	37.00	37.00	37.00	38.52	38.52	38.52	38.52	38.52	30.92	30.92	30.92	30.92	30.92
Fraser_R	160341	35.86	35.86	35.86	35.86	35.86	37.16	37.16	37.16	37.16	37.16	38.69	38.69	38.69	38.69	38.69	31.08	31.08	31.08	31.08	31.08
Fraser_R	160657	35.96	35.96	35.96	35.96	35.96	37.35	37.35	37.35	37.35	37.35	38.87	38.87	38.87	38.87	38.87	31.19	31.19	31.19	31.19	31.19
Fraser_R	161039	36.20	36.20	36.20	36.20	36.20	37.57	37.57	37.57	37.57	37.57	39.07	39.07	39.07	39.07	39.07	31.49	31.49	31.49	31.49	31.49
Fraser_R	161414	36.46	36.46	36.46	36.46	36.46	37.84	37.84	37.84	37.84	37.84	39.39	39.39	39.39	39.39	39.39	31.75	31.75	31.75	31.75	31.75
Fraser_R	161789	36.79	36.79	36.79	36.79	36.79	38.10	38.10	38.10	38.10	38.10	39.56	39.56	39.56	39.56	39.56	32.02	32.02	32.02	32.02	32.02
Fraser_R	162143	36.98	36.98	36.98	36.98	36.98	38.31	38.31	38.31	38.31	38.31	39.65	39.65	39.65	39.65	39.65	32.17	32.17	32.17	32.17	32.17
Fraser_R	162446	37.19	37.19	37.19	37.19	37.19	38.49	38.49	38.49	38.49	38.49	39.82	39.82	39.82	39.82	39.82	32.39	32.39	32.39	32.39	32.39
Fraser_R	162778	37.32	37.32	37.32	37.32	37.32	38.59	38.59	38.59	38.59	38.59	39.94	39.94	39.94	39.94	39.94	32.56	32.56	32.56	32.56	32.56
Fraser_R	162778	37.32	37.32	37.32	37.32	37.32	38.59	38.59	38.59	38.59	38.59	39.94	39.94	39.94	39.94	39.94	32.56	32.56	32.56	32.56	32.56
Fraser_R	163124	37.50	37.50	37.50	37.50	37.50	38.58	38.58	38.58	38.58	38.58	39.67	39.67	39.67	39.67	39.67	32.76	32.76	32.76	32.76	32.76
Fraser_R	163447	37.74	37.74	37.74	37.74	37.74	38.92	38.92	38.92	38.92	38.92	40.17	40.17	40.17	40.17	40.17	32.86	32.86	32.86	32.86	32.86
Fraser_R	163771	38.15	38.15	38.15	38.15	38.15	39.37	39.37	39.37	39.37	39.37	40.73	40.73	40.73	40.73	40.73	33.07	33.07	33.07	33.07	33.07
Fraser_R	164124	38.18	38.18	38.18	38.18	38.18	39.41	39.41	39.41	39.41	39.41	40.76	40.76	40.76	40.76	40.76	33.02	33.02	33.02	33.02	33.02
Fraser_R	164389	38.25	38.25	38.25	38.25	38.25	39.49	39.49	39.49	39.49	39.49	40.82	40.82	40.82	40.82	40.82	33.09	33.09	33.09	33.09	33.09
Fraser_R	164694	38.53	38.53	38.53	38.53	38.53	39.82	39.82	39.82	39.82	39.82	41.18	41.18	41.18	41.18	41.18	33.48	33.48	33.48	33.48	33.48
Fraser_R	164694	38.53	38.53	38.53	38.53	38.53	39.82	39.82	39.82	39.82	39.82	41.18	41.18	41.18	41.18	41.18	33.48	33.48	33.48	33.48	33.48
Fraser_R	164731	38.56	38.56	38.56	38.56	38.56	39.84	39.84	39.84	39.84	39.84	41.21	41.21	41.21	41.21	41.21	33.52	33.52	33.52	33.52	33.52
Fraser_R	165008	38.73	38.73	38.73	38.73	38.73	40.00	40.00	40.00	40.00	40.00	41.43	41.43	41.43	41.43	41.43	33.82	33.82	33.82	33.82	33.82
Fraser_R	165247	39.04	39.04	39.04	39.04	39.04	40.28	40.28	40.28	40.28	40.28	41.71	41.71	41.71	41.71	41.71	34.09	34.09	34.09	34.09	34.09
Fraser_R	165454	39.22	39.22	39.22	39.22	39.22	40.49	40.49	40.49	40.49	40.49	41.94	41.94	41.94	41.94	41.94	34.24	34.24	34.24	34.24	34.24

Freshet Historical 1:1000							Freshet Scenario-A (Moderate) 1:1000					Freshet Scenario-B (Intense) 1:1000					Winter 1:1000							
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	165662	39.22	39.22	39.22	39.22	39.22		40.48	40.48	40.48	40.48	40.48		41.92	41.92	41.92	41.92	41.92		34.35	34.35	34.35	34.35	34.35
Fraser_R	165662	39.22	39.22	39.22	39.22	39.22		40.48	40.48	40.48	40.48	40.48		41.92	41.92	41.92	41.92	41.92		34.35	34.35	34.35	34.35	34.35
Fraser_R	165965	39.13	39.13	39.13	39.13	39.13		40.36	40.36	40.36	40.36	40.36		41.79	41.79	41.79	41.79	41.79		34.37	34.37	34.37	34.37	34.37
Fraser_R	166336	39.30	39.30	39.30	39.30	39.30		40.49	40.49	40.49	40.49	40.49		41.89	41.89	41.89	41.89	41.89		34.79	34.79	34.79	34.79	34.79
Fraser_R	166766	39.66	39.66	39.66	39.66	39.66		40.85	40.85	40.85	40.85	40.85		42.25	42.25	42.25	42.25	42.25		35.20	35.20	35.20	35.20	35.20
Fraser_R	166766	39.66	39.66	39.66	39.66	39.66		40.85	40.85	40.85	40.85	40.85		42.25	42.25	42.25	42.25	42.25		35.20	35.20	35.20	35.20	35.20
Fraser_R	167135	39.70	39.70	39.70	39.70	39.70		40.79	40.79	40.79	40.79	40.79		42.05	42.05	42.05	42.05	42.05		35.53	35.53	35.53	35.53	35.53

Table 17. Hydraulic Model Runs for AEP = 1:5,000

Freshet Historical 1:5000							Freshet Scenario-A (Moderate) 1:5000					Freshet Scenario-B (Intense) 1:5000					Winter 1:5000							
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	-1545	1.85	2.35	2.85	3.35	3.85		1.85	2.35	2.85	3.35	3.85		1.85	2.35	2.85	3.35	3.85		2.88	3.38	3.88	4.38	4.88
Fraser	-1182	1.86	2.35	2.85	3.35	3.85		1.86	2.35	2.85	3.35	3.85		1.86	2.35	2.85	3.35	3.85		2.88	3.38	3.88	4.38	4.88
Fraser	944	1.85	2.35	2.84	3.34	3.85		1.85	2.35	2.84	3.34	3.84		1.85	2.34	2.84	3.34	3.84		2.87	3.38	3.88	4.38	4.88
Fraser	2838	1.84	2.34	2.83	3.33	3.84		1.84	2.34	2.84	3.34	3.84		1.85	2.34	2.84	3.34	3.83		2.86	3.38	3.88	4.40	4.90
Fraser	3069	1.84	2.34	2.83	3.33	3.83		1.84	2.34	2.84	3.34	3.84		1.85	2.35	2.84	3.34	3.83		2.86	3.37	3.88	4.40	4.90
Fraser	3069	1.84	2.34	2.83	3.33	3.83		1.84	2.34	2.84	3.34	3.84		1.85	2.35	2.84	3.34	3.83		2.86	3.37	3.88	4.40	4.90
Fraser	3853	1.83	2.34	2.83	3.33	3.83		1.84	2.34	2.84	3.34	3.83		1.85	2.34	2.84	3.34	3.83		2.86	3.37	3.88	4.40	4.90
Fraser	4348	1.83	2.34	2.83	3.33	3.83		1.84	2.34	2.84	3.34	3.83		1.85	2.34	2.84	3.33	3.83		2.86	3.37	3.88	4.40	4.90
Fraser	4930	1.77	2.29	2.79	3.30	3.80		1.75	2.26	2.78	3.28	3.78		1.69	2.21	2.73	3.24	3.75		2.84	3.36	3.87	4.40	4.90
Fraser	5477	1.79	2.30	2.80	3.31	3.81		1.78	2.28	2.79	3.30	3.80		1.74	2.25	2.76	3.27	3.77		2.85	3.37	3.88	4.40	4.90
Fraser	5923	1.79	2.30	2.80	3.31	3.81		1.78	2.29	2.80	3.30	3.80		1.75	2.26	2.77	3.27	3.77		2.85	3.37	3.88	4.41	4.90
Fraser	6357	1.79	2.30	2.80	3.31	3.81		1.78	2.28	2.79	3.30	3.80		1.76	2.26	2.77	3.27	3.77		2.84	3.37	3.88	4.41	4.90
Fraser	6768	1.79	2.29	2.79	3.30	3.80		1.77	2.27	2.78	3.29	3.79		1.74	2.24	2.75	3.26	3.76		2.84	3.37	3.88	4.41	4.90
Fraser	7173	1.81	2.31	2.81	3.31	3.81		1.81	2.31	2.81	3.32	3.81		1.81	2.30	2.80	3.30	3.79		2.85	3.37	3.88	4.41	4.90
Fraser	7589	1.82	2.32	2.81	3.32	3.81		1.82	2.31	2.81	3.32	3.81		1.83	2.31	2.81	3.31	3.80		2.84	3.38	3.88	4.41	4.90
Fraser	7944	1.81	2.31	2.81	3.31	3.81		1.82	2.31	2.80	3.31	3.81		1.81	2.30	2.80	3.29	3.79		2.84	3.38	3.88	4.41	4.90
Fraser	8357	1.82	2.32	2.81	3.32	3.82		1.83	2.32	2.81	3.32	3.82		1.84	2.32	2.82	3.31	3.80		2.84	3.38	3.88	4.41	4.90
Fraser	8676	1.84	2.34	2.82	3.32	3.82		1.86	2.34	2.83	3.34	3.83		1.89	2.36	2.85	3.34	3.83		2.85	3.38	3.88	4.41	4.90
Fraser	8676	1.84	2.34	2.82	3.32	3.82		1.86	2.34	2.83	3.34	3.83		1.89	2.36	2.85	3.34	3.83		2.85	3.38	3.88	4.41	4.90
Fraser	9163	1.88	2.36	2.84	3.34	3.84		1.91	2.38	2.86	3.36	3.85		1.98	2.44	2.90	3.38	3.86		2.85	3.38	3.89	4.41	4.91
Fraser	9394	1.89	2.37	2.85	3.34	3.84		1.93	2.39	2.87	3.37	3.86		2.00	2.45	2.92	3.39	3.87		2.85	3.38	3.89	4.41	4.91
Fraser	9394	1.89	2.37	2.85	3.34	3.84		1.93	2.39	2.87	3.37	3.86		2.00	2.45	2.92	3.39	3.87		2.85	3.38	3.89	4.41	4.91
Fraser	9650	1.89	2.37	2.85	3.34	3.84		1.93	2.39	2.87	3.37	3.86		2.00	2.45	2.92	3.39	3.87		2.85	3.38	3.89	4.41	4.91
Fraser	10067	1.90	2.38	2.85	3.35	3.84		1.95	2.41	2.88	3.37	3.86		2.04	2.48	2.94	3.40	3.87		2.86	3.38	3.89	4.41	4.91
Fraser	10364	1.93	2.41	2.88	3.36	3.86		2.00	2.45	2.91	3.40	3.88		2.14	2.56	3.00	3.46	3.92		2.87	3.39	3.90	4.41	4.91
Fraser	10578	1.96	2.43	2.89	3.37	3.86		2.04	2.48	2.93	3.42	3.90		2.20	2.61	3.04	3.49	3.95		2.87	3.39	3.90	4.41	4.91
Fraser	10578	1.96	2.43	2.89	3.37	3.86		2.04	2.48	2.93	3.42	3.90		2.20	2.61	3.04	3.49	3.95		2.87	3.39	3.90	4.41	4.91
Fraser	11183	1.94	2.41	2.87	3.36	3.85		2.01	2.45	2.90	3.39	3.87		2.15	2.55	2.99	3.44	3.90		2.87	3.38	3.90	4.41	4.91
Fraser	11579	2.01	2.45	2.91	3.39	3.87		2.10	2.52	2.97	3.44	3.91		2.29	2.68	3.09	3.52	3.97		2.88	3.39	3.90	4.41	4.91
Fraser	11980	2.07	2.51	2.95	3.42	3.90		2.20	2.61	3.05	3.50	3.96		2.45	2.82	3.22	3.63	4.06		2.89	3.39	3.91	4.41	4.91
Fraser	11980	2.07	2.51	2.95	3.42	3.90		2.20	2.61	3.05	3.50	3.96		2.45	2.82	3.22	3.63	4.06		2.89	3.39	3.91	4.41	4.91
Fraser	12389	2.10	2.53	2.96	3.43	3.90		2.24	2.63	3.07	3.51	3.97		2.50	2.86	3.25	3.65	4.08		2.89	3.39	3.91	4.41	4.91
Fraser	12780	2.10	2.52	2.96	3.42	3.89		2.23	2.63	3.06	3.50	3.96		2.49	2.85	3.23	3.63	4.06		2.89	3.39	3.90	4.41	4.90
Fraser	13186	2.14	2.57	3.00	3.46	3.92		2.30	2.69	3.12	3.56	4.00		2.60	2.95	3.33	3.72	4.14		2.90	3.40	3.91	4.41	4.90
Fraser	13598	2.18	2.60	3.03	3.48	3.94		2.35	2.73	3.16	3.59	4.02		2.68	3.02	3.39	3.77	4.18		2.91	3.40	3.91	4.41	4.90
Fraser	14005	2.24	2.65	3.07	3.52	3.97		2.43	2.80	3.23	3.65	4.07		2.80	3.13	3.49	3.86	4.26		2.92	3.41	3.91	4.41	4.90
Fraser	14401	2.33	2.73	3.15	3.59	4.04		2.57	2.93	3.34	3.76	4.17		3.01	3.33	3.68	4.04	4.43		2.93	3.42	3.92	4.41	4.90
Fraser	14813	2.37	2.77	3.18	3.61	4.06		2.63	2.98	3.39	3.80	4.21		3.10	3.41	3.75	4.10	4.48		2.94	3.42	3.92	4.42	4.90

Freshet Historical 1:5000							Freshet Scenario-A (Moderate) 1:5000					Freshet Scenario-B (Intense) 1:5000					Winter 1:5000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	15210	2.40	2.79	3.19	3.63	4.07	2.66	3.01	3.41	3.82	4.22	3.15	3.45	3.78	4.13	4.50	2.94	3.43	3.92	4.41	4.90
Fraser	15575	2.43	2.82	3.22	3.65	4.09	2.70	3.04	3.44	3.85	4.25	3.21	3.50	3.83	4.17	4.54	2.95	3.43	3.92	4.41	4.90
Fraser	15978	2.46	2.84	3.23	3.66	4.10	2.73	3.07	3.47	3.87	4.26	3.25	3.54	3.86	4.20	4.56	2.96	3.43	3.93	4.41	4.90
Fraser	16443	2.54	2.91	3.30	3.72	4.15	2.85	3.17	3.56	3.96	4.34	3.42	3.69	4.01	4.33	4.68	2.97	3.44	3.93	4.41	4.90
Fraser	16846	2.59	2.96	3.34	3.75	4.18	2.92	3.23	3.62	4.01	4.38	3.52	3.79	4.09	4.41	4.75	2.98	3.45	3.94	4.41	4.90
Fraser	17214	2.66	3.02	3.39	3.80	4.22	3.01	3.32	3.70	4.08	4.45	3.66	3.92	4.21	4.52	4.85	2.99	3.46	3.94	4.42	4.91
Fraser	17513	2.65	3.01	3.38	3.79	4.21	3.00	3.30	3.68	4.07	4.43	3.63	3.89	4.18	4.49	4.82	2.99	3.46	3.94	4.41	4.90
Fraser	17513	2.65	3.01	3.38	3.79	4.21	3.00	3.30	3.68	4.07	4.43	3.63	3.89	4.18	4.49	4.82	2.99	3.46	3.94	4.41	4.90
Fraser	18117	2.66	3.02	3.39	3.81	4.23	3.01	3.32	3.70	4.10	4.47	3.67	3.93	4.24	4.56	4.90	3.00	3.46	3.95	4.42	4.91
Fraser	18508	2.76	3.11	3.48	3.89	4.30	3.17	3.46	3.83	4.22	4.57	3.90	4.15	4.43	4.72	5.04	3.01	3.47	3.96	4.42	4.91
Fraser	18921	2.80	3.15	3.51	3.91	4.32	3.21	3.50	3.87	4.24	4.59	3.96	4.19	4.47	4.76	5.07	3.02	3.48	3.96	4.43	4.91
Fraser	19322	2.87	3.20	3.56	3.95	4.36	3.30	3.58	3.94	4.31	4.65	4.08	4.31	4.58	4.86	5.16	3.03	3.49	3.97	4.43	4.91
Fraser	19727	2.92	3.26	3.60	3.99	4.39	3.38	3.65	4.00	4.36	4.70	4.18	4.40	4.66	4.93	5.22	3.04	3.50	3.97	4.44	4.91
Fraser	20127	2.96	3.29	3.63	4.02	4.42	3.43	3.69	4.05	4.41	4.73	4.25	4.47	4.73	4.99	5.28	3.05	3.51	3.98	4.44	4.91
Fraser	20524	2.99	3.32	3.66	4.04	4.44	3.48	3.73	4.09	4.44	4.77	4.32	4.53	4.79	5.04	5.33	3.06	3.51	3.98	4.45	4.91
Fraser	20919	3.03	3.35	3.69	4.07	4.46	3.52	3.77	4.12	4.47	4.80	4.38	4.59	4.84	5.09	5.38	3.06	3.52	3.99	4.45	4.91
Fraser	21371	3.06	3.38	3.71	4.09	4.48	3.56	3.81	4.15	4.50	4.82	4.42	4.63	4.87	5.12	5.40	3.07	3.53	3.99	4.46	4.91
Fraser	21806	3.10	3.41	3.74	4.11	4.50	3.61	3.85	4.19	4.54	4.85	4.49	4.69	4.93	5.18	5.45	3.08	3.54	3.99	4.46	4.91
Fraser	22195	3.12	3.43	3.76	4.13	4.52	3.64	3.88	4.22	4.56	4.87	4.52	4.72	4.96	5.20	5.48	3.08	3.54	4.00	4.47	4.91
Fraser	22562	3.16	3.47	3.79	4.15	4.54	3.69	3.92	4.26	4.59	4.91	4.59	4.79	5.02	5.26	5.53	3.09	3.55	4.00	4.47	4.92
Fraser	22978	3.17	3.48	3.80	4.17	4.56	3.71	3.95	4.28	4.62	4.93	4.63	4.83	5.06	5.30	5.57	3.09	3.55	4.01	4.48	4.92
Fraser	23375	3.18	3.49	3.81	4.17	4.56	3.72	3.96	4.29	4.62	4.93	4.64	4.84	5.07	5.31	5.58	3.10	3.56	4.01	4.48	4.92
Fraser	23763	3.21	3.52	3.83	4.20	4.59	3.76	4.00	4.33	4.66	4.97	4.70	4.90	5.12	5.36	5.62	3.11	3.56	4.02	4.49	4.93
Fraser	24152	3.27	3.57	3.89	4.25	4.63	3.85	4.08	4.41	4.73	5.04	4.83	5.02	5.24	5.47	5.74	3.12	3.57	4.03	4.50	4.94
Fraser	24575	3.32	3.62	3.93	4.28	4.67	3.91	4.15	4.46	4.78	5.09	4.92	5.11	5.33	5.55	5.82	3.13	3.58	4.03	4.51	4.94
Fraser	24914	3.41	3.71	4.01	4.35	4.73	4.04	4.27	4.58	4.89	5.18	5.09	5.29	5.48	5.70	5.97	3.15	3.60	4.04	4.51	4.95
Fraser	25370	3.46	3.75	4.05	4.39	4.77	4.11	4.34	4.65	4.95	5.23	5.19	5.38	5.57	5.79	6.05	3.16	3.61	4.05	4.52	4.95
Fraser	25568	3.48	3.77	4.06	4.40	4.78	4.13	4.36	4.67	4.96	5.25	5.22	5.41	5.60	5.82	6.08	3.16	3.61	4.05	4.52	4.95
Fraser	25568	3.48	3.77	4.06	4.40	4.78	4.13	4.36	4.67	4.96	5.25	5.22	5.41	5.60	5.82	6.08	3.16	3.61	4.05	4.52	4.95
Fraser	25857	3.48	3.77	4.06	4.40	4.78	4.13	4.36	4.67	4.96	5.24	5.21	5.40	5.59	5.80	6.06	3.16	3.61	4.05	4.53	4.95
Fraser	26350	3.47	3.76	4.05	4.39	4.76	4.11	4.34	4.64	4.94	5.22	5.17	5.36	5.55	5.77	6.02	3.16	3.61	4.05	4.53	4.95
Fraser	26754	3.49	3.78	4.07	4.41	4.78	4.14	4.37	4.67	4.96	5.24	5.20	5.39	5.58	5.80	6.05	3.17	3.62	4.05	4.54	4.95
Fraser	27194	3.52	3.81	4.10	4.43	4.80	4.18	4.41	4.71	4.99	5.28	5.26	5.45	5.63	5.85	6.10	3.18	3.62	4.05	4.54	4.96
Fraser	27582	3.56	3.84	4.13	4.46	4.83	4.23	4.46	4.75	5.04	5.32	5.34	5.52	5.70	5.91	6.17	3.19	3.63	4.06	4.55	4.96
Fraser	28002	3.60	3.88	4.16	4.48	4.85	4.28	4.51	4.80	5.08	5.36	5.40	5.58	5.76	5.97	6.22	3.20	3.64	4.06	4.56	4.96
Fraser	28369	3.68	3.95	4.23	4.54	4.91	4.38	4.62	4.90	5.18	5.46	5.56	5.73	5.90	6.11	6.37	3.22	3.65	4.07	4.56	4.96
Fraser	28768	3.72	3.98	4.26	4.57	4.93	4.43	4.66	4.95	5.22	5.50	5.63	5.79	5.96	6.17	6.44	3.23	3.66	4.08	4.57	4.97
Fraser	29120	3.66	3.93	4.21	4.53	4.89	4.36	4.59	4.88	5.15	5.43	5.51	5.68	5.85	6.06	6.32	3.22	3.65	4.08	4.57	4.97
Fraser	29504	3.82	4.07	4.34	4.64	4.99	4.55	4.78	5.06	5.33	5.59	5.80	5.95	6.11	6.33	6.66	3.27	3.69	4.12	4.60	5.00

Freshet Historical 1:5000							Freshet Scenario-A (Moderate) 1:5000					Freshet Scenario-B (Intense) 1:5000					Winter 1:5000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	29883	3.90	4.15	4.42	4.71	5.06	4.67	4.90	5.18	5.47	5.72	6.02	6.17	6.33	6.55	6.89	3.29	3.71	4.14	4.61	5.01
Fraser	30284	3.93	4.17	4.44	4.72	5.06	4.69	4.91	5.19	5.47	5.71	6.00	6.14	6.30	6.51	6.84	3.30	3.72	4.15	4.62	5.02
Fraser	30647	4.05	4.27	4.54	4.81	5.15	4.84	5.06	5.33	5.61	5.85	6.22	6.35	6.50	6.71	7.05	3.33	3.74	4.17	4.63	5.03
Fraser	31045	4.11	4.33	4.60	4.85	5.20	4.92	5.14	5.41	5.69	5.93	6.34	6.46	6.61	6.82	7.16	3.34	3.75	4.18	4.64	5.04
Fraser	31525	4.14	4.35	4.63	4.88	5.23	4.96	5.19	5.46	5.73	5.97	6.41	6.53	6.68	6.89	7.24	3.35	3.76	4.19	4.65	5.04
Fraser	31926	4.18	4.39	4.66	4.90	5.25	5.01	5.24	5.50	5.78	6.01	6.47	6.59	6.73	6.94	7.29	3.36	3.77	4.20	4.66	5.05
Fraser	32332	4.24	4.44	4.71	4.95	5.30	5.09	5.31	5.58	5.85	6.08	6.59	6.70	6.84	7.05	7.40	3.38	3.79	4.21	4.67	5.05
Fraser	32742	4.33	4.53	4.79	5.01	5.37	5.20	5.43	5.68	5.95	6.17	6.73	6.83	6.97	7.17	7.52	3.40	3.81	4.22	4.68	5.06
Fraser	32742	4.33	4.53	4.79	5.01	5.37	5.20	5.43	5.68	5.95	6.17	6.73	6.83	6.97	7.17	7.52	3.40	3.81	4.22	4.68	5.06
Fraser	33139	4.25	4.45	4.72	4.95	5.30	5.09	5.32	5.57	5.85	6.07	6.57	6.68	6.82	7.03	7.36	3.38	3.79	4.21	4.67	5.06
Fraser	33543	4.28	4.48	4.75	4.97	5.33	5.13	5.36	5.61	5.88	6.10	6.61	6.72	6.86	7.06	7.40	3.39	3.80	4.22	4.68	5.06
Fraser	33883	4.22	4.42	4.69	4.92	5.28	5.05	5.27	5.53	5.80	6.02	6.49	6.61	6.75	6.95	7.29	3.37	3.79	4.21	4.68	5.06
Fraser	34089	4.23	4.43	4.70	4.93	5.29	5.07	5.29	5.55	5.81	6.03	6.51	6.63	6.77	6.97	7.31	3.38	3.79	4.21	4.68	5.06
Fraser	34089	4.23	4.43	4.70	4.93	5.29	5.07	5.29	5.55	5.81	6.03	6.51	6.63	6.77	6.97	7.31	3.38	3.79	4.21	4.68	5.06
Fraser	34247	4.47	4.65	4.91	5.11	5.47	5.37	5.60	5.84	6.10	6.29	6.94	7.05	7.18	7.37	7.69	3.43	3.83	4.24	4.70	5.08
Fraser	34655	4.50	4.68	4.94	5.13	5.49	5.41	5.63	5.87	6.12	6.31	6.98	7.09	7.21	7.40	7.72	3.43	3.84	4.25	4.71	5.08
Fraser	35038	4.60	4.78	5.03	5.21	5.57	5.54	5.76	5.99	6.24	6.42	7.17	7.27	7.39	7.57	7.88	3.45	3.85	4.26	4.72	5.09
Fraser	35038	4.60	4.78	5.03	5.21	5.57	5.54	5.76	5.99	6.24	6.42	7.17	7.27	7.39	7.57	7.88	3.45	3.85	4.26	4.72	5.09
Fraser	35451	4.65	4.83	5.07	5.26	5.61	5.61	5.83	6.05	6.30	6.48	7.25	7.35	7.46	7.64	7.95	3.47	3.86	4.27	4.73	5.10
Fraser	35650	4.79	4.94	5.20	5.39	5.71	5.77	5.98	6.20	6.44	6.61	7.45	7.54	7.66	7.83	8.12	3.53	3.91	4.32	4.78	5.16
Fraser	35920	4.79	4.94	5.20	5.39	5.71	5.78	5.99	6.20	6.45	6.61	7.47	7.56	7.68	7.84	8.14	3.53	3.91	4.32	4.78	5.16
Fraser	35992	4.79	4.96	5.26	5.40	5.71	6.10	6.34	6.41	6.46	6.62	8.29	8.37	8.46	8.58	8.65	3.54	3.92	4.33	4.79	5.18
Fraser	36247	4.81	4.98	5.28	5.42	5.73	6.12	6.36	6.43	6.48	6.64	8.32	8.39	8.49	8.60	8.68	3.54	3.93	4.33	4.79	5.18
Fraser	36247	4.81	4.98	5.28	5.42	5.73	6.12	6.36	6.43	6.48	6.64	8.32	8.39	8.49	8.60	8.68	3.54	3.93	4.33	4.79	5.18
Fraser	36357	4.85	5.01	5.31	5.44	5.75	6.16	6.40	6.46	6.51	6.67	8.36	8.43	8.52	8.64	8.71	3.55	3.93	4.33	4.79	5.18
Fraser	36736	4.79	4.96	5.26	5.40	5.71	6.09	6.33	6.40	6.45	6.61	8.28	8.35	8.45	8.56	8.64	3.54	3.92	4.32	4.79	5.18
Fraser	37139	4.78	4.95	5.25	5.38	5.70	6.07	6.32	6.39	6.44	6.60	8.27	8.34	8.44	8.55	8.63	3.53	3.92	4.32	4.79	5.18
Fraser	37528	4.82	4.98	5.28	5.42	5.73	6.12	6.36	6.43	6.48	6.63	8.30	8.38	8.47	8.59	8.66	3.54	3.92	4.33	4.80	5.19
Fraser	37939	4.85	5.01	5.31	5.45	5.75	6.16	6.39	6.46	6.51	6.66	8.34	8.41	8.50	8.61	8.69	3.55	3.93	4.33	4.81	5.19
Fraser	38352	4.90	5.06	5.35	5.49	5.79	6.22	6.45	6.51	6.56	6.71	8.41	8.48	8.57	8.68	8.75	3.56	3.94	4.34	4.81	5.20
Fraser	38759	4.89	5.05	5.34	5.48	5.78	6.20	6.43	6.50	6.55	6.70	8.39	8.46	8.55	8.66	8.73	3.55	3.94	4.33	4.81	5.20
Fraser	39151	4.98	5.13	5.42	5.56	5.85	6.31	6.54	6.61	6.65	6.80	8.53	8.60	8.69	8.80	8.87	3.57	3.95	4.34	4.82	5.21
Fraser	39490	4.92	5.08	5.37	5.51	5.81	6.25	6.49	6.55	6.60	6.75	8.47	8.54	8.63	8.74	8.81	3.55	3.94	4.34	4.81	5.20
Fraser	39926	5.14	5.28	5.56	5.70	5.96	6.48	6.70	6.76	6.80	6.94	8.70	8.76	8.85	8.95	9.03	3.61	3.98	4.37	4.84	5.22
Fraser	39926	5.14	5.28	5.56	5.70	5.96	6.48	6.70	6.76	6.80	6.94	8.70	8.76	8.85	8.95	9.03	3.61	3.98	4.37	4.84	5.22
Fraser	40332	5.12	5.26	5.54	5.69	5.95	6.46	6.69	6.75	6.79	6.92	8.69	8.76	8.85	8.95	9.02	3.61	3.98	4.37	4.83	5.22
Fraser	40766	5.09	5.23	5.51	5.65	5.92	6.41	6.63	6.69	6.73	6.87	8.60	8.66	8.75	8.85	8.93	3.60	3.98	4.37	4.83	5.21
Fraser	41158	5.13	5.27	5.55	5.70	5.96	6.48	6.70	6.76	6.80	6.94	8.71	8.77	8.86	8.97	9.04	3.61	3.98	4.37	4.83	5.22
Fraser	41502	5.19	5.33	5.60	5.75	6.00	6.54	6.76	6.82	6.86	6.99	8.77	8.83	8.92	9.02	9.09	3.62	4.00	4.38	4.84	5.23

Freshet Historical 1:5000							Freshet Scenario-A (Moderate) 1:5000					Freshet Scenario-B (Intense) 1:5000					Winter 1:5000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	41882	5.28	5.42	5.69	5.83	6.07	6.64	6.86	6.91	6.95	7.08	8.89	8.95	9.03	9.13	9.20	3.65	4.01	4.40	4.84	5.25
Fraser	42407	5.44	5.57	5.90	6.05	6.20	6.95	7.04	7.09	7.16	7.39	9.05	9.08	9.13	9.19	9.23	3.72	4.07	4.44	4.87	5.28
Fraser	42617	5.45	5.58	5.91	6.06	6.21	6.96	7.05	7.10	7.18	7.40	9.07	9.11	9.15	9.21	9.25	3.72	4.07	4.45	4.87	5.29
Fraser	43031	5.53	5.66	5.99	6.13	6.27	7.06	7.14	7.20	7.27	7.48	9.18	9.21	9.25	9.31	9.35	3.75	4.09	4.46	4.88	5.30
Fraser	43373	5.50	5.63	5.96	6.10	6.24	7.01	7.10	7.15	7.23	7.44	9.14	9.17	9.22	9.27	9.32	3.74	4.09	4.46	4.88	5.30
Fraser	43373	5.50	5.63	5.96	6.10	6.24	7.01	7.10	7.15	7.23	7.44	9.14	9.17	9.22	9.27	9.32	3.74	4.09	4.46	4.88	5.30
Fraser	43945	5.42	5.55	5.88	6.03	6.18	6.92	7.01	7.06	7.14	7.36	9.03	9.06	9.10	9.16	9.20	3.71	4.05	4.43	4.85	5.27
Fraser	44343	5.44	5.57	5.90	6.05	6.19	6.94	7.03	7.09	7.16	7.38	9.05	9.08	9.12	9.18	9.22	3.72	4.07	4.44	4.86	5.28
Fraser	44754	5.45	5.58	5.90	6.05	6.19	6.93	7.02	7.07	7.14	7.36	9.01	9.04	9.08	9.14	9.18	3.73	4.08	4.45	4.87	5.28
Fraser	45140	5.50	5.62	5.95	6.09	6.23	6.98	7.07	7.12	7.19	7.41	9.06	9.09	9.14	9.20	9.24	3.76	4.10	4.47	4.88	5.30
Fraser	45541	5.56	5.68	6.00	6.15	6.29	7.05	7.14	7.19	7.26	7.47	9.15	9.18	9.22	9.28	9.32	3.79	4.13	4.49	4.90	5.32
Fraser	45944	5.65	5.77	6.09	6.23	6.37	7.16	7.24	7.29	7.36	7.57	9.28	9.31	9.35	9.40	9.44	3.82	4.16	4.52	4.92	5.34
Fraser	46354	5.74	5.86	6.17	6.31	6.44	7.25	7.33	7.38	7.45	7.65	9.37	9.40	9.44	9.49	9.53	3.87	4.20	4.56	4.95	5.37
Fraser	46562	5.77	5.89	6.19	6.33	6.46	7.27	7.35	7.40	7.47	7.67	9.39	9.42	9.46	9.52	9.56	3.89	4.22	4.57	4.96	5.38
Fraser	46562	5.77	5.89	6.19	6.33	6.46	7.27	7.35	7.40	7.47	7.67	9.39	9.42	9.46	9.52	9.56	3.89	4.22	4.57	4.96	5.38
Fraser	46984	5.90	6.02	6.31	6.44	6.57	7.39	7.47	7.52	7.59	7.78	9.51	9.54	9.58	9.63	9.67	3.99	4.31	4.65	5.02	5.43
Fraser	47419	5.96	6.07	6.36	6.48	6.61	7.44	7.52	7.57	7.63	7.82	9.56	9.58	9.62	9.67	9.71	4.01	4.33	4.67	5.03	5.44
Fraser	47789	6.01	6.11	6.40	6.52	6.65	7.49	7.56	7.61	7.67	7.86	9.60	9.63	9.66	9.71	9.75	4.05	4.37	4.71	5.06	5.46
Fraser	48174	6.03	6.14	6.42	6.54	6.67	7.51	7.59	7.63	7.70	7.88	9.63	9.65	9.69	9.74	9.78	4.06	4.37	4.71	5.07	5.47
Fraser	48502	6.09	6.20	6.47	6.59	6.72	7.56	7.64	7.68	7.74	7.92	9.67	9.70	9.73	9.78	9.82	4.10	4.41	4.75	5.10	5.49
Fraser	48560	6.10	6.20	6.48	6.60	6.72	7.57	7.64	7.69	7.75	7.93	9.67	9.70	9.74	9.79	9.82	4.10	4.42	4.75	5.10	5.50
Fraser	48560	6.10	6.20	6.48	6.60	6.72	7.57	7.64	7.69	7.75	7.93	9.67	9.70	9.74	9.79	9.82	4.10	4.42	4.75	5.10	5.50
Fraser	48981	5.89	6.00	6.28	6.41	6.53	7.32	7.39	7.44	7.51	7.69	9.37	9.39	9.43	9.49	9.52	4.02	4.34	4.68	5.04	5.43
Fraser	49283	5.94	6.04	6.32	6.44	6.56	7.35	7.43	7.47	7.54	7.72	9.39	9.42	9.46	9.51	9.55	4.04	4.36	4.70	5.05	5.45
Fraser	49565	6.01	6.11	6.38	6.50	6.63	7.43	7.50	7.55	7.61	7.79	9.47	9.50	9.53	9.58	9.62	4.09	4.40	4.73	5.09	5.48
Fraser	49963	6.02	6.12	6.39	6.51	6.63	7.43	7.51	7.55	7.61	7.79	9.47	9.50	9.53	9.59	9.62	4.10	4.41	4.74	5.09	5.48
Fraser	50339	6.15	6.25	6.51	6.63	6.75	7.58	7.65	7.69	7.75	7.93	9.64	9.67	9.70	9.75	9.79	4.16	4.46	4.79	5.14	5.53
Fraser	50737	6.20	6.30	6.56	6.67	6.79	7.63	7.71	7.75	7.81	7.98	9.71	9.74	9.77	9.82	9.85	4.19	4.49	4.82	5.17	5.55
Fraser	51139	6.28	6.38	6.63	6.74	6.86	7.71	7.78	7.83	7.89	8.05	9.79	9.81	9.85	9.90	9.93	4.24	4.54	4.86	5.20	5.58
Fraser	51545	6.37	6.47	6.72	6.82	6.94	7.81	7.88	7.92	7.98	8.14	9.89	9.91	9.95	9.99	10.03	4.29	4.59	4.90	5.24	5.61
Fraser	51943	6.42	6.51	6.76	6.86	6.98	7.86	7.92	7.97	8.02	8.18	9.94	9.97	10.00	10.05	10.08	4.32	4.61	4.93	5.27	5.63
Fraser	52349	6.45	6.54	6.79	6.90	7.01	7.90	7.96	8.01	8.06	8.22	9.99	10.02	10.05	10.10	10.13	4.35	4.63	4.95	5.28	5.64
Fraser	52707	6.52	6.61	6.85	6.95	7.06	7.96	8.03	8.07	8.13	8.28	10.07	10.09	10.13	10.17	10.21	4.38	4.67	4.98	5.31	5.67
Fraser	53123	6.66	6.74	6.97	7.07	7.18	8.10	8.16	8.20	8.25	8.40	10.20	10.22	10.25	10.30	10.33	4.47	4.75	5.05	5.37	5.73
Fraser	53689	6.71	6.79	7.02	7.12	7.22	8.14	8.21	8.25	8.30	8.45	10.24	10.27	10.30	10.34	10.37	4.50	4.78	5.08	5.40	5.75
Fraser	53689	6.71	6.79	7.02	7.12	7.22	8.14	8.21	8.25	8.30	8.45	10.24	10.27	10.30	10.34	10.37	4.50	4.78	5.08	5.40	5.75
Fraser	53954	6.85	6.93	7.15	7.25	7.35	8.29	8.35	8.39	8.44	8.58	10.39	10.42	10.44	10.49	10.52	4.59	4.86	5.15	5.47	5.81
Fraser	54327	6.92	7.00	7.22	7.32	7.41	8.38	8.44	8.48	8.53	8.66	10.51	10.54	10.56	10.60	10.64	4.62	4.89	5.18	5.49	5.84
Fraser	54734	6.93	7.01	7.23	7.32	7.42	8.39	8.45	8.49	8.54	8.68	10.54	10.56	10.59	10.63	10.66	4.63	4.89	5.18	5.50	5.84

Freshet Historical 1:5000							Freshet Scenario-A (Moderate) 1:5000					Freshet Scenario-B (Intense) 1:5000					Winter 1:5000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	55128	6.88	6.96	7.17	7.27	7.36	8.29	8.36	8.39	8.44	8.58	10.37	10.39	10.42	10.46	10.49	4.64	4.90	5.18	5.50	5.84
Fraser	55527	6.91	6.99	7.20	7.29	7.39	8.32	8.38	8.42	8.47	8.61	10.43	10.45	10.48	10.52	10.55	4.66	4.91	5.20	5.51	5.85
Fraser	55923	6.96	7.03	7.24	7.34	7.43	8.39	8.45	8.49	8.54	8.67	10.50	10.53	10.55	10.59	10.63	4.69	4.94	5.23	5.54	5.88
Fraser	56318	6.98	7.06	7.27	7.36	7.46	8.42	8.48	8.51	8.56	8.70	10.52	10.54	10.57	10.61	10.64	4.70	4.96	5.24	5.55	5.89
Fraser	56731	7.01	7.09	7.29	7.39	7.48	8.44	8.50	8.53	8.58	8.71	10.53	10.55	10.58	10.62	10.65	4.73	4.98	5.26	5.57	5.91
Fraser	57123	7.08	7.16	7.36	7.45	7.54	8.50	8.56	8.60	8.64	8.77	10.59	10.61	10.64	10.68	10.71	4.77	5.02	5.30	5.60	5.94
Fraser	57451	7.14	7.21	7.41	7.50	7.59	8.56	8.62	8.65	8.70	8.83	10.65	10.67	10.69	10.73	10.76	4.80	5.05	5.33	5.63	5.96
Fraser	57813	7.13	7.21	7.41	7.50	7.58	8.56	8.62	8.65	8.70	8.83	10.67	10.69	10.72	10.76	10.79	4.80	5.04	5.32	5.62	5.96
Fraser	58242	7.25	7.33	7.53	7.62	7.71	8.75	8.80	8.84	8.88	9.01	10.91	10.94	10.96	11.00	11.03	4.85	5.09	5.37	5.66	6.00
Fraser	58547	7.29	7.36	7.56	7.65	7.74	8.77	8.82	8.85	8.90	9.02	10.91	10.93	10.96	10.99	11.02	4.88	5.12	5.39	5.69	6.02
Fraser	58935	7.36	7.43	7.63	7.71	7.80	8.83	8.88	8.92	8.96	9.08	10.97	10.99	11.02	11.05	11.08	4.92	5.15	5.42	5.71	6.05
Fraser	59378	7.33	7.40	7.59	7.68	7.76	8.76	8.82	8.85	8.89	9.01	10.85	10.87	10.90	10.93	10.96	4.92	5.15	5.42	5.71	6.04
Fraser	59775	7.41	7.48	7.66	7.75	7.83	8.84	8.89	8.92	8.97	9.08	10.93	10.95	10.98	11.01	11.04	4.96	5.20	5.46	5.74	6.08
Fraser	60164	7.48	7.55	7.73	7.82	7.90	8.91	8.97	9.00	9.04	9.15	11.03	11.05	11.07	11.11	11.13	5.01	5.24	5.50	5.78	6.11
Fraser	60563	7.50	7.57	7.75	7.84	7.92	8.93	8.98	9.02	9.06	9.17	11.02	11.04	11.06	11.10	11.12	5.03	5.26	5.52	5.79	6.13
Fraser	60975	7.61	7.68	7.86	7.94	8.02	9.06	9.11	9.14	9.18	9.28	11.17	11.19	11.21	11.24	11.27	5.10	5.32	5.57	5.84	6.17
Fraser	61128	7.62	7.69	7.87	7.95	8.03	9.07	9.12	9.15	9.19	9.30	11.18	11.20	11.23	11.26	11.29	5.10	5.33	5.58	5.85	6.18
Fraser	61128	7.62	7.69	7.87	7.95	8.03	9.07	9.12	9.15	9.19	9.30	11.18	11.20	11.23	11.26	11.29	5.10	5.33	5.58	5.85	6.18
Fraser	61327	7.62	7.69	7.87	7.95	8.03	9.07	9.12	9.15	9.19	9.29	11.17	11.19	11.22	11.25	11.28	5.11	5.33	5.58	5.85	6.18
Fraser	61633	7.64	7.70	7.88	7.96	8.04	9.09	9.14	9.17	9.21	9.32	11.21	11.23	11.25	11.29	11.31	5.11	5.33	5.58	5.85	6.18
Fraser	61947	7.63	7.70	7.88	7.96	8.03	9.08	9.13	9.16	9.20	9.30	11.20	11.22	11.25	11.28	11.31	5.12	5.34	5.59	5.85	6.18
Fraser	62124	7.64	7.71	7.89	7.96	8.04	9.10	9.15	9.18	9.23	9.33	11.26	11.28	11.30	11.33	11.36	5.13	5.35	5.59	5.86	6.19
Fraser	62381	7.65	7.72	7.90	7.98	8.06	9.13	9.18	9.21	9.25	9.36	11.28	11.30	11.33	11.36	11.38	5.12	5.34	5.59	5.85	6.18
Fraser	62625	7.71	7.77	7.95	8.03	8.11	9.18	9.23	9.26	9.30	9.41	11.35	11.37	11.39	11.42	11.44	5.15	5.37	5.62	5.88	6.21
Fraser	62887	7.70	7.77	7.94	8.02	8.10	9.15	9.20	9.23	9.27	9.37	11.30	11.32	11.34	11.37	11.40	5.16	5.38	5.62	5.89	6.22
Fraser	63234	7.75	7.81	7.99	8.06	8.14	9.22	9.27	9.30	9.34	9.44	11.37	11.39	11.41	11.44	11.47	5.18	5.40	5.65	5.91	6.23
Fraser	63635	7.72	7.78	7.95	8.03	8.11	9.16	9.21	9.24	9.28	9.39	11.32	11.34	11.36	11.39	11.42	5.19	5.41	5.65	5.91	6.24
Fraser	64027	7.77	7.84	8.00	8.08	8.16	9.20	9.25	9.28	9.32	9.42	11.30	11.32	11.35	11.38	11.40	5.24	5.45	5.69	5.95	6.26
Fraser	64501	7.90	7.96	8.13	8.20	8.28	9.36	9.40	9.43	9.47	9.56	11.48	11.50	11.52	11.55	11.57	5.32	5.52	5.76	6.02	6.32
Fraser	64820	7.97	8.04	8.20	8.27	8.35	9.44	9.49	9.52	9.55	9.65	11.60	11.61	11.63	11.66	11.68	5.36	5.57	5.80	6.06	6.36
Fraser	65249	7.98	8.04	8.21	8.28	8.36	9.45	9.49	9.52	9.56	9.65	11.59	11.61	11.63	11.66	11.68	5.38	5.58	5.81	6.07	6.37
Fraser	65504	8.02	8.08	8.24	8.31	8.39	9.49	9.53	9.56	9.59	9.68	11.63	11.65	11.67	11.69	11.72	5.41	5.61	5.84	6.09	6.38
Fraser	65504	8.02	8.08	8.24	8.31	8.39	9.49	9.53	9.56	9.59	9.68	11.63	11.65	11.67	11.69	11.72	5.41	5.61	5.84	6.09	6.38
Fraser	65697	8.14	8.20	8.36	8.43	8.50	9.63	9.67	9.70	9.73	9.82	11.80	11.81	11.83	11.86	11.88	5.49	5.69	5.91	6.16	6.44
Fraser	65970	8.18	8.24	8.40	8.47	8.54	9.67	9.71	9.74	9.77	9.86	11.85	11.86	11.88	11.90	11.93	5.52	5.72	5.94	6.19	6.46
Fraser	66297	8.20	8.26	8.42	8.49	8.56	9.69	9.73	9.76	9.80	9.88	11.87	11.89	11.90	11.93	11.95	5.54	5.73	5.96	6.20	6.48
Fraser	66674	8.20	8.26	8.42	8.49	8.56	9.69	9.73	9.76	9.79	9.88	11.87	11.88	11.90	11.93	11.95	5.55	5.74	5.96	6.21	6.48
Fraser	67082	8.21	8.27	8.43	8.49	8.57	9.69	9.74	9.76	9.80	9.88	11.87	11.89	11.90	11.93	11.95	5.56	5.75	5.97	6.21	6.48
Fraser	67480	8.23	8.29	8.44	8.51	8.58	9.71	9.75	9.78	9.81	9.90	11.88	11.89	11.91	11.94	11.96	5.59	5.78	5.99	6.24	6.51



Freshet Historical 1:5000							Freshet Scenario-A (Moderate) 1:5000					Freshet Scenario-B (Intense) 1:5000					Winter 1:5000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	67886	8.24	8.29	8.45	8.51	8.59	9.71	9.75	9.77	9.81	9.89	11.86	11.88	11.89	11.92	11.94	5.60	5.79	6.00	6.25	6.51
Fraser	68275	8.24	8.30	8.45	8.52	8.59	9.69	9.73	9.76	9.79	9.88	11.82	11.84	11.86	11.88	11.90	5.61	5.80	6.01	6.25	6.52
Fraser	68690	8.25	8.31	8.46	8.53	8.60	9.71	9.75	9.77	9.81	9.89	11.82	11.84	11.86	11.88	11.90	5.63	5.81	6.03	6.27	6.53
Fraser	69154	8.30	8.36	8.51	8.57	8.64	9.75	9.79	9.82	9.85	9.94	11.88	11.89	11.91	11.93	11.95	5.66	5.85	6.06	6.30	6.56
Fraser	69599	8.34	8.39	8.54	8.60	8.67	9.79	9.83	9.86	9.89	9.97	11.92	11.94	11.95	11.98	12.00	5.68	5.87	6.08	6.31	6.57
Fraser	70006	8.40	8.46	8.61	8.67	8.74	9.88	9.92	9.95	9.98	10.06	12.05	12.06	12.08	12.10	12.12	5.72	5.90	6.11	6.35	6.60
Fraser	70401	8.43	8.49	8.64	8.70	8.77	9.92	9.96	9.99	10.02	10.10	12.10	12.12	12.14	12.16	12.18	5.74	5.92	6.13	6.37	6.62
Fraser	70804	8.50	8.55	8.70	8.76	8.83	9.99	10.03	10.06	10.09	10.17	12.19	12.20	12.22	12.24	12.26	5.77	5.95	6.16	6.40	6.65
Fraser	70882	8.50	8.56	8.70	8.77	8.84	10.00	10.04	10.06	10.10	10.17	12.19	12.21	12.22	12.25	12.27	5.78	5.96	6.17	6.40	6.65
Fraser	70882	8.50	8.56	8.70	8.77	8.84	10.00	10.04	10.06	10.10	10.17	12.19	12.21	12.22	12.25	12.27	5.78	5.96	6.17	6.40	6.65
Fraser	71256	8.34	8.40	8.54	8.61	8.68	9.79	9.84	9.86	9.89	9.97	11.93	11.95	11.96	11.99	12.01	5.71	5.89	6.10	6.33	6.59
Fraser	71642	8.45	8.51	8.65	8.72	8.78	9.91	9.95	9.98	10.01	10.09	12.05	12.07	12.08	12.11	12.13	5.78	5.96	6.16	6.39	6.65
Fraser	72035	8.50	8.56	8.70	8.76	8.83	9.96	10.00	10.03	10.06	10.14	12.11	12.12	12.14	12.16	12.18	5.81	5.99	6.19	6.42	6.67
Fraser	72477	8.56	8.61	8.75	8.81	8.88	10.03	10.07	10.09	10.12	10.20	12.18	12.19	12.21	12.23	12.25	5.85	6.03	6.23	6.46	6.70
Fraser	72960	8.64	8.69	8.83	8.89	8.95	10.12	10.15	10.18	10.21	10.28	12.28	12.30	12.31	12.34	12.35	5.90	6.08	6.27	6.50	6.74
Fraser	73369	8.74	8.79	8.93	8.99	9.05	10.22	10.26	10.28	10.32	10.39	12.41	12.42	12.44	12.46	12.48	6.00	6.17	6.36	6.58	6.82
Fraser	73842	8.83	8.88	9.01	9.07	9.13	10.32	10.36	10.38	10.41	10.48	12.51	12.52	12.54	12.56	12.58	6.06	6.23	6.41	6.63	6.86
Fraser	74310	8.82	8.87	9.01	9.06	9.12	10.31	10.34	10.37	10.40	10.46	12.49	12.50	12.52	12.53	12.55	6.06	6.23	6.42	6.63	6.86
Fraser	74580	8.84	8.89	9.02	9.07	9.13	10.31	10.35	10.37	10.40	10.47	12.48	12.50	12.51	12.53	12.55	6.08	6.24	6.43	6.64	6.87
Fraser	74790	8.88	8.93	9.06	9.12	9.18	10.36	10.40	10.42	10.45	10.52	12.54	12.55	12.57	12.59	12.60	6.11	6.27	6.46	6.67	6.90
Fraser	74970	8.89	8.94	9.07	9.13	9.19	10.37	10.41	10.43	10.46	10.53	12.55	12.56	12.58	12.60	12.62	6.12	6.28	6.46	6.68	6.90
Fraser	74970	8.89	8.94	9.07	9.13	9.19	10.37	10.41	10.43	10.46	10.53	12.55	12.56	12.58	12.60	12.62	6.12	6.28	6.46	6.68	6.90
Fraser	75211	8.95	9.00	9.13	9.19	9.24	10.45	10.49	10.51	10.54	10.60	12.66	12.68	12.69	12.71	12.73	6.14	6.31	6.49	6.70	6.92
Fraser	75604	8.93	8.98	9.10	9.16	9.22	10.41	10.45	10.47	10.50	10.56	12.61	12.62	12.63	12.65	12.67	6.14	6.31	6.49	6.70	6.92
Fraser	76008	8.93	8.98	9.11	9.17	9.22	10.41	10.44	10.47	10.50	10.56	12.59	12.61	12.62	12.64	12.66	6.16	6.32	6.50	6.71	6.93
Fraser	76419	8.95	9.00	9.12	9.18	9.24	10.42	10.46	10.48	10.51	10.57	12.57	12.58	12.60	12.62	12.63	6.17	6.33	6.51	6.72	6.94
Fraser	76811	8.97	9.02	9.14	9.20	9.26	10.46	10.50	10.52	10.55	10.61	12.66	12.68	12.69	12.71	12.73	6.18	6.34	6.52	6.73	6.95
Fraser	77165	9.03	9.08	9.20	9.26	9.32	10.52	10.55	10.57	10.60	10.67	12.69	12.71	12.72	12.74	12.76	6.22	6.38	6.55	6.76	6.98
Fraser	77577	9.12	9.17	9.29	9.35	9.40	10.62	10.66	10.68	10.71	10.77	12.82	12.84	12.85	12.87	12.89	6.27	6.42	6.60	6.80	7.02
Fraser	78036	9.22	9.27	9.39	9.44	9.50	10.74	10.78	10.80	10.83	10.88	12.98	12.99	13.01	13.02	13.04	6.32	6.48	6.65	6.85	7.07
Fraser	78432	9.28	9.32	9.44	9.50	9.55	10.81	10.84	10.86	10.89	10.95	13.06	13.07	13.08	13.10	13.12	6.35	6.51	6.68	6.88	7.10
Fraser	78677	9.30	9.35	9.46	9.52	9.57	10.83	10.87	10.88	10.91	10.97	13.08	13.09	13.11	13.12	13.14	6.37	6.52	6.69	6.89	7.11
Fraser	78677	9.30	9.35	9.46	9.52	9.57	10.83	10.87	10.88	10.91	10.97	13.08	13.09	13.11	13.12	13.14	6.37	6.52	6.69	6.89	7.11
Fraser	79359	9.26	9.31	9.43	9.48	9.54	10.79	10.83	10.85	10.87	10.93	13.04	13.05	13.07	13.08	13.10	6.34	6.50	6.67	6.87	7.08
Fraser	79751	9.26	9.30	9.42	9.48	9.53	10.78	10.81	10.83	10.86	10.91	13.00	13.01	13.03	13.04	13.06	6.36	6.52	6.68	6.88	7.10
Fraser	80151	9.26	9.31	9.43	9.48	9.53	10.77	10.81	10.83	10.85	10.91	12.98	13.00	13.01	13.03	13.05	6.38	6.53	6.70	6.90	7.11
Fraser	80578	9.36	9.41	9.52	9.58	9.63	10.89	10.92	10.94	10.97	11.02	13.13	13.14	13.16	13.17	13.19	6.43	6.58	6.74	6.94	7.15
Fraser	81062	9.39	9.44	9.55	9.61	9.66	10.94	10.98	11.00	11.02	11.08	13.21	13.23	13.24	13.26	13.27	6.45	6.60	6.77	6.96	7.17
Fraser	81501	9.40	9.45	9.56	9.61	9.67	10.92	10.95	10.97	11.00	11.05	13.18	13.19	13.21	13.22	13.24	6.48	6.63	6.79	6.98	7.19

