Appendix I

Climate Change Assessment Memo

Memorandum

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Subject: **Yellow Creek Geomorphic Systems Master Plan, Phase 2, Climate Change Assessment**

1. Introduction

GHD Limited (GHD) has provided this Climate Change Assessment Technical Memorandum as part of the *Phase 2: Alternative Solutions Report* for the Yellow Creek Geomorphic Systems Master Plan, in the City of Toronto (refer to Figure 1 for the Study Area). Climate change predictions indicate that severe weather events will become more frequent in the future. The rainfall intensity, volume, duration, and interval between storms are changing as a result of climate change. An increase in the number of intense rainstorms is expected, especially during the summer. This increase in rainfall causes increases in surface runoff and flood volumes. Increases in impermeable surfaces due to urbanization and antecedent rainfall conditions can further increase the surface runoff. These factors cause increased runoff flow into the watercourse so the anticipated changes must be assessed to determine appropriate watercourse restoration design considerations. Proposed designs should consider the increased flow and associated forces to limit potential erosion under changing conditions. The purpose of this technical memo is to document the approach to the climate change assessment and the results for the Yellow Creek GSMP Study Area.

2. Methodology

2.1 Intensity Duration Frequency Climate Change Tool

GHD used the Intensity Duration Frequency (IDF) Climate Change tool (IDF-CC, https://www.idf-cc-uwo.ca/) developed by The University of Western Ontario, to investigate appropriate climate change factors for the Yellow Creek GSMP site based on existing IDF curves adjacent to the Site. The IDF-CC tool takes as input an existing IDF curve for a project site, along with the project's geographic location, and then pulls emission scenarios from a number of global climate models (GCMs). An ensemble median of all the available global climate models was used so IDF curves under future climate were derived from an ensemble rather than using any one global model.

The IDF-CC tool creates predictions of future rainfall change within the 2021 – 2100 time period under three Representative Concentration Pathways (RCP) scenarios: RCP2.6, RCP4.5, and RCP8.5. RCPs are scenarios that include time series of emissions and concentrations of the full suite of greenhouse gases, aerosols and chemically active gases, as well as land use and land cover factors (Moss et al., 2008). The RCPs are "representative" because each RCP provides only one of many possible scenarios that would lead

to the specific radiation. The term "pathway" emphasizes that not only the long-term concentration levels are of interest, but also the trajectory taken over time to reach that outcome (Moss et al., 2010). The IDF-CC technical manual (Schardong et al., 2021) states the following regarding each RCP:

1. RCP2.6: One pathway where radiative forcing peaks at approximately 3.0 W/m^2 before 2100 and then declines (the corresponding Extended Concentration Pathways* (ECP) assuming constant emissions after 2100).

   * Extended concentration pathways describe extensions of the RCP's from 2100 to 2500 (IPCC AR5, annex III)

2. RCP4.5: One intermediate stabilization pathway in which radiative forcing is stabilized at approximately 4.5 W/m^2 after 2100 (the corresponding ECP assuming constant concentrations after 2150).

3. RCP8.5: One high pathway for which radiative forcing reaches greater than 8.5 W/m^2 by 2100 and continues to rise for some time (the corresponding ECP assuming constant emissions after 2100 and constant concentrations after 2250).

Relative to one another, RCP2.6 represents the lower emission scenario, while RCP4.5 and RCP8.5 represent the intermediate and higher emission scenarios, respectively. Using the IDF-CC tool the rainfall change factors applicable to the project site (which are not directly comparable to the flow change factors but are related) were determined. The change factors were only determined for RCP4.5 and RCP8.5 to determine conservative factors. The rainfall change factors were calculated to be qualitatively compared to the change factors presented in the City of Toronto's Appendix A.15.

2.2 City of Toronto Climate Change Factors

The City of Toronto has defined climate change factors within Appendix A.15 of the City of Toronto Yellow Creek GSMP RFP. According to Appendix A.15, by 2085, rainfall volumes and intensities could increase by 20% as reported in climate change studies. The climate change studies report that the dry weather period between storms could increase up to 100%, especially in the summer. Urban drainage calculations apply the following climate change multipliers, shown in **Table 1**.

Table 1 City of Toronto Climate Change Factors

Return Period	Climate Change Factor
2 year	1.2
10 Year	1.3
100 Year	1.4

3. Climate Assessment Results

3.1 Climate Change Factors

The IDF-CC rainfall climate change factors were calculated for RCP4.5 and RCP8.5 and are shown relative to the City of Toronto urban drainage climate change factors in **Table 2**. The IDF-CC change factors were

lower relative to the City's defined change factors and indicate that the City's factors appear to present conservatively high estimates of future change relative to the local IDF-CC average GCM rainfall change factors calculated for the Yellow Creek Site. The IDF-CC RCP8.5 change factors were used for this assessment since they represent the local conditions under a future greenhouse gas concentration scenario that would lead to the most severe climate change impacts, when compared to all other RCP's.

Table 2 Yellow Creek Climate Change Factors Based on IDF-CC Calculations Relative to City of Toronto Change Factors

Return Period	City of Toronto	IDF-CC RCP4.5	IDF-CC RCP8.5
2 Year	1.2	1.11	1.18
5 Year	1.3	1.11	1.20
10 Year	N/A	1.11	1.20
25 Year	N/A	1.13	1.19
50 Year	N/A	1.14	1.20
100 Year	1.4	1.15	1.20

4. Hydrology and Hydraulics

4.1 Hydrology

Yellow Creek falls within the Lower Don River sub-watershed. The Don River Hydrology Update report and PCSWMM model were reviewed to evaluate existing flows in each reach of Yellow Creek (AECOM, 2018). The latest model includes design flow estimates for various design storm events, including the regulatory flood (Hurricane Hazel).

The IDF-CC RCP8.5 rainfall change factors were applied to the existing flows to estimate future conditions under climate change. It is noted that the rainfall change factors are not directly comparable to the flow change factors but are related and are assumed to provide a reasonable estimate of increases in stream flow. The relationship between rainfall and runoff is often described by the Rational Method in water resource applications, and can be stated as follows:

$$Q = CiA$$

Where:

Q = flow rate

C =the runoff coefficient

I = the rainfall intensity

A = the area of the contributing catchment

Flows for typical design storms under existing and estimated future conditions are shown in **Table 3**.

Table 3 Yellow Creek Design Flows

Flow Event	Annual Probability of Exceedance (%)	Existing Flow Rate (m^3/s)	Future Climate Flow Rate (m^3/s)
2-Year	50	8.19	9.83
5-Year	20	17.76	21.31
10-Year	10	23.78	28.54
25-Year	4	30.99	37.19
50-Year	2	38.49	46.19
100-Year	1	45.4	54.48
Regional	-	139.97	167.96

4.2 Hydraulics

A hydraulic analysis for Reaches 1-4 of Yellow Creek was completed using the Hydrologic Engineering Center River Analysis System (HEC-RAS) hydraulic model, which was used to conduct a one dimensional steady flow analysis for a range of storm events under existing and future climate scenarios. The existing Yellow Creek HEC-RAS model (YellowCreekUpdate.prj) was provided by the TRCA. The 2-Year, 5-Year, 10-Year, 25-Year, 50-Year, 100-Year and Regional Storm Events were modelled for each reach. Summaries of average channel velocity, shear stress and unit stream power through each reach is provided in the following sections and a detailed summary of hydraulic parameters is provided in **Attachment A.** Definitions of relevant hydraulic parameters is provided in **Table 4**.

Critical shear stresses capable of mobilizing typical bed and bank treatments used in natural channel designs are summarized in **Table 5**.

Table 4 Hydraulic Output Variables

Variable Name	Units	Description
Flow Rate	m^3/s	Total flow in cross section
Min Channel Elev	m	Minimum main channel elevation
Water Surface Elev	m	Calculated water surface from energy equation
Energy Grade Slope	m/m	Slope of the energy grade line. Equivalent to channel slope in uniform flow.
Velocity Chnl	m/s	Average velocity of flow in main channel
Shear Chnl	N/m^2	Shear stress in main channel

Variable Name	Units	Description
Unit Stream Power	N/ms	Mean available power supply to the column of fluid over unit bed area. Product of river discharge, slope and weight of water, divided by the flow width (Bagnold 1966). $\omega = \frac{pgQS}{W}$ Where: ω = Unit stream power p = Density of water (1000 kg/m^3) g = Acceleration due to gravity (9.8 m/s^2) Q = River discharge (m^3/s) S = Energy grade slope (m/m) W = Flow width (m)
Max Chnl Depth	m	Maximum main channel depth
Top Width Chnl	m	Top width of the main channel
Flow Area	m^2	Total area of cross section active flow
Froude # Chnl	-	Froude number for the main channel. Non-dimensional ratio of the inertial force to the gravitational force. $Fr = \frac{V}{\sqrt{gD}}$ Where: Fr = Froude number V = Average velocity g = Acceleration due to gravity D = Hydraulic Depth When: Fr = 1, critical flow, Fr > 1, supercritical flow (fast / rapid flow), Fr < 1, subcritical flow (slow / tranquil flow)

Table 5 Critical Shear Stress for Typical Bed and Bank Treatments

Treatment	Critical Shear Stress (N/m^2)**
500-600 mm Boulders	324 - 388
1-2 Tonne Armourstone	583 - 728
Note: ** Miller (1977) with Shield's Parameter of 0.045	

4.2.1.1 Reach 1

Locations of cross sections through Reach 1 are shown in **Figure 1** (4169- 3314). A summary of existing and future average shear stress through the near field limits of Reach 1 is provided in **Table 6**, and a detailed summary of hydraulic parameters is provided in **Attachment A.**

Figure 1 Location of Cross sections throughout Reach 1 (HEC RAS 5.0.7)

Table 6 Existing and Future Shear Stress Summary for Reach 1

Storm Event	Existing Flow Rate (m^3/s)	Future Flow Rate (m^3/s)	Existing Channel Shear Stress* (N/m^2)	Future Channel Shear Stress** (N/m^2)	Change in Shear Stress %
2	7.99	9.59	66.01	71.22	8%
5	17.16	20.59	86.38	93.47	8%
10	22.91	27.49	97.94	106.03	8%
25	29.71	35.65	110.56	116.72	6%
50	36.97	44.36	118.89	128.34	8%
100	43.67	52.4	127.36	149.95	18%
Regional	134.41	161.29	229.91	252.00	10%

Notes:
* Based on average shear stress observed within the reach under existing flow conditions
** Based on average shear stress observed within the reach under climate change scenario RCP8.5

4.2.1.2 Reach 2

Locations of cross sections through Reach 2 are shown in **Figure 2** (3220 - 1601). A summary of existing and future average shear stress through the near field limits of Reach 2 is provided in **Table 7**, and a detailed summary of hydraulic parameters is provided in **Attachment A**.

Figure 2 Location of Cross-sections throughout Reach 2 (HEC-RAS 5.0.7)

Table 7 Existing and Future Shear Stress Summary for Reach 2

Storm Event	Existing Flow Rate (m^3/s)	Future Flow Rate (m^3/s)	Existing Channel Shear Stress* (N/m^2)	Future Channel Shear Stress** (N/m^2)	Change in Shear Stress %
2	7.99	9.59	74.35	79.11	6%
5	17.16	20.59	90.07	95.55	6%
10	22.91	27.49	99.02	106.59	8%
25	29.71	35.65	110.02	118.50	8%
50	36.97	44.36	120.12	128.42	7%
100	43.67	52.4	127.65	132.04	3%
Regional	134.41	161.29	184.27	196.24	6%

Notes:
* Based on average shear stress observed within the reach under existing flow conditions
** Based on average shear stress observed within the reach under climate change scenario RCP8.5

4.2.1.3 Reach 3

Locations of cross sections through Reach 3 are shown in **Figure 3** (1572-656). A summary of average channel velocity, shear stress and stream power through the near field limits of Reach 3 is provided in **Table 8**, and a detailed summary of hydraulic parameters is provided in **Attachment A.**

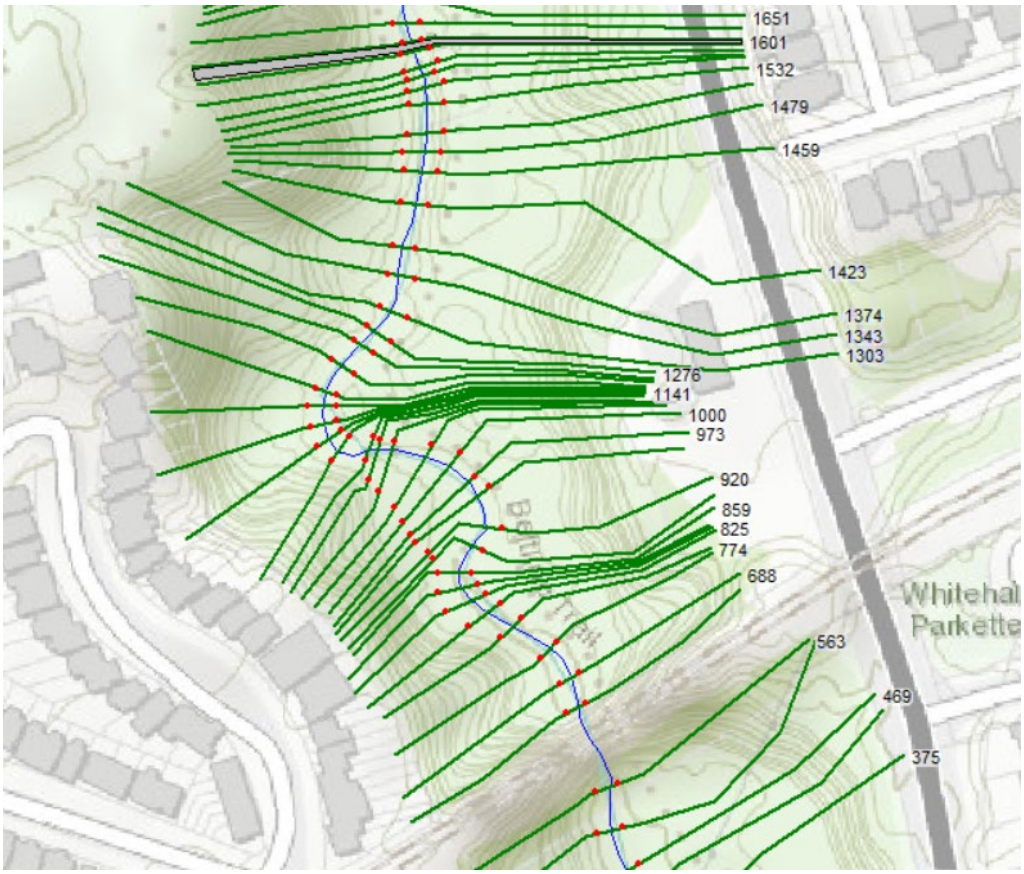

Figure 3 Location of Cross-sections throughout Reach 3 (HEC-RAS 5.0.7)

Table 8 Existing and Future Shear Stress Summary for Reach 3

Storm Event	Existing Flow Rate (m^3/s)	Future Flow Rate (m^3/s)	Existing Channel Shear Stress* (N/m^2)	Future Channel Shear Stress** (N/m^2)	Change in Shear Stress %
2	7.99	9.59	98.26	113.14	15%
5	17.16	20.59	145.43	150.47	3%
10	22.91	27.49	154.53	162.07	5%
25	29.71	35.65	163.12	169.13	4%
50	36.97	44.36	170.75	171.78	1%
100	43.67	52.4	171.56	177.15	3%
Regional	134.41	161.29	193.53	193.43	0%

Notes:
* Based on average shear stress observed within the reach under existing flow conditions
** Based on average shear stress observed within the reach under climate change scenario RCP8.5

4.2.1.4 Reach 4

Locations of cross sections along Reach 4 are shown in **Figure 4** (563 – 3). A summary of average channel velocity, shear stress and stream power through the near field limits of Reach 4 is provided in **Table 9,** and a detailed summary of hydraulic parameters is provided in **Attachment A.**

Figure 4 Location of Cross-sections throughout Reach 4 (HEC-RAS 5.0.7)

Table 9 Existing and Future Shear Stress Summary for Reach 4

Storm Event	Existing Flow Rate (m^3/s)	Future Flow Rate (m^3/s)	Existing Channel Shear Stress* (N/m^2)	Future Channel Shear Stress** (N/m^2)	Change in Shear Stress %
2	8.19	9.83	90.33	95.63	6%
5	17.76	21.31	115.00	121.63	6%
10	23.78	28.54	125.70	132.51	5%
25	30.99	37.19	135.03	140.73	4%
50	38.49	46.19	148.80	155.92	5%
100	45.4	54.48	158.70	163.77	3%
Regional	139.97	167.96	186.28	181.80	-2%

Notes:
* Based on average shear stress observed within the reach under existing flow conditions
** Based on average shear stress observed within the reach under climate change scenario RCP8.5

4.3 Hydraulic Risk Rating

A hydraulic risk rating was determined based on the average 100-year unit stream power for each reach. Unit stream power characterizes the driving force available for sediment transport, and is defined as the product of flow, slope and the weight of water divided by flow width (Bagnold, 1966).

$$\omega = \frac{\rho g Q S}{W}$$

Where:

ω = Unit stream power

ρ = Density of water (1000 kg/m^3)

g = Acceleration due to gravity (9.8 m/s^2)

Q = River discharge (m^3/s)

S = Energy grade slope (m/m)

W = Flow width (m)

This metric incorporates the direct hydraulic forces within the channel including the magnitude of flow. Large flow volumes can transport significant quantities of debris, trees and root wads which can contribute to infrastructure damage.

Each reach was assigned a hydraulic risk rating based on its average unit stream power to inform the prioritization process. The hydraulic risks under existing and future conditions are shown in **Table 10** and **Table 11.** For each reach, the hydraulic risk rating is evaluated on a scale using the numbers 1, 2, 3, and 4 where a higher value is related to the highest hydraulic score and a lower value is related to a lower hydraulic score. The highest score is considered to be at the greatest risk due to hydraulic forces. Under existing conditions, the highest hydraulic risk occurs in Reach 3 and the lowest in Reach 2. Under future conditions the hydraulic risk ratings are the same, the highest hydraulic risk still occurs in Reach 3 and the lowest in Reach 2. Shear stress is up to 18% greater in the future climate scenario compared to existing conditions.

Table 10 Existing Hydraulic Risk Summary

Reach	100-Year Flow Rate (m^3/s)	Average Channel Velocity (m/s)	Average Channel Shear Stress (N/m^2)	Average Stream Power (N/ms)	Grain Size Entrained (mm)*	Hydraulic Risk Rating
1	43.67	2.99	127.36	545.06	180	**2**
2	43.67	2.99	127.65	496.91	180	**1**
3	43.67	3.36	171.56	860.42	240	**4**
4	45.4	3.57	158.70	671.10	220	**3**

Note:
* Based on the permissible shear stress approach (Miller (1977) with Shield's Parameter of 0.045

Table 11 Future Hydraulic Risk Summary

Reach	100-Year Flow Rate (m^3/s)	Average Channel Velocity (m/s)	Average Channel Shear Stress (N/m^2)	Average Stream Power (N/ms)	Grain Size Entrained (mm)*	Hydraulic Risk Rating
1	52.40	3.26	149.95	711.71	205	**2**
2	52.40	3.10	132.04	527.75	180	**1**
3	52.40	3.49	177.15	900.34	245	**4**
4	54.48	3.71	163.77	707.71	225	**3**

Note:
* Based on the permissible shear stress approach (Miller (1977) with Shield's Parameter of 0.045

5. Implications for Stone Sizing

The previous sections establish that hydraulic forces in the Yellow Creek channel will increase in the coming decades due to increases in rainfall resulting from climate change. These increases should be considered in the context of sizing natural channel design features. Shear stresses in the future climate scenario are capable of mobilizing material up to 14% larger than material mobilized under existing climatic conditions. Typically, a minimum safety factor of 1.2 times the critical stone size is applied for channel applications. Given the expected increases in shear stress due to climate change, it is recommended that a minimum safety factor of 1.4 times the critical stone size be applied for design features in the Yellow Creek channel if existing climate hydraulic parameters are used in the design.

6. References

Bagnold, R. A., 1966. An approach to the sediment transport problem from general physics: US Geological Survey, Professional Paper 422.

Moss, R.H., Babiker, M., Brinkman, S., Calvo, E., Carter, T., Edmonds, J.A., Elgizouli, I., Emori, S., Lin, E., Hibbard, K. and Jones, R., 2008. Towards new scenarios for analysis of emissions, climate change, impacts, and response strategies.

Moss, R.H., Edmonds, J.A., Hibbard, K.A., Manning, M.R., Rose, S.K., Van Vuuren, D.P., Carter, T.R., Emori, S., Kainuma, M., Kram, T. and Meehl, G.A., 2010. The next generation of scenarios for climate change research and assessment. *Nature*, *463*(7282), pp.747-756.

