Regulatory Floodplain Mapping Update Report

Burnt River from the Kinmount Dam to Hillside Drive

City of Kawartha Lakes, Ontario

D.M. Wills Project Number 25-5732

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Summary of Revisions

Revision	Revision Title	Date of Release	Summary of Revisions
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2	Final Report	February 12, 2026	Address Peer Review Comments

This report / proposal has been formatted considering the requirements of the Accessibility for Ontarians with Disabilities Act.

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1.0 Introduction

1.1 Background

The Kawartha Region Conservation Authority (KRCA) is responsible for the regulation of development within hazardous lands, as well as flood forecasting and flood warning for areas under their jurisdiction. Outside of the KRCA administrative area, floodplains are administered by the City of Kawartha Lakes. The KRCA and City of Kawartha Lakes have recognized the need for updated and accurate regulatory mapping to support their efforts in protecting life and property and for land use planning purposes and have been undertaking updated regulatory floodplain mapping studies across their jurisdictions as funding becomes available from the Federal and Provincial governments.

Severe flooding has occurred many times within the Burnt River watershed, including most recently in 2019 when the peak flow of approximately 223 m^3/s was observed at the Burnt River near Burnt River (02HF003) Water Survey of Canada Gauge. This flood was deemed to be the greatest flood on record for the area as the peak flow and water levels exceed those previously experienced in during other large floods in 2016, 2013, 1998, 1991, and 1976. The flood caused severe damages, resulted in road closures, and a number of people needed to be rescued from their homes. When the 2019 flood occurred, Kawartha Conservation was in the process of finalizing floodplain mapping for the Burnt River from Hillside Drive to Cameron Lake.

The KRCA and City of Kawartha Lakes have recognized a need to extend the regulatory floodplain mapping for the Burnt River upstream and has received funding to complete this work for the reach of the river between the Kinmount Dam and Hillside Drive. The updated technical studies will ensure that the City of Kawartha Lakes is using the latest and most accurate floodplain information for the study area.

This study makes use of the existing Visual Otthymo model that was developed by the KRCA as part of the 2019 regulatory floodplain mapping study for the Burnt River from Hillside Drive to Cameron Lake. No significant land use changes or Official Plan updates have been implemented since the model was originally produced, so all uncalibrated land use parameters have been maintained. The 2019 hydrologic model was calibrated as part of this project to produce updated regional storm peak flows and the single station flood frequency analysis was updated to provide updated peak flows for the 2-year to 350-year return period floods. Recent guidance from the Ministry of Natural Resources (MNR) was also implemented to model the climate change adjusted Timmins Storm based on the document "Incorporating Climate Change in Floodplain Mapping under the Flood Hazard Identification and Mapping Program (FHIMP) where the Regulatory Storm Event is Timmins or Hurricane Hazel" (MNR, 2023a).

A new 1D steady flow HEC-RAS model was developed for this project using recent LiDAR and bathymetric survey data to develop the model geometry. Updated peak flow information was from the hydrologic study was input into the new HEC-RAS model

to product floodlines for the regional storm event, as well as the 100-year, 200-year, and 350-year flood events.

1.2 Objective

The objective of this project is to provide updated regulatory floodplain mapping for 16.3 km the Burnt River within the City of Kawartha Lakes between the Kinmount Dam and Hillside Drive.

The scope of this study includes updating and calibrating an existing hydrologic model, development of a new hydraulic model using recent LiDAR and bathymetry data and the calibrated hydrologic model flows, and the creation of regulatory flood maps for the study reach. The peak flows for the Timmins Storm and the climate change adjusted Timmins Storm have been determined through hydrologic modelling using the updated, calibrated hydrologic model. The 2- through 350-year peak flows have been determined through single station flood frequency analysis which has been updated to include recent observed flood data, and the peak flows have been transposed to other locations of interest using the index flood method to pro-rate peak flows.

The study area is located within the Flood Hazard Criteria Zone 3, where the regulatory floodplain is the greater of the Timmins Storm or the 100-year storm. Regulatory floodplain maps have been produced to show the greatest flood hazard extent at each location and include water surface elevation labels for both storms.

1.3 Study Process and Report Organization

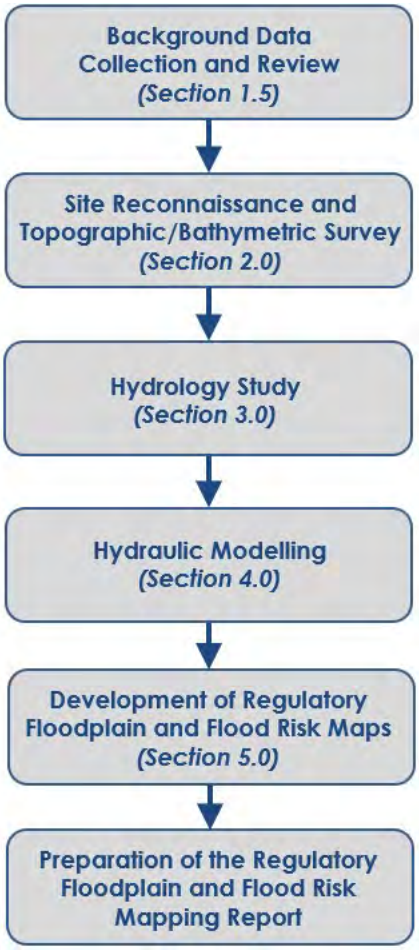
The regulatory floodplain study process is documented in **Figure 1** and generally involves the following key phases:

- **Background Data Collection and Review** – The background data collection and review involved the collection and review of available background information from KRCA and the City of Kawartha Lakes. The available information, along with the applicable sources and collection methods, are summarized in **Section 1.5**.
- **Site Reconnaissance and Topographic/Bathymetric Survey** – KRCA staff conducted bathymetric and hydraulic structure surveys to characterize key hydraulic elements in the study area. The hydraulic structure and bathymetry data was incorporated into the HEC-RAS model developed by Wills as part of this study.
- **Hydrology Study** – The hydrologic model was originally developed by KRCA in 2019 using Visual Otthymo and was used to determine peak flows for the Burnt River floodplain mapping between Hillside Drive and Cameron Lake. As part of this study, the hydrologic model parameters have been updated through model calibration to produce a model response that more closely matched observed flows. The calibrated hydrologic model was used to determine peak flows for the Timmins Storm and the Timmins climate change adjusted storm. An updated flood frequency analysis was also conducted to determine return period peak flows for the 2-year to 350-year return period flood events. A summary of the

peak flows and flow change locations used in this study is described in **Section 3.0.**

- **Hydraulic Modelling** – A new 1D steady flow HEC-RAS model was developed for this project using recent LiDAR and bathymetric survey data to develop the model geometry. Updated peak flow information was from the hydrologic study was input into the new HEC-RAS model. The model has been run using HEC-RAS (Version 6.6). The hydraulic model development is described in **Section 1.0**.
- **Development of Regulatory Floodplain Maps** – The development of regulatory floodplain maps involves using the outputs from the hydraulic modelling to create the final mapping products in GIS software. The outputs from this phase of the project include both paper/pdf maps as well as digital floodlines. The development of the regulatory floodplain and flood risk maps is described in **Section 5.0**.
- **Preparation of the Regulatory Floodplain Mapping Report** – This report documents the inputs, processes, and decision-making rationale of all analyses associated with the project as well as the final results.

Figure 1 – Study Process



1.4 Study Area

The primary focus of this study is the Burnt River in the City of Kawartha Lakes between the Kinmount Dam and Hillside Drive, which is 16.3 km long. The Burnt River watershed is primarily located in Haliburton County, with smaller portions in Peterborough County and the City of Kawartha Lakes. The watershed has a drainage area of 1438 km^2 that drains from the Haliburton Highlands south to Cameron Lake joining the Trent-Severn Waterway system. The watershed includes several significant reservoirs as well as the Drag River and Irondale River tributaries.

The land use in the watershed is primarily forested with many lakes, wetlands, and exposed bedrock. The southern portions of the watershed include agricultural pockets and more residential development. Minimal overburden depth is present on the Canadian Shield, so there is little soil-water storage or baseflow in the watershed.

The highest observed floods in the watershed have originated from snowmelt-driven spring flows. Due to the presence of actively managed dams in the watershed, observed peak flows do not necessarily correspond to rainfall events of similar magnitude and could occur because of stoplog operations at the dams, which alter downstream flows. Parks Canada actively monitors flow conditions throughout the watershed to manage peak flows during high flow events to limit impacts to life or property, and during low-flow periods they ensure that adequate flows are present to support navigation in the Trent-Severn Waterway. There are 15 managed dams in the watershed, with six on the Drag River branch, and nine on the Irondale River branch.

The extent of the study area for the updated floodplain mapping between the Kinmount Dam and Burnt River is shown in **Figure 2**.

Figure 2
Floodplain Mapping
Modelling Extents

Legend
- Flow Direction
- Study Limit
- Burnt River

Data Sources:
LIO Basemap, GEOHUB 2025

NAD 1983 UTM Zone 17N
1:55,000
Meters
0 500 1,000 1,500

Drawn By:	RG
Checked By:	KS
Map Date:	02/12/26
Project Number:	5732
Map File Number	25-5732

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1.5 Available Information

There have been several past projects and initiatives which have investigated the hydrologic and hydraulic characteristics of the subject watercourses and have informed the development of this regulatory floodplain mapping project.

Table 1 shows a list of the background studies, previous technical modelling, and mapping, supporting GIS data. Included within **Table 1** are the supplementary and publicly available data that were used to supplement the project.

Table 1 – Background Information

Available Information	Description	Date
Information Provided by the KRCA and City of Kawartha Lakes		
Burnt River Floodplain Mapping Study (KRCA, 2019)	Floodplain Mapping Report and Visual Otthymo hydrology model. Used to produce floodplain maps between Hillside Drive and Cameron Lake.	May 2019
KRCA Burnt River bathymetric surveys and cross-section photos	Survey points provided as shapefiles accompanied by photos of each cross-section location.	October 2025
Burnt River Hydraulic Structure Data	Survey points provided as shapefiles accompanied by structure survey log that includes photos of each structure and key dimensions that have been measured	November 2025
ArcMap Floodplain Map Template	A floodplain map template that will be used to create regulatory floodplain maps for this project.	October 2025
Other Background Information and Resources		
Google Satellite Aerial Imagery	Aerial Imagery imported to RAS-Mapper and GIS files to provide orientation and road network IDs	Obtained November 2025
City of Kawartha Lakes 2023 LiDAR data (Airborne Imaging, 2025)	Available online from MNRF, this product is a LiDAR derived Ontario Digital Terrain Model (DTM) which was used to define the floodplain portion of cross sections used in the hydraulic modelling.	Obtained spring 2023

Available Information	Description	Date
River and Stream Systems: Flooding Hazard Limit Technical Guide (MNR, 2002)	Developed by MNRF in 2002, this guide provides advice and direction to inform planning policies regarding natural hazards, including Flooding Hazards in Ontario. The technical direction contained within the guides informs the standards and approaches to be taken when developing hydrologic and hydraulic models.	2002
Technical Guidelines for Flood Hazard Mapping (Environmental Water Resources Group Ltd., 2017)	Developed by the Environmental Water Resources Group Ltd, and in partnership with six Conservation Authorities in the Greater Horseshoe Area, this guide provides additional technical advice regarding the development of hydrologic and hydraulic models.	March 2017
Federal Hydrologic and Hydraulic Procedures for Flood Hazard Delineation (Natural Resources Canada, 2019b)	Developed by Natural Resources Canada to provide standardized guidelines and principles for floodplain mapping across Canada	2019
Federal Geomatics Guidelines for Flood Mapping (Natural Resources Canada, 2019a)	Developed by Natural Resources Canada to provide standardized geomatics information such as horizontal and vertical projections to be used in flood mapping projects in Canada.	2019
Technical Bulletin – Flood Hazards: Data Survey and Mapping Specifications (MNR, 2023b)	Developed by the Ministry of Natural Resources to provide recommended best practices for data acquisition, processing and mapping.	2023
Incorporating Climate Change in Floodplain Mapping under the Flood Hazard Identification and Mapping Program (FHIMP) where the Regulatory Storm Event is Timmins or Hurricane Hazel (MNR, 2023a)	Developed by the Ministry of Natural Resources to address climate change consideration requirements under the NRCan FHIMP.	2023

2.0 Site Reconnaissance and Topographic/Bathymetric Survey

2.1 Overview

The development of the hydraulic model and regulatory floodplain / flood risk maps requires the use of topographic and bathymetric survey data. The primary source of topographic data for this project was the LiDAR Digital Terrain Model (DTM) that was provided by the Ministry of Natural Resources (MNR). The LiDAR DTM was supplemented with the bathymetric and hydraulic structure survey information provided by KRCA to produce a terrain surface suitable for hydraulic modelling.

The LiDAR DTM provided by MNR does not contain bathymetric information. The low-flow channel in the Burnt River provides significant conveyance, so it was necessary to integrate bathymetry data into the terrain to produce reasonable hydraulic model results. Bathymetric survey information was used to adjust the LiDAR DTM within the HEC-RAS to create a bathymetrically corrected DTM.

2.2 LiDAR Digital Elevation Model

The primary source of topographic data for this project was the LiDAR-derived Ontario Digital Terrain Model (DTM) that was provided by the MNR through Ontario GeoHub. The DTM represents the bare earth surface and was generated from the classified LiDAR point cloud data. The User Guide, Digital Terrain Model (Lidar Derived) (MNR, 2025), identifies the coordinate reference systems used as:

> The horizontal datum of the products is the North American Datum of 1983 Canadian Spatial Reference System epoch 2010 (NAD83 (CSRS)). The horizontal unit of measure (coordinate system axis units) for all raster grid cells is metres (m).
>
> The vertical coordinate system of the products is based on the Canadian Geodetic Vertical Datum 2013 (CGVD 2013) of the Geodetic Survey Division and is measured in metres (m).

The User Guide indicated that the 2023 Kawartha Lakes LiDAR data that was utilized as part of this floodplain mapping project has a non-vegetated vertical accuracy of 7.2 cm at a 95% confidence level. The vegetated vertical accuracy for the Kawartha Lakes Lidar Project was 14.95 cm at a 95% confidence level. The vegetated vertical accuracy of the dataset does not meet the required accuracy benchmark from Federal Airborne LiDAR Acquisition Guidelines, since it exceeds the maximum value of 14.7 cm. Since no other terrain information with better accuracy is known to exist, the LiDAR-derived DTM is the best available data and was used to create the overbank portions of cross sections for input into the hydraulic model. The DTM will also be used as the base dataset to create the regulatory floodplain maps.

All future development proposals within the regulated area of these creeks will need to be presented on the same coordinate system, as discussed in **Section 2.4**, to ensure a

direct comparison, including referencing a control monument of appropriate accuracy.

2.3 Structure Inventory and Bathymetric Survey

The LiDAR DTM does not include the channel surface below the water level and does not define the hydraulic conveyance characteristics of the bridges, culverts and railway crossings; therefore, topographic and bathymetric survey was required.

Hydraulic structure and bathymetry surveys, photos, and hydraulic structure dimensions were provided by KRCA in the CGVD2013 datum. The data was reviewed for accuracy and consistency with the LiDAR DTM before being implemented into the hydraulic model. The survey locations are shown in **Figure 3**.

Bathymetry survey points were used to adjust the channel bottom within the HEC-RAS model to capture the additional conveyance of the low-flow channel. Wills constructed a HEC-RAS geometry file containing only the bathymetric data and used the features within RAS-Mapper to develop a GeoTif within the measured channel limits. Some additional bathymetric cross sections were introduced into this geometry file by copying the nearest measured section and making modest adjustments based on the change in the LiDAR water surface elevation. These addition sections were developed to place bathymetric sections immediately adjacent to abrupt changes in the river profile (i.e., at rapids and waterfalls) to ensure that the interpolated bathymetry did not 'stretch' the drops and artificially flatten the profile of the riverbed.

The bathymetric terrain file was then merged with the available LiDAR data to produce one comprehensive representation of the terrain on which the HEC-RAS model sections were built.

There are two bridge crossings within the subject reach of Burnt River: Concession Road 11 and Hillside Drive. Wills reviewed the provide GIS survey data and photo inventory and found that the information aligned well. In general, the high and low chord data for the bridges were developed manually by offsetting the recorded elevations of the bridge deck by the amounts shown in the survey and photos. It was assumed, for all railings, that the intermittent openings would be blocked and the high chord was developed to represent the highest point in the railings.

2.4 Horizontal and Vertical Coordinate Systems

It is critically important during the development and implementation of floodplain mapping that all information be collected in, or transposed to, a consistent horizontal and vertical coordinate system.

All coordinates used throughout this study are expressed using NAD83 (CSRS) horizontal datum and CGVD2013 vertical datum.

Figure **3**
Survey Locations

Legend
- Sonar Cross-Sections
- Survey Cross-Sections
- Structure Survey Locations
- Channel Centreline

Data Sources:
LIO Basemap, GEOHUB 2025

NAD 1983 UTM Zone 17N
1:55,000
Meters
0 500 1,000 1,500

Drawn By:	RG
Checked By:	KS
Map Date:	12/18/25
Project Number:	5732
Map File Number	25-5732

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3.0 Hydrology Update

The purpose of the hydrology study is to determine the peak flows at key locations through the study area, which has a critical impact on the elevation and extents of the flood hazard limits. The hydrology model provided by KRCA has been calibrated, validated, and used to generate the Timmins Storm and climate change adjusted Timmins Storm peak flows. Single station frequency analysis has been used to establish peak flows for the 2-year to 350-year return period flood events.