Freshet Historical 1:5000							Freshet Scenario-A (Moderate) 1:5000					Freshet Scenario-B (Intense) 1:5000					Winter 1:5000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	81974	9.51	9.55	9.66	9.71	9.76	11.02	11.05	11.07	11.09	11.14	13.23	13.25	13.26	13.28	13.29	6.56	6.71	6.86	7.05	7.26
Fraser	82376	9.58	9.62	9.73	9.78	9.83	11.09	11.12	11.14	11.17	11.22	13.33	13.34	13.35	13.37	13.39	6.61	6.75	6.91	7.10	7.30
Fraser	82780	9.55	9.59	9.70	9.75	9.80	11.05	11.08	11.10	11.12	11.17	13.26	13.27	13.28	13.30	13.31	6.61	6.75	6.90	7.09	7.29
Fraser	83180	9.56	9.60	9.71	9.76	9.81	11.06	11.09	11.11	11.13	11.18	13.27	13.28	13.29	13.31	13.32	6.62	6.77	6.92	7.10	7.30
Fraser	83621	9.64	9.68	9.79	9.83	9.88	11.15	11.18	11.20	11.22	11.27	13.37	13.39	13.40	13.42	13.43	6.67	6.81	6.96	7.15	7.34
Fraser	83887	9.66	9.70	9.80	9.85	9.90	11.17	11.20	11.21	11.24	11.29	13.39	13.40	13.41	13.43	13.45	6.69	6.83	6.98	7.16	7.35
Fraser	83887	9.66	9.70	9.80	9.85	9.90	11.17	11.20	11.21	11.24	11.29	13.39	13.40	13.41	13.43	13.45	6.69	6.83	6.98	7.16	7.35
Fraser	84093	9.82	9.86	9.96	10.01	10.05	11.33	11.36	11.38	11.40	11.45	13.57	13.58	13.59	13.61	13.63	6.80	6.94	7.08	7.26	7.45
Fraser	84339	9.80	9.84	9.95	9.99	10.04	11.31	11.34	11.35	11.38	11.43	13.53	13.54	13.55	13.57	13.58	6.80	6.94	7.08	7.26	7.45
Fraser	84641	9.79	9.83	9.93	9.98	10.03	11.28	11.31	11.33	11.35	11.40	13.48	13.50	13.51	13.52	13.54	6.81	6.94	7.09	7.26	7.45
Fraser	85038	9.80	9.84	9.94	9.98	10.03	11.55	11.62	11.66	11.71	11.80	13.99	14.02	14.03	14.06	14.08	6.88	7.00	7.15	7.32	7.50
Fraser	85182	9.83	9.87	9.97	10.02	10.07	11.59	11.66	11.70	11.75	11.84	14.04	14.06	14.08	14.10	14.12	6.90	7.03	7.17	7.34	7.52
Fraser	85265	9.82	9.86	9.96	10.01	10.06	11.58	11.64	11.68	11.73	11.82	14.02	14.04	14.06	14.08	14.11	6.90	7.02	7.16	7.33	7.52
Fraser	85416	10.11	10.14	10.19	10.22	10.25	12.25	12.28	12.31	12.34	12.39	15.43	15.46	15.49	15.52	15.55	6.96	7.08	7.21	7.38	7.57
Fraser_R	85450	10.11	10.14	10.19	10.22	10.25	12.25	12.28	12.31	12.34	12.39	15.43	15.46	15.49	15.52	15.55	6.96	7.08	7.21	7.38	7.57
Fraser_R	85758	10.12	10.15	10.20	10.23	10.26	12.25	12.29	12.31	12.34	12.39	15.43	15.46	15.48	15.51	15.54	6.97	7.09	7.22	7.39	7.58
Fraser_R	86107	10.16	10.19	10.24	10.27	10.30	12.30	12.33	12.36	12.39	12.44	15.48	15.51	15.54	15.57	15.60	7.00	7.11	7.24	7.41	7.60
Fraser_R	86595	10.18	10.21	10.27	10.29	10.32	12.31	12.35	12.37	12.40	12.46	15.49	15.52	15.54	15.57	15.60	7.02	7.14	7.27	7.43	7.62
Fraser_R	86949	10.24	10.27	10.32	10.35	10.38	12.37	12.41	12.43	12.46	12.51	15.56	15.59	15.61	15.64	15.67	7.05	7.17	7.30	7.46	7.65
Fraser_R	87330	10.27	10.30	10.35	10.38	10.41	12.40	12.44	12.46	12.49	12.55	15.60	15.63	15.65	15.68	15.71	7.07	7.18	7.31	7.48	7.66
Fraser_R	87683	10.29	10.31	10.37	10.39	10.42	12.42	12.46	12.48	12.51	12.56	15.61	15.63	15.66	15.69	15.72	7.08	7.19	7.32	7.48	7.67
Fraser_R	88073	10.31	10.34	10.39	10.42	10.44	12.44	12.48	12.50	12.53	12.58	15.64	15.67	15.69	15.72	15.75	7.08	7.20	7.32	7.49	7.68
Fraser_R	88434	10.32	10.35	10.40	10.43	10.45	12.43	12.47	12.49	12.52	12.57	15.58	15.61	15.63	15.66	15.69	7.11	7.22	7.35	7.52	7.70
Fraser_R	88806	10.59	10.62	10.67	10.69	10.72	12.74	12.78	12.80	12.82	12.87	15.94	15.97	15.99	16.02	16.05	7.26	7.37	7.49	7.65	7.83
Fraser_R	89286	10.63	10.66	10.71	10.73	10.76	12.80	12.83	12.85	12.88	12.93	16.02	16.04	16.07	16.10	16.12	7.26	7.37	7.50	7.66	7.84
Fraser_R	89601	10.59	10.62	10.67	10.70	10.72	12.76	12.79	12.81	12.84	12.89	15.97	16.00	16.02	16.05	16.08	7.25	7.36	7.49	7.64	7.82
Fraser_R	89916	10.67	10.69	10.74	10.77	10.79	12.82	12.86	12.88	12.91	12.95	16.03	16.06	16.08	16.11	16.14	7.29	7.40	7.53	7.68	7.86
Fraser_R	90250	10.70	10.73	10.78	10.80	10.82	12.85	12.89	12.91	12.93	12.98	16.05	16.08	16.10	16.13	16.16	7.32	7.43	7.55	7.71	7.88
Fraser_R	90626	10.71	10.74	10.79	10.81	10.84	12.86	12.89	12.91	12.94	12.98	16.06	16.08	16.11	16.13	16.16	7.33	7.44	7.56	7.72	7.89
Fraser_R	90963	10.75	10.78	10.83	10.85	10.87	12.89	12.93	12.95	12.97	13.02	16.09	16.11	16.14	16.16	16.19	7.36	7.47	7.59	7.75	7.92
Fraser_R	91389	10.79	10.81	10.86	10.88	10.91	12.93	12.96	12.98	13.01	13.05	16.12	16.15	16.17	16.20	16.23	7.39	7.50	7.62	7.77	7.94
Fraser_R	91751	10.81	10.84	10.89	10.91	10.93	12.94	12.98	13.00	13.02	13.07	16.13	16.15	16.18	16.20	16.23	7.42	7.52	7.64	7.80	7.97
Fraser_R	92078	10.86	10.89	10.93	10.96	10.98	12.99	13.02	13.04	13.07	13.11	16.17	16.20	16.22	16.25	16.28	7.45	7.56	7.68	7.83	8.00
Fraser_R	92483	10.91	10.94	10.98	11.00	11.03	13.03	13.06	13.08	13.11	13.15	16.21	16.23	16.25	16.28	16.31	7.50	7.60	7.72	7.87	8.03
Fraser_R	92893	10.93	10.96	11.00	11.02	11.05	13.04	13.08	13.10	13.12	13.17	16.21	16.24	16.26	16.29	16.31	7.52	7.62	7.74	7.89	8.05
Fraser_R	93270	10.94	10.96	11.01	11.03	11.05	13.04	13.07	13.09	13.12	13.16	16.20	16.22	16.25	16.27	16.30	7.53	7.63	7.75	7.90	8.06
Fraser_R	93643	10.96	10.99	11.03	11.05	11.08	13.06	13.10	13.11	13.14	13.18	16.21	16.24	16.26	16.29	16.31	7.55	7.66	7.77	7.92	8.08
Fraser_R	93974	11.00	11.03	11.07	11.09	11.12	13.11	13.14	13.16	13.18	13.23	16.26	16.29	16.31	16.34	16.36	7.58	7.68	7.80	7.94	8.11
Fraser_R	94338	11.05	11.08	11.12	11.14	11.17	13.16	13.19	13.21	13.23	13.27	16.31	16.34	16.36	16.39	16.41	7.62	7.72	7.83	7.97	8.14

Freshet Historical 1:5000							Freshet Scenario-A (Moderate) 1:5000					Freshet Scenario-B (Intense) 1:5000					Winter 1:5000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	94714	11.11	11.13	11.17	11.20	11.22	13.21	13.24	13.26	13.29	13.33	16.37	16.40	16.42	16.45	16.47	7.65	7.75	7.87	8.01	8.17
Fraser_R	95088	11.16	11.18	11.22	11.25	11.27	13.27	13.30	13.32	13.34	13.38	16.43	16.46	16.48	16.51	16.53	7.68	7.78	7.89	8.04	8.20
Fraser_R	95477	11.22	11.24	11.28	11.30	11.33	13.32	13.35	13.37	13.39	13.43	16.48	16.51	16.53	16.56	16.58	7.73	7.82	7.93	8.07	8.23
Fraser_R	95847	11.22	11.25	11.29	11.31	11.33	13.34	13.37	13.39	13.41	13.45	16.52	16.54	16.56	16.59	16.61	7.71	7.81	7.92	8.06	8.22
Fraser_R	96277	11.27	11.30	11.34	11.36	11.38	13.38	13.42	13.43	13.46	13.50	16.56	16.58	16.60	16.63	16.66	7.76	7.86	7.96	8.10	8.26
Fraser_R	96597	11.29	11.31	11.36	11.38	11.40	13.40	13.43	13.45	13.47	13.51	16.57	16.59	16.61	16.64	16.66	7.77	7.87	7.97	8.11	8.27
Fraser_R	97004	11.26	11.28	11.33	11.35	11.37	13.36	13.40	13.41	13.44	13.48	16.53	16.55	16.58	16.60	16.63	7.78	7.88	7.99	8.13	8.28
Fraser_R	97348	11.28	11.31	11.35	11.37	11.39	13.37	13.40	13.42	13.44	13.48	16.52	16.55	16.57	16.59	16.62	7.81	7.90	8.01	8.15	8.30
Fraser_R	97701	11.34	11.37	11.41	11.43	11.45	13.41	13.45	13.46	13.49	13.53	16.55	16.58	16.60	16.63	16.65	7.87	7.96	8.06	8.20	8.35
Fraser_R	98091	11.37	11.40	11.44	11.46	11.48	13.43	13.46	13.48	13.51	13.54	16.56	16.59	16.61	16.63	16.66	7.90	7.99	8.10	8.23	8.38
Fraser_R	98420	11.39	11.41	11.45	11.47	11.49	13.43	13.46	13.48	13.50	13.54	16.54	16.57	16.59	16.62	16.64	7.93	8.02	8.13	8.26	8.41
Fraser_R	98751	11.40	11.42	11.46	11.48	11.50	13.43	13.46	13.48	13.50	13.54	16.54	16.56	16.58	16.61	16.63	7.94	8.03	8.13	8.27	8.41
Fraser_R	99087	11.48	11.51	11.55	11.56	11.58	13.52	13.55	13.56	13.59	13.62	16.62	16.64	16.66	16.69	16.71	8.01	8.10	8.20	8.33	8.47
Fraser_R	99341	11.54	11.57	11.60	11.62	11.64	13.59	13.62	13.63	13.66	13.69	16.69	16.72	16.74	16.76	16.79	8.04	8.13	8.23	8.35	8.50
Fraser_R	99644	11.59	11.61	11.65	11.67	11.69	13.63	13.66	13.68	13.70	13.74	16.75	16.77	16.79	16.81	16.84	8.07	8.16	8.25	8.38	8.53
Fraser_R	99955	11.63	11.65	11.69	11.71	11.73	13.67	13.70	13.72	13.74	13.78	16.78	16.81	16.83	16.85	16.88	8.10	8.19	8.28	8.41	8.56
Fraser_R	99955	11.63	11.65	11.69	11.71	11.73	13.67	13.70	13.72	13.74	13.78	16.78	16.81	16.83	16.85	16.88	8.10	8.19	8.28	8.41	8.56
Fraser_R	100348	11.63	11.65	11.69	11.71	11.73	13.67	13.70	13.72	13.74	13.78	16.78	16.81	16.83	16.85	16.88	8.10	8.19	8.28	8.41	8.55
Fraser_R	100688	11.66	11.68	11.72	11.74	11.76	13.70	13.73	13.75	13.77	13.81	16.81	16.84	16.86	16.88	16.91	8.12	8.21	8.31	8.43	8.57
Fraser_R	101083	11.68	11.70	11.74	11.76	11.78	13.72	13.75	13.77	13.79	13.83	16.83	16.86	16.88	16.90	16.93	8.14	8.23	8.32	8.45	8.59
Fraser_R	101411	11.68	11.70	11.74	11.75	11.77	13.72	13.75	13.76	13.79	13.82	16.83	16.85	16.87	16.89	16.92	8.14	8.23	8.32	8.45	8.59
Fraser_R	101745	11.67	11.69	11.73	11.75	11.77	13.71	13.74	13.76	13.78	13.82	16.82	16.85	16.87	16.89	16.92	8.13	8.22	8.32	8.44	8.58
Fraser_R	102107	11.74	11.76	11.80	11.82	11.84	13.77	13.80	13.82	13.84	13.88	16.88	16.90	16.92	16.94	16.97	8.21	8.29	8.39	8.51	8.65
Fraser_R	102614	11.76	11.78	11.82	11.83	11.85	13.78	13.81	13.83	13.85	13.89	16.88	16.91	16.92	16.95	16.97	8.23	8.31	8.41	8.53	8.67
Fraser_R	103057	11.78	11.80	11.83	11.85	11.87	13.80	13.83	13.84	13.86	13.90	16.89	16.91	16.93	16.96	16.98	8.26	8.34	8.43	8.55	8.69
Fraser_R	103447	11.81	11.83	11.86	11.88	11.90	13.82	13.85	13.86	13.89	13.92	16.91	16.93	16.95	16.98	17.00	8.30	8.38	8.47	8.59	8.72
Fraser_R	103782	11.84	11.86	11.90	11.92	11.93	13.84	13.87	13.88	13.91	13.94	16.93	16.95	16.97	16.99	17.02	8.35	8.43	8.52	8.64	8.77
Fraser_R	104233	11.92	11.94	11.98	11.99	12.01	13.91	13.94	13.95	13.98	14.01	16.98	17.00	17.02	17.04	17.07	8.42	8.49	8.58	8.69	8.82
Fraser_R	104653	11.96	11.98	12.02	12.03	12.05	13.94	13.97	13.98	14.00	14.04	17.00	17.02	17.04	17.06	17.09	8.47	8.55	8.63	8.74	8.87
Fraser_R	105033	11.98	12.00	12.03	12.05	12.07	13.95	13.97	13.99	14.01	14.04	17.00	17.02	17.04	17.06	17.09	8.50	8.57	8.66	8.77	8.89
Fraser_R	105317	11.99	12.01	12.04	12.05	12.07	13.96	13.98	14.00	14.02	14.05	17.01	17.03	17.05	17.08	17.10	8.51	8.58	8.67	8.78	8.90
Fraser_R	105752	12.02	12.04	12.07	12.09	12.10	13.98	14.01	14.02	14.04	14.08	17.03	17.05	17.07	17.09	17.12	8.55	8.62	8.70	8.81	8.93
Fraser_R	106155	12.04	12.06	12.09	12.11	12.13	14.00	14.02	14.04	14.06	14.09	17.04	17.06	17.08	17.10	17.13	8.58	8.66	8.74	8.84	8.96
Fraser_R	106506	12.06	12.08	12.11	12.13	12.14	14.01	14.04	14.05	14.07	14.11	17.05	17.07	17.09	17.11	17.14	8.61	8.68	8.76	8.86	8.98
Fraser_R	106807	12.06	12.08	12.11	12.13	12.14	14.01	14.03	14.05	14.07	14.10	17.04	17.06	17.08	17.10	17.13	8.63	8.70	8.77	8.88	8.99
Fraser_R	106807	12.06	12.08	12.11	12.13	12.14	14.01	14.03	14.05	14.07	14.10	17.04	17.06	17.08	17.10	17.13	8.63	8.70	8.77	8.88	8.99
Fraser_R	107158	11.98	12.00	12.03	12.05	12.06	13.92	13.95	13.96	13.98	14.01	16.92	16.95	16.97	16.99	17.01	8.58	8.65	8.73	8.83	8.95
Fraser_R	107502	12.00	12.02	12.05	12.06	12.08	13.92	13.95	13.96	13.98	14.02	16.91	16.93	16.95	16.97	17.00	8.63	8.70	8.78	8.87	8.99
Fraser_R	107855	12.06	12.08	12.11	12.13	12.14	14.00	14.03	14.04	14.06	14.09	17.02	17.05	17.07	17.09	17.11	8.71	8.77	8.84	8.94	9.05

Freshet Historical 1:5000							Freshet Scenario-A (Moderate) 1:5000					Freshet Scenario-B (Intense) 1:5000					Winter 1:5000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	108192	12.08	12.10	12.13	12.14	12.16	13.98	14.00	14.02	14.04	14.07	17.01	17.03	17.05	17.08	17.10	8.76	8.82	8.89	8.98	9.09
Fraser_R	108505	12.20	12.22	12.25	12.27	12.28	14.10	14.13	14.14	14.16	14.19	17.11	17.13	17.15	17.17	17.20	8.87	8.93	9.00	9.09	9.19
Fraser_R	108822	12.30	12.32	12.35	12.36	12.38	14.18	14.21	14.22	14.24	14.27	17.19	17.21	17.23	17.25	17.28	8.99	9.04	9.11	9.19	9.28
Fraser_R	109145	12.34	12.36	12.38	12.40	12.41	14.21	14.24	14.25	14.27	14.30	17.19	17.21	17.23	17.26	17.28	9.06	9.11	9.18	9.25	9.35
Fraser_R	109489	12.41	12.42	12.45	12.47	12.48	14.29	14.31	14.33	14.35	14.38	17.28	17.31	17.32	17.35	17.37	9.09	9.15	9.21	9.29	9.38
Fraser_R	109795	12.45	12.47	12.49	12.51	12.52	14.31	14.33	14.35	14.37	14.40	17.29	17.32	17.33	17.36	17.38	9.13	9.18	9.24	9.32	9.42
Fraser_R	109795	12.45	12.47	12.49	12.51	12.52	14.31	14.33	14.35	14.37	14.40	17.29	17.32	17.33	17.36	17.38	9.13	9.18	9.24	9.32	9.42
Fraser_R	110180	12.46	12.47	12.50	12.51	12.53	14.28	14.31	14.32	14.34	14.37	17.25	17.27	17.29	17.31	17.33	9.24	9.29	9.34	9.41	9.50
Fraser_R	110180	12.46	12.47	12.50	12.51	12.53	14.28	14.31	14.32	14.34	14.37	17.25	17.27	17.29	17.31	17.33	9.24	9.29	9.34	9.41	9.50
Fraser_R	110821	12.54	12.55	12.57	12.59	12.60	14.32	14.34	14.35	14.37	14.40	17.20	17.23	17.24	17.26	17.29	9.48	9.52	9.57	9.63	9.70
Fraser_R	110821	12.54	12.55	12.57	12.59	12.60	14.32	14.34	14.35	14.37	14.40	17.20	17.23	17.24	17.26	17.29	9.48	9.52	9.57	9.63	9.70
Fraser_R	111192	12.50	12.52	12.54	12.55	12.57	14.26	14.28	14.29	14.31	14.34	17.07	17.09	17.11	17.13	17.15	9.52	9.56	9.60	9.66	9.73
Fraser_R	111192	12.50	12.52	12.54	12.55	12.57	14.26	14.28	14.29	14.31	14.34	17.07	17.09	17.11	17.13	17.15	9.52	9.56	9.60	9.66	9.73
Fraser_R	111514	12.53	12.54	12.57	12.58	12.59	14.28	14.31	14.32	14.34	14.37	17.11	17.13	17.14	17.17	17.19	9.54	9.58	9.62	9.68	9.75
Fraser_R	111886	12.67	12.69	12.71	12.72	12.74	14.41	14.44	14.45	14.47	14.49	17.24	17.27	17.28	17.30	17.32	9.67	9.71	9.75	9.80	9.87
Fraser_R	112217	12.79	12.80	12.82	12.83	12.85	14.50	14.53	14.54	14.56	14.58	17.33	17.35	17.37	17.39	17.41	9.81	9.84	9.88	9.93	9.99
Fraser_R	112217	12.79	12.80	12.82	12.83	12.85	14.50	14.53	14.54	14.56	14.58	17.33	17.35	17.37	17.39	17.41	9.81	9.84	9.88	9.93	9.99
Fraser_R	112565	12.85	12.86	12.88	12.90	12.91	14.56	14.59	14.60	14.61	14.64	17.38	17.40	17.42	17.44	17.46	9.87	9.90	9.93	9.98	10.04
Fraser_R	112565	12.85	12.86	12.88	12.90	12.91	14.56	14.59	14.60	14.61	14.64	17.38	17.40	17.42	17.44	17.46	9.87	9.90	9.93	9.98	10.04
Fraser_R	112925	12.87	12.88	12.90	12.91	12.93	14.57	14.60	14.61	14.62	14.65	17.39	17.41	17.43	17.45	17.47	9.90	9.93	9.96	10.01	10.07
Fraser_R	112925	12.87	12.88	12.90	12.91	12.93	14.57	14.60	14.61	14.62	14.65	17.39	17.41	17.43	17.45	17.47	9.90	9.93	9.96	10.01	10.07
Fraser_R	113344	12.88	12.89	12.91	12.92	12.93	14.57	14.59	14.61	14.62	14.65	17.38	17.40	17.42	17.44	17.46	9.94	9.97	10.00	10.05	10.11
Fraser_R	113644	12.90	12.91	12.93	12.95	12.96	14.59	14.61	14.62	14.64	14.66	17.39	17.41	17.43	17.45	17.47	10.02	10.05	10.08	10.12	10.18
Fraser_R	114093	12.99	13.01	13.02	13.03	13.05	14.63	14.65	14.66	14.68	14.70	17.41	17.43	17.45	17.47	17.49	10.25	10.27	10.30	10.34	10.39
Fraser_R	114093	12.99	13.01	13.02	13.03	13.05	14.63	14.65	14.66	14.68	14.70	17.41	17.43	17.45	17.47	17.49	10.25	10.27	10.30	10.34	10.39
Fraser_R	114403	12.96	12.97	12.99	13.00	13.01	14.56	14.58	14.59	14.61	14.63	17.27	17.29	17.30	17.32	17.34	10.32	10.34	10.37	10.40	10.44
Fraser_R	114731	13.24	13.25	13.27	13.28	13.29	14.81	14.83	14.84	14.86	14.88	17.51	17.53	17.55	17.57	17.58	10.54	10.56	10.59	10.62	10.66
Fraser_R	115152	13.38	13.39	13.40	13.41	13.42	14.93	14.95	14.96	14.97	15.00	17.64	17.65	17.67	17.69	17.71	10.65	10.67	10.69	10.73	10.76
Fraser_R	115530	13.46	13.47	13.49	13.50	13.50	15.00	15.02	15.03	15.04	15.07	17.68	17.70	17.71	17.73	17.75	10.74	10.76	10.78	10.81	10.84
Fraser_R	115921	13.57	13.58	13.60	13.61	13.61	15.11	15.13	15.14	15.15	15.17	17.79	17.80	17.82	17.84	17.86	10.81	10.83	10.85	10.88	10.91
Fraser_R	116277	13.55	13.56	13.57	13.58	13.59	15.05	15.06	15.07	15.09	15.11	17.71	17.73	17.74	17.76	17.78	10.92	10.94	10.96	10.98	11.02
Fraser_R	116526	13.63	13.64	13.65	13.66	13.66	15.11	15.13	15.14	15.15	15.17	17.72	17.74	17.75	17.77	17.79	10.98	11.00	11.02	11.04	11.07
Fraser_R	116822	14.12	14.13	14.14	14.15	14.16	15.63	15.64	15.65	15.66	15.68	18.18	18.19	18.21	18.22	18.24	11.32	11.34	11.36	11.38	11.41
Fraser_R	117205	14.39	14.39	14.40	14.41	14.41	15.85	15.87	15.87	15.88	15.90	18.32	18.34	18.35	18.37	18.38	11.54	11.56	11.57	11.60	11.62
Fraser_R	117465	14.42	14.42	14.43	14.44	14.45	15.88	15.89	15.90	15.91	15.93	18.35	18.36	18.37	18.39	18.41	11.58	11.59	11.61	11.63	11.66
Fraser_R	117465	14.42	14.42	14.43	14.44	14.45	15.88	15.89	15.90	15.91	15.93	18.35	18.36	18.37	18.39	18.41	11.58	11.59	11.61	11.63	11.66
Fraser_R	117693	14.38	14.39	14.40	14.40	14.41	15.84	15.86	15.87	15.88	15.90	18.31	18.33	18.34	18.36	18.37	11.57	11.58	11.60	11.62	11.64
Fraser_R	117965	14.38	14.39	14.40	14.41	14.41	15.84	15.85	15.86	15.87	15.89	18.30	18.31	18.32	18.34	18.36	11.58	11.60	11.61	11.63	11.66
Fraser_R	118227	14.35	14.35	14.36	14.37	14.38	15.80	15.82	15.82	15.84	15.85	18.26	18.28	18.29	18.31	18.32	11.59	11.60	11.61	11.63	11.66

Freshet Historical 1:5000							Freshet Scenario-A (Moderate) 1:5000					Freshet Scenario-B (Intense) 1:5000					Winter 1:5000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	118629	14.48	14.48	14.49	14.50	14.50	15.88	15.89	15.90	15.91	15.93	18.30	18.32	18.33	18.35	18.36	11.68	11.69	11.70	11.72	11.75
Fraser_R	119023	14.70	14.70	14.71	14.72	14.72	16.06	16.07	16.08	16.09	16.11	18.45	18.47	18.48	18.50	18.51	11.81	11.82	11.84	11.85	11.88
Fraser_R	119296	14.70	14.71	14.72	14.72	14.73	16.06	16.07	16.08	16.09	16.11	18.45	18.46	18.48	18.49	18.51	11.82	11.83	11.84	11.86	11.88
Fraser_R	119296	14.70	14.71	14.72	14.72	14.73	16.06	16.07	16.08	16.09	16.11	18.45	18.46	18.48	18.49	18.51	11.82	11.83	11.84	11.86	11.88
Fraser_R	119760	15.01	15.01	15.02	15.02	15.03	16.37	16.38	16.39	16.39	16.41	18.75	18.76	18.77	18.79	18.80	11.99	12.00	12.01	12.03	12.05
Fraser_R	120109	15.01	15.01	15.02	15.02	15.03	16.33	16.34	16.34	16.35	16.37	18.69	18.71	18.72	18.73	18.75	12.04	12.05	12.07	12.08	12.10
Fraser_R	120552	15.23	15.24	15.24	15.25	15.25	16.52	16.53	16.54	16.55	16.56	18.81	18.82	18.83	18.84	18.86	12.19	12.20	12.21	12.23	12.24
Fraser_R	120979	15.41	15.41	15.42	15.42	15.42	16.68	16.69	16.69	16.70	16.71	18.88	18.90	18.91	18.92	18.93	12.34	12.35	12.36	12.37	12.39
Fraser_R	121391	15.61	15.62	15.62	15.63	15.63	16.90	16.91	16.92	16.92	16.93	19.13	19.15	19.16	19.17	19.18	12.44	12.45	12.46	12.47	12.49
Fraser_R	121770	15.72	15.73	15.73	15.73	15.74	17.01	17.02	17.02	17.03	17.04	19.22	19.23	19.24	19.25	19.26	12.53	12.54	12.55	12.56	12.58
Fraser_R	121960	15.78	15.78	15.79	15.79	15.79	17.04	17.05	17.06	17.06	17.07	19.22	19.23	19.24	19.25	19.26	12.60	12.60	12.61	12.62	12.64
Fraser_R	121960	15.78	15.78	15.79	15.79	15.79	17.04	17.05	17.06	17.06	17.07	19.22	19.23	19.24	19.25	19.26	12.60	12.60	12.61	12.62	12.64
Fraser_R	122189	15.83	15.83	15.84	15.84	15.84	17.07	17.07	17.08	17.08	17.10	19.20	19.22	19.23	19.24	19.25	12.67	12.68	12.69	12.70	12.71
Fraser_R	122649	16.04	16.04	16.05	16.05	16.05	17.26	17.27	17.27	17.28	17.29	19.39	19.40	19.41	19.42	19.43	12.84	12.85	12.86	12.87	12.88
Fraser_R	123115	16.15	16.16	16.16	16.16	16.17	17.37	17.38	17.38	17.39	17.40	19.49	19.50	19.51	19.52	19.54	12.95	12.96	12.97	12.98	12.99
Fraser_R	123115	16.15	16.16	16.16	16.16	16.17	17.37	17.38	17.38	17.39	17.40	19.49	19.50	19.51	19.52	19.54	12.95	12.96	12.97	12.98	12.99
Fraser_R	123582	16.21	16.21	16.21	16.22	16.22	17.42	17.42	17.43	17.43	17.44	19.53	19.54	19.55	19.56	19.57	13.03	13.04	13.04	13.05	13.06
Fraser_R	123950	16.22	16.22	16.22	16.22	16.23	17.41	17.41	17.42	17.42	17.43	19.50	19.51	19.51	19.53	19.54	13.15	13.15	13.16	13.16	13.17
Fraser_R	124343	16.43	16.43	16.44	16.44	16.44	17.60	17.61	17.61	17.62	17.63	19.68	19.69	19.70	19.71	19.72	13.37	13.37	13.38	13.38	13.39
Fraser_R	124343	16.43	16.43	16.44	16.44	16.44	17.60	17.61	17.61	17.62	17.63	19.68	19.69	19.70	19.71	19.72	13.37	13.37	13.38	13.38	13.39
Fraser_R	124720	16.48	16.48	16.49	16.49	16.49	17.64	17.64	17.65	17.65	17.66	19.70	19.71	19.72	19.73	19.74	13.50	13.50	13.51	13.51	13.52
Fraser_R	125093	16.44	16.44	16.45	16.45	16.45	17.55	17.56	17.56	17.57	17.58	19.55	19.56	19.57	19.58	19.59	13.63	13.64	13.64	13.65	13.65
Fraser_R	125436	16.77	16.77	16.78	16.78	16.78	17.87	17.88	17.88	17.89	17.89	19.89	19.90	19.91	19.92	19.93	13.93	13.94	13.94	13.94	13.95
Fraser_R	125807	16.87	16.88	16.88	16.88	16.88	17.97	17.98	17.98	17.98	17.99	19.99	20.00	20.01	20.02	20.03	14.05	14.05	14.05	14.06	14.06
Fraser_R	125807	16.87	16.88	16.88	16.88	16.88	17.97	17.98	17.98	17.98	17.99	19.99	20.00	20.01	20.02	20.03	14.05	14.05	14.05	14.06	14.06
Fraser_R	126146	16.95	16.95	16.96	16.96	16.96	18.03	18.04	18.04	18.04	18.05	20.03	20.04	20.05	20.06	20.07	14.18	14.18	14.19	14.19	14.19
Fraser_R	126146	16.95	16.95	16.96	16.96	16.96	18.03	18.04	18.04	18.04	18.05	20.03	20.04	20.05	20.06	20.07	14.18	14.18	14.19	14.19	14.19
Fraser_R	126471	16.89	16.89	16.89	16.89	16.89	17.95	17.95	17.96	17.96	17.97	19.91	19.91	19.92	19.93	19.94	14.17	14.17	14.18	14.18	14.18
Fraser_R	126811	16.90	16.90	16.90	16.91	16.91	17.93	17.93	17.94	17.94	17.95	19.83	19.84	19.84	19.85	19.86	14.33	14.33	14.33	14.33	14.34
Fraser_R	126811	16.90	16.90	16.90	16.91	16.91	17.93	17.93	17.94	17.94	17.95	19.83	19.84	19.84	19.85	19.86	14.33	14.33	14.33	14.33	14.34
Fraser_R	127331	17.16	17.16	17.16	17.16	17.16	18.10	18.10	18.10	18.11	18.11	19.88	19.89	19.90	19.90	19.91	14.65	14.65	14.65	14.65	14.65
Fraser_R	127331	17.16	17.16	17.16	17.16	17.16	18.10	18.10	18.10	18.11	18.11	19.88	19.89	19.90	19.90	19.91	14.65	14.65	14.65	14.65	14.65
Fraser_R	127666	17.34	17.34	17.35	17.35	17.35	18.27	18.28	18.28	18.28	18.29	20.01	20.01	20.02	20.03	20.04	14.77	14.77	14.77	14.77	14.78
Fraser_R	128018	17.83	17.84	17.84	17.84	17.84	18.85	18.85	18.85	18.86	18.86	20.67	20.68	20.68	20.69	20.70	14.94	14.95	14.95	14.95	14.95
Fraser_R	128434	18.11	18.11	18.11	18.11	18.11	19.14	19.14	19.14	19.14	19.15	20.96	20.97	20.97	20.98	20.99	15.11	15.11	15.11	15.11	15.12
Fraser_R	128434	18.11	18.11	18.11	18.11	18.11	19.14	19.14	19.14	19.14	19.15	20.96	20.97	20.97	20.98	20.99	15.11	15.11	15.11	15.11	15.12
Fraser_R	128804	18.35	18.35	18.35	18.36	18.36	19.36	19.36	19.36	19.37	19.37	21.15	21.16	21.16	21.17	21.17	15.32	15.32	15.32	15.32	15.32
Fraser_R	129148	18.53	18.53	18.53	18.53	18.53	19.47	19.48	19.48	19.48	19.48	21.19	21.19	21.20	21.20	21.21	15.53	15.53	15.53	15.53	15.53
Fraser_R	129526	18.79	18.79	18.79	18.80	18.80	19.76	19.76	19.76	19.77	19.77	21.47	21.48	21.48	21.49	21.49	15.70	15.70	15.70	15.70	15.70

Freshet Historical 1:5000							Freshet Scenario-A (Moderate) 1:5000					Freshet Scenario-B (Intense) 1:5000					Winter 1:5000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	129526	18.79	18.79	18.79	18.80	18.80	19.76	19.76	19.76	19.77	19.77	21.47	21.48	21.48	21.49	21.49	15.70	15.70	15.70	15.70	15.70
Fraser_R	129916	18.74	18.74	18.74	18.74	18.74	19.69	19.69	19.69	19.69	19.70	21.41	21.42	21.42	21.43	21.43	15.87	15.87	15.87	15.87	15.87
Fraser_R	129916	18.74	18.74	18.74	18.74	18.74	19.69	19.69	19.69	19.69	19.70	21.41	21.42	21.42	21.43	21.43	15.87	15.87	15.87	15.87	15.87
Fraser_R	130256	18.78	18.79	18.79	18.79	18.79	19.71	19.71	19.71	19.71	19.71	21.44	21.44	21.45	21.45	21.46	16.01	16.01	16.01	16.01	16.02
Fraser_R	130472	18.96	18.96	18.96	18.96	18.96	19.85	19.85	19.85	19.85	19.85	21.53	21.54	21.54	21.54	21.55	16.13	16.13	16.13	16.13	16.13
Fraser_R	130624	19.07	19.07	19.07	19.07	19.07	20.00	20.01	20.01	20.01	20.01	22.27	22.28	22.28	22.29	22.29	16.26	16.26	16.26	16.26	16.26
Fraser_R	130827	19.21	19.21	19.21	19.21	19.21	20.16	20.17	20.17	20.17	20.17	22.21	22.22	22.23	22.23	22.24	16.35	16.35	16.35	16.35	16.35
Fraser_R	131166	19.37	19.37	19.37	19.37	19.37	20.34	20.34	20.34	20.34	20.34	22.24	22.25	22.25	22.26	22.26	16.47	16.47	16.47	16.47	16.47
Fraser_R	131597	19.62	19.62	19.62	19.62	19.62	20.60	20.61	20.61	20.61	20.61	22.48	22.48	22.48	22.49	22.50	16.64	16.64	16.64	16.64	16.64
Fraser_R	131858	19.63	19.63	19.63	19.63	19.64	20.59	20.60	20.60	20.60	20.60	22.43	22.43	22.44	22.44	22.45	16.73	16.73	16.73	16.73	16.74
Fraser_R	131858	19.63	19.63	19.63	19.63	19.64	20.59	20.60	20.60	20.60	20.60	22.43	22.43	22.44	22.44	22.45	16.73	16.73	16.73	16.73	16.74
Fraser_R	132206	20.02	20.02	20.02	20.02	20.02	21.00	21.00	21.01	21.01	21.01	22.80	22.80	22.81	22.81	22.81	16.94	16.94	16.94	16.94	16.94
Fraser_R	132206	20.02	20.02	20.02	20.02	20.02	21.00	21.00	21.01	21.01	21.01	22.80	22.80	22.81	22.81	22.81	16.94	16.94	16.94	16.94	16.94
Fraser_R	132561	20.03	20.03	20.03	20.03	20.03	21.01	21.01	21.01	21.01	21.02	22.80	22.81	22.81	22.82	22.82	16.90	16.90	16.90	16.90	16.90
Fraser_R	132561	20.03	20.03	20.03	20.03	20.03	21.01	21.01	21.01	21.01	21.02	22.80	22.81	22.81	22.82	22.82	16.90	16.90	16.90	16.90	16.90
Fraser_R	132862	20.08	20.08	20.08	20.08	20.08	21.08	21.08	21.09	21.09	21.09	22.86	22.87	22.87	22.87	22.88	16.97	16.97	16.97	16.97	16.97
Fraser_R	133192	20.12	20.12	20.12	20.12	20.12	21.08	21.08	21.08	21.08	21.08	22.81	22.82	22.82	22.82	22.83	17.04	17.04	17.04	17.04	17.04
Fraser_R	133558	20.22	20.22	20.22	20.22	20.22	21.14	21.14	21.15	21.15	21.15	22.82	22.82	22.82	22.83	22.83	17.19	17.19	17.19	17.19	17.19
Fraser_R	133899	20.51	20.51	20.51	20.51	20.51	21.42	21.42	21.42	21.43	21.43	23.07	23.07	23.08	23.08	23.08	17.42	17.42	17.43	17.43	17.43
Fraser_R	134143	20.68	20.68	20.68	20.68	20.68	21.63	21.63	21.63	21.63	21.63	23.31	23.31	23.31	23.32	23.32	17.55	17.55	17.55	17.55	17.55
Fraser_R	134143	20.68	20.68	20.68	20.68	20.68	21.63	21.63	21.63	21.63	21.63	23.31	23.31	23.31	23.32	23.32	17.55	17.55	17.55	17.55	17.55
Fraser_R	134975	20.74	20.74	20.74	20.74	20.74	21.69	21.69	21.69	21.69	21.69	23.37	23.37	23.38	23.38	23.38	17.64	17.64	17.64	17.64	17.64
Fraser_R	134975	20.74	20.74	20.74	20.74	20.74	21.69	21.69	21.69	21.69	21.69	23.37	23.37	23.38	23.38	23.38	17.64	17.64	17.64	17.64	17.64
Fraser_R	135327	20.81	20.81	20.81	20.81	20.81	21.75	21.75	21.75	21.75	21.75	23.41	23.41	23.42	23.42	23.42	17.81	17.81	17.81	17.81	17.81
Fraser_R	135630	20.87	20.87	20.87	20.87	20.87	21.80	21.80	21.80	21.80	21.80	23.44	23.44	23.44	23.45	23.45	17.98	17.98	17.98	17.98	17.98
Fraser_R	135982	21.01	21.01	21.01	21.01	21.01	21.93	21.93	21.93	21.93	21.93	23.55	23.56	23.56	23.56	23.57	18.21	18.21	18.21	18.21	18.21
Fraser_R	136497	21.11	21.11	21.11	21.11	21.11	22.00	22.01	22.01	22.01	22.01	23.60	23.60	23.61	23.61	23.61	18.44	18.44	18.44	18.44	18.44
Fraser_R	136921	21.23	21.23	21.23	21.23	21.23	22.10	22.10	22.10	22.10	22.10	23.66	23.66	23.67	23.67	23.67	18.68	18.68	18.68	18.68	18.68
Fraser_R	137374	21.42	21.42	21.42	21.42	21.42	22.25	22.25	22.25	22.25	22.25	23.77	23.77	23.77	23.78	23.78	18.96	18.96	18.96	18.96	18.96
Fraser_R	137870	21.71	21.71	21.71	21.71	21.71	22.46	22.46	22.46	22.46	22.46	23.90	23.90	23.91	23.91	23.91	19.35	19.35	19.35	19.35	19.35
Fraser_R	138445	21.95	21.95	21.95	21.95	21.95	22.67	22.67	22.67	22.67	22.67	24.06	24.07	24.07	24.07	24.07	19.75	19.75	19.75	19.75	19.75
Fraser_R	138445	21.95	21.95	21.95	21.95	21.95	22.67	22.67	22.67	22.67	22.67	24.06	24.07	24.07	24.07	24.07	19.75	19.75	19.75	19.75	19.75
Fraser_R	138766	22.17	22.17	22.17	22.17	22.17	22.85	22.85	22.85	22.85	22.85	24.15	24.15	24.15	24.16	24.16	19.81	19.81	19.81	19.81	19.81
Fraser_R	139142	22.31	22.31	22.31	22.31	22.31	22.94	22.94	22.94	22.94	22.94	24.20	24.20	24.20	24.20	24.20	19.89	19.89	19.89	19.89	19.89
Fraser_R	139526	22.60	22.60	22.60	22.60	22.60	23.17	23.17	23.17	23.17	23.17	24.34	24.34	24.34	24.34	24.35	20.14	20.14	20.14	20.14	20.14
Fraser_R	139912	22.65	22.65	22.65	22.65	22.65	23.21	23.21	23.21	23.22	23.22	24.36	24.37	24.37	24.37	24.37	20.22	20.22	20.22	20.22	20.22
Fraser_R	140292	22.92	22.92	22.92	22.92	22.92	23.42	23.42	23.42	23.42	23.42	24.47	24.48	24.48	24.48	24.48	20.43	20.43	20.43	20.43	20.43
Fraser_R	140292	22.92	22.92	22.92	22.92	22.92	23.42	23.42	23.42	23.42	23.42	24.47	24.48	24.48	24.48	24.48	20.43	20.43	20.43	20.43	20.43
Fraser_R	140845	22.92	22.92	22.92	22.92	22.92	23.38	23.39	23.39	23.39	23.39	24.37	24.37	24.38	24.38	24.38	20.54	20.54	20.54	20.54	20.54

Freshet Historical 1:5000							Freshet Scenario-A (Moderate) 1:5000					Freshet Scenario-B (Intense) 1:5000					Winter 1:5000							
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	140845	22.92	22.92	22.92	22.92	22.92		23.38	23.39	23.39	23.39	23.39		24.37	24.37	24.38	24.38	24.38		20.54	20.54	20.54	20.54	20.54
Fraser_R	141065	22.96	22.96	22.96	22.96	22.96		23.42	23.42	23.42	23.42	23.43		24.38	24.38	24.38	24.39	24.39		20.68	20.68	20.68	20.68	20.68
Fraser_R	141439	23.42	23.42	23.42	23.42	23.42		23.92	23.92	23.92	23.92	23.92		24.82	24.82	24.82	24.82	24.82		21.09	21.09	21.09	21.09	21.09
Fraser_R	141833	23.92	23.92	23.92	23.92	23.92		24.52	24.52	24.52	24.52	24.52		25.51	25.51	25.51	25.51	25.51		21.38	21.38	21.38	21.38	21.38
Fraser_R	142241	24.10	24.10	24.10	24.10	24.10		24.62	24.62	24.62	24.62	24.62		25.49	25.49	25.50	25.50	25.50		21.62	21.62	21.62	21.62	21.62
Fraser_R	142576	24.68	24.68	24.68	24.68	24.68		25.26	25.26	25.26	25.26	25.26		26.19	26.19	26.19	26.19	26.19		22.01	22.01	22.01	22.01	22.01
Fraser_R	142948	24.81	24.81	24.81	24.81	24.81		25.39	25.39	25.39	25.39	25.39		26.31	26.31	26.31	26.31	26.31		22.22	22.22	22.22	22.22	22.22
Fraser_R	143365	24.97	24.97	24.97	24.97	24.97		25.53	25.53	25.53	25.53	25.53		26.41	26.41	26.41	26.41	26.41		22.51	22.51	22.51	22.51	22.51
Fraser_R	143763	25.49	25.49	25.49	25.49	25.49		26.12	26.12	26.12	26.12	26.12		27.07	27.07	27.07	27.07	27.07		22.84	22.84	22.84	22.84	22.84
Fraser_R	143763	25.49	25.49	25.49	25.49	25.49		26.12	26.12	26.12	26.12	26.12		27.07	27.07	27.07	27.07	27.07		22.84	22.84	22.84	22.84	22.84
Fraser_R	144102	25.64	25.64	25.64	25.64	25.64		26.28	26.28	26.28	26.28	26.28		27.25	27.25	27.25	27.26	27.26		22.98	22.98	22.98	22.98	22.98
Fraser_R	144434	25.73	25.73	25.73	25.73	25.73		26.39	26.39	26.39	26.39	26.39		27.38	27.38	27.38	27.38	27.38		23.03	23.03	23.03	23.03	23.03
Fraser_R	144910	26.27	26.27	26.27	26.27	26.27		27.03	27.03	27.03	27.03	27.03		28.16	28.16	28.16	28.16	28.16		23.36	23.36	23.36	23.36	23.36
Fraser_R	145425	26.57	26.57	26.57	26.57	26.57		27.36	27.36	27.36	27.36	27.36		28.53	28.53	28.53	28.53	28.53		23.65	23.65	23.65	23.65	23.65
Fraser_R	145819	26.72	26.72	26.72	26.72	26.72		27.51	27.51	27.51	27.52	27.52		28.68	28.68	28.68	28.68	28.68		23.84	23.84	23.84	23.84	23.84
Fraser_R	146215	26.95	26.95	26.95	26.95	26.95		27.75	27.75	27.75	27.75	27.75		28.93	28.93	28.93	28.93	28.93		24.06	24.06	24.06	24.06	24.06
Fraser_R	146617	27.35	27.35	27.35	27.35	27.35		28.18	28.18	28.18	28.18	28.18		29.39	29.39	29.39	29.39	29.39		24.35	24.35	24.35	24.35	24.35
Fraser_R	146617	27.35	27.35	27.35	27.35	27.35		28.18	28.18	28.18	28.18	28.18		29.39	29.39	29.39	29.39	29.39		24.35	24.35	24.35	24.35	24.35
Fraser_R	147036	27.13	27.13	27.13	27.13	27.13		27.89	27.89	27.89	27.89	27.89		29.00	29.00	29.00	29.00	29.00		24.37	24.37	24.37	24.37	24.37
Fraser_R	147492	27.52	27.52	27.52	27.52	27.52		28.38	28.38	28.38	28.38	28.38		29.49	29.49	29.49	29.49	29.49		24.55	24.55	24.55	24.55	24.55
Fraser_R	147951	28.17	28.17	28.17	28.17	28.17		29.12	29.12	29.12	29.12	29.12		30.32	30.32	30.32	30.32	30.32		24.87	24.87	24.87	24.87	24.87
Fraser_R	148211	28.55	28.55	28.55	28.55	28.55		29.53	29.53	29.53	29.53	29.53		30.75	30.75	30.75	30.75	30.75		25.15	25.15	25.15	25.15	25.15
Fraser_R	148211	28.55	28.55	28.55	28.55	28.55		29.53	29.53	29.53	29.53	29.53		30.75	30.75	30.75	30.75	30.75		25.15	25.15	25.15	25.15	25.15
Fraser_R	148587	28.54	28.54	28.54	28.54	28.54		29.52	29.52	29.52	29.52	29.52		30.74	30.74	30.74	30.74	30.74		25.19	25.19	25.19	25.19	25.19
Fraser_R	148922	28.65	28.65	28.65	28.65	28.65		29.62	29.62	29.62	29.62	29.62		30.82	30.82	30.82	30.82	30.82		25.39	25.39	25.39	25.39	25.39
Fraser_R	149536	28.63	28.63	28.63	28.63	28.63		29.55	29.55	29.55	29.55	29.55		30.70	30.70	30.70	30.70	30.70		25.64	25.64	25.64	25.64	25.64
Fraser_R	149536	28.63	28.63	28.63	28.63	28.63		29.55	29.55	29.55	29.55	29.55		30.70	30.70	30.70	30.70	30.70		25.64	25.64	25.64	25.64	25.64
Fraser_R	149848	28.89	28.89	28.89	28.89	28.89		29.80	29.80	29.80	29.80	29.80		30.99	30.99	30.99	30.99	30.99		25.87	25.87	25.87	25.87	25.87
Fraser_R	150218	29.56	29.56	29.56	29.56	29.56		30.57	30.57	30.57	30.57	30.57		31.86	31.86	31.86	31.86	31.86		26.29	26.29	26.29	26.29	26.29
Fraser_R	150423	29.62	29.62	29.62	29.62	29.62		30.64	30.64	30.64	30.64	30.64		31.93	31.93	31.93	31.93	31.93		26.39	26.39	26.39	26.39	26.39
Fraser_R	150423	29.62	29.62	29.62	29.62	29.62		30.64	30.64	30.64	30.64	30.64		31.93	31.93	31.93	31.93	31.93		26.39	26.39	26.39	26.39	26.39
Fraser_R	150642	29.74	29.74	29.74	29.74	29.74		30.76	30.76	30.76	30.76	30.76		32.07	32.07	32.07	32.07	32.07		26.55	26.55	26.55	26.55	26.55
Fraser_R	151064	30.03	30.03	30.03	30.03	30.03		31.00	31.00	31.00	31.00	31.00		32.27	32.27	32.27	32.27	32.27		26.88	26.88	26.88	26.88	26.88
Fraser_R	151456	30.49	30.49	30.49	30.49	30.49		31.44	31.44	31.44	31.44	31.44		32.73	32.73	32.73	32.73	32.73		27.28	27.28	27.28	27.28	27.28
Fraser_R	151456	30.49	30.49	30.49	30.49	30.49		31.44	31.44	31.44	31.44	31.44		32.73	32.73	32.73	32.73	32.73		27.28	27.28	27.28	27.28	27.28
Fraser_R	151864	30.75	30.75	30.75	30.75	30.75		31.70	31.70	31.70	31.70	31.70		32.99	32.99	32.99	32.99	32.99		27.55	27.55	27.55	27.55	27.55
Fraser_R	152256	31.00	31.00	31.00	31.00	31.00		31.92	31.92	31.92	31.92	31.92		33.30	33.30	33.30	33.30	33.30		27.82	27.82	27.82	27.82	27.82
Fraser_R	152613	31.49	31.49	31.49	31.49	31.49		32.53	32.53	32.53	32.53	32.53		33.90	33.90	33.90	33.90	33.90		28.05	28.05	28.05	28.05	28.05
Fraser_R	153007	31.50	31.50	31.50	31.50	31.50		32.46	32.46	32.46	32.46	32.46		33.81	33.81	33.81	33.81	33.81		28.33	28.33	28.33	28.33	28.33