Schardong, A., Gaur, A., Simonovis, S.P., and Sandik, D. 2021. Computerized Tool for the Development of Intensity-Duration-Frequency Curves Under a Changing Climate Technical Manual v.4.5.

Attachment A
HEC-RAS Detailed Output

		Reach 1 - Existing Climate						Reach 1 - Future Climate (RCP8.5)					
River Station	Storm Event	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl
		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)	
4169	2	7.99	120.32	2.99	148.76	445.32	1.5	9.59	120.37	3.2	164.42	526.18	1.52
	5	17.16	120.57	3.94	224.92	886.92	1.57	20.59	120.65	4.2	247.49	1040.19	1.59
	10	22.91	120.71	4.36	261.57	1140.7	1.6	27.49	120.8	4.64	287.18	1332.79	1.61
	25	29.71	120.85	4.76	298.7	1423.12	1.62	35.65	120.96	5.06	327.22	1656.76	1.63
	50	36.97	120.98	5.12	333.17	1707.22	1.63	44.36	121.12	5.44	364.3	1981.34	1.64
	100	43.67	121.1	5.41	361.53	1956.29	1.64	52.4	121.25	5.74	394.79	2265.13	1.65
	Regional	134.41	122.31	7.59	600.17	4552.91	1.69	161.29	122.59	7.98	646.98	5160.38	1.7
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
4153	2	7.99	120.13	2.96	150.33	444.45	1.59	9.59	120.17	3.19	169.61	540.81	1.64
	5	17.16	120.32	4.02	245.04	985.51	1.78	20.59	120.39	4.31	273.04	1176.96	1.81
	10	22.91	120.43	4.49	290.56	1303.63	1.83	27.49	120.5	4.8	322.51	1547.71	1.87
	25	29.71	120.53	4.94	337.02	1663.77	1.89	35.65	120.62	5.27	373.1	1966.66	1.92
	50	36.97	120.64	5.34	380.65	2032.59	1.93	44.36	120.73	5.69	420.4	2393.48	1.96
	100	43.67	120.72	5.66	416.85	2360.3	1.96	52.4	120.83	6.03	459.68	2772.68	1.99
	Regional	134.41	121.61	8.13	720.08	5853.57	2.11	161.29	121.81	8.58	780.24	6692.64	2.13
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
4144	2	7.99	119.6	3.83	268.04	1027.77	2.22	9.59	119.65	4	281.31	1126.06	2.18
	5	17.16	119.83	4.67	340.55	1588.86	2.13	20.59	119.89	4.91	364.61	1789.81	2.13
	10	22.91	119.94	5.06	379.92	1922.07	2.13	27.49	120.02	5.33	407.67	2173.99	2.13
	25	29.71	120.05	5.45	420.33	2292.78	2.12	35.65	120.14	5.75	451.34	2594.83	2.12
	50	36.97	120.16	5.81	457.98	2661.07	2.12	44.36	120.27	6.13	492.52	3017.04	2.12
	100	43.67	120.26	6.1	489.19	2982.4	2.12	52.4	120.37	6.43	527.56	3394.05	2.12
	Regional	134.41	121.18	8.4	782.08	6570.73	2.21	161.29	121.38	8.84	840.94	7433.37	2.21
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
4129	2	7.99	118.93	4.41	323.93	1429.37	2.17	9.59	119	4.58	335.39	1534.69	2.12
	5	17.16	119.27	5.11	378.36	1932.79	2.01	20.59	119.37	5.3	395.41	2096.32	1.99
	10	22.91	119.43	5.41	405.04	2192.81	1.97	27.49	119.55	5.63	425.03	2392.3	1.95
	25	29.71	119.6	5.73	434.19	2486.25	1.95	35.65	119.73	5.97	457.53	2729.86	1.93
	50	36.97	119.76	6.01	461.88	2777.13	1.93	44.36	119.91	6.27	487.91	3058.54	1.91
	100	43.67	119.89	6.24	485.28	3030.43	1.91	52.4	120.05	6.52	515.12	3360.64	1.91
	Regional	134.41	121.12	8.06	709.92	5725.08	2	161.29	121.34	8.49	770.76	6543.06	2.05
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
4107	2	7.99	119.34	2.28	78.54	178.97	1.01	9.59	119.42	2.38	83.27	198.19	1.01
	5	17.16	119.59	3.21	142.84	458.18	1.24	20.59	119.63	3.63	181.09	657.98	1.38
	10	22.91	119.66	3.89	205.47	798.57	1.46	27.49	119.72	4.31	248.14	1069.39	1.57
	25	29.71	119.75	4.5	268.21	1206.85	1.62	35.65	119.82	4.93	315.23	1554.76	1.71
	50	36.97	119.84	5.01	323.78	1622.46	1.72	44.36	119.93	5.46	375.4	2049.12	1.81
	100	43.67	119.92	5.42	370.77	2009.29	1.8	52.4	120.02	5.87	424.05	2488.34	1.87
	Regional	134.41	120.83	7.98	681.89	5441.93	2.01	161.29	121.05	8.41	740.03	6222.88	2.05
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
4094	2	7.99	119.13	1	12.28	12.25	0.31	9.59	119.27	1.05	13.28	13.94	0.32
	5	17.16	119.7	1.3	19.48	25.31	0.37	20.59	119.83	1.41	22.26	31.32	0.38
	10	22.91	119.92	1.48	24.15	35.63	0.39	27.49	120.07	1.6	27.69	44.23	0.41
	25	29.71	120.14	1.65	29.44	48.71	0.42	35.65	120.29	1.8	34.33	61.95	0.44
	50	36.97	120.33	1.84	35.34	64.86	0.45	44.36	120.5	2	41.03	81.97	0.47
	100	43.67	120.48	1.98	40.52	80.37	0.47	52.4	119.08	6.86	586.12	4023.31	2.19
	Regional	134.41	119.91	8.72	845.09	7369.75	2.33	161.29	120.11	9.13	899.32	8210.3	2.33
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
4074	2	7.99	119.1	1.2	19.48	23.39	0.44	9.59	119.25	1.19	18.54	22.14	0.42
	5	17.16	119.68	1.38	22.33	30.73	0.41	20.59	119.81	1.47	24.97	36.79	0.42
	10	22.91	119.89	1.54	26.75	41.07	0.43	27.49	120.05	1.64	29.93	49.2	0.44
	25	29.71	120.11	1.69	31.51	53.41	0.45	35.65	120.27	1.83	35.95	65.71	0.47
	50	36.97	120.31	1.85	36.83	68.27	0.48	44.36	120.48	1.99	41.76	83.08	0.5
	100	43.67	120.47	1.98	41.32	81.72	0.5	52.4	120.66	2.11	46.57	98.25	0.52
	Regional	134.41	120.09	7.79	668.14	5205.36	2.09	161.29	120.27	8.29	739.42	6127.41	2.14
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
4054	2	7.99	118.96	1.83	47.58	86.98	0.72	9.59	119.14	1.71	39.61	67.93	0.62
	5	17.16	119.55	1.95	46.63	90.71	0.61	20.59	119.67	2.08	52.86	109.95	0.65
	10	22.91	119.75	2.16	56.53	121.96	0.67	27.49	119.89	2.25	62.03	139.57	0.71
	25	29.71	119.97	2.26	63.01	142.5	0.72	35.65	120.14	2.3	63.13	145.13	0.7
	50	36.97	120.18	2.3	62.93	144.89	0.69	44.36	120.38	2.34	62.8	146.67	0.67
	100	43.67	120.36	2.33	62.81	146.51	0.67	52.4	120.57	2.37	62.87	148.93	0.66
	Regional	134.41	120.49	6.48	475.92	3084.87	1.82	161.29	120.6	7.15	571.89	4091.42	1.97
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	2	7.99	118.59	2.93	112.95	330.5	1.01	9.59	118.72	3.05	118.96	362.44	1
	5	17.16	119.28	2.76	104.85	288.93	1.01	20.59	119.39	2.86	109.79	313.59	1.01
	10	22.91	119.46	2.92	112.61	328.57	1.01	27.49	119.59	3.03	118.33	358.74	1

		Reach 1 - Existing Climate						Reach 1 - Future Climate (RCP8.5)					
River Station	Storm Event	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl
		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)	
4030	25	29.71	119.65	3.09	121.23	374.33	1	35.65	119.78	3.24	129.27	418.3	1.01
	50	36.97	119.81	3.26	130.79	426.91	1.01	44.36	119.97	3.41	138.69	472.88	1.01
	100	43.67	119.95	3.4	138	468.8	1.01	52.4	120.13	3.53	145	512.02	1
	Regional	134.41	121.14	4.56	204.99	935.02	1	161.29	121.03	5.87	345.15	2027.1	1.32
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
4005	2	7.99	118.33	3.18	163.74	520.45	1.42	9.59	118.37	3.48	195.45	680.55	1.56
	5	17.16	118.64	3.95	228.56	903.41	1.54	20.59	118.75	4.05	231.14	936.03	1.49
	10	22.91	118.82	4.11	232.19	953.36	1.46	27.49	118.96	4.19	232.37	973.44	1.4
	25	29.71	119.03	4.21	230.67	971.07	1.36	35.65	119.21	4.27	227.85	972.31	1.3
	50	36.97	119.24	4.28	227.95	976.59	1.29	44.36	119.46	4.28	218.63	936.41	1.2
	100	43.67	119.44	4.28	219.38	939.63	1.21	52.4	119.72	4.21	203.02	854.87	1.11
	Regional	134.41	121.33	3.86	143.07	552.79	0.79	161.29	120.98	5.69	322.72	1837.26	1.24
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3969	2	7.99	118.38	2.03	61.77	125.13	0.88	9.59	118.48	2.05	60.1	122.91	0.82
	5	17.16	118.84	2.32	68.35	158.27	0.76	20.59	118.96	2.44	73.6	179.69	0.76
	10	22.91	119.05	2.52	76.94	193.84	0.76	27.49	119.2	2.66	83.31	221.72	0.76
	25	29.71	119.27	2.72	86.1	234.39	0.76	35.65	119.43	2.89	94.27	272.29	0.77
	50	36.97	119.47	2.93	96.48	282.59	0.78	44.36	119.64	3.13	107.55	336.81	0.79
	100	43.67	119.63	3.11	106.53	331.7	0.79	52.4	119.34	4.55	237.49	1080.34	1.25
	Regional	134.41	121.25	3.9	138.33	539.36	0.74	161.29	121.62	3.92	134.11	525.67	0.7
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3930	2	7.99	118.33	1.61	36.25	58.32	0.62	9.59	118.44	1.66	37.58	62.5	0.61
	5	17.16	118.81	1.97	47.67	93.72	0.62	20.59	118.94	2.09	52.27	109.04	0.63
	10	22.91	119.03	2.16	55.04	118.75	0.63	27.49	119.19	2.28	59.94	136.71	0.64
	25	29.71	119.26	2.33	61.95	144.45	0.64	35.65	119.44	2.45	66.15	162.2	0.64
	50	36.97	119.48	2.48	66.99	165.87	0.64	44.36	119.68	2.59	70.92	183.75	0.63
	100	43.67	119.66	2.58	70.61	182.29	0.63	52.4	119.88	2.69	74.29	199.98	0.63
	Regional	134.41	121.29	3.45	102.26	352.39	0.62	161.29	121.62	3.66	111.57	408.18	0.62
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3907	2	7.99	118.35	1.23	19.58	24.06	0.42	9.59	118.45	1.31	21.83	28.61	0.43
	5	17.16	118.83	1.63	31.78	51.85	0.49	20.59	118.96	1.74	35.57	61.98	0.51
	10	22.91	119.05	1.8	37.75	68.11	0.52	27.49	119.21	1.91	40.81	77.94	0.52
	25	29.71	119.29	1.95	42.09	82.26	0.52	35.65	119.48	2.06	45.34	93.53	0.52
	50	36.97	119.52	2.09	46.05	96.04	0.52	44.36	119.72	2.2	49.78	109.67	0.52
	100	43.67	119.7	2.19	49.45	108.44	0.52	52.4	119.92	2.31	53.36	123.42	0.52
	Regional	134.41	121.34	3.11	81.85	254.73	0.55	161.29	121.67	3.31	89.83	297.55	0.56
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3891	2	7.99	118.25	1.7	39.46	67.23	0.62	9.59	118.35	1.81	43.89	79.27	0.65
	5	17.16	118.74	1.95	49.26	95.88	0.67	20.59	118.89	1.99	48.97	97.31	0.64
	10	22.91	118.99	2.02	49.27	99.49	0.62	27.49	119.16	2.08	50.12	104.28	0.6
	25	29.71	119.24	2.11	50.56	106.6	0.59	35.65	119.43	2.19	52.47	114.92	0.58
	50	36.97	119.47	2.21	52.94	116.99	0.58	44.36	119.68	2.32	55.69	128.96	0.57
	100	43.67	119.66	2.31	55.43	127.83	0.57	52.4	119.88	2.42	58.81	142.59	0.56
	Regional	134.41	121.27	3.26	88.83	289.95	0.57	161.29	121.59	3.5	99.27	347.73	0.59
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3877	2	7.99	118.29	1.18	18.2	21.39	0.42	9.59	118.39	1.25	20.1	25.07	0.43
	5	17.16	118.78	1.49	26.47	39.52	0.45	20.59	118.93	1.58	28.7	45.4	0.45
	10	22.91	119.02	1.64	30.14	49.37	0.45	27.49	119.19	1.74	32.75	56.87	0.46
	25	29.71	119.27	1.78	34.2	60.83	0.46	35.65	119.46	1.88	36.88	69.42	0.46
	50	36.97	119.5	1.91	37.51	71.48	0.46	44.36	119.71	2.03	40.94	83.06	0.47
	100	43.67	119.69	2.02	40.63	81.99	0.47	52.4	119.91	2.15	44.39	95.38	0.47
	Regional	134.41	121.31	3.04	75.23	228.86	0.52	161.29	121.62	3.3	85.91	283.25	0.54
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3854	2	7.99	118.22	1.48	29.4	43.52	0.53	9.59	118.32	1.59	32.96	52.3	0.55
	5	17.16	118.66	1.98	47.8	94.7	0.61	20.59	118.79	2.11	53.25	112.6	0.63
	10	22.91	118.88	2.19	56.59	124.18	0.64	27.49	119.03	2.33	62.17	144.61	0.65
	25	29.71	119.1	2.38	64.75	154.01	0.66	35.65	119.29	2.48	69.36	172.16	0.68
	50	36.97	119.33	2.5	69.97	175.04	0.68	44.36	119.54	2.6	72.78	188.89	0.67
	100	43.67	119.52	2.59	72.57	187.78	0.67	52.4	119.74	2.68	74.88	200.83	0.65
	Regional	134.41	121.1	3.55	107.83	382.34	0.64	161.29	121.39	3.82	121.8	465.88	0.66
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3828	2	7.99	117.98	2.37	83.2	196.99	1.01	9.59	118.06	2.47	88.35	218.6	1.01
	5	17.16	118.37	2.83	105.86	299.92	1	20.59	118.49	2.97	113.18	336.51	1
	10	22.91	118.56	3.06	117.73	360.07	1	27.49	118.69	3.22	127.01	409.25	1.01
	25	29.71	118.75	3.29	130.54	429.03	1.01	35.65	118.91	3.44	139	478.08	1.01
	50	36.97	118.94	3.47	140.82	488.81	1.01	44.36	119.12	3.62	149.02	539.2	1.01

		Reach 1 - Existing Climate						Reach 1 - Future Climate (RCP8.5)					
River Station	Storm Event	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl
		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)	
	100	43.67	119.1	3.6	148.26	534.46	1.01	52.4	119.29	3.76	157.15	590.84	1.01
	Regional	134.41	120.61	4.49	191.03	858.25	0.93	161.29	120.9	4.71	204.29	962.94	0.93
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	2	7.99	117.81	2.48	96	238.07	1.14	9.59	117.86	2.67	108.62	290.53	1.18
	5	17.16	118.1	3.24	145.47	471.96	1.23	20.59	118.2	3.43	157.85	541.45	1.24
	10	22.91	118.26	3.54	165.27	585.11	1.25	27.49	118.37	3.73	178.44	666.05	1.26
3803	25	29.71	118.42	3.81	184.06	702.08	1.26	35.65	118.55	4.01	197.5	791.88	1.26
	50	36.97	118.58	4.05	200.15	810.35	1.26	44.36	118.73	4.24	212.3	899.36	1.25
	100	43.67	118.71	4.22	211.23	891.38	1.25	52.4	118.89	4.39	221.48	972.41	1.24
	Regional	134.41	120.17	5.1	254.33	1297.56	1.11	161.29	120.63	5	231.67	1158.14	1
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	2	7.99	117.73	2.08	69.55	144.71	1.01	9.59	117.75	2.35	87.41	205.65	1.11
	5	17.16	117.95	2.94	123.82	364.46	1.19	20.59	117.99	3.27	150.11	491.48	1.28
	10	22.91	118.03	3.46	165.81	574.42	1.32	27.49	118.1	3.77	191.46	722.01	1.38
3770	25	29.71	118.14	3.88	200.34	777.79	1.4	35.65	118.23	4.15	222.47	923.87	1.42
	50	36.97	118.25	4.21	227.03	955.33	1.43	44.36	118.37	4.47	248.16	1108.8	1.44
	100	43.67	118.36	4.45	246.31	1094.95	1.44	52.4	118.48	4.72	269.97	1275.18	1.46
	Regional	134.41	119.51	5.89	351.62	2070.29	1.36	161.29	119.79	6.13	366.77	2247.05	1.33
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	2	7.99	117.5	2.47	102.36	252.64	1.28	9.59	117.56	2.56	105.55	270.3	1.24
	5	17.16	117.77	3.07	135.52	416.4	1.24	20.59	117.84	3.31	152.25	503.34	1.27
	10	22.91	117.89	3.44	161.62	555.63	1.28	27.49	117.99	3.64	174.98	636.27	1.29
3751	25	29.71	118.03	3.73	181.38	676.03	1.29	35.65	118.14	3.96	198.27	784.65	1.3
	50	36.97	118.17	4.01	201.92	808.97	1.31	44.36	118.29	4.24	219.34	930.69	1.31
	100	43.67	118.28	4.22	217.84	919.9	1.31	52.4	118.42	4.47	236.14	1054.52	1.31
	Regional	134.41	119.54	5.54	310.93	1724.11	1.26	161.29	119.82	5.79	327.52	1897.66	1.24
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	2	7.99	117.61	1.53	34.25	52.56	0.64	9.59	117.68	1.66	38.95	64.64	0.66
	5	17.16	117.91	2.15	59.97	128.83	0.75	20.59	117.99	2.35	70.06	164.62	0.79
	10	22.91	118.05	2.46	75.97	187.24	0.81	27.49	118.13	2.72	90.66	246.61	0.86
3730	25	29.71	118	3.36	143.29	481.96	1.13	35.65	118.13	3.55	154.31	547.3	1.13
	50	36.97	118.11	3.75	173.43	650.56	1.2	44.36	118.23	3.99	190.25	758.5	1.22
	100	43.67	118.22	3.97	188.81	748.96	1.22	52.4	118.33	4.32	219.01	946.5	1.27
	Regional	134.41	119.31	5.71	334.62	1910.47	1.36	161.29	119.56	5.99	359.22	2151.11	1.37
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	2	7.99	117.46	2.08	69.04	143.28	1.01	9.59	117.52	2.18	73.56	160.27	1.01
	5	17.16	117.76	2.57	91.84	235.59	1.01	20.59	117.85	2.68	97.15	260.7	1
	10	22.91	117.91	2.78	102.25	284	1.01	27.49	118.01	2.92	109.57	320.27	1.01
3717	25	29.71	118.06	2.99	112.84	337.06	1.01	35.65	118.09	3.46	150.25	520.21	1.15
	50	36.97	118.11	3.52	154.4	543.3	1.16	44.36	118.23	3.76	171.09	642.92	1.18
	100	43.67	118.23	3.68	163.85	602.92	1.15	52.4	118.61	3.21	115.52	370.56	0.89
	Regional	134.41	119.12	5.83	355.94	2074.46	1.45	161.29	119.34	6.15	388.36	2388.9	1.48
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	2	7.99	117.2	2.58	116.93	301.65	1.44	9.59	117.24	2.75	128.29	352.32	1.46
	5	17.16	117.41	3.27	163.72	535.95	1.48	20.59	117.48	3.44	174.89	602.2	1.47
	10	22.91	117.52	3.55	181.87	645.18	1.47	27.49	117.61	3.73	194.56	725.5	1.47
3701	25	29.71	117.64	3.81	200.52	763.71	1.48	35.65	118.28	2.24	58.48	131.1	0.66
	50	36.97	118.32	2.25	58.16	130.6	0.65	44.36	118.54	2.27	57.18	129.98	0.62
	100	43.67	118.52	2.27	57.21	129.84	0.62	52.4	118.75	2.32	57.73	134.05	0.6
	Regional	134.41	120.31	2.55	55.66	142.08	0.47	161.29	120.66	2.63	57.07	150.26	0.46
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	2	7.99	117.32	1.67	44.3	73.77	0.81	9.59	117.38	1.77	48.53	85.92	0.82
	5	17.16	117.6	2.11	62.07	131	0.83	20.59	117.73	2.13	60.24	128.24	0.78
	10	22.91	117.82	2.11	57.49	121.44	0.73	27.49	118	2.09	53.4	111.55	0.67
3689	25	29.71	118.08	2.09	52.15	108.78	0.64	35.65	118.28	2.1	50.43	105.85	0.6
	50	36.97	118.32	2.11	50.37	106.1	0.6	44.36	118.54	2.15	50.61	109.02	0.57
	100	43.67	118.52	2.15	50.54	108.61	0.57	52.4	118.75	2.22	51.97	115.35	0.56
	Regional	134.41	120.24	2.72	63.91	173.85	0.5	161.29	120.58	2.82	66.37	187.4	0.49
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	2	7.99	117.34	1.24	23.62	29.22	0.56	9.59	117.4	1.32	26	34.32	0.57
	5	17.16	117.65	1.61	34.66	55.72	0.59	20.59	117.77	1.65	35.18	58.14	0.57
	10	22.91	117.86	1.66	34.54	57.37	0.55	27.49	118.04	1.68	33.54	56.2	0.51
3679	25	29.71	118.12	1.68	33.24	56.01	0.5	35.65	118.32	1.72	33.09	56.85	0.48
	50	36.97	118.36	1.73	33.21	57.37	0.47	44.36	118.58	1.78	34.07	60.76	0.46
	100	43.67	118.56	1.78	33.97	60.39	0.46	52.4	118.8	1.85	35.51	65.71	0.45
	Regional	134.41	120.28	2.39	50.24	120.16	0.45	161.29	120.62	2.5	53.52	134.05	0.45