3.1 Single Station Frequency Analysis

The peak flows for the 2-year to 350-year return period flood events have been determined through single station frequency analysis (SSFA) of the Burnt River at Burnt River gauge. Details of the gauge station are shown in **Table 2**, and the peak flows used for the SSFA are shown in Table 3. HEC-SSP was used to complete the statistical analysis of the annual peak flow data.

Table 2 – Recorded Hydrometric Data

Creek and Location	Station ID	Co-ordinates	Period of Record (years)	Max Recorded Discharge (m^3/s)	As % of Regulatory Flow
Burnt River at Burnt River	02HF003	44°42'35.5" N 78°40'39.1" W	62	228.0	100%

Table 3 – Annual Peak Flow Data used in SSFA

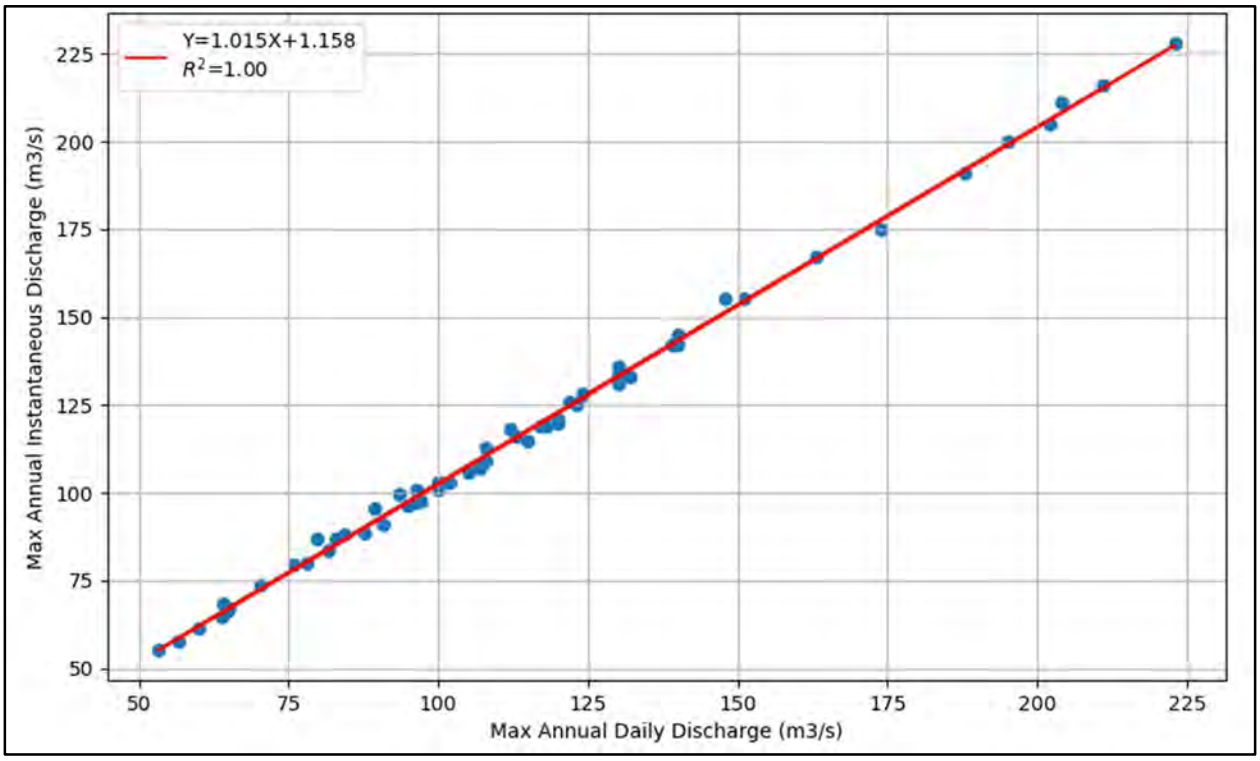
Date	Peak Flow (m^3/s)
30-Mar-63	100
15-Apr-64	66.3
11-Apr-65	99.7
08-Dec-66	101
25-Jun-67	91.2
31-Mar-68	83.5
19-May-69	101
24-Apr-70	88.6
20-Apr-71	131
20-Apr-72	115
12-Mar-73	128
15-May-74	133
25-Apr-75	119
02-Apr-76	191
17-Mar-77	72.7
20-Apr-78	99.4
03-Apr-79	120
15-Apr-80	119
24-Feb-81	145
17-Apr-82	155
08-May-83	136
06-Apr-84	96.5
18-Apr-85	134
31-Mar-86	116
06-Apr-87	113
05-Apr-88	121
31-Mar-89	102
17-Mar-90	79.8
09-Apr-91	211
23-Apr-92	118
11-Apr-93	87.1
15-Apr-94	57.6
17-Jan-95	127
23-Apr-96	106
07-Apr-97	133
01-Apr-98	200
07-Apr-99	55.3
10-May-00	73.7
13-Apr-01	126
12-Apr-02	97.8
29-Mar-03	68.3
03-May-04	79.6
09-Apr-05	103
04-Apr-06	125
04-Apr-07	87
11-Apr-08	155
05-Apr-09	167
01-Dec-10	95.7
13-Apr-11	88.1
17-Mar-12	97
20-Apr-13	216
15-Apr-14	175
21-Apr-15	67
01-Apr-16	205
07-May-17	142
27-Apr-18	142
20-Apr-19	228
31-Mar-20	107
28-Mar-21	103
26-Apr-22	61.6
06-Apr-23	109
13-Apr-24	64.8

Wills downloaded the maximum annual instantaneous flow (MAIF) and the maximum annual daily flow (MADF) data from Water Survey of Canada. There were 58 years of data available for the MAIF and 62 years of MADF. In general, the MADF flow data is always more complete than then the MAIF data as WSC QA/QC process removes MAIF when flow is under the influence by ice or some other factor. These missing events can often be significant flood events that are important to the gauge record and can result in underestimated AEP flows generated from a SSFA. Additionally, general guidelines suggest that 30 years at minimum is required and 50 years preferred to confidently generate a 1% AEP event from a SSFA (Watt, 1989). Therefore, it is often desirable to extend the data record if possible.

To estimate the instantaneous peak flow associated with the selected events, the record of daily flows and instantaneous peak flows in the HYDAT database were compared to determine how much larger the instantaneous peak flow was compared to the daily flow on days when both were observed. For the Burnt River at Burnt River gauge, the instantaneous peak flows are approximately 1.5% higher than the daily flows, so 1.5% was added to the daily flows for the selected events to approximate the

instantaneous peak flow. **Figure 4** shows relationship between instantaneous and daily flows on which the adjustment was based.

Figure 4 – Instantaneous Peak Flows vs. Daily Flows for the Burnt River at Burnt River



The results of the linear regression analysis showed there was a good correlation between MADF and MAIF with a coefficient of determination of 0.9045. Wills then used the linear regression formula of y=1.015x+1.158 where x is MADF and y is MAIF to estimate the missing data from MAIF where MADF was present. Wills used this method to extend the MAIF data record to 62 years which is sufficient period of record to confidently produce a 1% AEP flood event using SSFA, but the estimated peak flows for the 0.5% AEP (200-year event) and 0.29% AEP (350-year event) are not reliable based on the period of record.

Several statistical distributions are available to fit to the observed data. Wills input the MAIF data into the statistical software package HEC-SSP. HEC-SSP is used to complete a statistical analysis of the data to determine Annual Exceedance Probability peak flows. The Log Normal 3 Parameter (LN3) and Log Pearson 3 (LP3) distributions using method of moments were evaluated. Wills found that both methods reasonably represented the data and therefore selected LP3 on the basis of that LP3 is a common distribution used in Ontario and produces the most conservative 100-year flow estimate. The HEC-SSP plot that shows Log-Pearson III distribution fitted to the peak flow data is shown in **Figure 5**. The results of the single station flood frequency analysis are shown in **Table 4**.

Figure 5 – Log-Pearson Type III Exceedance Probability Plot for Burnt River Gauge

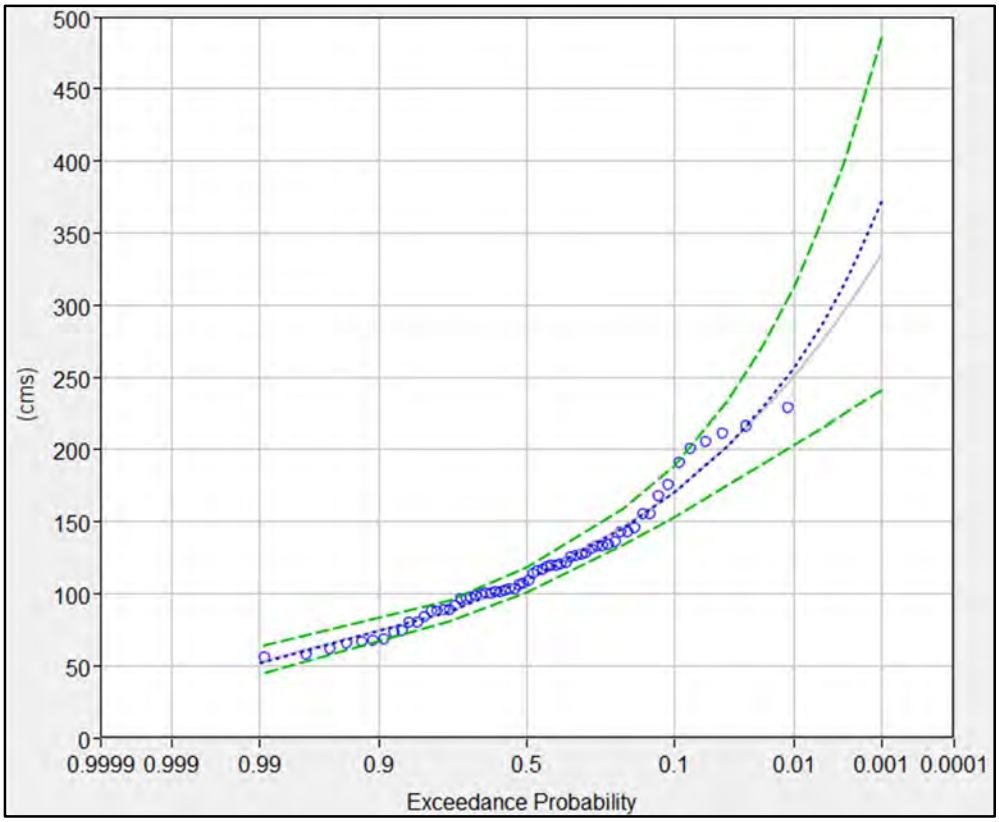


Table 4 – Flood Frequency Analysis Results

Return Period (Years)	Annual Exceedance Probability (AEP, %)	Flow Rate (m^3/s)
2	50	109.2
5	20	145.6
10	10	170.2
25	4	202.5
50	2	228.3
100	1	256.1
200	0.5	286.7
350	0.286	313.8

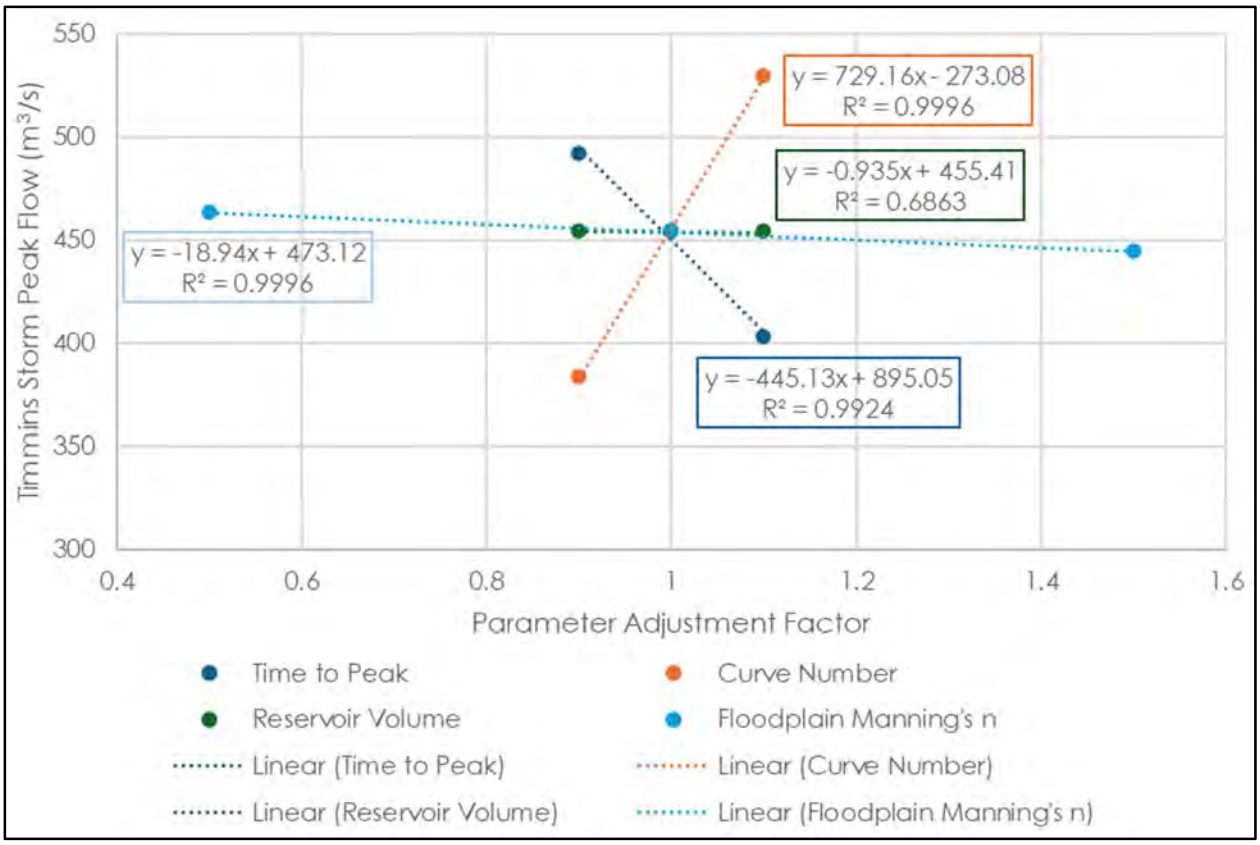
3.2 Visual Otthymo Model

The Visual Otthymo hydrologic model produced by KRCA has been used as the basis for the hydraulic modelling for this project, with modifications made to the hydrologic parameters through model calibration. Details of the initial parameters used in the model can be found in the Burnt River Flood Plain Mapping Study Final Report (KRCA, 2019). Subbasins, model schematic, and input hyetographs have not changed from the 2019 model, and only parameters described in the following sections have been altered through model calibration.

3.2.1 Sensitivity Analysis

A sensitivity analysis was completed to determine the most sensitive model parameters for calibration. Physically-based parameters such as channel length, slope, and cross-section shape were not altered. The computational time step, curve number, time to peak, reservoir storage volume, floodplain Manning's roughness coefficient, and the number of linear reservoirs were assessed as part of the sensitivity analysis. Each parameter was increased and decreased relative to the initial values, and the model was re-run using the Timmins Storm after each adjustment to determine the sensitivity of the model parameters to the resulting peak flows. Only one parameter was altered at a time to isolate its influence. **Figure 6** shows the plotted sensitivity analysis results.

Figure 6 – Hydrology Sensitivity Analysis



The slope of the trendlines indicates the degree of sensitivity of the model parameter, with the steepest slope representing the most sensitive parameter. The time to peak, curve number, and the floodplain Manning's roughness coefficient was found to be moderately sensitive. The reservoir volume and time steps had minimal impacts on the resulting peak flows and are not considered sensitive. The number of linear reservoirs was also found to be a sensitive parameter through the model calibration process.