Freshet Historical 1:5000							Freshet Scenario-A (Moderate) 1:5000					Freshet Scenario-B (Intense) 1:5000					Winter 1:5000							
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	153372	31.74	31.74	31.74	31.74	31.74		32.50	32.50	32.50	32.50	32.50		33.74	33.74	33.74	33.74	33.74		28.54	28.54	28.54	28.54	28.54
Fraser_R	153743	32.31	32.31	32.31	32.31	32.31		33.24	33.24	33.24	33.24	33.24		34.46	34.46	34.46	34.46	34.46		28.72	28.72	28.72	28.72	28.72
Fraser_R	154103	32.41	32.41	32.41	32.41	32.41		33.32	33.32	33.32	33.32	33.32		34.54	34.54	34.54	34.54	34.54		28.94	28.94	28.94	28.94	28.94
Fraser_R	154483	32.80	32.80	32.80	32.80	32.80		33.62	33.62	33.62	33.62	33.62		34.78	34.78	34.78	34.78	34.78		29.23	29.23	29.23	29.23	29.23
Fraser_R	154868	32.97	32.97	32.97	32.97	32.97		33.81	33.81	33.81	33.81	33.81		34.95	34.95	34.95	34.95	34.95		29.35	29.35	29.35	29.35	29.35
Fraser_R	155277	33.14	33.14	33.14	33.14	33.14		33.99	33.99	33.99	33.99	33.99		35.15	35.15	35.15	35.15	35.15		29.48	29.48	29.48	29.48	29.48
Fraser_R	155664	33.07	33.07	33.07	33.07	33.07		33.87	33.87	33.87	33.87	33.87		34.96	34.96	34.96	34.96	34.96		29.59	29.59	29.59	29.59	29.59
Fraser_R	156030	33.07	33.07	33.07	33.07	33.07		33.80	33.80	33.80	33.80	33.80		34.80	34.80	34.80	34.80	34.80		29.64	29.64	29.64	29.64	29.64
Fraser_R	156387	33.40	33.40	33.40	33.40	33.40		34.26	34.26	34.26	34.26	34.26		35.47	35.47	35.47	35.47	35.47		29.73	29.73	29.73	29.73	29.73
Fraser_R	156778	33.61	33.61	33.61	33.61	33.61		34.49	34.49	34.49	34.49	34.49		35.75	35.75	35.75	35.75	35.75		29.86	29.86	29.86	29.86	29.86
Fraser_R	157176	33.89	33.89	33.89	33.89	33.89		34.85	34.85	34.85	34.85	34.85		36.23	36.23	36.23	36.23	36.23		30.00	30.00	30.00	30.00	30.00
Fraser_R	157487	34.31	34.31	34.31	34.31	34.31		35.39	35.39	35.39	35.39	35.39		36.95	36.95	36.95	36.95	36.95		30.14	30.14	30.14	30.14	30.14
Fraser_R	157866	34.70	34.70	34.70	34.70	34.70		35.88	35.88	35.88	35.88	35.88		37.59	37.59	37.59	37.59	37.59		30.31	30.31	30.31	30.31	30.31
Fraser_R	158224	34.94	34.94	34.94	34.94	34.94		36.15	36.15	36.15	36.15	36.15		37.91	37.91	37.91	37.91	37.91		30.47	30.47	30.47	30.47	30.47
Fraser_R	158604	34.99	34.99	34.99	34.99	34.99		36.20	36.20	36.20	36.20	36.20		37.96	37.96	37.96	37.96	37.96		30.53	30.53	30.53	30.53	30.53
Fraser_R	158948	35.38	35.38	35.38	35.38	35.38		36.69	36.69	36.69	36.69	36.69		38.61	38.61	38.61	38.61	38.61		30.68	30.68	30.68	30.68	30.68
Fraser_R	159283	35.64	35.64	35.64	35.64	35.64		37.00	37.00	37.00	37.00	37.00		38.99	38.99	38.99	38.99	38.99		30.83	30.83	30.83	30.83	30.83
Fraser_R	159628	36.10	36.10	36.10	36.10	36.10		37.50	37.50	37.50	37.50	37.50		39.68	39.68	39.68	39.68	39.68		31.15	31.15	31.15	31.15	31.15
Fraser_R	160001	36.53	36.53	36.53	36.53	36.53		37.99	37.99	37.99	37.99	37.99		40.13	40.13	40.13	40.13	40.13		31.47	31.47	31.47	31.47	31.47
Fraser_R	160341	36.67	36.67	36.67	36.67	36.67		38.15	38.15	38.15	38.15	38.15		40.32	40.32	40.32	40.32	40.32		31.62	31.62	31.62	31.62	31.62
Fraser_R	160657	36.83	36.83	36.83	36.83	36.83		38.34	38.34	38.34	38.34	38.34		40.54	40.54	40.54	40.54	40.54		31.73	31.73	31.73	31.73	31.73
Fraser_R	161039	37.06	37.06	37.06	37.06	37.06		38.56	38.56	38.56	38.56	38.56		40.64	40.64	40.64	40.64	40.64		32.01	32.01	32.01	32.01	32.01
Fraser_R	161414	37.34	37.34	37.34	37.34	37.34		38.86	38.86	38.86	38.86	38.86		40.93	40.93	40.93	40.93	40.93		32.27	32.27	32.27	32.27	32.27
Fraser_R	161789	37.62	37.62	37.62	37.62	37.62		39.07	39.07	39.07	39.07	39.07		41.06	41.06	41.06	41.06	41.06		32.55	32.55	32.55	32.55	32.55
Fraser_R	162143	37.82	37.82	37.82	37.82	37.82		39.19	39.19	39.19	39.19	39.19		41.12	41.12	41.12	41.12	41.12		32.70	32.70	32.70	32.70	32.70
Fraser_R	162446	38.00	38.00	38.00	38.00	38.00		39.36	39.36	39.36	39.36	39.36		41.19	41.19	41.19	41.19	41.19		32.92	32.92	32.92	32.92	32.92
Fraser_R	162778	38.10	38.10	38.10	38.10	38.10		39.48	39.48	39.48	39.48	39.48		41.30	41.30	41.30	41.30	41.30		33.08	33.08	33.08	33.08	33.08
Fraser_R	162778	38.10	38.10	38.10	38.10	38.10		39.48	39.48	39.48	39.48	39.48		41.30	41.30	41.30	41.30	41.30		33.08	33.08	33.08	33.08	33.08
Fraser_R	163124	38.18	38.18	38.18	38.18	38.18		39.29	39.29	39.29	39.29	39.29		40.78	40.78	40.78	40.78	40.78		33.30	33.30	33.30	33.30	33.30
Fraser_R	163447	38.46	38.46	38.46	38.46	38.46		39.75	39.75	39.75	39.75	39.75		41.47	41.47	41.47	41.47	41.47		33.40	33.40	33.40	33.40	33.40
Fraser_R	163771	38.87	38.87	38.87	38.87	38.87		40.28	40.28	40.28	40.28	40.28		42.12	42.12	42.12	42.12	42.12		33.64	33.64	33.64	33.64	33.64
Fraser_R	164124	38.90	38.90	38.90	38.90	38.90		40.31	40.31	40.31	40.31	40.31		42.15	42.15	42.15	42.15	42.15		33.60	33.60	33.60	33.60	33.60
Fraser_R	164389	38.96	38.96	38.96	38.96	38.96		40.37	40.37	40.37	40.37	40.37		42.21	42.21	42.21	42.21	42.21		33.67	33.67	33.67	33.67	33.67
Fraser_R	164694	39.24	39.24	39.24	39.24	39.24		40.71	40.71	40.71	40.71	40.71		42.62	42.62	42.62	42.62	42.62		34.06	34.06	34.06	34.06	34.06
Fraser_R	164694	39.24	39.24	39.24	39.24	39.24		40.71	40.71	40.71	40.71	40.71		42.62	42.62	42.62	42.62	42.62		34.06	34.06	34.06	34.06	34.06
Fraser_R	164731	39.27	39.27	39.27	39.27	39.27		40.74	40.74	40.74	40.74	40.74		42.65	42.65	42.65	42.65	42.65		34.09	34.09	34.09	34.09	34.09
Fraser_R	165008	39.46	39.46	39.46	39.46	39.46		40.95	40.95	40.95	40.95	40.95		42.90	42.90	42.90	42.90	42.90		34.40	34.40	34.40	34.40	34.40
Fraser_R	165247	39.76	39.76	39.76	39.76	39.76		41.23	41.23	41.23	41.23	41.23		43.17	43.17	43.17	43.17	43.17		34.66	34.66	34.66	34.66	34.66
Fraser_R	165454	39.96	39.96	39.96	39.96	39.96		41.46	41.46	41.46	41.46	41.46		43.44	43.44	43.44	43.44	43.44		34.81	34.81	34.81	34.81	34.81



Freshet Historical 1:5000							Freshet Scenario-A (Moderate) 1:5000					Freshet Scenario-B (Intense) 1:5000					Winter 1:5000							
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)		Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	165662	39.96	39.96	39.96	39.96	39.96		41.44	41.44	41.44	41.44	41.44		43.41	43.41	43.41	43.41	43.41		34.89	34.89	34.89	34.89	34.89
Fraser_R	165662	39.96	39.96	39.96	39.96	39.96		41.44	41.44	41.44	41.44	41.44		43.41	43.41	43.41	43.41	43.41		34.89	34.89	34.89	34.89	34.89
Fraser_R	165965	39.85	39.85	39.85	39.85	39.85		41.31	41.31	41.31	41.31	41.31		43.24	43.24	43.24	43.24	43.24		34.90	34.90	34.90	34.90	34.90
Fraser_R	166336	40.00	40.00	40.00	40.00	40.00		41.43	41.43	41.43	41.43	41.43		43.31	43.31	43.31	43.31	43.31		35.27	35.27	35.27	35.27	35.27
Fraser_R	166766	40.36	40.36	40.36	40.36	40.36		41.78	41.78	41.78	41.78	41.78		43.70	43.70	43.70	43.70	43.70		35.66	35.66	35.66	35.66	35.66
Fraser_R	166766	40.36	40.36	40.36	40.36	40.36		41.78	41.78	41.78	41.78	41.78		43.70	43.70	43.70	43.70	43.70		35.66	35.66	35.66	35.66	35.66
Fraser_R	167135	40.34	40.34	40.34	40.34	40.34		41.63	41.63	41.63	41.63	41.63		43.35	43.35	43.35	43.35	43.35		35.96	35.96	35.96	35.96	35.96

Table 18. Hydraulic Model Runs for AEP = 1:10,000

Freshet Historical 1:10,000							Freshet Scenario-A (Moderate) 1:10,000					Freshet Scenario-B (Intense) 1:10,000					Winter 1:10,000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	-1545	1.85	2.35	2.85	3.35	3.85	1.85	2.35	2.85	3.35	3.85	1.85	2.35	2.85	3.35	3.85	2.91	3.41	3.91	4.41	4.91
Fraser	-1182	1.86	2.35	2.85	3.35	3.85	1.86	2.35	2.85	3.35	3.85	1.86	2.35	2.85	3.35	3.85	2.91	3.41	3.91	4.41	4.91
Fraser	944	1.85	2.35	2.84	3.34	3.85	1.85	2.35	2.84	3.34	3.84	1.84	2.34	2.84	3.34	3.84	2.90	3.40	3.91	4.41	4.91
Fraser	2838	1.84	2.34	2.84	3.33	3.84	1.84	2.34	2.84	3.34	3.83	1.85	2.35	2.84	3.34	3.83	2.89	3.40	3.91	4.43	4.93
Fraser	3069	1.84	2.34	2.84	3.33	3.84	1.85	2.34	2.84	3.34	3.83	1.86	2.35	2.84	3.34	3.83	2.88	3.40	3.91	4.43	4.93
Fraser	3069	1.84	2.34	2.84	3.33	3.84	1.85	2.34	2.84	3.34	3.83	1.86	2.35	2.84	3.34	3.83	2.88	3.40	3.91	4.43	4.93
Fraser	3853	1.84	2.34	2.84	3.33	3.83	1.84	2.34	2.84	3.34	3.83	1.86	2.35	2.84	3.34	3.83	2.89	3.40	3.91	4.43	4.93
Fraser	4348	1.84	2.34	2.84	3.33	3.83	1.84	2.34	2.84	3.33	3.83	1.86	2.35	2.84	3.34	3.83	2.89	3.40	3.91	4.43	4.93
Fraser	4930	1.77	2.28	2.79	3.29	3.80	1.74	2.25	2.77	3.27	3.78	1.67	2.19	2.71	3.22	3.73	2.87	3.39	3.90	4.43	4.93
Fraser	5477	1.79	2.30	2.80	3.30	3.81	1.77	2.28	2.79	3.29	3.79	1.73	2.24	2.75	3.26	3.76	2.87	3.39	3.91	4.43	4.93
Fraser	5923	1.79	2.30	2.81	3.30	3.81	1.78	2.28	2.79	3.29	3.79	1.75	2.25	2.76	3.26	3.77	2.87	3.40	3.91	4.43	4.93
Fraser	6357	1.79	2.29	2.80	3.30	3.81	1.78	2.28	2.79	3.29	3.79	1.75	2.25	2.75	3.26	3.76	2.87	3.40	3.91	4.44	4.93
Fraser	6768	1.78	2.29	2.80	3.30	3.80	1.77	2.27	2.78	3.28	3.78	1.73	2.23	2.73	3.24	3.75	2.86	3.40	3.91	4.44	4.93
Fraser	7173	1.81	2.31	2.81	3.31	3.82	1.82	2.31	2.81	3.31	3.80	1.81	2.30	2.79	3.29	3.79	2.87	3.40	3.91	4.44	4.93
Fraser	7589	1.82	2.31	2.82	3.32	3.82	1.83	2.32	2.82	3.31	3.81	1.83	2.31	2.81	3.30	3.80	2.87	3.40	3.91	4.44	4.93
Fraser	7944	1.82	2.31	2.81	3.31	3.81	1.82	2.31	2.81	3.31	3.80	1.82	2.30	2.79	3.29	3.78	2.86	3.40	3.91	4.44	4.93
Fraser	8357	1.83	2.32	2.82	3.32	3.82	1.83	2.32	2.82	3.32	3.81	1.85	2.33	2.81	3.31	3.80	2.86	3.40	3.91	4.44	4.93
Fraser	8676	1.85	2.33	2.83	3.33	3.83	1.87	2.35	2.84	3.33	3.82	1.90	2.37	2.85	3.34	3.83	2.87	3.40	3.91	4.44	4.93
Fraser	8676	1.85	2.33	2.83	3.33	3.83	1.87	2.35	2.84	3.33	3.82	1.90	2.37	2.85	3.34	3.83	2.87	3.40	3.91	4.44	4.93
Fraser	9163	1.89	2.36	2.85	3.34	3.85	1.93	2.40	2.88	3.36	3.85	2.01	2.46	2.92	3.40	3.87	2.87	3.41	3.92	4.44	4.93
Fraser	9394	1.90	2.37	2.86	3.35	3.85	1.94	2.41	2.89	3.37	3.86	2.04	2.48	2.94	3.41	3.88	2.88	3.41	3.92	4.44	4.94
Fraser	9394	1.90	2.37	2.86	3.35	3.85	1.94	2.41	2.89	3.37	3.86	2.04	2.48	2.94	3.41	3.88	2.88	3.41	3.92	4.44	4.94
Fraser	9650	1.90	2.37	2.86	3.35	3.85	1.94	2.41	2.89	3.37	3.85	2.04	2.48	2.94	3.41	3.88	2.88	3.41	3.92	4.44	4.93
Fraser	10067	1.91	2.38	2.86	3.35	3.85	1.96	2.42	2.90	3.38	3.86	2.09	2.51	2.96	3.42	3.89	2.88	3.41	3.92	4.44	4.93
Fraser	10364	1.95	2.41	2.89	3.37	3.87	2.03	2.47	2.94	3.41	3.89	2.20	2.61	3.04	3.49	3.94	2.89	3.41	3.93	4.44	4.93
Fraser	10578	1.97	2.43	2.91	3.38	3.88	2.07	2.51	2.96	3.43	3.90	2.27	2.67	3.09	3.52	3.98	2.90	3.41	3.93	4.44	4.93
Fraser	10578	1.97	2.43	2.91	3.38	3.88	2.07	2.51	2.96	3.43	3.90	2.27	2.67	3.09	3.52	3.98	2.90	3.41	3.93	4.44	4.93
Fraser	11183	1.95	2.41	2.89	3.36	3.86	2.04	2.47	2.93	3.40	3.87	2.21	2.61	3.02	3.46	3.92	2.90	3.41	3.92	4.44	4.93
Fraser	11579	2.02	2.47	2.93	3.40	3.89	2.14	2.56	3.00	3.45	3.91	2.38	2.76	3.15	3.57	4.01	2.91	3.41	3.93	4.44	4.93
Fraser	11980	2.10	2.53	2.98	3.44	3.92	2.25	2.66	3.09	3.52	3.97	2.56	2.92	3.30	3.70	4.13	2.92	3.42	3.93	4.45	4.93
Fraser	11980	2.10	2.53	2.98	3.44	3.92	2.25	2.66	3.09	3.52	3.97	2.56	2.92	3.30	3.70	4.13	2.92	3.42	3.93	4.45	4.93
Fraser	12389	2.13	2.55	2.99	3.45	3.93	2.29	2.69	3.11	3.53	3.97	2.62	2.96	3.33	3.72	4.15	2.93	3.42	3.93	4.45	4.93
Fraser	12780	2.12	2.55	2.98	3.44	3.92	2.28	2.68	3.10	3.52	3.96	2.61	2.94	3.31	3.70	4.12	2.93	3.42	3.93	4.45	4.93
Fraser	13186	2.18	2.60	3.03	3.47	3.95	2.36	2.76	3.17	3.57	4.01	2.73	3.06	3.42	3.80	4.22	2.94	3.43	3.94	4.45	4.92
Fraser	13598	2.22	2.63	3.06	3.50	3.96	2.42	2.81	3.21	3.61	4.03	2.82	3.14	3.49	3.86	4.27	2.95	3.43	3.94	4.45	4.92
Fraser	14005	2.28	2.69	3.11	3.54	3.99	2.51	2.89	3.28	3.67	4.08	2.96	3.27	3.61	3.96	4.36	2.96	3.44	3.94	4.45	4.92
Fraser	14401	2.38	2.78	3.19	3.62	4.06	2.66	3.03	3.42	3.79	4.19	3.21	3.50	3.83	4.17	4.56	2.98	3.45	3.95	4.45	4.92
Fraser	14813	2.43	2.82	3.23	3.65	4.08	2.73	3.09	3.47	3.84	4.22	3.31	3.59	3.91	4.24	4.63	2.99	3.46	3.96	4.45	4.92

Freshet Historical 1:10,000							Freshet Scenario-A (Moderate) 1:10,000					Freshet Scenario-B (Intense) 1:10,000					Winter 1:10,000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	15210	2.45	2.84	3.25	3.67	4.09	2.76	3.12	3.50	3.86	4.24	3.35	3.63	3.94	4.27	4.65	2.99	3.46	3.96	4.45	4.92
Fraser	15575	2.49	2.87	3.27	3.69	4.10	2.81	3.16	3.53	3.89	4.27	3.42	3.69	4.00	4.32	4.70	3.00	3.47	3.96	4.45	4.92
Fraser	15978	2.52	2.89	3.29	3.71	4.11	2.84	3.19	3.56	3.91	4.28	3.47	3.73	4.03	4.34	4.71	3.01	3.47	3.96	4.45	4.92
Fraser	16443	2.61	2.98	3.36	3.77	4.16	2.97	3.31	3.66	4.00	4.36	3.66	3.91	4.19	4.49	4.86	3.02	3.48	3.97	4.45	4.92
Fraser	16846	2.66	3.02	3.40	3.81	4.19	3.05	3.38	3.73	4.05	4.41	3.77	4.01	4.29	4.58	4.93	3.03	3.49	3.98	4.46	4.92
Fraser	17214	2.74	3.09	3.46	3.86	4.24	3.16	3.47	3.81	4.13	4.48	3.93	4.16	4.42	4.70	5.05	3.05	3.50	3.98	4.46	4.92
Fraser	17513	2.73	3.08	3.45	3.85	4.23	3.14	3.46	3.80	4.12	4.46	3.89	4.12	4.39	4.67	5.02	3.05	3.50	3.98	4.46	4.92
Fraser	17513	2.73	3.08	3.45	3.85	4.23	3.14	3.46	3.80	4.12	4.46	3.89	4.12	4.39	4.67	5.02	3.05	3.50	3.98	4.46	4.92
Fraser	18117	2.74	3.09	3.47	3.87	4.25	3.15	3.48	3.82	4.15	4.50	3.95	4.19	4.47	4.76	5.13	3.05	3.50	3.99	4.46	4.92
Fraser	18508	2.85	3.20	3.57	3.96	4.33	3.32	3.64	3.97	4.28	4.60	4.21	4.42	4.67	4.94	5.28	3.07	3.52	4.00	4.47	4.93
Fraser	18921	2.89	3.23	3.59	3.98	4.34	3.38	3.68	4.01	4.31	4.62	4.26	4.47	4.72	4.98	5.31	3.08	3.53	4.01	4.47	4.93
Fraser	19322	2.96	3.30	3.65	4.04	4.39	3.48	3.77	4.09	4.38	4.69	4.40	4.60	4.84	5.09	5.41	3.10	3.54	4.01	4.48	4.93
Fraser	19727	3.03	3.35	3.70	4.08	4.42	3.56	3.85	4.16	4.44	4.74	4.51	4.70	4.92	5.17	5.49	3.11	3.55	4.02	4.48	4.93
Fraser	20127	3.06	3.39	3.73	4.11	4.45	3.61	3.90	4.21	4.48	4.78	4.59	4.78	5.00	5.24	5.55	3.12	3.56	4.03	4.49	4.93
Fraser	20524	3.10	3.42	3.76	4.14	4.47	3.66	3.94	4.25	4.52	4.81	4.66	4.84	5.06	5.30	5.61	3.13	3.57	4.04	4.49	4.94
Fraser	20919	3.14	3.45	3.79	4.16	4.50	3.71	3.99	4.29	4.56	4.84	4.72	4.91	5.12	5.35	5.66	3.14	3.57	4.04	4.50	4.94
Fraser	21371	3.17	3.48	3.82	4.19	4.51	3.75	4.02	4.32	4.59	4.86	4.77	4.95	5.16	5.38	5.69	3.14	3.58	4.05	4.50	4.94
Fraser	21806	3.21	3.52	3.85	4.22	4.54	3.81	4.07	4.37	4.63	4.90	4.84	5.02	5.22	5.44	5.74	3.15	3.59	4.06	4.51	4.95
Fraser	22195	3.24	3.54	3.87	4.23	4.55	3.84	4.10	4.39	4.65	4.92	4.88	5.05	5.25	5.47	5.77	3.16	3.60	4.06	4.52	4.95
Fraser	22562	3.28	3.57	3.90	4.26	4.58	3.89	4.15	4.44	4.69	4.96	4.96	5.13	5.32	5.54	5.83	3.17	3.61	4.07	4.52	4.95
Fraser	22978	3.29	3.59	3.92	4.28	4.59	3.92	4.18	4.47	4.72	4.98	5.00	5.17	5.36	5.58	5.87	3.17	3.61	4.08	4.53	4.95
Fraser	23375	3.30	3.60	3.93	4.29	4.60	3.93	4.19	4.47	4.72	4.99	5.02	5.18	5.37	5.59	5.88	3.18	3.62	4.08	4.54	4.96
Fraser	23763	3.33	3.63	3.95	4.31	4.62	3.97	4.23	4.51	4.76	5.02	5.08	5.25	5.43	5.65	5.93	3.18	3.63	4.09	4.55	4.96
Fraser	24152	3.40	3.69	4.01	4.37	4.67	4.07	4.32	4.60	4.84	5.09	5.23	5.39	5.56	5.79	6.06	3.20	3.64	4.10	4.56	4.97
Fraser	24575	3.45	3.74	4.06	4.41	4.70	4.14	4.39	4.66	4.90	5.15	5.34	5.49	5.66	5.89	6.15	3.21	3.65	4.11	4.56	4.97
Fraser	24914	3.55	3.83	4.14	4.49	4.77	4.29	4.53	4.79	5.01	5.24	5.53	5.68	5.84	6.06	6.31	3.23	3.67	4.12	4.57	4.98
Fraser	25370	3.61	3.88	4.19	4.54	4.81	4.37	4.60	4.86	5.07	5.30	5.63	5.78	5.94	6.15	6.40	3.24	3.68	4.13	4.58	4.99
Fraser	25568	3.63	3.90	4.20	4.55	4.82	4.39	4.63	4.88	5.09	5.32	5.66	5.81	5.96	6.18	6.43	3.24	3.69	4.13	4.59	5.00
Fraser	25568	3.63	3.90	4.20	4.55	4.82	4.39	4.63	4.88	5.09	5.32	5.66	5.81	5.96	6.18	6.43	3.24	3.69	4.13	4.59	5.00
Fraser	25857	3.63	3.90	4.20	4.55	4.82	4.39	4.62	4.87	5.09	5.31	5.65	5.80	5.95	6.16	6.41	3.25	3.69	4.13	4.59	5.00
Fraser	26350	3.61	3.89	4.19	4.54	4.81	4.37	4.60	4.85	5.06	5.29	5.61	5.75	5.90	6.12	6.36	3.25	3.69	4.13	4.59	5.00
Fraser	26754	3.64	3.91	4.21	4.56	4.82	4.39	4.63	4.87	5.09	5.31	5.64	5.79	5.94	6.15	6.39	3.25	3.70	4.14	4.60	5.01
Fraser	27194	3.67	3.94	4.24	4.59	4.85	4.44	4.67	4.91	5.13	5.35	5.71	5.85	6.00	6.21	6.45	3.27	3.70	4.15	4.61	5.02
Fraser	27582	3.71	3.98	4.27	4.62	4.87	4.50	4.73	4.96	5.17	5.39	5.78	5.93	6.08	6.29	6.52	3.28	3.71	4.16	4.62	5.02
Fraser	28002	3.75	4.01	4.31	4.65	4.90	4.56	4.78	5.01	5.22	5.44	5.85	5.99	6.14	6.35	6.57	3.29	3.72	4.16	4.62	5.03
Fraser	28369	3.84	4.09	4.38	4.72	4.96	4.68	4.89	5.11	5.32	5.54	6.02	6.16	6.31	6.53	6.73	3.31	3.73	4.18	4.63	5.05
Fraser	28768	3.88	4.13	4.41	4.76	4.99	4.73	4.94	5.16	5.37	5.58	6.10	6.24	6.39	6.61	6.80	3.33	3.74	4.18	4.64	5.05
Fraser	29120	3.82	4.08	4.36	4.71	4.95	4.65	4.86	5.08	5.29	5.51	5.97	6.10	6.25	6.47	6.67	3.31	3.73	4.18	4.64	5.05
Fraser	29504	3.98	4.22	4.50	4.83	5.06	4.86	5.07	5.27	5.48	5.68	6.28	6.43	6.61	6.82	7.03	3.36	3.78	4.22	4.66	5.08

Freshet Historical 1:10,000							Freshet Scenario-A (Moderate) 1:10,000					Freshet Scenario-B (Intense) 1:10,000					Winter 1:10,000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	29883	4.06	4.31	4.58	4.92	5.14	5.00	5.21	5.41	5.61	5.82	6.53	6.69	6.88	7.10	7.29	3.39	3.80	4.24	4.67	5.09
Fraser	30284	4.09	4.33	4.59	4.93	5.14	5.02	5.22	5.41	5.61	5.81	6.49	6.64	6.82	7.04	7.23	3.40	3.81	4.24	4.68	5.10
Fraser	30647	4.21	4.44	4.70	5.03	5.23	5.18	5.38	5.56	5.76	5.96	6.73	6.87	7.06	7.28	7.45	3.43	3.83	4.27	4.70	5.12
Fraser	31045	4.27	4.51	4.76	5.09	5.28	5.28	5.47	5.64	5.84	6.04	6.86	7.01	7.19	7.41	7.58	3.44	3.85	4.28	4.71	5.13
Fraser	31525	4.30	4.54	4.79	5.12	5.30	5.33	5.52	5.69	5.89	6.08	6.94	7.09	7.27	7.50	7.67	3.45	3.86	4.29	4.72	5.14
Fraser	31926	4.34	4.57	4.83	5.15	5.33	5.38	5.57	5.74	5.93	6.13	7.00	7.15	7.33	7.56	7.72	3.47	3.87	4.30	4.73	5.15
Fraser	32332	4.41	4.63	4.88	5.20	5.37	5.46	5.65	5.82	6.01	6.21	7.13	7.28	7.46	7.70	7.85	3.48	3.88	4.31	4.74	5.15
Fraser	32742	4.50	4.73	4.97	5.28	5.44	5.58	5.77	5.92	6.12	6.30	7.27	7.42	7.60	7.83	7.97	3.51	3.90	4.33	4.75	5.17
Fraser	32742	4.50	4.73	4.97	5.28	5.44	5.58	5.77	5.92	6.12	6.30	7.27	7.42	7.60	7.83	7.97	3.51	3.90	4.33	4.75	5.17
Fraser	33139	4.42	4.64	4.89	5.20	5.37	5.46	5.65	5.81	6.00	6.19	7.10	7.24	7.42	7.64	7.80	3.49	3.89	4.32	4.74	5.16
Fraser	33543	4.45	4.68	4.92	5.23	5.39	5.50	5.69	5.85	6.04	6.22	7.14	7.29	7.46	7.69	7.84	3.50	3.90	4.32	4.75	5.17
Fraser	33883	4.38	4.61	4.86	5.17	5.34	5.41	5.60	5.76	5.95	6.14	7.02	7.16	7.33	7.55	7.71	3.48	3.88	4.31	4.74	5.16
Fraser	34089	4.40	4.62	4.87	5.18	5.35	5.43	5.62	5.78	5.97	6.15	7.04	7.18	7.36	7.57	7.73	3.49	3.89	4.32	4.75	5.16
Fraser	34089	4.40	4.62	4.87	5.18	5.35	5.43	5.62	5.78	5.97	6.15	7.04	7.18	7.36	7.57	7.73	3.49	3.89	4.32	4.75	5.16
Fraser	34247	4.65	4.86	5.10	5.39	5.53	5.77	5.94	6.10	6.26	6.43	7.51	7.64	7.80	8.01	8.16	3.55	3.94	4.35	4.77	5.19
Fraser	34655	4.68	4.89	5.13	5.42	5.54	5.80	5.98	6.13	6.29	6.45	7.54	7.67	7.83	8.04	8.19	3.55	3.94	4.36	4.78	5.19
Fraser	35038	4.79	4.99	5.22	5.51	5.62	5.95	6.12	6.26	6.42	6.57	7.74	7.87	8.03	8.22	8.37	3.58	3.96	4.38	4.79	5.21
Fraser	35038	4.79	4.99	5.22	5.51	5.62	5.95	6.12	6.26	6.42	6.57	7.74	7.87	8.03	8.22	8.37	3.58	3.96	4.38	4.79	5.21
Fraser	35451	4.85	5.05	5.27	5.55	5.66	6.02	6.19	6.33	6.47	6.62	7.83	7.95	8.10	8.30	8.44	3.59	3.98	4.39	4.80	5.21
Fraser	35650	4.99	5.17	5.40	5.67	5.76	6.18	6.35	6.48	6.62	6.76	8.04	8.16	8.31	8.50	8.63	3.68	4.05	4.45	4.87	5.27
Fraser	35920	4.99	5.17	5.40	5.68	5.76	6.19	6.36	6.49	6.63	6.77	8.07	8.19	8.33	8.52	8.66	3.68	4.05	4.45	4.87	5.27
Fraser	35992	5.15	5.27	5.41	5.68	5.90	6.42	6.45	6.50	6.63	6.77	8.68	8.70	8.73	8.77	8.80	3.68	4.06	4.46	4.87	5.27
Fraser	36247	5.18	5.29	5.43	5.70	5.91	6.45	6.48	6.53	6.65	6.79	8.71	8.73	8.76	8.80	8.83	3.69	4.06	4.46	4.87	5.28
Fraser	36247	5.18	5.29	5.43	5.70	5.91	6.45	6.48	6.53	6.65	6.79	8.71	8.73	8.76	8.80	8.83	3.69	4.06	4.46	4.87	5.28
Fraser	36357	5.21	5.32	5.46	5.72	5.93	6.48	6.52	6.56	6.69	6.82	8.74	8.77	8.80	8.84	8.86	3.70	4.07	4.46	4.88	5.28
Fraser	36736	5.15	5.27	5.41	5.68	5.89	6.41	6.45	6.49	6.62	6.77	8.66	8.68	8.71	8.75	8.78	3.68	4.06	4.46	4.87	5.28
Fraser	37139	5.14	5.25	5.39	5.66	5.87	6.40	6.43	6.48	6.61	6.75	8.65	8.67	8.70	8.74	8.77	3.68	4.05	4.45	4.87	5.28
Fraser	37528	5.18	5.29	5.43	5.70	5.90	6.44	6.47	6.52	6.65	6.79	8.68	8.71	8.74	8.78	8.80	3.69	4.06	4.46	4.88	5.28
Fraser	37939	5.21	5.33	5.46	5.72	5.92	6.48	6.51	6.56	6.68	6.82	8.72	8.74	8.77	8.81	8.84	3.70	4.07	4.47	4.89	5.28
Fraser	38352	5.26	5.38	5.51	5.77	5.95	6.54	6.57	6.62	6.74	6.87	8.80	8.82	8.85	8.89	8.91	3.71	4.08	4.47	4.89	5.29
Fraser	38759	5.25	5.37	5.50	5.75	5.94	6.52	6.56	6.60	6.72	6.86	8.77	8.80	8.83	8.86	8.89	3.71	4.07	4.47	4.89	5.29
Fraser	39151	5.34	5.46	5.59	5.83	6.01	6.64	6.67	6.72	6.83	6.96	8.93	8.96	8.99	9.02	9.05	3.73	4.09	4.48	4.90	5.30
Fraser	39490	5.28	5.40	5.53	5.79	5.97	6.58	6.61	6.66	6.77	6.91	8.87	8.89	8.92	8.96	8.98	3.71	4.07	4.47	4.90	5.29
Fraser	39926	5.50	5.62	5.74	5.96	6.11	6.82	6.85	6.88	6.98	7.11	9.12	9.14	9.16	9.20	9.22	3.78	4.13	4.51	4.93	5.32
Fraser	39926	5.50	5.62	5.74	5.96	6.11	6.82	6.85	6.88	6.98	7.11	9.12	9.14	9.16	9.20	9.22	3.78	4.13	4.51	4.93	5.32
Fraser	40332	5.49	5.60	5.72	5.95	6.10	6.80	6.83	6.87	6.97	7.10	9.11	9.13	9.16	9.19	9.22	3.77	4.12	4.51	4.92	5.31
Fraser	40766	5.45	5.56	5.69	5.91	6.07	6.74	6.77	6.81	6.91	7.04	9.00	9.02	9.05	9.09	9.11	3.76	4.12	4.50	4.92	5.31
Fraser	41158	5.50	5.61	5.73	5.96	6.11	6.82	6.85	6.88	6.99	7.11	9.13	9.15	9.18	9.21	9.23	3.77	4.12	4.51	4.93	5.31
Fraser	41502	5.56	5.67	5.79	6.00	6.15	6.88	6.91	6.94	7.04	7.16	9.19	9.21	9.24	9.27	9.29	3.79	4.13	4.52	4.93	5.32

Freshet Historical 1:10,000							Freshet Scenario-A (Moderate) 1:10,000					Freshet Scenario-B (Intense) 1:10,000					Winter 1:10,000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	41882	5.65	5.76	5.87	6.08	6.23	6.99	7.01	7.05	7.14	7.26	9.32	9.34	9.37	9.40	9.42	3.81	4.16	4.54	4.95	5.33
Fraser	42407	5.82	6.02	6.10	6.23	6.65	7.26	7.31	7.38	7.61	7.99	9.33	9.35	9.37	9.41	9.43	3.89	4.23	4.58	4.98	5.38
Fraser	42617	5.83	6.03	6.11	6.24	6.66	7.27	7.33	7.39	7.62	8.00	9.36	9.38	9.40	9.43	9.45	3.90	4.24	4.59	4.98	5.39
Fraser	43031	5.91	6.12	6.19	6.31	6.73	7.37	7.42	7.49	7.71	8.09	9.48	9.49	9.52	9.55	9.57	3.93	4.27	4.61	5.00	5.41
Fraser	43373	5.88	6.08	6.15	6.28	6.70	7.32	7.38	7.44	7.67	8.05	9.44	9.45	9.48	9.51	9.53	3.92	4.26	4.60	4.99	5.41
Fraser	43373	5.88	6.08	6.15	6.28	6.70	7.32	7.38	7.44	7.67	8.05	9.44	9.45	9.48	9.51	9.53	3.92	4.26	4.60	4.99	5.41
Fraser	43945	5.80	6.00	6.08	6.21	6.63	7.23	7.28	7.35	7.58	7.97	9.31	9.32	9.35	9.38	9.40	3.88	4.22	4.57	4.96	5.38
Fraser	44343	5.82	6.02	6.10	6.23	6.64	7.25	7.31	7.37	7.60	7.98	9.33	9.35	9.37	9.40	9.43	3.90	4.24	4.58	4.97	5.39
Fraser	44754	5.82	6.02	6.09	6.22	6.63	7.23	7.29	7.35	7.58	7.96	9.28	9.30	9.32	9.35	9.37	3.91	4.25	4.59	4.97	5.39
Fraser	45140	5.87	6.07	6.14	6.26	6.67	7.29	7.34	7.40	7.63	8.01	9.35	9.36	9.38	9.42	9.44	3.94	4.27	4.61	4.99	5.41
Fraser	45541	5.94	6.13	6.20	6.32	6.73	7.36	7.41	7.48	7.70	8.07	9.44	9.46	9.48	9.51	9.53	3.97	4.30	4.64	5.01	5.43
Fraser	45944	6.03	6.22	6.29	6.41	6.81	7.47	7.52	7.58	7.80	8.17	9.58	9.60	9.62	9.65	9.67	4.01	4.33	4.67	5.04	5.46
Fraser	46354	6.12	6.31	6.38	6.49	6.88	7.57	7.62	7.67	7.89	8.24	9.68	9.70	9.72	9.75	9.77	4.06	4.38	4.72	5.08	5.50
Fraser	46562	6.15	6.34	6.40	6.51	6.90	7.59	7.64	7.70	7.91	8.26	9.71	9.73	9.75	9.78	9.80	4.08	4.39	4.73	5.10	5.51
Fraser	46562	6.15	6.34	6.40	6.51	6.90	7.59	7.64	7.70	7.91	8.26	9.71	9.73	9.75	9.78	9.80	4.08	4.39	4.73	5.10	5.51
Fraser	46984	6.28	6.46	6.52	6.62	7.00	7.72	7.76	7.82	8.02	8.36	9.84	9.86	9.88	9.90	9.92	4.18	4.49	4.81	5.16	5.56
Fraser	47419	6.33	6.51	6.57	6.67	7.04	7.76	7.81	7.86	8.06	8.40	9.89	9.90	9.92	9.95	9.97	4.21	4.51	4.83	5.18	5.58
Fraser	47789	6.38	6.55	6.61	6.71	7.08	7.81	7.85	7.90	8.10	8.44	9.93	9.95	9.97	9.99	10.01	4.25	4.55	4.87	5.21	5.60
Fraser	48174	6.40	6.57	6.63	6.73	7.10	7.83	7.88	7.93	8.13	8.46	9.96	9.98	10.00	10.02	10.04	4.26	4.56	4.88	5.22	5.61
Fraser	48502	6.46	6.63	6.69	6.79	7.14	7.88	7.93	7.98	8.17	8.50	10.01	10.02	10.04	10.07	10.09	4.30	4.60	4.91	5.25	5.64
Fraser	48560	6.47	6.63	6.69	6.79	7.15	7.89	7.93	7.98	8.18	8.50	10.01	10.03	10.05	10.07	10.09	4.31	4.60	4.92	5.25	5.64
Fraser	48560	6.47	6.63	6.69	6.79	7.15	7.89	7.93	7.98	8.18	8.50	10.01	10.03	10.05	10.07	10.09	4.31	4.60	4.92	5.25	5.64
Fraser	48981	6.25	6.42	6.48	6.58	6.95	7.63	7.67	7.72	7.93	8.27	9.67	9.69	9.71	9.74	9.76	4.22	4.52	4.84	5.18	5.57
Fraser	49283	6.29	6.46	6.52	6.62	6.98	7.66	7.70	7.76	7.96	8.29	9.70	9.71	9.73	9.76	9.78	4.24	4.54	4.86	5.20	5.58
Fraser	49565	6.36	6.53	6.59	6.69	7.04	7.74	7.78	7.83	8.03	8.36	9.78	9.80	9.82	9.84	9.86	4.29	4.58	4.89	5.23	5.61
Fraser	49963	6.37	6.54	6.59	6.69	7.05	7.74	7.79	7.84	8.03	8.36	9.78	9.80	9.82	9.84	9.86	4.30	4.59	4.90	5.24	5.62
Fraser	50339	6.50	6.66	6.72	6.82	7.16	7.89	7.94	7.98	8.17	8.49	9.97	9.99	10.01	10.03	10.05	4.37	4.65	4.96	5.29	5.67
Fraser	50737	6.56	6.72	6.77	6.87	7.21	7.95	8.00	8.04	8.23	8.55	10.05	10.06	10.08	10.11	10.13	4.40	4.68	4.99	5.32	5.69
Fraser	51139	6.64	6.79	6.85	6.94	7.28	8.03	8.08	8.12	8.30	8.61	10.14	10.15	10.17	10.19	10.21	4.45	4.73	5.03	5.36	5.73
Fraser	51545	6.73	6.88	6.93	7.02	7.36	8.13	8.17	8.22	8.39	8.70	10.24	10.26	10.27	10.30	10.32	4.51	4.79	5.08	5.40	5.77
Fraser	51943	6.78	6.92	6.98	7.07	7.39	8.18	8.22	8.27	8.44	8.74	10.30	10.32	10.33	10.36	10.37	4.54	4.81	5.11	5.42	5.79
Fraser	52349	6.81	6.96	7.01	7.10	7.43	8.22	8.27	8.31	8.48	8.78	10.36	10.37	10.39	10.41	10.43	4.57	4.83	5.13	5.44	5.80
Fraser	52707	6.88	7.02	7.07	7.16	7.48	8.30	8.34	8.38	8.55	8.85	10.44	10.46	10.47	10.50	10.52	4.61	4.87	5.16	5.47	5.83
Fraser	53123	7.01	7.15	7.20	7.28	7.60	8.43	8.47	8.51	8.67	8.96	10.58	10.59	10.61	10.63	10.65	4.70	4.96	5.24	5.54	5.89
Fraser	53689	7.06	7.20	7.25	7.33	7.64	8.48	8.52	8.56	8.72	9.00	10.63	10.64	10.66	10.68	10.70	4.74	5.00	5.27	5.57	5.92
Fraser	53689	7.06	7.20	7.25	7.33	7.64	8.48	8.52	8.56	8.72	9.00	10.63	10.64	10.66	10.68	10.70	4.74	5.00	5.27	5.57	5.92
Fraser	53954	7.21	7.34	7.39	7.46	7.76	8.63	8.66	8.70	8.85	9.13	10.79	10.80	10.82	10.84	10.85	4.84	5.09	5.35	5.64	5.99
Fraser	54327	7.28	7.41	7.46	7.54	7.83	8.72	8.76	8.80	8.95	9.22	10.92	10.93	10.95	10.97	10.99	4.88	5.12	5.38	5.67	6.01
Fraser	54734	7.29	7.42	7.47	7.54	7.84	8.74	8.77	8.81	8.96	9.24	10.95	10.96	10.98	11.00	11.02	4.88	5.12	5.38	5.67	6.01

Freshet Historical 1:10,000							Freshet Scenario-A (Moderate) 1:10,000					Freshet Scenario-B (Intense) 1:10,000					Winter 1:10,000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	55128	7.23	7.36	7.40	7.48	7.77	8.63	8.66	8.70	8.85	9.12	10.76	10.77	10.78	10.81	10.82	4.89	5.13	5.39	5.68	6.01
Fraser	55527	7.26	7.39	7.43	7.51	7.80	8.66	8.69	8.73	8.88	9.16	10.83	10.84	10.86	10.88	10.90	4.91	5.14	5.40	5.69	6.02
Fraser	55923	7.31	7.43	7.48	7.55	7.85	8.73	8.77	8.80	8.95	9.22	10.91	10.92	10.94	10.96	10.97	4.94	5.17	5.43	5.72	6.05
Fraser	56318	7.33	7.46	7.51	7.58	7.87	8.76	8.79	8.83	8.98	9.24	10.93	10.94	10.96	10.98	10.99	4.96	5.19	5.45	5.73	6.06
Fraser	56731	7.36	7.49	7.53	7.61	7.89	8.78	8.81	8.85	8.99	9.26	10.93	10.95	10.96	10.98	11.00	4.98	5.22	5.47	5.75	6.08
Fraser	57123	7.43	7.56	7.60	7.67	7.95	8.84	8.88	8.91	9.05	9.31	11.00	11.01	11.02	11.04	11.06	5.03	5.26	5.51	5.78	6.11
Fraser	57451	7.49	7.61	7.66	7.73	8.00	8.90	8.94	8.97	9.11	9.36	11.06	11.07	11.08	11.10	11.12	5.06	5.29	5.54	5.81	6.14
Fraser	57813	7.48	7.61	7.65	7.72	7.99	8.91	8.94	8.97	9.11	9.37	11.09	11.10	11.11	11.13	11.15	5.06	5.28	5.54	5.81	6.14
Fraser	58242	7.62	7.75	7.79	7.86	8.13	9.10	9.14	9.17	9.31	9.56	11.36	11.37	11.38	11.40	11.42	5.11	5.34	5.59	5.86	6.19
Fraser	58547	7.66	7.78	7.82	7.89	8.16	9.12	9.15	9.18	9.32	9.57	11.35	11.36	11.38	11.40	11.41	5.14	5.37	5.62	5.88	6.21
Fraser	58935	7.73	7.85	7.89	7.96	8.22	9.18	9.22	9.25	9.38	9.62	11.42	11.43	11.44	11.46	11.47	5.18	5.40	5.65	5.91	6.24
Fraser	59378	7.69	7.81	7.85	7.91	8.17	9.11	9.14	9.17	9.30	9.54	11.28	11.29	11.30	11.32	11.33	5.18	5.40	5.65	5.90	6.23
Fraser	59775	7.76	7.88	7.92	7.98	8.24	9.18	9.21	9.24	9.37	9.61	11.36	11.37	11.38	11.40	11.42	5.23	5.45	5.69	5.94	6.27
Fraser	60164	7.84	7.95	7.99	8.05	8.30	9.26	9.29	9.32	9.44	9.68	11.47	11.48	11.49	11.51	11.52	5.28	5.49	5.74	5.99	6.31
Fraser	60563	7.86	7.97	8.01	8.07	8.32	9.28	9.31	9.34	9.46	9.70	11.45	11.46	11.48	11.49	11.51	5.30	5.51	5.75	6.00	6.32
Fraser	60975	7.97	8.08	8.12	8.18	8.42	9.41	9.44	9.47	9.59	9.82	11.62	11.63	11.64	11.66	11.67	5.37	5.58	5.81	6.06	6.38
Fraser	61128	7.98	8.09	8.13	8.19	8.43	9.42	9.45	9.48	9.60	9.83	11.63	11.64	11.65	11.67	11.69	5.38	5.59	5.82	6.07	6.38
Fraser	61128	7.98	8.09	8.13	8.19	8.43	9.42	9.45	9.48	9.60	9.83	11.63	11.64	11.65	11.67	11.69	5.38	5.59	5.82	6.07	6.38
Fraser	61327	7.98	8.09	8.13	8.19	8.43	9.42	9.45	9.48	9.60	9.83	11.63	11.63	11.65	11.66	11.68	5.38	5.59	5.82	6.07	6.38
Fraser	61633	8.00	8.11	8.14	8.21	8.45	9.44	9.47	9.50	9.62	9.85	11.66	11.67	11.68	11.70	11.72	5.39	5.59	5.83	6.07	6.39
Fraser	61947	7.99	8.10	8.14	8.20	8.44	9.43	9.46	9.49	9.61	9.84	11.66	11.67	11.68	11.70	11.71	5.39	5.60	5.83	6.07	6.39
Fraser	62124	8.00	8.11	8.15	8.21	8.45	9.46	9.49	9.52	9.64	9.87	11.71	11.72	11.73	11.75	11.76	5.40	5.61	5.84	6.08	6.40
Fraser	62381	8.02	8.13	8.17	8.23	8.47	9.49	9.52	9.54	9.66	9.90	11.73	11.74	11.76	11.77	11.79	5.39	5.60	5.83	6.07	6.39
Fraser	62625	8.08	8.18	8.22	8.28	8.52	9.54	9.57	9.60	9.72	9.95	11.79	11.80	11.81	11.83	11.84	5.43	5.64	5.87	6.11	6.42
Fraser	62887	8.06	8.17	8.21	8.27	8.50	9.51	9.54	9.56	9.68	9.91	11.75	11.76	11.77	11.79	11.80	5.44	5.64	5.88	6.12	6.43
Fraser	63234	8.11	8.22	8.26	8.32	8.55	9.58	9.61	9.63	9.75	9.98	11.82	11.82	11.84	11.85	11.86	5.47	5.67	5.90	6.14	6.45
Fraser	63635	8.07	8.18	8.22	8.28	8.51	9.52	9.55	9.58	9.70	9.93	11.76	11.77	11.78	11.80	11.81	5.47	5.67	5.90	6.14	6.45
Fraser	64027	8.13	8.23	8.27	8.33	8.56	9.55	9.58	9.60	9.72	9.94	11.75	11.75	11.77	11.78	11.80	5.52	5.72	5.94	6.18	6.48
Fraser	64501	8.27	8.37	8.40	8.46	8.69	9.71	9.74	9.77	9.87	10.10	11.91	11.92	11.93	11.94	11.96	5.61	5.79	6.02	6.25	6.54
Fraser	64820	8.34	8.44	8.48	8.54	8.76	9.80	9.83	9.85	9.96	10.18	12.02	12.03	12.04	12.05	12.06	5.66	5.84	6.07	6.29	6.58
Fraser	65249	8.35	8.45	8.49	8.55	8.77	9.81	9.83	9.86	9.96	10.18	12.02	12.02	12.03	12.05	12.06	5.67	5.85	6.08	6.31	6.59
Fraser	65504	8.38	8.49	8.52	8.58	8.80	9.84	9.87	9.89	10.00	10.22	12.05	12.06	12.07	12.08	12.09	5.71	5.88	6.11	6.33	6.61
Fraser	65504	8.38	8.49	8.52	8.58	8.80	9.84	9.87	9.89	10.00	10.22	12.05	12.06	12.07	12.08	12.09	5.71	5.88	6.11	6.33	6.61
Fraser	65697	8.51	8.61	8.65	8.70	8.92	9.99	10.01	10.04	10.14	10.35	12.23	12.24	12.25	12.26	12.27	5.79	5.96	6.19	6.40	6.68
Fraser	65970	8.55	8.65	8.68	8.74	8.95	10.03	10.06	10.08	10.18	10.39	12.29	12.29	12.30	12.31	12.33	5.82	5.99	6.21	6.43	6.70
Fraser	66297	8.58	8.67	8.71	8.76	8.97	10.06	10.08	10.11	10.20	10.42	12.31	12.32	12.33	12.34	12.35	5.84	6.01	6.23	6.44	6.71
Fraser	66674	8.58	8.67	8.70	8.76	8.97	10.05	10.08	10.10	10.20	10.41	12.31	12.32	12.33	12.34	12.35	5.85	6.02	6.24	6.45	6.72
Fraser	67082	8.58	8.68	8.71	8.77	8.98	10.06	10.08	10.11	10.21	10.42	12.31	12.32	12.33	12.34	12.35	5.86	6.02	6.24	6.45	6.72
Fraser	67480	8.60	8.70	8.73	8.79	8.99	10.07	10.10	10.12	10.22	10.43	12.32	12.32	12.33	12.35	12.36	5.89	6.05	6.27	6.48	6.74

Freshet Historical 1:10,000							Freshet Scenario-A (Moderate) 1:10,000					Freshet Scenario-B (Intense) 1:10,000					Winter 1:10,000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	67886	8.60	8.70	8.73	8.79	8.99	10.07	10.09	10.11	10.21	10.42	12.29	12.30	12.31	12.32	12.33	5.90	6.06	6.28	6.49	6.75
Fraser	68275	8.60	8.70	8.73	8.79	8.99	10.05	10.07	10.10	10.19	10.40	12.25	12.26	12.27	12.28	12.29	5.91	6.07	6.29	6.49	6.76
Fraser	68690	8.62	8.71	8.74	8.80	9.00	10.06	10.09	10.11	10.21	10.41	12.25	12.26	12.27	12.28	12.29	5.93	6.09	6.30	6.51	6.77
Fraser	69154	8.67	8.76	8.79	8.84	9.04	10.11	10.14	10.16	10.25	10.46	12.30	12.31	12.32	12.33	12.34	5.97	6.12	6.33	6.54	6.79
Fraser	69599	8.70	8.79	8.82	8.88	9.08	10.15	10.18	10.20	10.29	10.49	12.35	12.36	12.37	12.38	12.39	5.99	6.15	6.35	6.56	6.81
Fraser	70006	8.77	8.87	8.90	8.95	9.15	10.25	10.27	10.30	10.39	10.59	12.50	12.50	12.51	12.52	12.54	6.03	6.18	6.39	6.59	6.84
Fraser	70401	8.81	8.90	8.93	8.98	9.18	10.29	10.32	10.34	10.43	10.63	12.56	12.57	12.57	12.59	12.60	6.05	6.21	6.41	6.61	6.86
Fraser	70804	8.87	8.96	8.99	9.05	9.24	10.36	10.39	10.41	10.50	10.70	12.65	12.66	12.66	12.68	12.69	6.09	6.24	6.44	6.64	6.89
Fraser	70882	8.88	8.97	9.00	9.05	9.24	10.37	10.40	10.42	10.51	10.71	12.66	12.66	12.67	12.68	12.69	6.09	6.25	6.45	6.65	6.89
Fraser	70882	8.88	8.97	9.00	9.05	9.24	10.37	10.40	10.42	10.51	10.71	12.66	12.66	12.67	12.68	12.69	6.09	6.25	6.45	6.65	6.89
Fraser	71256	8.70	8.79	8.83	8.88	9.08	10.15	10.18	10.20	10.30	10.50	12.37	12.38	12.38	12.40	12.41	6.01	6.17	6.37	6.57	6.82
Fraser	71642	8.82	8.91	8.94	8.99	9.18	10.28	10.30	10.32	10.41	10.61	12.50	12.50	12.51	12.52	12.53	6.09	6.24	6.44	6.64	6.89
Fraser	72035	8.87	8.96	8.99	9.04	9.23	10.33	10.35	10.37	10.46	10.66	12.56	12.56	12.57	12.58	12.59	6.12	6.27	6.47	6.67	6.91
Fraser	72477	8.93	9.01	9.04	9.09	9.28	10.39	10.41	10.44	10.52	10.72	12.63	12.64	12.64	12.66	12.67	6.17	6.32	6.51	6.71	6.94
Fraser	72960	9.01	9.09	9.12	9.17	9.36	10.49	10.51	10.53	10.62	10.81	12.75	12.75	12.76	12.77	12.78	6.22	6.37	6.56	6.75	6.98
Fraser	73369	9.11	9.20	9.22	9.27	9.45	10.60	10.62	10.64	10.72	10.91	12.88	12.89	12.90	12.91	12.92	6.32	6.47	6.65	6.84	7.07
Fraser	73842	9.20	9.29	9.31	9.36	9.54	10.70	10.72	10.74	10.82	11.01	12.99	13.00	13.00	13.01	13.03	6.38	6.52	6.71	6.89	7.11
Fraser	74310	9.19	9.28	9.30	9.35	9.53	10.68	10.70	10.72	10.80	10.99	12.96	12.97	12.98	12.99	13.00	6.38	6.53	6.71	6.89	7.11
Fraser	74580	9.21	9.29	9.31	9.36	9.54	10.69	10.71	10.73	10.81	10.99	12.96	12.97	12.97	12.98	12.99	6.40	6.54	6.72	6.91	7.12
Fraser	74790	9.25	9.33	9.36	9.41	9.58	10.74	10.76	10.78	10.86	11.04	13.02	13.02	13.03	13.04	13.05	6.43	6.57	6.75	6.93	7.15
Fraser	74970	9.26	9.34	9.37	9.42	9.59	10.75	10.77	10.79	10.87	11.05	13.03	13.04	13.04	13.05	13.06	6.44	6.58	6.76	6.94	7.16
Fraser	74970	9.26	9.34	9.37	9.42	9.59	10.75	10.77	10.79	10.87	11.05	13.03	13.04	13.04	13.05	13.06	6.44	6.58	6.76	6.94	7.16
Fraser	75211	9.32	9.41	9.43	9.48	9.65	10.83	10.85	10.87	10.95	11.13	13.16	13.16	13.17	13.18	13.19	6.47	6.60	6.78	6.97	7.18
Fraser	75604	9.30	9.38	9.40	9.45	9.62	10.79	10.81	10.83	10.91	11.09	13.09	13.10	13.11	13.12	13.13	6.46	6.60	6.78	6.96	7.18
Fraser	76008	9.30	9.38	9.41	9.46	9.63	10.78	10.81	10.83	10.90	11.08	13.08	13.08	13.09	13.10	13.11	6.48	6.61	6.79	6.97	7.19
Fraser	76419	9.32	9.40	9.42	9.47	9.64	10.79	10.81	10.83	10.91	11.09	13.04	13.05	13.06	13.07	13.08	6.49	6.63	6.80	6.99	7.20
Fraser	76811	9.34	9.42	9.45	9.49	9.66	10.84	10.86	10.88	10.96	11.14	13.15	13.16	13.17	13.18	13.19	6.50	6.64	6.81	6.99	7.21
Fraser	77165	9.40	9.48	9.51	9.55	9.72	10.89	10.92	10.93	11.01	11.19	13.18	13.19	13.19	13.20	13.21	6.54	6.68	6.85	7.03	7.24
Fraser	77577	9.50	9.57	9.60	9.64	9.81	11.00	11.02	11.04	11.12	11.29	13.32	13.33	13.33	13.34	13.35	6.59	6.73	6.90	7.08	7.28
Fraser	78036	9.60	9.68	9.70	9.75	9.91	11.13	11.15	11.17	11.24	11.41	13.50	13.50	13.51	13.52	13.53	6.65	6.78	6.95	7.13	7.33
Fraser	78432	9.66	9.73	9.76	9.81	9.97	11.20	11.22	11.24	11.31	11.48	13.58	13.59	13.59	13.60	13.61	6.69	6.82	6.98	7.16	7.36
Fraser	78677	9.68	9.76	9.78	9.83	9.99	11.22	11.24	11.26	11.33	11.50	13.60	13.61	13.62	13.62	13.63	6.70	6.83	7.00	7.18	7.37
Fraser	78677	9.68	9.76	9.78	9.83	9.99	11.22	11.24	11.26	11.33	11.50	13.60	13.61	13.62	13.62	13.63	6.70	6.83	7.00	7.18	7.37
Fraser	79359	9.64	9.72	9.74	9.79	9.95	11.18	11.20	11.22	11.29	11.46	13.56	13.57	13.57	13.58	13.59	6.67	6.80	6.97	7.15	7.35
Fraser	79751	9.64	9.71	9.74	9.78	9.94	11.16	11.18	11.20	11.27	11.44	13.51	13.52	13.53	13.54	13.55	6.69	6.82	6.99	7.16	7.36
Fraser	80151	9.64	9.71	9.74	9.78	9.94	11.16	11.18	11.19	11.26	11.43	13.50	13.50	13.51	13.52	13.53	6.71	6.84	7.00	7.18	7.37
Fraser	80578	9.74	9.82	9.84	9.89	10.04	11.28	11.30	11.32	11.38	11.55	13.65	13.66	13.67	13.67	13.68	6.76	6.89	7.05	7.23	7.42
Fraser	81062	9.78	9.85	9.88	9.92	10.08	11.34	11.36	11.38	11.44	11.61	13.75	13.75	13.76	13.77	13.78	6.79	6.92	7.07	7.25	7.44
Fraser	81501	9.78	9.85	9.88	9.92	10.07	11.31	11.33	11.35	11.42	11.59	13.71	13.72	13.72	13.73	13.74	6.81	6.94	7.09	7.27	7.46