		Reach 1 - Existing Climate						Reach 1 - Future Climate (RCP8.5)					
River Station	Storm Event	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl
		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)	
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3669	2	7.99	117.33	1.15	20.46	23.63	0.52	9.59	117.39	1.23	22.6	27.89	0.53
	5	17.16	117.64	1.51	30.41	45.94	0.55	20.59	117.77	1.56	31.02	48.35	0.53
	10	22.91	117.86	1.57	30.65	48.15	0.51	27.49	118.04	1.59	30.13	48.01	0.48
	25	29.71	118.12	1.6	29.99	48.13	0.47	35.65	118.32	1.64	30.14	49.51	0.45
	50	36.97	118.37	1.65	30.29	50.09	0.45	44.36	118.58	1.71	31.32	53.67	0.43
	100	43.67	118.57	1.71	31.21	53.29	0.43	52.4	118.8	1.78	32.89	58.62	0.43
	Regional	134.41	120.28	2.33	47.7	111.28	0.43	161.29	120.62	2.47	51.84	128.2	0.44
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3658	2	7.99	117.17	1.92	63.01	120.96	1.02	9.59	117.22	2.02	67.18	135.85	1.01
	5	17.16	117.45	2.3	75.97	174.71	0.93	20.59	117.63	2.13	60.66	129.28	0.77
	10	22.91	117.74	2.08	55.91	116.39	0.71	27.49	117.94	2.04	50.78	103.42	0.64
	25	29.71	118.02	2.03	49.39	100.12	0.62	35.65	118.24	2.02	47.19	95.26	0.59
	50	36.97	118.28	2.02	46.97	94.94	0.58	44.36	118.51	2.04	46.08	94.03	0.55
	100	43.67	118.49	2.04	46.11	93.98	0.55	52.4	118.72	2.08	46.27	96.21	0.53
	Regional	134.41	120.22	2.53	56.65	143.09	0.49	161.29	120.57	2.65	60.25	159.62	0.48
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3648	2	7.99	117.02	2.23	88.45	197.13	1.27	9.59	117.06	2.36	96.6	228.36	1.29
	5	17.16	117.49	1.81	44.7	81	0.68	20.59	117.66	1.76	39.48	69.31	0.6
	10	22.91	117.77	1.74	37.8	65.94	0.56	27.49	117.96	1.75	36.16	63.19	0.52
	25	29.71	118.04	1.76	35.82	62.88	0.51	35.65	118.26	1.79	35.82	64.06	0.49
	50	36.97	118.3	1.8	35.97	64.7	0.49	44.36	118.52	1.85	37	68.54	0.48
	100	43.67	118.5	1.85	36.89	68.14	0.48	52.4	118.74	1.91	38.49	73.51	0.48
	Regional	134.41	120.24	2.38	49.18	117.05	0.44	161.29	120.58	2.52	53.2	134.05	0.44
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3638	2	7.99	116.82	2.57	117.46	302.34	1.46	9.59	116.87	2.68	122.29	327.85	1.43
	5	17.16	117.49	1.66	35.03	58.15	0.56	20.59	117.66	1.67	34.09	57.08	0.53
	10	22.91	117.76	1.69	34	57.54	0.51	27.49	117.95	1.73	34.27	59.4	0.49
	25	29.71	118.03	1.75	34.62	60.75	0.49	35.65	118.24	1.82	35.99	65.45	0.48
	50	36.97	118.28	1.83	36.39	66.77	0.48	44.36	118.5	1.91	38.93	74.42	0.49
	100	43.67	118.48	1.91	38.71	73.75	0.48	52.4	118.71	1.99	40.67	80.93	0.48
	Regional	134.41	120.21	2.5	53.75	134.59	0.46	161.29	120.55	2.65	57.99	153.5	0.46
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3628	2	7.99	116.93	1.81	51.31	92.84	0.85	9.59	117.04	1.74	44.6	77.57	0.74
	5	17.16	117.47	1.73	37.55	64.84	0.58	20.59	117.63	1.75	36.98	64.72	0.54
	10	22.91	117.74	1.77	37.13	65.86	0.53	27.49	117.92	1.82	37.85	69.01	0.52
	25	29.71	118.01	1.85	38.3	70.8	0.51	35.65	118.21	1.92	40.04	76.96	0.5
	50	36.97	118.25	1.94	40.55	78.69	0.5	44.36	118.46	2.04	43.45	88.62	0.5
	100	43.67	118.45	2.03	43.17	87.64	0.5	52.4	118.67	2.15	46.94	100.86	0.5
	Regional	134.41	120.14	2.77	65.93	182.85	0.5	161.29	120.48	2.91	70.15	204.15	0.5
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3612	2	7.99	116.94	1.44	28.77	41.46	0.55	9.59	117.04	1.51	30.32	45.65	0.55
	5	17.16	117.45	1.73	35.87	61.9	0.53	20.59	117.61	1.8	38.02	68.59	0.53
	10	22.91	117.7	1.85	39.56	73.32	0.53	27.49	117.88	1.94	42.15	81.63	0.53
	25	29.71	117.96	1.97	43.31	85.39	0.54	35.65	118.16	2.06	46.14	94.99	0.54
	50	36.97	118.2	2.08	46.78	97.22	0.54	44.36	118.42	2.18	50.29	109.61	0.55
	100	43.67	118.4	2.17	49.96	108.45	0.55	52.4	118.62	2.28	54	123.24	0.55
	Regional	134.41	120.08	2.87	72.96	209.31	0.55	161.29	120.43	2.97	74.94	222.22	0.53
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3597	2	7.99	116.94	1.22	19.75	24.17	0.44	9.59	117.04	1.3	21.75	28.33	0.44
	5	17.16	117.45	1.56	28.63	44.76	0.46	20.59	117.61	1.65	31.17	51.54	0.46
	10	22.91	117.71	1.71	32.84	56.18	0.47	27.49	117.88	1.81	35.88	64.98	0.47
	25	29.71	117.97	1.86	37.27	69.16	0.48	35.65	118.16	1.97	41.01	80.78	0.49
	50	36.97	118.2	1.99	41.84	83.43	0.49	44.36	118.41	2.13	46.51	98.86	0.5
	100	43.67	118.39	2.11	46.08	97.39	0.5	52.4	118.6	2.26	51.64	116.7	0.52
	Regional	134.41	120.02	2.96	79.22	234.66	0.58	161.29	120.36	3.09	82.56	254.79	0.57
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3577	2	7.99	116.91	1.36	23.78	32.3	0.46	9.59	117	1.48	27.49	40.57	0.48
	5	17.16	117.37	1.88	41.63	78.34	0.54	20.59	117.51	2.02	47.13	95.26	0.56
	10	22.91	117.6	2.11	50.66	106.68	0.58	27.49	117.76	2.25	56.75	127.48	0.6
	25	29.71	117.84	2.3	59.3	136.66	0.61	35.65	118.02	2.45	65.71	160.85	0.63
	50	36.97	118.06	2.48	67.07	166.16	0.64	44.36	118.25	2.63	74.47	196.18	0.66
	100	43.67	118.23	2.62	73.79	193.35	0.66	52.4	118.43	2.79	82.33	229.84	0.68
	Regional	134.41	119.84	3.4	108.37	368.39	0.71	161.29	120.26	3.35	99.45	332.73	0.64
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	2	7.99	116.9	1.29	21.63	27.86	0.44	9.59	116.99	1.39	24.67	34.33	0.46

		Reach 1 - Existing Climate						Reach 1 - Future Climate (RCP8.5)					
River Station	Storm Event	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl
		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)	
3562	5	17.16	117.38	1.72	35.2	60.42	0.52	20.59	117.52	1.82	38.47	69.87	0.52
	10	22.91	117.62	1.88	40.52	76.12	0.53	27.49	117.79	1.99	44.18	87.86	0.53
	25	29.71	117.86	2.04	45.85	93.42	0.54	35.65	118.05	2.16	50.51	109.33	0.55
	50	36.97	118.09	2.19	51.53	112.96	0.55	44.36	118.28	2.34	57.5	134.81	0.56
	100	43.67	118.26	2.33	56.93	132.68	0.56	52.4	118.46	2.51	64.36	161.3	0.58
	Regional	134.41	119.86	3.32	95.8	317.69	0.6	161.29	120.29	3.27	89.14	291.31	0.56
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3553	2	7.99	116.89	1.3	22.77	29.5	0.48	9.59	116.99	1.37	24.81	34.05	0.49
	5	17.16	117.38	1.63	31.67	51.53	0.49	20.59	117.53	1.72	34.29	58.92	0.5
	10	22.91	117.62	1.78	36.05	64.07	0.5	27.49	117.79	1.88	39.25	73.81	0.5
	25	29.71	117.87	1.93	40.73	78.5	0.5	35.65	118.06	2.05	44.9	92.05	0.51
	50	36.97	118.09	2.08	45.85	95.23	0.52	44.36	118.29	2.22	51.35	114.2	0.53
	100	43.67	118.27	2.21	50.83	112.36	0.53	52.4	118.48	2.38	57.62	136.89	0.55
	Regional	134.41	119.94	2.96	74.87	221.25	0.53	161.29	120.35	2.95	71.88	212.39	0.5
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3545	2	7.99	116.92	0.89	9.99	8.87	0.3	9.59	117.02	0.96	11.36	10.89	0.31
	5	17.16	117.42	1.21	16.54	19.95	0.34	20.59	117.57	1.29	18.51	23.92	0.35
	10	22.91	117.66	1.35	19.79	26.64	0.36	27.49	117.84	1.44	22.11	31.84	0.37
	25	29.71	117.92	1.48	23.16	34.32	0.37	35.65	118.11	1.59	26	41.27	0.38
	50	36.97	118.15	1.61	26.62	42.87	0.38	44.36	118.35	1.73	30.11	52.09	0.4
	100	43.67	118.34	1.72	29.79	51.21	0.4	52.4	118.55	1.85	33.9	62.74	0.42
	Regional	134.41	120.03	2.4	48.76	116.93	0.43	161.29	120.42	2.46	49.47	121.83	0.41
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3534	2	7.99	116.92	0.85	9.28	7.92	0.29	9.59	117.02	0.92	10.55	9.74	0.3
	5	17.16	117.41	1.17	15.51	18.15	0.32	20.59	117.57	1.26	17.5	22.02	0.33
	10	22.91	117.66	1.31	18.82	24.73	0.34	27.49	117.83	1.41	21.24	30.01	0.35
	25	29.71	117.91	1.46	22.35	32.55	0.36	35.65	118.11	1.57	25.33	39.68	0.37
	50	36.97	118.15	1.59	25.97	41.29	0.37	44.36	118.35	1.71	29.57	50.71	0.39
	100	43.67	118.33	1.7	29.23	49.8	0.39	52.4	118.54	1.84	33.63	61.93	0.41
	Regional	134.41	120.01	2.42	49.74	120.59	0.43	161.29	120.41	2.49	50.58	125.98	0.41
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3525	2	7.99	116.88	1.16	18.05	20.96	0.42	9.59	116.97	1.24	19.89	24.58	0.43
	5	17.16	117.36	1.48	26.02	38.57	0.44	20.59	117.51	1.57	28.31	44.4	0.45
	10	22.91	117.6	1.62	29.83	48.44	0.45	27.49	117.78	1.72	32.56	55.98	0.46
	25	29.71	117.85	1.76	33.8	59.56	0.46	35.65	118.04	1.87	37.23	69.72	0.47
	50	36.97	118.08	1.9	38	72.07	0.47	44.36	118.28	2.03	42.41	85.9	0.49
	100	43.67	118.26	2.01	42	84.58	0.49	52.4	118.47	2.16	47.47	102.3	0.51
	Regional	134.41	119.97	2.57	56.89	146.42	0.47	161.29	120.37	2.62	56.62	148.41	0.45
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3516	2	7.99	116.88	1.08	14.94	16.09	0.37	9.59	116.97	1.16	17.01	19.77	0.38
	5	17.16	117.36	1.44	24.23	34.94	0.42	20.59	117.51	1.54	26.81	41.21	0.43
	10	22.91	117.6	1.6	28.51	45.52	0.43	27.49	117.77	1.7	31.58	53.73	0.45
	25	29.71	117.85	1.75	32.99	57.62	0.45	35.65	118.04	1.86	36.93	68.59	0.47
	50	36.97	118.08	1.88	37.71	70.87	0.48	44.36	118.27	2	41.9	83.67	0.49
	100	43.67	118.26	1.99	41.5	82.45	0.49	52.4	118.46	2.11	45.96	96.93	0.51
	Regional	134.41	119.97	2.6	56.74	147.44	0.46	161.29	120.36	2.65	56.99	151.29	0.44
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3507	2	7.99	116.88	0.98	12.15	11.89	0.33	9.59	116.98	1.06	13.97	14.83	0.34
	5	17.16	117.37	1.34	20.52	27.44	0.38	20.59	117.51	1.43	22.96	32.88	0.39
	10	22.91	117.61	1.49	24.56	36.64	0.4	27.49	117.78	1.6	27.49	43.86	0.41
	25	29.71	117.86	1.64	28.81	47.25	0.42	35.65	118.04	1.75	32.3	56.62	0.43
	50	36.97	118.08	1.78	33.11	58.81	0.44	44.36	118.28	1.89	37.31	70.68	0.46
	100	43.67	118.26	1.88	37.01	69.73	0.46	52.4	118.47	2.01	40.75	81.96	0.47
	Regional	134.41	119.97	2.53	53.12	134.52	0.44	161.29	120.37	2.62	54.82	143.63	0.43
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3481	2	7.99	116.87	0.96	11.34	10.91	0.3	9.59	116.96	1.06	13.48	14.28	0.32
	5	17.16	117.34	1.39	21.94	30.48	0.38	20.59	117.49	1.5	25.1	37.72	0.4
	10	22.91	117.58	1.57	27.2	42.8	0.41	27.49	117.74	1.7	31.13	52.88	0.43
	25	29.71	117.82	1.75	32.93	57.68	0.44	35.65	118	1.88	37.59	70.8	0.46
	50	36.97	118.04	1.91	38.6	73.76	0.47	44.36	118.23	2.06	43.36	89.15	0.48
	100	43.67	118.21	2.04	42.92	87.68	0.48	52.4	118.4	2.21	48.63	107.54	0.5
	Regional	134.41	119.85	2.92	70.77	206.57	0.5	161.29	120.25	3.01	72.5	218.05	0.49
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	2	7.99	116.86	0.97	11.77	11.43	0.31	9.59	116.95	1.06	13.81	14.67	0.33
	5	17.16	117.33	1.33	21	28.02	0.39	20.59	117.48	1.42	23.13	32.87	0.4
	10	22.91	117.57	1.48	24.57	36.3	0.4	27.49	117.74	1.58	27.23	42.95	0.41

		Reach 1 - Existing Climate						Reach 1 - Future Climate (RCP8.5)					
River Station	Storm Event	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl
		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)	
3453	25	29.71	117.81	1.62	28.47	46.19	0.41	35.65	118	1.74	31.95	55.62	0.43
	50	36.97	118.03	1.77	32.77	57.89	0.43	44.36	118.22	1.9	37.34	71.1	0.45
	100	43.67	118.21	1.89	36.92	69.84	0.45	52.4	118.41	2.04	41.8	85.46	0.46
	Regional	134.41	119.88	2.65	58.52	155.1	0.45	161.29	120.27	2.77	61.51	170.14	0.45
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3427	2	7.99	116.84	1.01	12.83	12.97	0.33	9.59	116.93	1.11	15.04	16.63	0.35
	5	17.16	117.3	1.44	24.13	34.8	0.41	20.59	117.44	1.54	27.36	42.2	0.44
	10	22.91	117.53	1.6	28.97	46.4	0.44	27.49	117.7	1.71	31.87	54.41	0.45
	25	29.71	117.77	1.75	33.17	58.17	0.45	35.65	117.95	1.88	36.76	68.93	0.46
	50	36.97	117.99	1.9	37.54	71.4	0.46	44.36	118.18	2.05	42.09	86.23	0.47
	100	43.67	118.16	2.04	41.7	84.91	0.47	52.4	118.36	2.19	46.51	101.69	0.48
	Regional	134.41	119.82	2.86	66.95	191.69	0.48	161.29	120.2	3	71.27	214.12	0.48
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3407	2	7.99	116.64	2.06	63.83	131.81	0.89	9.59	116.71	2.2	70.25	154.58	0.9
	5	17.16	116.99	2.65	92.24	244.45	0.92	20.59	117.11	2.78	98.15	272.6	0.92
	10	22.91	117.19	2.86	102.21	292.25	0.92	27.49	117.33	2.98	107.92	321.74	0.92
	25	29.71	117.4	3.02	109.8	332.03	0.91	35.65	117.58	3.1	111.99	347.01	0.9
	50	36.97	117.62	3.12	112.46	350.37	0.89	44.36	117.82	3.18	111.55	354.19	0.85
	100	43.67	117.8	3.17	111.65	353.92	0.85	52.4	118.03	3.23	110.18	355.54	0.81
	Regional	134.41	119.68	3.35	94.16	315.65	0.59	161.29	120.08	3.43	94.93	325.78	0.57
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3391	2	7.99	116.6	1.91	55.13	105.37	0.83	9.59	116.68	2	58.43	117.01	0.82
	5	17.16	117	2.32	69.7	161.43	0.79	20.59	117.13	2.42	73.75	178.49	0.79
	10	22.91	117.21	2.47	75.88	187.7	0.79	27.49	117.37	2.56	78.56	200.87	0.77
	25	29.71	117.44	2.59	78.89	204.02	0.76	35.65	117.63	2.67	80.57	215.08	0.74
	50	36.97	117.67	2.69	81.17	218.45	0.73	44.36	117.87	2.8	83.99	235.17	0.71
	100	43.67	117.85	2.79	83.68	233.44	0.71	52.4	118.06	2.93	88.3	258.32	0.7
	Regional	134.41	119.39	3.94	132.68	522.44	0.71	161.29	119.73	4.15	142.28	590.44	0.71
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3364	2	7.99	116.41	2.26	78.43	177.6	1.01	9.59	116.48	2.38	84.2	200.79	1.01
	5	17.16	116.77	2.81	104.99	294.54	1	20.59	116.88	2.95	112.72	332.79	1
	10	22.91	116.95	3.04	117.46	357.23	1	27.49	117.07	3.21	126.99	407.5	1.01
	25	29.71	117.13	3.28	131.09	430.37	1.01	35.65	117.28	3.46	140.09	484.15	1
	50	36.97	117.32	3.48	140.92	490.39	1	44.36	117.5	3.62	146.85	532.32	0.98
	100	43.67	117.48	3.61	146.49	529.28	0.98	52.4	117.69	3.74	149.47	558.38	0.95
	Regional	134.41	118.94	4.84	206.57	999.24	0.92	161.29	119.25	5.1	221.4	1128.33	0.92
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3334	2	7.99	115.87	3.14	183.53	575.76	1.92	9.59	115.91	3.34	201.42	673.13	1.95
	5	17.16	116.05	4.04	263.53	1064.18	1.99	20.59	116.1	4.27	284.49	1215	1.99
	10	22.91	116.14	4.41	297.13	1310.41	1.99	27.49	116.21	4.65	319.23	1485.51	1.99
	25	29.71	116.24	4.76	329.08	1566.6	1.99	35.65	116.32	5.02	353.08	1772.1	1.98
	50	36.97	116.34	5.07	358.34	1818.05	1.98	44.36	116.43	5.35	384.32	2054.61	1.98
	100	43.67	116.42	5.32	382.02	2033.23	1.98	52.4	116.52	5.6	408.29	2284.62	1.97
	Regional	134.41	117.34	6.88	508.05	3493.11	1.78	161.29	117.57	7.14	526.49	3760.16	1.74
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
3314	2	7.99	116	1.88	60.44	113.76	1.01	9.59	116.04	1.99	65.05	129.35	1.01
	5	17.16	116.19	2.6	101.29	262.89	1.15	20.59	116.21	2.97	130.65	387.67	1.29
	10	22.91	116.23	3.18	148.15	470.63	1.35	27.49	116.28	3.54	180.76	640.69	1.46
	25	29.71	116.3	3.7	195.22	722.47	1.51	35.65	116.35	4.08	231.97	946.58	1.6
	50	36.97	116.36	4.16	239.52	995.57	1.62	44.36	116.43	4.55	279.58	1271.15	1.71
	100	43.67	116.42	4.51	275.89	1244.7	1.7	52.4	116.5	4.89	315.2	1540.91	1.77
	Regional	134.41	117.1	6.85	534.56	3662.26	1.96	161.29	117.28	7.19	570.95	4104.73	1.96