3.2.2 Calibration

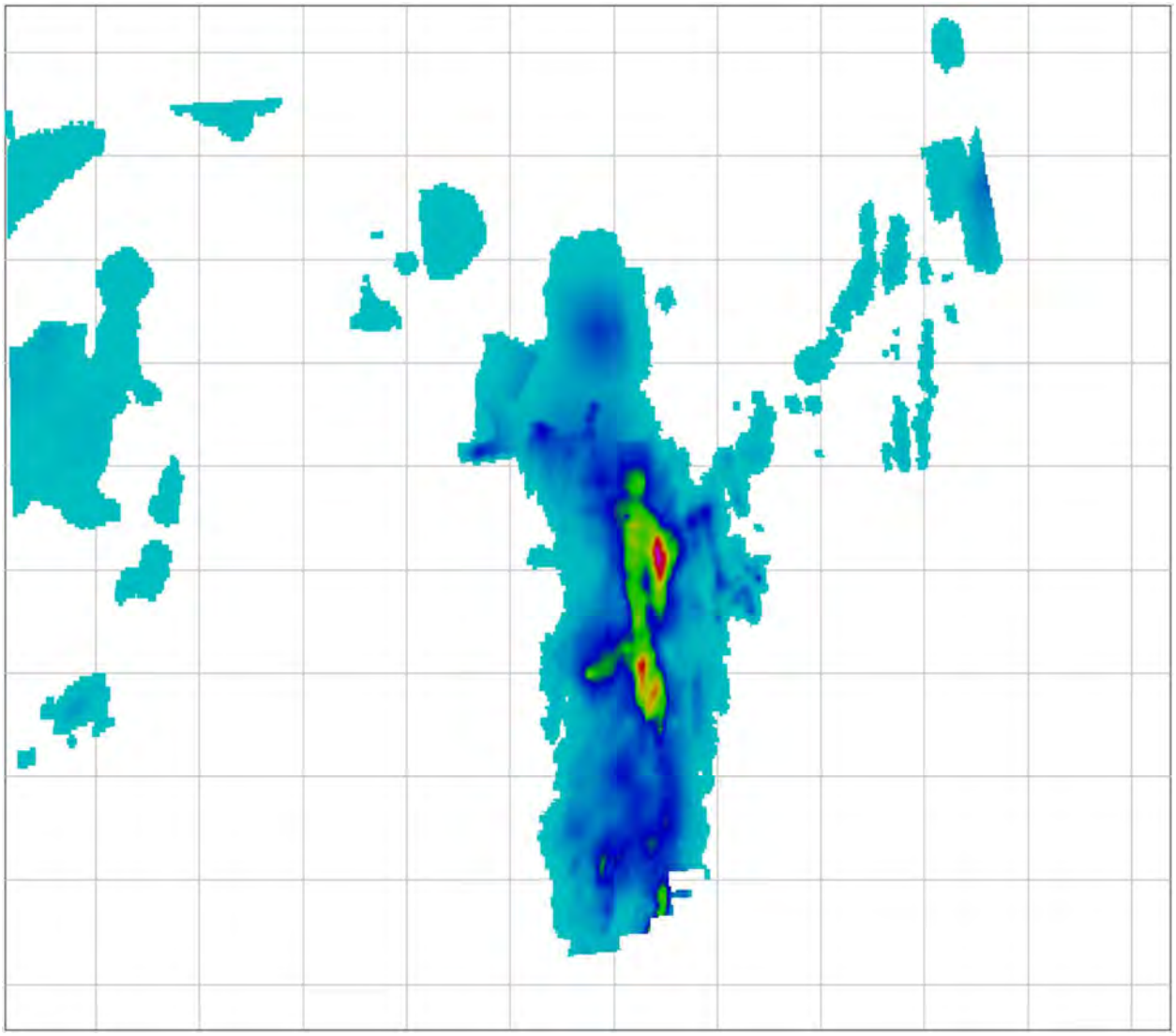
The model calibration was focused on the Burnt River at Burnt River gauge (02HF003) as it is located within the study area. Gauges further upstream on the Drag River and Irondale River branches were not considered. This approach ensures that model flows are accurate in the study area, but may not precisely represent peak flows far from the gauge.

Four recent rainfall events which produced large summer peak flows were identified as candidates for calibration and validation. Winter or spring events were not considered since snowmelt has a significant impact on the resulting peak flows and was not considered in the model. The four identified events and associated peak flows were July 2014 (66.6 m^3/s), September 2021 (67.8 m^3/s), June 2022 (55.3 m^3/s), and July 2024 (52.4 m^3/s).

Streamflow data was obtained from Water Survey Canada for the Burnt River at Burnt River gauge at 5-minute intervals. Available precipitation data was assessed from Environment Canada, but no precipitation gauges were present within 50 km of the watershed centroid. The Bancroft or Lindsay gauges had available hourly precipitation for the calibration events but are unlikely to produce accurate results far from the observation site. Other precipitation data was available within the watershed in daily intervals, which is not adequate for model calibration.

Time series precipitation data for the Burnt River watershed was obtained using hourly gridded precipitation data from the Analysis of Record for Calibration (AORC) dataset (NOAA, 2025). This dataset is a gridded record of near-surface weather conditions for the United States and their hydrologically connected regions, which includes the St. Lawrence River basin and all of southern Ontario and is provided in a NetCDF format. The dataset starts in 1979 and includes hourly precipitation, temperature, specific humidity, terrain-level pressure, downward longwave and shortwave radiation, and west-east and north-south wind components. The dataset is suitable for most hydrologic models and is used to calibrate the National Weather Model in the United States. A visualization of one time step of the precipitation data is shown in **Figure 7**.

Figure 7 – Visualization of Gridded Rainfall Data on September 24, 2021 at 1:00 pm



To obtain an hourly time series that can be used in Visual Otthymo, a shapefile of the watershed was used to calculate an area-weighted average precipitation volume for each time step, which represents the average rainfall over the watershed. The gridded data importer and grid-to-point tool within HEC-HMS were utilized to process the data. This process was completed for each of the calibration events to evaluate the precipitation that occurred in the week leading up to the observed peak flow.

The July 2014 and June 2022 observed peak flows were associated with multiple subsequent rainfall events in the preceding week and were not suitable for calibrating an event-based hydrologic model. The September 2021 and July 2024 peak flows were associated with a single rainfall event and were selected as the calibration and validation events.

Neither of the selected events were associated with the annual maximum instantaneous peak flows, as the annual peak flows occurred during the spring freshet

in 2021 and 2024. Observed daily maximum flows were converted to instantaneous peak flows based on the method discussed in **Section 3.1**. **Figure 8** and **Figure 9** show the hyetographs for the September 2021, and July 2024 calibration events.

Figure 8 – September 25, 2021 Flood Calibration Hyetograph

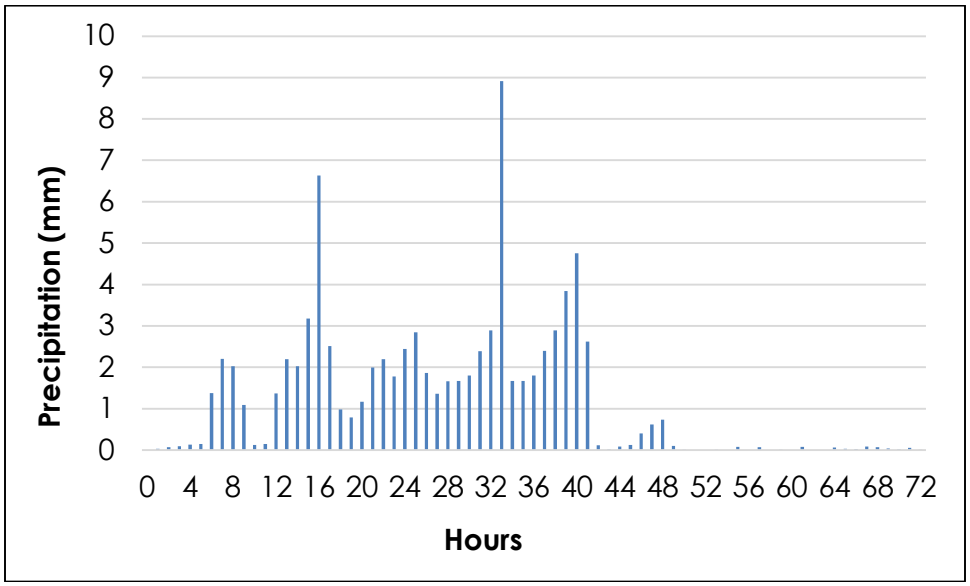
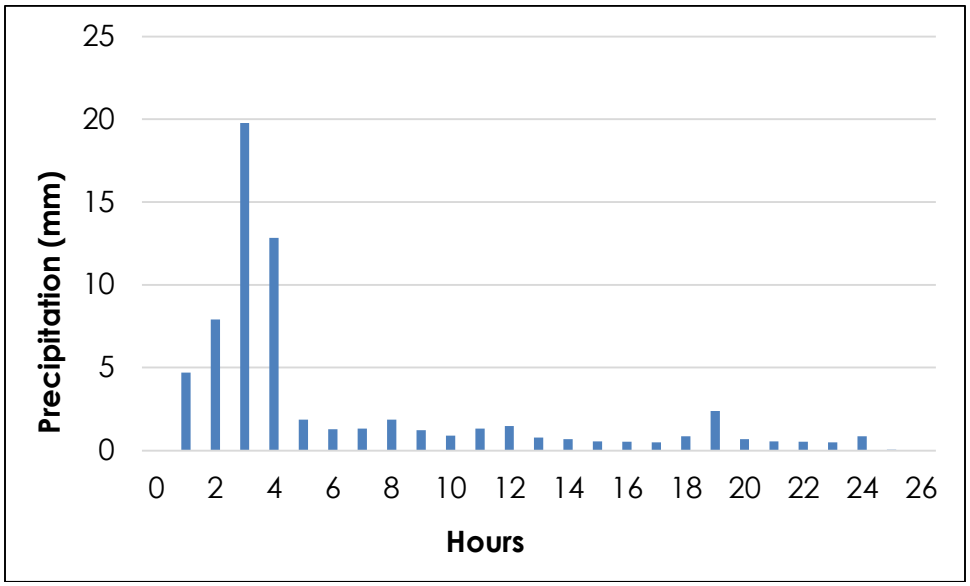


Figure 9 – July 13, 2024 Flood Calibration Hyetograph



To validate the use of radar-derived rainfall data, the hyetographs for the calibration and validation events based on radar-derived data were compared to the observed hyetograph from Bancroft, which is located about 50 km east of the Burnt River. The results showed that the radar rainfall produces similar rainfall volumes to the observed gauge, as shown in **Table 5**.

Table 5 – Comparison of Radar-Derived Rainfall and Observed Bancroft Gauge

Rainfall Volumes by Data Source	September 25, 2021	July 13, 2024
AORC Radar-derived Rainfall	86.6	65.8
Observed Bancroft Gauge	104.2	56.6

The September 2021 event was selected as the calibration event as it produced the highest peak flow that is closest to the regulatory storm magnitude. Sensitive model parameters were adjusted so that the modelled hydrograph at the gauge location matched the flow volume, peak flow, and time of peak as closely as possible.

The results of the model calibration are shown in **Figure 6** and are compared to the uncalibrated flows from the KRCA (2019) report. The observed and calibrated model hydrographs are shown for the calibration event in **Figure 10**. **Table 7** shows the adjustment factors that were used to multiply against initial model parameters to produce the calibrated model parameters.

Figure 10 – Model Calibration Hydrograph – Burnt River at Burnt River, September 2021

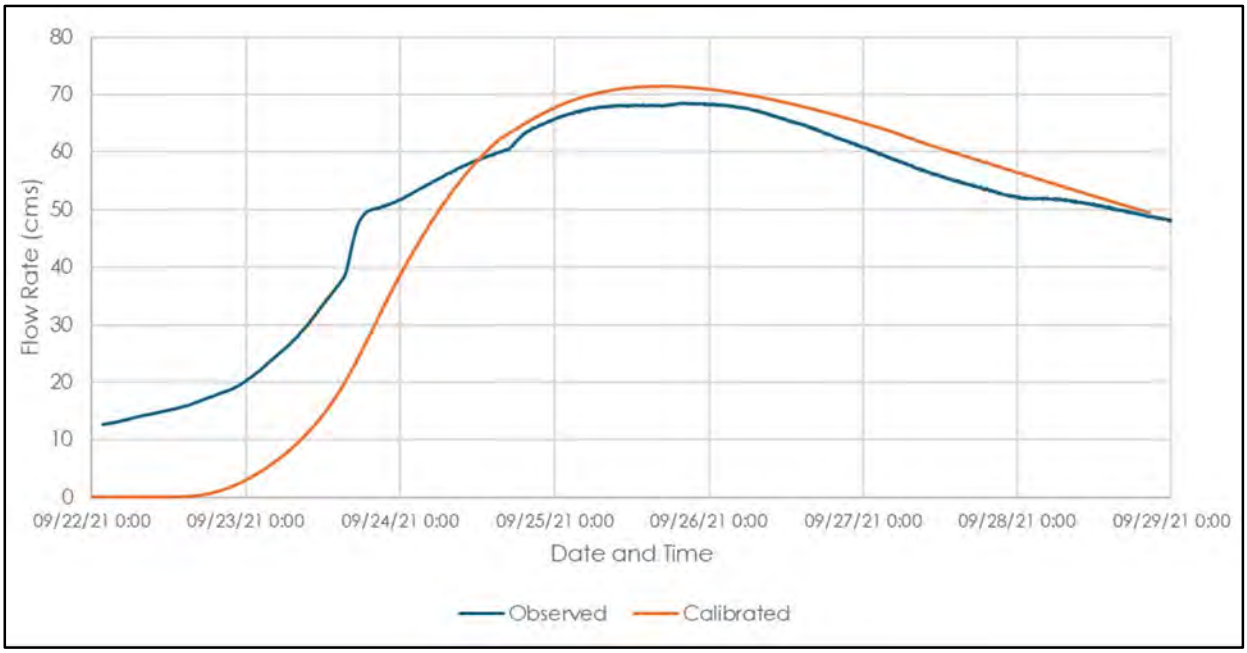


Table 6 – Model Calibration Peak Flow Results

Storm Event	Observed Flows		Modelled Flows	
	Daily Flow (m^3/s)	Instantaneous Peak Flow (m^3/s)	Uncalibrated Peak Flow (m^3/s)	Calibrated Peak Flow (m^3/s)
September 2021	67.8	68.8	187.9	71.4
July 2024	52.4	53.2	115.6	50.4
Timmins Storm	-	-	454.4	115.5

Table 7 – Final Calibration Parameter Adjustment Factors

Parameter	Calibration Adjustment Factor
Time to Peak	5.0
Curve Number	1.4
Floodplain Manning's n	2.0
Floodplain Slope	2.0
Number of Linear Reservoirs	0.57

The calibrated model flow volume, peak flow, and timing of the peak flow are consistent between the modelled and observed hydrographs, indicating that the modelled watershed response is reasonable. Substantial adjustments were made to sensitive model parameters to achieve the calibration results. The time to peak was increased by a factor of 5 to delay the peak flow as the uncalibrated model peaked several hours early for the September 2021 event. Once the peak flow timing was reasonable, the flow volume was increased by increasing the curve number in the watershed to approximately match the area under the observed hydrograph.

Curve numbers are based on empirical relationships developed by the SCS in the 1950s between land use, soils, and observed runoff data for small agricultural watersheds. Uncertainty in the initially selected values is caused by uncertainty in land use or soils data, and differences in the watershed response between the watersheds used to develop the parameter estimates and the study watershed. The Burnt River watershed is a large, primarily non-agricultural watershed with minimal soil overburden, so the initial

parameter estimates from literature may not represent runoff conditions accurately and need to be calibrated to produce accurate results.

In most cases, the floodplain Manning's n was equal to the channel Manning's n or was very close to it with typical floodplain values of 0.03-0.04. These values are outside of the reasonable range based on the guidance provided by EWRG (Environmental Water Resources Group Ltd., 2017), and were multiplied by two to bring them into a reasonable range. Similarly, the floodplain slopes were defined as equal to the channel slopes, which is not reasonable since the main channel has a degree of sinuosity while the floodplains do not, so floodplain slopes will always be higher than channel slopes except when the channel is straight. The floodplain slopes were multiplied by two as part of the model calibration. The changes to the floodplain slope and roughness had minor impacts on the resulting peak flows but improved the accuracy of modelled processes.

The number of linear reservoirs was adjusted to alter the hydrograph shape. Initial calibration adjustments focusing on empirical runoff parameters were not adequate to increase the travel times and attenuation in the watershed to match the observed hydrograph which had an extended recession limb. Conceptually, the number of linear reservoirs must be an integer to visualize the process of a cascade of reservoirs in sequence, since a fraction of a reservoir cannot be visualized. Numerically, decimal values greater than 1 produce accurate results for the Nash Unit Hydrograph, and Nash suggested that when fitting the unit hydrograph to observed data that the number of linear reservoirs does not need to be an integer (Dooge, 1973)

The time to peak, curve number, and number of linear reservoirs were adjusted iteratively until the modelled hydrograph matched the flow volume, peak flow, and peak flow timing.

It is likely that initial calculations for the time to peak neglected the extensive wetland complexes located in the headwaters on the Canadian Shield that can slow the runoff response from subcatchments. The adjustment to the number of linear reservoirs can also be conceptualized as increasing the amount of storage and attenuation throughout the system to represent uncontrolled lakes and riparian storage areas such as oxbows throughout the system.