Freshet Historical 1:10,000							Freshet Scenario-A (Moderate) 1:10,000					Freshet Scenario-B (Intense) 1:10,000					Winter 1:10,000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser	81974	9.88	9.95	9.98	10.02	10.17	11.40	11.42	11.44	11.50	11.66	13.76	13.77	13.77	13.78	13.79	6.90	7.02	7.17	7.34	7.52
Fraser	82376	9.96	10.02	10.05	10.09	10.24	11.48	11.50	11.52	11.58	11.74	13.86	13.87	13.87	13.88	13.89	6.95	7.07	7.21	7.38	7.56
Fraser	82780	9.92	9.99	10.01	10.05	10.20	11.43	11.45	11.47	11.53	11.69	13.78	13.79	13.79	13.80	13.81	6.94	7.06	7.21	7.38	7.56
Fraser	83180	9.93	10.00	10.02	10.07	10.21	11.44	11.46	11.48	11.54	11.70	13.79	13.79	13.80	13.81	13.82	6.96	7.08	7.22	7.39	7.57
Fraser	83621	10.01	10.08	10.10	10.15	10.29	11.54	11.56	11.57	11.63	11.79	13.91	13.91	13.92	13.93	13.94	7.01	7.13	7.27	7.43	7.61
Fraser	83887	10.03	10.10	10.12	10.16	10.30	11.55	11.57	11.59	11.65	11.81	13.92	13.93	13.93	13.94	13.95	7.02	7.14	7.28	7.45	7.62
Fraser	83887	10.03	10.10	10.12	10.16	10.30	11.55	11.57	11.59	11.65	11.81	13.92	13.93	13.93	13.94	13.95	7.02	7.14	7.28	7.45	7.62
Fraser	84093	10.20	10.26	10.28	10.32	10.46	11.72	11.74	11.76	11.82	11.97	14.11	14.12	14.12	14.13	14.14	7.14	7.26	7.39	7.55	7.72
Fraser	84339	10.18	10.24	10.26	10.30	10.44	11.70	11.71	11.73	11.79	11.94	14.07	14.07	14.08	14.09	14.09	7.14	7.26	7.39	7.55	7.72
Fraser	84641	10.16	10.23	10.25	10.29	10.42	11.67	11.69	11.70	11.76	11.91	14.01	14.02	14.02	14.03	14.04	7.15	7.26	7.40	7.55	7.72
Fraser	85038	10.23	10.30	10.32	10.34	10.43	12.23	12.25	12.27	12.33	12.45	15.08	15.09	15.10	15.12	15.13	7.21	7.32	7.46	7.61	7.78
Fraser	85182	10.27	10.34	10.36	10.38	10.47	12.26	12.29	12.30	12.36	12.48	15.12	15.13	15.14	15.16	15.17	7.23	7.34	7.49	7.63	7.80
Fraser	85265	10.26	10.32	10.34	10.36	10.46	12.25	12.27	12.29	12.35	12.47	15.10	15.11	15.12	15.14	15.15	7.22	7.34	7.48	7.62	7.80
Fraser	85416	10.40	10.46	10.48	10.49	10.58	12.73	12.74	12.76	12.80	12.91	16.36	16.36	16.37	16.37	16.38	7.28	7.39	7.54	7.68	7.86
Fraser_R	85450	10.40	10.46	10.48	10.49	10.58	12.73	12.74	12.76	12.80	12.91	16.36	16.36	16.37	16.37	16.38	7.28	7.39	7.54	7.68	7.86
Fraser_R	85758	10.41	10.46	10.48	10.50	10.59	12.73	12.74	12.76	12.80	12.91	16.35	16.35	16.36	16.36	16.37	7.29	7.40	7.55	7.69	7.86
Fraser_R	86107	10.46	10.51	10.53	10.55	10.63	12.78	12.79	12.81	12.85	12.96	16.41	16.41	16.42	16.42	16.43	7.32	7.42	7.57	7.71	7.89
Fraser_R	86595	10.48	10.54	10.55	10.57	10.66	12.79	12.81	12.82	12.87	12.98	16.41	16.41	16.42	16.43	16.44	7.34	7.45	7.59	7.73	7.91
Fraser_R	86949	10.54	10.59	10.61	10.63	10.71	12.85	12.87	12.88	12.93	13.04	16.49	16.49	16.50	16.51	16.51	7.38	7.48	7.63	7.76	7.94
Fraser_R	87330	10.57	10.62	10.64	10.66	10.74	12.89	12.90	12.92	12.97	13.07	16.53	16.53	16.54	16.55	16.55	7.39	7.49	7.64	7.78	7.95
Fraser_R	87683	10.58	10.64	10.66	10.67	10.76	12.90	12.92	12.93	12.98	13.08	16.54	16.54	16.54	16.55	16.56	7.40	7.50	7.65	7.79	7.96
Fraser_R	88073	10.61	10.67	10.68	10.70	10.78	12.93	12.94	12.96	13.00	13.11	16.57	16.58	16.58	16.59	16.60	7.41	7.51	7.66	7.79	7.97
Fraser_R	88434	10.62	10.67	10.69	10.71	10.79	12.91	12.93	12.94	12.99	13.09	16.53	16.53	16.53	16.54	16.55	7.44	7.54	7.68	7.82	7.99
Fraser_R	88806	10.91	10.96	10.98	10.99	11.07	13.23	13.25	13.26	13.30	13.40	16.88	16.89	16.89	16.90	16.91	7.59	7.69	7.83	7.96	8.13
Fraser_R	89286	10.95	11.00	11.02	11.03	11.11	13.29	13.31	13.32	13.36	13.46	16.96	16.96	16.97	16.98	16.98	7.60	7.70	7.84	7.97	8.14
Fraser_R	89601	10.91	10.96	10.98	11.00	11.07	13.25	13.27	13.28	13.32	13.42	16.91	16.91	16.92	16.92	16.93	7.59	7.68	7.83	7.96	8.12
Fraser_R	89916	10.99	11.04	11.05	11.07	11.14	13.32	13.33	13.35	13.39	13.49	16.97	16.97	16.98	16.99	16.99	7.63	7.73	7.87	8.00	8.16
Fraser_R	90250	11.02	11.07	11.09	11.10	11.18	13.35	13.36	13.37	13.41	13.51	16.99	17.00	17.00	17.01	17.02	7.66	7.76	7.90	8.03	8.19
Fraser_R	90626	11.03	11.08	11.10	11.11	11.19	13.35	13.37	13.38	13.42	13.52	17.00	17.00	17.00	17.01	17.02	7.67	7.77	7.91	8.04	8.20
Fraser_R	90963	11.07	11.12	11.14	11.15	11.23	13.39	13.40	13.42	13.45	13.55	17.03	17.03	17.03	17.04	17.05	7.70	7.80	7.94	8.07	8.23
Fraser_R	91389	11.11	11.16	11.17	11.19	11.26	13.42	13.44	13.45	13.49	13.59	17.06	17.06	17.07	17.08	17.08	7.73	7.83	7.96	8.09	8.25
Fraser_R	91751	11.13	11.18	11.20	11.21	11.28	13.44	13.45	13.47	13.50	13.60	17.07	17.07	17.07	17.08	17.09	7.76	7.85	7.99	8.12	8.27
Fraser_R	92078	11.18	11.23	11.25	11.26	11.33	13.48	13.50	13.51	13.55	13.65	17.11	17.12	17.12	17.13	17.13	7.80	7.89	8.02	8.15	8.30
Fraser_R	92483	11.23	11.28	11.30	11.31	11.38	13.52	13.54	13.55	13.59	13.68	17.14	17.15	17.15	17.16	17.16	7.84	7.93	8.06	8.19	8.34
Fraser_R	92893	11.25	11.30	11.32	11.33	11.40	13.54	13.55	13.56	13.60	13.70	17.15	17.15	17.15	17.16	17.17	7.86	7.95	8.09	8.21	8.36
Fraser_R	93270	11.26	11.30	11.32	11.33	11.40	13.53	13.55	13.56	13.60	13.69	17.13	17.13	17.14	17.14	17.15	7.87	7.96	8.10	8.22	8.37
Fraser_R	93643	11.28	11.33	11.34	11.36	11.43	13.55	13.57	13.58	13.62	13.71	17.14	17.15	17.15	17.16	17.16	7.90	7.99	8.12	8.24	8.39
Fraser_R	93974	11.33	11.37	11.39	11.40	11.47	13.60	13.61	13.62	13.66	13.75	17.19	17.20	17.20	17.21	17.21	7.92	8.02	8.14	8.27	8.41
Fraser_R	94338	11.38	11.42	11.44	11.45	11.52	13.65	13.66	13.68	13.71	13.80	17.25	17.25	17.25	17.26	17.27	7.96	8.05	8.18	8.30	8.44



Freshet Historical 1:10,000							Freshet Scenario-A (Moderate) 1:10,000					Freshet Scenario-B (Intense) 1:10,000					Winter 1:10,000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	94714	11.43	11.48	11.49	11.51	11.57	13.71	13.72	13.73	13.77	13.86	17.31	17.31	17.32	17.32	17.33	8.00	8.09	8.22	8.33	8.48
Fraser_R	95088	11.49	11.53	11.55	11.56	11.63	13.76	13.78	13.79	13.82	13.91	17.37	17.37	17.38	17.38	17.39	8.03	8.12	8.24	8.36	8.50
Fraser_R	95477	11.54	11.59	11.60	11.62	11.68	13.82	13.83	13.84	13.88	13.97	17.42	17.43	17.43	17.44	17.44	8.07	8.16	8.29	8.40	8.54
Fraser_R	95847	11.55	11.60	11.61	11.63	11.69	13.84	13.85	13.86	13.90	13.99	17.46	17.46	17.46	17.47	17.48	8.06	8.15	8.28	8.39	8.53
Fraser_R	96277	11.61	11.65	11.66	11.68	11.74	13.88	13.90	13.91	13.94	14.03	17.50	17.50	17.51	17.51	17.52	8.11	8.19	8.32	8.43	8.57
Fraser_R	96597	11.62	11.67	11.68	11.70	11.76	13.89	13.91	13.92	13.96	14.04	17.51	17.51	17.51	17.52	17.53	8.12	8.20	8.33	8.44	8.58
Fraser_R	97004	11.59	11.64	11.65	11.66	11.73	13.86	13.87	13.89	13.92	14.01	17.47	17.47	17.48	17.48	17.49	8.13	8.22	8.34	8.45	8.59
Fraser_R	97348	11.61	11.65	11.67	11.68	11.75	13.86	13.88	13.89	13.92	14.01	17.46	17.46	17.47	17.47	17.48	8.15	8.24	8.36	8.47	8.61
Fraser_R	97701	11.67	11.72	11.73	11.74	11.80	13.91	13.92	13.93	13.97	14.05	17.49	17.49	17.50	17.50	17.51	8.21	8.30	8.42	8.53	8.66
Fraser_R	98091	11.70	11.74	11.76	11.77	11.83	13.92	13.94	13.95	13.98	14.07	17.50	17.50	17.50	17.51	17.52	8.25	8.33	8.45	8.56	8.70
Fraser_R	98420	11.71	11.75	11.76	11.78	11.84	13.92	13.93	13.94	13.98	14.06	17.47	17.48	17.48	17.49	17.49	8.28	8.36	8.48	8.59	8.72
Fraser_R	98751	11.72	11.76	11.77	11.79	11.85	13.92	13.93	13.94	13.98	14.06	17.47	17.47	17.47	17.48	17.49	8.29	8.37	8.49	8.60	8.73
Fraser_R	99087	11.81	11.85	11.86	11.88	11.94	14.00	14.02	14.03	14.06	14.15	17.54	17.55	17.55	17.56	17.56	8.36	8.44	8.55	8.66	8.79
Fraser_R	99341	11.87	11.91	11.93	11.94	12.00	14.07	14.09	14.10	14.13	14.22	17.62	17.62	17.63	17.63	17.64	8.39	8.47	8.58	8.69	8.82
Fraser_R	99644	11.92	11.96	11.97	11.99	12.04	14.12	14.14	14.15	14.18	14.26	17.68	17.68	17.69	17.69	17.70	8.42	8.50	8.61	8.72	8.84
Fraser_R	99955	11.96	12.00	12.01	12.03	12.08	14.16	14.18	14.19	14.22	14.30	17.72	17.72	17.72	17.73	17.73	8.45	8.53	8.64	8.75	8.87
Fraser_R	99955	11.96	12.00	12.01	12.03	12.08	14.16	14.18	14.19	14.22	14.30	17.72	17.72	17.72	17.73	17.73	8.45	8.53	8.64	8.75	8.87
Fraser_R	100348	11.96	12.00	12.01	12.03	12.08	14.16	14.18	14.19	14.22	14.30	17.72	17.72	17.72	17.73	17.73	8.45	8.53	8.64	8.75	8.87
Fraser_R	100688	11.99	12.03	12.04	12.06	12.11	14.19	14.21	14.22	14.25	14.33	17.75	17.75	17.75	17.76	17.76	8.47	8.55	8.66	8.77	8.89
Fraser_R	101083	12.01	12.05	12.07	12.08	12.13	14.21	14.23	14.24	14.27	14.35	17.77	17.77	17.77	17.78	17.79	8.49	8.57	8.68	8.78	8.91
Fraser_R	101411	12.01	12.05	12.06	12.07	12.13	14.21	14.22	14.23	14.27	14.35	17.76	17.76	17.77	17.77	17.78	8.49	8.57	8.68	8.78	8.91
Fraser_R	101745	12.00	12.04	12.05	12.07	12.12	14.21	14.22	14.23	14.26	14.34	17.76	17.76	17.76	17.77	17.78	8.49	8.56	8.67	8.78	8.90
Fraser_R	102107	12.07	12.11	12.13	12.14	12.19	14.26	14.28	14.29	14.32	14.40	17.81	17.81	17.81	17.82	17.83	8.56	8.64	8.74	8.85	8.97
Fraser_R	102614	12.09	12.13	12.14	12.15	12.21	14.27	14.29	14.30	14.33	14.41	17.81	17.82	17.82	17.83	17.83	8.58	8.66	8.76	8.86	8.98
Fraser_R	103057	12.11	12.14	12.16	12.17	12.22	14.29	14.30	14.31	14.34	14.42	17.82	17.82	17.83	17.83	17.84	8.61	8.68	8.79	8.89	9.00
Fraser_R	103447	12.14	12.17	12.19	12.20	12.25	14.31	14.32	14.33	14.36	14.44	17.84	17.84	17.85	17.85	17.86	8.65	8.72	8.82	8.92	9.04
Fraser_R	103782	12.17	12.21	12.22	12.23	12.29	14.33	14.34	14.35	14.38	14.46	17.86	17.86	17.86	17.87	17.87	8.70	8.77	8.87	8.97	9.08
Fraser_R	104233	12.25	12.29	12.30	12.31	12.36	14.40	14.41	14.42	14.45	14.53	17.91	17.91	17.91	17.92	17.92	8.76	8.83	8.93	9.03	9.14
Fraser_R	104653	12.29	12.33	12.34	12.35	12.40	14.42	14.43	14.45	14.48	14.55	17.92	17.93	17.93	17.94	17.94	8.82	8.88	8.98	9.07	9.18
Fraser_R	105033	12.31	12.34	12.35	12.36	12.41	14.43	14.44	14.45	14.48	14.56	17.92	17.92	17.93	17.93	17.94	8.84	8.91	9.00	9.10	9.20
Fraser_R	105317	12.31	12.35	12.36	12.37	12.42	14.44	14.45	14.46	14.49	14.57	17.94	17.94	17.94	17.95	17.95	8.85	8.92	9.01	9.10	9.21
Fraser_R	105752	12.35	12.38	12.39	12.40	12.45	14.46	14.47	14.49	14.52	14.59	17.95	17.96	17.96	17.96	17.97	8.89	8.95	9.05	9.14	9.24
Fraser_R	106155	12.37	12.40	12.41	12.42	12.47	14.48	14.49	14.50	14.53	14.61	17.96	17.96	17.97	17.97	17.98	8.92	8.98	9.08	9.17	9.27
Fraser_R	106506	12.39	12.42	12.43	12.44	12.49	14.49	14.50	14.51	14.54	14.62	17.97	17.97	17.98	17.98	17.99	8.94	9.01	9.10	9.19	9.29
Fraser_R	106807	12.38	12.42	12.43	12.44	12.49	14.48	14.50	14.51	14.54	14.61	17.96	17.96	17.97	17.97	17.98	8.96	9.02	9.11	9.20	9.30
Fraser_R	106807	12.38	12.42	12.43	12.44	12.49	14.48	14.50	14.51	14.54	14.61	17.96	17.96	17.97	17.97	17.98	8.96	9.02	9.11	9.20	9.30
Fraser_R	107158	12.30	12.33	12.35	12.36	12.41	14.39	14.40	14.42	14.45	14.52	17.79	17.79	17.80	17.80	17.81	8.91	8.97	9.06	9.15	9.25
Fraser_R	107502	12.31	12.35	12.36	12.37	12.42	14.39	14.40	14.41	14.44	14.52	17.77	17.77	17.77	17.78	17.79	8.96	9.02	9.10	9.19	9.29
Fraser_R	107855	12.38	12.42	12.43	12.44	12.49	14.48	14.49	14.50	14.53	14.60	17.94	17.94	17.95	17.95	17.96	9.03	9.08	9.17	9.25	9.35

Freshet Historical 1:10,000							Freshet Scenario-A (Moderate) 1:10,000					Freshet Scenario-B (Intense) 1:10,000					Winter 1:10,000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	108192	12.39	12.43	12.44	12.45	12.50	14.45	14.46	14.47	14.50	14.58	17.92	17.93	17.93	17.94	17.94	9.07	9.13	9.21	9.29	9.39
Fraser_R	108505	12.52	12.55	12.56	12.57	12.62	14.58	14.59	14.60	14.63	14.70	18.06	18.06	18.06	18.07	18.07	9.18	9.24	9.31	9.39	9.48
Fraser_R	108822	12.62	12.65	12.66	12.67	12.71	14.65	14.66	14.67	14.70	14.77	18.17	18.17	18.18	18.18	18.19	9.29	9.34	9.42	9.49	9.58
Fraser_R	109145	12.66	12.69	12.70	12.71	12.75	14.68	14.69	14.70	14.73	14.80	18.18	18.18	18.18	18.19	18.20	9.36	9.41	9.48	9.55	9.63
Fraser_R	109489	12.73	12.76	12.77	12.78	12.82	14.76	14.77	14.78	14.81	14.88	18.29	18.29	18.30	18.30	18.31	9.40	9.44	9.51	9.58	9.67
Fraser_R	109795	12.77	12.80	12.81	12.82	12.86	14.78	14.79	14.80	14.82	14.89	18.30	18.31	18.31	18.32	18.32	9.44	9.49	9.56	9.63	9.71
Fraser_R	109795	12.77	12.80	12.81	12.82	12.86	14.78	14.79	14.80	14.82	14.89	18.30	18.31	18.31	18.32	18.32	9.44	9.49	9.56	9.63	9.71
Fraser_R	110180	12.76	12.79	12.80	12.81	12.85	14.74	14.75	14.76	14.79	14.86	18.23	18.23	18.24	18.25	18.25	9.53	9.57	9.64	9.70	9.78
Fraser_R	110180	12.76	12.79	12.80	12.81	12.85	14.74	14.75	14.76	14.79	14.86	18.23	18.23	18.24	18.25	18.25	9.53	9.57	9.64	9.70	9.78
Fraser_R	110821	12.83	12.86	12.87	12.88	12.92	14.77	14.78	14.79	14.82	14.89	18.05	18.05	18.05	18.06	18.06	9.75	9.79	9.85	9.91	9.97
Fraser_R	110821	12.83	12.86	12.87	12.88	12.92	14.77	14.78	14.79	14.82	14.89	18.05	18.05	18.05	18.06	18.06	9.75	9.79	9.85	9.91	9.97
Fraser_R	111192	12.80	12.82	12.83	12.84	12.88	14.70	14.71	14.72	14.75	14.82	17.80	17.80	17.80	17.81	17.81	9.79	9.82	9.88	9.93	10.00
Fraser_R	111192	12.80	12.82	12.83	12.84	12.88	14.70	14.71	14.72	14.75	14.82	17.80	17.80	17.80	17.81	17.81	9.79	9.82	9.88	9.93	10.00
Fraser_R	111514	12.82	12.85	12.86	12.87	12.91	14.73	14.74	14.75	14.78	14.85	17.86	17.86	17.87	17.87	17.87	9.80	9.84	9.89	9.95	10.01
Fraser_R	111886	12.97	12.99	13.00	13.01	13.05	14.86	14.87	14.88	14.91	14.97	18.07	18.08	18.08	18.08	18.09	9.94	9.97	10.02	10.08	10.14
Fraser_R	112217	13.08	13.10	13.11	13.12	13.15	14.95	14.96	14.97	14.99	15.06	18.21	18.21	18.21	18.22	18.22	10.07	10.10	10.15	10.20	10.26
Fraser_R	112217	13.08	13.10	13.11	13.12	13.15	14.95	14.96	14.97	14.99	15.06	18.21	18.21	18.21	18.22	18.22	10.07	10.10	10.15	10.20	10.26
Fraser_R	112565	13.14	13.17	13.17	13.18	13.22	15.01	15.02	15.03	15.05	15.11	18.26	18.26	18.26	18.27	18.27	10.13	10.16	10.21	10.25	10.31
Fraser_R	112565	13.14	13.17	13.17	13.18	13.22	15.01	15.02	15.03	15.05	15.11	18.26	18.26	18.26	18.27	18.27	10.13	10.16	10.21	10.25	10.31
Fraser_R	112925	13.16	13.18	13.19	13.20	13.23	15.02	15.03	15.03	15.06	15.12	18.26	18.26	18.26	18.27	18.28	10.16	10.19	10.23	10.28	10.34
Fraser_R	112925	13.16	13.18	13.19	13.20	13.23	15.02	15.03	15.03	15.06	15.12	18.26	18.26	18.26	18.27	18.28	10.16	10.19	10.23	10.28	10.34
Fraser_R	113344	13.16	13.19	13.20	13.20	13.24	15.02	15.02	15.03	15.06	15.12	18.25	18.26	18.26	18.26	18.27	10.19	10.22	10.27	10.31	10.37
Fraser_R	113644	13.19	13.21	13.22	13.23	13.26	15.03	15.04	15.05	15.07	15.13	18.26	18.26	18.26	18.27	18.28	10.26	10.29	10.33	10.37	10.42
Fraser_R	114093	13.27	13.29	13.30	13.31	13.34	15.06	15.07	15.08	15.11	15.17	18.28	18.28	18.29	18.29	18.30	10.49	10.51	10.55	10.59	10.63
Fraser_R	114093	13.27	13.29	13.30	13.31	13.34	15.06	15.07	15.08	15.11	15.17	18.28	18.28	18.29	18.29	18.30	10.49	10.51	10.55	10.59	10.63
Fraser_R	114403	13.23	13.25	13.26	13.27	13.30	14.98	14.99	15.00	15.02	15.08	18.11	18.11	18.12	18.12	18.13	10.55	10.57	10.61	10.64	10.68
Fraser_R	114731	13.51	13.53	13.54	13.55	13.57	15.23	15.24	15.25	15.27	15.33	18.36	18.36	18.37	18.37	18.38	10.78	10.80	10.83	10.86	10.90
Fraser_R	115152	13.65	13.66	13.67	13.68	13.70	15.35	15.36	15.37	15.39	15.44	18.48	18.49	18.49	18.49	18.50	10.89	10.91	10.94	10.97	11.01
Fraser_R	115530	13.73	13.75	13.75	13.76	13.79	15.42	15.43	15.44	15.46	15.51	18.52	18.53	18.53	18.53	18.54	10.98	11.00	11.03	11.05	11.09
Fraser_R	115921	13.84	13.86	13.87	13.87	13.90	15.53	15.54	15.54	15.56	15.62	18.62	18.62	18.63	18.63	18.64	11.05	11.07	11.10	11.13	11.16
Fraser_R	116277	13.81	13.83	13.83	13.84	13.86	15.46	15.46	15.47	15.49	15.54	18.54	18.55	18.55	18.55	18.56	11.16	11.17	11.20	11.22	11.26
Fraser_R	116526	13.89	13.90	13.91	13.92	13.94	15.52	15.53	15.53	15.55	15.61	18.56	18.56	18.57	18.57	18.58	11.22	11.24	11.26	11.29	11.32
Fraser_R	116822	14.39	14.41	14.41	14.42	14.44	16.06	16.06	16.07	16.09	16.14	19.00	19.01	19.01	19.01	19.02	11.58	11.59	11.61	11.64	11.66
Fraser_R	117205	14.66	14.67	14.67	14.68	14.70	16.26	16.27	16.27	16.29	16.33	19.14	19.14	19.14	19.14	19.15	11.80	11.82	11.84	11.86	11.88
Fraser_R	117465	14.69	14.70	14.70	14.71	14.73	16.29	16.29	16.30	16.32	16.36	19.16	19.16	19.16	19.17	19.17	11.84	11.85	11.87	11.89	11.91
Fraser_R	117465	14.69	14.70	14.70	14.71	14.73	16.29	16.29	16.30	16.32	16.36	19.16	19.16	19.16	19.17	19.17	11.84	11.85	11.87	11.89	11.91
Fraser_R	117693	14.65	14.66	14.67	14.67	14.69	16.25	16.26	16.27	16.28	16.33	19.13	19.13	19.13	19.14	19.14	11.82	11.84	11.86	11.88	11.90
Fraser_R	117965	14.65	14.67	14.67	14.67	14.69	16.24	16.25	16.26	16.27	16.32	19.11	19.11	19.11	19.12	19.12	11.84	11.85	11.87	11.89	11.92
Fraser_R	118227	14.62	14.63	14.63	14.64	14.66	16.21	16.22	16.22	16.24	16.28	19.07	19.07	19.08	19.08	19.09	11.84	11.85	11.87	11.89	11.91

Freshet Historical 1:10,000							Freshet Scenario-A (Moderate) 1:10,000					Freshet Scenario-B (Intense) 1:10,000					Winter 1:10,000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	118629	14.74	14.75	14.75	14.76	14.77	16.28	16.29	16.29	16.31	16.35	19.11	19.11	19.11	19.11	19.12	11.92	11.93	11.95	11.97	11.99
Fraser_R	119023	14.95	14.96	14.96	14.97	14.98	16.45	16.46	16.46	16.48	16.51	19.25	19.25	19.26	19.26	19.26	12.05	12.06	12.08	12.10	12.12
Fraser_R	119296	14.95	14.96	14.97	14.97	14.99	16.45	16.46	16.46	16.48	16.51	19.24	19.25	19.25	19.25	19.26	12.05	12.07	12.08	12.10	12.12
Fraser_R	119296	14.95	14.96	14.97	14.97	14.99	16.45	16.46	16.46	16.48	16.51	19.24	19.25	19.25	19.25	19.26	12.05	12.07	12.08	12.10	12.12
Fraser_R	119760	15.26	15.27	15.27	15.28	15.29	16.76	16.76	16.77	16.78	16.82	19.54	19.55	19.55	19.55	19.56	12.23	12.24	12.25	12.27	12.29
Fraser_R	120109	15.25	15.26	15.27	15.27	15.28	16.71	16.72	16.72	16.74	16.77	19.48	19.48	19.49	19.49	19.50	12.27	12.28	12.30	12.31	12.33
Fraser_R	120552	15.48	15.49	15.49	15.49	15.51	16.89	16.89	16.90	16.91	16.94	19.58	19.58	19.58	19.59	19.59	12.42	12.43	12.44	12.46	12.48
Fraser_R	120979	15.65	15.66	15.66	15.66	15.68	17.03	17.04	17.04	17.05	17.08	19.64	19.64	19.64	19.65	19.65	12.56	12.57	12.59	12.60	12.61
Fraser_R	121391	15.86	15.87	15.87	15.88	15.89	17.26	17.27	17.27	17.28	17.31	19.89	19.89	19.90	19.90	19.90	12.67	12.68	12.69	12.70	12.72
Fraser_R	121770	15.97	15.98	15.98	15.98	15.99	17.36	17.37	17.37	17.38	17.41	19.97	19.97	19.97	19.98	19.98	12.75	12.76	12.77	12.79	12.80
Fraser_R	121960	16.03	16.03	16.04	16.04	16.05	17.39	17.40	17.40	17.41	17.44	19.96	19.96	19.97	19.97	19.97	12.82	12.82	12.83	12.85	12.86
Fraser_R	121960	16.03	16.03	16.04	16.04	16.05	17.39	17.40	17.40	17.41	17.44	19.96	19.96	19.97	19.97	19.97	12.82	12.82	12.83	12.85	12.86
Fraser_R	122189	16.07	16.08	16.08	16.09	16.09	17.41	17.41	17.42	17.43	17.45	19.94	19.94	19.94	19.95	19.95	12.89	12.89	12.90	12.92	12.93
Fraser_R	122649	16.28	16.29	16.29	16.29	16.30	17.60	17.61	17.61	17.62	17.64	20.12	20.12	20.13	20.13	20.13	13.06	13.06	13.07	13.08	13.10
Fraser_R	123115	16.40	16.40	16.40	16.41	16.41	17.71	17.71	17.72	17.73	17.75	20.23	20.23	20.23	20.23	20.24	13.16	13.17	13.18	13.19	13.20
Fraser_R	123115	16.40	16.40	16.40	16.41	16.41	17.71	17.71	17.72	17.73	17.75	20.23	20.23	20.23	20.23	20.24	13.16	13.17	13.18	13.19	13.20
Fraser_R	123582	16.45	16.45	16.45	16.46	16.46	17.76	17.76	17.76	17.77	17.79	20.26	20.27	20.27	20.27	20.27	13.23	13.24	13.25	13.25	13.27
Fraser_R	123950	16.45	16.46	16.46	16.46	16.47	17.74	17.74	17.75	17.76	17.78	20.22	20.22	20.22	20.22	20.23	13.33	13.34	13.35	13.36	13.36
Fraser_R	124343	16.66	16.67	16.67	16.67	16.68	17.93	17.94	17.94	17.95	17.97	20.41	20.41	20.41	20.41	20.41	13.55	13.55	13.56	13.57	13.58
Fraser_R	124343	16.66	16.67	16.67	16.67	16.68	17.93	17.94	17.94	17.95	17.97	20.41	20.41	20.41	20.41	20.41	13.55	13.55	13.56	13.57	13.58
Fraser_R	124720	16.71	16.71	16.72	16.72	16.72	17.96	17.97	17.97	17.98	18.00	20.42	20.42	20.42	20.43	20.43	13.67	13.67	13.68	13.69	13.69
Fraser_R	125093	16.66	16.67	16.67	16.67	16.67	17.87	17.87	17.88	17.89	17.91	20.24	20.24	20.25	20.25	20.25	13.80	13.80	13.80	13.81	13.82
Fraser_R	125436	16.99	16.99	16.99	17.00	17.00	18.19	18.19	18.19	18.20	18.22	20.61	20.61	20.61	20.61	20.62	14.09	14.10	14.10	14.10	14.11
Fraser_R	125807	17.09	17.09	17.10	17.10	17.10	18.29	18.29	18.29	18.30	18.32	20.72	20.72	20.72	20.72	20.73	14.20	14.20	14.21	14.21	14.22
Fraser_R	125807	17.09	17.09	17.10	17.10	17.10	18.29	18.29	18.29	18.30	18.32	20.72	20.72	20.72	20.72	20.73	14.20	14.20	14.21	14.21	14.22
Fraser_R	126146	17.17	17.17	17.17	17.17	17.18	18.34	18.34	18.35	18.35	18.37	20.76	20.76	20.76	20.76	20.77	14.33	14.33	14.33	14.34	14.34
Fraser_R	126146	17.17	17.17	17.17	17.17	17.18	18.34	18.34	18.35	18.35	18.37	20.76	20.76	20.76	20.76	20.77	14.33	14.33	14.33	14.34	14.34
Fraser_R	126471	17.09	17.10	17.10	17.10	17.11	18.26	18.26	18.26	18.27	18.29	20.58	20.58	20.59	20.59	20.59	14.32	14.32	14.32	14.33	14.33
Fraser_R	126811	17.10	17.11	17.11	17.11	17.11	18.23	18.23	18.23	18.24	18.26	20.47	20.47	20.47	20.47	20.48	14.46	14.46	14.47	14.47	14.47
Fraser_R	126811	17.10	17.11	17.11	17.11	17.11	18.23	18.23	18.23	18.24	18.26	20.47	20.47	20.47	20.47	20.48	14.46	14.46	14.47	14.47	14.47
Fraser_R	127331	17.34	17.35	17.35	17.35	17.35	18.37	18.37	18.38	18.38	18.40	20.50	20.51	20.51	20.51	20.51	14.78	14.78	14.78	14.79	14.79
Fraser_R	127331	17.34	17.35	17.35	17.35	17.35	18.37	18.37	18.38	18.38	18.40	20.50	20.51	20.51	20.51	20.51	14.78	14.78	14.78	14.79	14.79
Fraser_R	127666	17.53	17.53	17.53	17.54	17.54	18.54	18.54	18.55	18.55	18.57	20.61	20.61	20.62	20.62	20.62	14.91	14.91	14.91	14.91	14.91
Fraser_R	128018	18.04	18.05	18.05	18.05	18.05	19.14	19.14	19.14	19.15	19.16	21.31	21.31	21.31	21.31	21.32	15.09	15.09	15.10	15.10	15.10
Fraser_R	128434	18.32	18.33	18.33	18.33	18.33	19.43	19.43	19.43	19.44	19.45	21.60	21.61	21.61	21.61	21.61	15.26	15.26	15.26	15.26	15.27
Fraser_R	128434	18.32	18.33	18.33	18.33	18.33	19.43	19.43	19.43	19.44	19.45	21.60	21.61	21.61	21.61	21.61	15.26	15.26	15.26	15.26	15.27
Fraser_R	128804	18.56	18.57	18.57	18.57	18.57	19.64	19.65	19.65	19.65	19.66	21.78	21.79	21.79	21.79	21.79	15.47	15.47	15.47	15.48	15.48
Fraser_R	129148	18.73	18.73	18.73	18.73	18.73	19.74	19.74	19.75	19.75	19.76	21.80	21.80	21.80	21.80	21.81	15.68	15.68	15.68	15.68	15.69
Fraser_R	129526	19.00	19.00	19.00	19.00	19.00	20.03	20.03	20.03	20.04	20.04	22.08	22.09	22.09	22.09	22.09	15.85	15.85	15.85	15.85	15.86

Freshet Historical 1:10,000							Freshet Scenario-A (Moderate) 1:10,000					Freshet Scenario-B (Intense) 1:10,000					Winter 1:10,000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	129526	19.00	19.00	19.00	19.00	19.00	20.03	20.03	20.03	20.04	20.04	22.08	22.09	22.09	22.09	22.09	15.85	15.85	15.85	15.85	15.86
Fraser_R	129916	18.93	18.94	18.94	18.94	18.94	19.97	19.97	19.97	19.98	19.98	22.02	22.02	22.02	22.02	22.02	16.01	16.02	16.02	16.02	16.02
Fraser_R	129916	18.93	18.94	18.94	18.94	18.94	19.97	19.97	19.97	19.98	19.98	22.02	22.02	22.02	22.02	22.02	16.01	16.02	16.02	16.02	16.02
Fraser_R	130256	18.98	18.98	18.98	18.98	18.98	19.99	19.99	19.99	19.99	20.00	22.05	22.05	22.05	22.05	22.05	16.15	16.15	16.15	16.15	16.16
Fraser_R	130472	19.16	19.16	19.16	19.16	19.16	20.10	20.10	20.10	20.11	20.11	22.14	22.14	22.14	22.14	22.14	16.27	16.27	16.27	16.27	16.28
Fraser_R	130624	19.26	19.26	19.26	19.26	19.26	20.38	20.39	20.39	20.39	20.40	22.74	22.74	22.74	22.74	22.74	16.40	16.40	16.40	16.40	16.40
Fraser_R	130827	19.41	19.41	19.41	19.41	19.41	20.51	20.51	20.51	20.52	20.52	22.65	22.65	22.65	22.65	22.65	16.49	16.49	16.49	16.49	16.49
Fraser_R	131166	19.58	19.58	19.58	19.58	19.58	20.66	20.66	20.66	20.66	20.67	22.65	22.65	22.65	22.65	22.65	16.61	16.61	16.61	16.61	16.61
Fraser_R	131597	19.84	19.84	19.84	19.84	19.84	20.89	20.89	20.89	20.90	20.90	22.91	22.91	22.91	22.91	22.91	16.79	16.79	16.79	16.79	16.79
Fraser_R	131858	19.85	19.85	19.85	19.85	19.85	20.88	20.88	20.88	20.88	20.88	22.85	22.85	22.85	22.85	22.85	16.88	16.88	16.88	16.88	16.88
Fraser_R	131858	19.85	19.85	19.85	19.85	19.85	20.88	20.88	20.88	20.88	20.88	22.85	22.85	22.85	22.85	22.85	16.88	16.88	16.88	16.88	16.88
Fraser_R	132206	20.24	20.24	20.24	20.24	20.25	21.27	21.27	21.27	21.27	21.28	23.23	23.23	23.23	23.23	23.23	17.10	17.10	17.10	17.10	17.10
Fraser_R	132206	20.24	20.24	20.24	20.24	20.25	21.27	21.27	21.27	21.27	21.28	23.23	23.23	23.23	23.23	23.23	17.10	17.10	17.10	17.10	17.10
Fraser_R	132561	20.25	20.25	20.25	20.25	20.25	21.28	21.28	21.28	21.28	21.28	23.23	23.23	23.23	23.24	23.24	17.06	17.06	17.06	17.06	17.06
Fraser_R	132561	20.25	20.25	20.25	20.25	20.25	21.28	21.28	21.28	21.28	21.28	23.23	23.23	23.23	23.24	23.24	17.06	17.06	17.06	17.06	17.06
Fraser_R	132862	20.31	20.31	20.31	20.31	20.31	21.35	21.35	21.35	21.35	21.36	23.29	23.29	23.29	23.29	23.29	17.12	17.12	17.13	17.13	17.13
Fraser_R	133192	20.33	20.33	20.33	20.33	20.34	21.34	21.34	21.34	21.34	21.35	23.23	23.23	23.23	23.23	23.23	17.19	17.19	17.20	17.20	17.20
Fraser_R	133558	20.43	20.43	20.43	20.43	20.43	21.39	21.39	21.40	21.40	21.40	23.22	23.22	23.22	23.22	23.22	17.34	17.34	17.34	17.34	17.34
Fraser_R	133899	20.71	20.71	20.71	20.71	20.71	21.67	21.67	21.67	21.67	21.68	23.48	23.48	23.48	23.48	23.48	17.58	17.58	17.58	17.58	17.58
Fraser_R	134143	20.89	20.89	20.89	20.89	20.89	21.88	21.88	21.88	21.89	21.89	23.73	23.73	23.73	23.73	23.73	17.71	17.71	17.71	17.71	17.71
Fraser_R	134143	20.89	20.89	20.89	20.89	20.89	21.88	21.88	21.88	21.89	21.89	23.73	23.73	23.73	23.73	23.73	17.71	17.71	17.71	17.71	17.71
Fraser_R	134975	20.96	20.96	20.96	20.96	20.96	21.95	21.95	21.95	21.95	21.95	23.80	23.80	23.80	23.80	23.80	17.79	17.79	17.79	17.79	17.79
Fraser_R	134975	20.96	20.96	20.96	20.96	20.96	21.95	21.95	21.95	21.95	21.95	23.80	23.80	23.80	23.80	23.80	17.79	17.79	17.79	17.79	17.79
Fraser_R	135327	21.02	21.02	21.02	21.02	21.02	22.00	22.00	22.00	22.00	22.01	23.84	23.84	23.84	23.84	23.84	17.95	17.95	17.95	17.95	17.95
Fraser_R	135630	21.08	21.08	21.08	21.08	21.08	22.04	22.05	22.05	22.05	22.05	23.86	23.86	23.86	23.86	23.86	18.11	18.11	18.11	18.11	18.11
Fraser_R	135982	21.22	21.22	21.22	21.22	21.22	22.17	22.18	22.18	22.18	22.18	23.98	23.98	23.98	23.98	23.98	18.33	18.33	18.33	18.33	18.33
Fraser_R	136497	21.31	21.31	21.31	21.31	21.31	22.25	22.25	22.25	22.25	22.25	24.02	24.02	24.02	24.02	24.02	18.55	18.55	18.55	18.55	18.55
Fraser_R	136921	21.43	21.43	21.43	21.43	21.43	22.33	22.33	22.33	22.33	22.34	24.08	24.08	24.08	24.08	24.08	18.79	18.79	18.79	18.79	18.79
Fraser_R	137374	21.61	21.61	21.61	21.61	21.61	22.48	22.48	22.48	22.48	22.48	24.18	24.18	24.19	24.19	24.19	19.07	19.07	19.07	19.07	19.07
Fraser_R	137870	21.87	21.88	21.88	21.88	21.88	22.67	22.67	22.67	22.67	22.68	24.31	24.31	24.31	24.31	24.31	19.47	19.47	19.47	19.47	19.47
Fraser_R	138445	22.11	22.11	22.11	22.11	22.11	22.87	22.87	22.87	22.88	22.88	24.47	24.47	24.47	24.47	24.47	19.87	19.87	19.87	19.87	19.87
Fraser_R	138445	22.11	22.11	22.11	22.11	22.11	22.87	22.87	22.87	22.88	22.88	24.47	24.47	24.47	24.47	24.47	19.87	19.87	19.87	19.87	19.87
Fraser_R	138766	22.35	22.35	22.35	22.35	22.35	23.03	23.03	23.03	23.03	23.03	24.54	24.54	24.54	24.54	24.54	19.93	19.93	19.93	19.93	19.93
Fraser_R	139142	22.47	22.47	22.47	22.47	22.47	23.12	23.12	23.12	23.12	23.12	24.58	24.58	24.58	24.58	24.58	20.01	20.01	20.01	20.01	20.01
Fraser_R	139526	22.73	22.73	22.73	22.73	22.73	23.33	23.33	23.33	23.33	23.33	24.71	24.71	24.71	24.71	24.71	20.27	20.27	20.27	20.27	20.27
Fraser_R	139912	22.79	22.79	22.79	22.79	22.79	23.38	23.38	23.38	23.38	23.38	24.73	24.73	24.73	24.73	24.73	20.35	20.35	20.35	20.35	20.35
Fraser_R	140292	23.04	23.04	23.04	23.04	23.04	23.57	23.57	23.57	23.57	23.57	24.82	24.82	24.82	24.82	24.82	20.57	20.57	20.57	20.57	20.57
Fraser_R	140292	23.04	23.04	23.04	23.04	23.04	23.57	23.57	23.57	23.57	23.57	24.82	24.82	24.82	24.82	24.82	20.57	20.57	20.57	20.57	20.57
Fraser_R	140845	23.02	23.02	23.02	23.02	23.02	23.52	23.52	23.52	23.52	23.52	24.70	24.70	24.70	24.70	24.70	20.67	20.67	20.67	20.67	20.67

Freshet Historical 1:10,000							Freshet Scenario-A (Moderate) 1:10,000					Freshet Scenario-B (Intense) 1:10,000					Winter 1:10,000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	140845	23.02	23.02	23.02	23.02	23.02	23.52	23.52	23.52	23.52	23.52	24.70	24.70	24.70	24.70	24.70	20.67	20.67	20.67	20.67	20.67
Fraser_R	141065	23.07	23.07	23.07	23.07	23.07	23.56	23.56	23.56	23.56	23.56	24.70	24.70	24.71	24.71	24.71	20.81	20.81	20.81	20.81	20.81
Fraser_R	141439	23.54	23.54	23.54	23.54	23.54	24.06	24.06	24.06	24.06	24.06	25.11	25.11	25.11	25.11	25.11	21.21	21.21	21.21	21.21	21.21
Fraser_R	141833	24.06	24.06	24.06	24.06	24.06	24.68	24.68	24.68	24.68	24.68	25.82	25.82	25.82	25.82	25.82	21.51	21.51	21.51	21.51	21.51
Fraser_R	142241	24.22	24.22	24.22	24.22	24.22	24.76	24.76	24.76	24.76	24.76	25.78	25.78	25.78	25.78	25.78	21.76	21.76	21.76	21.76	21.76
Fraser_R	142576	24.81	24.81	24.81	24.81	24.81	25.41	25.41	25.41	25.41	25.41	26.50	26.50	26.50	26.50	26.50	22.16	22.16	22.16	22.16	22.16
Fraser_R	142948	24.95	24.95	24.95	24.95	24.95	25.54	25.54	25.54	25.54	25.54	26.61	26.61	26.61	26.61	26.61	22.35	22.35	22.35	22.35	22.35
Fraser_R	143365	25.11	25.11	25.11	25.11	25.11	25.68	25.68	25.68	25.68	25.68	26.69	26.69	26.69	26.69	26.69	22.64	22.64	22.64	22.64	22.64
Fraser_R	143763	25.64	25.64	25.64	25.64	25.64	26.28	26.28	26.28	26.28	26.28	27.37	27.37	27.37	27.37	27.37	22.98	22.98	22.98	22.98	22.98
Fraser_R	143763	25.64	25.64	25.64	25.64	25.64	26.28	26.28	26.28	26.28	26.28	27.37	27.37	27.37	27.37	27.37	22.98	22.98	22.98	22.98	22.98
Fraser_R	144102	25.80	25.80	25.80	25.80	25.80	26.45	26.45	26.45	26.45	26.45	27.56	27.56	27.56	27.56	27.56	23.12	23.12	23.12	23.12	23.12
Fraser_R	144434	25.89	25.89	25.89	25.89	25.89	26.56	26.56	26.56	26.56	26.56	27.69	27.69	27.69	27.69	27.69	23.17	23.17	23.17	23.17	23.17
Fraser_R	144910	26.45	26.45	26.45	26.45	26.45	27.23	27.23	27.23	27.23	27.23	28.51	28.51	28.51	28.51	28.51	23.51	23.51	23.51	23.51	23.51
Fraser_R	145425	26.75	26.75	26.75	26.75	26.75	27.56	27.56	27.56	27.56	27.56	28.91	28.91	28.91	28.91	28.91	23.80	23.80	23.80	23.80	23.80
Fraser_R	145819	26.90	26.90	26.90	26.90	26.90	27.72	27.72	27.72	27.72	27.72	29.04	29.04	29.04	29.04	29.04	23.98	23.98	23.98	23.98	23.98
Fraser_R	146215	27.13	27.13	27.13	27.13	27.13	27.96	27.96	27.96	27.96	27.96	29.28	29.28	29.28	29.28	29.28	24.20	24.20	24.20	24.20	24.20
Fraser_R	146617	27.54	27.54	27.54	27.54	27.54	28.39	28.39	28.39	28.39	28.39	29.77	29.77	29.77	29.77	29.77	24.50	24.50	24.50	24.50	24.50
Fraser_R	146617	27.54	27.54	27.54	27.54	27.54	28.39	28.39	28.39	28.39	28.39	29.77	29.77	29.77	29.77	29.77	24.50	24.50	24.50	24.50	24.50
Fraser_R	147036	27.31	27.31	27.31	27.31	27.31	28.08	28.08	28.08	28.08	28.08	29.34	29.34	29.34	29.34	29.34	24.51	24.51	24.51	24.51	24.51
Fraser_R	147492	27.71	27.71	27.71	27.71	27.71	28.60	28.60	28.60	28.60	28.60	29.83	29.83	29.83	29.83	29.83	24.69	24.69	24.69	24.69	24.69
Fraser_R	147951	28.39	28.39	28.39	28.39	28.39	29.37	29.37	29.37	29.37	29.37	30.70	30.70	30.70	30.70	30.70	25.02	25.02	25.02	25.02	25.02
Fraser_R	148211	28.77	28.77	28.77	28.77	28.77	29.79	29.79	29.79	29.79	29.79	31.14	31.14	31.14	31.14	31.14	25.31	25.31	25.31	25.31	25.31
Fraser_R	148211	28.77	28.77	28.77	28.77	28.77	29.79	29.79	29.79	29.79	29.79	31.14	31.14	31.14	31.14	31.14	25.31	25.31	25.31	25.31	25.31
Fraser_R	148587	28.76	28.76	28.76	28.76	28.76	29.77	29.77	29.77	29.77	29.77	31.12	31.12	31.12	31.12	31.12	25.35	25.35	25.35	25.35	25.35
Fraser_R	148922	28.87	28.87	28.87	28.87	28.87	29.87	29.87	29.87	29.87	29.87	31.20	31.20	31.20	31.20	31.20	25.54	25.54	25.54	25.54	25.54
Fraser_R	149536	28.84	28.84	28.84	28.84	28.84	29.79	29.79	29.79	29.79	29.79	31.07	31.07	31.07	31.07	31.07	25.77	25.77	25.77	25.77	25.77
Fraser_R	149536	28.84	28.84	28.84	28.84	28.84	29.79	29.79	29.79	29.79	29.79	31.07	31.07	31.07	31.07	31.07	25.77	25.77	25.77	25.77	25.77
Fraser_R	149848	29.10	29.10	29.10	29.10	29.10	30.04	30.04	30.04	30.04	30.04	31.33	31.33	31.33	31.33	31.33	26.00	26.00	26.00	26.00	26.00
Fraser_R	150218	29.79	29.79	29.79	29.79	29.79	30.84	30.84	30.84	30.84	30.84	32.23	32.23	32.23	32.23	32.23	26.43	26.43	26.43	26.43	26.43
Fraser_R	150423	29.85	29.85	29.85	29.85	29.85	30.91	30.91	30.91	30.91	30.91	32.31	32.31	32.31	32.31	32.31	26.53	26.53	26.53	26.53	26.53
Fraser_R	150423	29.85	29.85	29.85	29.85	29.85	30.91	30.91	30.91	30.91	30.91	32.31	32.31	32.31	32.31	32.31	26.53	26.53	26.53	26.53	26.53
Fraser_R	150642	29.97	29.97	29.97	29.97	29.97	31.03	31.03	31.03	31.03	31.03	32.45	32.45	32.45	32.45	32.45	26.69	26.69	26.69	26.69	26.69
Fraser_R	151064	30.25	30.25	30.25	30.25	30.25	31.25	31.25	31.25	31.25	31.25	32.65	32.65	32.65	32.65	32.65	27.02	27.02	27.02	27.02	27.02
Fraser_R	151456	30.70	30.70	30.70	30.70	30.70	31.69	31.69	31.69	31.69	31.69	33.12	33.12	33.12	33.12	33.12	27.42	27.42	27.42	27.42	27.42
Fraser_R	151456	30.70	30.70	30.70	30.70	30.70	31.69	31.69	31.69	31.69	31.69	33.12	33.12	33.12	33.12	33.12	27.42	27.42	27.42	27.42	27.42
Fraser_R	151864	30.96	30.96	30.96	30.96	30.96	31.95	31.95	31.95	31.95	31.95	33.37	33.37	33.37	33.37	33.37	27.69	27.69	27.69	27.69	27.69
Fraser_R	152256	31.21	31.21	31.21	31.21	31.21	32.17	32.17	32.17	32.17	32.17	33.76	33.76	33.76	33.76	33.76	27.97	27.97	27.97	27.97	27.97
Fraser_R	152613	31.73	31.73	31.73	31.73	31.73	32.80	32.80	32.80	32.80	32.80	34.30	34.30	34.30	34.30	34.30	28.20	28.20	28.20	28.20	28.20
Fraser_R	153007	31.70	31.70	31.70	31.70	31.70	32.73	32.73	32.73	32.73	32.73	34.21	34.21	34.21	34.21	34.21	28.49	28.49	28.49	28.49	28.49

Freshet Historical 1:10,000							Freshet Scenario-A (Moderate) 1:10,000					Freshet Scenario-B (Intense) 1:10,000					Winter 1:10,000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	153372	31.93	31.93	31.93	31.93	31.93	32.70	32.70	32.70	32.70	32.70	34.14	34.14	34.14	34.14	34.14	28.69	28.69	28.69	28.69	28.69
Fraser_R	153743	32.54	32.54	32.54	32.54	32.54	33.48	33.48	33.48	33.48	33.48	34.82	34.82	34.82	34.82	34.82	28.88	28.88	28.88	28.88	28.88
Fraser_R	154103	32.64	32.64	32.64	32.64	32.64	33.56	33.56	33.56	33.56	33.56	34.90	34.90	34.90	34.90	34.90	29.12	29.12	29.12	29.12	29.12
Fraser_R	154483	33.00	33.00	33.00	33.00	33.00	33.84	33.84	33.84	33.84	33.84	35.13	35.13	35.13	35.13	35.13	29.41	29.41	29.41	29.41	29.41
Fraser_R	154868	33.17	33.17	33.17	33.17	33.17	34.03	34.03	34.03	34.03	34.03	35.28	35.28	35.28	35.28	35.28	29.54	29.54	29.54	29.54	29.54
Fraser_R	155277	33.34	33.34	33.34	33.34	33.34	34.22	34.22	34.22	34.22	34.22	35.49	35.49	35.49	35.49	35.49	29.67	29.67	29.67	29.67	29.67
Fraser_R	155664	33.26	33.26	33.26	33.26	33.26	34.08	34.08	34.08	34.08	34.08	35.28	35.28	35.28	35.28	35.28	29.78	29.78	29.78	29.78	29.78
Fraser_R	156030	33.24	33.24	33.24	33.24	33.24	34.00	34.00	34.00	34.00	34.00	35.10	35.10	35.10	35.10	35.10	29.83	29.83	29.83	29.83	29.83
Fraser_R	156387	33.60	33.60	33.60	33.60	33.60	34.48	34.48	34.48	34.48	34.48	35.84	35.84	35.84	35.84	35.84	29.92	29.92	29.92	29.92	29.92
Fraser_R	156778	33.81	33.81	33.81	33.81	33.81	34.72	34.72	34.72	34.72	34.72	36.14	36.14	36.14	36.14	36.14	30.06	30.06	30.06	30.06	30.06
Fraser_R	157176	34.11	34.11	34.11	34.11	34.11	35.11	35.11	35.11	35.11	35.11	36.66	36.66	36.66	36.66	36.66	30.20	30.20	30.20	30.20	30.20
Fraser_R	157487	34.56	34.56	34.56	34.56	34.56	35.68	35.68	35.68	35.68	35.68	37.43	37.43	37.43	37.43	37.43	30.34	30.34	30.34	30.34	30.34
Fraser_R	157866	34.97	34.97	34.97	34.97	34.97	36.19	36.19	36.19	36.19	36.19	38.12	38.12	38.12	38.12	38.12	30.52	30.52	30.52	30.52	30.52
Fraser_R	158224	35.21	35.21	35.21	35.21	35.21	36.46	36.46	36.46	36.46	36.46	38.44	38.44	38.44	38.44	38.44	30.68	30.68	30.68	30.68	30.68
Fraser_R	158604	35.26	35.26	35.26	35.26	35.26	36.52	36.52	36.52	36.52	36.52	38.50	38.50	38.50	38.50	38.50	30.74	30.74	30.74	30.74	30.74
Fraser_R	158948	35.68	35.68	35.68	35.68	35.68	37.04	37.04	37.04	37.04	37.04	39.20	39.20	39.20	39.20	39.20	30.90	30.90	30.90	30.90	30.90
Fraser_R	159283	35.95	35.95	35.95	35.95	35.95	37.36	37.36	37.36	37.36	37.36	39.68	39.68	39.68	39.68	39.68	31.05	31.05	31.05	31.05	31.05
Fraser_R	159628	36.42	36.42	36.42	36.42	36.42	37.87	37.87	37.87	37.87	37.87	40.33	40.33	40.33	40.33	40.33	31.38	31.38	31.38	31.38	31.38
Fraser_R	160001	36.85	36.85	36.85	36.85	36.85	38.38	38.38	38.38	38.38	38.38	40.77	40.77	40.77	40.77	40.77	31.70	31.70	31.70	31.70	31.70
Fraser_R	160341	37.00	37.00	37.00	37.00	37.00	38.55	38.55	38.55	38.55	38.55	40.97	40.97	40.97	40.97	40.97	31.84	31.84	31.84	31.84	31.84
Fraser_R	160657	37.18	37.18	37.18	37.18	37.18	38.73	38.73	38.73	38.73	38.73	41.20	41.20	41.20	41.20	41.20	31.95	31.95	31.95	31.95	31.95
Fraser_R	161039	37.41	37.41	37.41	37.41	37.41	38.94	38.94	38.94	38.94	38.94	41.29	41.29	41.29	41.29	41.29	32.23	32.23	32.23	32.23	32.23
Fraser_R	161414	37.68	37.68	37.68	37.68	37.68	39.25	39.25	39.25	39.25	39.25	41.55	41.55	41.55	41.55	41.55	32.48	32.48	32.48	32.48	32.48
Fraser_R	161789	37.95	37.95	37.95	37.95	37.95	39.43	39.43	39.43	39.43	39.43	41.67	41.67	41.67	41.67	41.67	32.76	32.76	32.76	32.76	32.76
Fraser_R	162143	38.15	38.15	38.15	38.15	38.15	39.53	39.53	39.53	39.53	39.53	41.72	41.72	41.72	41.72	41.72	32.92	32.92	32.92	32.92	32.92
Fraser_R	162446	38.34	38.34	38.34	38.34	38.34	39.70	39.70	39.70	39.70	39.70	41.76	41.76	41.76	41.76	41.76	33.14	33.14	33.14	33.14	33.14
Fraser_R	162778	38.43	38.43	38.43	38.43	38.43	39.82	39.82	39.82	39.82	39.82	41.87	41.87	41.87	41.87	41.87	33.30	33.30	33.30	33.30	33.30
Fraser_R	162778	38.43	38.43	38.43	38.43	38.43	39.82	39.82	39.82	39.82	39.82	41.87	41.87	41.87	41.87	41.87	33.30	33.30	33.30	33.30	33.30
Fraser_R	163124	38.45	38.45	38.45	38.45	38.45	39.57	39.57	39.57	39.57	39.57	41.25	41.25	41.25	41.25	41.25	33.52	33.52	33.52	33.52	33.52
Fraser_R	163447	38.75	38.75	38.75	38.75	38.75	40.06	40.06	40.06	40.06	40.06	42.01	42.01	42.01	42.01	42.01	33.62	33.62	33.62	33.62	33.62
Fraser_R	163771	39.15	39.15	39.15	39.15	39.15	40.61	40.61	40.61	40.61	40.61	42.70	42.70	42.70	42.70	42.70	33.87	33.87	33.87	33.87	33.87
Fraser_R	164124	39.18	39.18	39.18	39.18	39.18	40.64	40.64	40.64	40.64	40.64	42.73	42.73	42.73	42.73	42.73	33.84	33.84	33.84	33.84	33.84
Fraser_R	164389	39.24	39.24	39.24	39.24	39.24	40.70	40.70	40.70	40.70	40.70	42.78	42.78	42.78	42.78	42.78	33.91	33.91	33.91	33.91	33.91
Fraser_R	164694	39.51	39.51	39.51	39.51	39.51	41.06	41.06	41.06	41.06	41.06	43.21	43.21	43.21	43.21	43.21	34.29	34.29	34.29	34.29	34.29
Fraser_R	164694	39.51	39.51	39.51	39.51	39.51	41.06	41.06	41.06	41.06	41.06	43.21	43.21	43.21	43.21	43.21	34.29	34.29	34.29	34.29	34.29
Fraser_R	164731	39.54	39.54	39.54	39.54	39.54	41.09	41.09	41.09	41.09	41.09	43.25	43.25	43.25	43.25	43.25	34.32	34.32	34.32	34.32	34.32
Fraser_R	165008	39.74	39.74	39.74	39.74	39.74	41.30	41.30	41.30	41.30	41.30	43.51	43.51	43.51	43.51	43.51	34.63	34.63	34.63	34.63	34.63
Fraser_R	165247	40.04	40.04	40.04	40.04	40.04	41.58	41.58	41.58	41.58	41.58	43.77	43.77	43.77	43.77	43.77	34.89	34.89	34.89	34.89	34.89
Fraser_R	165454	40.25	40.25	40.25	40.25	40.25	41.82	41.82	41.82	41.82	41.82	44.06	44.06	44.06	44.06	44.06	35.04	35.04	35.04	35.04	35.04

Freshet Historical 1:10,000							Freshet Scenario-A (Moderate) 1:10,000					Freshet Scenario-B (Intense) 1:10,000					Winter 1:10,000				
Branch	Chainage	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)	Max W.L (SLR=0m)	Max W.L (SLR=0.5m)	Max W.L (SLR=1.0m)	Max W.L (SLR=1.5m)	Max W.L (SLR=2.0m)
Fraser_R	165662	40.24	40.24	40.24	40.24	40.24	41.79	41.79	41.79	41.79	41.79	44.02	44.02	44.02	44.02	44.02	35.11	35.11	35.11	35.11	35.11
Fraser_R	165662	40.24	40.24	40.24	40.24	40.24	41.79	41.79	41.79	41.79	41.79	44.02	44.02	44.02	44.02	44.02	35.11	35.11	35.11	35.11	35.11
Fraser_R	165965	40.13	40.13	40.13	40.13	40.13	41.66	41.66	41.66	41.66	41.66	43.84	43.84	43.84	43.84	43.84	35.11	35.11	35.11	35.11	35.11
Fraser_R	166336	40.28	40.28	40.28	40.28	40.28	41.76	41.76	41.76	41.76	41.76	43.89	43.89	43.89	43.89	43.89	35.47	35.47	35.47	35.47	35.47
Fraser_R	166766	40.64	40.64	40.64	40.64	40.64	42.13	42.13	42.13	42.13	42.13	44.30	44.30	44.30	44.30	44.30	35.85	35.85	35.85	35.85	35.85
Fraser_R	166766	40.64	40.64	40.64	40.64	40.64	42.13	42.13	42.13	42.13	42.13	44.30	44.30	44.30	44.30	44.30	35.85	35.85	35.85	35.85	35.85
Fraser_R	167135	40.60	40.60	40.60	40.60	40.60	41.94	41.94	41.94	41.94	41.94	43.89	43.89	43.89	43.89	43.89	36.15	36.15	36.15	36.15	36.15

Figure 1.