		Reach 2 - Existing Climate						Reach 2 - Future Climate (RCP8.5)					
River Station	Storm Event	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl
		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)	
3220	2	7.99	115.42	2.13	73.64	156.68	1.06	9.59	115.47	2.26	80.2	181.22	1.06
	5	17.16	115.7	2.69	101.74	273.65	1.07	20.59	115.82	2.72	99.77	271.63	1.01
	10	22.91	115.88	2.81	104.06	292.12	1.01	27.49	115.99	2.95	111.11	327.37	1.01
	25	29.71	116.04	3.01	114.27	343.66	1.01	35.65	116.17	3.15	122.02	384.95	1.01
	50	36.97	116.19	3.18	123.61	393.65	1.01	44.36	116.34	3.33	131.72	439.2	1.01
	100	43.67	116.33	3.32	130.94	434.82	1.01	52.4	116.5	3.43	136.4	467.59	1
	Regional	134.41	117.6	4.12	174.33	717.76	1.01	161.29	117.72	4.6	215.45	990.68	1.11
3206	2	7.99	115.17	2.65	120.94	320.59	1.44	9.59	115.22	2.77	128.9	357.27	1.45
	5	17.16	115.39	3.32	172.36	571.74	1.57	20.59	115.44	3.52	188.39	663.38	1.59
	10	22.91	115.48	3.64	197.93	720.97	1.6	27.49	115.55	3.85	214.28	825.2	1.61
	25	29.71	115.59	3.94	221.41	872.91	1.61	35.65	115.67	4.16	237.89	988.87	1.61
	50	36.97	115.69	4.2	241.55	1015.16	1.61	44.36	115.78	4.42	258.57	1143.76	1.61
	100	43.67	115.77	4.4	257.14	1132.61	1.61	52.4	115.88	4.62	273.83	1264.34	1.61
	Regional	134.41	117.85	2.79	73.59	205.05	0.6	161.29	118.2	2.87	74.9	215.25	0.58
3196	2	7.99	115.33	1.22	22.69	27.73	0.55	9.59	115.4	1.27	23.77	30.23	0.55
	5	17.16	115.69	1.47	28.36	41.66	0.53	20.59	115.8	1.54	30.19	46.52	0.53
	10	22.91	115.87	1.58	31.18	49.35	0.53	27.49	116.01	1.66	33.13	55.03	0.52
	25	29.71	116.06	1.7	34.12	57.93	0.52	35.65	116.21	1.79	36.72	65.7	0.52
	50	36.97	116.24	1.81	37.22	67.27	0.52	44.36	116.42	1.9	39.72	75.39	0.52
	100	43.67	116.4	1.89	39.5	74.65	0.52	52.4	116.58	1.99	42.36	84.32	0.52
	Regional	134.41	117.89	2.56	60.66	155.03	0.53	161.29	118.23	2.67	63.85	170.39	0.52
3179	2	7.99	115.13	2.06	68.36	141	1.01	9.59	115.19	2.16	72.93	157.82	1.01
	5	17.16	115.43	2.5	88.26	220.47	1.01	20.59	115.52	2.62	93.78	245.67	1
	10	22.91	115.57	2.7	97.71	263.81	1	27.49	115.68	2.84	104.74	297.65	1
	25	29.71	115.73	2.88	106.24	306.39	0.99	35.65	115.88	2.93	105.85	310.6	0.95
	50	36.97	115.91	2.94	105.76	311.36	0.94	44.36	116.09	2.99	105.31	314.9	0.91
	100	43.67	116.07	2.99	105.22	314.11	0.91	52.4	116.26	3.05	106.67	325.8	0.88
	Regional	134.41	117.58	3.42	112.33	384.33	0.76	161.29	117.93	3.5	111.46	389.79	0.71
3159	2	7.99	114.96	2.27	87.38	198.57	1.21	9.59	115	2.44	97.48	237.55	1.24
	5	17.16	115.4	2.07	57.98	120.05	0.78	20.59	115.52	2.14	59.59	127.42	0.76
	10	22.91	115.59	2.19	61.58	135.05	0.76	27.49	115.72	2.28	64.62	147.07	0.75
	25	29.71	115.78	2.3	65.07	149.88	0.74	35.65	115.93	2.38	67.09	159.98	0.72
	50	36.97	115.97	2.4	67.56	162.26	0.72	44.36	116.14	2.49	70.21	175.07	0.7
	100	43.67	116.12	2.48	69.91	173.66	0.71	52.4	116.31	2.6	74.19	193.07	0.7
	Regional	134.41	117.57	3.31	100.63	333.11	0.68	161.29	117.92	3.46	105.07	363.37	0.66
3132	2	7.99	114.96	1.72	45.37	77.94	0.78	9.59	115.05	1.75	45.32	79.22	0.75
	5	17.16	115.36	1.92	49.54	95.03	0.71	20.59	115.49	1.96	50.16	98.29	0.7
	10	22.91	115.56	2	51.09	101.98	0.69	27.49	115.7	2.06	52.25	107.54	0.67
	25	29.71	115.76	2.08	52.64	109.65	0.66	35.65	115.92	2.15	54.1	116.41	0.64
	50	36.97	115.96	2.17	54.45	117.97	0.64	44.36	116.14	2.24	56.51	126.82	0.63
	100	43.67	116.12	2.24	56.28	125.87	0.63	52.4	116.31	2.33	59.41	138.6	0.63
	Regional	134.41	117.61	2.97	80.91	240.06	0.61	161.29	117.96	3.1	84.71	262.75	0.6
3103	2	7.99	114.73	2.26	78.08	176.69	1	9.59	114.81	2.32	81.11	188.42	1.01
	5	17.16	115.09	2.63	95.38	251.01	1	20.59	115.19	2.75	101.42	279.4	1
	10	22.91	115.28	2.76	99.67	275.22	0.97	27.49	115.46	2.7	91.87	248.12	0.9
	25	29.71	115.54	2.67	88.22	235.26	0.86	35.65	115.72	2.7	86.6	233.58	0.82
	50	36.97	115.75	2.71	86.58	234.6	0.81	44.36	115.93	2.8	88.85	249.04	0.79
	100	43.67	115.91	2.79	88.48	247.08	0.79	52.4	116.09	2.93	94.06	275.83	0.78
	Regional	134.41	116.95	4.54	193.2	877.21	0.96	161.29	117.22	4.81	209.09	1006.31	0.96
3065	2	7.99	114.65	1.29	21.19	27.23	0.43	9.59	114.74	1.4	24.63	34.49	0.45
	5	17.16	115.09	1.81	39.19	71.12	0.53	20.59	115.24	1.93	44.18	85.09	0.57
	10	22.91	115.33	1.99	46.75	93.08	0.58	27.49	115.48	2.11	51.81	109.41	0.6
	25	29.71	115.55	2.15	53.33	114.68	0.6	35.65	115.72	2.28	58.73	133.85	0.62
	50	36.97	115.75	2.31	59.82	138.05	0.62	44.36	115.92	2.46	66.03	162.7	0.63
	100	43.67	115.91	2.45	65.38	160.1	0.63	52.4	116.07	2.64	74.08	195.82	0.65
	Regional	134.41	116.77	4.63	207.01	958.84	0.99	161.29	117	4.98	231.05	1149.59	1.01
	2	7.99	114.62	1.26	20.29	25.51	0.42	9.59	114.71	1.37	23.81	32.71	0.44

		Reach 2 - Existing Climate						Reach 2 - Future Climate (RCP8.5)					
River Station	Storm Event	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl
		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)	
3026	5	17.16	115.06	1.76	37.53	65.87	0.54	20.59	115.2	1.85	41.16	75.98	0.56
	10	22.91	115.29	1.9	42.98	81.52	0.57	27.49	115.44	1.99	45.89	91.38	0.57
	25	29.71	115.52	2.02	46.43	93.79	0.56	35.65	115.69	2.13	49.82	105.91	0.57
	50	36.97	115.73	2.15	50.51	108.43	0.57	44.36	115.91	2.25	53.88	121.23	0.57
	100	43.67	115.9	2.24	53.55	119.97	0.57	52.4	116.08	2.36	58.01	137.17	0.57
	Regional	134.41	116.27	5.33	287.1	1530.85	1.24	161.29	116.44	5.77	328.7	1895.71	1.3
3001	2	7.99	114.6	1.24	19.87	24.72	0.42	9.59	114.69	1.36	23.28	31.69	0.44
	5	17.16	115.02	1.79	38.11	68.37	0.53	20.59	115.15	1.94	43.81	84.94	0.55
	10	22.91	115.22	2.03	47.57	96.45	0.57	27.49	115.36	2.19	54.68	119.53	0.61
	25	29.71	115.44	2.23	56.52	126.17	0.62	35.65	115.62	2.3	58.41	134.56	0.61
	50	36.97	115.66	2.31	58.22	134.33	0.6	44.36	115.87	2.31	56.72	131.28	0.58
	100	43.67	115.86	2.31	56.72	131.1	0.58	52.4	116.06	2.37	58.01	137.6	0.57
	Regional	134.41	116.37	4.87	234.67	1142.97	1.09	161.29	116.44	5.58	305.95	1708.33	1.24
2978	2	7.99	114.53	1.52	30.89	46.84	0.55	9.59	114.61	1.65	35.82	59.1	0.58
	5	17.16	114.91	2.15	56.96	122.45	0.68	20.59	115.02	2.32	65.08	151.03	0.71
	10	22.91	115.08	2.43	70.85	172.51	0.73	27.49	115.19	2.66	84.32	224.43	0.8
	25	29.71	115.27	2.69	85.5	230.09	0.8	35.65	115.4	2.88	96.75	278.73	0.84
	50	36.97	115.43	2.92	99.13	289.49	0.85	44.36	115.57	3.12	110.8	345.36	0.88
	100	43.67	115.56	3.09	109.38	338.46	0.87	52.4	115.71	3.29	120.58	396.71	0.89
	Regional	134.41	116.62	4.03	155.07	624.99	0.87	161.29	116.85	4.19	162.51	681.5	0.86
2966	2	7.99	114.35	2.25	77.11	173.4	1	9.59	114.42	2.36	82.24	193.8	1
	5	17.16	114.7	2.77	103.29	286.48	1.01	20.59	114.81	2.92	110.88	323.52	1.01
	10	22.91	114.88	2.97	112.61	334.39	1	27.49	115.16	2.64	84.92	224.02	0.83
	25	29.71	115.25	2.62	81.63	213.73	0.79	35.65	115.4	2.75	86.63	238	0.78
	50	36.97	115.43	2.77	87.76	243.52	0.78	44.36	115.58	2.94	95.55	281.17	0.78
	100	43.67	115.57	2.92	94.26	275.21	0.78	52.4	115.7	3.18	109.28	347.75	0.82
	Regional	134.41	116.66	3.85	139.47	536.77	0.8	161.29	116.92	3.88	136.98	531.87	0.77
2944	2	7.99	114.08	2.72	116.7	318	1.26	9.59	114.15	2.85	122.63	349.02	1.24
	5	17.16	114.47	3.15	133.06	419.3	1.12	20.59	114.62	3.18	130.26	414.5	1.06
	10	22.91	114.71	3.19	128.22	409.44	1.03	27.49	114.88	3.26	129.8	422.57	1
	25	29.71	114.94	3.32	134.08	445.62	1.01	35.65	115.17	3.24	126.1	408.62	0.98
	50	36.97	115.2	3.26	126.42	411.75	0.97	44.36	115.37	3.36	130.13	437.74	0.95
	100	43.67	115.35	3.36	130.64	439.51	0.96	52.4	115.55	3.42	130.46	446.57	0.92
	Regional	134.41	116.69	3.51	117.41	411.51	0.75	161.29	116.95	3.52	115.2	406.06	0.72
2898	2	7.99	113.89	2.2	76.11	167.48	1.03	9.59	113.93	2.4	88.15	211.54	1.08
	5	17.16	114.07	3.37	162.69	548.11	1.36	20.59	114.14	3.64	185.29	675.31	1.41
	10	22.91	114.18	3.81	199.66	761.45	1.44	27.49	114.27	4.07	220.3	895.9	1.46
	25	29.71	114.31	4.15	226.46	940.42	1.46	35.65	114.43	4.34	239.77	1040.36	1.45
	50	36.97	114.46	4.38	243.02	1064.66	1.45	44.36	114.6	4.53	251.83	1141.76	1.43
	100	43.67	114.59	4.52	251.33	1136.7	1.43	52.4	114.76	4.65	257.25	1196.24	1.4
	Regional	134.41	116.34	3.79	142.28	539.75	0.87	161.29	116.59	3.9	144.81	565.36	0.84
2880	2	7.99	113.69	2.45	106.98	262.27	1.39	9.59	113.72	2.65	120.88	320.06	1.43
	5	17.16	113.85	3.44	185.28	636.76	1.61	20.59	113.9	3.73	211.94	790.39	1.67
	10	22.91	113.93	3.91	228.98	895.19	1.7	27.49	114	4.21	257.51	1083.87	1.75
	25	29.71	114.03	4.33	269.36	1167.01	1.76	35.65	114.1	4.6	293.83	1350.85	1.78
	50	36.97	114.12	4.65	299.1	1391.69	1.78	44.36	114.22	4.91	321.97	1579.84	1.79
	100	43.67	114.21	4.89	320.14	1564.21	1.79	52.4	114.31	5.13	340.74	1746.33	1.78
	Regional	134.41	115.27	5.64	348.37	1963.98	1.51	161.29	115.54	5.64	334.06	1885.25	1.42
2854	2	7.99	113.76	1.5	37.99	56.88	0.8	9.59	113.8	1.62	42.95	69.42	0.82
	5	17.16	113.94	2.13	68.85	146.92	0.96	20.59	113.93	2.59	101.83	263.84	1.17
	10	22.91	113.94	2.81	118.64	332.99	1.25	27.49	113.97	3.21	153.62	493.75	1.4
	25	29.71	113.98	3.38	168.35	568.61	1.46	35.65	114.02	3.78	206.42	779.31	1.58
	50	36.97	114.03	3.85	213.9	823.81	1.6	44.36	114.08	4.25	255.28	1085.85	1.71
	100	43.67	114.08	4.22	251.26	1059.33	1.7	52.4	114.14	4.62	294.35	1360.07	1.8
	Regional	134.41	114.75	6.05	421.19	2549.31	1.77	161.29	114.95	6.21	426.48	2650.2	1.71
	2	7.99	113.59	1.68	51.12	85.72	0.99	9.59	113.62	1.79	56.54	101.45	1
	5	17.16	113.78	2.15	71.86	154.38	1	20.59	113.84	2.27	77.61	176.51	1

		Reach 2 - Existing Climate						Reach 2 - Future Climate (RCP8.5)					
River Station	Storm Event	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl
		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)	
2821	10	22.91	113.88	2.34	80.76	189.37	1	27.49	113.96	2.49	88.07	219.24	1.01
	25	29.71	113.99	2.54	90.35	229.35	1.01	35.65	114.06	2.76	104.39	288.38	1.06
	50	36.97	114.08	2.77	104.13	288.56	1.05	44.36	114.16	2.98	117.34	350.05	1.08
	100	43.67	114.17	2.92	112.49	328.77	1.06	52.4	114.19	3.42	153.47	525.38	1.23
	Regional	134.41	114.61	5.46	359.55	1963.46	1.73	161.29	114.73	5.87	405.52	2379.67	1.8
2780	2	7.99	113.39	1.35	30.34	40.98	0.69	9.59	113.45	1.4	32.52	45.51	0.71
	5	17.16	113.6	1.78	47.4	84.44	0.77	20.59	113.66	1.93	53.8	103.73	0.79
	10	22.91	113.7	2.01	57.37	115.33	0.8	27.49	113.6	2.89	125.59	363.39	1.26
	25	29.71	113.62	2.97	130.28	386.97	1.26	35.65	113.71	3.11	137.3	427.36	1.24
	50	36.97	113.72	3.16	140.27	442.8	1.25	44.36	113.81	3.32	148.71	493.11	1.23
	100	43.67	113.8	3.32	149.32	495.01	1.24	52.4	113.9	3.48	158.53	552.2	1.23
	Regional	134.41	114.79	4.2	187.7	789.21	1.07	161.29	115.03	4.36	194.4	848.37	1.05
2760	2	7.99	113.23	1.82	57.85	105.01	1.01	9.59	113.29	1.86	60.09	111.64	1.02
	5	17.16	113.46	2.11	70.34	148.29	1	20.59	113.52	2.23	75.94	169.54	1
	10	22.91	113.56	2.31	79.62	183.99	1	27.49	113.63	2.45	86.03	210.53	1
	25	29.71	113.66	2.5	88.71	222.21	1	35.65	113.75	2.65	95.63	253.35	1
	50	36.97	113.77	2.68	97.07	260.02	1	44.36	113.86	2.83	104.69	296.59	1
	100	43.67	113.85	2.82	104.02	293.26	1	52.4	113.96	2.98	112.13	334.18	1
	Regional	134.41	114.57	4.46	217.56	969.35	1.2	161.29	114.75	4.73	238.02	1126.95	1.22
2729	2	7.99	112.76	2.6	128.73	334.15	1.65	9.59	112.8	2.68	133.35	357.1	1.64
	5	17.16	112.94	3.03	159.17	481.77	1.67	20.59	112.99	3.18	169.03	537.87	1.65
	10	22.91	113.02	3.27	174.49	570.86	1.64	27.49	113.08	3.44	185.04	635.8	1.62
	25	29.71	113.1	3.51	189.35	663.78	1.61	35.65	113.64	1.92	45.72	87.77	0.63
	50	36.97	113.68	1.93	45.77	88.14	0.63	44.36	113.84	1.96	46.35	91	0.62
	100	43.67	113.82	1.96	46.3	90.73	0.62	52.4	113.98	2.02	47.81	96.73	0.61
	Regional	134.41	115.01	2.59	63.99	165.41	0.58	161.29	115.26	2.75	69.57	191.13	0.58
2695	2	7.99	112.59	2.01	63.96	128.4	0.96	9.59	112.61	2.29	82.42	188.53	1.08
	5	17.16	112.93	2.3	74.51	171.5	0.91	20.59	113.04	2.32	73.6	170.68	0.88
	10	22.91	113.12	2.33	73.18	170.3	0.87	27.49	113.27	2.28	68.7	156.43	0.83
	25	29.71	113.35	2.24	65.63	146.71	0.8	35.65	113.52	2.18	59.85	130.22	0.74
	50	36.97	113.56	2.17	59.01	127.97	0.73	44.36	113.73	2.17	57.07	123.89	0.69
	100	43.67	113.72	2.17	57.15	123.95	0.69	52.4	113.88	2.23	58.33	129.88	0.68
	Regional	134.41	114.99	2.59	63.53	164.79	0.57	161.29	115.27	2.65	63.9	169.64	0.54
2659	2	7.99	112.49	1.76	48.12	84.84	0.81	9.59	112.56	1.84	51.05	94.14	0.81
	5	17.16	112.86	2.02	55.55	111.94	0.77	20.59	112.99	2.02	55.48	112.33	0.76
	10	22.91	113.07	2.01	53.61	108.01	0.73	27.49	113.24	1.98	49.66	98.08	0.68
	25	29.71	113.31	1.96	47.82	93.53	0.65	35.65	113.5	1.94	44.43	86.05	0.6
	50	36.97	113.54	1.94	44.02	85.3	0.59	44.36	113.71	1.97	43.65	86.14	0.56
	100	43.67	113.7	1.97	43.64	85.92	0.56	52.4	113.87	2.05	45.53	93.5	0.55
	Regional	134.41	115.04	2.31	47.18	109	0.46	161.29	115.31	2.4	49.36	118.6	0.45
2630	2	7.99	112.29	2.14	72.14	154.07	1.01	9.59	112.36	2.23	76.21	169.77	1.01
	5	17.16	112.6	2.64	96.39	254.74	1.01	20.59	112.73	2.67	94.05	251.09	0.95
	10	22.91	112.82	2.68	92.24	247.1	0.92	27.49	112.98	2.71	90.67	245.61	0.87
	25	29.71	113.05	2.72	90.19	245.36	0.85	35.65	113.22	2.79	92.33	257.79	0.84
	50	36.97	113.26	2.79	91.26	254.19	0.83	44.36	113.48	2.72	83.01	225.85	0.75
	100	43.67	113.46	2.72	83.53	227.51	0.76	52.4	113.63	2.81	86.93	244.53	0.75
	Regional	134.41	114.88	2.89	76.2	220.06	0.59	161.29	115.14	3.04	81.96	249.51	0.59
2602	2	7.99	112.18	1.56	33.32	52.08	0.57	9.59	112.27	1.68	37.29	62.51	0.59
	5	17.16	112.61	2.11	54.74	115.71	0.65	20.59	112.72	2.28	62.49	142.64	0.67
	10	22.91	112.8	2.39	67.8	162.17	0.69	27.49	112.93	2.58	78.21	201.86	0.74
	25	29.71	112.99	2.65	82.13	217.52	0.76	35.65	113.12	2.86	94.69	270.71	0.81
	50	36.97	113.14	2.92	98.69	288.3	0.82	44.36	113.26	3.17	116.73	370.38	0.9
	100	43.67	113.25	3.16	115.07	363.04	0.89	52.4	113.57	2.83	88.61	250.31	0.75
	Regional	134.41	114.65	3.44	112.6	387.54	0.73	161.29	114.85	3.73	128.44	478.8	0.76
	2	7.99	112.05	1.85	48.17	88.95	0.73	9.59	112.14	1.97	53.2	104.59	0.74
	5	17.16	112.47	2.34	70.28	164.67	0.79	20.59	112.6	2.45	75.11	183.87	0.8
	10	22.91	112.68	2.5	77.52	193.95	0.8	27.49	112.83	2.59	81.48	211.02	0.8