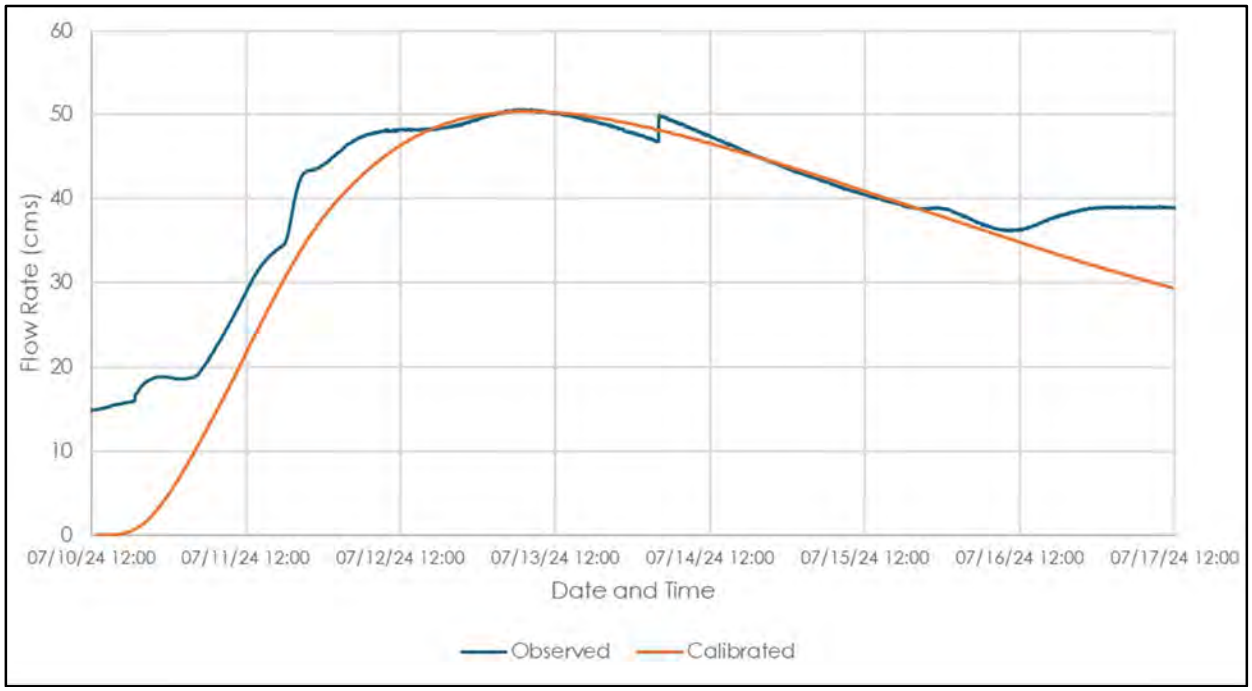
Initial curve numbers were developed based on Official Plan land use, which indicates that most of the watershed is forest. Typically, forest land use is assumed to be fully pervious, but within the Canadian Shield, and particularly within the Burnt River watershed, there are significant bedrock outcrops and minimal overburden that can significantly increase the proportion of impervious areas and runoff volume.

3.2.3 Model Validation

The July 2024 event was used for model validation. The calibrated model was run with the July 2024 storm event to confirm that the watershed parameters are reasonable across multiple precipitation events and produce a reliable model response.

In both cases, evidence of active dam management is present in the observed flow hydrograph where rapid increases or decreases in flows relative to the natural hydrograph are present, which indicates that a stoplog has been added to or removed from the upstream dams. Modelling of dam operations is outside of the scope of this project, so attention was paid to matching the overall hydrograph magnitude and shape rather than precisely matching the observed hydrograph. The observed and calibrated model hydrographs for the July 2024 event are shown in Figure 11. There is good agreement between the observed and calibrated model for flow volume, peak flow, and peak flow timing, indicating that the model response is robust and the model results can be considered valid for single event summer storms.

Figure 11 – Model Validation Hydrograph – Burnt River at Burnt River, July 2024



3.2.4 Regional Storm Analysis

Following model calibration and validation, the Timmins Storm (Regional Storm) and the climate change adjusted Timmins Storm were run in the calibrated model.

The climate change adjusted Timmins Storm was developed following the methodology described in "Incorporating Climate Change in Floodplain Mapping under the Flood Hazard Identification and Mapping Program (FHIMP) where the Regulatory Storm Event is Timmins or Hurricane Hazel" (MNR, 2023a). The methodology uses the CMIP5 climate model with the median RCP 4.5 emissions scenario for the 2051-2080 period to represent climate change. The projected temperature increase compared to baseline levels was determined to be 2.9°C, which corresponds to a 20.3% increase in rainfall intensity. The published rainfall intensities of the Timmins Storm were multiplied by 1.203 to produce the climate change adjusted hyetograph.

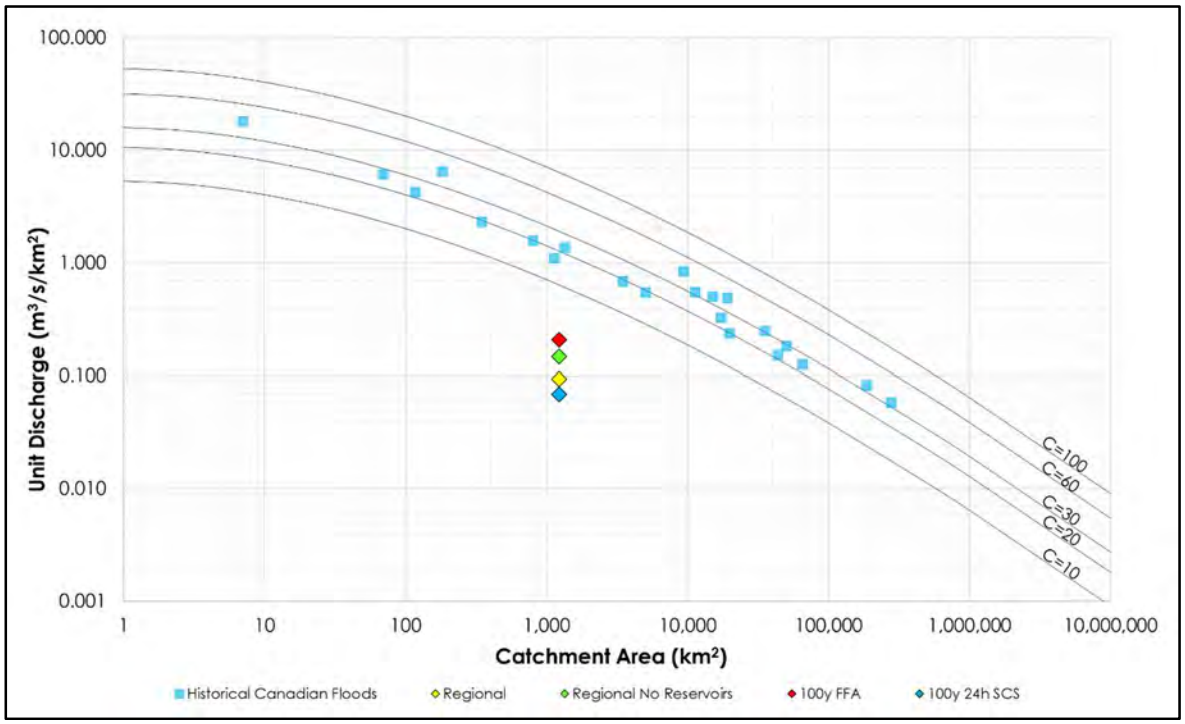
Areal reduction factors were applied to both the Timmins Storm and climate change adjusted Timmins Storm to convert point rainfall volumes to reasonable estimates of rainfall over the whole watershed. The 2019 KRCA study used an areal reduction factor of 66%, which is used for watersheds between 1251 and 1500 km^2 based on the Equivalent Circular Area method.

The Timmins Storm peak flow is substantially lower than the uncalibrated flows used in the 2019 KRCA study. The previous study produced a peak flow of 452.5 m^3/s at the Hillside Drive bridge, while the updated calibrated model produced a peak flow of 115.5 m^3/s at the same location.

The uncalibrated model also produces peak flows for the calibration and validation events that are approximately triple what was observed. Since the model calibration has resulted in the Timmins Storm, the calibration event, and the validation event peak flows being reduced to 1/3 of the uncalibrated peak flows, this suggests that the reduction in the Timmins Storm peak flows is accurate, and that previous model parameters were not suitable for modelling the Regional Storm.

To further validate the Timmins Storm peak flows, a Creager Analysis was completed to assess the watershed unit discharge for several storm events compared to a library of historical storms and catchment areas. Historical Canadian storm data was obtained from Watt (1989). The Creager plot is shown in **Figure 12.** The plot shows that the Timmins Storm, the Timmins Storm without reservoirs modelled, the 100-year flood frequency analysis flow, and the 100-year 24-hour SCS Type II design storm peak flow all produce unit discharges that are below typical values and indicates that this is normal for the watershed.

Figure 12 – Creager Analysis Plot



The lower unit discharge for the Burnt River watershed is due to a combination of flow regulation from dam operations, and storage and attenuation from natural features throughout the watershed. This leads to much longer time of concentrations and lower peak flows in the Burnt River compared to unregulated watersheds outside of the Canadian Shield.

The difference between the 100-year flood frequency flow and the 100-year 24-hour SCS design storm peak flow also indicates that observed peak flows in the watershed are not typically driven by single rainfall events. Observed peak flows in the watershed are likely driven by longer duration or multiple successive rainfall events, rain-on-snow events, or dam operations that were not considered in the hydrology model.

3.3 Comparison to Past Study Results

There are a number of factors that contribute to the extents of floodplain mapping that are produced by any given technical study. Some factors are influenced by changes in the hydraulic characteristics of the terrain, such as improved structures and channels, or by advances in the quality and accuracy of the data. Other factors are driven by hydrologic changes that impact the magnitude of the peak flows that are used in the modelling.

To demonstrate the influence of the latest hydrology study on the flood extents produced by this study, a comparison has been provided below highlighting the differences between the peak flows used in this study and the peak flows considered in the 2019 KRCA study. The average changes in peak flows are summarized in **Table 8**.

Table 8 – Peak Flow Comparison to Previous Studies

Flood or Storm Event	Peak Flow at Burnt River Gauge (m^3/s)		% Change
	KRCA 2019	Wills 2025	
2-Year	110	108.9	-1.0
5-Year	147	144.6	-1.6
10-Year	170	169	-0.6
25-Year	191	201.1	5.3
50-Year	217	226.8	4.5
100-Year	236	254.7	7.9
Timmins	452.5	115.5	-74.5

Some of the differences in the flood frequency analysis results can be attributed to the inclusion of daily flow measurements between 1913 and 1963 prior to WSC operating the gauge. The data since 1963 has undergone post-processing and quality control checks and includes at least hourly measurements, which improves the accuracy of observed peak flows and the resulting statistical analysis. Additional significant storm

and flood events have occurred since 2019 which were included in the updated analysis.

The reduced peak flows for frequent events in the present study compared to the 2019 results suggest that a different statistical distribution was selected previously, which may have underestimated the peak flows for more extreme events.

3.3.1 Pro-Rating Frequency Analysis Peak Flows

Flood frequency analysis flows were pro-rated to transpose peak flows to nearby locations of interest upstream or downstream of the gauge site by adjusting flows based on drainage area and a watershed-specific exponent (Watt, 1989). The equation is:

$$x_{T_u} = x_{T_g}\left(\frac{A_u}{A_g}\right)^n$$

Where X_{T_u} and X_{T_g} are the ungauged site and gauge location, respectively, A_u and A_g are the drainage areas at the ungauged site and gauge location, respectively, and n is the watershed-specific exponent.

The relationship is valid when the drainage area of the ungauged site is within 0.5 to 2 times the drainage area of the flow gauge. The exponent n can range from 0.6-0.9 depending on watershed characteristics, with watersheds that have larger proportions of storage having a larger exponent value. A value of 0.8 is recommended for watersheds without any specific guidance, and has been utilized in this study (Watt, 1989).

The 2019 KRCA study used an exponent value of 0.75, which would result in slightly lower peak flows downstream of the gauge site. The Burnt River at Burnt River Gauge is located at VO Node 123 (outlet of subcatchment 600) in the hydrologic model, and was transposed to Nodes 122 (outlet of subcatchment 700), 124 (outlet of subcatchment 400), and 125 (outlet of subcatchment 500) to correspond with flow change locations in the hydraulic model. Pro-rated peak flows are shown in **Table 9**. Subcatchment locations are available in the KRCA (2019) report, included in **Appendix E**.

Table 9 – Pro-Rating Frequency Analysis Peak Flows (m³/s)

VO Node	Drainage Area (ha)	HEC-RAS XS	Return Period (years)							
			2	5	10	25	50	100	200	350
122	119,648.4	16852	107.1	142.8	166.9	198.6	223.9	251.2	281.2	307.7
123 (Flow Gauge Location)	122,600	12952	109.2	145.6	170.2	202.5	228.3	256.1	286.7	313.8
124	122,964.2	4931	109.5	145.9	170.6	203.0	228.8	256.7	287.4	314.5
125	135,861.1	539	118.6	158.1	184.8	219.8	247.9	278.0	311.3	340.7

3.4 Summary of Peak Flows to be used in Hydraulic Modelling

Table 10 shows the peak flow values from modelling and flood frequency analysis that were used in the hydraulic analysis. HEC-RAS flow change locations correspond to the subcatchment boundaries in the hydrologic model. Modelled peak flows are based on the VO node downstream of the reach of interest to ensure flows are modelled conservatively. The Burnt River at Burnt River gauge corresponds to VO node 123, and other locations have been pro-rated based on the Index Flood Method described above.

Table 10 – Summary of Peak Flows to be Used in HEC-RAS

HEC-RAS Station	VO6 Hydrologic Node	2-Year Flow (m^3/s)	5-Year Flow (m^3/s)	10 Year Flow (m^3/s)	25-Year Flow (m^3/s)	50-Year Flow (m^3/s)	100-Year Flow (m^3/s)	200-Year Flow (m^3/s)	350-Year Flow (m^3/s)	Regional Flow (Timmins) (m^3/s)	Regional Flow (Timmins) with CC (m^3/s)
16+852	122	107.1	142.8	166.9	198.6	223.9	251.2	281.2	307.7	112.6	141.4
12+952	123	109.2	145.6	170.2	202.5	228.3	256.1	286.7	313.8	115.6	145.1
4+931	124	109.5	145.9	170.6	203.0	228.8	256.7	287.4	314.5	115.8	145.4
0+539	125	118.6	158.1	184.8	219.8	247.9	278.0	311.3	340.7	117.0	147.0

4.0 Hydraulics

4.1 Regulatory Framework and Modelling Approach

Floodplain mapping in Ontario is guided by both planning and technical considerations. The goal is to ensure the safety and well-being of the public and to minimize economic loss and property damage due to floods. The KRCA, City Kawartha Lakes, and the of Natural Resources are all partners in ensuring that natural flooding hazards are well understood, and that development and land use policies are effectively managed and enforced.

Policies for land development and land use are influenced and guided by the Ministry of Municipal Affairs and Housing (MMAH) Provincial Planning Statement (PPS) Section 5.2, which describes that "development shall generally be directed to areas outside of hazardous lands adjacent to river, stream and small inland lake systems which are impacted by flooding and/or erosion hazards" (MMAH, 2024).

The above regulations require a robust understanding of the limits of flood hazards, developed based on fair and consistent technical standards. To be consistent with current best practices in Ontario, the development of the flood hazard limit within this study is based on the River and Stream Systems: Flooding Hazard Limit Technical Guide (MNR, 2002). In keeping with the Technical Guide, the following key decisions and approaches have been adopted within this study:

- In keeping with Appendix F: Computations – Open Water, Section 2; steady flow conditions have been assumed along the length of the river and the water surface profile computations are based primarily on the solution of the one-dimensional energy equations for gradually varied flow.
- The computations were completed based on the Standard Step Method, assuming subcritical flow; the calculations began with a known water surface elevation at the downstream limit of the reach.
- There were no significant flood routing elements introduced in the hydraulic model (peak flow attenuation due to natural flood has been considered in the hydrology model).
- There were no 'operable' elements included in the hydraulic model, including any dams, gates, sluiceways, or variable weirs and spillways.
- The river was modelled in such a manner so as to apply a One-Zone policy approach as defined in the Technical Guide (MNR, 2002); where the entire floodplain was treated as the 'floodway'.

4.2 Model Selection

The HEC-RAS (Version 6.6) hydraulic model was selected by the project team and the KRCA as the preferred hydraulic model to be used for this project. HEC-RAS is a free hydraulic modeling software developed and maintained by the U.S. Army Corps of Engineers' (USACE) Hydrologic Engineering Centre (HEC) with a long history of use in

Canada and internationally. The software can perform hydraulic calculations in one-dimensional steady flow, one-dimensional (1D) unsteady flow, two-dimensional (2D) unsteady flow, and coupled one-dimensional/two-dimensional (1D/2D) flow conditions for a full range of natural and constructed channels. The software is suitable for many applications including floodplain mapping, open channel and hydraulic structure design, dam breach analysis, rain on grid, and sediment transport modeling. HEC-RAS includes built in GIS tools with which a significant portion of the hydraulic model can be developed, and the modeling results viewed.

The following information is required to calculate the input parameters for HEC-RAS to compute water surface elevation and velocity:

- Topographic, bathymetric, and aerial imagery information for the channel and overbanks to define the physical characteristics of the watercourse including slope, length, geometry, and Manning's roughness.
- Bridge, culvert, inline structure, and lateral structure information including geometry, construction material, alignment, and operating rules (if applicable).
- Location and geometry of obstructions to flow such dwellings and auxiliary structures.
- Peak flows are required for a steady flow model and a hydrograph for an unsteady flow model.
- Flow and water surface elevations of past events for calibration and verification of model parameters.

The objective of the hydraulic model is to compute accurate water surface elevations and floodplain extents for the Regulatory flow event throughout the study reach. Wills reviewed the topography, historic floodplain mapping, available background information from KRCA including previous hydraulic models, and available flow rate and flow depth records in our effort to develop robust and defensible hydraulic model.