## Example of Winter and Freshet Profile - Historic AEP=1:500 with SLR=0 m

Historical Flows at Hope: Freshet=16,500 cms, Winter=6,420 cms

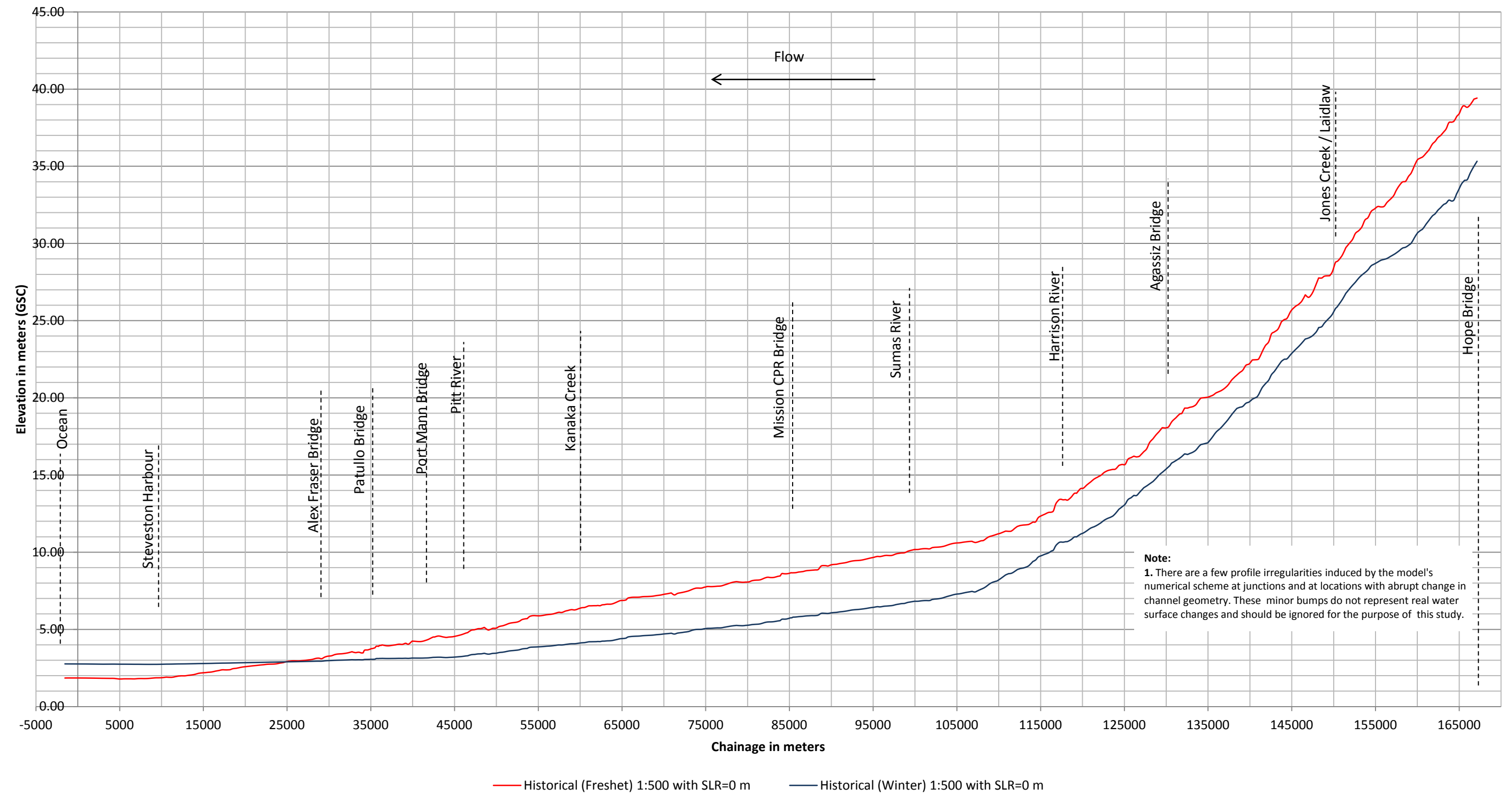




Figure 2.

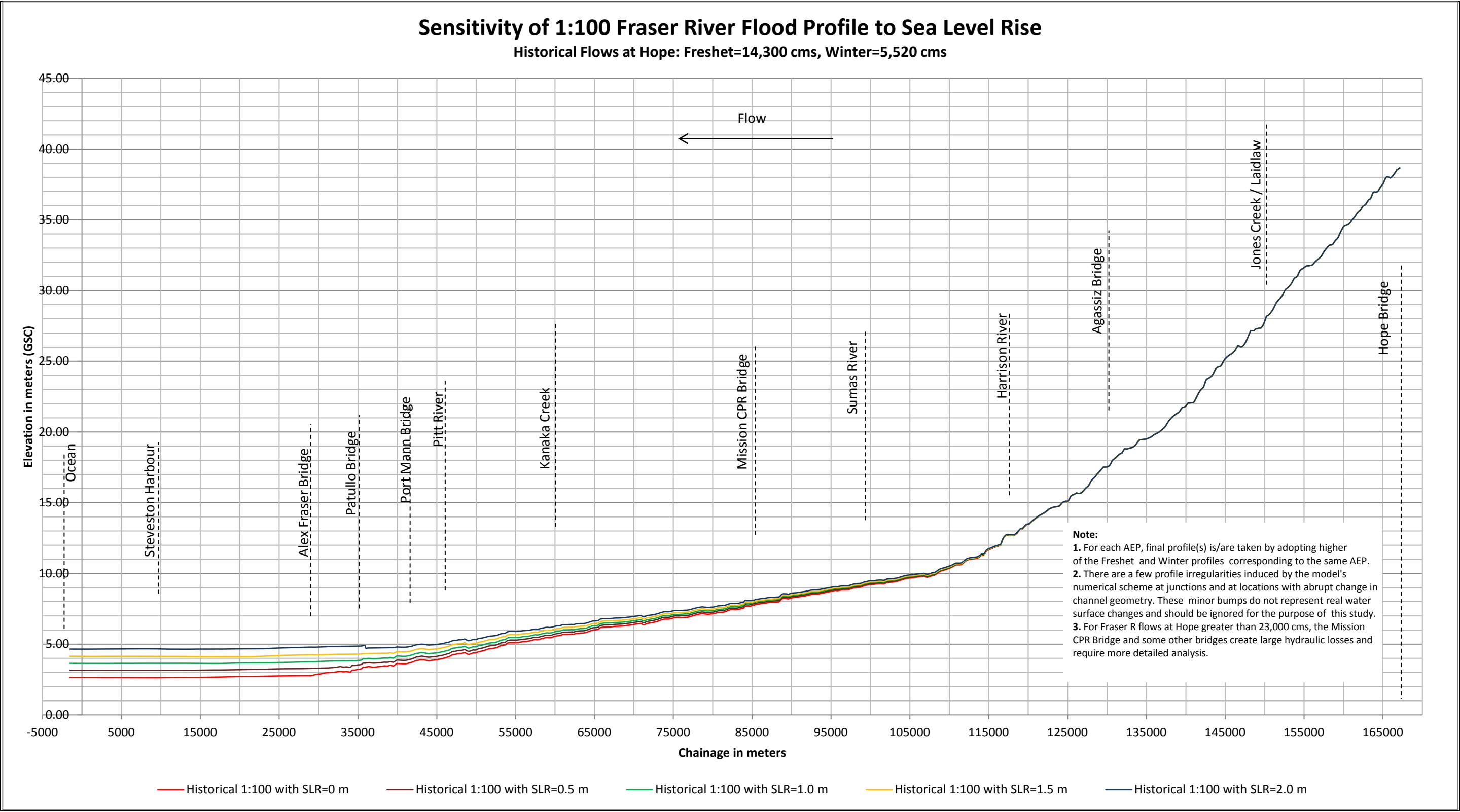


Figure 2a.

Sensitivity of 1:100 Fraser River Flood Profile to Sea Level Rise (from ocean to Harrison R confluence)

Historical Flows at Hope: Freshet=14,300 cms, Winter=5,520 cms

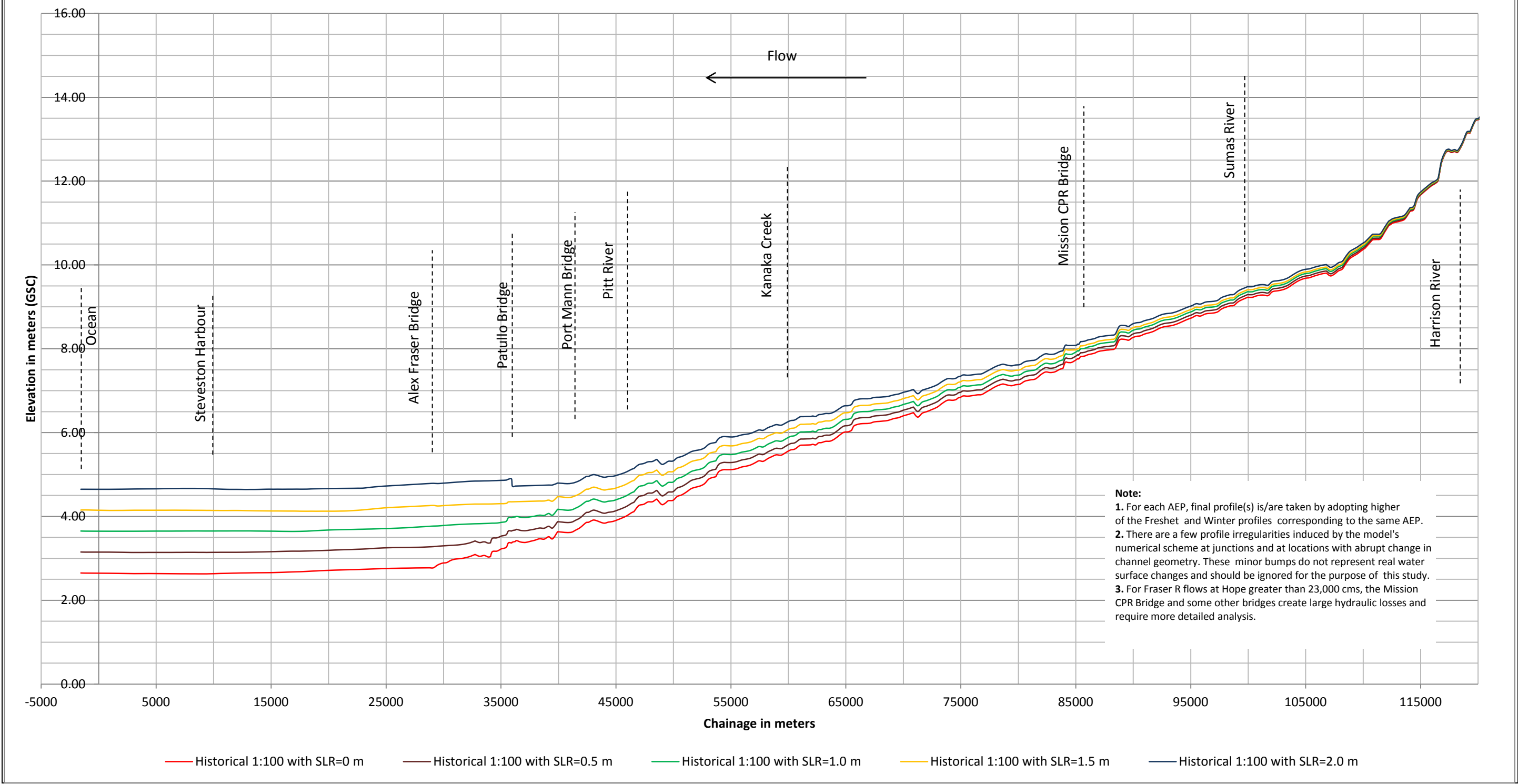


Figure 3.

# Sensitivity of 1:500 Fraser River Flood Profile to Sea Level Rise

Historical Flows at Hope: Freshet=16,500 cms, Winter= 6,420 cms

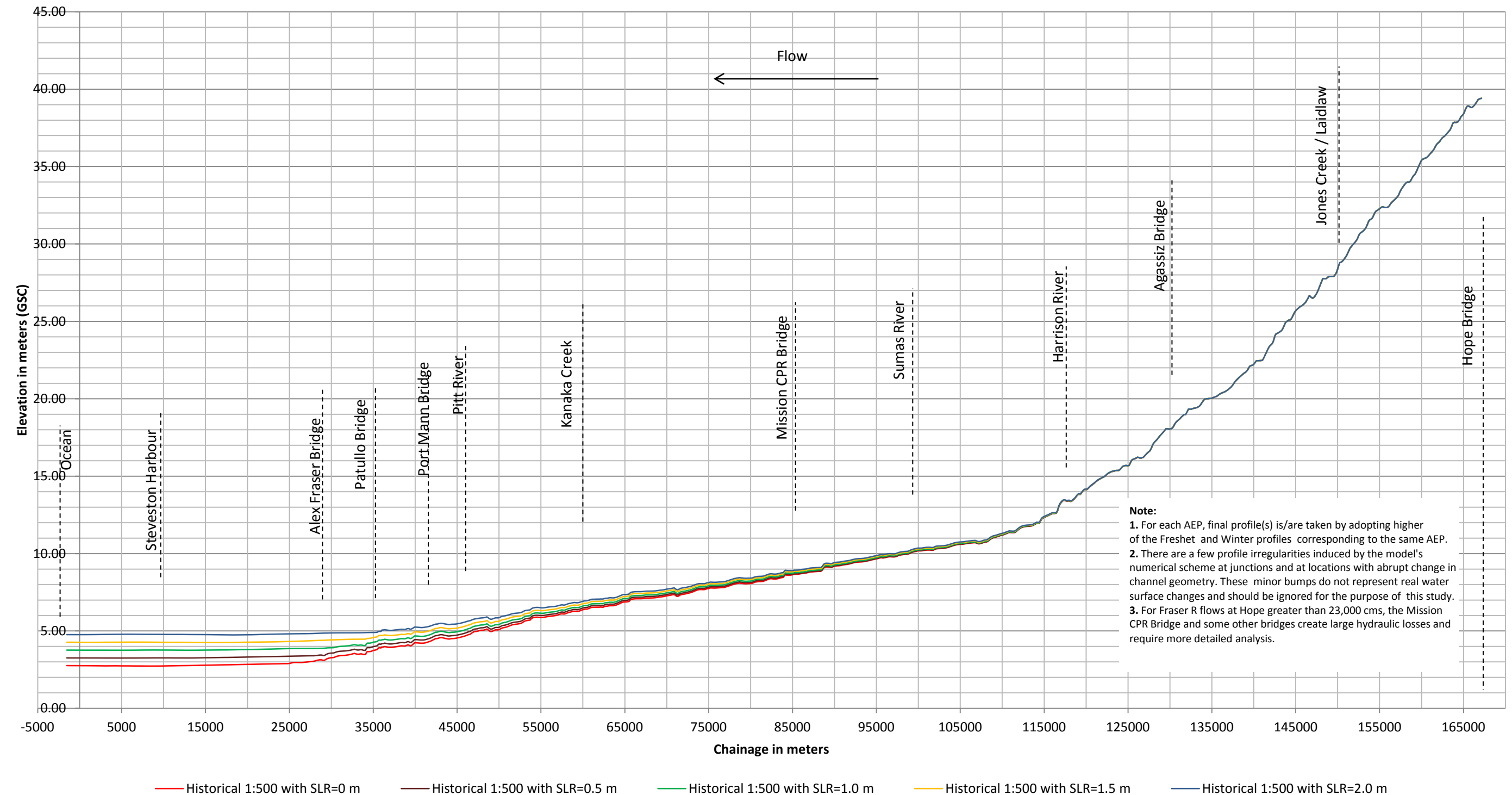


Figure 3a.

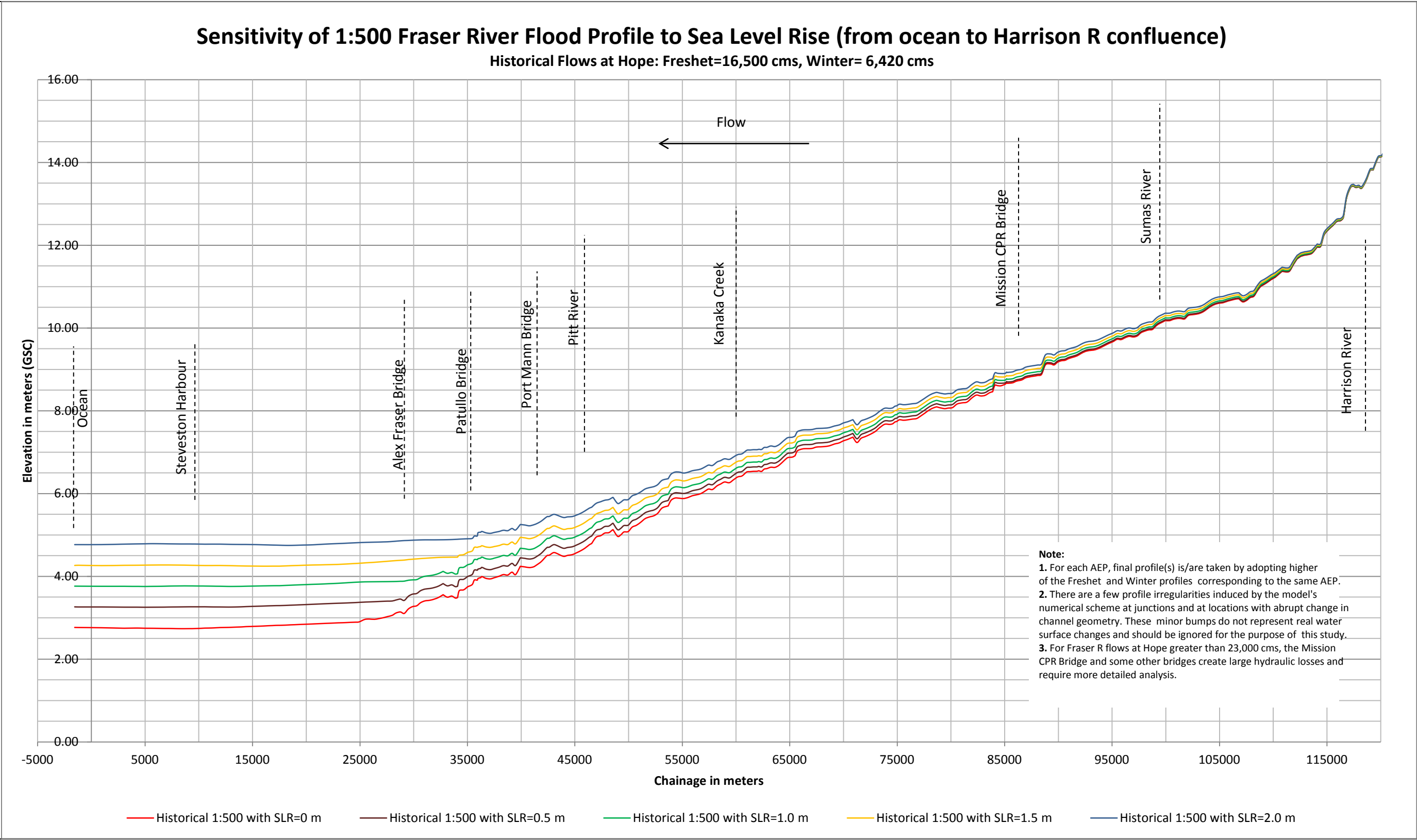


Figure 4.

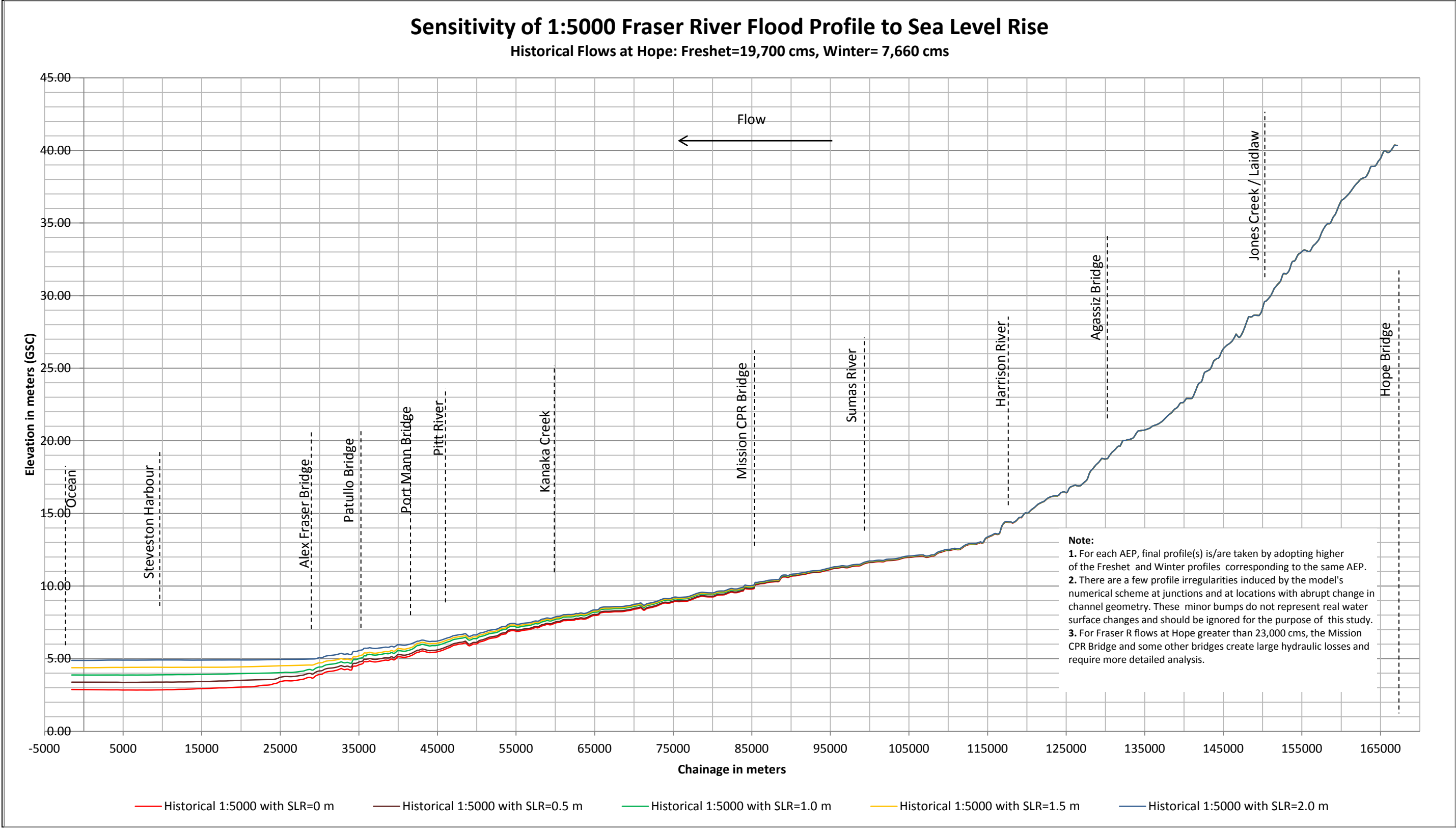


Figure 4a.

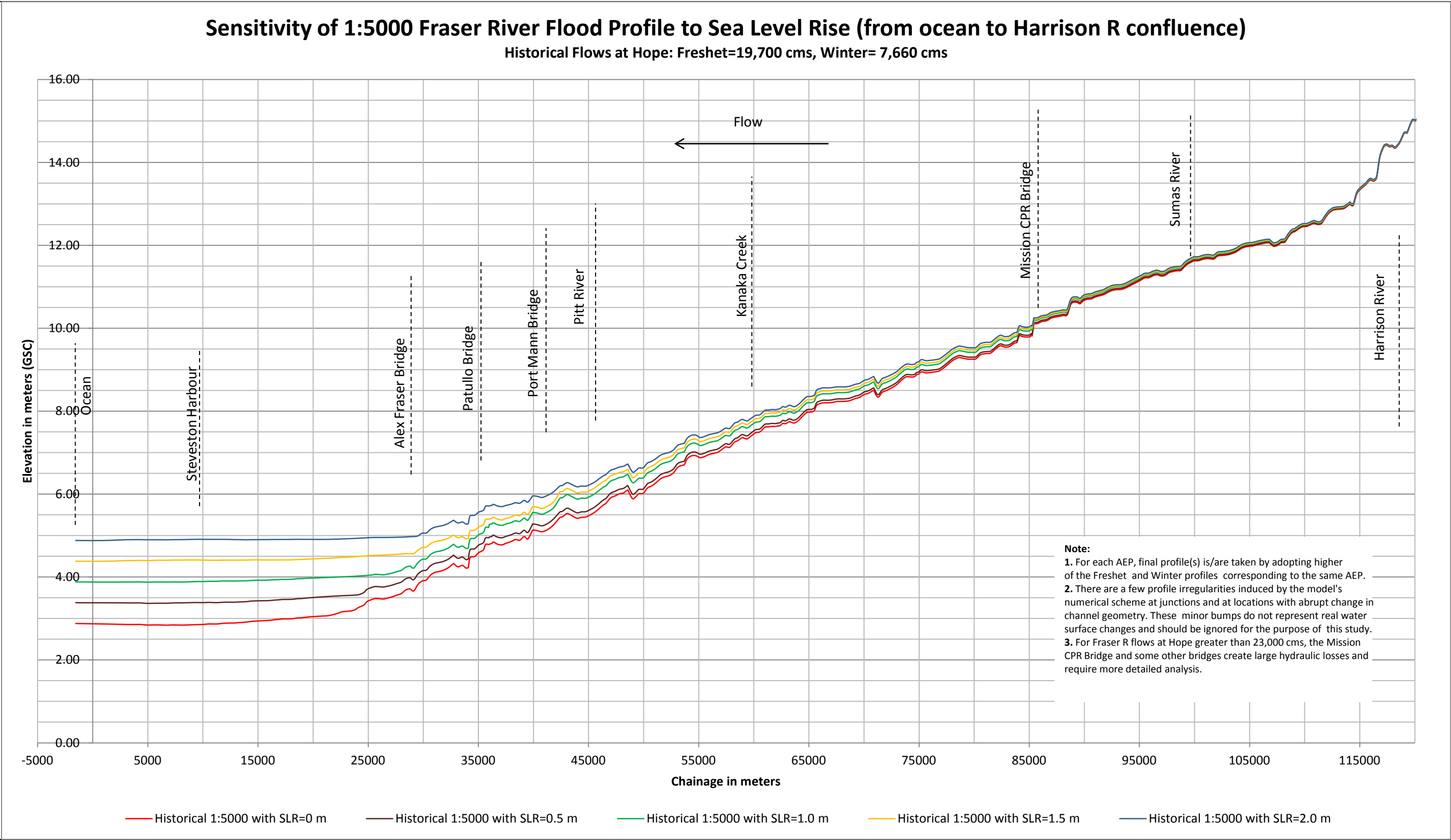


Figure 5.

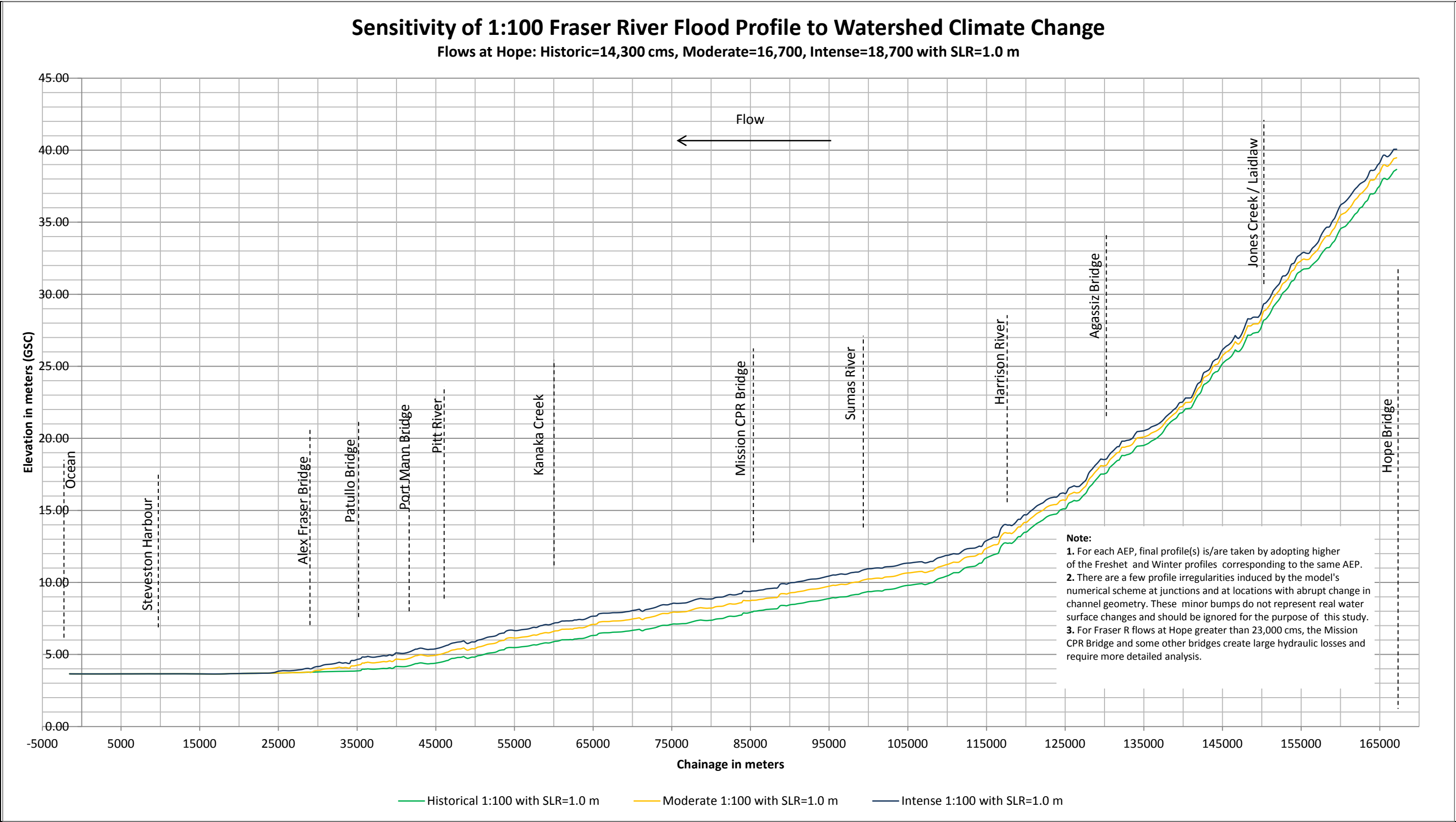


Figure 6.

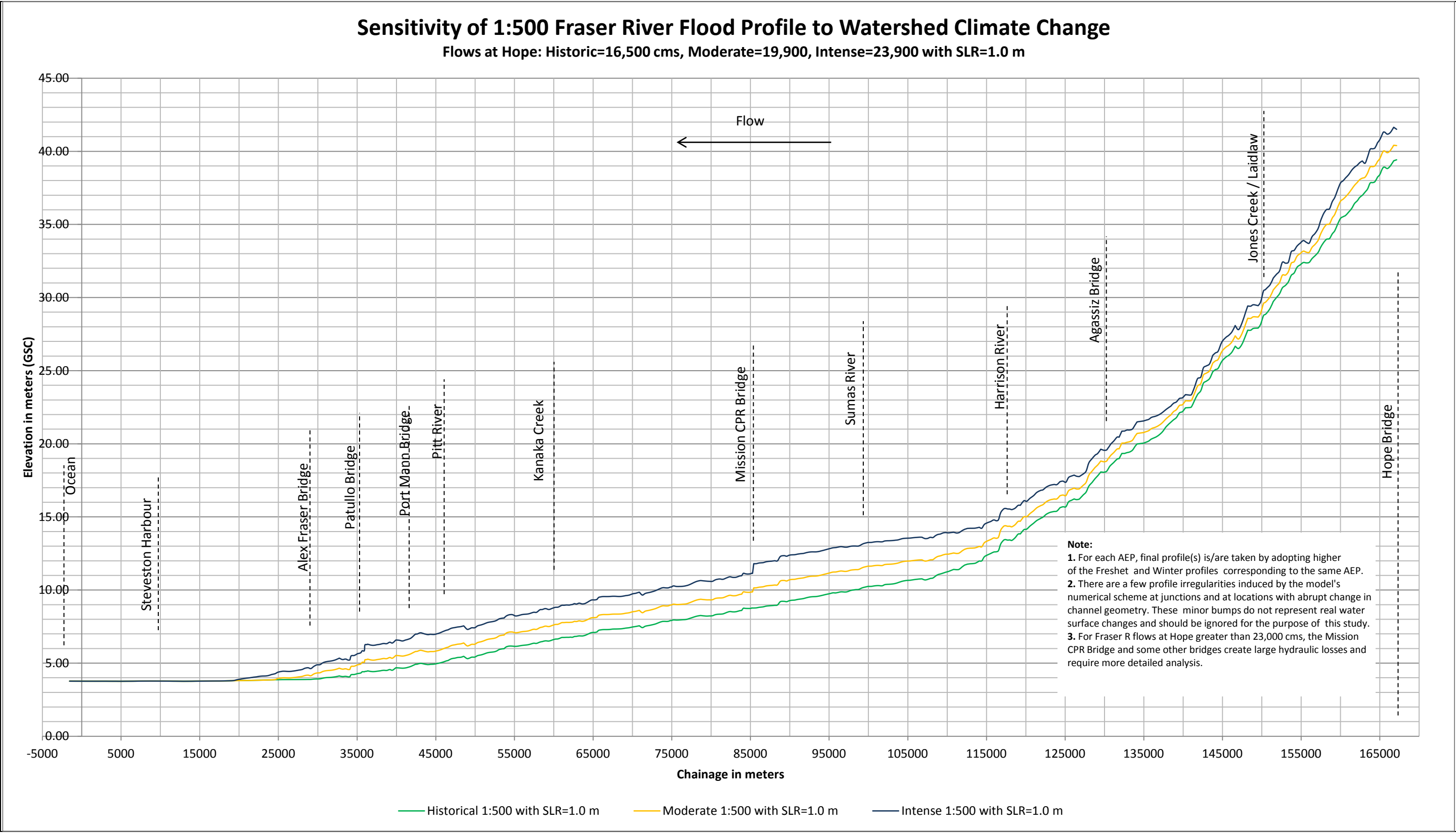




Figure 7.

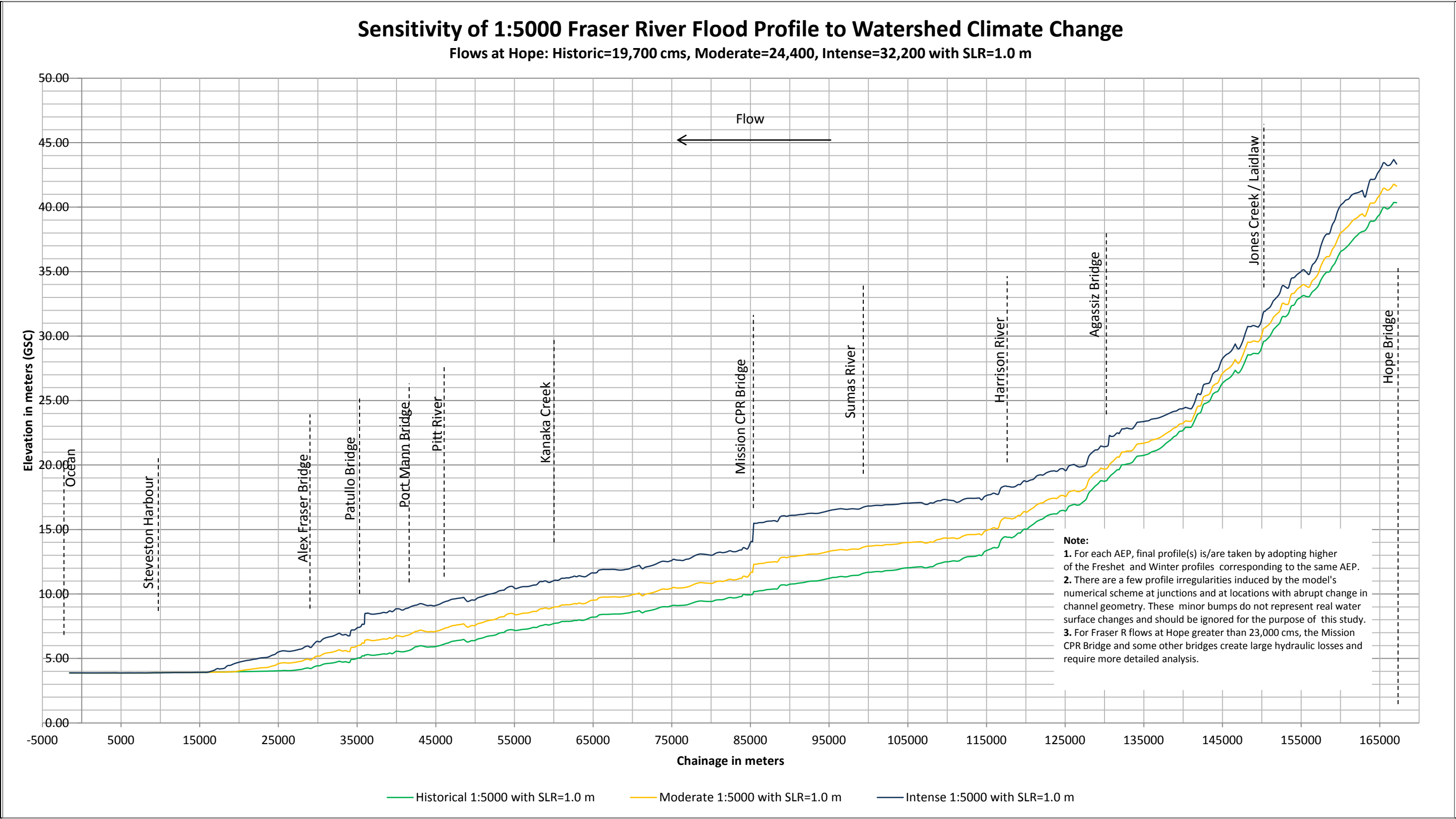


Figure 8.

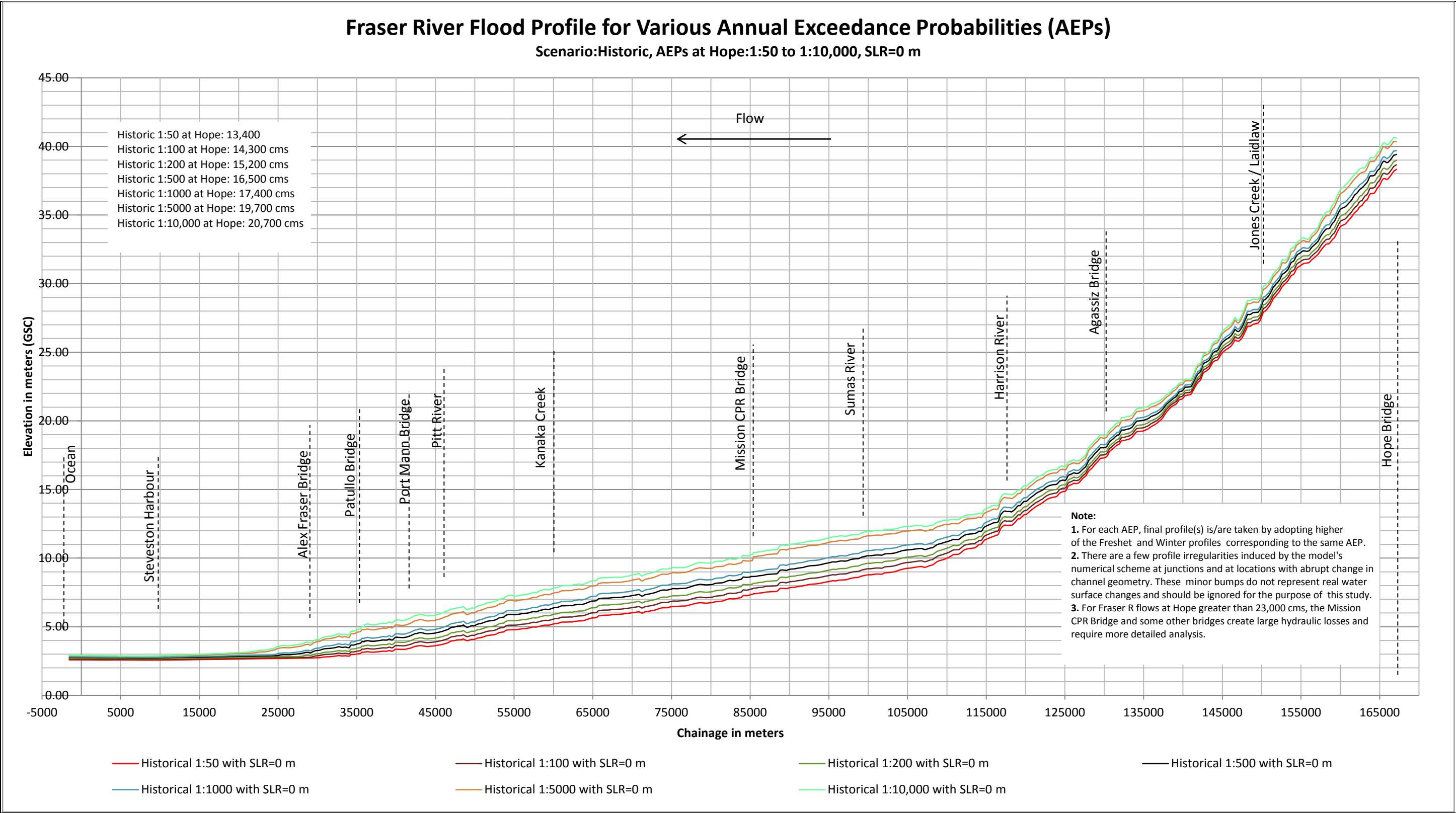


Figure 9.

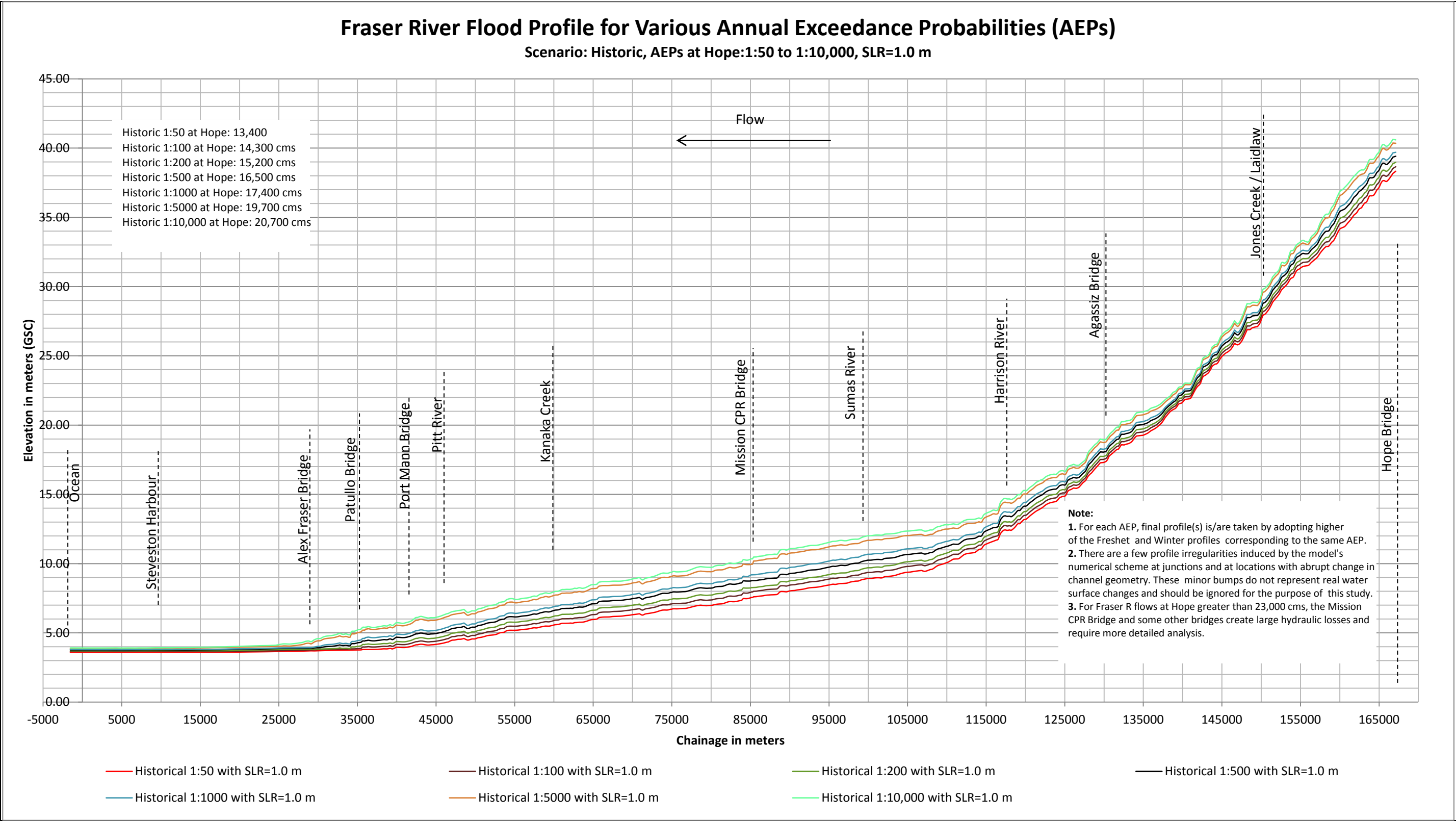


Figure 10.

# Fraser River Flood Profile for Various Annual Exceedance Probabilities (AEPs)

Scenario: Moderate, AEPs at Hope:1:50 to 1:10,000, SLR=1.0 m

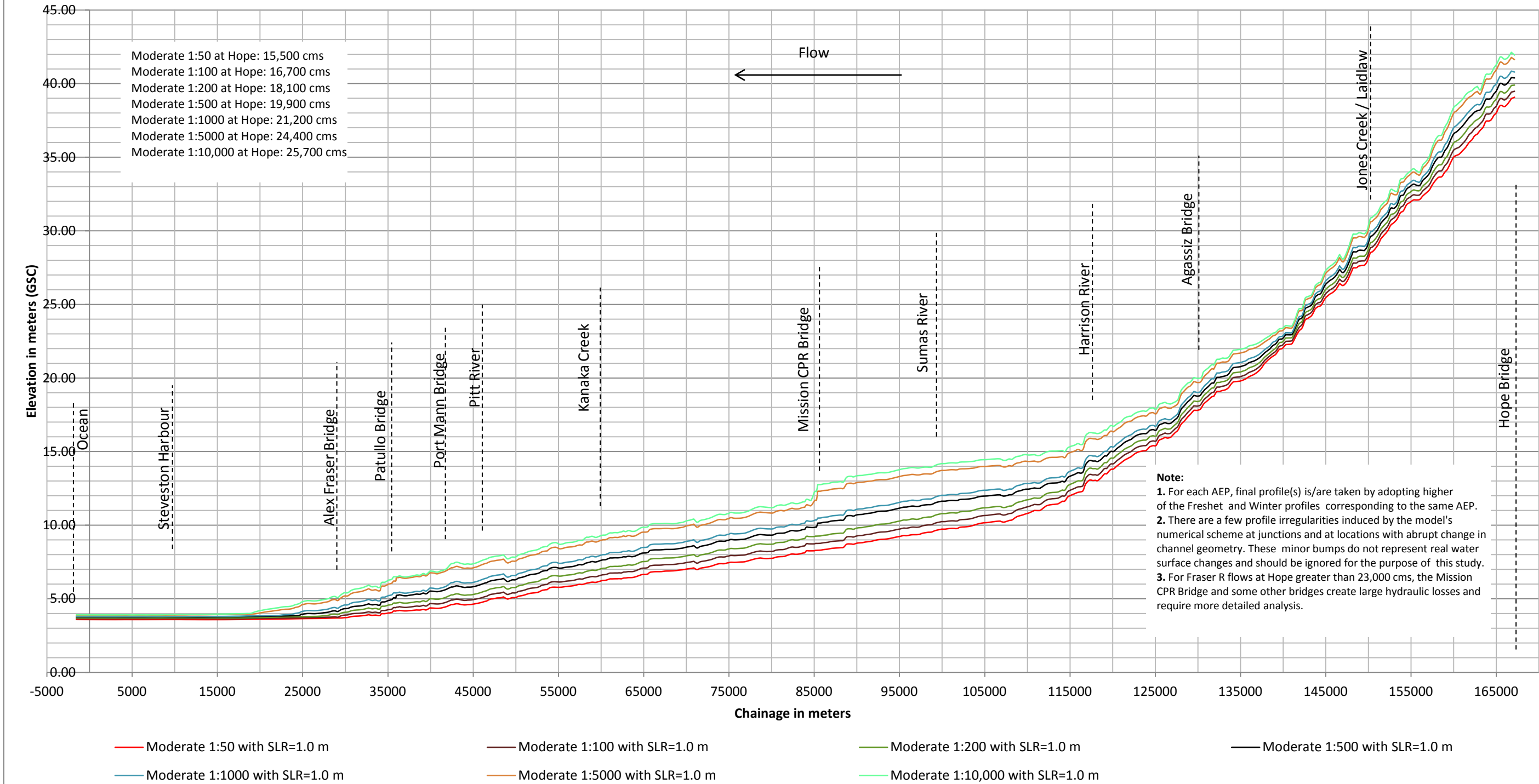


Figure 11.