		Reach 2 - Existing Climate						Reach 2 - Future Climate (RCP8.5)					
River Station	Storm Event	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl
		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)	
2564	25	29.71	112.9	2.62	83.45	218.4	0.82	35.65	113.04	2.76	90.88	250.86	0.84
	50	36.97	113.05	2.84	95.69	271.4	0.85	44.36	113.13	3.16	116.58	368.79	0.92
	100	43.67	113.13	3.13	114.53	358.77	0.92	52.4	113.25	3.4	131.11	445.3	0.95
	Regional	134.41	114.35	3.99	150.36	600.09	0.85	161.29	114.56	4.24	164.68	697.92	0.86
2535	2	7.99	112	1.74	43.07	74.87	0.7	9.59	112.09	1.83	46.49	85.22	0.7
	5	17.16	112.43	2.16	58.93	127	0.72	20.59	112.56	2.26	63.06	142.27	0.72
	10	22.91	112.64	2.31	65.24	150.75	0.72	27.49	112.8	2.4	69.27	166.23	0.74
	25	29.71	112.87	2.44	70.94	172.88	0.74	35.65	113	2.61	79.88	208.2	0.77
	50	36.97	113	2.69	85.06	228.82	0.8	44.36	113.06	3.08	110.78	340.69	0.91
	100	43.67	113.05	3.04	108	327.89	0.9	52.4	113.19	3.25	121.96	396.54	0.94
	Regional	134.41	113.72	5.12	271.11	1389.19	1.25	161.29	113.87	5.47	300.55	1643.41	1.28
2498	2	7.99	111.75	2.33	81.26	189.58	1.01	9.59	111.83	2.44	86.57	211.62	1.01
	5	17.16	112.14	2.81	104.55	294.26	1	20.59	112.25	2.94	111.02	326.5	1
	10	22.91	112.32	3.02	115.59	349.55	1	27.49	112.47	3.12	120.14	374.44	1
	25	29.71	112.53	3.16	122.1	385.4	1	35.65	112.76	3.05	110.22	335.95	0.92
	50	36.97	112.81	3	105.63	316.97	0.89	44.36	113.02	2.87	92.39	265.06	0.8
	100	43.67	113.01	2.84	90.57	257.18	0.79	52.4	112.98	3.53	141.05	498.22	0.99
	Regional	134.41	113.45	5.49	315.4	1730.33	1.37	161.29	113.57	5.88	357.71	2104.71	1.44
2469	2	7.99	111.68	1.76	45.15	79.57	0.73	9.59	111.78	1.82	46.57	84.77	0.72
	5	17.16	112.13	2.05	53.46	109.62	0.69	20.59	112.27	2.13	56.29	119.86	0.69
	10	22.91	112.35	2.17	57.44	124.92	0.68	27.49	112.5	2.26	60.05	135.99	0.68
	25	29.71	112.57	2.28	59.39	135.16	0.66	35.65	112.72	2.36	61.62	145.67	0.64
	50	36.97	112.77	2.34	59.84	140.15	0.63	44.36	112.96	2.34	57.38	134.35	0.59
	100	43.67	112.94	2.33	57.02	132.93	0.59	52.4	113.11	2.39	58	138.63	0.58
	Regional	134.41	113.93	3.15	88.57	278.81	0.63	161.29	114.1	3.36	98.75	331.78	0.65
2442	2	7.99	111.44	2.4	84.53	202.45	1.01	9.59	111.54	2.45	87.02	213.59	1
	5	17.16	111.84	2.83	105.83	299.18	1.01	20.59	111.96	2.94	110.41	324.52	0.99
	10	22.91	112.03	3.02	114.16	344.32	0.99	27.49	112.18	3.09	115.75	357.67	0.97
	25	29.71	112.23	3.18	121.21	385.25	0.98	35.65	112.43	3.14	112.06	352.06	0.89
	50	36.97	112.45	3.2	115.77	370.58	0.9	44.36	112.7	3.08	101.29	312.16	0.79
	100	43.67	112.67	3.1	102.99	319.26	0.8	52.4	112.84	3.19	105.28	335.65	0.79
	Regional	134.41	113.66	3.99	144.42	576.4	0.81	161.29	113.83	4.21	157.04	660.79	0.82
2420	2	7.99	110.77	3.76	248.79	934.28	2.11	9.59	110.82	3.91	260.58	1019.55	2.08
	5	17.16	111.01	4.43	300.5	1330.23	2.01	20.59	111.09	4.6	315.7	1453.16	2
	10	22.91	111.14	4.71	324.59	1528.8	1.99	27.49	111.22	4.9	338.04	1654.74	1.95
	25	29.71	111.26	4.96	341.64	1694.76	1.93	35.65	111.37	5.13	352.04	1805.31	1.88
	50	36.97	111.4	5.15	352.36	1814.87	1.87	44.36	111.53	5.28	356.6	1884.02	1.8
	100	43.67	111.51	5.28	357.38	1886.67	1.81	52.4	111.68	5.3	343.84	1820.67	1.69
	Regional	134.41	113	4.89	232.17	1134.87	1.09	161.29	113.24	4.96	230.5	1143.26	1.04
2408	2	7.99	110.64	3.22	182.76	588.74	1.81	9.59	110.68	3.47	205.55	712.9	1.86
	5	17.16	110.84	4.24	277	1173.95	1.94	20.59	110.9	4.47	298.27	1333.71	1.94
	10	22.91	110.95	4.61	310.9	1433.16	1.95	27.49	111.03	4.86	333.94	1621.58	1.95
	25	29.71	111.06	4.96	342.8	1698.67	1.94	35.65	111.16	5.15	357.66	1842.55	1.91
	50	36.97	111.19	5.19	359.77	1865.65	1.9	44.36	111.3	5.36	371.7	1993.21	1.86
	100	43.67	111.29	5.36	372.25	1994.37	1.87	52.4	111.44	5.44	369.98	2012.52	1.79
	Regional	134.41	112.76	5.12	258.93	1325.4	1.17	161.29	113.02	5.15	254.17	1309.06	1.12
2400	2	7.99	110.59	2.84	142.66	405.28	1.61	9.59	110.62	3.1	165.99	514.54	1.7
	5	17.16	110.74	4.03	257.2	1035.25	1.93	20.59	110.8	4.31	286.38	1234.44	1.98
	10	22.91	110.83	4.49	305.38	1370.86	2.01	27.49	110.89	4.79	338.1	1620.59	2.05
	25	29.71	110.92	4.92	352.44	1735.57	2.07	35.65	111	5.18	376.36	1949	2.06
	50	36.97	111.02	5.22	379.9	1983.97	2.05	44.36	111.12	5.44	397.72	2165.24	2.01
	100	43.67	111.11	5.44	398.48	2167.19	2.02	52.4	111.23	5.58	403.05	2249.96	1.95
	Regional	134.41	113.4	3.05	82.61	251.8	0.59	161.29	113.58	3.29	94.44	311.1	0.62
2387	2	7.99	110.75	1.74	47.94	83.29	0.84	9.59	110.83	1.74	46.16	80.27	0.79
	5	17.16	111.15	1.85	45.78	84.56	0.69	20.59	111.28	1.89	46.17	87.18	0.66
	10	22.91	111.36	1.91	46.43	88.76	0.65	27.49	111.5	1.96	46.74	91.37	0.63
	25	29.71	111.57	1.97	46.93	92.68	0.62	35.65	111.05	4.46	276.88	1234.96	1.75

		Reach 2 - Existing Climate						Reach 2 - Future Climate (RCP8.5)					
River Station	Storm Event	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl
		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)	
	50	36.97	111.06	4.52	283.08	1280.17	1.76	44.36	111.14	4.83	314.36	1519.25	1.81
	100	43.67	111.13	4.8	311.31	1495.46	1.8	52.4	112.15	2.18	50.69	110.45	0.57
	Regional	134.41	113.46	2.62	60.27	157.78	0.5	161.29	113.65	2.83	68.82	194.65	0.53
	2	7.99	110.61	2.11	70.85	149.68	1.01	9.59	110.67	2.23	76.06	169.37	1.01
	5	17.16	110.92	2.62	94.9	248.94	1.01	20.59	111.01	2.76	101.64	280.42	1.01
	10	22.91	111.07	2.84	105.64	299.95	1.01	27.49	111.19	2.96	111.51	330.61	1
2373	25	29.71	111.24	3.04	115.94	352.65	1.01	35.65	111.37	3.19	122.71	391.11	1
	50	36.97	111.4	3.22	124.08	399.16	0.99	44.36	111.55	3.38	132.36	447.76	0.99
	100	43.67	111.53	3.37	131.8	444.2	0.99	52.4	111.7	3.52	138.39	486.83	0.98
	Regional	134.41	113.07	3.79	129.44	490.61	0.76	161.29	113.3	3.91	133.87	523.41	0.75
	2	7.99	110.45	2.51	104.86	263.56	1.29	9.59	110.5	2.64	111.64	294.5	1.28
	5	17.16	110.72	3.07	135.96	417.94	1.26	20.59	110.81	3.22	144.37	465.09	1.26
	10	22.91	110.86	3.31	149.88	496.77	1.25	27.49	110.97	3.47	158.93	551.2	1.25
2364	25	29.71	111.01	3.54	163.68	578.87	1.26	35.65	111.12	3.71	175.34	650.82	1.26
	50	36.97	111.15	3.75	177.92	667.23	1.26	44.36	111.27	3.95	192.28	758.98	1.28
	100	43.67	111.26	3.93	190.96	750.54	1.28	52.4	111.39	4.13	205.54	849.31	1.29
	Regional	134.41	112.37	5.01	255.56	1279.81	1.21	161.29	112.65	5	242.66	1214.17	1.12
	2	7.99	110.25	2.8	145.86	408.12	1.72	9.59	110.29	2.98	159.83	476.38	1.73
	5	17.16	110.43	3.61	209	753.67	1.77	20.59	110.49	3.8	224.07	852.35	1.76
	10	22.91	110.52	3.93	233.5	916.57	1.76	27.49	110.59	4.13	249.58	1031.72	1.75
2355	25	29.71	110.63	4.22	256.01	1080.5	1.74	35.65	110.71	4.42	270.34	1195.37	1.71
	50	36.97	110.73	4.47	274.65	1228.36	1.71	44.36	110.83	4.69	290.28	1360.19	1.69
	100	43.67	110.82	4.67	289	1349.03	1.69	52.4	110.94	4.88	303.84	1481.98	1.67
	Regional	134.41	111.83	5.84	358.6	2094.76	1.47	161.29	112.12	5.8	338.32	1962.95	1.37
	2	7.99	110.18	2.25	92.72	208.94	1.32	9.59	110.21	2.44	107.1	261.33	1.4
	5	17.16	110.31	3.23	176.85	570.96	1.69	20.59	110.35	3.53	205.4	724.86	1.77
	10	22.91	110.37	3.69	220.76	815.23	1.8	27.49	110.42	4.03	255.3	1028.45	1.88
2342	25	29.71	110.44	4.15	266.56	1105.28	1.89	35.65	110.5	4.46	298.16	1329.01	1.94
	50	36.97	110.51	4.51	302.64	1364.08	1.94	44.36	110.58	4.8	330.68	1585.59	1.95
	100	43.67	110.57	4.77	328.51	1567.6	1.95	52.4	110.66	5.05	354.13	1786.74	1.95
	Regional	134.41	111.29	6.38	483.03	3080.68	1.93	161.29	111.49	6.47	476.52	3085.14	1.83
	2	7.99	109.32	4.12	365.8	1506.26	3.13	9.59	109.35	4.21	365.64	1538.13	2.99
	5	17.16	109.47	4.63	390.58	1807.08	2.73	20.59	109.51	4.82	408.15	1968.41	2.68
	10	22.91	109.54	4.94	419.14	2071.48	2.66	27.49	109.59	5.17	446.64	2310.43	2.67
2332	25	29.71	109.61	5.27	458.32	2413.51	2.68	35.65	109.67	5.5	497.27	2735.86	2.77
	50	36.97	109.68	5.55	503.51	2795.57	2.78	44.36	109.74	5.82	530.78	3087.53	2.73
	100	43.67	109.73	5.79	528.52	3062.45	2.74	52.4	109.8	6.06	555.25	3365.1	2.69
	Regional	134.41	110.34	7.39	671.59	4965.41	2.39	161.29	110.51	7.54	669.2	5044.91	2.28
	2	7.99	109.77	0.91	12.84	11.62	0.43	9.59	109.83	0.97	14.3	13.89	0.44
	5	17.16	110.04	1.22	20.3	24.74	0.47	20.59	110.12	1.31	22.53	29.4	0.48
	10	22.91	110.17	1.36	23.87	32.38	0.48	27.49	110.27	1.45	26.26	37.98	0.49
2314	25	29.71	110.32	1.49	27.34	40.62	0.49	35.65	110.44	1.58	29.89	47.14	0.5
	50	36.97	110.47	1.6	30.45	48.61	0.5	44.36	110.61	1.68	33.29	56.04	0.51
	100	43.67	110.59	1.68	33.13	55.55	0.51	52.4	110.75	1.76	35.11	61.76	0.51
	Regional	134.41	110.32	6.71	558.35	3748.07	2.22	161.29	110.46	7	586.92	4110.01	2.19
	2	7.99	109.59	1.7	50.47	85.62	0.95	9.59	109.65	1.71	49.52	84.58	0.91
	5	17.16	109.88	1.81	48.84	88.63	0.78	20.59	109.95	1.91	52.23	99.93	0.78
	10	22.91	110	1.97	54.05	106.43	0.77	27.49	110.1	2.07	57.3	118.45	0.76
2276	25	29.71	110.14	2.11	58.9	124.45	0.76	35.65	110.25	2.22	62.67	139.24	0.75
	50	36.97	110.27	2.25	63.77	143.42	0.75	44.36	110.4	2.37	68.29	161.91	0.75
	100	43.67	110.38	2.36	67.98	160.52	0.75	52.4	110.53	2.48	72.23	179.14	0.74
	Regional	134.41	111.53	3.18	98.58	313.92	0.71	161.29	111.79	3.3	102.19	337.28	0.7
	2	7.99	109.51	1.71	48.75	83.21	0.88	9.59	109.58	1.75	49.6	86.78	0.86
	5	17.16	109.81	1.88	52.77	99.27	0.82	20.59	109.9	1.94	53.58	103.91	0.78
	10	22.91	109.96	1.99	55.13	109.77	0.78	27.49	110.05	2.08	58.04	121	0.76
2259	25	29.71	110.1	2.13	59.53	126.72	0.76	35.65	110.21	2.24	63.67	142.81	0.75
	50	36.97	110.23	2.27	64.89	147.46	0.76	44.36	110.35	2.4	70.29	169.05	0.76