4.3 Hydraulic Model Development

As discussed in **Section 4.1**, the Regulatory flood limits have been developed using HEC-RAS software, assuming steady-state, one-dimensional flow conditions. This river reach is well to this approach, as the natural flood valley system promotes unidirectional and gradually varying flow patterns. These natural corridors are well suited to be represented by consecutive cross sections that are perpendicular to the flow and generate results without significant abrupt transitions and energy losses.

4.3.1 Hydraulic Model References and Inputs

The hydraulic modelling approach and model parameters have been developed with consideration to the following key references:

- River and Stream Systems: Flooding Hazard Limit Technical Guide (MNR, 2002).

- Technical Guidelines for Flood Hazard Mapping (Environmental Water Resources Group Ltd., 2017).
- HEC-RAS Hydraulic Reference Manual (U.S. Army Corps of Engineers, 2025).
- Federal Hydrologic and Hydraulic Procedures for Flood Hazard Delineation (Natural Resources Canada, 2019b).

The requirements for data inputs for a steady-state HEC-RAS model are summarized in the Technical Guide (MNR, 2002 – Page 61) as "discharge, starting water surface elevation, cross section geometry, roughness coefficients, other coefficients, plan of channel alignment, cross section coordinates, and distances between cross sections".

The Technical Guide (EWRG, 2017), Section 4.7.3.1 lists the requirements of one-dimensional models as including "cross sections, hydraulic structures, ineffective flow areas, expansion and contraction coefficients, weir coefficients, manning 'n' values, starting water surface elevations, flow interpolation between points of interest, and spills and split flows".

The key inputs and parameters that were used to develop the hydraulic model are presented in the following sections.

4.3.2 Topographic and Bathymetric Data

Wills used the 0.5 m LiDAR DTM discussed in **Section 2.2** as the terrain file for the hydraulic model. The LiDAR DTM does not include points for the ground surface below the water surface. In the case of the Burnt River, the area below the water surface represents a substantial portion of conveyance during flood events and requires that bathymetry is represented to produce accurate water surface elevations. Supplemental cross-section bathymetry surveys were completed by KRCA at many locations throughout the study reach.

The surveyed bathymetry cross-sections were reviewed and were found to be lower than the LiDAR DTM where they overlapped outside of the channel, likely due to accuracy issues associated with poor cell coverage and forested riparian areas reducing the accuracy of survey points in the channel. The difference between the survey points and the LiDAR data varied throughout the reach but were consistently lower than the LiDAR terrain in all locations. To address the issue, the average difference between overlapping points was calculated for the two sets of bathymetry survey points that were provided (i.e. first half and second half of the project) and each set was adjusted by the average difference to reduce the average difference to zero. This approach will lead to localized discrepancies in the elevation of the channel bottom but will produce a more accurate representation of conveyance in the main channel and produce more accurate flood hazard limits throughout the study area. Subsequent modelling also shows that the adjusted bathymetry data produces hydraulic model results closest to observed conditions, which were refined through model calibration.

The survey data was implemented into the terrain in RAS Mapper by creating an interpolated channel bathymetry DTM and merging it with the LiDAR DTM to create a

bathymetrically enforced DTM that accurately represents the available channel conveyance.

Bathymetry data in the various oxbows present in the study area were not considered as they represent ineffective flow areas. Under low-flows, inundation may not be mapped accurately in the oxbows. The inclusion of oxbow bathymetry and associated ineffective flow areas would not change the modelling results for high flows including the Regulatory Storm peak flow.

Road and rail crossings can have one of the most significant impacts on the regulatory floodplain. Considerable backwater conditions may be present upstream of a crossing that is unable to convey the regulatory flow, causing a widespread floodplain. Hydraulic structures within the study area were surveyed by KRCA and the survey data was used to define hydraulic structures in the model. The structure survey data was reviewed and confirmed to match LiDAR elevations where they overlapped.

4.3.3 Watercourse Centreline and Bank Stations

The watercourse centreline and bank stations were digitized by Wills in RAS-Mapper using aerial imagery and the DTM. The bank stations were further refined manually using HEC-RAS's cross section editor.

Bank stations generally represent the top of a stream bank at a location where, if flow exceeded the bank elevation, it would spread within the floodplain. Bank stations are used by HEC-RAS to subdivide the cross-section into channel and overbank areas, for the purpose of establishing the slopes used to determine conveyance, and to discretize the reporting tools. In some hydraulic models, bank stations may identify the locations where the roughness coefficient changes. For the Burnt River model, the roughness coefficient was not dependant on the location of the bank stations as a 'horizontal variation in Manning's n was used for all cross sections, which assigned Manning's n values to portions of each cross-section based on the underlying land use.

Bank station locations within the model are based on survey data, aerial imagery, and elevation data along with available pictures of the channel.

4.3.4 Cross Section Locations and Spacing

The cross section geometry for the hydraulic model was extracted from the bathymetric LiDAR DTM using HEC-RAS's internal GIS module (RAS Mapper). The use of RAS Mapper with appropriate spatial projection information ensures a properly georeferenced HEC-RAS model.

The location and spacing of cross sections were generally implemented in keeping with the Technical Guide (EWRG, 2017), Pages 91-93. Some key considerations that were implemented by the project team include:

- Cross sections were positioned to be perpendicular to the direction of flow, to the greatest extent possible.

- Cross sections were extended to be long enough to contain all of the flow, with some local and intentional exceptions such as flow junctions or at watershed boundaries.
- Cross sections were placed in intentional locations adjacent to bridges and culverts, with the use of ineffective flow areas to model the transition from fully expanded to fully contracted flow.
- Cross sections were spaced to capture all abrupt changes in channel geometry, bed and valley slope, land use, obstructions, and variations in roughness. In essence, Wills considered the average parameter values that would result between sections, and assessed the degree to which they were appropriate.
- Generally, spacing was implemented in 25 m to 35 m increments. While unsteady models can be significantly more sensitive to spacing due to model stability and flow routing issues, spacing is still an important consideration in steady models. Of particular note, the project team sought to ensure that the results were indicative of gradually varied flow and gave consideration to spacing sections so that most land parcels interacted directly with at least one cross section.

4.3.5 Manning's Roughness Coefficient

Manning's roughness coefficient (Manning's n) is used to represent the nature of the terrain and culvert crossings, and their influence on resistance to flow. Higher manning's roughness coefficients typically result in deeper, slower flow regimes (Chow, 1959). Manning's n is an important parameter, particularly because it can affect the results throughout the length of the hydraulic model, as opposed to some parameters that have isolated impacts, such as tailwater assumptions or coefficients used only at bridge and culvert crossings.

By default, HEC-RAS requires users to input distinct Manning's roughness values for the channel and overbank areas. However, for the Burnt River, a more robust assessment of Manning's roughness value was used using the 'horizontal variation in 'n'' option, allowing multiple bands of roughness to be assessed within each cross section.

In order to develop the variation in roughness throughout the models, Wills imported a landcover GIS layer provided the province. The GIS layer discretizes all development areas, woods, wetland, open water, and impervious roads. Wills manually added the creek alignments, with an appropriate offset, into the GIS layer and imported the shapefile into RAS-Mapper.

There is a relationship between the roughness value of any given terrain and the depth of flow; Manning's values should be significantly higher during very shallow flow where roughness elements will have a greater impact on the flow regime. Generally, the relationship between Manning's values and depth stabilizes once the flow depth exceeds three to five times the height of a typical obstruction (i.e., the average cobble in a creek). Throughout the hydraulic model, the Manning's values were chosen to represent reasonable values in keeping with published literature (Chow, 1959).

The Manning's n values were selected based on the Technical Guide (EWRG, 2017) Page 119 – Table 4.1. Wills selected Manning's roughness values throughout the models that fall within the typical values provided by the Technical Guide (EWRG, 2017), as shown in **Table 11**.

Table 11 – Standard Manning's Roughness Coefficients

Land Use / Material	'n' Standard	Suggested Range	Suggested Range
		Minimum	Maximum
Terrain			
Channel - Natural	0.035	0.025	0.045
Woods	0.080	0.040	0.120
Impervious Areas	0.015	0.011	0.017
Meadow / Wetlands	0.055	0.035	0.70
Culverts			
Concrete	0.013	0.011	0.015
HDPE / PVC	0.013	0.011	0.015
Steel – 3"x1" Corrugation	0.024	0.021	0.027
Steel – 6"x2" Corrugation	0.032	0.026	0.038

4.3.6 Hydraulic Structures

Survey information regarding the hydraulic structures throughout the study reach was provided by KRCA. The study area started immediately downstream of the Kinmount Dam and did not contain any dams, concrete weirs, gates, sluiceways, or spillways. Two road crossings at Somerville 11th Concession and Hillside Drive were included in the model as bridges using HEC-RAS's bridge and culvert tools.

All road crossings were modelled using the most conservative representation of the road crossing. In most cases this was the crown or raised boulevard. In some cases, particular attention was paid to concrete barriers or parapet walls, which were modeled as solid portions of the bridge/culvert structure. Steel tube railings with 1 m or greater between vertical posts were assumed to still convey flow and were therefore not included in the bridge/culvert structures. Wills selected weir coefficients throughout the models that fall within the typical values provided by the Technical Guide (EWRG, 2017), as shown in **Table 12**.

Table 12 – Standard Wier Coefficients

Weir Flow Coefficients	'C' Standard	Suggested Range	Suggested Range
		Minimum	Maximum
Broad Crested (i.e., Road Embankments)	1.5	1.4	1.7

4.3.7 Ineffective Flow Areas, and Expansion and Contraction Coefficients

Ineffective flow areas were applied to the model in all areas where water is expected to pond, but where no significant conveyance is available due to the adjacent structures or terrain. The following are key areas where ineffective flow areas were used in the model:

- For sections immediately upstream and downstream of road crossings, ineffective flow areas were applied for the full length of the section, with a gap at the culvert or bridge opening. The distance of the ineffective station from the edge of the bridge or culvert opening is a function of the spacing of the two expansion and contraction cross-sections upstream or downstream of a structure and the distance from a bounding cross-section to the structure opening.
- At the upstream end of structures, ineffective flow area elevations were set to the minimum road profile on each side of the culvert. At the downstream end of structures, the ineffective flow area elevations were set to halfway between the obvert and minimum road profile on each side of the culvert to allow accurate representations of weir flow over the structure.
- With consideration to the above, the next adjacent upstream and downstream sections were generally located at a point where flow had fully expanded. In select locations where the adjacent section was required to be closer to the bridge/culvert structures, additional ineffective flow areas were applied to model partial expansion/contraction.
- In locations that were hydraulically connected to the floodway, but due to the terrain would obviously not provide flow conveyance, ineffective flow areas were applied to the height of the adjacent terrain, or the highest point in the cross section. These included significant valleys perpendicular to the channel (usually due to an incoming tributary), and areas where significant backwater ponding would occur.

Expansion and contraction coefficients were used to adjust the extent to which minor energy losses are recognized, due to turbulence during expanding or contracting flows. Expansion and contraction losses occur through the model due to natural changes in the topography but are most pronounced at sudden transitions such as bridge and culvert structures. Wills selected expansion and contraction coefficients throughout the models that fall within the typical values provided by the Technical Guide (EWRG, 2017), as shown in **Table 13**.

Table 13 – Standard Expansion and Contraction Coefficients

Expansion/Contraction Coefficient	Standard Parameters	
	Contraction	Expansion
Gradual Transitions	0.1	0.3
Bridges/Culverts	0.3	0.5

4.3.8 Obstructions

Barriers to flow such as dwellings or auxiliary structures have been included in the model as obstructions using the Bing Buildings layer (Microsoft, 2025). Bing buildings are based on AI and machine learning analysis of aerial photos between 2014 and 2025, and provide a reasonable approximation of obstruction locations in the absence of a municipal buildings layer.

The obstruction function within HEC-RAS allows the user to define areas of the cross section that will be unavailable for flow conveyance or storage. Wills imported the available building data using RAS-Mapper, including the 'top of building' elevations which were available in the database. In some cases, particularly for tall buildings, the height of the obstruction was reduced to align with the highest point in the cross section in order to maintain an appropriate scale in the cross-section view.

4.3.9 Boundary Conditions

The downstream end of the study area is not expected to be bounded by a constant water surface elevation and is controlled by downstream hydraulics. A normal depth boundary condition was used in order to represent the downstream hydraulics at various flows. The Burnt River is very flat downstream of Hillside Drive, with only a 10 cm elevation drop over the next kilometer downstream, corresponding to a slope of 0.0001 m/m. To reduce boundary condition effects within the study area, the hydraulic model was extended approximately 400 m south of Hillside Drive and the boundary condition was applied at that location.

Photos of the April 2019 flood downstream of Hillside Drive were provided that showed that the maximum water surface elevation reached the low chord of the bridge, which is at an elevation of 261.60 m. The April 2019 flood was included in the hydraulic modelling, and the normal depth slope for the downstream boundary condition was calibrated until the modelled water surface elevation reached the low chord of the bridge. The final normal depth slope was determined to be 0.000045 m/m, or about 45% of the downstream channel slope based on the LiDAR DTM.

4.3.10 Lateral Spills, Levees, and Confluences

By default, HEC-RAS distributes flow laterally to any low area within cross sections and will neglect that local high points could prevent water from reaching certain areas. Wills reviewed the flood map results throughout the development of the model to identify locations where 'pockets' of flow were evident. To ensure that the regulatory flood

elevations adjacent to the main channel were not understated, levees can be introduced to eliminate the isolated area from the hydraulic model, unless the internal high points are overtopped.

The Burnt River within the modelled limits is reasonably confined within a riverine valley system and any isolated flow locations were managed through ineffective flow areas. The river does not significantly split, braid, or spill towards adjacent watersheds, and therefore Lateral Spills and Levees were not required within the hydraulic model.

However, there are a number of tributaries that converge within the limits of the model. The most notable is Union Creek which flows from east to west and discharges into the Burnt River immediately upstream of Hillside Drive. Hydraulic modelling of the tributaries was not included in the scope of this study; however, consideration was given to how the confluences and junctions could be set up in the future.

In general, the cross sections at various confluences were truncated purposefully at the furthest point at which the flows would generally be expected to flow parallel to the Burnt River. In some cases, there are artificial vertical walls in the HEC-RAS model at sections that extend upwards into an incoming tributary. The most significant are Section 0+616 to Section 0+539 which were terminated at the point at which the flow would likely transition from east to west flow (Union Creek) to north to south flow (Burnt River). The regulatory flood limits at these locations are indicated as dashed boundaries in the Regulatory Mapping in order to respect the uncertainty of the water profile upwards along the tributary.

4.4 Sensitivity Analysis

Wills completed a sensitivity analysis of the hydraulic model in order to determine the extent to which changes in common parameters could influence the model results.

Wills reviewed parameters that are listed in Technical Guide (EWRG, 2017) Page 119 – Table 4.1 that would be expected to have an impact throughout the length of the models, and not simply at select locations. To that end, adjustments were made universally to the Manning's roughness values and the expansion and contraction coefficients.

Manning's roughness coefficient is usually a sensitive parameter and generally impacts all sections in a hydraulic model; with the possible exceptions of areas under significant tailwater effects and sections that have defaulted to critical depth (in a subcritical model). Manning's roughness coefficient is variable and subjective, noting that the appropriate value can increase sharply at low flow depths. Therefore, it is necessary to assess the sensitivity of computed water surface elevations to changes in manning's roughness values. The typical range for sensitivity analysis for floodplain mapping is 125% to 75% of the estimated parameter values (EWRG, 2017).

The adjustments to Manning's roughness coefficient were applied to the 100-year flood frequency scenario within the HEC-RAS model. A summary of the results of the

manning's sensitivity analysis can be found in **Table 14** and **Table 15.** The model summary output tables for both scenarios have been included in **Appendix C**.

Table 14 – 125% of Manning's Roughness Coefficient

Change in Water Surface Elevation	Cross-Section Count	Percent of Total
Greater than +0.45 m	165	30.8%
+0.44 m to +0.30 m	145	27.1%
+0.29 m to +0.15 m	151	28.2%
+0.14 m to +0.01 m	65	12.1%
No Change	10	1.9%
-0.01 to -0.14	0	0.0%
-0.15 to -0.29	0	0.0%
-0.30 to -0.44	0	0.0%
Less than -0.45	0	0.0%
Total	**536**	**100.0%**
Most Significant Increase (m)	**1.09**	
Most Significant Decrease (m)	**0**	

A review of **Table 14** indicates that the majority of sections experience an increase in water surface elevation greater than 0.30 m due to an increase in Manning's roughness coefficient. This aligns with the general expectations of the parameter and provides confidence that the model is responding well to the input variables.

Table 15 – 75% of Manning's Roughness Coefficient

Change in Water Surface Elevation	Cross-Section Count	Percent of Total
Greater than +0.45 m	0	0.0%
+0.44 m to +0.30 m	0	0.0%
+0.29 m to +0.15 m	0	0.0%
+0.14 m to +0.01 m	1	0.2%
No Change	14	2.6%
-0.01 to -0.14	84	15.7%
-0.15 to -0.29	128	23.9%
-0.30 to -0.44	146	27.2%
Less than -0.45	163	30.4%
Total	**536**	**100.0%**
Most Significant Increase (m)	**0.02**	
Most Significant Decrease (m)	**-1.05**	

A review of **Table 15** indicates that most sections experience a decrease in water surface elevation greater than 0.3 m due to a decrease in Manning's roughness

coefficient. This aligns with the general expectations of the parameter and provides confidence that the model is responding well to the input variables.