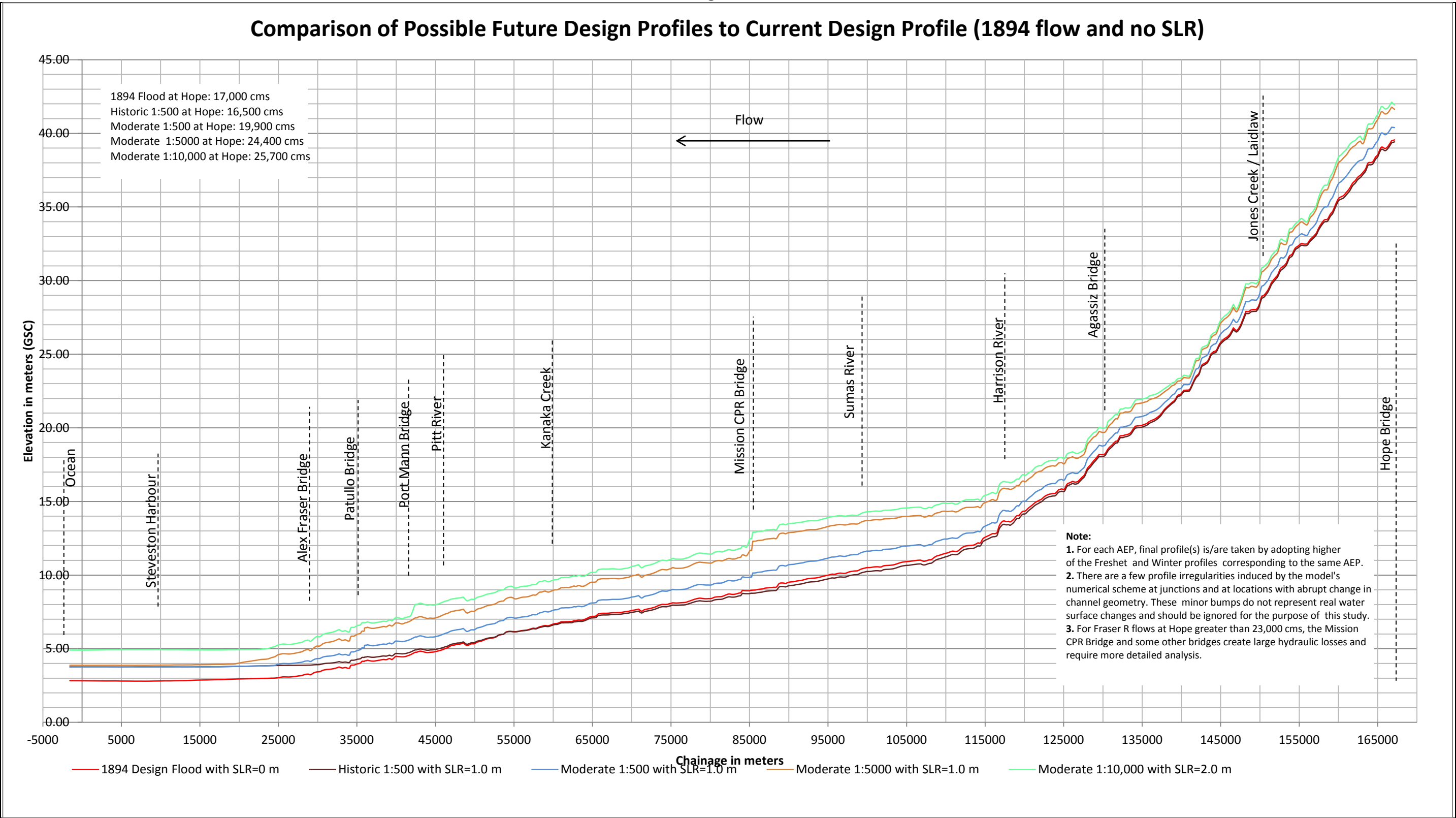


Figure 12.

# Sensitivity of 1:10,000 Fraser River Flood Profile to Watershed Climate Change

Flows at Hope: Historic=20,700 cms, Moderate=25,700, Intense=34,800 with SLR=1.0 m

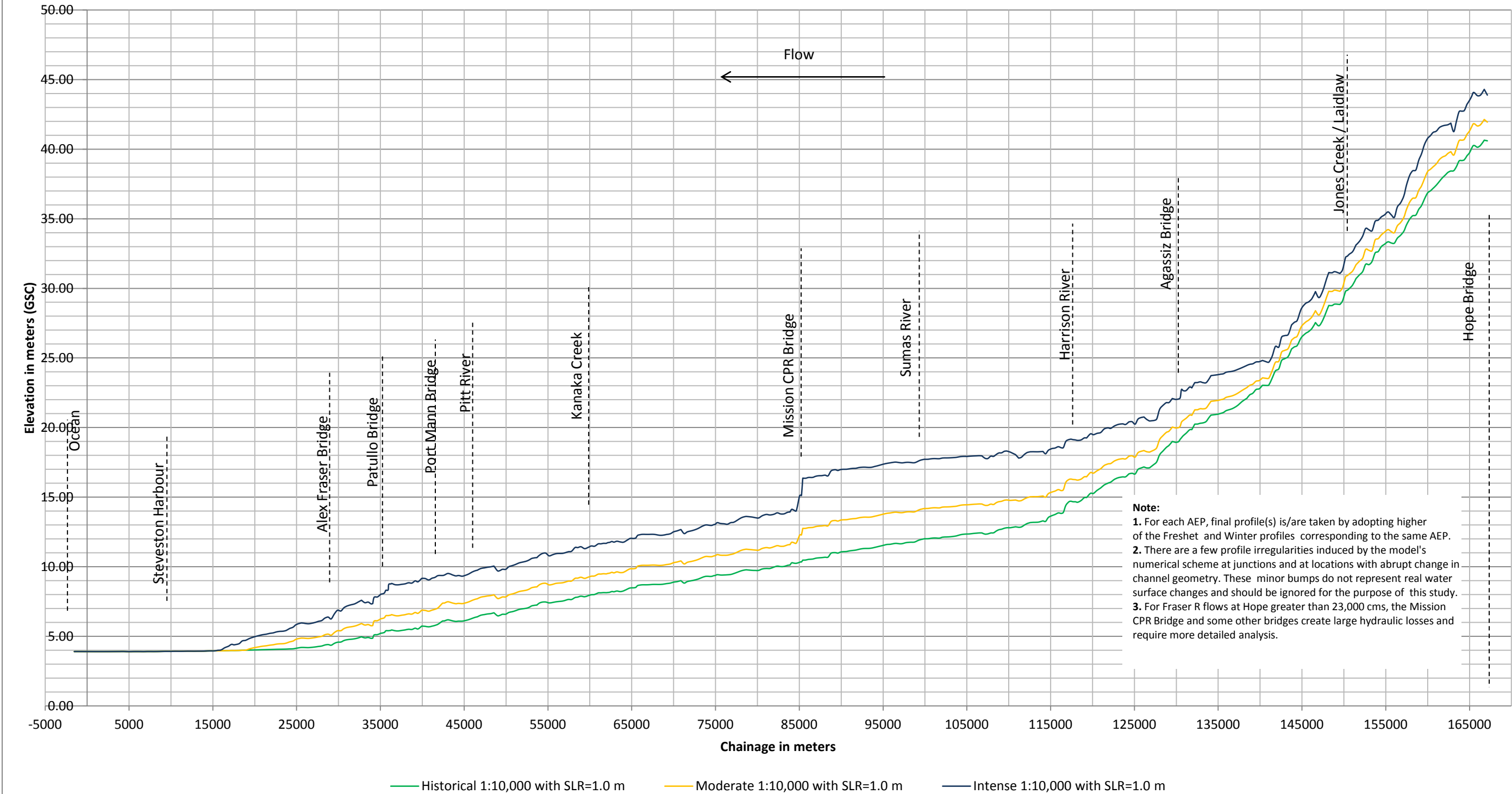




Figure 13.

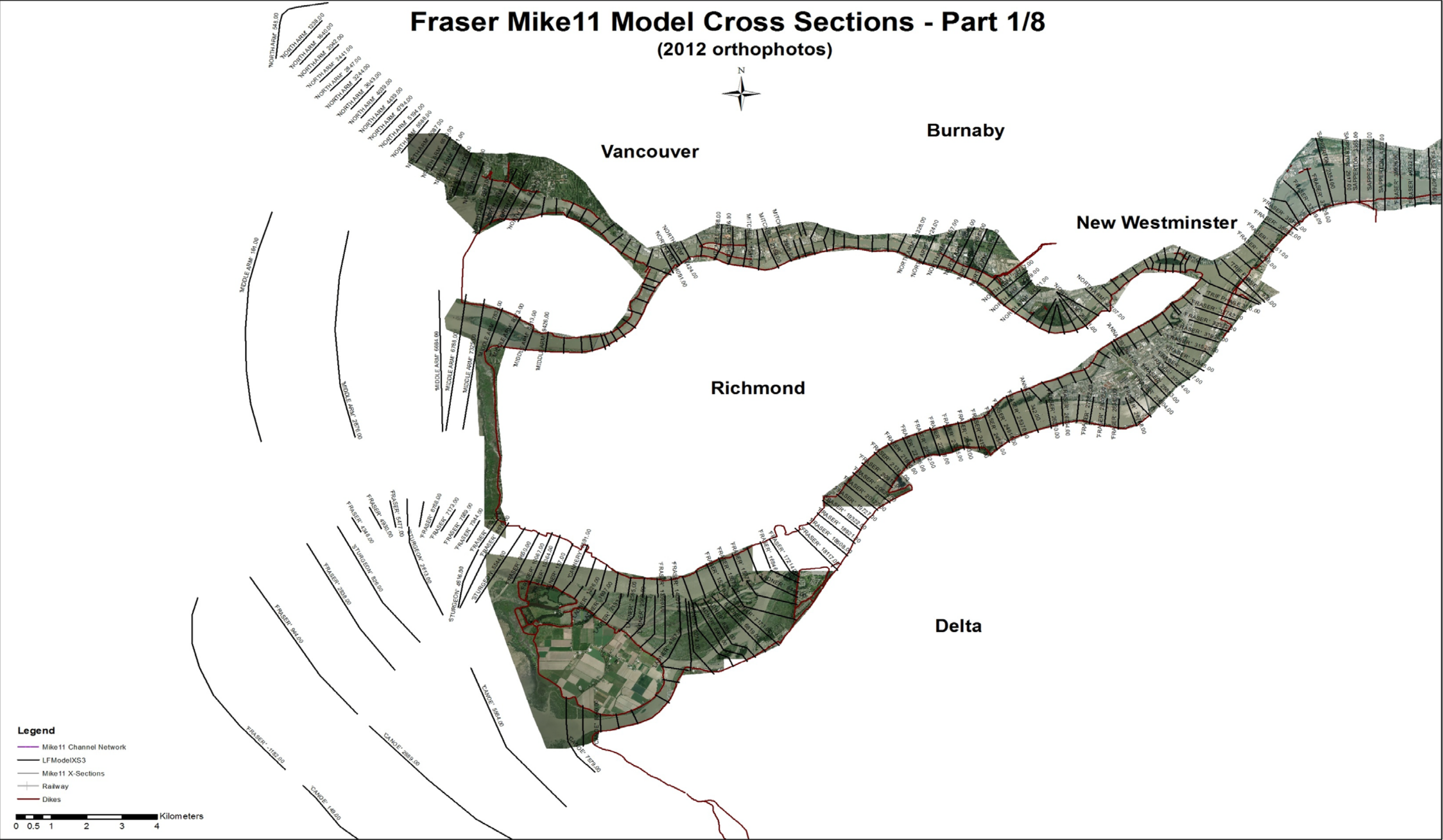


Figure 14.

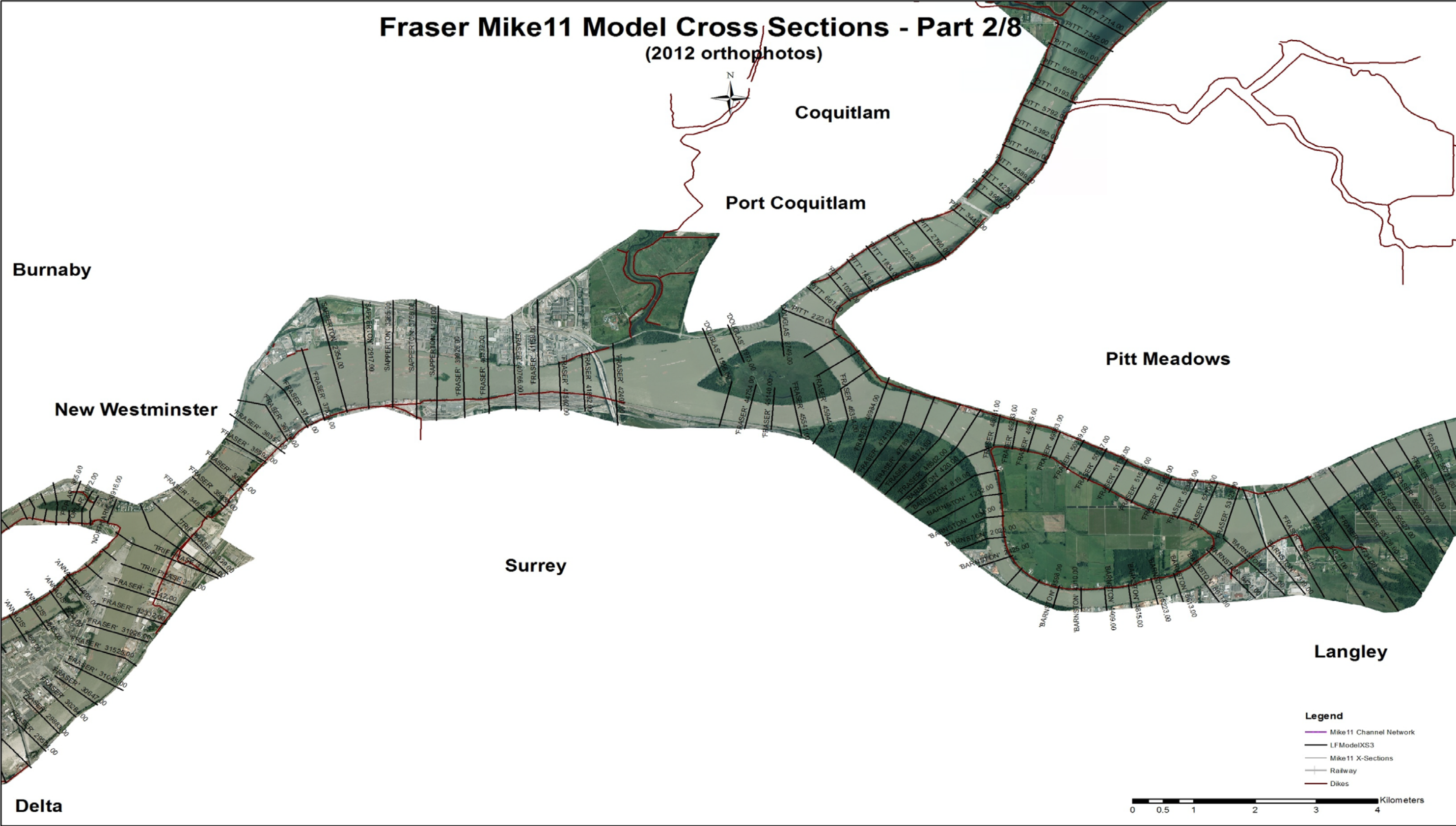




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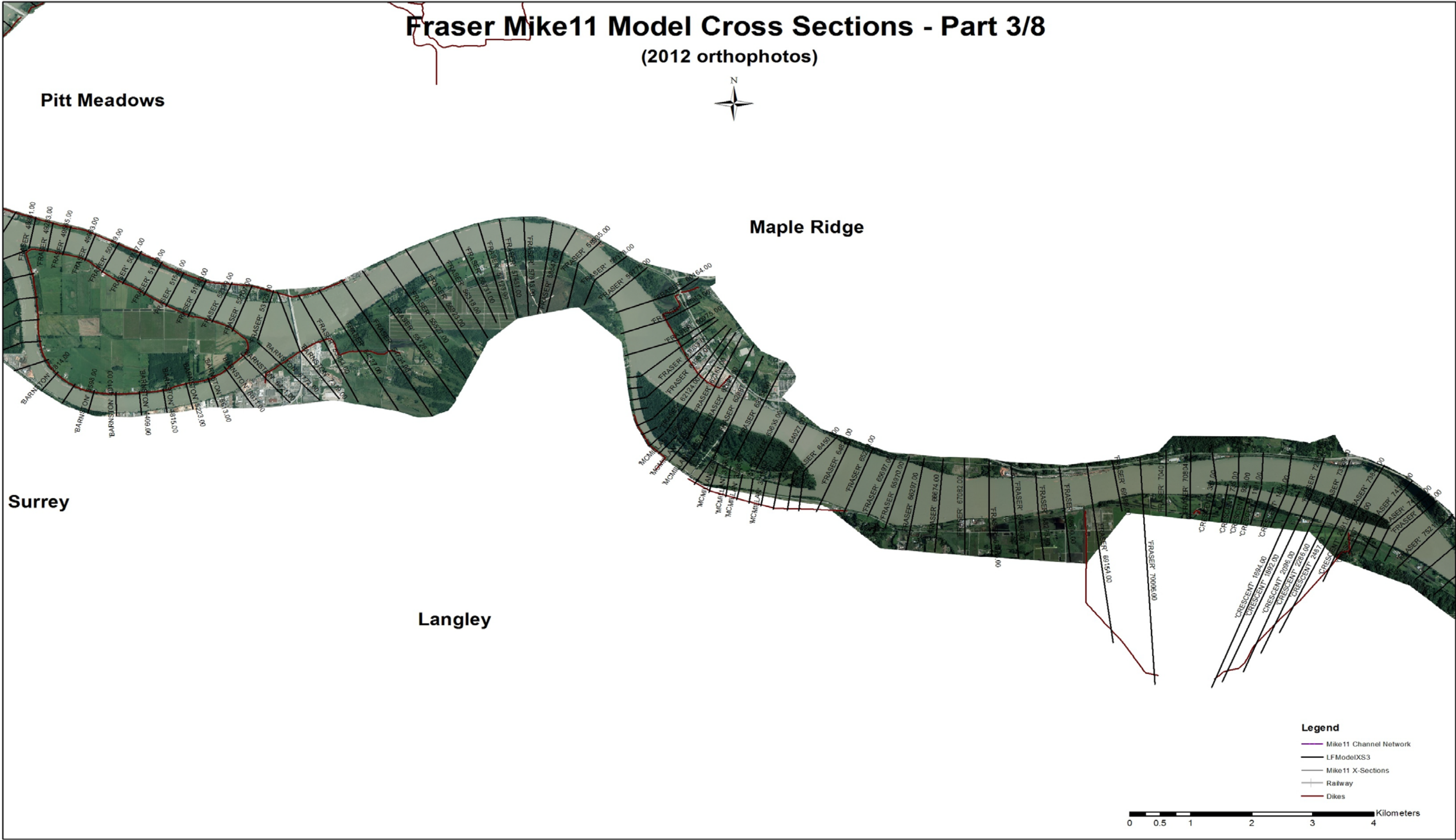




Figure 16.

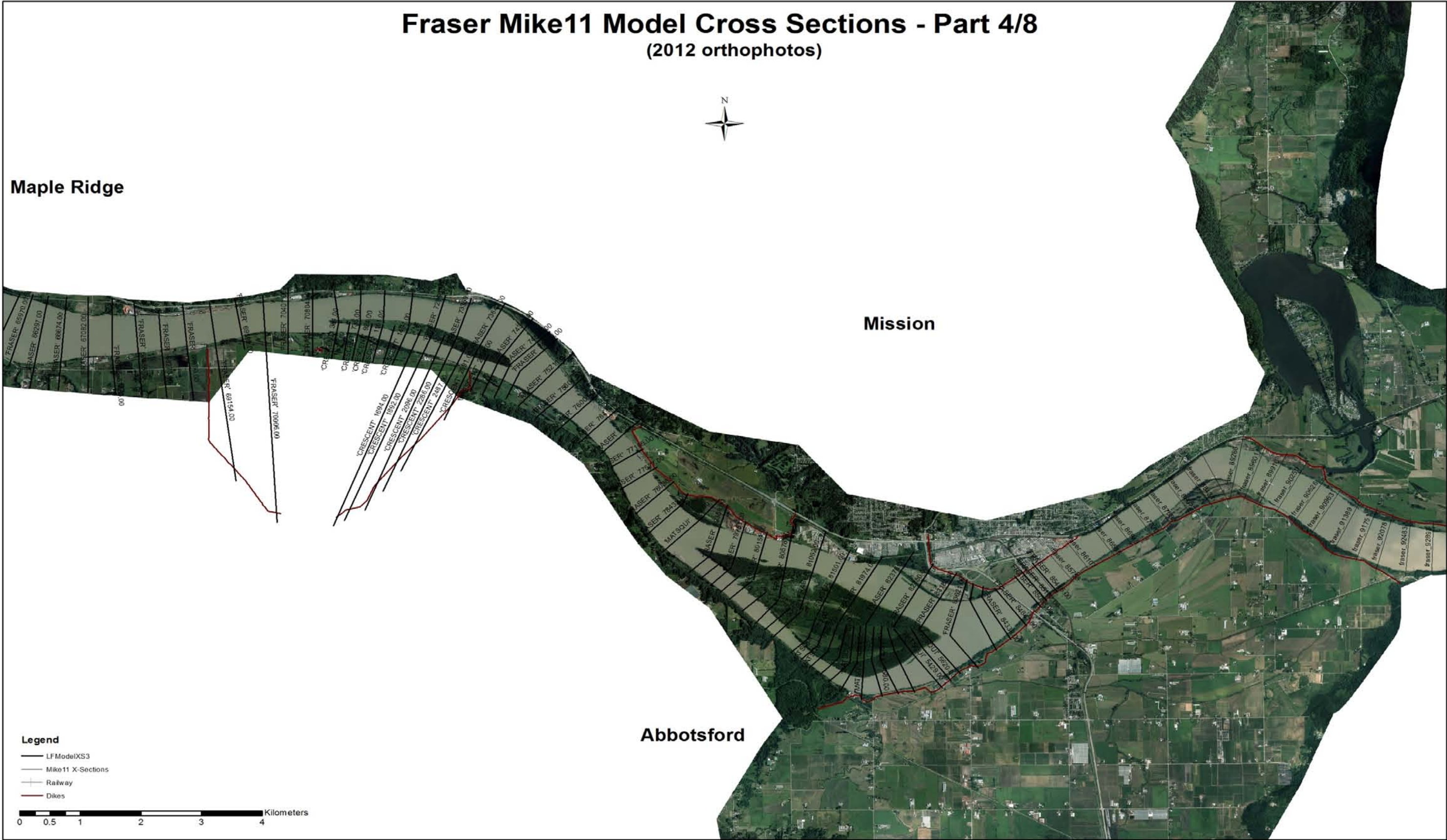




Figure 17.

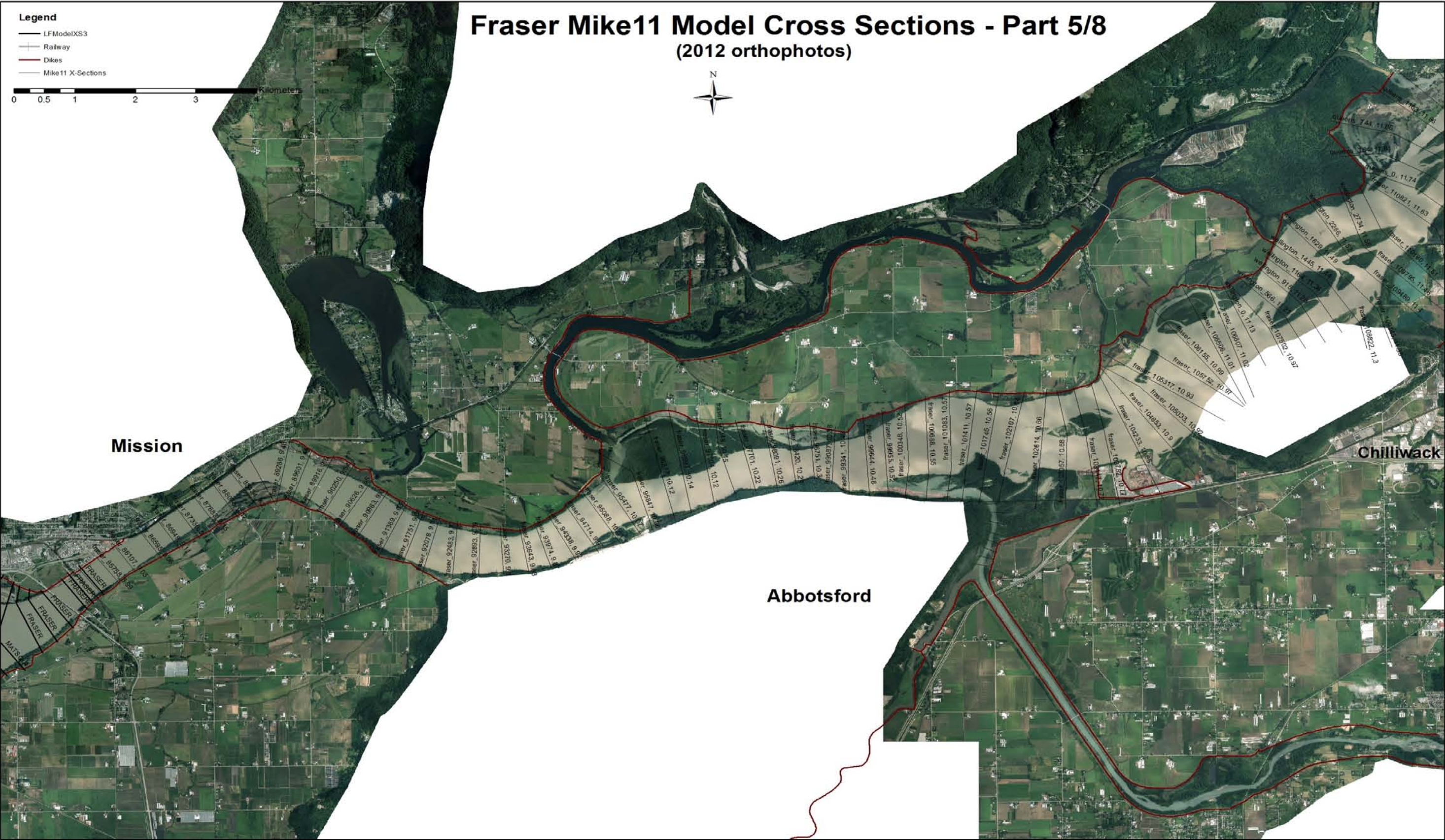




Figure 18.

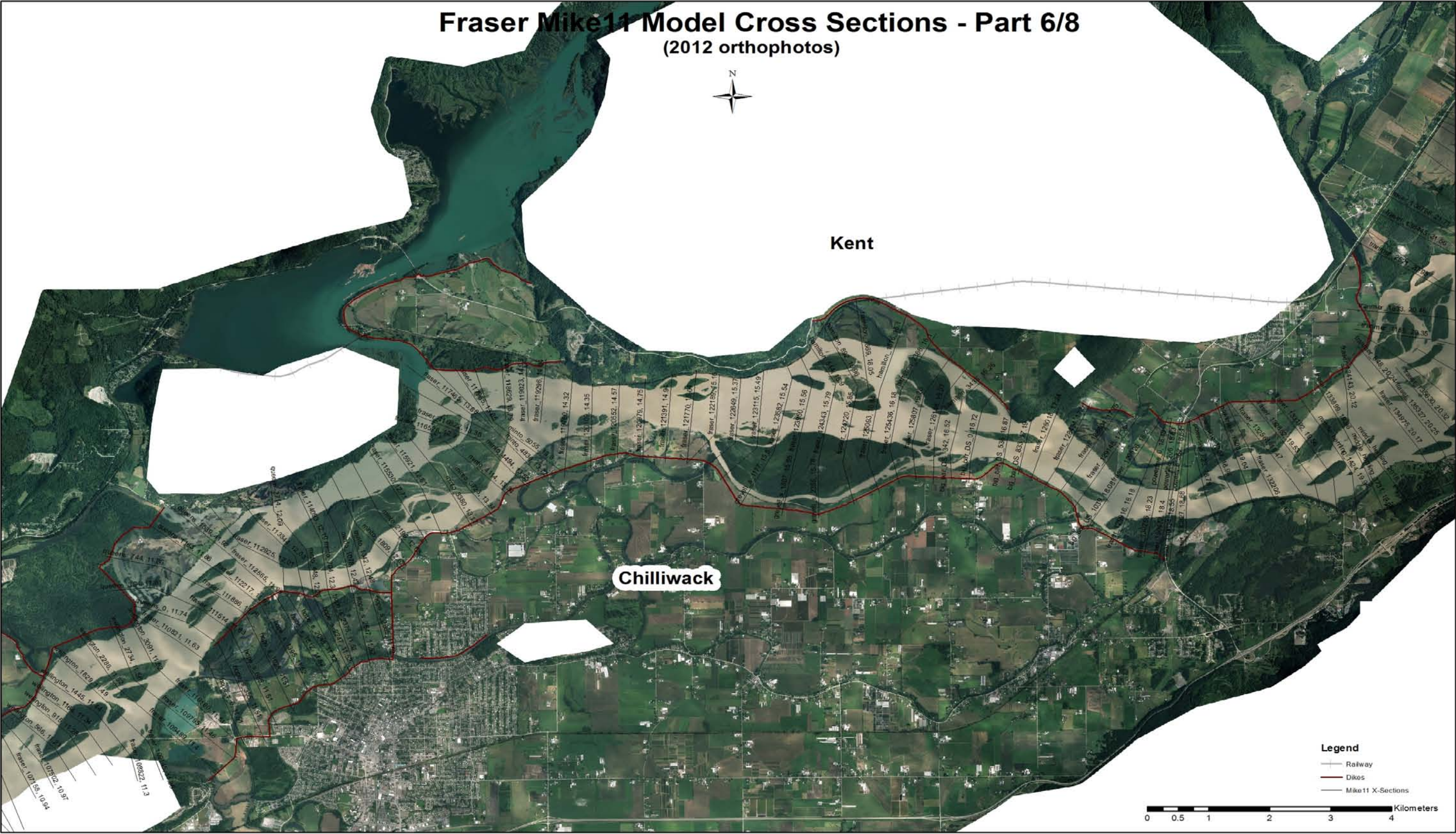




Figure 19.

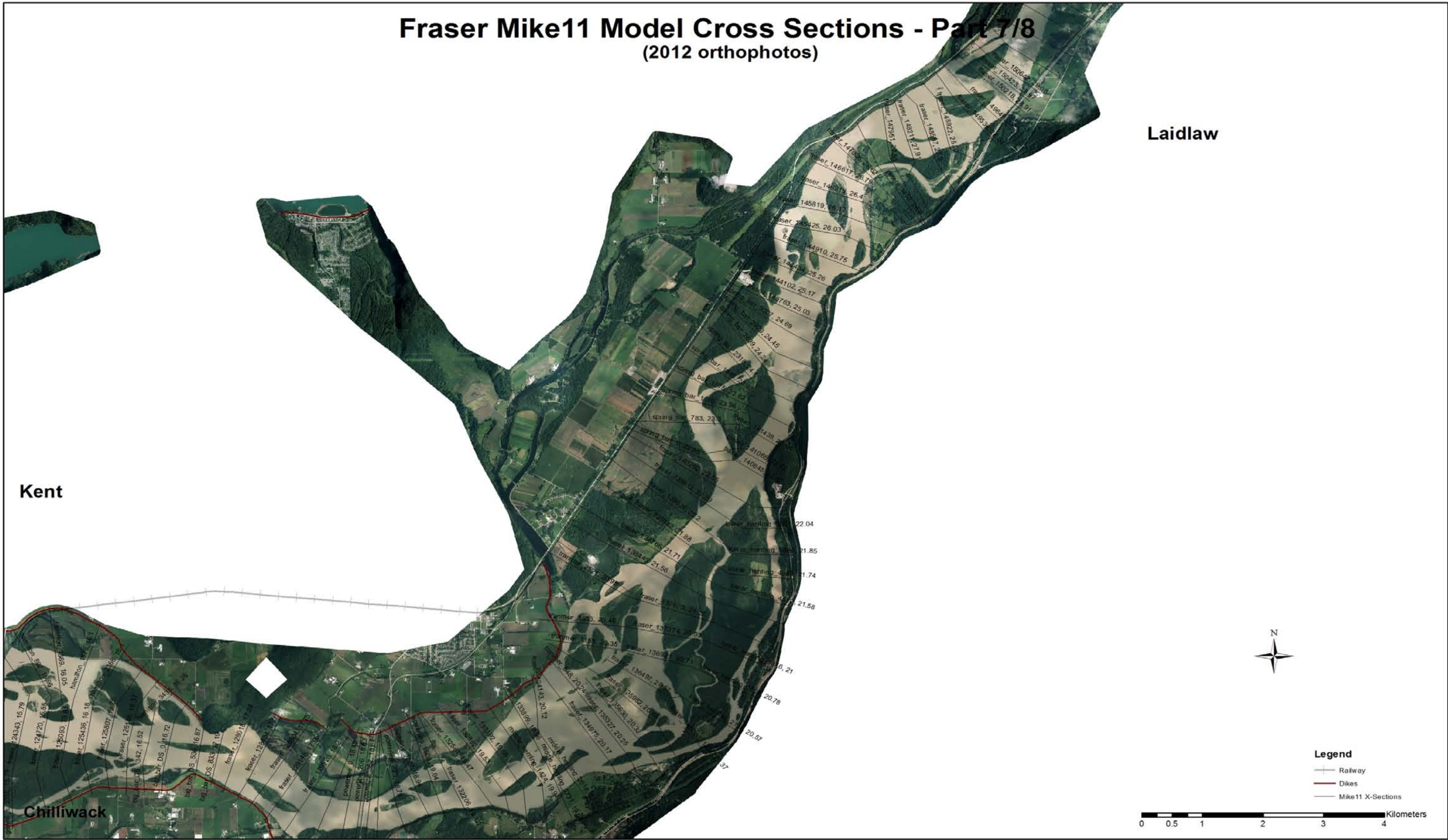
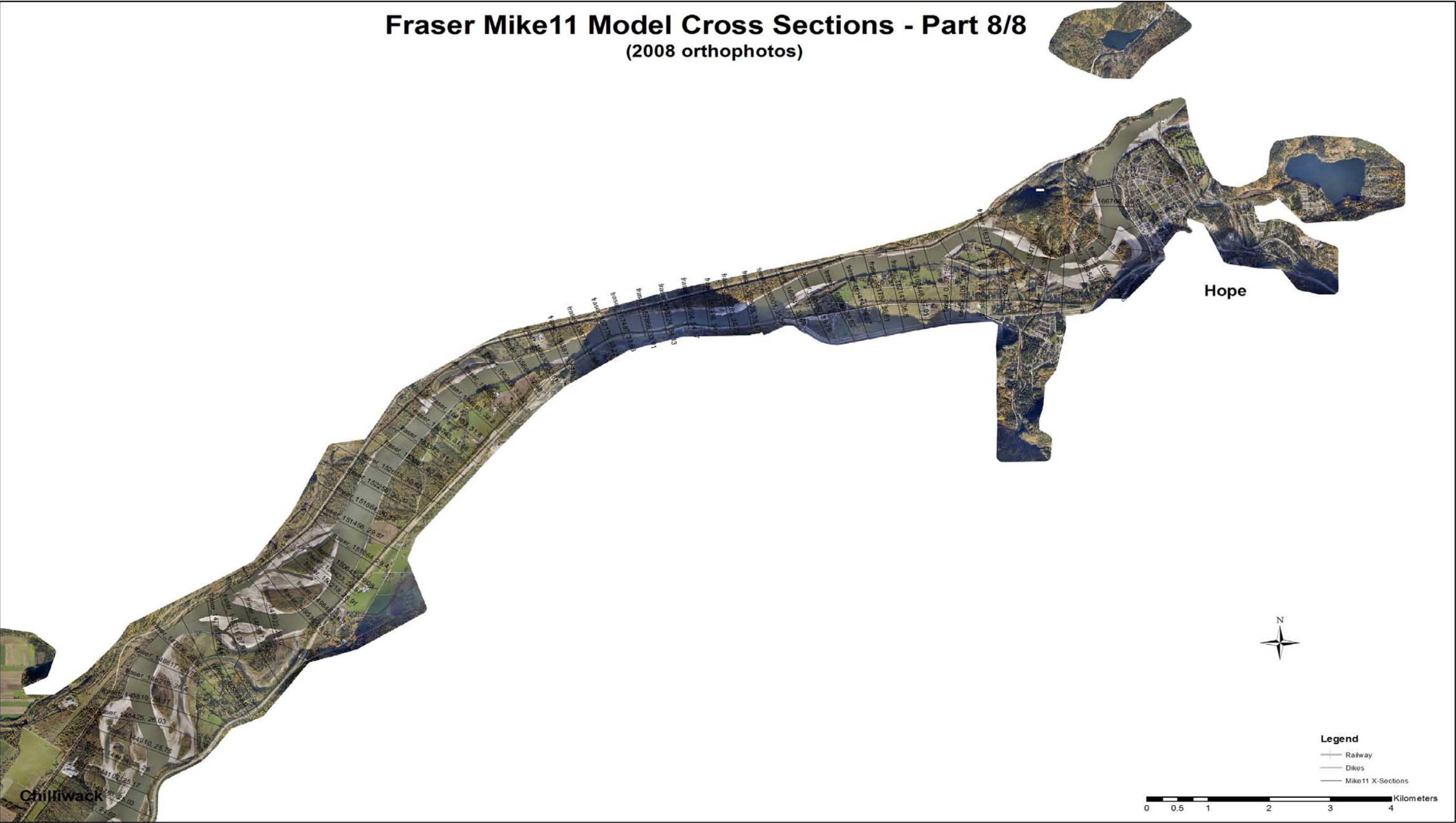




Figure 20.



## **APPENDIX 1**

# **"Simulating the Effects of Sea Level Rise and Climate Change on Fraser River Flood Scenarios"**

**Northwest Hydraulic Consultants**

APRIL 2014



# **Simulating the Effects of Sea Level Rise and Climate Change on Fraser River Flood Scenarios GS14LMN-035**

## **Final Report**



**Ministry of Forests, Lands and  
Natural Resource Operations  
200-10428 153 Street  
Surrey, BC  
V3R 1E1**



**21 April 2014**



*Cover photos:*

*Top: City of Chilliwack during Fraser River flood of 1894.*

*Centre: High ocean tide + storm surge, Vancouver area.*

*Bottom: Lower Fraser River Hydraulic Model layout.*

**Simulating the Effects of  
Sea Level Rise and Climate Change  
on Fraser River Flood Scenarios  
GS14LMN-035**

**FINAL REPORT**

**Ministry of Forests, Lands and  
Natural Resource Operations  
200-10428 153 Street  
Surrey, BC  
V3R 1E1**

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Monica Mannerström, PEng.

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Malcolm Leytham, PE

April, 2014  
NHC file # 300305



## Acknowledgements and Credits

Khalid Khan and Neil Peters (Ministry of Forests, Lands and Natural Resource Operations) assisted with locating relevant reference sources and provided guidance on the work.

David Campbell and Charles Luo at the River Forecast Centre provided information on WARNS and generated WARNS simulations of extreme flood scenarios.

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We gratefully acknowledge the assistance of the above individuals and organizations.

The following Northwest Hydraulic Consultants Ltd (NHC) personnel participated in the study:

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| • David McLean, Ph.D., PEng  | Review               |
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| • Vanessa O'Connor, PEng     | Hydraulic Modelling  |

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## Appendices

Appendix A. WARNS Simulations
Appendix B. Climate Review Supplement

## **1 INTRODUCTION**

### **1.1 PROJECT BACKGROUND**

Over the past decade, a numerical hydrodynamic model of the Fraser River from Hope to the Ocean was developed and fine-tuned. The model has been used for forecasting flood levels in real time during the freshet and for updating the Fraser River design flood profile, corresponding to the 1894 flood of record, as described in reports by Northwest Hydraulic Consultants Ltd (NHC) (2006, 2008a, 2009, 2010). NHC (2008b) reviewed the Fraser River hydrology and estimated that the flood of record had a return period in the order of 500 years.

The purpose of the current work is to generate a series of flood profiles for the Fraser River from Hope to the Ocean for a range of annual exceedance probability floods, sea level rise scenarios and flow conditions affected by climate change. The simulated profiles are intended to assist the ministry, local governments, dike authorities and others with quantitative risk analyses, standards development planning and preliminary dike upgrade planning.

This re-examination of flood levels on the Lower Fraser is carried out jointly by NHC and Ministry of Forests, Lands and Natural Resource Operations (MFLNRO). NHC's role is to define various flood scenarios and corresponding model boundary conditions and then document all of the data and information used to develop the scenarios. Following NHC's work, MFLNRO staff will run the hydraulic model, prepare a report to document the modelling, plot the profiles and present the profile results. This report summarizes the range of boundary conditions developed and the information, assumptions and methods applied to generate the data.

### **1.2 SCOPE OF WORK**

The terms of reference outlined by MFLNRO included the following tasks and sub-tasks:

1. Update flood frequency analyses for the Fraser River at Hope.
  - Review NHC (2008b).
  - Obtain and review recent and historical data.
  - Develop a flood frequency curve for annual maximum daily discharge extending from a 1:50 to a 1:10,000 Annual Exceedance Probability (AEP) with 5% and 95% confidence bounds shown. Assume that upstream reservoir operation (Bridge River and Nechako systems) will continue as during the past 40 years.
  - Explore with MFLNRO's River Forecast Centre (RFC) the possible use of the WARNS Fraser River hydrologic model to estimate large flood magnitudes resulting from extreme snowmelt/precipitation scenarios.
  - Review available results from dam breach modelling of upstream reservoirs.
  - Review previous results of landslide assessments and outburst flood estimates caused by river blockages.



2. Review Fraser watershed climate change and develop peak river flood scenarios.
  - Complete a brief literature review.
  - Propose two climate change impact scenarios and adjust the historical flood frequency curve accordingly.
3. Review Lower Fraser Valley tributary inflows.
  - Estimate freshet tributary inflows for return periods of 50, 100, 200, 500, 1,000, 5,000 and 10,000 years.
  - Estimate winter tributary inflows for return periods of 50, 100, 200, 500, 1,000, 5,000 and 10,000 years.
4. Estimate Sea Level Rise and future ocean boundary conditions.
  - Estimate present winter ocean levels corresponding to return periods of 50, 100, 200, 500, 1,000, 5,000 and 10,000 years using a joint probability approach of high tide plus storm surge, and apply sea level rise scenarios of 0.5 m, 1.0 m, 1.5 m and 2.0 m.
5. Summarize and document model boundary conditions.
6. Review MFLNRO's model results and provide expertise.

### **1.3 REPORT ORGANIZATION**

In addition to introductory Section 1, the report contains a total of 8 sections. Section 2 estimates flow boundary conditions for the Fraser River Hydraulic Model for a range of return period events. Section 3 provides ocean level estimates for the winter season. The potential for extreme flood flows in the Fraser River is discussed in Section 4. Section 5 reviews climate change literature and develops future peak flood scenarios. Section 6 outlines future work, Section 7 provides a summary and recommendations and Section 8 lists references.

## 2 FLOW BOUNDARY CONDITIONS

For running the Fraser River hydraulic model, inflows at Hope, the upstream extent of the model, and at a number of downstream tributary rivers and creeks are required.

The design profile for any particular return period flood is the higher of the freshet and winter profiles. Throughout most of the model reach, the freshet profile with higher incoming flows at Hope is higher than the corresponding winter profile, which is primarily a function of high winter ocean levels.

According to MFLNRO's terms of reference, inflows for the Fraser River at Hope and at tributary locations are required for AEP's of 1:50, 1:100, 1:200, 1:500, 1:1,000, 1:5,000 and 1:10,000 for freshet and winter conditions. This section provides flow values and describes the methods of estimation.

### 2.1 FRESHET FLOWS

#### 2.1.1 FLOOD FREQUENCY ANALYSIS - FRASER RIVER AT HOPE

The flood frequency analysis conducted by NHC in 2008 for the Fraser River at Hope was updated to incorporate the most recent data and to take advantage of up-to-date developments in analytical tools. Annual maximum daily flows for Fraser River at Hope (Station 08MF005) reported by Water Survey Canada (WSC) for recent years are:

Year	Flow (m <sup>3</sup> /s)
2007	10,800
2008	10,200
2009	7,490
2010	5,950
2011	9,850
2012	11,700
2013	10,000

Data used for analysis were annual maximum daily discharges comprising an estimate of the peak discharge for the historic 1894 flood plus the gauged record from 1912 through 2013. Data for 2012 and 2013 are preliminary and subject to change by WSC. No adjustments were made to account for the effects of regulation at the Nechako and Bridge River hydroelectric projects, introducing a slight non-homogeneity into the record. NHC (2008b) showed this to have minor impact.

The 1894 flood was assumed to be the largest event since 1847 – i.e. the largest event in the 167-year period through 2013. The event was assumed to have a best estimate maximum daily discharge of 17,000 m<sup>3</sup>/s with a range of uncertainty from 16,000 to 18,000 m<sup>3</sup>/s, as recommended in NHC's earlier work (NHC 2008b).

A log-Pearson Type III (LP-III) distribution was fitted to the data using the Expected Moment Algorithm (EMA) (England 1999). The data and fitted distribution are shown in Figure 1. Flood quantiles and 5% and 95% confidence limits for return periods up to 10,000 years are summarized in Table 1. The flood quantiles presented here differ only slightly from the 2008 estimates, however confidence limits are substantially wider at high return periods.

In the 2008 analysis, approximate confidence limits were determined considering uncertainty in model parameters only (the version of EMA available at that time did not compute confidence limits.) The current analysis, which takes advantage of additional capabilities in the most recent version of the EMA software, determines confidence limits considering both uncertainty in model parameters and uncertainty in the discharge estimate for the 1894 historic flood – hence leading to wider and more realistic confidence limits than previously calculated. Due to computational problems, confidence limits for return periods greater than 2,000 years were estimated by extrapolation from values at lower return periods.

**Table 1: Flood Frequency Analysis Results, Fraser River at Hope**

Return Period (years)	Maximum Daily Discharge (m <sup>3</sup> /s)	Confidence Limits (m <sup>3</sup> /s)	
		5%	95%
50	13,400	12,300	15,200
100	14,300	13,000	16,800
200	15,200	13,700	18,600
500	16,500	14,500	21,100
1,000	17,400	15,100	23,300
2,000	18,400	15,700	25,600
5,000	19,700	<b>16,500</b>	<b>27,900</b>
10,000	20,700	<b>17,000</b>	<b>29,900</b>
NOTES: Log-Pearson Type III fit using Expected Moment Algorithm. Gage record 1912-2013 (102 years). Historic event 1894, largest in period 1847-2013 (167 years). Values in <b>red</b> estimated by extrapolation			

The two largest events in the historic record (1894 and 1948) both plot well above the fitted LP-III distribution (Figure 1). The fitted distribution implies a return period for the 1894 event (maximum daily flow 17,000 m<sup>3</sup>/s) in excess of 500 years, and for the 1948 event (maximum daily flow 15,200 m<sup>3</sup>/s) about 200 years. Having two such rare events in the historic record seems somewhat unlikely and may indicate that the LP-III distribution understates flood risk at high return periods.

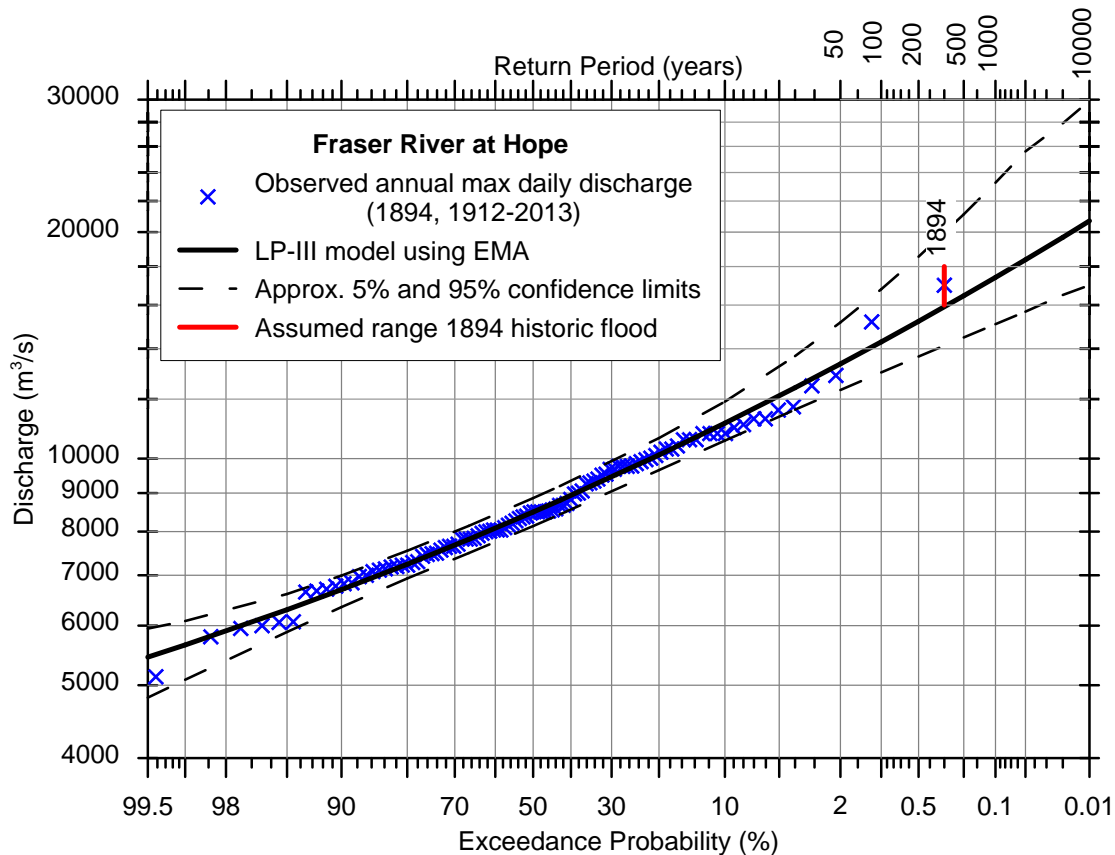


Figure 1: Flood Frequency, Fraser River at Hope

### 2.1.2 TRIBUTARY INFLOWS FOR THE FRESHET PERIOD

Tributary inflows to the Fraser River below Hope coincident with the peak (freshet) flow at Hope were estimated for return periods from 50-years to 10,000-years using a highly simplified scaling approach based on current estimates of the 1894 design discharges at Hope and Mission and previous estimates of tributary design inflows (NHC 2006, Table 3.4), as follows:

- i) Flood quantiles at Mission were estimated from flood quantiles at Hope by scaling by the ratio of design flow at Mission to design flow at Hope ( $18,900/17,000 = 1.11$ ). This highly simplified approach implicitly assumes, amongst other factors, that dikes are raised to prevent escape of mainstem flows over the full range of flows considered.
- ii) Tributary design inflows from NHC (2006) were scaled by a common factor such that the sum of the design flow at Hope and the tributary design inflows between Hope and Mission equaled the design flow at Mission. The same scaling factor was applied to tributaries downstream from Mission. This relatively minor adjustment was made to ensure that steady state hydraulic modeling to be conducted under this study would produce consistent discharges at Mission.
- iii) For each return period of interest, the adjusted tributary design inflows from step ii) were scaled such that the sum of the flow quantile at Hope and the tributary inflows

between Hope and Mission equaled the flow quantile at Mission. The same scaling factor was then applied to tributaries below Mission. This approach may result in underestimation of high return period flows on regulated tributaries such as the Coquitlam River since regulation may be ineffective under extreme flows. However the impact on mainstem flood profiles of such underestimates is expected to be negligible since tributary inflows are small and flood profiles are known to be insensitive to uncertainty in tributary inflows, particularly below Mission.

The estimated flows are provided in Table 2. Note that the coincident flows for the Harrison River in Table 2 are lower than would be expected from the observed record. The total tributary inflow between Hope and Mission for steady state hydraulic analysis is dictated by the difference between flow quantiles at Hope and Mission, with flows at Mission assumed to be 11% greater than at Hope based on previous analysis. Coincident flows for the Harrison River could be increased by redistributing the total inflow between Hope and Mission to more closely match the observed record, but the impact on the flood profile would be negligible.

**Table 2: Tributary Freshet Period Flows Coincident with Peak Flows on Fraser River at Hope**

Location	Maximum Daily Freshet Flow (m <sup>3</sup> /s) Coincident with Peak Flow on Fraser River at Hope by Return Period (years)							Design Flows (NHC,2006)	Adjusted Design Flows
	50	100	200	500	1,000	5,000	10,000		
Fraser River at Hope	13,400	14,300	15,200	16,500	17,400	19,700	20,700	17,000	17,000
Silverhope Creek	58	61	65	69	73	85	88	85	73
Harrison River	884	943	1,002	1,061	1,120	1,297	1,356	1,300	1120
Chilliwack River	265	283	301	318	336	389	407	390	336
Chehalis River	81	87	92	98	103	119	125	120	103
Ruby and Wahleach Creeks	114	122	130	137	145	168	176	168	145
Norrish River	77	82	87	92	97	112	117	112	97
Sumas River	21	22	23	25	26	30	31	30	26
Fraser River at Mission	14,900	15,900	16,900	18,300	19,300	21,900	23,000	18,900	18,900
Stave River	249	265	282	298	315	365	381	365	315
Pitt River	250	267	284	300	317	367	384	368	317
Alouette River	2	3	3	3	3	3	4	4	3
Coquitlam River	7	8	8	9	9	10	11	10	9

## 2.2 WINTER FLOWS FOR MAINSTEM FRASER RIVER AND TRIBUTARIES BELOW HOPE

Winter (October through March) flood quantiles for the mainstem Fraser River and tributaries downstream from Hope were also estimated for return periods from 50-years to 10,000-years using a highly simplified approach combining flood frequency analysis at selected long-term gauging stations and scaling of tributary flows on the basis of drainage area. Extreme winter flows on the mainstem Fraser River downstream of Hope are strongly influenced by tributary inflows downstream from Hope, which are poorly correlated with maximum winter flows on the Fraser

River at Hope. The approach to estimating flood quantiles, which are presented in Table 3, was as follows:

- i) Flood frequency analysis was conducted on the record of winter (October through March) maximum daily discharges for the following gauging stations:
  - Fraser River at Hope (97-year record; water years 1913-2010)
  - Fraser River at Mission (26-year record; water years 1966-1991)
  - Harrison River near Harrison Hot Springs (59-year record; water years 1952-2010)
  - Chilliwack River at Vedder Crossing (79-year record; water years 1912-1931, 1952-1998, 2000-2011)

Flood frequency curves showing observations and fitted log-Pearson Type III distributions are given in Figure 2 and Figure 3. Note that the frequency curve in Figure 2 for the Fraser River at Mission reflects adjustments discussed below for return periods of 50 years and greater.