		Reach 2 - Existing Climate						Reach 2 - Future Climate (RCP8.5)					
River Station	Storm Event	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl
		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)	
	100	43.67	110.34	2.39	69.82	167.22	0.76	52.4	110.49	2.5	74.3	185.73	0.76
	Regional	134.41	111.49	3.2	99.67	318.47	0.72	161.29	111.76	3.31	103.51	342.77	0.71
2217	2	7.99	109.47	1.24	23.17	28.65	0.56	9.59	109.53	1.32	25.49	33.58	0.56
	5	17.16	109.75	1.68	38	63.73	0.63	20.59	109.83	1.8	43.07	77.58	0.66
	10	22.91	109.88	1.88	46.18	86.71	0.67	27.49	109.97	2.01	51.42	103.38	0.69
	25	29.71	110.01	2.07	53.99	111.85	0.7	35.65	110.12	2.22	60.41	134.2	0.72
	50	36.97	110.14	2.25	61.86	139.41	0.72	44.36	110.25	2.43	69.9	169.67	0.75
	100	43.67	110.24	2.41	69.18	166.88	0.75	52.4	110.36	2.6	78.21	203.24	0.77
	Regional	134.41	111.23	3.66	132.72	486.09	0.86	161.29	111.53	3.7	128.77	476.35	0.8
2183	2	7.99	109.44	1.06	16.98	18	0.47	9.59	109.5	1.13	19.01	21.4	0.5
	5	17.16	109.73	1.37	25.82	35.46	0.53	20.59	109.82	1.46	28.34	41.39	0.54
	10	22.91	109.87	1.52	29.97	45.42	0.54	27.49	109.97	1.61	32.73	52.66	0.55
	25	29.71	110.02	1.65	34.07	56.3	0.55	35.65	110.13	1.76	37.42	65.86	0.56
	50	36.97	110.16	1.78	38.19	68.11	0.56	44.36	110.28	1.91	42.49	81.16	0.57
	100	43.67	110.27	1.9	42.11	79.96	0.57	52.4	110.4	2.04	46.94	95.56	0.59
	Regional	134.41	111.35	2.86	78.5	224.77	0.64	161.29	111.64	2.99	83.06	248.67	0.63
2157	2	7.99	109.26	1.86	59.06	109.73	1	9.59	109.31	1.95	62.9	122.49	1
	5	17.16	109.5	2.26	77.11	174.17	1.01	20.59	109.57	2.38	82.56	196.31	1.01
	10	22.91	109.62	2.43	84.62	205.87	1	27.49	109.7	2.57	91.43	234.96	1.01
	25	29.71	109.74	2.61	93.18	243.53	1	35.65	109.84	2.73	99.06	270.38	1.01
	50	36.97	109.86	2.75	100.13	275.43	1.01	44.36	109.97	2.87	105.51	302.54	1
	100	43.67	109.96	2.85	104.83	299.22	1	52.4	110.08	2.99	111.62	333.91	1
	Regional	134.41	111.16	3.32	109.67	364.47	0.79	161.29	111.47	3.38	108.54	367.03	0.75
2132	2	7.99	109.07	2.01	73.32	147.26	1.19	9.59	109.1	2.16	81.94	176.68	1.22
	5	17.16	109.46	1.77	44.22	78.27	0.71	20.59	109.55	1.85	46.53	86.07	0.7
	10	22.91	109.61	1.9	48.32	92.03	0.7	27.49	109.7	2.03	52.97	107.29	0.71
	25	29.71	109.74	2.08	55.26	115.06	0.72	35.65	109.84	2.24	62.37	139.88	0.74
	50	36.97	109.86	2.28	64.02	145.9	0.74	44.36	109.96	2.48	73.52	181.98	0.77
	100	43.67	109.95	2.46	72.72	178.81	0.77	52.4	110.06	2.67	83.26	222.05	0.8
	Regional	134.41	110.79	4.05	169.02	683.82	1	161.29	111.03	4.24	180.18	763.93	1
2098	2	7.99	109.1	1.14	18.96	21.56	0.48	9.59	109.17	1.22	20.99	25.51	0.49
	5	17.16	109.44	1.49	28.93	43.08	0.53	20.59	109.53	1.6	32.83	52.61	0.55
	10	22.91	109.58	1.68	35.46	59.41	0.57	27.49	109.68	1.82	40.63	73.75	0.59
	25	29.71	109.72	1.88	43.02	80.85	0.6	35.65	109.81	2.06	50.02	102.85	0.63
	50	36.97	109.83	2.1	51.65	108.24	0.64	44.36	109.92	2.31	61.06	141.04	0.68
	100	43.67	109.92	2.29	60.26	138.1	0.67	52.4	110.02	2.52	70.79	178.35	0.71
	Regional	134.41	110.6	4.31	182.62	786.31	1.01	161.29	110.78	4.64	205.96	956.18	1.04
2036	2	7.99	108.97	1.42	31.59	44.92	0.67	9.59	109.04	1.47	32.36	47.42	0.65
	5	17.16	109.33	1.63	35.32	57.53	0.6	20.59	109.42	1.74	39	67.99	0.61
	10	22.91	109.47	1.82	41.82	76.23	0.62	27.49	109.56	1.96	46.99	92.27	0.64
	25	29.71	109.6	2.02	48.85	98.54	0.64	35.65	109.7	2.17	55.07	119.74	0.66
	50	36.97	109.72	2.21	56.45	124.63	0.66	44.36	109.82	2.38	63.77	151.85	0.68
	100	43.67	109.81	2.37	63.29	149.91	0.68	52.4	109.92	2.56	71.73	183.47	0.71
	Regional	134.41	110.7	3.74	131.35	490.8	0.82	161.29	110.9	4.02	147.15	590.87	0.84
1983	2	7.99	108.89	1.26	23.9	30.22	0.55	9.59	108.97	1.32	25.03	32.96	0.55
	5	17.16	109.28	1.48	29.11	43.18	0.54	20.59	109.37	1.57	31.46	49.44	0.54
	10	22.91	109.42	1.64	33.4	54.63	0.55	27.49	109.52	1.76	37.29	65.51	0.56
	25	29.71	109.56	1.8	38.7	69.77	0.56	35.65	109.66	1.95	43.87	85.46	0.58
	50	36.97	109.68	1.98	45.07	89.22	0.58	44.36	109.78	2.15	51.49	110.51	0.61
	100	43.67	109.77	2.14	51.17	109.32	0.61	52.4	109.89	2.3	57.5	132.13	0.63
	Regional	134.41	110.77	3.09	87.9	271.18	0.66	161.29	111.01	3.23	92.94	299.91	0.65
1939	2	7.99	108.71	1.82	49.86	90.59	0.81	9.59	108.78	1.91	53.83	102.99	0.82
	5	17.16	108.98	2.43	83.21	201.87	0.98	20.59	109.08	2.47	84.21	207.62	0.96
	10	22.91	109.15	2.45	82.46	201.89	0.95	27.49	109.24	2.56	86.52	221.49	0.93
	25	29.71	109.27	2.65	91.73	243.26	0.95	35.65	109.39	2.72	91.92	249.6	0.91
	50	36.97	109.41	2.73	92.16	251.67	0.9	44.36	109.52	2.85	96.59	275.07	0.89
	100	43.67	109.51	2.84	96.06	272.4	0.89	52.4	109.62	2.99	103.33	309.08	0.89

		Reach 2 - Existing Climate						Reach 2 - Future Climate (RCP8.5)					
River Station	Storm Event	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl
		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)	
	Regional	134.41	110.35	4.1	165.1	677.51	0.96	161.29	110.54	4.36	180.2	785.22	0.97
1916	2	7.99	108.73	1.27	22.56	28.72	0.5	9.59	108.8	1.38	25.81	35.59	0.52
	5	17.16	108.97	1.98	50.81	100.55	0.69	20.59	108.99	2.3	68.1	156.67	0.79
	10	22.91	108.85	3.09	128.26	396.92	1.14	27.49	109.03	2.96	111.32	329.16	1
	25	29.71	109.11	2.89	104.31	301.61	0.95	35.65	109.23	2.98	106.54	317.3	0.93
	50	36.97	109.25	3.01	108.05	325.11	0.93	44.36	109.37	3.13	113.21	354.67	0.92
	100	43.67	109.36	3.12	112.88	352.57	0.92	52.4	109.48	3.26	118.97	387.85	0.91
	Regional	134.41	110.16	4.53	199.41	903.11	1.03	161.29	110.34	4.82	219.85	1060.54	1.05
1887	2	7.99	108.56	1.9	56.14	106.69	0.88	9.59	108.64	1.92	60.11	115.49	0.96
	5	17.16	108.84	2.18	72.45	157.75	0.99	20.59	108.93	2.15	67.23	144.53	0.91
	10	22.91	108.97	2.21	69.82	154.63	0.9	27.49	109.01	2.49	86.64	215.68	0.99
	25	29.71	108.95	2.97	127	377.5	1.23	35.65	109	3.26	148.75	484.61	1.3
	50	36.97	109.01	3.31	152.23	503.24	1.31	44.36	109.08	3.56	170.82	607.29	1.34
	100	43.67	109.07	3.53	169.27	598.24	1.34	52.4	109.14	3.77	186.91	705.36	1.36
	Regional	134.41	109.68	5.11	288.07	1472.32	1.42	161.29	109.82	5.42	312.94	1695.5	1.43
1861	2	7.99	108.45	1.9	60.43	114.52	0.99	9.59	108.52	1.9	60.41	114.7	0.98
	5	17.16	108.64	2.48	95.75	237.75	1.15	20.59	108.67	2.7	110.74	299.28	1.2
	10	22.91	108.7	2.8	117.29	329	1.22	27.49	108.76	2.95	125.83	371.38	1.22
	25	29.71	108.78	3.06	133.5	407.97	1.24	35.65	108.83	3.29	150.6	495.2	1.29
	50	36.97	108.84	3.33	154.01	513.55	1.29	44.36	108.91	3.58	172.43	616.61	1.33
	100	43.67	108.9	3.56	170.82	607.27	1.33	52.4	108.97	3.81	190.8	726.76	1.37
	Regional	134.41	109.48	5.23	311.32	1627.88	1.51	161.29	109.62	5.54	337.33	1869.36	1.52
1846	2	7.99	107.8	3.58	215.29	769.79	1.86	9.59	107.87	3.59	211.23	757.9	1.79
	5	17.16	108.08	3.63	219.16	795.17	1.86	20.59	108.14	3.69	218.88	808.55	1.79
	10	22.91	108.19	3.72	216.61	805.7	1.74	27.49	108.27	3.75	213.13	799.38	1.67
	25	29.71	108.31	3.79	213.82	810.72	1.64	35.65	108.39	3.92	219.49	861.17	1.59
	50	36.97	108.4	3.95	220.37	869.89	1.58	44.36	108.48	4.14	233.87	967.58	1.57
	100	43.67	108.47	4.12	232.44	957.43	1.57	52.4	108.54	4.35	250.97	1090.57	1.58
	Regional	134.41	109.03	5.76	379.51	2187.28	1.66	161.29	109.16	6.09	413.33	2517.4	1.69
1829	2	7.99	107.47	3.68	218.51	803.42	1.78	9.59	107.55	3.76	218.88	822.03	1.7
	5	17.16	108.41	1.66	35	58.08	0.55	20.59	108.5	1.73	36.92	63.79	0.55
	10	22.91	108.6	1.66	33.07	54.83	0.51	27.49	108.69	1.74	35.58	61.93	0.51
	25	29.71	108.73	1.79	37.24	66.6	0.52	35.65	108.83	1.9	41.11	78.08	0.54
	50	36.97	108.85	1.92	42.05	80.95	0.54	44.36	108.94	2.07	47.75	98.88	0.56
	100	43.67	108.93	2.06	47.25	97.25	0.56	52.4	109.04	2.19	53.16	116.54	0.59
	Regional	134.41	109.06	5.48	331.35	1815.93	1.47	161.29	109.17	5.86	373.35	2188.58	1.54
1816	2	7.99	107.76	2.29	78.81	180.27	1	9.59	107.83	2.4	84.39	202.53	1.01
	5	17.16	108.18	2.49	84.73	211.07	0.94	20.59	108.47	1.81	41.48	75.02	0.61
	10	22.91	108.58	1.66	33.94	56.51	0.53	27.49	108.68	1.73	35.48	61.21	0.53
	25	29.71	108.72	1.77	36.82	65.05	0.53	35.65	108.82	1.86	39.91	74.19	0.54
	50	36.97	108.84	1.88	40.57	76.1	0.55	44.36	108.94	1.98	44.85	89.01	0.57
	100	43.67	108.93	1.98	44.48	87.84	0.56	52.4	109.03	2.11	49.62	104.61	0.58
	Regional	134.41	109.66	3.15	97.22	306.13	0.72	161.29	109.78	3.47	115.95	402.7	0.77
1799	2	7.99	107.32	3.28	172.1	564.51	1.57	9.59	107.39	3.37	176.88	596.71	1.54
	5	17.16	108.27	1.7	34.65	59.06	0.51	20.59	108.49	1.46	24.24	35.44	0.41
	10	22.91	108.6	1.41	22.08	31.12	0.38	27.49	108.69	1.5	24.5	36.7	0.39
	25	29.71	108.73	1.55	25.92	40.07	0.4	35.65	108.83	1.66	29.41	48.87	0.42
	50	36.97	108.85	1.69	30.22	51	0.42	44.36	108.95	1.83	34.96	64.08	0.44
	100	43.67	108.94	1.82	34.54	62.87	0.44	52.4	109.04	1.98	39.95	78.95	0.47
	Regional	134.41	109.67	3.09	88.37	272.96	0.63	161.29	109.8	3.42	106.57	364.42	0.68
1759	2	7.99	107.56	1.59	34.18	54.24	0.59	9.59	107.71	1.58	33.17	52.56	0.56
	5	17.16	108.27	1.43	23.23	33.24	0.4	20.59	108.49	1.31	18.39	24	0.34
	10	22.91	108.59	1.29	17.48	22.49	0.32	27.49	108.68	1.39	20.07	27.93	0.34
	25	29.71	108.72	1.45	21.5	31.06	0.35	35.65	108.82	1.57	25.05	39.43	0.37
	50	36.97	108.83	1.6	25.89	41.49	0.37	44.36	108.93	1.75	30.53	53.57	0.4
	100	43.67	108.92	1.74	30.13	52.48	0.4	52.4	109.02	1.89	34.87	65.89	0.42
	Regional	134.41	109.68	2.83	71.55	202.83	0.55	161.29	109.82	3.08	82.9	255.08	0.58

		Reach 2 - Existing Climate						Reach 2 - Future Climate (RCP8.5)					
River Station	Storm Event	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl
		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)	
1737	2	7.99	107.56	1.39	26.07	36.23	0.51	9.59	107.71	1.38	25.09	34.69	0.48
	5	17.16	108.28	1.22	16.84	20.47	0.34	20.59	108.49	1.14	13.99	15.9	0.3
	10	22.91	108.59	1.13	13.59	15.39	0.29	27.49	108.69	1.23	15.84	19.55	0.3
	25	29.71	108.72	1.28	17.02	21.85	0.31	35.65	108.82	1.4	19.99	28.07	0.33
	50	36.97	108.84	1.43	20.6	29.41	0.34	44.36	108.93	1.55	24	37.31	0.36
	100	43.67	108.92	1.54	23.72	36.62	0.36	52.4	109.03	1.67	27.3	45.63	0.38
	Regional	134.41	109.7	2.45	53.2	130.2	0.48	161.29	109.84	2.67	62.38	166.72	0.51
1682	2	7.99	107.55	1.05	14.06	14.79	0.35	9.59	107.69	1.08	14.41	15.59	0.35
	5	17.16	108.27	1.05	11.93	12.56	0.27	20.59	108.48	1.02	10.76	11.01	0.25
	10	22.91	108.58	1.04	10.89	11.31	0.25	27.49	108.67	1.16	13.31	15.4	0.27
	25	29.71	108.71	1.2	14.29	17.2	0.28	35.65	108.81	1.31	16.58	21.66	0.29
	50	36.97	108.83	1.33	17.08	22.68	0.3	44.36	108.92	1.45	20.04	29.04	0.32
	100	43.67	108.91	1.44	19.78	28.46	0.31	52.4	109.02	1.57	23.05	36.09	0.33
	Regional	134.41	109.68	2.36	48	113.21	0.44	161.29	109.81	2.59	56.99	147.54	0.47
1651	2	7.99	107.54	0.9	10.14	9.18	0.29	9.59	107.69	0.94	10.77	10.1	0.3
	5	17.16	108.27	0.91	8.93	8.13	0.24	20.59	108.48	0.89	8.21	7.32	0.22
	10	22.91	108.59	0.92	8.47	7.75	0.22	27.49	108.68	1.02	10.33	10.52	0.24
	25	29.71	108.71	1.07	11.28	12.04	0.25	35.65	108.81	1.17	13.43	15.77	0.26
	50	36.97	108.83	1.2	13.91	16.65	0.27	44.36	108.92	1.33	17.01	22.68	0.29
	100	43.67	108.91	1.32	16.74	22.13	0.29	52.4	109.01	1.45	19.93	28.97	0.31
	Regional	134.41	109.66	2.29	45.3	103.59	0.43	161.29	109.79	2.53	54.56	137.91	0.47
1621	2	7.99	107.53	0.89	9.65	8.56	0.27	9.59	107.68	0.93	10.43	9.73	0.28
	5	17.16	108.26	1.02	11.01	11.25	0.25	20.59	108.47	1.02	10.61	10.86	0.24
	10	22.91	108.57	1.04	10.77	11.19	0.23	27.49	108.66	1.15	12.93	14.83	0.25
	25	29.71	108.69	1.2	14.1	16.94	0.26	35.65	108.78	1.33	17.13	22.84	0.29
	50	36.97	108.8	1.36	17.84	24.29	0.29	44.36	108.88	1.53	22.21	33.96	0.32
	100	43.67	108.88	1.52	21.83	33.07	0.32	52.4	108.97	1.68	26.48	44.47	0.35
	Regional	134.41	109.57	2.69	63.07	169.69	0.49	161.29	109.68	2.99	77.13	230.86	0.54
1601	2	7.99	107.2	2.53	89.1	225.59	0.89	9.59	107.32	2.66	96.03	255.58	0.89
	5	17.16	107.82	2.92	107.06	312.37	0.87	20.59	107.99	3.03	112.55	340.61	0.87
	10	22.91	108.37	2.21	56.66	125	0.59	27.49	108.42	2.47	70.04	172.71	0.65
	25	29.71	108.46	2.48	70.15	174.02	0.64	35.65	108.53	2.67	79.91	213.23	0.68
	50	36.97	108.55	2.7	81.36	219.47	0.68	44.36	108.64	2.83	88.15	249.77	0.69
	100	43.67	108.64	2.81	87.09	245.12	0.69	52.4	108.73	2.98	96.02	286.26	0.71
	Regional	134.41	109.31	3.98	156.08	621.93	0.83	161.29	109.45	4.14	165.5	685.62	0.84

		Reach 3 - Existing Climate						Reach 3- Future Climate (RCP8.5)					
River Station	Storm Event	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl
		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)	
1572	2	7.99	105.2	4.44	356.02	1582	2.56	9.59	105.25	4.65	375.35	1746.22	2.52
	5	17.16	105.38	6.01	573.34	3447.67	2.82	20.59	105.45	6.3	607.2	3825.69	2.79
	10	22.91	105.49	6.42	616.48	3957.83	2.74	27.49	105.59	6.59	625.33	4122.54	2.64
	25	29.71	105.64	6.58	610.19	4012.72	2.55	35.65	105.76	6.69	607.96	4069.55	2.44
	50	36.97	105.78	6.71	606.21	4068.01	2.41	44.36	105.93	6.76	591.2	3996.77	2.28
	100	43.67	105.92	6.76	592.91	4007.24	2.29	52.4	106.09	6.78	572.98	3883.18	2.15
	Regional	134.41	107.27	6.5	449.22	2920.3	1.62	161.29	107.55	6.49	424.74	2756.79	1.49
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
1562	2	7.99	104.93	4.27	313.6	1338.65	2.27	9.59	104.97	4.52	339.49	1534.19	2.27
	5	17.16	105.14	5.73	498.62	2857.56	2.49	20.59	105.21	6.05	538.39	3257.86	2.49
	10	22.91	105.26	6.2	552.97	3425.9	2.46	27.49	105.36	6.41	572.07	3669.17	2.41
	25	29.71	105.42	6.44	565.95	3641.94	2.34	35.65	105.54	6.59	577.25	3806.42	2.29
	50	36.97	105.57	6.62	578.53	3832.21	2.27	44.36	105.73	6.73	576.03	3875.54	2.18
	100	43.67	105.71	6.71	574.55	3855.29	2.18	52.4	105.87	6.78	598.01	4053.74	2.29
	Regional	134.41	106.98	6.83	476.19	3251.45	1.56	161.29	107.28	6.85	457.49	3135.08	1.46
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
1549	2	7.99	104.7	3.97	258.91	1028.5	1.97	9.59	104.75	4.23	285.49	1208.12	2
	5	17.16	104.93	5.34	419.98	2243.67	2.22	20.59	105.01	5.68	462.58	2627.35	2.26
	10	22.91	105.06	5.85	483.44	2828.1	2.28	27.49	105.15	6.14	516.39	3170.4	2.27
	25	29.71	105.2	6.21	520.03	3228.74	2.24	35.65	105.33	6.43	538.78	3462.5	2.19
	50	36.97	105.35	6.47	542.58	3510.76	2.18	44.36	105.5	6.64	551.81	3663.05	2.11
	100	43.67	105.49	6.62	549.78	3638.39	2.11	52.4	105.68	6.62	531.56	3519.38	2
	Regional	134.41	107.03	6.21	400.32	2485.17	1.5	161.29	107.37	6.13	368.13	2257.82	1.36
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
1532	2	7.99	104.81	1.21	19.74	23.98	0.44	9.59	104.26	4.31	329.61	1420.53	2.46
	5	17.16	104.39	5.39	472.7	2550.12	2.68	20.59	104.44	5.75	522.28	3003.99	2.73
	10	22.91	104.48	5.95	548.52	3261.34	2.75	27.49	104.54	6.29	593.84	3738.03	2.75
	25	29.71	104.57	6.41	605.79	3884.09	2.72	35.65	104.66	6.71	639.18	4290.91	2.68
	50	36.97	104.67	6.78	646.66	4382.72	2.67	44.36	104.77	7.05	671.84	4733.25	2.6
	100	43.67	104.77	7.02	668.99	4695.49	2.6	52.4	104.89	7.17	667.98	4787.11	2.47
	Regional	134.41	106.14	7.17	533.23	3821.92	1.66	161.29	106.54	7.02	497.03	3491.64	1.56
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
1500	2	7.99	104.8	1	13.66	13.71	0.37	9.59	104.88	1.09	15.64	17.03	0.38
	5	17.16	105.21	1.39	23.33	32.49	0.42	20.59	105.35	1.48	25.57	37.89	0.42
	10	22.91	105.44	1.53	26.93	41.33	0.42	27.49	105.56	1.69	31.93	53.95	0.45
	25	29.71	105.63	1.75	33.85	59.21	0.46	35.65	105.8	1.88	38.06	71.56	0.47
	50	36.97	105.84	1.91	39	74.43	0.47	44.36	106.02	2.06	44.21	91	0.48
	100	43.67	106.01	2.04	43.47	88.64	0.48	52.4	106.17	2.25	52.15	117.57	0.51
	Regional	134.41	105.79	7.13	547.98	3906.9	1.77	161.29	106.1	7.18	533.49	3832.41	1.66
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
1479	2	7.99	104.55	2.22	76.87	170.89	1.01	9.59	104.65	2.17	73.84	160.29	1
	5	17.16	105.08	1.96	50.97	99.85	0.69	20.59	105.23	1.96	48.83	95.93	0.64
	10	22.91	105.33	1.98	48.15	95.17	0.62	27.49	105.44	2.15	55.67	119.82	0.65
	25	29.71	105.5	2.2	57.62	127.04	0.65	35.65	105.68	2.3	60.33	138.51	0.64
	50	36.97	105.72	2.32	61.17	141.7	0.64	44.36	105.91	2.42	64.56	156.35	0.63
	100	43.67	105.9	2.4	63.56	152.56	0.63	52.4	106.04	2.63	74.12	194.71	0.66
	Regional	134.41	106.49	5.22	272.44	1421.32	1.17	161.29	106.73	5.53	294.61	1628.73	1.17
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
1459	2	7.99	104.55	1.47	30.39	44.56	0.58	9.59	104.66	1.51	30.83	46.49	0.56
	5	17.16	105.08	1.69	34.41	58.06	0.52	20.59	105.23	1.77	37.47	66.43	0.53
	10	22.91	105.33	1.82	38.31	69.55	0.52	27.49	105.43	2.01	45.82	92.04	0.56
	25	29.71	105.49	2.07	48.21	99.96	0.56	35.65	105.67	2.2	52.31	114.93	0.56
	50	36.97	105.7	2.22	53.26	118.47	0.56	44.36	105.9	2.36	58.15	137.37	0.57
	100	43.67	105.89	2.34	57.13	133.66	0.56	52.4	106.02	2.58	68.25	176.38	0.6
	Regional	134.41	106.54	4.98	236.68	1177.61	1.03	161.29	106.61	5.72	309.36	1768.96	1.17
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
1423	2	7.99	104.42	1.81	44.71	81	0.66	9.59	104.51	1.94	50.11	97.29	0.68
	5	17.16	104.91	2.24	63.76	142.56	0.74	20.59	105.06	2.29	64.45	147.55	0.72
	10	22.91	105.17	2.3	63.03	144.74	0.69	27.49	105.18	2.73	89	243.17	0.81
	25	29.71	105.2	2.88	98.63	284.54	0.85	35.65	105.24	3.35	131.53	440.18	0.97
	50	36.97	105.27	3.38	133.47	451.5	0.97	44.36	105.44	3.54	141.08	499.53	0.96
	100	43.67	105.4	3.61	148.17	535.12	1	52.4	105.68	3.47	129.06	447.76	0.87
	Regional	134.41	106.43	5.18	253	1310.28	1.08	161.29	106.53	5.83	316.66	1847.19	1.19
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	2	7.99	104.29	1.93	51.87	99.94	0.73	9.59	104.36	2.08	59.07	122.98	0.76
	5	17.16	104.68	2.59	84.93	220.26	0.84	20.59	104.76	2.88	103.29	297.79	0.91
	10	22.91	104.77	3.16	123.79	391.34	0.99	27.49	105.07	2.72	86.04	233.65	0.78