With respect to both **Table 14** and **Table 15**, the adjustment of the Manning's n generally changed the slope of the water surface profile. Larger manning's values resulted in steeper water profile grades, as would be expected when modelling greater energy losses. There are three distinct points in the system where the water surface elevations converge, regardless of the adjustments that were made to the Manning's n values: the downstream limit, Section 3+736, and Section 14+655. At the latter two locations, the Burnt River undergoes an abrupt change in elevation and the model temporarily reaches or approaches critical depth. This is consistent with the rapids and waterfalls that are observed in these locations.

In a similar manner, adjustment to expansion and contraction coefficients were applied to the 100-year flood frequency scenario within the HEC-RAS model. The coefficients were adjusted from 150% to 50% of the estimated parameter values. A larger variation was applied, noting the significant variation in the suggested coefficient range. A summary of the results of the sensitivity analysis can be found in **Table 16** and **Table 17.** The model summary output tables for both scenarios have been included in **Appendix C**.

Table 16 – 150% of Expansion and Contraction Coefficients

Change in Water Surface Elevation	Cross-Section Count	Percent of Total
Greater than +0.3 m	1	0.2%
+0.29 m to +0.20 m	1	0.2%
+0.19 m to +0.10 m	315	58.8%
+0.09 m to +0.01 m	195	36.4%
No Change	24	4.5%
-0.01 to -0.09	0	0.0%
-0.10 to -0.19	0	0.0%
-0.20 to -0.29	0	0.0%
less than -0.30	0	0.0%
Total	**536**	**100.0%**
Most Significant Increase (m)	**0.4**	
Most Significant Decrease (m)	**0**	

A review of **Table 16** indicates that the majority of sections experience a modest increase in water surface elevation due to an increase in expansion / contraction coefficients. This is aligned with the general expectations of the parameter and provides confidence that the model is responding well to the input variables.

Table 17 – 50% of Expansion and Contraction Coefficients

Change in Water Surface Elevation	Cross-Section Count	Percent of total
greater than +0.3 m	0	0.0%
+0.29 m to +0.20 m	0	0.0%
+0.19 m to +0.10 m	0	0.0%
+0.09 m to +0.01 m	0	0.0%
No Change	25	4.7%
-0.01 to -0.09	172	32.1%
-0.10 to -0.19	331	61.8%
-0.20 to -0.29	7	1.3%
less than -0.30	1	0.2%
Total	**536**	**100.0%**
Most Significant Increase (m)	**0**	
Most Significant Decrease (m)	**-0.3**	

A review of **Table 17** indicates that the majority of sections experience a modest decrease in water surface elevation due to a decrease in expansion / contraction coefficients. This is aligned with the general expectations of the parameter and provides confidence that the model is responding well to the input variables.

With respect to both **Table 16** and **Table 17**, the changes in the water surface elevation are fairly consistent throughout the length of the river. The water profiles diverge immediately upstream of three locations: the Hillside Drive Crossing, Section 3+736, and Section 14+655 and then are nearly parallel.

An additional input parameter that significantly impacts the results of any hydraulic model is the peak flow rate. In general, the model responds well to changes in peak flows; increased peak flows resulted in higher water surface elevations. Wills reviewed the model in detail to eliminate, to the greatest extent, any 'crosses' in the water surface profile lines between the various flow events that were assessed.

The sensitivity analysis provides encouraging and reasonable results, building credibility with respect to the reliability of the models. In general, the model responds to changes in key parameters in a manner that would be expected: water surface elevations rise appropriately with increases in roughness and higher energy loss coefficients. Furthermore, the impacts are reasonably small and consistent throughout the model.

4.5 Calibration/Validation

The development of a hydraulic model requires several input parameters. Some of the parameters are based on field measurements (i.e., survey, measurements of bridges and culverts, etc.), while other parameters are left to engineering experience, reference material, and judgement based on available information (Manning's n, loss coefficients, etc.). For this reason, it is ideal to compare computed water levels to those

observed in the field wherever possible. Model parameters can then be adjusted to replicate the observed water levels more accurately during a historic event.

One hydrometric data station exists within the watersheds, located near Section 4+931. Several observed flow events were used to correlate the flow rate to the flow depth within the river. Spring melt events were also included in the hydraulic model calibration as they are the largest observed peak flows at the gauge station. The station is located upstream of an abrupt change in the profile of the river (i.e., rapids) and the flow depths at this location are likely significantly influenced by the selection of Manning's roughness values and the geometry of the sections immediately upstream of the rapids.

Additional flow scenarios were included in the model and the corresponding flow depths were compared to the measured data. A summary of the results is provided in **Table 18.**

Table 18 – Water Surface Elevation Comparison Section 4+931

Creek and Location	Station ID	Co-ordinates	Date of Event	Peak Flow (m^3/s)	Observed WSEL (m)	Modelled WSEL (m)	Difference Model – Gauged (m)
Burnt River at Burnt River	02HF003	44°42'35.5" N 78°40'39.1" W	April 21, 2013	216	265.10	265.41	0.31
			November 2, 2013	77	263.48	263.77	0.29
			April 16, 2014	175	264.70	265	0.30
			May 8, 2017	142	264.34	264.64	0.31
			April 21, 2019	228	265.26	265.52	0.26
			September 25, 2021	68.8	263.34	263.64	0.30
			July 13, 2024	53.2	263.05	263.36	0.31

A review of **Table 18** indicates that the modelled results are moderately higher than the gauged data. The Manning's roughness coefficient for the main channel was lowered to 0.025 throughout the reach to improve the agreement with observed data. The normal depth slope was adjusted to 0.000045 at the downstream boundary condition as discussed in the boundary condition section to match observed flood conditions. Due to the presence of rapids downstream of the site that can have a significant impact on the flow profile, and the uncertainty in the bathymetry data, conservative water surface elevations were maintained at the gauge site to avoid underestimating the flood hazard limits elsewhere in the study area, or using unrealistic values of

Manning's roughness coefficient. The resulting floodplain for the 2013 and 2019 flood events agreed well with observed flood photos in Kinmount and downstream of Hillside Drive.

If additional bathymetry data becomes available in the future, it may be appropriate to revisit this calibration. Based on the review of the flow profiles during the gauged flow events, the resulting water surface elevations, and the sensitivity analysis described in **Section 4.4**, we recommend using Manning's roughness value as the key parameter for adjustment, in order to align the model results to future gauged data after.

4.6 Hydraulic Model Results

4.6.1 Water Surface Elevations

The Burnt River hydraulic model included a stream length of 16.3 km and incorporated two bridge crossings. Summary output tables of the results for each cross section for each of the modelling scenarios can be found in **Appendix C**. The results of this study can be interpreted on the basis of the engineered flood maps, which are included in **Appendix D.**

4.6.2 Hydraulic Model Comparisons

Wills reviewed the historic floodplain mapping against the computed inundation boundaries for the Regulatory storm as part of this study. Wills noted significant differences in the floodplain extents for the reach downstream of Hillside Drive that was mapped in 2019 compared to the reach upstream assessed in this study. Noting that the updated 100-year peak flow is greater than the 2019 study, while the updated Timmins Storm peak flow is substantially lower than the 2019 study, the new Regulatory Floodplain is primarily delineated based on the 100-year floodplain, while the previous study that mapped between Hillside Drive and Cameron Lake used the much larger Timmins Storm floodplain. At Hillside Drive, the current study determined the Regulatory Flow (greater of 100-year or Timmins Storm) to be 278 m^3/s, while the previous study determined the Regulatory Flow to be 452.5 m^3/s at the same location based on the uncalibrated hydrology model. The discontinuity can be addressed by using the calibrated hydrologic flows to delineate new floodplains in the 2019 hydraulic model.

The Burnt River Floodplain Mapping Project completed by Haliburton County used a calibrated continuous HEC-HMS model to define Regulatory Flows based on hydrologic modelling of the Timmins Storm coincident with the maximum snowmelt day for an average snowpack winter to produce conservative flows that represent rain-on-snow conditions. The modelled Timmins Peak flows are substantially higher in that study than the current study due to the presence of snowmelt but are lower than the 2019 KRCA peak flows which are based on the Timmins Storm occurring in the summer.

It is expected that there will be some degree of variation from previous studies due to a variety of changes in the underlying data and information, including but not limited to newer modelling technology, higher resolution topographic and roughness information, updated peak flows, updated infrastructure including culvert and bridge replacements,

differing modelling assumptions including tailwater assumptions, and different approaches to complex flow scenarios.

The difference between the floodplain extents delineated as part of this study and the floodplain extents delineated in the downstream reach in the 2019 can be attributed to the use of an uncalibrated hydrologic model to produce regulatory peak flows. The hydrologic model calibration completed as part of this study leads to a more reasonable watershed response and more reliable modelled peak flows.

Notable differences from the previous Regulatory Flood Map extents include:

- There is a discontinuity between the 2019 regulatory floodplain downstream of Hillside Drive and the new floodplain delineated upstream of Hillside Drive where the mapped regulatory flow increases by 63%.

5.0 Mapping

The regulatory floodplain and flood risk mapping is the final product produced after the water surface elevations are determined using the hydraulic model. The mapping was produced using RAS-Mapper to create inundation boundaries, and the following adjustments were made using GIS tools:

- Dry areas that were completely surrounded by floodplain (i.e., islands) were deleted from the flood mapping using automated tools. Any additional islands were reviewed manually and substantially removed, with the exception a few outliers that were particularly large.
- Wet areas with an area of less than 100 m^2 that were completely isolated from the rest of the floodplain (i.e., wet pockets and puddles) were deleted from the flood mapping using automated tools. Any additional pockets were reviewed manually to confirm there was no connection to the floodplain and were subsequently deleted.
- All road crossings were reviewed to ensure that the floodplain extents were drawn correctly over the road, based on the results of the HEC-RAS flow profile. In most cases, the roads are overtopped during the Regulatory Flow.

The Floodplain Maps are included in **Appendix D.**

6.0 Conclusion

The KRCA has recognized the need for an update to the hydrologic and hydraulic modelling and regulatory floodplain mapping for the Burnt River between the Kinmount Dam and Hillside Drive. The objective of this project is to provide updated regulatory floodplain mapping for Burnt River in this area. The intent of this report is to provide the hydrologic and hydraulic inputs for floodplain mapping and mapping results. This floodplain mapping report included the following key phases:

- **Background Data Collection and Review** – Wills reviewed all available background information provided by the KRCA.
- **Site Reconnaissance and Topographic/Bathymetric Survey** – KRCA undertook site reconnaissance and collected topographic and bathymetric survey data to define structures crossing the creeks and provide bathymetry information. Wills reviewed and implemented the information in the hydraulic model.
- **Hydrology Study** – Wills updated hydrologic model parameters through model calibration to produce a model response that more closely matched observed flows. The calibrated hydrologic model was used to determine peak flows for the Timmins Storm and the Timmins climate change adjusted storm. An updated flood frequency analysis was also conducted to determine return period peak flows for the 2-year to 350-year flood events.
- **Hydraulic Modelling** – Wills developed a new hydraulic model to compute water surface elevations for the 2-year to 350-year flood events, the Timmins Storm and the climate change adjusted Timmins Storm. The hydraulic model was a 1D steady flow model developed using HEC-RAS (Version 6.6). The development of the hydraulic model included sensitivity analyses and calibration review efforts.
- **Floodplain Mapping** – Wills developed comprehensive floodplain maps for each of the flow scenarios provided.

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Appendix A

Hydraulic Structure and Bathymetric Survey Data

Project Structure Survey Photo Log

List of Structures

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STRUCTURE 1: KINMOUNT DAM

Upstream Facing Downstream

Downstream Facing Upstream

Upstream Facing Upstream

Downstream Facing Downstream

Measurements
Structure: Bridge
First Opening (D/S Looking U/S)
Rise: 2.60 m
Span: 6.10m
Openings 2-8 (D/S Looking U/S)
Rise: 2.25 m
Span: 4.85m
Height of Guard Rail: 1.10 m
Low Cord: 0.30 m
Structure Type: Dam