- ii) Drainage areas for key gauging stations between Hope and Mission are as follows:

Location	Drainage Area
Fraser River at Hope	217,000 km <sup>2</sup>
Harrison River near Harrison Hot Springs	7,890 km <sup>2</sup>
Chilliwack River at Vedder Crossing	1,230 km <sup>2</sup>
Fraser River at Mission	228,000 km <sup>2</sup>
“Ungaged” area between Hope and Mission	1,880 km <sup>2</sup>

It was assumed that flood quantiles representing the winter maximum daily tributary inflow to the Fraser River between Hope and Mission could be represented by:

$$Q_{\text{Inflow}} = Q_{\text{Harrison}} + Q_{\text{Chilliwack}} + (1880/1230) * Q_{\text{Chilliwack}}$$

This assumes that floods on the various tributaries are highly correlated (e.g. a T-year flood on the Harrison River occurs in conjunction with a T-year flood on the Chilliwack River) and that flood quantiles for the “ungaged” area can be determined by scaling quantiles from the Chilliwack River at Vedder Crossing on the basis of drainage area.

- iii) It was assumed that flood quantiles for the Fraser River at Mission could be represented by:

$$Q_{\text{Mission}} = Q_{\text{Hope}} + F * Q_{\text{Inflow}}$$

where the factor F applied to tributary inflows would account for the non-coincidence of the T-year flood at Hope and the T-year tributary inflows.

Given the short flow record at Mission, quantiles at Mission determined by flood frequency analysis were only considered to be moderately reliable up to a return period of 100 years. The factor F was thus determined from analysis of 50-year and 100-year quantiles only by:

$$F = (Q_{\text{Mission}} - Q_{\text{Hope}}) / Q_{\text{Inflow}}$$

The resulting value of F of 0.8 was then applied to the inflow quantiles for the Harrison River, Chilliwack River and the remaining “ungaged” tributary area to produce **adjusted** tributary inflow quantiles coincident with mainstem peak flows for all return periods up to 10,000 years. Finally, for events with return periods greater than 100 years, these adjusted inflow quantiles were added to quantiles at Hope to produce adjusted quantiles for the Fraser River at Mission. The final adjusted quantiles are provided in Table 3. The final frequency curve for the Fraser River at Mission is shown in Figure 2.

- iv) Quantiles for tributary inflows downstream from Mission coincident with mainstem peak flows were determined by simply scaling the adjusted Chilliwack quantiles from Table 3 on the basis of drainage area. The final quantiles for the Stave, Pitt, Alouette and Coquitlam Rivers estimated in this manner are again provided in Table 3. The Stave and Coquitlam Rivers are both regulated and the above approach, scaling from Chilliwack River flows, likely overstates quantiles up to perhaps the 200-year or 500-year event. The benefits of regulation likely diminish for the more extreme events.

The above analyses represent extreme extrapolation from the observed records and should obviously be treated with caution and a healthy measure of scepticism. The flow values shown in Table 3 have been generated to provide realistic inputs for modelling of Fraser River profiles and should not be used to assess flood risks on the tributaries themselves.

**Table 3: Tributary Winter Flows Coincident with Peak Flows on the Fraser River**

Location	Maximum Daily Winter Flow (m <sup>3</sup> /s) Coincident with Peak Fraser River Flow by Return Period (years)							Drainage Area (km <sup>2</sup> )
	50	100	200	500	1,000	5,000	10,000	
Fraser River at Hope	5,120	5,520	5,910	6,420	6,800	7,660	8,030	217,000
Harrison River	1,320	1,490	1,670	1,930	2,130	2,650	2,900	7,890
Chilliwack River	510	570	620	690	740	870	920	1,230
Other tributaries between Hope and Mission	780	870	950	1,050	1,140	1,340	1,410	1,880
Fraser River at Mission	7,730	8,450	9,150	10,090	10,810	12,520	13,260	228,000
Stave River	470	530	570	640	690	810	850	1,140
Pitt River	330	370	400	450	480	560	590	795
Alouette River	100	110	120	130	140	170	180	234
Coquitlam River	100	110	120	130	140	170	180	237

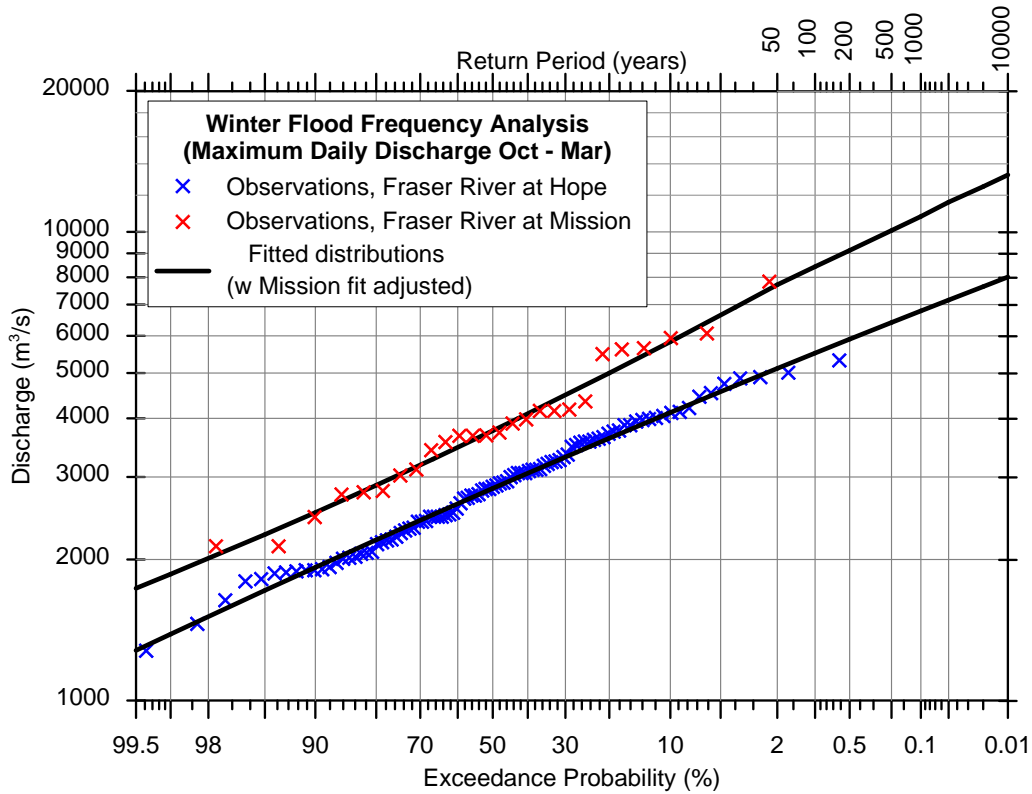


Figure 2: Winter Flood Frequency, Mainstem Fraser River

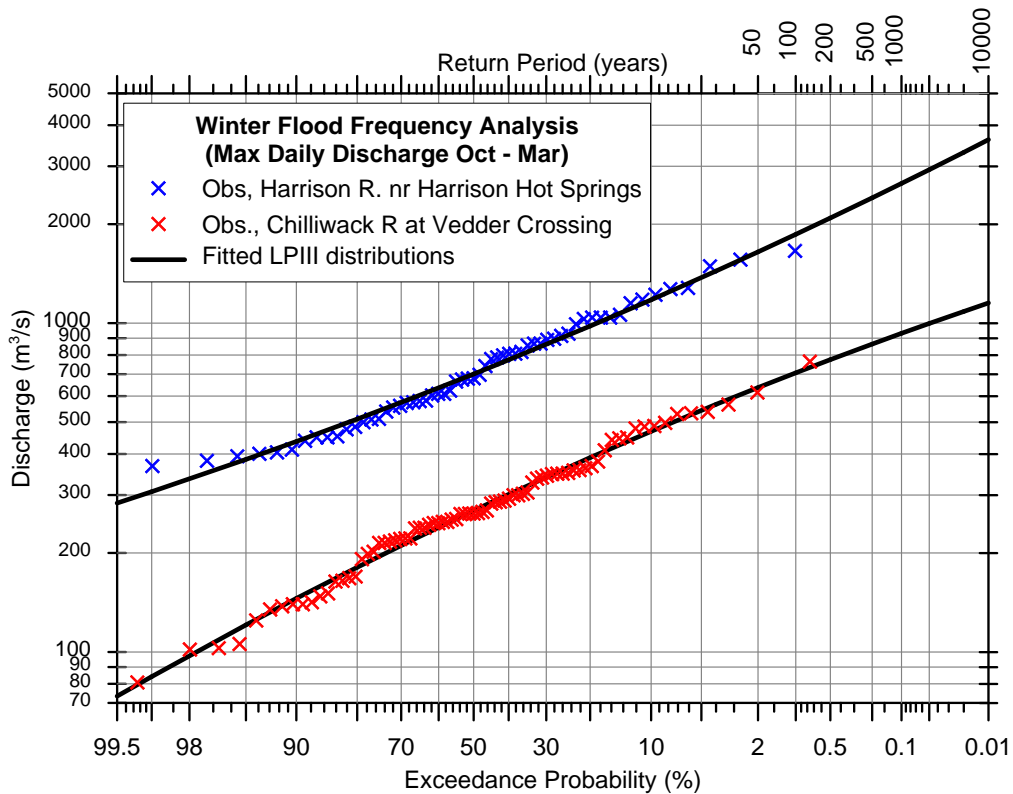


Figure 3: Winter Flood Frequency, Fraser River Tributaries.



### 3 WINTER OCEAN BOUNDARY CONDITIONS

The downstream boundary condition for the hydraulic model comprises the ocean water levels at the four Fraser River outlets: the North Arm; the Middle Arm; the Main Arm and Canoe Pass. As part of the original modelling, winter ocean levels were determined by Triton (2006) for the 200-year event. The modeling of freshet profiles used moderate summer conditions and these were not further analyzed as part of this study. A joint probability approach for estimating high ocean levels is briefly discussed and ocean levels for the specified range of return periods presented. Incremental sea level rise is applied to the values. Ground subsidence and the corresponding relative sea level rise is not accounted for.

#### 3.1 JOINT PROBABILITY APPROACH

The tides in the southern Strait of Georgia are classified as “mixed, mainly semi-diurnal” meaning that they undergo two complete tidal oscillations daily but with inequalities both in high waters and low waters. Higher High Water Large Tide (HHWLT) represents the average of the highest high waters, one from each of 19 years of predictions. Observed coastal water levels have a deterministic component, the tides, and a probabilistic component, resulting from changes in barometric pressure, wind and wave stress. The probabilistic component is referred to as the “residual water level”. The residual water level includes external storm surge (which is driven primarily by water levels at the entrance of the Juan de Fuca Strait), local wind setup (resulting from wind stress induced by local winds), as well as wave setup. On the BC coast, storm surges can temporarily increase the ocean level by more than 1 m above the predicted tide level.

In January 2011, the BC Ministry of Environment published Climate Change Adaptation Guidelines for Sea Dikes and Coastal Flood Hazard Land Use (Ausenco Sandwell 2011). The guidelines recommend adding the HHWLT, the 200-year storm surge and maximum local wind set-up to estimate designated flood levels with an Annual Exceedance Probability (AEP) of 1:4000. It was recognized that this method provides first-level conservative estimates and that more in-depth, location-specific analyses, are recommended in some situations.

In previous work for the Cities of Surrey and Vancouver, NHC used a more statistically sound approach, requiring the development of a time series of historic ocean levels that combined tides, surge levels and wind setup and that could be analyzed directly through a frequency analysis. Applying a continuous simulation approach, a 48-year long water level hind-cast, or time series of past ocean levels, was generated at the Serpentine, Nicomekl and Fraser River outlets. The hind-cast formed a composite data-set consisting of both measured and modelled data that accounted for tides, external storm surge and local wind set-up. Results from these previous studies were used for the present work.

#### 3.2 OCEAN LEVEL ESTIMATES

Ocean level estimates for the Fraser River North Arm outlet were compared to Triton’s 2006 analysis and found to agree fairly well. However, minor discrepancies were noted and the more recent results listed in Table 4 are recommended for modelling.

Triton’s previous work indicated minimal differences between ocean levels at the North Arm outlet and levels at the other outlets (Middle, Main and Canoe Pass) and the North Arm water levels are recommended for use at all of the outlets. For Fraser River modelling, wave run-up is minimal and was ignored. A constant wind-setup was added as shown in Table 4.

For modelling sea level rise, incremental increases of 0.5, 1.0, 1.5 and 2.0 m were added to the base (2010) ocean levels, tentatively corresponding to projected ocean levels in 2050, 2100, 2150 and 2200.

**Table 4: Estimated Winter Ocean Levels at Fraser North Arm**

Return Period	Water Level (tide+surge) (m GD)	Wind Setup Allowance (m)	Total Water Level SLR=0m (m GD)	Total Water Level SLR=0.5m (m GD)	Total Water Level SLR=1.0m (m GD)	Total Water Level SLR=1.5m (m GD)	Total Water Level SLR=2.0m (m GD)
50	2.59	0.01	2.60	3.10	3.60	4.10	4.60
100	2.65	0.01	2.66	3.16	3.66	4.16	4.66
200	2.70	0.01	2.71	3.21	3.71	4.21	4.71
500	2.76	0.01	2.77	3.27	3.77	4.27	4.77
1000	2.79	0.01	2.80	3.30	3.80	4.30	4.80
5000	2.87	0.01	2.88	3.38	3.88	4.38	4.88
10000	2.90	0.01	2.91	3.41	3.91	4.41	4.91

## 4 POTENTIAL FOR EXTREME FLOOD EVENTS

WSC Station 08MF005, Fraser River at Hope, has been in operation nearly continuously since 1911 and to have a flow record in excess of 100 years is quite unusual for BC. In spite of this impressive data record, it is not possible to reliably estimate floods with very high return periods, such as 1,000 years or more. To provide a context for these extreme flood events, hydrologic modelling using the WARNS (Water and Routing Numeric System) model was proposed, results from dam breach modelling reviewed and the potential for outburst floods caused by landslide blockages discussed.

### 4.1 FRASER RIVER WARNS MODELLING SCENARIOS

During freshets, the River Forecast Centre (RFC) of MFLNRO uses the WARNS hydrologic model to predict flows at different locations in the Fraser River watershed based on snowpack measurements and the predicted temperature and precipitation for up to five days in advance.

Discussions were held with the RFC regarding the use of the WARNS Fraser River hydrologic model to simulate large floods resulting from extreme snowmelt/ precipitation scenarios. Simulations with WARNS, to be performed by the RFC, would help to define hypothetical scenarios which could result in peak flows on the Fraser River at Hope up to or exceeding the 10,000-year event (maximum daily flow of 20,700 m<sup>3</sup>/s).

High flows on the Fraser River at Hope during the spring freshet may result from:

- Large spring snowpack with an extended period of hot weather.
- Large spring snowpack with wide-spread heavy rainfall.

From past experience it appears that a period of hot weather of from 5 to 10 days is necessary to produce high flows in a “pure” snowmelt freshet. Similarly, rainfall of the order of 150 to 200 mm over two days over significant parts of the basin is needed to produce large rain-on-snow floods.

Examples of floods caused by large snowpack with hot weather include the floods of May/June 1948 (maximum daily flow of 15,200 m<sup>3</sup>/s at Hope on 31 May, the second highest flow on record and roughly a 200-year event) and June 2007 (maximum daily flow of 10,800 m<sup>3</sup>/s on 10 June, just under a 10-year event). The flood of 2012 (maximum daily flow of 11,700 m<sup>3</sup>/s on 23 June, the fifth largest flow on record and between a 10- and 25-year event) was caused by wide-spread rainfall on a large and ripe snowpack.

The 2007 and 2012 freshets were both modeled using WARNS and may provide suitable starting points for developing scenarios to simulate hypothetical extreme floods.

#### Large Snowpack with Extended Period of Hot Weather

Snowmelt contributions to high flows may be limited by either the availability of snow for melt or by the meteorological conditions (air temperature in this case) during the melt period. A necessary condition for an extreme flood on the Fraser is large snowpack with widespread coverage of snow at the start of an extended period of hot weather.

A brief evaluation was conducted of air temperatures during the period mid-May to mid-June when the potential for large snowpack and high temperatures is the greatest. Air temperatures at Prince George Airport were assumed to provide a suitable index to temperature conditions over the Fraser basin as a whole. Mean daily temperatures from Prince George were analysed to determine the maximum 7-day mean temperature within the period 15 May through 15 June for each year of record from 1948 through 2008 (61 years). These maximum 7-day mean temperatures were then

subject to frequency analysis. A frequency plot of the data is provided in Figure 4 and temperature quantiles are provided in Table 5. For reference, the maximum 7-day mean temperature was 17.8 °C leading up to the May 1948 flood and 17.7 °C leading up to the June 2007 flood. As can be seen from Table 5, the 10-year maximum 7-day mean temperature for the period 15 May through 15 June is 17.6°C.

Assuming that snowpack conditions prior to the onset of the freshet are independent of air temperatures during melt, then, in theory at least, a scenario involving initial 100-year snowpack conditions and a 100-year temperature sequence would have a joint probability of occurrence of 0.0001 (i.e. a 10,000-year return period) and may result in a 10,000-year discharge. Other combinations could obviously be selected to produce the same or different joint probabilities. Definition of the 100-year, or other return period, snow conditions over the Fraser basin is however problematic since it involves defining the spatial variation of snow water equivalent. Of particular importance would be defining snow water equivalent at lower elevations in the basin.

We suggest the following approach for developing snowmelt freshet (i.e. large snowpack with extended period of hot weather) scenarios for modeling in WARNS by extrapolating from the model for 2007:

- Using data from Prince George in Table 5 as guidance, increase the June 2007 temperatures across the basin to produce approximate 100-year temperatures for the critical 7- to 10-day melt period.
- Conduct WARNS simulations with the spatial coverage and depth of snow at the start of the June 2007 melt sequence and route flows to Hope.
- Repeat the WARNS simulations with incremental increases in the spatial coverage and depth of snow at the start of the melt sequence, using data from other years as guidance, to produce hydrographs at Hope with a range of peak flows up to the 10,000-year event.

#### Large Snowpack with Wide-Spread Heavy Rain

Defining plausible rain-on-snow scenarios for extreme floods in the basin is more difficult than defining conditions for a pure snowmelt freshet since it involves specifying snowpack, temperature, and rainfall amounts, and their spatial variation.

Past experience indicates that critical rain-on-snow conditions would occur with a deep and ripe snowpack, moderate temperatures (such that precipitation falls as rain over the great majority of the basin), and heavy rainfall concentrated over those areas of the basin where there is the least potential for attenuation of flood flows in routing through lakes. In defining potential scenarios, consideration also has to be given to the amount of rainfall possible and the maximum areal storm coverage. Rainfall amounts are limited by the many barriers to moisture inflow in the Fraser basin. The largest storm area producing significant rainfall is likely of the order of 50,000 km<sup>2</sup> to 75,000 km<sup>2</sup> and the area producing extreme rainfall amounts can be expected to be much less than that (of the order of 25,000 km<sup>2</sup>). The drainage area to Hope is 217,000 km<sup>2</sup>, thus even the largest area severe storm is unlikely to significantly impact much more than about 25% to 30% of the basin.

Conditions in June 2012 were somewhat representative of this scenario with a large spring snowpack, moderately warm temperatures, and widespread rainfall over several days. Rainfall and air temperature data for the period leading up to the peak flow at Hope on 23 June are provided for a selection of key stations in Table 6.

Defining rain-on-snow scenarios for extreme floods on the Fraser is hampered by a lack of readily accessible data; for example, there are no readily available rainfall depth-area-duration data for large areas and high return periods. In the absence of such data, we suggest the following approach to developing rain-on-snow scenarios for modeling in WARNS by extrapolating from the model for 2012:

- Conduct WARNS simulations with the rainfall and snow conditions as in 2012 but with temperatures increased as necessary to ensure precipitation as rain on the all but the highest elevation bands in the WARNS model (assuming rainfall to approximately 2,500 m).
- Repeat the WARNS simulations with incremental increases in precipitation and the spatial coverage and depth of snow at the start of the melt sequence to produce hydrographs at Hope with a range of peak flows up to the 10,000-year event. Rainfall increases would be focused on the Upper Fraser and Cariboo drainages, bearing in mind approximate limits on storm area coverage.

#### Simulation Results

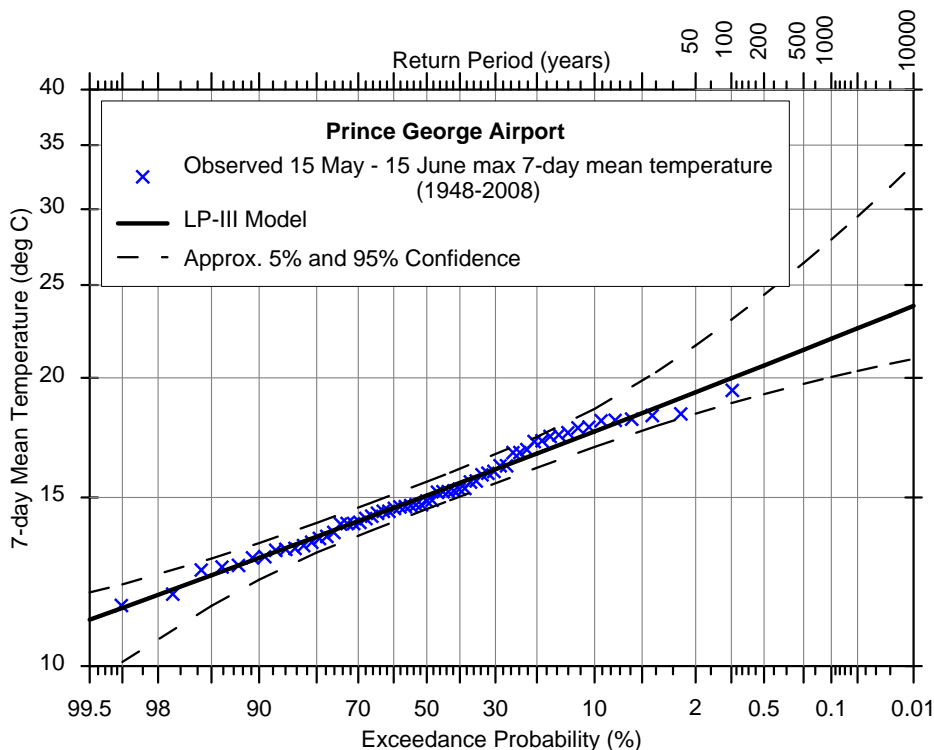
Simulations were conducted with WARNS by the RFC for a total of 16 scenarios. The selection of scenarios was guided by the hydrometeorological considerations discussed above and by additional constraints for scenario development inherent in the WARNS modeling system. The application of WARNS and the simulation results are described in a memorandum prepared by the RFC and included as Appendix A to this report.

**Table 5: Air Temperature Frequency Analysis Results, Prince George Airport**

Return Period (years)	15 May – 15 June Max 7-Day Mean Temperature (°C)	Confidence Limits (°C)	
		5%	95%
10	17.6	16.9	18.6
25	18.6	17.8	20.3
50	19.3	18.4	21.6
100	20.0	18.8	23.0
200	20.6	19.2	24.4
500	21.4	19.7	26.4
1000	22.0	20.0	27.9
NOTES: Log-Pearson Type III fit Record analysed 1948-2008 (61 years)			

**Table 6: Rainfall and Temperature Data for Selected Stations, June 2012**

June 2012	Prince George STP		Blue River A		Kamloops A		Hope Slide		Williams Lake	
	Mean Temp (deg C)	Rainfall (mm)	Mean Temp (deg C)	Rainfall (mm)	Mean Temp (deg C)	Rainfall (mm)	Mean Temp (deg C)	Rainfall (mm)	Mean Temp (deg C)	Rainfall (mm)
10	16.5	0.0	12.3	0.0	20.2	0.0	8.5	0.0	15.0	0.0
11	15.5	16.2	13.5	0.0	19.2	0.0	11.8	0.6	15.1	0.0
12	14.3	1.6	10.3	21.6	16.2	1.6	10.0	13.4	11.7	13.6
13	14.3	0.0	15.0	3.2	16.6	10.4	9.3	1.6	12.6	1.6
14	11.5	0.0	9.2	17.0	13.3	5.8	8.3	2.4	9.8	0.8
15	13.8	17.0	11.7	11.6	15.2	0.0	10.3	0.6	12.0	1.0
16	15.0	4.6	10.3	21.6	17.4	1.4	11.0	16.8	15.0	7.6
17	14.5	3.4	11.8	8.8	17.0	6.6	10.8	6.0	13.7	18.6
18	13.3	4.0	12.8	0.4	15.8	3.6	8.3	0.8	11.7	0.8
19	15.8	0.4	12.7	4.2	15.6	6.8	9.0	0.0	13.2	16.0
20	16.0	0.0	15.7	0.0	18.0	1.8	14.3	0.0	13.5	0.0
21	17.0	0.0	14.7	0.0	19.6	0.0	16.5	0.0	16.1	0.0
22	19.3	0.0	17.9	0.0	22.0	0.0	13.0	8.4	20.3	0.0
23	20.8	2.2	20.5	11.4	17.6	18.1	14.0	2.2	17.0	16.8
24	17.5	0.0	15.6	1.2	15.5	0.0	11.3	3.2	13.5	0.0
Mean 10-day temperature June 14-23	15.7		13.7		17.2		11.6		14.2	
Total 10-day rainfall June 14-23		31.6		75.0		44.1		37.2		61.6



**Figure 4: Temperature Frequency, Prince George Airport**

## 4.2 DAM BREACH MODELLING

The Fraser River main stem is unregulated, however BC Hydro has two dams, La Joie and Terzaghi Dams on the Bridge River tributary, and Rio Tinto Alcan has Kenney Dam on the Nechako River. BC Hydro was willing to share the results of a dam breach study for their two dams on the condition that results not be reproduced and used strictly for comparison with the estimated 10,000 year flood for the Fraser River at Hope. A breach of the upstream dam, causing subsequent failure of the downstream dam, would result in a catastrophic flood at Hope significantly larger than the estimated 10,000 year return period event. The time to the flood peak at Hope would be about 11 hours following the start of the breach.

Kenney Dam forms a large reservoir in the Nechako River headwaters. Dam breach modelling results were not available but a Probable Maximum Flood (PMF) study was provided by Rio Tinto Alcan. The PMF, assuming regular spilling without a breach would cause significant flooding along the Nechako River but assuming more moderate flows in the rest of the Fraser basin, would not cause any significant flooding at Hope. In the case of a breach at Kenney Dam, the travel time to Hope would be considerably longer than from the Bridge River and the peak more attenuated.

## 4.3 OUTBURST FLOODS CAUSED BY LANDSLIDE BLOCKAGES

Historically, a number of landslides have occurred at different locations along the Fraser, some with the potential for rapid outflow (outburst floods) from the subsequent failure of blockages in the river. Evans and Savigny (1994) discussed landslides in the Vancouver – Fraser Valley – Whistler region and described slides that have occurred in the past.

In 1880, a landslide took place at Haney on the north bank of the Fraser River, with an estimated volume of  $1\text{M m}^3$  of glaciomarine sediments. The material slid into the Fraser River, partially blocking the river. Although it did not result in an outburst flood, the slide caused a 12 m high wave which killed one person and caused extensive damage to development on the river shores.

In 1913, during the construction of the Trans-Canada Highway, the excavation of a 65 m high rock cut destabilized the Hell's Gate bluffs, causing rock to fall into and block the river. The blockage did not result in a sudden outburst flood but significantly impacted the salmon run of that year and subsequent years with four year intervals.

Two prehistoric slides took place at Katz on the north side of the Fraser, between Hope and Chilliwack. The first slide probably blocked the Fraser, forming a landslide dam and creating a small upstream lake. The second slide had an estimated volume of  $15\text{M m}^3$  and blocked the northwest side of the river channel. A discussion of outburst floods is not provided.

Ryder and Church (1984) provide evidence of significant landslide activity near Lillooet and discuss Holocene terraces in the area. They provide evidence of aggradation interrupting the general trend of degradation of the Fraser River and of deposition in backwater under downstream control. It is believed that postglacial landslides may have held up the river for many years.

Clague and Evans (2003) describe historic landslide activity in the Thompson River Valley. At least eight large landslides took place south of Ashcroft between 1880 and 1982, some slow moving translational slides, others sudden onset, rapid flow-slides. In 1880, a landslide with a  $15\text{M m}^3$  volume blocked the Thompson River, quickly forming a 900 m long, 160 m wide and 45 m deep lake. Over the course of two days the lake grew in length to 14 km, followed by gradual overflow, avoiding a sudden outburst flood.

A massive slide in 1921 also completely blocked the Thompson River, forming an upstream lake. Fortunately, the river gradually cut through the obstruction, without damage to downstream development. Soil saturation from irrigation was seen as the cause of some slides.

The brief literature review was unable to provide more specific information on the potential magnitude of outburst flows, but was useful in locating areas where slide activity has taken place in the past.



## 5 REVIEW OF CLIMATE CHANGE LITERATURE AND ESTIMATION OF FUTURE EXTREME FLOWS

NHC's work methodology to develop flood frequency curves for future climate scenarios is described below. Section 5.1 presents a review of relevant published literature. Based on the review, it is recommended that the projected streamflow time series by Shrestha et al. (2012) for the Fraser River at Hope (Fraser-Hope) be used as the basis for the flood frequency projections. Section 5.2 uses extreme value analysis on the simulated streamflow time series from Shrestha et al. (2012) to determine the percentual changes in streamflow quantiles projected for each return period (10, 100, 1,000, and 10,000 years) for the 23 future climate scenarios studied by Shrestha et al. (2012). Section 5.3 selects two specific scenarios of future climate, a moderate and an intense scenario, for future analysis. In Section 5.4, projected flood frequency curves for the two climate scenarios are developed, by taking the observations-based curve from Section 2.1 of this report, and applying the percentual changes specific to each return period. Section 5.5 discusses the uncertainty associated with the results.

### 5.1 LITERATURE REVIEW

To obtain flood frequency projections, analysis of simulated streamflows under various future climate scenarios is recommended. Analyses based directly on the climatic projections are ineffectual because a wide variety of precipitation episode types, clustering of episodes, and snowmelt episodes, can originate a flood of a given return period – implying that there is no one-to-one correspondence between the quantiles of streamflow and the quantiles of any single climatic variable or combination of variables.

The published studies listed below have applied a hydrologic model to the Fraser River Basin (FRB) under downscaled 21st Century future climate scenarios. A brief summary of their main findings pertaining to future flooding is included below. To our knowledge this is a complete list, after having searched the databases of the American Geophysical Union journals and of the American Meteorological Society journals (which also search through various publishers of scientific journals), in addition to the Pacific Climate Impacts Consortium (PCIC) website and internet engine searches. Reviewed references are as follows:

1. Morrison et al. (2002) used the UBC hydrologic model forced by two Global Climate Models (GCMs). Both led to decreased annual peak flow throughout the 21st Century.
2. Whitfield et al. (2002, 2003) also used the UBC model driven by one GCM for three 2-decade periods (2013-2033, 2043-2063, and 2073-2093) over a domain that included sub-basins of the FRB. Their projections for snow-dominated sub-basins were for increased magnitude and duration of summer flood events; for transient sub-basins (i.e., mixed snow and rain regime) they found increased frequency of flood events in winter but a decrease in summer; and for rain-dominated sub-basins they found increased frequency of flood events in winter.
3. Kerkhoven and Gan (2011) used the MISBA hydrologic model (Kerkhoven and Gan, 2006) forced by seven GCMs for the FRB. The GCM runs were from the Intergovernmental Panel on Climate Change (IPCC) Third Assessment Report (TAR). They found declines in the maximum annual flow for all seven GCMs.

4. Shrestha et al. (2012) used the Variable Infiltration Capacity (VIC) hydrologic model forced by eight GCMs and three greenhouse gas emissions scenarios (from the IPCC Fourth Assessment Report, AR4, and known as the CMIP3 dataset) to obtain daily streamflow projections for the FRB. The spatial resolution used was high ( $1/16^\circ$ ; roughly,  $30 \text{ km}^2$ ). This work's methodology and its merits and shortcomings, and its main results pertaining to peak flows is described below. PCIC (November, 2013) reported on their web site a partial update of the Shrestha et al. (2012) projections, now using GCM runs from the IPCC Fifth Assessment Report (AR5), known as the CMIP5 dataset. Instead of performing new runs of the hydrologic model, they used "a computationally-efficient statistical model to emulate the projections made by the VIC model, forced with temperature and precipitation changes based on all available CMIP5 runs (approximately 400 runs; based on emissions scenarios known as Representative Concentration Pathways (RCPs))." They found that the resulting CMIP5-based streamflow projections were qualitatively similar to those projected using CMIP3 as in Shrestha et al. (2012).
5. Kerkhoven and Gan (2013) again applied the MISBA hydrologic model to the FRB, this time with representation of climate-driven vegetation changes as simulated by the Mapped Atmosphere-Plant-Soil System (MAPSS; Neilson et al., 2005). The most hydrologically-relevant vegetation change projected by MAPSS was an expansion of grassland in the plateau of the central FRB, at the expense of forest retreat. MAPSS does not take into account the potential effects of climate-driven insect infestations, but it does simulate the occurrence of fires. A projected increase in fire effects leads to a drying tendency, but which is counteracted by increased snow accumulation in grassland when compared with forest. All 7 GCMs studied project rainfall increases and rises in mean annual streamflow. No results are presented for streamflow extremes. Two major methodological shortcomings are that 1) the MISBA and MAPSS models are not coupled to each-other; and 2) while MAPSS was run under scenarios from the IPCC First and Second Assessment Reports (FAR and SAR), MISBA was run under scenarios from the IPCC Third Assessment Report (TAR). The resolution of MAPSS is coarse ( $0.5^\circ$ ). The description of the methodology lacks crucial detail, as it fails to report the spatial resolution or the time step used in MISBA.

Based on the above review, the work by Shrestha et al. (2012) was adopted as the basis for NHC's extreme streamflow projections. This work's main strengths vis-à-vis the goals of the present study are:

1. The hydrologic model and downscaled climatic inputs have a high temporal resolution (daily) and high spatial resolution ( $1/16^\circ$ ).
2. A wide range of future climate scenarios is included, originating from 8 GCMs and 3 greenhouse gas emissions scenarios.
3. The eight GCMs used are those selected by Werner (2011) on the basis of their performance over western North America.
4. The VIC hydrologic model (Liang et al., 1994, 1996; Nijssen et al., 1997, 2001) represents explicitly the effects of vegetation, topography and soils on the exchange of moisture and energy between land and atmosphere. VIC includes a full energy balance formulation and a comprehensive, physically-based representation of snow dynamics (Cherkauer et al., 2003; Cherkauer and Lettenmaier, 2003). VIC has been previously applied for many climate change assessments in the western U.S. (e.g., van Rheeën et al., 2004; Costa-Cabral et al., 2012 – to mention just two).

In terms of the present study, the following main shortcomings were identified:

1. A fixed land cover (fixed at circa year 2000) is assumed throughout the 21st Century simulations. Thus, future climate-induced responses in land-cover species composition (e.g., Gonzalez et al., 2010), fire regimes (e.g., Marlon et al., 2009), and pest outbreaks (such as by the mountain pine beetle; e.g. Schnorbus et al., 2010), are neglected. The incorporation of such effects would require two-way coupling of the hydrologic model with the ecological models, as is clear from some paradoxical results obtained by Kerkhoven and Gan (2013) arising from that the vegetation model utilized its own water-balance scheme rather than being coupled to the hydrologic model. The state of the art of such ecology-hydrology coupled models is still at inception worldwide.
2. VIC does not include a glacier model. While important for specific sub-watersheds, this limitation is however unlikely to carry any significant consequence to peak flows measured at Hope, whose upstream watershed includes a variety of elevations and hydrologic regimes.
3. The downscaling technique used, known as BCSD (bias correction and statistical disaggregation) can perform poorly over high-elevation areas where observed meteorological data are non-existent (see Jarosch et al., 2012). As in (2), this is unlikely to significantly affect peak flows measured at Hope.
4. Additionally, we reiterate the widely-recognized fact that all climate projections have large associated uncertainty, and that further uncertainty is added by their downscaling and by the hydrologic model, particularly when the variable of interest is streamflow extremes.

The important issue of mountain pine beetle infestation, absent from Shrestha et al. (2012), was mentioned as a shortcoming, but can be partially addressed through the work of Schnorbus et al. (2010). The beetle outbreak that started in the early 1990s has decimated the B.C. population of lodgepole pine. This led to authorized salvage logging, in the hope of mitigating the infestation spread and recovering economic value. Tree death and salvage logging (which typically is performed as clearcuts) both have important effects on water yield and peak flows (e.g., Carver et al., 2007, 2009; Schnorbus et al., 2010; Pugh and Gordon, 2012).

Schnorbus et al. (2010) obtained projections of peak-flow changes in the Fraser River Basin, caused by future tree death and salvage logging foreseeable on the basis of climate change scenarios. As in Shrestha et al. (2012), the VIC hydrologic model was used, at the same resolution (daily time step; spatial grid of  $1/16^\circ$ , roughly  $30 \text{ km}^2$ ). The following is an excerpt from the conclusions section of Schnorbus et al. (2010, p. 42):

*"The effects of beetle-related disturbance vary by location along the Fraser River drainage network. Streamflow in the Fraser River main stem from Prince George to Hope and within such major tributaries as the Thompson River at Kamloops, the Quesnel River at Quesnel, and the Chilcotin River shows little sensitivity to beetle-related disturbance. In these large drainages streamflow is predominantly composed of snowmelt runoff from the high snowfields of the Coast, Columbia, and Rocky Mountains and the peak flow regime is largely robust to forest-cover effects taking place on the relatively arid Interior Plateau. The greatest sensitivity to infestation-induced forest disturbance is exhibited by modestly sized sub-basins located on the Interior Plateau (i.e., Baker Creek, West Road River, Salmon River, Mahood River, and parts of the Nechako and Stuart drainages). These areas are characterized by*

*pine dominated forest cover (i.e., potentially high-disturbance areas) and low topographic relief (i.e., no significant regions of sub-alpine or alpine runoff). In these highly sensitive areas, peak-flow changes are substantial and can have significant local impacts on channel morphology, water quality, aquatic ecosystems, and flood risk.”*

Consulting the tables of numerical results in the Appendix of Schnorbus et al. (2010), for Fraser River at Hope (denoted FRSHF in the tables), we find that even under the most dire scenario (denoted 95\_100HF, in which the 1995 base land cover suffers 100% kill of all mature lodgepole pine plus 100% harvest of that dead pine) the simulated 100-year return period peak flow (Q100, given in Table A7) increases by only 8%. For smaller return periods ( $t < 100$  yr), Tables A3 through A6 indicate that the simulated percent increase in  $Q_t$  does not surpass 10%. For  $t = 50$  yr and  $t = 100$  yr (the largest return period studied), the simulated increases in  $Q_t$  are not statistically significant at the 95% confidence level.

It appears, therefore, that as long as our focus remains on streamflow extremes at Hope (as opposed to sub-basins for which results vary considerably), the expected effects of tree death and harvest scenarios are not too great in relative terms, and the neglect of such effects in the climate-driven projections of Shrestha et al. (2012) is likely acceptable.

Although Shrestha et al. (2012) did not perform an extreme value analysis of their projected streamflows (that is done by NHC in Section 5.2 below), they did document another important change – that in the timing of the annual hydrograph peak, which is projected to arrive earlier, by a month or more for some sub-basins and scenarios. The following text and figure are excerpted from Shrestha et al. (2012, pp. 1855-1857):

*“The effect of temperature-driven shifts in the discharge is also evident in the timing of the peak discharge (Figure 12 [Figure 5 here]). An earlier onset of discharge is simulated for all sub-basins of the FRB, which can be explained as the effect of earlier snowmelt driven by higher temperature. Such shifts amongst the 11 sub-basins vary between 2 days and 25 days (median values) for B1, 10 days and 39 days for A1B and 10 days and 43 days for A2 scenarios. The greater shifts for the A1B and A2 scenarios compared to B1 are due to higher temperature increases for the scenarios. Also related to the change in the snow storage is the annual peak discharge. The GCM ensemble medians of the 30-year mean annual peak discharge depict decreases for most sub-basins and scenarios (Figure 13). Decreased peak discharge is projected despite increased winter and spring precipitation. Such changes illustrate that the temperature-driven change in snow storage affects both the timing and magnitude of discharge peaks. As illustrated by (Hamlet and Lettenmaier, 2007), such changes could also have implications on the sensitivity of flood risk.”*

Figure 5 shows Shrestha’s projected earlier timing of the annual peak flow for Fraser-Hope, an expected result of warming associated with an increase in the fraction of precipitation falling as rain rather than snow, and with earlier initiation of spring snowmelt.

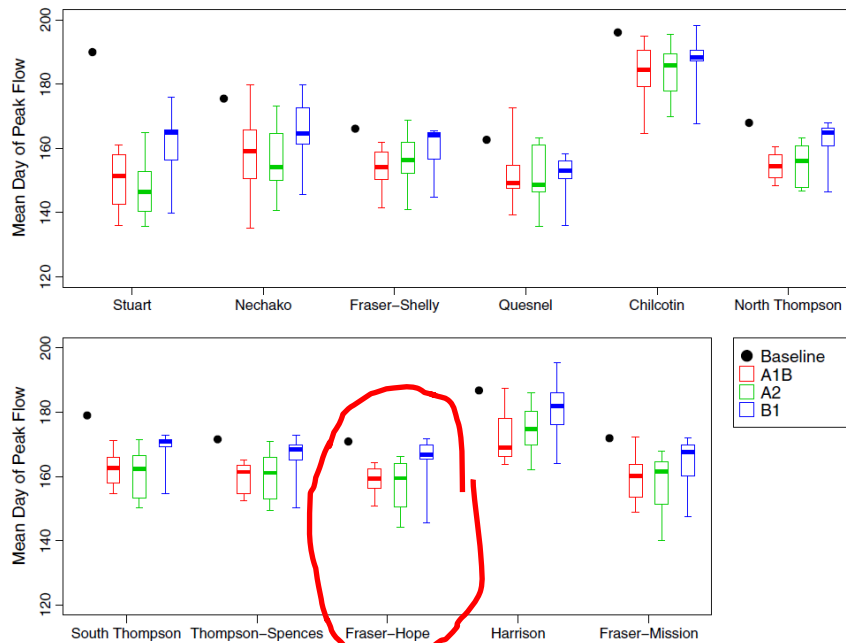


Figure 12. Julian day of occurrence of annual peak discharge for the baseline (1970s) and future (2050s) periods for the sub-basins of the FRB. Each box plot illustrates the median and inter-quartile range, and the whiskers upper and lower limits of the 30-year means of GCM ensembles.

**Figure 5: Figure reproduced from Shrestha et al (2012) with red circle added to emphasize Fraser-Hope**

## 5.2 EXTREME VALUE ANALYSIS

This section analyzes the simulated time series of daily streamflow at Fraser-Hope which served as a basis of the publication by Shrestha et al. (2012). These time series were provided to NHC by Markus Schnorbus, co-author of Shrestha et al. (2012), and include the results of all 8 GCMs and 3 greenhouse gas emissions scenarios, except for HadGEM (B1) which was missing (Table 7). All of the time series cover the time period 1950-2098. Results for calendar year 1950 were not used in the analysis, to eliminate the effects of the spinup period of the hydrologic model and its (low moisture state) initialization.

**Table 7: 23 Climate scenarios analyzed from Shrestha et al (2012)**

GCM	A2	A1B	B1
CGCM3	✓	✓	✓
CCSM3	✓	✓	✓
CSIRO35	✓	✓	✓
ECHAM5	✓	✓	✓
GFDL	✓	✓	✓
MIROC	✓	✓	✓
HADCM	✓	✓	✓
HADGEM	✓	✓	X

The three future greenhouse gas emissions scenarios used in this study: A2, A1B, and B1, are described in the IPCC report by Nakićenović et al. (2000). A2 is generally the highest emission scenario simulated although it does not represent the highest CO<sub>2</sub> emissions predicted. In fact, the

21st century emissions to date appear to surpass A2 (Raupach et al., 2007; Manning et al., 2010). To the mid-21st century, the three scenarios are relatively similar in terms of CO<sub>2</sub> concentrations but then diverge significantly. Scenarios A2, A1B and B1 respectively lead to about 830, 720, and 550 ppm of CO<sub>2</sub> by year 2100 as shown in Figure 6, reproduced from IPCC (2001). (Note that Gt C/yr stands for gigatonnes (billions of tonnes) of carbon per year.)

The scenarios are based on future world economy predictions as provided by Nakićenović et al. (2000):

- The A2 scenario describes a heterogeneous world. The underlying theme is self-reliance and preservation of local identities. Fertility patterns across regions are assumed to converge very slowly, which results in continuously increasing global population. Economic development is primarily regionally oriented and per capita economic growth and technological change is more fragmented and slower than for other scenarios.
- The A1 scenario describes a future world of rapid economic growth, a global population that peaks in mid-century and declines thereafter, and a rapid introduction of new and more efficient technologies. Major underlying themes are convergence among regions, capacity building, and increased cultural and social interactions, with a substantial reduction in regional differences in per capita income. Three A1 groups are distinguished by their technological emphasis: 1) fossil intensive (A1FI); 2) non-fossil energy sources (A1T); and, 3) a balance across all sources (A1B).
- The B1 scenario describes a convergent world with the same global population that peaks in mid-century and declines thereafter, as in A1, but with rapid change in economic structure toward a service and information based economy, and the introduction of clean and resource-efficient technologies. The emphasis is on global solutions to economic, social, and environmental sustainability, including improved equity, but without additional climate initiatives.

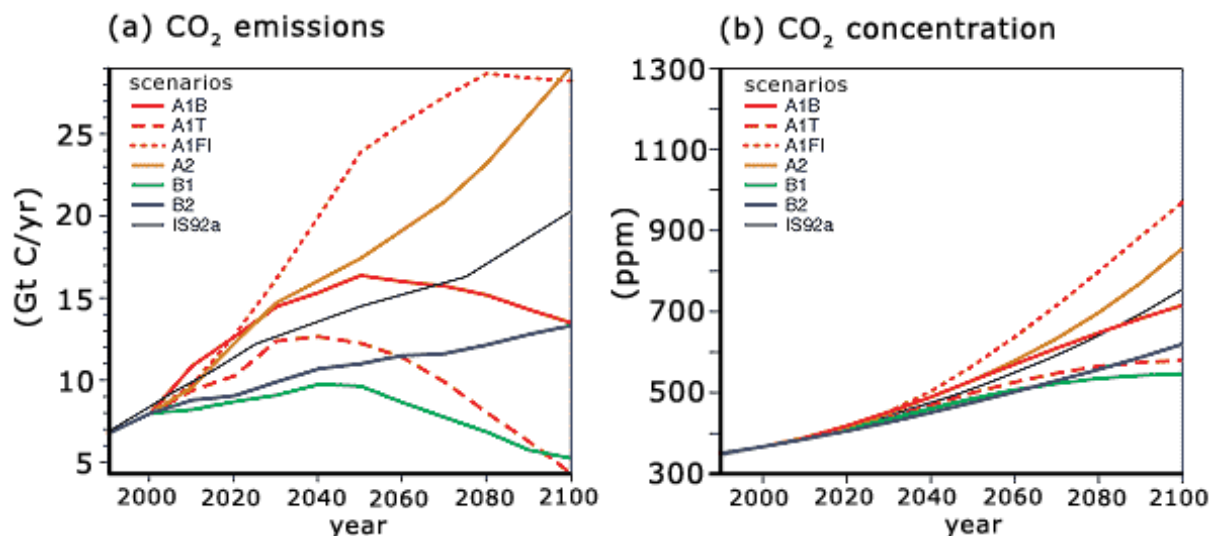


Figure 6: Predicted a) CO<sub>2</sub> emissions and b) concentrations over the course of the 21st century.



For each of the 23 scenarios in Table 7, the streamflow time series was divided into 3 periods of about 50 years:

- Period 1: 1951-2000
- Period 2: 2001-2049
- Period 3: 2050-2098

For each of these periods, NHC used extreme value analysis to determine the streamflow quantiles corresponding to different return periods, up to 10,000 years. The methodology was similar to that used in Section 2.1 of this report for the observed time series of annual maximum daily flows at Fraser-Hope, i.e., a Log-Pearson Type III distribution was fit to the time series of annual maxima (see Appendix B.2 for example plots). Pacific Decadal Oscillation (PDO) effects were ignored.

Over Period 1, we know that the climatic downscaling technique (BCSD) forced some of the climatic statistics of every scenario to agree with observations-based statistics. However, we can expect other statistical aspects of the downscaled climate to differ from observations, such as the specific sequencing of precipitation events, among other aspects. For this reason, each scenario may lead to simulated streamflows that differ significantly from observed streamflows, especially in the extremes.

The quantiles estimated for Period 2 and Period 3 of each scenario were compared to the corresponding quantiles of Period 1 simulated by the same GCM run. The results are plotted in Appendix B.1 and tabulated in Table 8. Large uncertainty is associated with these values, as addressed in section 5.5. Increases in streamflow high quantiles are projected by six of the eight GCMs studied, and tend to be larger for the strongest greenhouse gas emissions scenario, A2. In most scenarios, percent changes are larger for Period 3 (2050-2098) than for Period 2 (2001-2049). However, the largest projected change (by 121%, i.e., more than a two-fold increase) is for Period 2 for ECHAM5 under scenario A2.

One of the GCMs, CSIRO3.5, projects only small changes in peak flows, some of them positive, others negative. GFDL is the only GCM among these eight to consistently project declines in peak flows, for all three greenhouse gas emissions scenarios, and for all return periods. Its projected declines are largest for the highest return period and for the latter half of the century. They are also larger for higher emissions, i.e., highest for A2, followed by A1B and then B1. For scenario A2, the GFDL-based projections are for a decline by 35% in 2050-2098 in the 10,000 year return period peak flow at Hope. The reason for the GFDL's behavior is not known at this time.

The values in Table 8 are at odds with Figure 13 of Shrestha et al. (2012). Averaging extremes, as done in that figure, does not yield useful indicators for assessing flood risk due to large floods. It also appears that the observations were used to define the “base case” (the black dot in that figure), while NHC used the simulated streamflows for 1951-2000 for each of the scenario runs as our “base case” for computing percentage changes in the quantiles.

**Table 8: Percent change in projected streamflow quantiles under climate change for Fraser River at Hope**

	10-year Peak Flow		100-year Peak Flow		1,000-year Peak Flow		10,000-year Peak Flow	
	Percent increase from 1951-2000		Percent increase from 1951-2000		Percent increase from 1951-2000		Percent increase from 1951-2000	
	2001- 2049	2050- 2098	2001- 2049	2050- 2098	2001- 2049	2050- 2098	2001- 2049	2050- 2098
<b>A2</b>								
CGCM3	15%	12%	19%	31%	21%	54%	22%	82%
CCSM3	4%	-6%	20%	7%	37%	21%	57%	36%
CSIRO35	8%	0	6%	3%	4%	6%	1%	9%
ECHAM5	23%	7%	50%	25%	82%	45%	121%	68%
GFDL	-8%	-18%	-10%	-24%	-11%	-30%	-13%	-35%
MIROC	8%	27%	1%	32%	-5%	35%	-11%	37%
HADCM	9%	16%	12%	25%	15%	32%	19%	38%
HADGEM	5%	5%	12%	19%	19%	32%	25%	44%
<b>A1B</b>								
CGCM3	8%	14%	4%	31%	-2%	49%	-6%	69%
CCSM3	5%	7%	11%	28%	18%	53%	25%	83%
CSIRO35	6%	1%	4%	-4%	1%	-8%	-1%	-12%
ECHAM5	1%	6%	-1%	9%	-3%	10%	-5%	11%
GFDL	-5%	-18%	-10%	-20%	-16%	-22%	-21%	-23%
MIROC	3%	29%	-1%	44%	-5%	60%	-8%	76%
HADCM	17%	18%	30%	26%	43%	31%	56%	35%
HADGEM	6%	13%	7%	31%	9%	49%	10%	68%
<b>B1</b>								
CGCM3	6%	7%	13%	16%	20%	27%	27%	38%
CCSM3	-1%	-4%	8%	2%	18%	9%	29%	16%
CSIRO35	2%	14%	-5%	19%	-12%	22%	-19%	25%
ECHAM5	13%	15%	26%	16%	39%	14%	51%	11%
GFDL	-3%	-9%	-3%	-10%	-3%	-11%	-3%	-12%
MIROC	11%	17%	7%	18%	2%	18%	-2%	18%
HADCM	12%	13%	16%	17%	19%	21%	22%	24%

### 5.3 SELECTION OF TWO REPRESENTATIVE CLIMATE SCENARIOS

PCIC has published recommendations for selecting and using climate change scenarios for BC in Murdock and Spittlehouse (2011), a document developed to support two major climate change initiatives in B.C.: The Future Forests and Ecosystems Scientific Council (FFESC) research program; and the British Columbia Regional Adaptation Collaborative (RAC). That document referred to the



CMIP3 scenarios, i.e., those scenarios associated with the IPCC Fourth Assessment Report (AR4) released in 2007, which at the time were the most recent scenarios available. Shrestha et al. (2012) used CMIP3 scenarios, hence the recommendations of Murdock and Spittlehouse (2011) are considered here.

The following is an excerpt from the executive summary of Murdock and Spittlehouse (2011, p. vii):

*“A large number of projections of future climate are available as a result of multiple greenhouse gas emissions scenarios and multiple climate models. A subset is adequate for most studies. Three projections are recommended as a minimal set to use for climate change studies, based on providing a wide range of future climates for much of British Columbia: HadGEM A1B run 1 (hot/dry), CGCM3 A2 run 4 (warm/very wet) and HadCM3 B1 run 1 (cool/wet). Additional combinations of climate models and emissions scenarios are recommended depending on the purpose of the study.”*

We will follow the general recommendations from the executive summary, given in the above excerpt. Of the three recommended climate change projections in the above excerpt, two are available in Shrestha et al. (2012), and in our Table 8: HadGEM A1B run 1, and HadCM3 B1 run 1. The remaining one – CGCM3 A2 run 4 –, not being a run 1, is not part of the runs in Shrestha et al. (2012). Shrestha et al. (2012) used the run 1 of all GCMs studied.

Two scenarios are desired for this work, and we select the two from the above-recommended three which were included in Shrestha et al. (2012):

1. HadGEM A1B run 1 (hot/dry)
2. HadCM3 B1 run 1 (cool/wet)

Based on examination of Table 8, the above two scenarios seem to be appropriate representations of, respectively, intense and moderate future streamflow changes. Scenario HadGEM A1B run 1 produces increases in peak flow quantiles on the upper end of the 23 scenarios for a fixed return period (albeit not being the very highest), thus representing intense future changes. Scenario HadCM3 B1 run 1 produces increases in peak flow quantiles close to the median of the 23 scenarios for a fixed return period, thus representing moderate future changes.