		Reach 3 - Existing Climate						Reach 3- Future Climate (RCP8.5)					
River Station	Storm Event	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl
		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)	
1374	25	29.71	105.13	2.75	86.74	238.16	0.77	35.65	105.22	2.93	96.63	283.38	0.79
	50	36.97	105.15	3.3	124.74	412.19	0.92	44.36	105.16	3.91	174.23	681.3	1.08
	100	43.67	105.16	3.86	169.38	652.99	1.07	52.4	105.22	4.32	209.39	903.72	1.17
	Regional	134.41	106.46	2.49	56.41	140.52	0.49	161.29	106.64	2.58	59.05	152.21	0.49
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
1343	2	7.99	104.24	1.77	43.97	77.92	0.69	9.59	104.31	1.9	49.87	94.98	0.72
	5	17.16	104.66	2.22	63.11	139.97	0.75	20.59	104.78	2.32	66.2	153.29	0.74
	10	22.91	104.85	2.37	67.72	160.36	0.73	27.49	104.69	3.43	149.35	512.01	1.15
	25	29.71	104.75	3.44	147.04	505.48	1.11	35.65	105.25	2.03	44.63	90.55	0.53
	50	36.97	105.29	1.97	41.79	82.44	0.51	44.36	105.48	1.82	34.15	62.05	0.45
	100	43.67	105.45	1.84	35.26	64.97	0.45	52.4	105.63	1.79	32.3	57.91	0.42
	Regional	134.41	106.47	2.05	37.33	76.61	0.4	161.29	106.65	2.18	41.13	89.58	0.41
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
1303	2	7.99	104.07	2.05	62.56	128.37	0.88	9.59	104.16	2.1	62.84	131.97	0.84
	5	17.16	104.54	2.3	67.12	154.41	0.76	20.59	104.67	2.39	70.83	169.11	0.77
	10	22.91	104.73	2.45	75.26	184.43	0.8	27.49	104.88	2.39	69.25	165.7	0.74
	25	29.71	104.99	2.23	58.17	129.67	0.66	35.65	105.18	2.12	50.07	106.11	0.58
	50	36.97	105.21	2.12	49.82	105.7	0.58	44.36	105.35	2.22	52.65	116.67	0.57
	100	43.67	105.34	2.17	50.49	109.49	0.56	52.4	105.51	2.2	50.19	110.42	0.54
	Regional	134.41	106.33	2.65	63.98	169.83	0.53	161.29	106.5	2.83	70.96	200.51	0.55
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
1276	2	7.99	104.01	1.83	48.33	88.22	0.75	9.59	104.12	1.84	47.33	87.26	0.71
	5	17.16	104.53	1.99	49.53	98.79	0.65	20.59	104.66	2.1	53.91	113.35	0.66
	10	22.91	104.7	2.22	59.77	132.75	0.69	27.49	104.84	2.3	61.7	141.99	0.68
	25	29.71	104.92	2.26	58.23	131.71	0.64	35.65	105.08	2.3	57.88	133.11	0.62
	50	36.97	105.11	2.32	58.56	135.87	0.61	44.36	105.25	2.41	61.26	147.65	0.61
	100	43.67	105.24	2.4	60.93	146.26	0.61	52.4	105.41	2.45	61.19	149.71	0.59
	Regional	134.41	106.25	2.92	76.48	223.29	0.58	161.29	106.42	3.06	82.17	251.45	0.59
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
1255	2	7.99	104	1.6	34.59	55.48	0.58	9.59	104.1	1.69	37.54	63.58	0.59
	5	17.16	104.49	2.02	49	99.16	0.61	20.59	104.6	2.2	56.22	123.67	0.63
	10	22.91	104.62	2.39	65.95	157.67	0.68	27.49	104.61	2.9	97.16	281.53	0.83
	25	29.71	104.65	3.03	105.52	320.01	0.86	35.65	104.86	2.94	94.49	278.26	0.77
	50	36.97	104.89	2.96	95.15	282.04	0.77	44.36	105.02	3.09	100.35	309.89	0.77
	100	43.67	105.01	3.08	100.32	309.34	0.77	52.4	105.11	3.35	115.92	388.09	0.81
	Regional	134.41	105.97	3.93	139.7	548.67	0.78	161.29	106.11	4.2	156.63	657.21	0.81
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
1225	2	7.99	103.98	1.41	26.43	37.15	0.51	9.59	104.09	1.48	28.64	42.28	0.52
	5	17.16	104.52	1.62	30.89	50.02	0.48	20.59	104.63	1.73	34.07	58.88	0.49
	10	22.91	104.67	1.86	39.11	72.76	0.52	27.49	104.7	2.17	52.87	114.77	0.6
	25	29.71	104.71	2.3	59.34	136.77	0.63	35.65	104.38	3.88	183.21	711.17	1.21
	50	36.97	104.41	3.89	183.13	713.17	1.21	44.36	104.58	3.93	179.2	705.06	1.14
	100	43.67	104.56	3.93	179.56	705.75	1.15	52.4	104.73	3.99	176.61	703.86	1.09
	Regional	134.41	105.38	5.1	253.89	1294.63	1.15	161.29	105.54	5.32	269.84	1435.95	1.15
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
1192	2	7.99	103.69	2.43	87.02	211.44	1.01	9.59	103.78	2.56	93.26	238.31	1
	5	17.16	104.12	2.92	111.5	325.95	0.99	20.59	104.35	2.69	88.64	238.53	0.83
	10	22.91	104.48	2.5	73.8	184.13	0.73	27.49	104.64	2.33	61.89	144.45	0.64
	25	29.71	104.67	2.39	64.65	154.77	0.65	35.65	104.75	2.52	70.54	177.96	0.67
	50	36.97	104.76	2.55	72.07	184.08	0.67	44.36	104.81	2.82	86.97	245.37	0.73
	100	43.67	104.8	2.86	89.97	257.65	0.75	52.4	104.74	3.77	158.12	596.56	1
	Regional	134.41	105.73	2.96	82.02	243.18	0.61	161.29	105.91	3.1	87.56	271.4	0.61
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
1176	2	7.99	103.44	2.9	134.43	389.18	1.4	9.59	103.49	3.1	150.11	465.72	1.44
	5	17.16	104.18	2.05	52.9	108.46	0.68	20.59	104.34	2.06	51.06	105.05	0.64
	10	22.91	104.46	1.96	44.55	87.11	0.57	27.49	104.56	2.05	47.63	97.58	0.58
	25	29.71	104.6	2.08	48.7	101.35	0.58	35.65	104.71	2.09	47.67	99.49	0.56
	50	36.97	104.73	2.1	47.96	100.61	0.56	44.36	104.85	2.09	46.17	96.36	0.53
	100	43.67	104.84	2.08	45.95	95.56	0.53	52.4	104.96	2.11	45.96	96.8	0.52
	Regional	134.41	105.76	2.42	53.52	129.78	0.49	161.29	105.93	2.66	63.21	168.43	0.52
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
1158	2	7.99	103.6	1.79	46.41	83.19	0.73	9.59	103.72	1.79	44.14	78.96	0.68
	5	17.16	104.17	1.9	43.62	82.9	0.58	20.59	104.35	1.89	41.19	77.98	0.54
	10	22.91	104.46	1.83	37.29	68.18	0.5	27.49	104.56	1.93	40.46	77.93	0.51
	25	29.71	104.6	1.97	42.16	83.26	0.51	35.65	104.69	2.07	45.22	93.41	0.52
	50	36.97	104.71	2.09	46.03	96.12	0.52	44.36	104.81	2.19	49.51	108.33	0.53

		Reach 3 - Existing Climate						Reach 3- Future Climate (RCP8.5)					
River Station	Storm Event	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl
		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)	
	100	43.67	104.81	2.18	49.06	106.74	0.53	52.4	104.92	2.27	52.22	118.46	0.54
	Regional	134.41	105.69	2.76	68.86	190.3	0.55	161.29	105.85	3.03	81.16	245.92	0.58
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	2	7.99	103.62	1.33	24.13	32.2	0.5	9.59	103.74	1.37	24.6	33.78	0.48
	5	17.16	104.2	1.54	27.72	42.82	0.45	20.59	104.37	1.55	26.81	41.49	0.43
	10	22.91	104.48	1.53	25.53	39.06	0.4	27.49	104.58	1.61	27.78	44.82	0.41
1141	25	29.71	104.62	1.67	29.51	49.24	0.42	35.65	104.71	1.78	32.92	58.57	0.44
	50	36.97	104.73	1.8	33.72	60.83	0.44	44.36	104.83	1.91	37.09	70.85	0.45
	100	43.67	104.82	1.9	36.68	69.61	0.45	52.4	104.93	2.01	40.24	80.77	0.47
	Regional	134.41	105.69	2.59	59.87	155.09	0.51	161.29	105.85	2.93	75.17	220.37	0.56
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	2	7.99	103.63	1.08	14.85	15.97	0.36	9.59	103.75	1.13	16.03	18.17	0.37
	5	17.16	104.21	1.31	19.48	25.6	0.36	20.59	104.39	1.33	19.2	25.52	0.35
	10	22.91	104.5	1.31	18.16	23.77	0.33	27.49	104.6	1.4	20.29	28.33	0.34
1123	25	29.71	104.63	1.45	21.75	31.55	0.35	35.65	104.72	1.57	25.14	39.54	0.37
	50	36.97	104.74	1.6	25.95	41.54	0.38	44.36	104.83	1.73	29.91	51.82	0.4
	100	43.67	104.83	1.72	29.47	50.66	0.4	52.4	104.93	1.86	33.88	62.99	0.42
	Regional	134.41	105.62	2.78	68.76	191.31	0.54	161.29	105.79	3.05	81.1	247.54	0.57
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	2	7.99	103.29	2.55	93.63	239.15	1.01	9.59	103.38	2.67	99.63	266.15	1.01
	5	17.16	103.76	3	116.92	351.28	1.01	20.59	103.9	3.12	123.12	384.05	1.01
	10	22.91	103.99	3.17	124.99	395.86	1	27.49	104.32	2.58	78.79	203.51	0.76
1088	25	29.71	104.4	2.47	70.16	172.98	0.7	35.65	104.49	2.6	76.21	197.96	0.71
	50	36.97	104.51	2.6	76.01	197.75	0.71	44.36	104.6	2.77	84.63	234.58	0.73
	100	43.67	104.58	2.78	85.15	236.39	0.74	52.4	104.67	2.96	94.99	281.25	0.76
	Regional	134.41	105.25	4.12	165.25	680.82	0.9	161.29	105.4	4.4	184.07	809.3	0.93
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	2	7.99	102.73	3.82	301.43	1151.32	2.71	9.59	102.75	4.06	330.2	1339.3	2.75
	5	17.16	102.86	4.83	415.99	2009.98	2.73	20.59	102.91	5.07	440.43	2234.26	2.7
	10	22.91	102.94	5.21	454.01	2366.39	2.67	27.49	103	5.35	456.37	2440.65	2.55
1079	25	29.71	103.03	5.38	451.94	2430.65	2.48	35.65	103.13	5.4	431.88	2330.02	2.3
	50	36.97	103.15	5.39	426.91	2302.02	2.26	44.36	103.26	5.39	404.45	2178.34	2.08
	100	43.67	103.25	5.39	406.38	2189.13	2.1	52.4	103.39	5.35	379.93	2032.9	1.91
	Regional	134.41	104.44	5.18	278.52	1442.87	1.26	161.29	104.61	5.38	291.21	1566.74	1.25
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	2	7.99	102.64	2.53	121.77	308.51	1.6	9.59	102.67	2.74	141.14	387.09	1.7
	5	17.16	102.75	3.7	236.74	876.93	2.03	20.59	102.78	4.04	273.13	1102.39	2.11
	10	22.91	102.81	4.24	296.02	1254.89	2.16	27.49	102.85	4.54	328.73	1493.92	2.2
1064	25	29.71	102.88	4.66	340.27	1585.79	2.2	35.65	102.94	4.91	363.07	1782.27	2.18
	50	36.97	102.95	4.95	366.34	1813.89	2.17	44.36	103.03	5.18	385.21	1995.69	2.14
	100	43.67	103.02	5.17	384.89	1989.34	2.14	52.4	103.12	5.37	397.68	2133.74	2.08
	Regional	134.41	103.92	5.77	368	2124.48	1.59	161.29	104.09	5.95	377.89	2248.08	1.55
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	2	7.99	101.27	4.33	309.77	1341.51	2.15	9.59	101.34	4.37	302.22	1320.73	2.02
	5	17.16	101.65	4.68	306.66	1435.94	1.76	20.59	101.77	4.82	313.97	1512.7	1.71
	10	22.91	101.84	4.9	319.84	1568.71	1.69	27.49	101.98	5.05	329.34	1662.57	1.66
1028	25	29.71	102.04	5.09	332.45	1692.33	1.66	35.65	102.2	5.19	340.29	1765.26	1.66
	50	36.97	102.24	5.21	341.67	1779.97	1.66	44.36	102.4	5.17	359.98	1862.1	1.86
	100	43.67	102.39	5.16	358.7	1852.43	1.85	52.4	102.51	5.31	378.83	2009.79	1.91
	Regional	134.41	103.16	6.17	482.05	2975.56	2.06	161.29	103.3	6.38	494.41	3155.1	2
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	2	7.99	101.6	1.4	27.96	39.27	0.56	9.59	101.69	1.48	30.13	44.63	0.56
	5	17.16	101.45	3.98	241.15	959.85	1.78	20.59	101.49	4.37	284.09	1241.62	1.89
	10	22.91	101.52	4.6	310.72	1430.31	1.94	27.49	101.59	4.97	352.92	1754.93	2.01
1000	25	29.71	101.62	5.11	368.24	1882.34	2.03	35.65	101.71	5.34	388.14	2071.65	2.01
	50	36.97	101.73	5.38	392.52	2113.67	2.01	44.36	101.88	5.34	370.07	1976.43	1.86
	100	43.67	101.87	5.33	369.83	1971.59	1.87	52.4	102.01	5.46	374.72	2044.62	1.82
	Regional	134.41	102.8	5.87	447.86	2628.92	2.07	161.29	102.9	6.19	485.41	3005.94	2.1
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	2	7.99	101.36	2.29	79.01	181.03	1	9.59	101.46	2.27	78.27	178.03	1
	5	17.16	101.73	2.51	89.43	224.18	1	20.59	101.82	2.63	96.24	253.36	1.01
	10	22.91	101.88	2.69	98.63	265.05	1	27.49	101.98	2.82	106.71	300.43	1.03
973	25	29.71	102.02	2.91	113.57	330.34	1.06	35.65	102.04	3.41	156.24	533.44	1.24
	50	36.97	102.05	3.49	162.82	567.81	1.26	44.36	102.16	3.65	176.56	644.73	1.3
	100	43.67	102.15	3.62	173.76	629.34	1.29	52.4	102.22	4	211.04	845	1.41
	Regional	134.41	102.73	5.11	328.98	1680.13	1.71	161.29	103.82	2.53	62.29	157.89	0.57