DANGER
Dam - Barrage
No Trespassing
Entrée interdite

STRUCTURE 2: FIRST SET OF RAPIDS D/S OF KINMOUNT DAM

Upstream Facing Downstream

Downstream facing Upstream

Upstream Facing Upstream

Downstream Facing Downstream

STRUCTURE 3: THREE SISTERS RAPIDS

Upstream Facing Downstream

Downstream facing Upstream

Upstream Facing Upstream

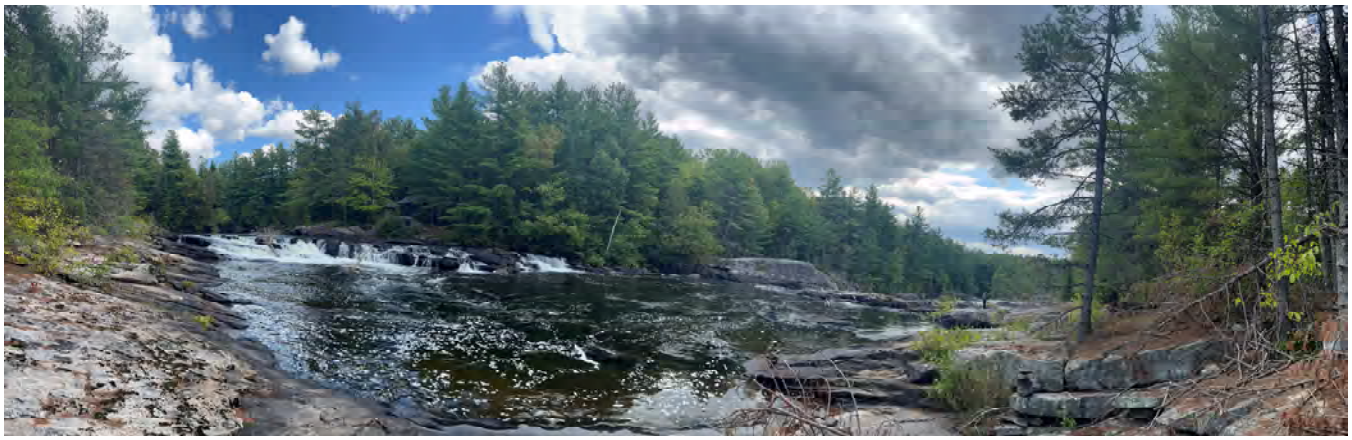
Downstream Facing Downstream

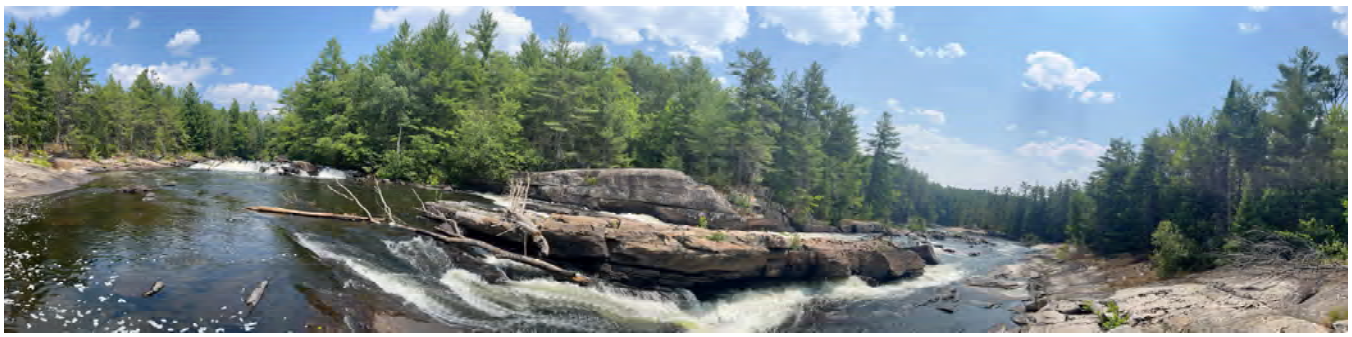
Upstream Facing Downstream

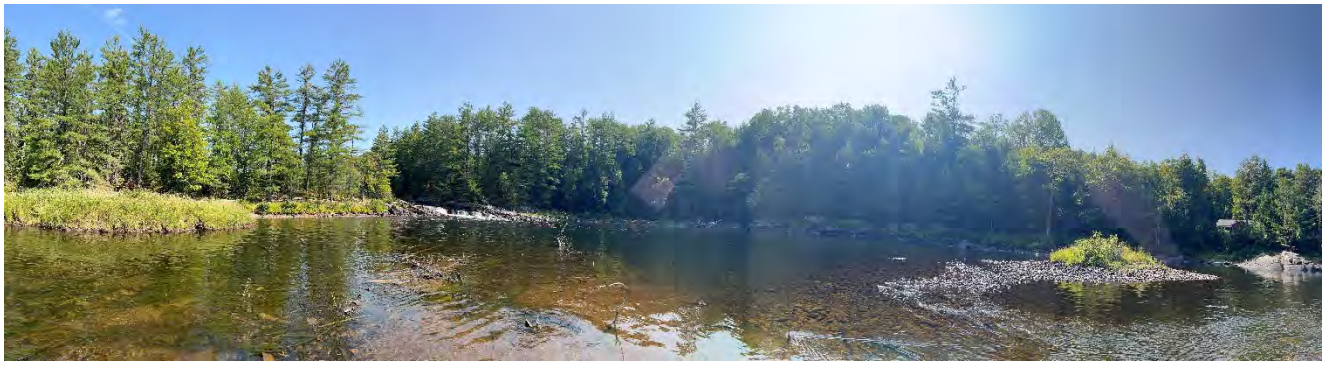
Downstream facing Upstream

Upstream Facing Upstream

Downstream Facing Downstream







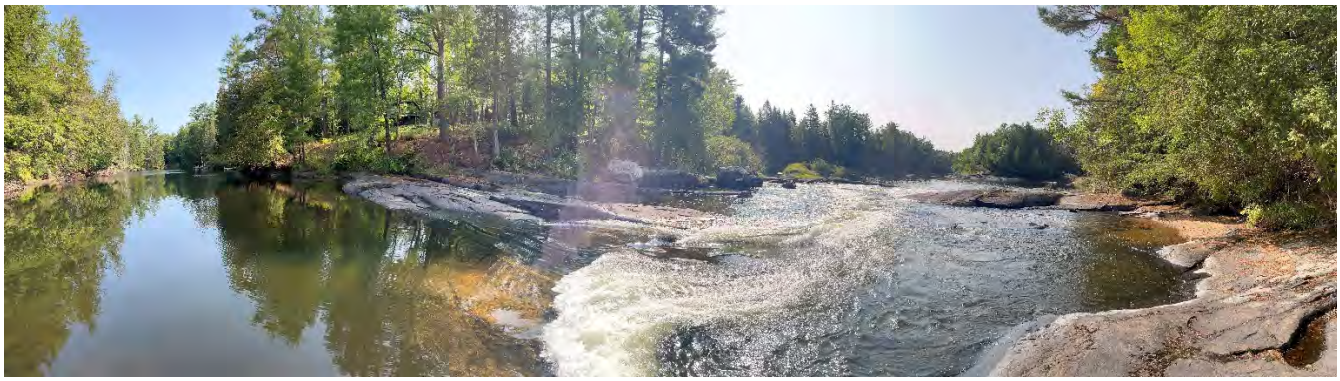
STRUCTURE 4: SPARROW RAPIDS

Upstream Facing Downstream

Downstream facing Upstream

Upstream Facing Upstream

Downstream Facing Downstream



STRUCTURE 5: CONCESSION 11 BRIDGE

Upstream Facing Downstream

Downstream Facing Upstream

Upstream Facing Upstream

Downstream Facing Downstream

Measurements
Rise: 7.56 m
Span: 51.80 m
Height of Railing: 1.12 m
Low Cord: 1.20 m
Structure Type: Bridge

STRUCTURE 6: FIRST RAPIDS D/S OF CONCESSION 11 BRIDGE

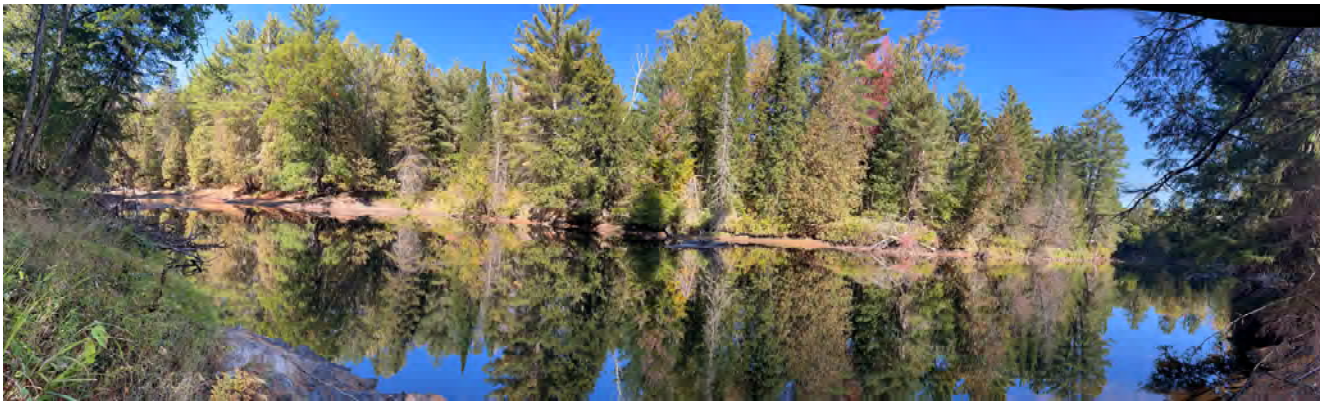
Upstream Facing Upstream

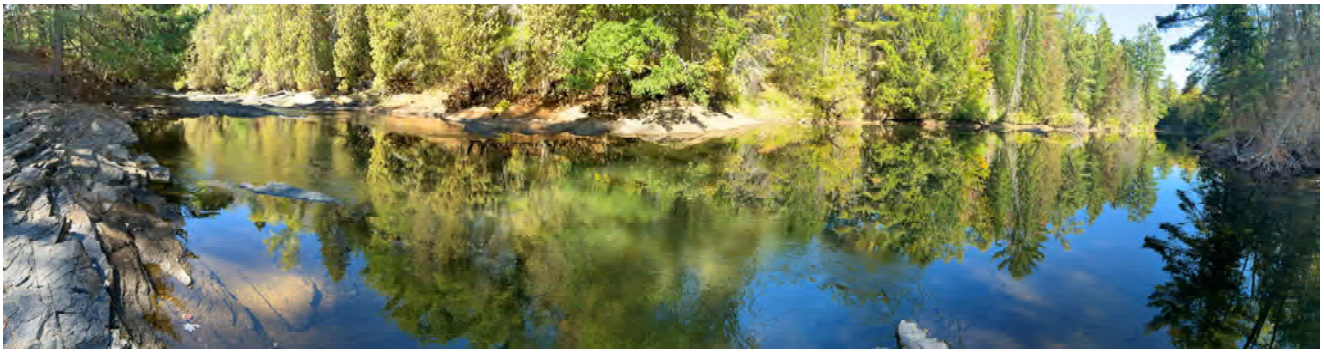
Downstream Facing Upstream

Upstream Facing Downstream

Downstream Facing Downstream

STRUCTURE 7: SECOND RAPIDS D/S OF CONCESSION 11 BRIDGE

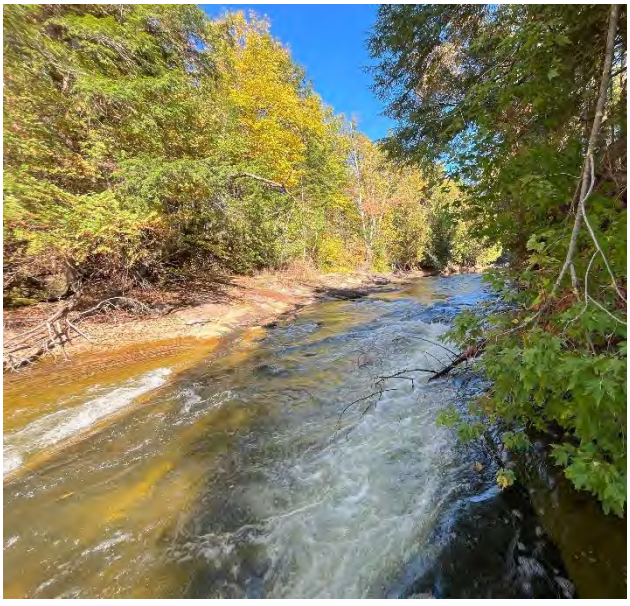




STRUCTURE 8: THIRD SET OF RAPIDS D/S OF CONCESSION 11 BRIDGE

Upstream Facing Upstream

Upstream Facing Downstream



Middle Facing Upstream

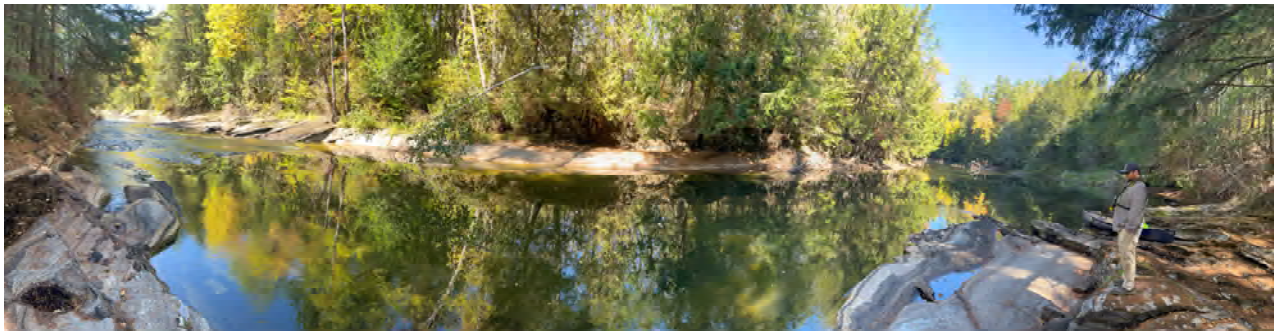
Middle Facing Downstream

Downstream Facing Upstream

Downstream Facing Downstream

Downstream Facing Downstream

Downstream Facing Upstream



STRUCTURE 9: FOURTH RAPIDS D/S OF CONCESSION 11 BRIDGE

Downstream Looking Upstream

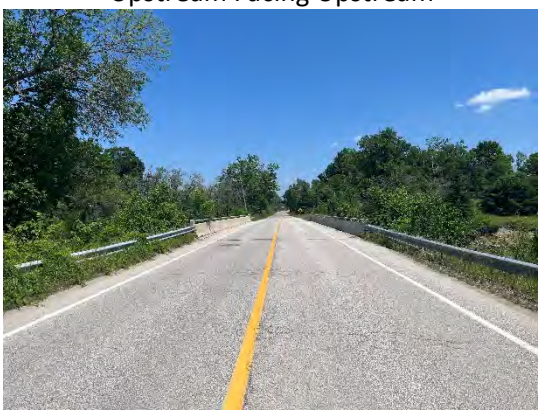
STRUCTURE 10: HILLDSIDE DRIVE BRIDGE

Upstream Facing Downstream

Downstream Facing Upstream

Upstream Facing Upstream

Downstream Facing Downstream



Measurements
Structure: Bridge
Rise: 7.0 m
Span: 29.85 m
Height of Railing: 1.1 m
Low Cord: 2.6 m
Structure Type: Bridge

Starting from Upstream Study Limit

Kinmount Dam

Station 1

Upstream

Downstream

Station 2

Upstream

Downstream

Station 3

Upstream

Downstream

Station 4

Upstream

Downstream

First Rapids (DS Kinmount Dam)