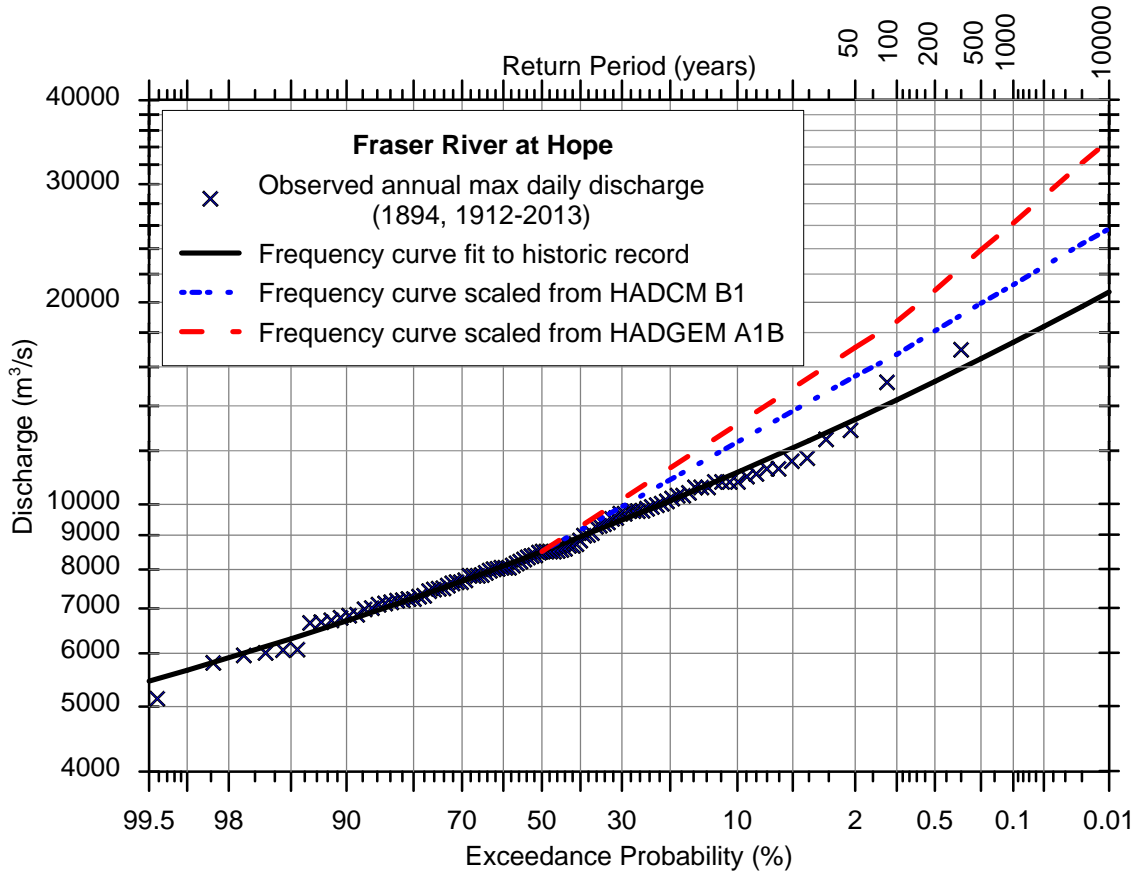
It is interesting to note that it is the scenario characterized by Murdock and Spittlehouse (2011) as “hot/dry” which leads to higher streamflow extremes, rather than the scenario characterized as “cool/wet”. Investigation of explanations is beyond the scope of the present project. However, we note that the term “dry” applied to a climate scenario usually refers to low mean annual precipitation, which may nevertheless be accompanied by more extreme precipitation events.

Appendix B.2 shows the fit of the Log-Pearson III distribution to the series of annual maxima of simulated streamflows, for the two scenarios selected.

## 5.4 PROJECTED FLOOD FREQUENCY CURVES FOR THE SCENARIOS SELECTED

Figure 7 shows, in black, the flood frequency curve developed by NHC (2008) from the historic record for the Fraser River at Hope, as updated in Section 2.1 of this report, by inclusion of new observational data available post-2008. It also shows, in red and blue, the projected flood frequency curve for each of the two climate change scenarios for the year 2100 (more specifically for the period 2050-2098) selected in Section 5.3. The projected curves were obtained by raising the black line, at the two points corresponding to the 100-yr and 10,000-yr return periods, using the values

given in Table 8. For the moderate change scenario (HadCM B1 run 1), these values are: 17% for the 100-yr return period and 24% for the 10,000-yr return period. For the intense change scenario (HadGEM A1B run 1), these values are: 31% for the 100-yr return period and 68% for the 10,000-yr return period. Projected changes for small return period streamflows were small (see Appendix B.2) and were neglected in Figure 7. The estimated peak flow quantiles for historic and future scenarios are summarized in Table 9.



Note! HADCM-B1 and HADGEM-A1B frequency curves refer to year 2100.

**Figure 7: Projected Flood Frequency Curves under Climate Change**

**Table 9: Peak Flow Quantiles for Historic and Future Conditions, Fraser River at Hope**

Scenario	Maximum Daily Flow (m <sup>3</sup> /s) for Fraser River at Hope by Return Period (years)						
	50	100	200	500	1,000	5,000	10,000
Historic	13,400	14,300	15,200	16,500	17,400	19,700	20,700
2100 moderate climate change <sup>1</sup>	15500	16,700	18100	19900	21200	24,400	25,700
2100 intense climate change <sup>2</sup>	17100	18,700	20800	23900	26200	32,200	34,800
NOTES:							
1. Moderate climate change scenario from HADCM B1 run 1 for 2050-2098							
2. Intense climate change scenario from HADGEM A1B run 1 for 2050-2098							

## 5.5 UNCERTAINTY ASSOCIATED WITH RESULTS

While there is a need to provide quantitative information for water resources planning and flood protection planning, the underlying projections of climate change are subject to large and unquantifiable uncertainty. The main sources of uncertainty are unknown future emissions of greenhouse gases, uncertain response of the global climate system to increases in greenhouse gas concentrations, and incomplete understanding of regional manifestations that will result from global changes (e.g., Hawkins and Sutton 2010).

The downscaling, in space and time, of GCM-projected climate variables, the application of the hydrologic model, and extrapolation of frequency analyses to extreme return periods, all represent additional sources of uncertainty. The hydrologic projections developed in this work should therefore be considered to be plausible representations of the future, given the best current scientific information, and do not represent specific predictions.

A discussion of the various quantile projections was provided in Section 5.2. Whereas the estimates based on GFDL showed consistent decreases, almost all other model results showed significant increases, typically in the 10-30% range.

The actual future realizations of streamflows at Fraser-Hope will differ from any of these scenarios, and their difference compared to historical streamflows may be greater or smaller than the differences projected in this work. To gain a wider perspective on issues related to uncertainty associated with extreme streamflow projections, the reader is referred to the analysis by Kundewicz et al. (2013) which is based on a vast body of literature, including the IPCC SREX report on climate extremes. The analysis by Kundewicz et al. (2013) concludes that "...presently we have only low confidence in numerical projections of changes in flood magnitude or frequency resulting from climate change".

The results highlight the potential large variations in future flood estimates and illustrate the possible deviations from the APEGBC (2012) recommendation of applying a 10% increase to present design flows to account for climate change impacts by the end of the century. The results from the majority of models would indicate the APEGBC allowance of 10% may be too low.

## 6 FUTURE WORK

The present study provides boundary conditions for running the Fraser River Hydraulic Model for a range of flow and ocean level scenarios. The resulting profiles will provide input to future risk analyses that in turn will inform the future setting of protection standards.

The present work is limited in scope and for more thorough assessment of risk, additional work is required to:

- Perform a review of PCIC's VIC model to test how well it reproduces observed extremes. The VIC modelling was a key component of the assessment of climate change impacts on flood quantiles and the accuracy of the results are a function of the model performance.
- Analyze the impact of land cover changes. The VIC hydrological model which has been calibrated to the Fraser River basin (which produced the streamflow projections that we have analyzed) could be run again with the same climatic inputs (or, if desired, with CMIP5 downscaled climatic inputs) but this time with different land cover scenarios that attempt to reflect plausible future changes resulting from pine beetle infestation and wildfire scenarios. Such scenarios were used in Schnorbus et al. (2010) but only for the historical climate.
- Expand and fine-tune the extreme-value analysis and climate scenario review:
  - Because our focus is on the response of streamflow extremes to climatic changes projected for the 21st century, the proposed approach would render the parameters of the generalized extreme value (GEV) distribution to be linear functions of time (see Coles, 2001, Ch6 and Kallache et al., 2011). This approach would provide explicit equations for the time dependency (i.e., climate dependency) of the projected streamflow extremes.
  - The extreme value analysis can be extended to tributaries of the Fraser River basin, where percentual changes in extreme streamflows are expected to be higher (see Shrestha et al., 2012). Projected percentual changes are likely to differ considerably not only with sub-basin size but also with geographic region within B.C.
- Consider commissioning an exploratory paleohydrology study to assess the potential for further extending the record of floods for the Fraser River at Hope and reducing the uncertainty in our current estimates of the frequency and magnitude of extreme floods. Paleohydrology studies (House, et al., 2002) rely on indirect indicators of floods, such as slackwater sediment deposits, and have the potential for identifying, dating and estimating the magnitude of extreme floods which occurred before the current record of observations and measurements.
- Determine the effects of ground subsidence on the Lower Fraser River flood profile. Preliminary studies have suggested a subsidence rate in the order of 0.2 m over the present century. However, the extent of subsidence is poorly known and allowance for relative sea level rise was not included in the current work.

- Assess the impact of channel changes on the flood profiles. Both the gravel bed and sand bed reaches of the Fraser are subject to long term (decadal) channel change. Also, very large floods would be expected to result in rapid changes (e.g. straightening) of the gravel reach. Because of these effects, a fixed-bed hydraulic model has significant limitations when it comes to modelling long-term scenarios or extreme flows. Some related questions include:
  - What will happen to flood profiles if the past degradation at Mission continues?
  - What are the long term effects of aggradation in the gravel reach at historical rates/ what would be the impact if the supply of incoming gravel was cut off?
  - How will potential dike breaches and floodplain storage affect flood profiles? (Evaluate flood flow volumes in addition to peak magnitudes.)
  - What would be the impact of a straight gravel bed reach caused by the 10,000 year flood?
- Consider two-dimensional flow effects. BC Hydro has a Telemac2D model of the Fraser River from Hope to Mission for modelling the progression of breach flows from the Bridge River dams. Whereas the model has insufficient resolution for regular flood modelling it could be refined for more detailed simulations.
- Review and assess the requirements for freeboard. The purpose of freeboard is to prevent overtopping of dikes and presently a freeboard of 0.6 m is applied. This value is in a range commonly specified in other countries for conditions where the risk to loss of life or damage is minimal. It does not include an allowance for climate change impacts. Recent trends in the US are for probabilistic approaches and the selection of freeboard based on risk.

## 7 SUMMARY AND RECOMMENDATIONS

### 7.1 SUMMARY

Flow and ocean level boundary conditions for the Fraser River Hydraulic Model were developed for MFLNRO's specified AEPs, locations and seasons. As is invariably the case with frequency analyses for low probability events, the results are approximate. The Log-Pearson Type III distribution was used throughout. Updating the frequency analysis for Fraser River at Hope only marginally changed previously estimated flow quantiles (NHC 2008b). The most recent version of the EMA software was applied which gave wider confidence limits than previously derived.

Simplified approaches for estimating summer and winter tributary flows were developed. Values vary somewhat from previous design flows used, primarily because the updated flows attempt to account for the joint occurrence of high Fraser River and tributary flows.

The estimated ocean levels take into account the joint probability of high tides, storm surge and wind setup. They were derived as part of previous studies by NHC for the Cities of Surrey and Vancouver.

To provide a context for extreme flood events, a range of hydrologic modelling scenarios were proposed by NHC and a total of 16 runs completed by RFC using the WARNS model. Scenarios fell into two main categories:

- Large snowpack with extended period of hot weather.
- Large snowpack with wide-spread heavy rain.

The WARNS model has some inherent constraints for scenario development, yet the scenarios modelled demonstrated a high sensitivity of peak flows to changes in temperature, precipitation and snow pack. Using a range of extreme weather events, RFC was able to simulate flows which approximated or exceeded the extreme flows derived from the flood frequency analysis.

Based on dam breach modelling by BC Hydro, a breach of the two dams on Bridge River would result in flood flows at Hope considerably higher than the estimated 10,000-year flood.

Past landslide activity has been documented at a number of locations in the Fraser River watershed. Some slides have blocked the river channel resulting in subsequent outburst floods. However, the brief literature review did not suggest the magnitude of past outflows.

Climate change literature was reviewed and the work by Shrestha et al (2012) was adopted as the basis for NHC's extreme streamflow projections. Shrestha et al (2012) used the VIC hydrologic model forced by eight GCMs and three greenhouse gas emission scenarios. Simulated time series were provided by PCIC for the time period 1950 – 2098, divided into three periods of about 50 years each. Two climate scenarios: HadGEM A1B run 1 (hot/dry) and HadCM3 B1 run 1 (cool/wet) were selected, representing respectively intense and moderate climate change conditions. Log-Pearson III distributions were fitted to the series of annual maxima of simulated streamflows. Based on the moderate change scenario the 100-year return period event for the Fraser River at Hope would increase by 17% and the 10,000-year return period event by 24%. Under the intense scenario, the respective increases would be 31% and 68%. The present frequency distribution for Fraser River at Hope was adjusted accordingly to approximate conditions at the end of the century.

According to the above estimates, at the end of the century, the 50-year return period event will have a magnitude similar to the 1948 flood under the moderate climate change scenario and similar to the 1894 flood under the intense climate scenario. In other words, the 50-year flood will correspond to an event with present return periods from 200 to 500 years. The uncertainty of the results should be recognized. However, these results are based on currently accepted methods for projecting climate change impacts on streamflows. The results suggest potential large deviations from the APEGBC (2012) recommended 10% increase in design flows to account for climate change impacts by the end of the century. The results from the majority of models reviewed in this study suggest that the APEGBC guideline may be on the low side for some watersheds.

## **7.2 RECOMMENDATIONS**

NHC recommends that MFLNRO use the flow and ocean level boundary conditions presented in this report for the proposed flood profile modelling.

A number of future work items were identified and it is recommended that these be prioritized and undertaken by MFLNRO as funding is made available.

The results of NHC's climate review indicate a potential for significant increases to extreme Fraser River streamflows. It is recommended that this pilot-study be followed by more detailed work and that the implications of large increases to Fraser River design flows be clarified.

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**APPENDIX A**  
**WARNS SIMULATIONS**





Date: February 12, 2014

To: Malcolm Leytham,  
Northwest Hydraulic Consultants


**Re: Fraser River Flood Simulation Scenarios**

Malcolm,

This is a brief overview of the results of the River Forecast Centre WARNS model flood simulation scenarios developed based on our earlier discussions of climatic and snow pack conditions for scenario testing.

A few points of notes on the model runs and on interpreting the results:

- The WARNS model is used operationally during the freshet season. Basin characterization is hard-coded into the model, and is not something that is adjusted during operations. Day-to-day model calibration is accomplished through adjustments to initial snowpack conditions
- Since actual operation of the model requires this day-to-day calibration, there is uncertainty over whether model error is the result of errors in the initial snow pack conditions or in the basin calibrations (as long as we can reduce the day-to-day error, and have our forecasts in line with observed flow we are “operationally” happy). As a result, the model was not really intended as a research model, and it is difficult to quantify the model uncertainty/error associated with scenario runs (eg Max and Min temperature, or temperature and precipitation).
- Snow packs are manually interpreted and entered and the beginning of the season (model starts April 1<sup>st</sup>). Snow is distributed into pre-determined elevation bands within each basin (most sub-basins have 5-7 elevation bands). These are generally interpreted based on the April 1<sup>st</sup> snow surveys
- The model runs off weather input data for 12 Environment Canada Weather Stations and 12 Automated Snow Pillows. Driving variables for each site are daily maximum temperature, daily minimum temperature and precipitation
- The model was updated in 2008 from FORTRAN code to C++, with an Aquarius GUI to run the model. As a result, pre-configuration files from the 2007 event are not available for scenario run testing, as they are incompatible with the new model format
- The WARNS model has a module which allows for scenario testing. This is run by applying various scenarios to certain specified sub-basins (i.e. applies the scenario to the data from all weather stations within the sub-basin). Scenarios

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can only be applied to the driving variables (Max T, Min T, Precip), and can be applied over a specified period (eg starting date and number of days) with a specified change to the parameter (including absolute value changes or % changes to the variable of interest). The scenarios are run by changing the driving weather data by the specified change. There is the option to overlap a number of scenarios.

- Snow pack scenarios can only be achieved through changes in the initial snow pack configuration files. Complex snow pack scenario development is a time-consuming task
- Broader scenarios applied to the weather data can be applied by creating synthetic data sets, however this is fairly time-consuming

Developing more nuanced snow pack and/or weather data is fairly time-consuming, so we made our best attempt to develop scenarios that fit the general weather/snow requirements that were outlined in your request, but also worked best with how the model operates for scenario development.

Based on the described constraints, the WARNS model was used for scenarios with the following configurations:

- The 2012 data sets were used as the base for all the scenarios. This included the 2012 April 1<sup>st</sup> snow pack and original 2012 snow input data as the initial conditions. Weather data from 2012 was used as the base weather driving data. For details on the snow pack in 2012, see the April 1<sup>st</sup> snow bulletin: [http://bcrcfc.env.gov.bc.ca/bulletins/watersupply/archive/2012/2012\\_Apr1\\_SnowBulletin.pdf](http://bcrcfc.env.gov.bc.ca/bulletins/watersupply/archive/2012/2012_Apr1_SnowBulletin.pdf). Roughly speaking this was a 1-in-10 to 1-in-15 year snow pack for the Fraser.
- Three separate temperature scenarios were run to simulate extreme high temperature periods. Scenarios involved raising both minimum and maximum temperatures by +3°C, +5°C, and +8°C for a period of 10-days, starting on June 1<sup>st</sup>. These temperature offsets were applied to all sub-basin weather stations, as it seems reasonable that a high pressure/high temperature system would likely affect the entire basin. Estimated 10-day average max temperatures for Prince George is 20°C (+3°C scenario), 22°C (+5°C scenario), and 25°C (+8°C scenario).
- Four separate precipitation scenarios were used to simulate extreme precipitation. Scenarios involved the addition of a rain event which added +40mm/day, +60mm/day, +80mm/day or +100mm/day for two days to the existing weather record starting on June 1<sup>st</sup>. Rainfall additions were only applied to the MGRE, HANS, LAUF, CARI, CLEA, BIRC, LIKE, AND LAPF sub-basins (see basin map attached). Essentially this includes the Fraser basin upstream of Prince George and the North Thompson basins (approximately 50,000 km<sup>2</sup>). In the original 2012 dataset there was limited rainfall on these dates, so the scenario run is largely reflected of these rainfall inputs alone. For comparison, current IDF curves from Environment Canada have 100-year 24-hour precipitation rates of 52.8mm at Prince George, 84.9mm at McBride North, and 61.2mm at Blue River.

- Four separate snow pack conditions were established. The baseline conditions from the 2012 model were used as the baseline SWE condition, and then either 200mm, 400mm, or 600mm of snow water equivalent was added to all elevation bands in all sub-basins. Snow was added to the snow pack initial conditions set on April 1<sup>st</sup>. As discussed earlier it would be fairly time-consuming to have a more fine-detailed approach to setting the initial snow pack conditions, and as a first-cut the provided approach does give an opportunity to examine the effects of changes in snow coverage. However, it is difficult to specifically assess a return period to this snow pack. As a ball park, 200m is roughly the standard deviation of our normal basin index value for the Upper Fraser basin, so represents these additions nominally represent +1sd, +2sd, +3sd.
- Overall, 16 scenarios were run. These were:
  - 12 temperature and snow pack driven scenarios, with the +3, +5, +8 C min/max temperature for 10-days scenario applied to the 2012 + 0mm, 2012 + 200mm, 2012 + 400mm, and 2012 + 600mm snow pack scenarios
  - 4 precipitation scenarios with 2012 snow conditions run with 2-day +40mm/day, +60mm/day, +80mm/day and +100mm/day

Summary simulation hydrographs are below, and simulated peak flows were as follows:

Scenario	Hope Qmax (m <sup>3</sup> /s)	Hope Qmax (late-season peak removed)
2012_Baseline	11804	11804
T+3C+0mmSWE	12473	12058
T+5C+0mmSWE	14150	14150
T+8C+0mmSWE	28592	28592
T+3C+200mmSWE	14053	13722
T+5C+200mmSWE	27105	19167
T+8C+200mmSWE	33622	33622
T+3C+400mmSWE	32317	16400
T+5C+400mmSWE	29449	29449
T+8C+400mmSWE	36921	36921
T+3C+600mmSWE	30893	30893
T+5C+600mmSWE	34704	34704
T+8C+600mmSWE	41310	41310
PPT+40mm	13675	13675
PPT+60mm	16949	16949
PPT+80mm	23688	23688
PPT+100mm	28561	28561

A few notes regarding the output:



- In a few of the heavy snow pack scenarios, there are secondary peaks (or primary peaks) that occur later in the season than that caused by the manipulated extreme weather. It appears as if errors are amplified towards the end of the season, and partly this might be because the initial weather event does not melt all the snow, and results in lingering snowpack later in the season that the model struggles with. For comparison the late peak has been removed in the above table, and the primary (early) peak makes a little more sense
- Peak flows are sensitive to changes in temperature, precipitation and snow pack. Using plausible extreme weather events we are certainly able to simulate flows which are in the ball park of, or exceed, those that were derived from the flood frequency analysis
- Given the context of climate change in this analysis, it would be worth considering how potential changes in extreme precipitation and temperature may lead to significantly different future frequencies in these in comparison to the historic record.

Please let me know if you would like any of the raw input weather files, or any other information that can assist you with these results.

Regards,

David Campbell, M.Sc., P.Geo.  
Head, River Forecast Centre  
Water Management Branch  
Ministry of Forests, Lands and Natural Resource Operations

Figure 1. WARNS sub-basins and weather stations input locations

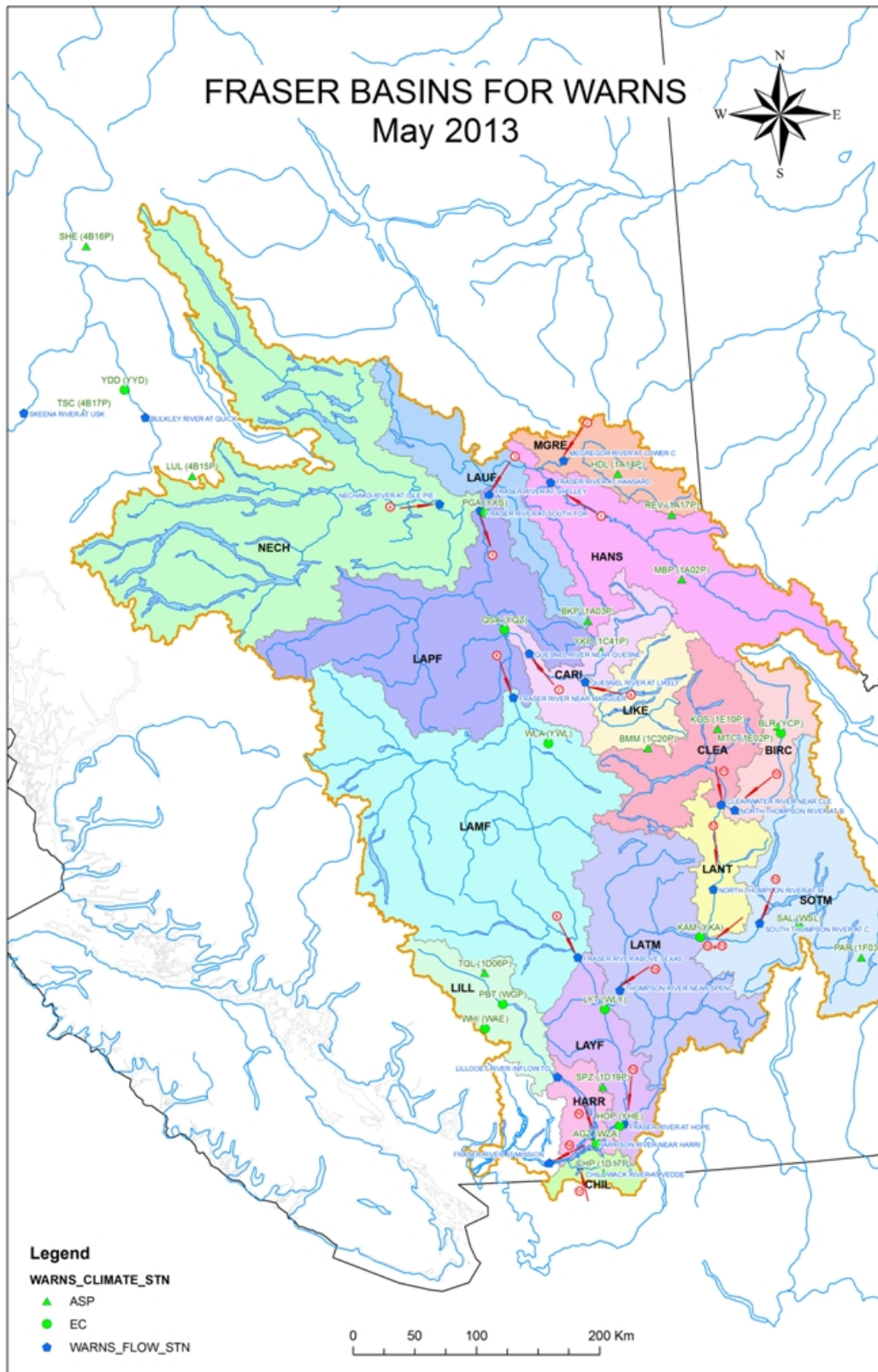
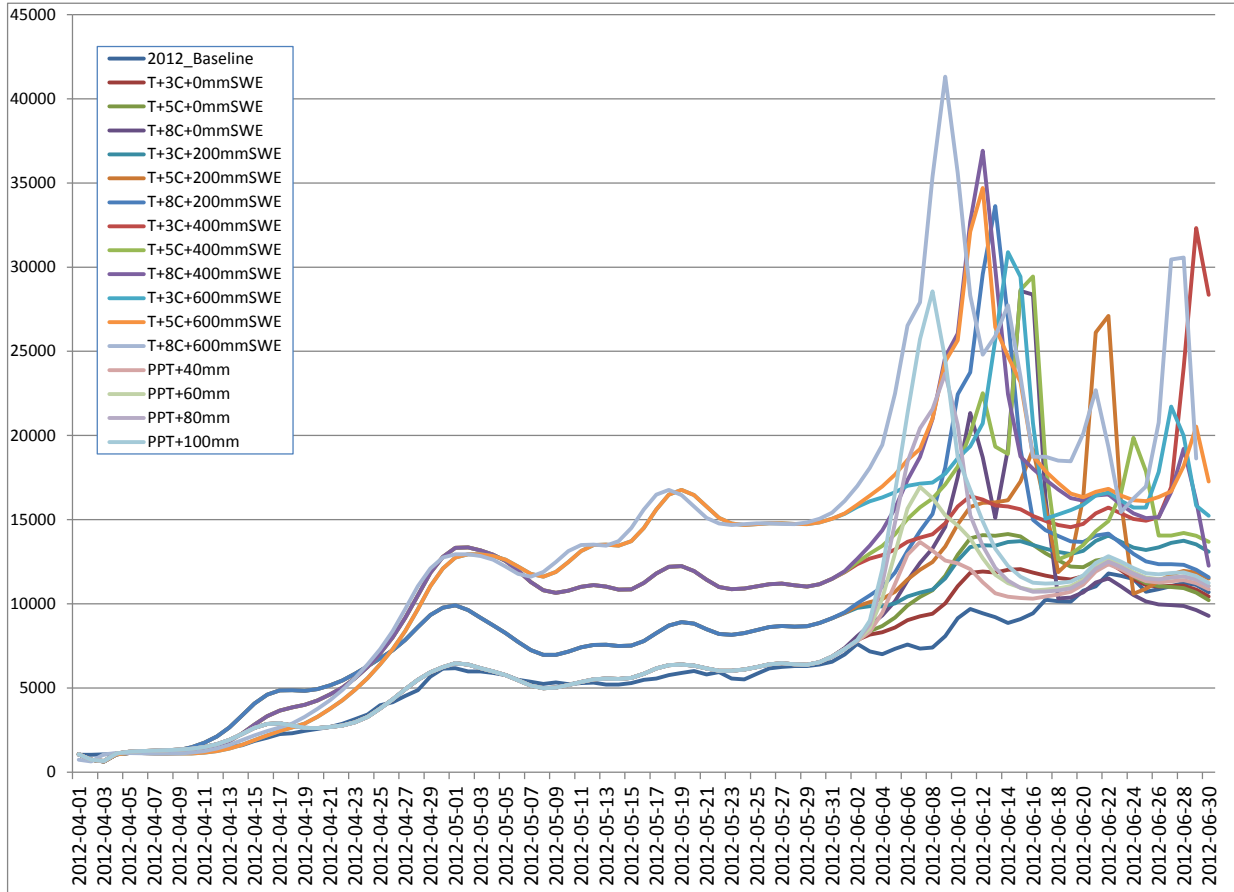


Figure 2. Scenario Output for model runs



**APPENDIX B**  
**CLIMATE REVIEW SUPPLEMENT**

This Appendix B provides figures for visualizing climate change impact information from Sections 5.2 through 5.4 of the report.

Figures B.1.1 - B.1.3 of Appendix B.1 are graphical displays of the values in Table 8 of the report. Figure B.1.1 displays the projected changes in peak flow quantiles for the Fraser River at Hope under greenhouse gas emission scenario A2, as projected by different global climate models (indicated in color), for Period 1 (1950-2000), Period 2 (2001-2049) and Period 3 (2050-2098). Changes are expressed as percentages of the corresponding values for Period 1. Each figure panel corresponds to a fixed return period (10, 100, 1,000 and 10,000 years). Figures B.1.2 and B.1.3 are similar to B.1.1 but refer to greenhouse emissions scenarios A1B and B1, respectively.

Despite wide disagreement among global climate models, most models project increases in peak flows for both 21st Century periods, and these increases are largest for the highest return periods, i.e., for the most extreme events. There are no projections among the scenarios studied for any large declines in peak flow quantiles for any of these return periods

The values displayed in Figures B.2.1 - B.2.3 of Appendix B.2 are derived from fitting a Log-Person III distribution to the series of annual maxima of simulated streamflows for the Fraser River at Hope for each period and each scenario, using the maximum-likelihood method. Figures B.2.1 and B.2.2 display this fit for the two selected scenarios. Figure B.2.1 displays, for scenario HADGEM A1B run 1, the series of annual maxima (the Cunnane plotting position was used) and the fitted line representing the Log-Pearson III distribution for each period. Also shown is the 95% confidence band for the fitted line. Figure B.2.2 is similar to B.2.1, but for scenario HadCM B1 run1.

**APPENDIX B.1**  
**CHANGE IN PEAK FLOW QUANTILES FOR FRASER RIVER AT HOPE**  
**FOR**  
**ALTERNATE GCMS AND EMISSIONS SCENARIOS**

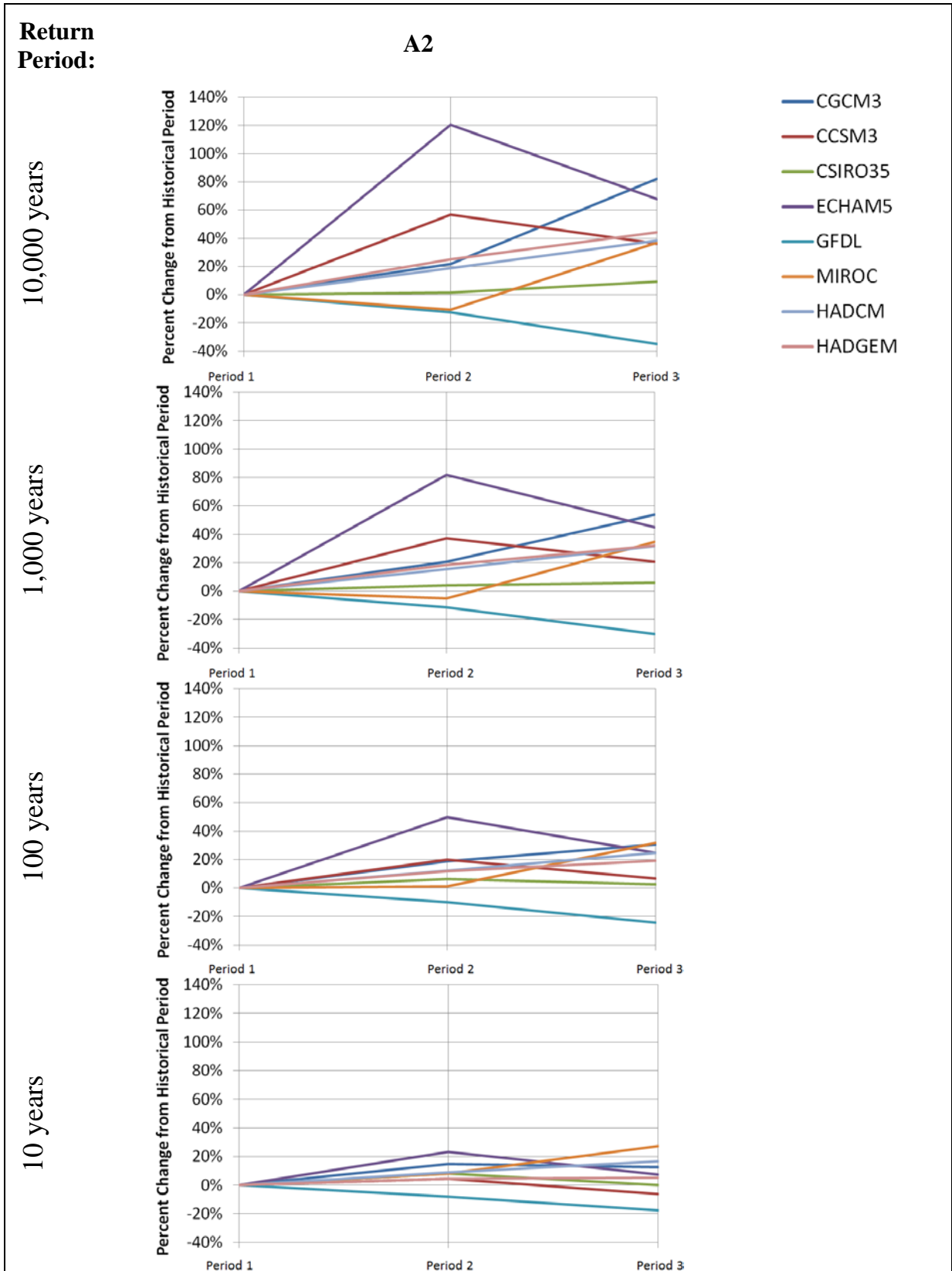


Figure B.1.1: Percent change in the estimated streamflow quantiles at Fraser-Hope for 8 GCMs under the A2 greenhouse gas scenario.

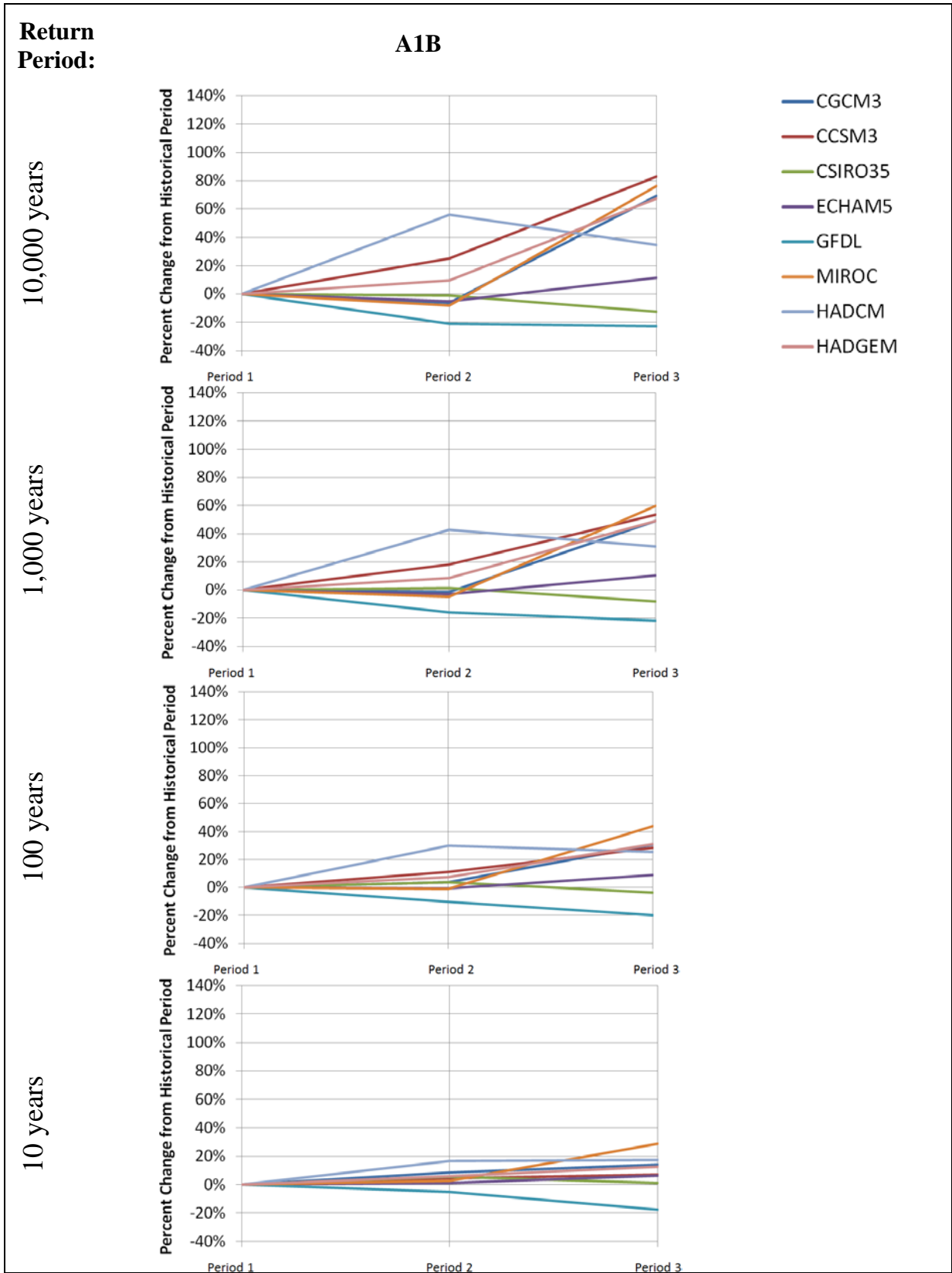


Figure B.1.2: Percent change in the estimated streamflow quantiles at Fraser-Hope for 8 GCMs under the A1B greenhouse gas scenario.



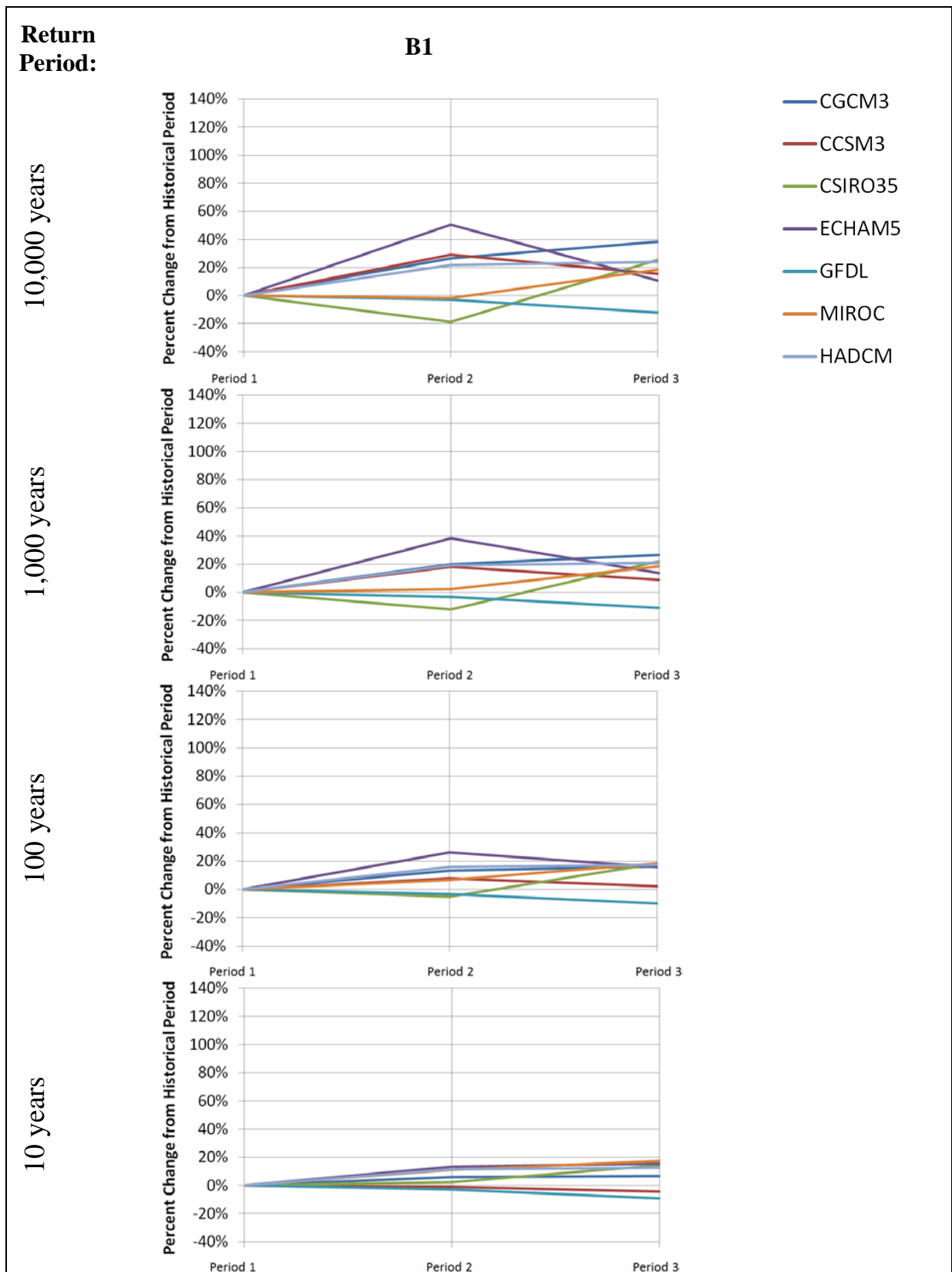


Figure B.1.3: Percent change in the estimated streamflow quantiles at Fraser-Hope for 7 GCMs under the B1 greenhouse gas scenario.

**APPENDIX B.2**  
**FLOOD FREQUENCY CURVES FOR FRASER RIVER AT HOPE**  
**FOR**  
**ALTERNATE GCMs AND EMISSIONS SCENARIOS**

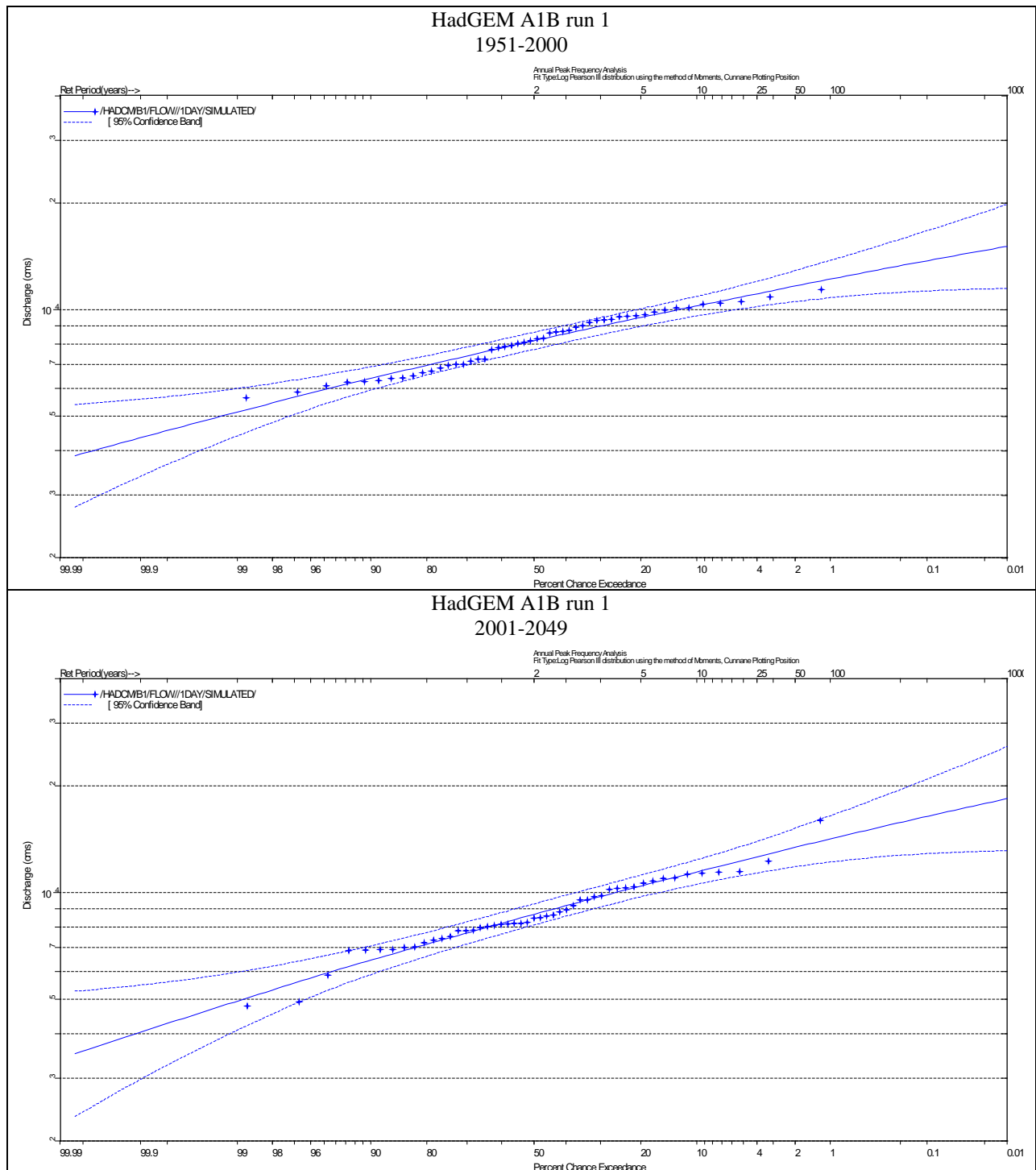


Figure B.2.1 (cont.): Fit of the Log-Pearson III distribution to the series of annual maxima of simulated streamflows, for scenario HADGEM A1B run 1.

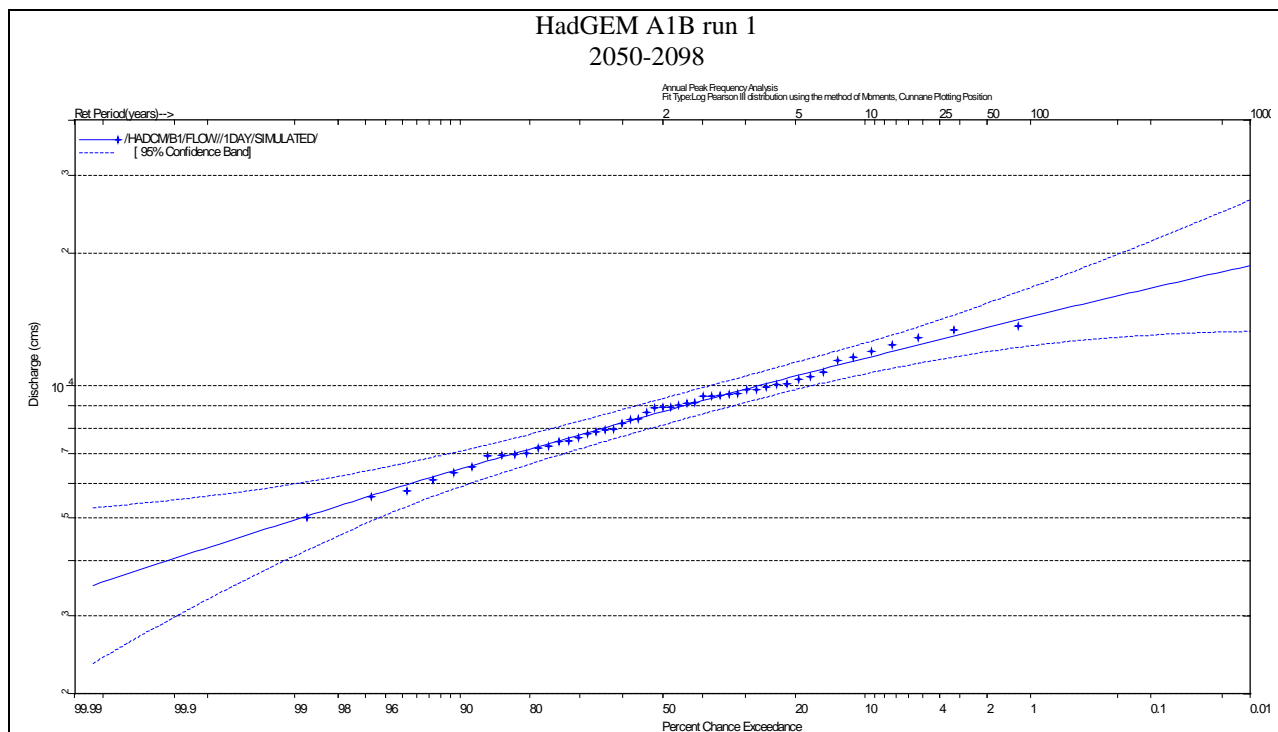


Figure B.2.1 (cont.): Fit of the Log-Pearson III distribution to the series of annual maxima of simulated streamflows, for scenario HADGEM A1B run 1.

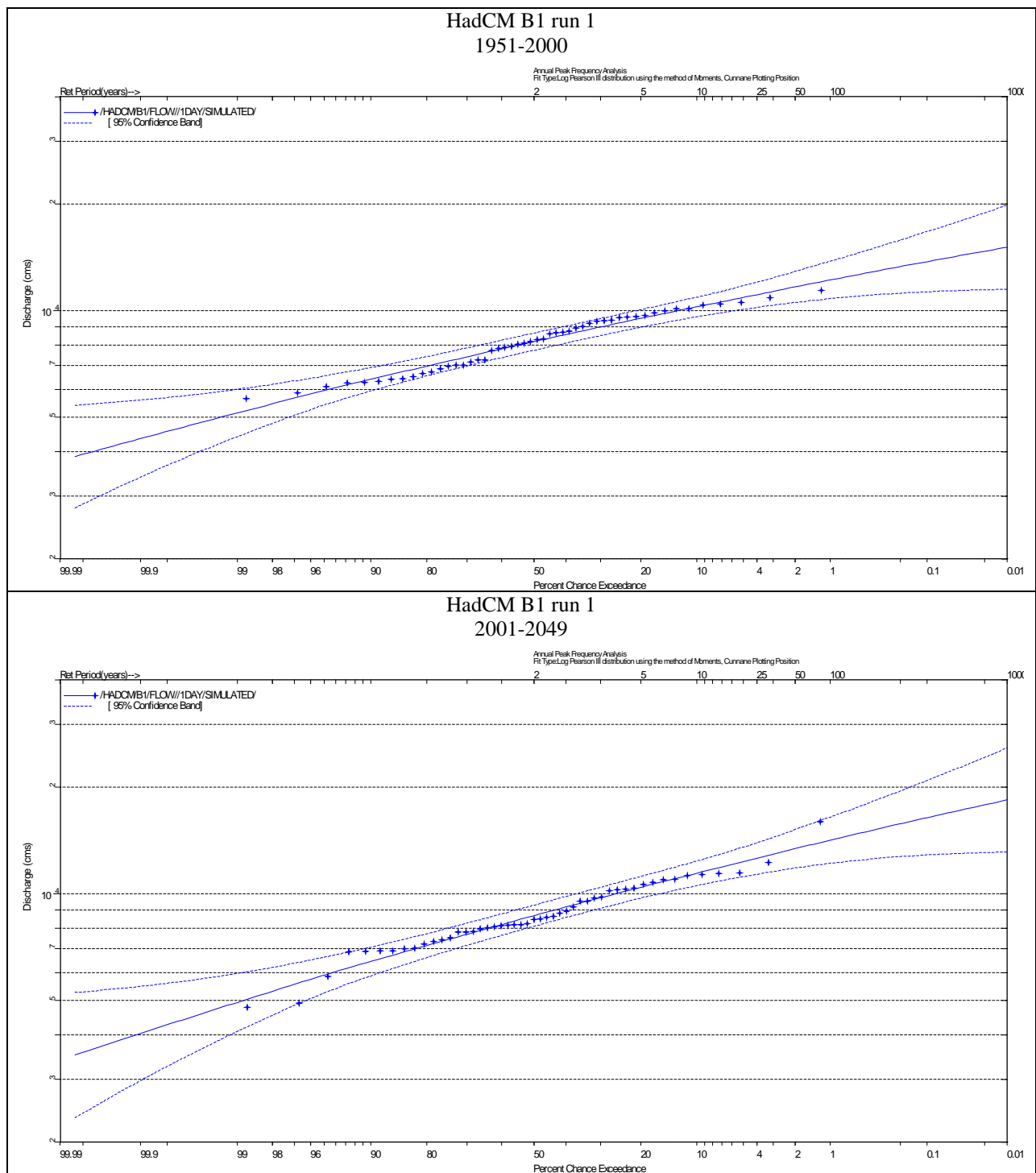


Figure B.2.2: Fit of the Log-Pearson III distribution to the series of annual maxima of simulated streamflows, for scenario HADCM B1 run 1.

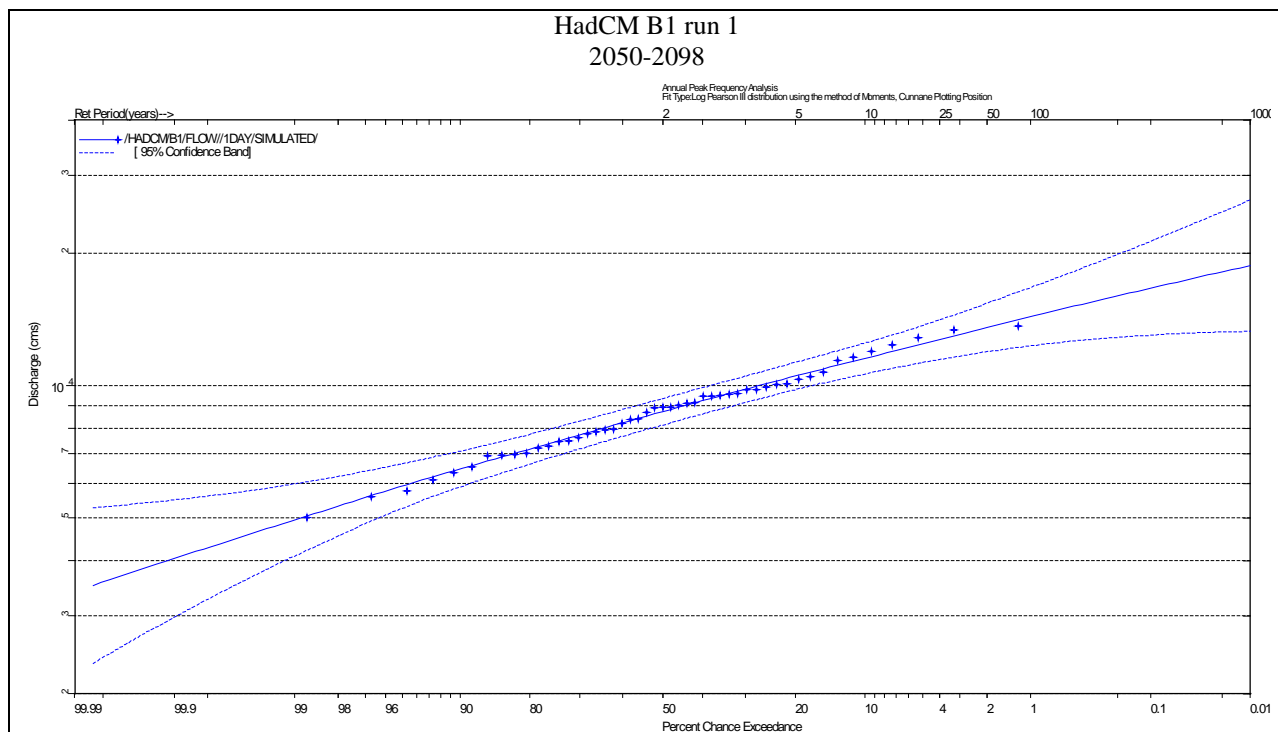


Figure B.2.2 (cont.): Fit of the Log-Pearson III distribution to the series of annual maxima of simulated streamflows, for scenario HADCM B1 run 1.