		Reach 3 - Existing Climate						Reach 3- Future Climate (RCP8.5)					
River Station	Storm Event	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl
		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)	
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
955	2	7.99	101.12	2.73	114.52	312.93	1.22	9.59	101.21	2.79	116.62	325.9	1.2
	5	17.16	101.58	2.72	104.79	284.78	1.08	20.59	101.68	2.81	109.73	308.66	1.08
	10	22.91	101.74	2.87	112.99	324.46	1.08	27.49	101.85	2.95	121.15	357.13	1.14
	25	29.71	101.89	3.02	126.86	383.32	1.16	35.65	101.99	3.13	135.74	425	1.2
	50	36.97	102.02	3.12	136.03	423.88	1.22	44.36	102.07	3.45	166.25	573.4	1.34
	100	43.67	102.06	3.42	163.84	560.9	1.33	52.4	102.12	3.77	197.38	743.56	1.46
	Regional	134.41	103.52	2.3	53.04	122.07	0.55	161.29	103.83	2.3	50	114.81	0.5
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
920	2	7.99	100.81	2.82	126.16	356.1	1.34	9.59	100.87	2.99	137.86	412.79	1.36
	5	17.16	101.15	3.35	155.11	519.73	1.28	20.59	101.28	3.32	156.73	520.08	1.33
	10	22.91	101.34	3.36	161.66	543.91	1.36	27.49	101.45	3.4	161.71	549.81	1.33
	25	29.71	101.49	3.44	163.76	563.04	1.32	35.65	101.61	3.43	169.16	579.45	1.4
	50	36.97	101.64	3.41	167.96	573.14	1.4	44.36	102.2	1.78	40.36	72.01	0.61
	100	43.67	102.18	1.79	40.9	73.25	0.61	52.4	102.34	1.79	38.88	69.79	0.57
	Regional	134.41	103.58	1.72	27.52	47.43	0.37	161.29	103.9	1.74	26.96	47.01	0.35
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
893	2	7.99	100.74	2.45	87.69	214.57	1.01	9.59	100.83	2.57	93.78	241	1.01
	5	17.16	101.21	2.66	98.17	261.01	1.01	20.59	101.32	2.74	103.27	282.54	1.03
	10	22.91	101.49	2.36	82.86	195.57	1	27.49	101.57	2.46	88.03	216.64	1.01
	25	29.71	101.64	2.38	79.88	190.12	0.94	35.65	101.86	2.13	59.14	125.76	0.75
	50	36.97	101.9	2.1	56.62	118.68	0.72	44.36	102.12	1.96	46.09	90.56	0.6
	100	43.67	102.1	1.98	46.85	92.53	0.61	52.4	102.29	1.93	42.27	81.49	0.55
	Regional	134.41	103.58	1.75	27.44	47.95	0.35	161.29	103.9	1.76	26.8	47.21	0.33
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
859	2	7.99	100.36	2.97	134.04	398.4	1.28	9.59	100.45	3.09	141.5	437.4	1.29
	5	17.16	100.76	3.4	161.38	548.01	1.3	20.59	100.88	3.44	159.97	549.61	1.25
	10	22.91	100.99	3.33	146.47	487.04	1.17	27.49	101.26	2.96	110.25	325.83	0.97
	25	29.71	101.36	2.9	103.8	300.58	0.92	35.65	101.54	2.91	100.37	292.42	0.87
	50	36.97	101.58	2.93	100.41	293.85	0.86	44.36	101.78	2.97	98.88	293.26	0.82
	100	43.67	101.76	2.97	99.54	295.54	0.82	52.4	102.03	2.8	83.36	233.44	0.71
	Regional	134.41	103.54	2.13	38.47	81.79	0.39	161.29	103.87	2.12	36.96	78.32	0.37
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
843	2	7.99	100.2	3.01	142.26	428.06	1.4	9.59	100.27	3.17	156	495.06	1.45
	5	17.16	100.5	3.68	195.23	718.16	1.51	20.59	101.12	1.9	45.42	86.26	0.63
	10	22.91	101.22	1.89	43.95	83.14	0.61	27.49	101.41	1.9	42.51	80.7	0.57
	25	29.71	101.49	1.9	41.91	79.83	0.56	35.65	101.68	1.96	42.43	82.98	0.54
	50	36.97	101.72	1.97	42.51	83.56	0.53	44.36	101.94	1.98	41.35	82.04	0.5
	100	43.67	101.92	1.99	41.72	82.98	0.51	52.4	102.15	1.95	38.49	75.23	0.46
	Regional	134.41	103.54	1.95	31.6	61.56	0.35	161.29	103.86	1.98	31.74	62.97	0.34
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
825	2	7.99	100.38	1.94	54	104.74	0.79	9.59	100.47	2.02	56.49	113.92	0.78
	5	17.16	100.94	1.8	42.91	77.14	0.65	20.59	101.1	1.77	39.81	70.58	0.59
	10	22.91	101.21	1.76	38.16	67.11	0.57	27.49	101.41	1.75	36.54	64.12	0.53
	25	29.71	101.5	1.75	35.64	62.48	0.51	35.65	101.69	1.79	35.51	63.62	0.49
	50	36.97	101.73	1.8	35.59	64.13	0.48	44.36	101.95	1.82	34.73	63.3	0.46
	100	43.67	101.92	1.83	35	63.89	0.46	52.4	102.16	1.81	33	59.82	0.43
	Regional	134.41	103.52	1.96	32.15	63.12	0.35	161.29	103.84	2.02	32.97	66.58	0.34
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
804	2	7.99	100.34	1.79	46.54	83.22	0.73	9.59	100.45	1.83	46.63	85.17	0.7
	5	17.16	100.86	1.97	48.75	96.22	0.64	20.59	101.02	2.04	50.44	102.86	0.63
	10	22.91	101.12	2.07	51.32	106.35	0.62	27.49	101.3	2.11	52.89	111.82	0.63
	25	29.71	101.39	2.12	52.35	110.78	0.62	35.65	101.58	2.19	53.87	117.83	0.6
	50	36.97	101.61	2.21	54.43	120.13	0.6	44.36	101.81	2.29	56.68	130.08	0.59
	100	43.67	101.79	2.29	56.73	130.03	0.59	52.4	102.03	2.28	53.46	121.68	0.55
	Regional	134.41	103.46	2.29	44.19	101.03	0.41	161.29	103.78	2.34	44.84	104.95	0.4
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
774	2	7.99	100.3	1.66	37.29	61.84	0.6	9.59	100.4	1.76	40.9	71.94	0.61
	5	17.16	100.79	2.06	52.09	107.22	0.64	20.59	100.94	2.17	55.63	120.48	0.64
	10	22.91	101.03	2.23	57.59	128.18	0.63	27.49	101.2	2.35	62.59	147.08	0.64
	25	29.71	101.28	2.38	64.68	154.25	0.66	35.65	101.46	2.48	67.47	167.37	0.65
	50	36.97	101.5	2.5	67.93	169.8	0.65	44.36	101.7	2.6	70.58	183.57	0.63
	100	43.67	101.68	2.61	71.31	185.97	0.64	52.4	101.92	2.62	68.8	180.21	0.6
	Regional	134.41	103.27	3.03	76.96	232.86	0.53	161.29	103.59	3.13	80.1	251.06	0.53
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	2	7.99	100.25	1.49	29.6	44.01	0.53	9.59	100.35	1.58	32.57	51.5	0.54

		Reach 3 - Existing Climate						Reach 3- Future Climate (RCP8.5)					
River Station	Storm Event	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl
		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)	
727	5	17.16	100.74	1.93	44.28	85.56	0.56	20.59	100.88	2.06	48.87	100.82	0.57
	10	22.91	100.98	2.13	50.98	108.68	0.57	27.49	101.14	2.27	55.63	126.14	0.57
	25	29.71	101.23	2.32	57.05	132.08	0.57	35.65	101.41	2.46	61.96	152.11	0.58
	50	36.97	101.44	2.49	63.23	157.3	0.58	44.36	101.63	2.67	70.43	187.83	0.59
	100	43.67	101.61	2.65	69.99	185.78	0.59	52.4	101.81	2.8	75.32	210.74	0.59
	Regional	134.41	102.97	3.84	123.35	473.19	0.66	161.29	103.24	4.08	136.07	555.21	0.68
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
688	2	7.99	100.07	2.02	57.42	115.83	0.79	9.59	100.16	2.12	61.72	130.87	0.79
	5	17.16	100.56	2.4	70.27	168.59	0.74	20.59	100.72	2.47	71.98	178.12	0.72
	10	22.91	100.84	2.48	70.8	175.9	0.69	27.49	101.02	2.57	73.08	187.49	0.68
	25	29.71	101.11	2.59	72.85	188.39	0.67	35.65	101.29	2.72	77.66	211.26	0.66
	50	36.97	101.32	2.78	80.84	224.91	0.67	44.36	101.5	2.95	87.85	259.1	0.68
	100	43.67	101.48	2.94	87.57	257.44	0.68	52.4	101.68	3.1	94.28	292.37	0.68
	Regional	134.41	102.94	3.84	123.97	476.53	0.67	161.29	103.23	4	130.5	521.83	0.67
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
656	2	8.19	99.85	2.42	85.86	207.47	1	9.83	99.93	2.56	93.46	239.26	1
	5	17.76	100.26	3.03	118.53	359.13	1.01	21.31	100.4	3.17	126.06	399.86	1
	10	23.78	100.47	3.29	133.25	438.11	1.01	28.54	100.66	3.36	132.75	446.59	0.96
	25	30.99	100.73	3.42	134.74	461.25	0.94	37.19	100.93	3.52	135.86	477.79	0.91
	50	38.49	100.97	3.52	135.21	476.55	0.9	46.19	101.17	3.65	139.53	509.58	0.88
	100	45.4	101.15	3.63	138.5	503.12	0.87	54.48	101.36	3.78	144.76	547.5	0.86
	Regional	139.97	102.57	4.67	187.99	877.87	0.84	167.96	102.83	4.9	201.75	988.96	0.84
		0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00

		Reach 4 - Existing Climate						Reach 4 - Future Climate (RCP8.5)					
River Station	Storm Event	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl
		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)	
563	2	8.19	99	3.1	148.93	461.75	1.39	9.83	99.07	3.27	160.65	525.6	1.39
	5	17.76	99.36	3.87	203.18	785.55	1.4	21.31	99.47	4.06	217.67	883.68	1.4
	10	23.78	99.54	4.16	224.58	934.44	1.39	28.54	99.65	4.45	251.17	1118.37	1.43
	25	30.99	99.71	4.55	259.59	1182.26	1.43	37.19	99.86	4.77	277.4	1324.02	1.43
	50	38.49	99.89	4.82	280.84	1352.37	1.43	46.19	100.07	4.97	289.49	1437.56	1.4
	100	45.4	100.05	4.96	289.27	1433.71	1.4	54.48	100.26	5.05	292.5	1477.34	1.38
	Regional	139.97	101.62	5.67	292.88	1660.81	1.1	167.96	101.85	5.97	316.1	1886.71	1.11
516	2	8.19	99.11	1.67	38.14	63.8	0.61	9.83	99.19	1.81	43.54	78.8	0.63
	5	17.76	99.55	2.26	62.63	141.41	0.69	21.31	99.68	2.41	70.11	169.24	0.71
	10	23.78	99.77	2.51	74.79	187.65	0.73	28.54	99.92	2.67	82.59	220.77	0.74
	25	30.99	99.99	2.76	86.95	240.02	0.75	37.19	100.11	3.04	103.3	314.03	0.8
	50	38.49	99.72	4.23	213.72	903.25	1.24	46.19	99.86	4.54	241.24	1094.77	1.28
	100	45.4	99.84	4.52	240.57	1088.15	1.29	54.48	99.99	4.83	265.33	1280.42	1.31
	Regional	139.97	101.24	5.87	320.15	1878.36	1.17	167.96	101.45	6.19	346.85	2146.17	1.19
469	2	8.19	98.81	2.4	85.75	206.22	1.01	9.83	98.93	2.4	81.5	195.55	0.93
	5	17.76	99.4	2.43	74.79	181.62	0.79	21.31	99.56	2.49	75	186.46	0.76
	10	23.78	99.66	2.54	76.25	193.39	0.74	28.54	99.82	2.65	80.66	213.67	0.74
	25	30.99	99.89	2.72	84.44	229.82	0.75	37.19	100.01	2.99	99.05	296.06	0.79
	50	38.49	100.03	3.04	102.28	311.44	0.8	46.19	100.13	3.39	123.78	419.29	0.86
	100	45.4	100.12	3.35	121.46	407.14	0.86	54.48	100.26	3.64	138.86	504.8	0.89
	Regional	139.97	100.86	6.24	369.33	2303.48	1.31	167.96	101.12	6.47	383.67	2482.48	1.29
437	2	8.19	98.81	1.75	41.99	73.5	0.65	9.83	98.94	1.79	42.72	76.63	0.64
	5	17.76	99.4	1.98	47.53	94.27	0.61	21.31	99.56	2.06	50.13	103.47	0.6
	10	23.78	99.66	2.12	52.34	110.98	0.61	28.54	99.84	2.22	55.97	124.34	0.62
	25	30.99	99.91	2.28	58.08	132.63	0.62	37.19	100.04	2.49	67.07	167.04	0.64
	50	38.49	100.06	2.53	69.04	174.9	0.65	46.19	100.18	2.8	81.97	229.15	0.69
	100	45.4	100.17	2.77	80.58	223.09	0.69	54.48	100.3	3.07	96.53	296.04	0.73
	Regional	139.97	100.8	5.8	317.51	1841.14	1.22	167.96	101	6.18	350.96	2169.25	1.25
375	2	8.19	98.82	1.11	15.47	17.21	0.36	9.83	98.94	1.19	17.23	20.48	0.36
	5	17.76	99.41	1.48	24.79	36.71	0.4	21.31	99.57	1.59	28.12	44.74	0.42
	10	23.78	99.66	1.67	30.5	50.78	0.43	28.54	99.83	1.8	35.07	63.04	0.45
	25	30.99	99.9	1.87	37.57	70.16	0.47	37.19	100.03	2.07	45.27	93.76	0.5
	50	38.49	100.06	2.11	46.91	99.07	0.51	46.19	100.18	2.35	57.2	134.57	0.55
	100	45.4	100.17	2.33	56.16	130.81	0.55	54.48	100.3	2.55	66.81	170.4	0.59
	Regional	139.97	100.47	5.76	331.5	1911.08	1.28	167.96	101.72	2.82	67.88	191.56	0.5
323	2	8.19	98.73	1.5	28.78	43.19	0.48	9.83	98.83	1.63	33.18	53.92	0.5
	5	17.76	99.24	2.07	50.9	105.43	0.59	21.31	99.37	2.24	58.75	131.81	0.62
	10	23.78	99.45	2.37	64.82	153.42	0.65	28.54	99.58	2.55	75.19	191.94	0.7
	25	30.99	99.66	2.6	77.8	202.16	0.71	37.19	99.78	2.77	87.24	241.63	0.75
	50	38.49	99.81	2.8	88.58	247.8	0.75	46.19	99.96	2.91	94.17	274.33	0.76
	100	45.4	99.94	2.92	94.69	276.27	0.76	54.48	100.09	3.08	103.07	317.12	0.78
	Regional	139.97	101.34	2.82	71.56	202.05	0.54	167.96	101.73	2.61	58.47	152.49	0.46
290	2	8.19	98.6	1.91	49.53	94.42	0.69	9.83	98.7	2.02	54.28	109.56	0.71
	5	17.76	99.1	2.38	70.49	167.56	0.75	21.31	99.24	2.49	74.95	186.38	0.75
	10	23.78	99.34	2.54	76.29	193.64	0.74	28.54	99.52	2.56	75.29	192.6	0.71
	25	30.99	99.61	2.54	73.23	185.91	0.7	37.19	99.75	2.65	78	206.9	0.7
	50	38.49	99.78	2.67	78.36	209.05	0.7	46.19	99.94	2.77	81.75	226.5	0.69
	100	45.4	99.91	2.78	82.37	228.59	0.7	54.48	100.06	2.93	88.88	260.05	0.7
	Regional	139.97	101.25	3.1	84.07	260.48	0.58	167.96	101.66	2.85	67.98	193.6	0.5
246	2	8.19	98.3	2.53	92.3	233.8	1.01	9.83	98.4	2.63	96.63	253.99	1
	5	17.76	98.78	2.98	114.57	341.41	1	21.31	98.91	3.1	120.95	374.8	1
	10	23.78	99	3.18	125.41	398.69	1	28.54	99.18	3.2	124.85	399.65	0.99
	25	30.99	99.27	3.19	122.04	389.52	0.96	37.19	99.51	3.04	106.34	323.36	0.86
	50	38.49	99.53	3.07	107.64	330.35	0.86	46.19	99.66	3.24	116.16	376.41	0.87
	100	45.4	99.66	3.2	113.26	362.21	0.86	54.48	99.83	3.29	115.22	378.85	0.83
	Regional	139.97	101.25	2.77	66.17	183.34	0.51	167.96	101.65	2.7	60.08	161.93	0.47
	2	8.19	98.23	1.12	16.83	18.78	0.42	9.83	98.34	1.16	17.67	20.57	0.41
	5	17.76	98.77	1.36	21.66	29.53	0.4	21.31	98.93	1.44	23.41	33.65	0.4
	10	23.78	99.04	1.48	24.58	36.48	0.4	28.54	99.22	1.57	26.76	41.93	0.41

		Reach 4 - Existing Climate						Reach 4 - Future Climate (RCP8.5)					
River Station	Storm Event	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl	Flow Rate	Water Surface Elev	Velocity Chnl	Shear Chnl	Power Chnl	Froude # Chnl
		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)		(m^3/s)	(m)	(m/s)	(N/m^2)	(N/ms)	
201	25	30.99	99.31	1.61	27.83	44.69	0.42	37.19	99.51	1.69	30.08	50.97	0.42
	50	38.49	99.55	1.71	30.41	52.01	0.42	46.19	99.77	1.78	31.5	55.95	0.41
	100	45.4	99.75	1.77	31.42	55.64	0.41	54.48	99.99	1.83	32.1	58.59	0.4
	Regional	139.97	101.27	2.25	41.52	93.22	0.39	167.96	101.66	2.23	39.41	87.77	0.36
154	2	8.19	97.89	2.44	87.38	213.53	1.01	9.83	97.98	2.57	93.45	239.72	1.01
	5	17.76	98.33	2.95	113.02	333.58	1	21.31	98.45	3.09	121.1	374.77	1.01
	10	23.78	98.53	3.18	125.67	399.3	1.01	28.54	98.69	3.29	131.49	432.45	1
	25	30.99	98.76	3.34	134.33	448.7	1.01	37.19	98.93	3.46	141.08	488.49	1.01
	50	38.49	98.97	3.48	142.17	495.23	1.01	46.19	99.16	3.6	148.54	534.77	1.01
	100	45.4	99.14	3.59	147.86	530.58	1.01	54.48	99.34	3.71	152.51	565.19	0.99
	Regional	139.97	101.12	2.86	69.66	199.48	0.51	167.96	101.56	2.7	59.38	160.4	0.45
118	2	8.19	97.07	3.88	246.09	955.58	1.91	9.83	97.13	4.04	256.97	1037.33	1.88
	5	17.76	97.4	4.52	287.42	1298.3	1.74	21.31	97.51	4.66	295.58	1376.82	1.7
	10	23.78	97.59	4.74	299.91	1421.78	1.67	28.54	97.72	4.88	306.67	1495.7	1.62
	25	30.99	97.79	4.93	308.74	1522.67	1.59	37.19	97.95	5.04	312.15	1574.54	1.54
	50	38.49	97.99	5.06	312.57	1582.81	1.52	46.19	98.19	5.15	312.18	1607.5	1.46
	100	45.4	98.17	5.14	312.43	1606.66	1.46	54.48	98.39	5.21	309.95	1616.31	1.39
	Regional	139.97	101.13	2.57	55.91	143.77	0.44	167.96	101.56	2.5	50.99	127.65	0.4
79	2	8.19	97.31	1.8	44.13	79.6	0.65	9.83	97.42	1.89	47.13	88.95	0.65
	5	17.76	97.89	2.12	54.42	115.37	0.64	21.31	98.07	2.19	56.43	123.47	0.63
	10	23.78	98.18	2.23	57.54	128.1	0.63	28.54	98.39	2.28	59.03	134.86	0.62
	25	30.99	98.49	2.31	59.79	138.28	0.61	37.19	98.73	2.37	60.94	144.15	0.6
	50	38.49	98.78	2.38	61.17	145.31	0.6	46.19	99.04	2.43	62.44	151.63	0.59
	100	45.4	99.02	2.42	62.37	151.12	0.6	54.48	99.3	2.48	63.05	156.64	0.58
	Regional	139.97	101.1	2.5	51.5	128.98	0.42	167.96	101.52	2.52	50.27	126.63	0.4
45	2	8.19	97.02	2.58	95.2	245.78	1.01	9.83	97.11	2.7	100.71	271.53	1
	5	17.76	97.49	3.15	125.87	396.81	1	21.31	97.64	3.29	133.94	441.29	1
	10	23.78	97.73	3.39	139.21	471.23	1	28.54	97.9	3.55	149.43	530.71	1.01
	25	30.99	97.98	3.61	152.07	548.24	1	37.19	98.18	3.76	161.52	607.67	1
	50	38.49	98.22	3.79	163	617.28	1	46.19	98.44	3.92	170.82	669.58	1
	100	45.4	98.42	3.91	170.19	665.19	1	54.48	98.65	4.05	178.84	724.99	1
	Regional	139.97	100.2	4.78	199.63	953.3	0.85	167.96	100.51	5.05	216.22	1091	0.86
20	2	8.19	96.55	3.41	182.77	623.2	1.59	9.83	96.61	3.59	196.77	706.42	1.6
	5	17.76	96.87	4.23	247.86	1048.51	1.61	21.31	96.97	4.44	264.6	1174.42	1.6
	10	23.78	97.04	4.56	274.73	1253.92	1.6	28.54	97.16	4.77	291.57	1391.81	1.59
	25	30.99	97.22	4.87	299.37	1457.79	1.58	37.19	97.36	5.08	316.82	1610.97	1.57
	50	38.49	97.39	5.12	319.89	1639.17	1.57	46.19	97.55	5.33	336.15	1792.63	1.55
	100	45.4	97.54	5.31	334.73	1778.68	1.55	54.48	97.72	5.5	348.35	1917.68	1.51
	Regional	139.97	99.11	6.25	382.1	2388.38	1.33	167.96	99.41	6.48	393.92	2551.96	1.29
3	2	8.19	96.33	3.45	181.6	626.89	1.51	9.83	96.41	3.6	192.06	692.02	1.5
	5	17.76	96.73	4.1	225.92	927.23	1.45	21.31	96.86	4.24	233.71	991.88	1.41
	10	23.78	96.95	4.33	238.95	1035.41	1.39	28.54	97.12	4.43	241.89	1072.59	1.34
	25	30.99	97.2	4.48	243.57	1092.1	1.31	37.19	97.46	4.4	224.63	987.62	1.18
	50	38.49	97.53	4.33	215.38	931.96	1.14	46.19	97.89	4.17	191.48	797.95	1.01
	100	45.4	97.68	4.64	243.2	1128.67	1.18	54.48	98.11	4.36	204.62	891.17	1.01
	Regional	139.97	100.09	3.94	140.65	554.5	0.7	167.96	99.89	5.36	264.89	1418.69	0.97