Upstream

Downstream

Station 5

Upstream

Downstream

Station 6

Upstream

Downstream

Station 7

Upstream

Downstream

Station 8 &9

Upstream

Downstream

Station 10

Upstream

Downstream

Station 11

Upstream

Downstream

Station 12

Upstream

Downstream

Three Sisters Rapids - Upstream Looking Downstream

Downstream

Middle Profile

Downstream Middle

Middle Profile

Looking Upstream from Downstream of Middle

Big Pool Below Middle Section

Looking Upstream

Looking Downstream

Three Sister Rapids Outlet

Looking Downstream From Outlet

Station 13

Upstream

Downstream

Station 14

Upstream

Downstream

Station 15

Upstream

Downstream

Station 16

Upstream

Downstream

Station 17

Upstream

Downstream

Station 18

Upstream

Downstream

Station 19

Upstream

Downstream

Station 20

Upstream

Downstream

Station 21

Upstream

Downstream

Station 22

Upstream

Downstream

Station 23

Upstream

Downstream

Station 24

Upstream

Downstream

Station 25

Upstream

Downstream

Station 26

Upstream

Downstream

Station 27

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Downstream

Station 28

Upstream

Downstream

Station 29

Upstream

Downstream

Station 30

Upstream

Downstream

Station 31

Upstream

Downstream

Station 32

Upstream

Downstream

Station 33

Upstream

Downstream

Station 34

Upstream

Downstream

Station 35

Upstream

Downstream

Station 36

Upstream

Downstream

Station 37

Upstream

Downstream

Station 38

Upstream

Downstream

Station 39

Upstream

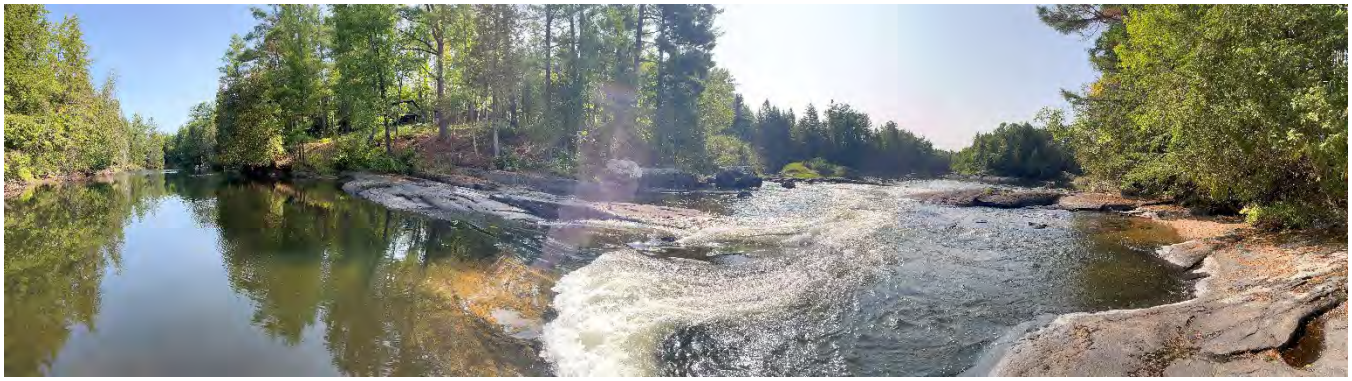
Downstream

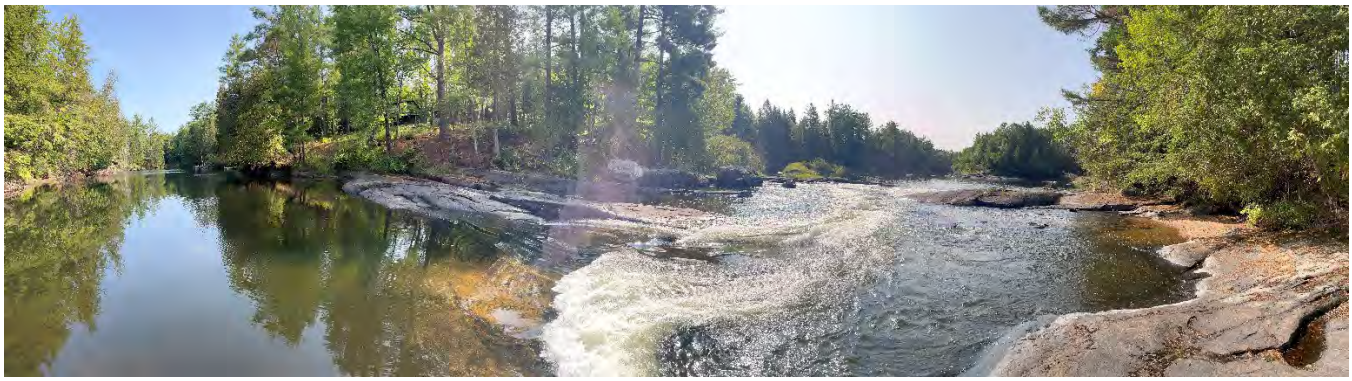
Sparrow Rapids

Upstream

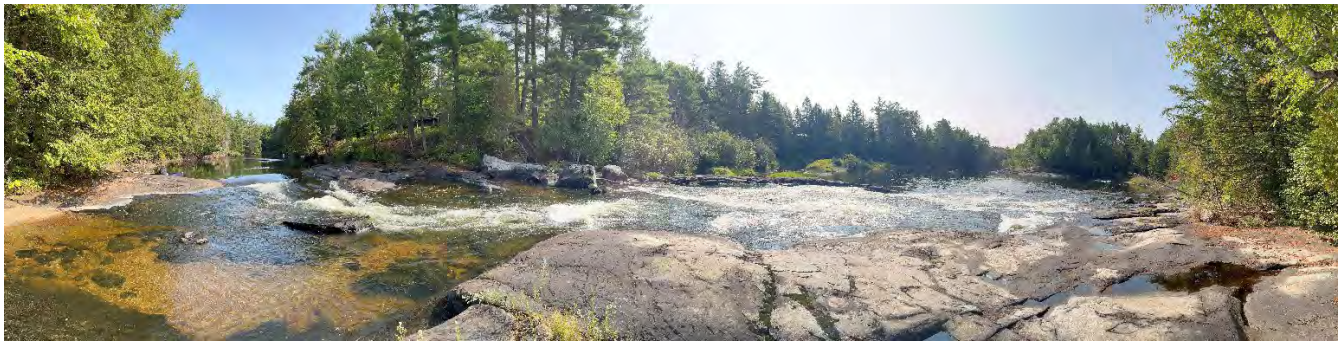
Downstream

Side Profile





Upstream



Middle

Downstream

Downstream Looking Upstream

Looking Upstream at Outlet

Looking Downstream from Outlet

Station 40

Upstream

Downstream

Station 41

Upstream

Downstream

Station 42

Upstream

Downstream

Somerville Concession 11 Bridge

Upstream

Downstream

Station 43

Upstream

Downstream

Station 44

Upstream

Downstream

Station 45

Upstream

Downstream

Station 46

Upstream

Downstream

Station 47

Upstream

Downstream

Station 48

Upstream

Downstream

Station 49

Upstream

Downstream

Station 50

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Downstream

Station 51

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Station 52

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Station 68

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Station 69

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Downstream

Station 70

Upstream

Downstream

Station 71

Upstream

Downstream

Station 72

Upstream

Downstream

Station 73

Upstream

Downstream

Station 74

Upstream

Downstream

Station 75

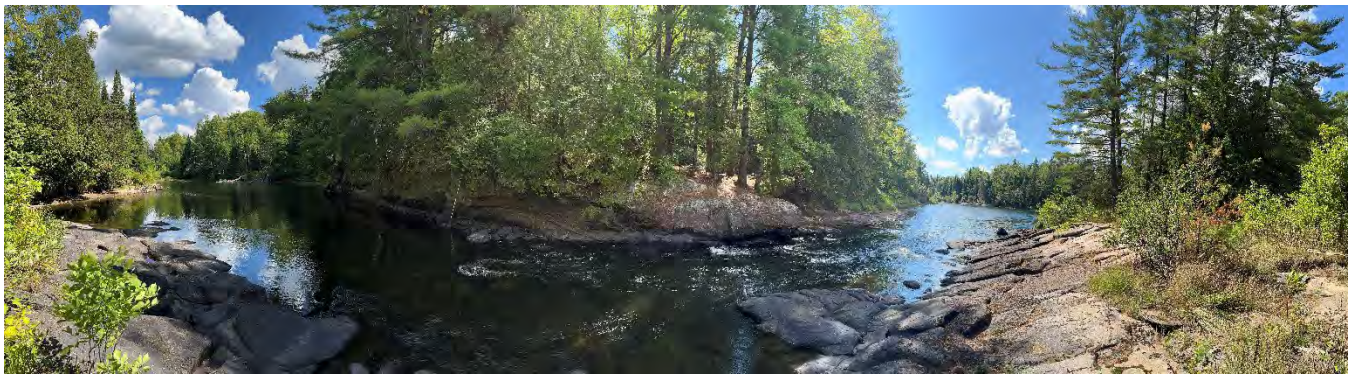
Upstream

Downstream

First Set of Rapids Downstream Concession 11

Upstream

Downstream



Middle

Upstream

Looking Upstream at Outlet

Looking Downstream From Outlet

Station 76

Upstream

Downstream

Station 77

Upstream

Downstream

Station 78

Upstream

Downstream

Station 79

Upstream

Downstream

Station 80

Upstream

Downstream

Station 81

Upstream

Downstream

Station 82

Upstream

Downstream

Station 83

Upstream

Downstream

Station 84

Upstream

Downstream

Station 85

Upstream

Downstream

Station 86

Upstream

Downstream

Section 87

Upstream

Downstream

Station 88

Upstream

Downstream

Station 89

Upstream

Downstream

Station 90

Upstream

Downstream

Station 91

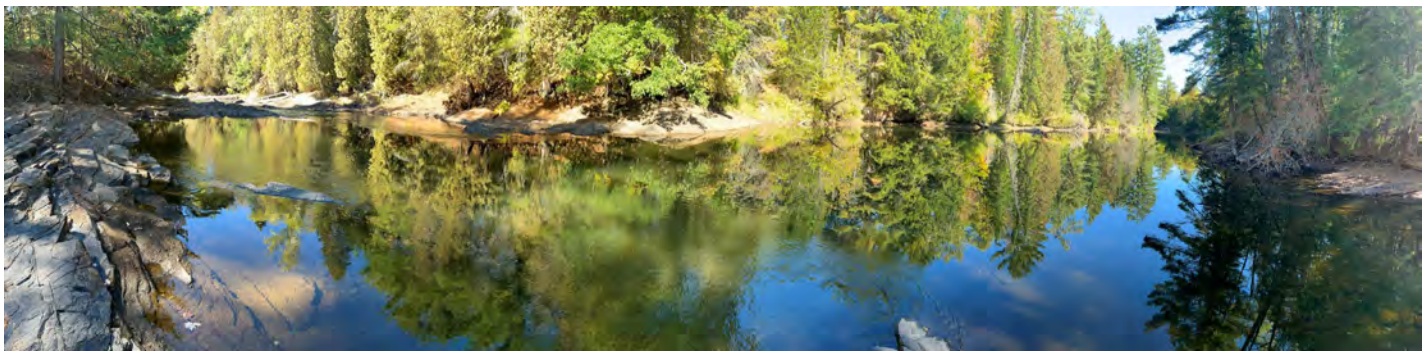
Upstream

Downstream

Second Set of Rapids Downstream of Concession 11

Upstream

Downstream



Station 92

Upstream (Looking at Outlet)

Downstream (Looking from Outlet)

Station 93

Upstream

Downstream

Station 94

Upstream

Downstream

Station 95

Upstream

Downstream

Station 96

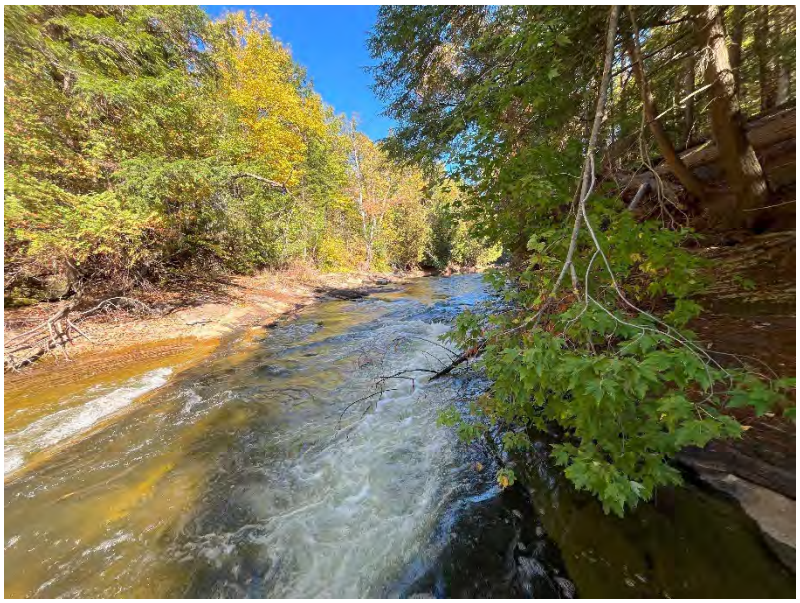
Upstream

Downstream

Third Set of Rapids Downstream Concession 11

Upstream

Downstream



Upstream

Middle

Downstream

Station 97

Upstream

Downstream

Station 98

Upstream

Downstream

Station 99

Upstream

Downstream

Station 100

Upstream

Downstream

Station 101

Upstream

Downstream

Station 102

Upstream

Downstream

Station 103

Upstream

Downstream

Fourth Set of Rapids Downstream of Concession 11

Station 104

Upstream

Downstream

Station 105

Upstream

Downstream

Station 106

Upstream

Downstream

Station 107

Upstream

Downstream

Station 108

Upstream

Downstream

Station 109

Upstream

Downstream

Station 110 & 111

Upstream

Downstream

Station 112 & 113

Upstream

Downstream

Ontario Ministry of Natural Resources and Forestry

COSINE Station Report

Retrieval Date: 2025-Dec-17

Control Survey Information Exchange

Station:

0011919U297G

AKA Names:00119U297G, 19U297G, 297G, VA88

Number of Ref Sketches: 0

Networks [usage]:

Known Status: Existing

Last Reported Visit:

Monument Type: -

Station Type: SPIR

Location Description:

Township: BURNT_RIVER FORMER C.N.R. (NOW VICTORIA RAIL TRAIL NORTH CORRIDOR), ROCK RIDGE AT WEST SIDE OF FORMER TRACKS, 6.0 KM NORTH OF BURNT RIVER STATION, 0.85 KM SOUTH OF INTERSECTION WITH PINERY ROAD, BOLT IN EAST FACE OF A SMALL LEDGE NEAR BASE OF RIDGE, 30.5 M WEST OF WESTERLY LIMIT OF RIGHT-OF-WAY, 36.6 M SOUTH OF NORTH END OF RIDGE.

No Photo

Horizontal (Ellipsoidal) Control Data

Datum: **Approximate NAD83-ORIG coordinates computed from map**	Horiz Order:	Ellipsoidal Order:
Latitude: N44° 43′ 38.7xxxxx″	Longitude: W78° 41′ 00.4xxxxx″	Ellipsoidal elev:

*UTM Zone: 17	E: E683442.xxx	N: N4955281.xxx	C. S. F.: 1.00001382	Mrdl Convg: 1° 37′ 50.5″
*MTM Zone: 10	E: E369479.xxx	N: N4954481.xxx	C. S. F.: 0.99995142	Mrdl Convg: 0° 34′ 28.7″

Vertical (Geoidal) Control Data

Datum: **CGVD2013**	Vert Order: First Order	Elevation: 275.668	
Geoid:	Meridional defl:	Prime vert defl:	Undulation:

Datum: **CGVD28:78**	Vert Order: First Order	Elevation: 275.992	
Geoid:	Meridional defl:	Prime vert defl:	Undulation:

Maintenance / History

Date	Description
2019-Mar-20	GSC; last inspected: --
2023-Dec-10	Found in stable condition by private OLS

Reference Sketches

Reference sketch for 0011919U297G is not available.

Appendix B

Hydrology

```
================================================================================
==========================

      V    V   I    SSSSS  U   U    A    L              (v 6.2.2017)
      V    V   I    SS     U   U   A A   L
       V  V    I     SS    U   U  AAAAA  L
       V  V    I      SS   U   U  A   A  L
        VV     I    SSSSS  UUUUU  A   A  LLLLL

       OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
      O   O    T      T    H   H   Y Y   MM MM  O   O
      O   O    T      T    H   H    Y    M   M  O   O
       OOO     T      T    H   H    Y    M   M   OOO
Developed and Distributed by Smart City Water Inc
Copyright 2007 - 2022 Smart City Water Inc
All rights reserved.


                  *****  D E T A I L E D   O U T P U T *****


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output   filename:  C:\Users\rgood\AppData\Local\Civica\VH5\26d0da80-2810-4509-
ab0a-c453ed50a310\69f022a4-800a-4ea4-93ce-42a2b80dbba0\scenar
  Summary  filename:  C:\Users\rgood\AppData\Local\Civica\VH5\26d0da80-2810-4509-
ab0a-c453ed50a310\69f022a4-800a-4ea4-93ce-42a2b80dbba0\scenar


DATE: 12/09/2025                              TIME: 03:54:59

USER:



COMMENTS: ________________________________________________________________


--------------------------------------------------------------------------------
--------------------------
  **********************************************
  ** SIMULATION : Timmins (66)                 **
  **********************************************



--------------------
|    READ STORM    |    Filename: C:\Users\rgood\AppD
|                  |              ata\Local\Temp\
|                  |              1c26ed5c-32e6-46be-8d7d-2ba8590016e5\63a4e899
| Ptotal=127.38 mm |    Comments: Timmins Storm  event   mm/hr
--------------------
                TIME     RAIN |  TIME     RAIN |'  TIME     RAIN |  TIME     RAIN
                 hrs    mm/hr |   hrs    mm/hr |'   hrs    mm/hr |   hrs    mm/hr
                0.00     9.90 |  3.00     1.98 |  6.00    28.38 |  9.00     8.58
                0.17     9.90 |  3.17     1.98 |  6.17    28.38 |  9.17     8.58
                0.33     9.90 |  3.33     1.98 |  6.33    28.38 |  9.33     8.58
                0.50     9.90 |  3.50     1.98 |  6.50    28.38 |  9.50     8.58
                0.67     9.90 |  3.67     1.98 |  6.67    28.38 |  9.67     8.58
                0.83     9.90 |  3.83     1.98 |  6.83    28.38 |  9.83     8.58
                1.00    13.20 |  4.00     3.30 |  7.00    13.20 | 10.00     8.58
                1.17    13.20 |  4.17     3.30 |  7.17    13.20 | 10.17     8.58
                1.33    13.20 |  4.33     3.30 |  7.33    13.20 | 10.33     8.58
                1.50    13.20 |  4.50     3.30 |  7.50    13.20 | 10.50     8.58
                1.67    13.20 |  4.67     3.30 |  7.67    13.20 | 10.67     8.58
                1.83    13.20 |  4.83     3.30 |  7.83    13.20 | 10.83     8.58
```

2.00	6.60	5.00	13.20	8.00	15.18	11.00	5.28
2.17	6.60	5.17	13.20	8.17	15.18	11.17	5.28
2.33	6.60	5.33	13.20	8.33	15.18	11.33	5.28
2.50	6.60	5.50	13.20	8.50	15.18	11.50	5.28
2.67	6.60	5.67	13.20	8.67	15.18	11.67	5.28
2.83	6.60	5.83	13.20	8.83	15.18	11.83	5.28

CALIB			
NASHYD (3000)	Area (ha)=6379.70	Curve Number (CN)= 89.6	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	
	U.H. Tp(hrs)= 36.00		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 3.727

PEAK FLOW (cms)= 14.444 (i)
TIME TO PEAK (hrs)= 43.167
RUNOFF VOLUME (mm)= 52.666
TOTAL RAINFALL (mm)= 127.380

```
     RUNOFF COEFFICIENT   =   0.413

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
--------------------
| RESERVOIR(  0501)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  5.0 min     |     OUTFLOW    STORAGE    |  OUTFLOW    STORAGE
--------------------      (cms)     (ha.m.)    |   (cms)     (ha.m.)
                           0.0000      0.0000   |   16.6000    ********
                           1.0000    925.9000   |    0.0000      0.0000

                                  AREA     QPEAK     TPEAK       R.V.
                                  (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  3000)   6379.700     14.444     43.17      52.67
   OUTFLOW: ID= 1 (  0501)   6379.700      0.569    166.58       3.01

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)=  3.94
                  TIME SHIFT OF PEAK FLOW          (min)=******
                  MAXIMUM  STORAGE   USED        (ha.m.)=526.9030

--------------------------------------------------------------------------------
--------------------
| ROUTE CHN(102900)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
--------------------
               <------ DATA FOR SECTION (   1.1) ------>
               Distance      Elevation       Manning
                   0.00        374.13        0.0800
                  97.00        355.71    0.0800 /0.0300  Main Channel
                 107.00        355.71    0.0300 /0.0800  Main Channel
                 194.00        372.46        0.0800

      <---------------------- TRAVEL TIME TABLE ---------------------->
       DEPTH    ELEV      VOLUME    FLOW RATE    VELOCITY   TRAV.TIME
         (m)      (m)     (cu.m.)      (cms)        (m/s)      (min)
        0.88   356.59    .175E+06      13.6          1.05     214.46
        1.76   357.47    .459E+06      48.8          1.44     157.00
        2.64   358.35    .854E+06     107.1          1.70     133.03
        3.53   359.24    .136E+07     191.0          1.90     118.66
        4.41   360.12    .198E+07     303.2          2.08     108.56
        5.29   361.00    .270E+07     446.4          2.24     100.83
        6.17   361.88    .354E+07     623.1          2.39      94.60
        7.05   362.76    .448E+07     835.8          2.53      89.39
        7.93   363.64    .554E+07    1086.9          2.66      84.94
        8.82   364.53    .671E+07    1378.8          2.79      81.06
        9.70   365.41    .798E+07    1713.7          2.91      77.64
       10.58   366.29    .937E+07    2093.9          3.03      74.58
       11.46   367.17    .109E+08    2521.5          3.15      71.83
       12.34   368.05    .125E+08    2998.8          3.26      69.33
       13.22   368.93    .142E+08    3527.8          3.37      67.05
       14.11   369.82    .160E+08    4110.5          3.48      64.95
       14.99   370.70    .180E+08    4749.1          3.59      63.02
       15.87   371.58    .200E+08    5445.4          3.69      61.23
       16.75   372.46    .222E+08    6201.4          3.79      59.57

                                    <---- hydrograph ---->   <-pipe / channel->
                              AREA    QPEAK   TPEAK   R.V.   MAX DEPTH  MAX VEL
                              (ha)    (cms)   (hrs)   (mm)      (m)      (m/s)
   INFLOW : ID= 2 (  0501) 6379.70     0.57  166.58   3.01      0.04      1.05
   OUTFLOW: ID= 1 (102900) 6379.70     0.56  166.58   2.89      0.04      1.05
```

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--------------------
| CALIB              |
| NASHYD   (  2900)|   Area    (ha)=8136.80   Curve Number   (CN)= 93.8
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 1.70
--------------------   U.H. Tp(hrs)=  34.20

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.
```

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

```
    Unit Hyd Qpeak  (cms)=   5.003

    PEAK FLOW       (cms)=  21.153 (i)
    TIME TO PEAK    (hrs)=  41.167
    RUNOFF VOLUME    (mm)=  60.305
    TOTAL RAINFALL   (mm)= 127.380
    RUNOFF COEFFICIENT   =   0.473

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| ROUTE CHN(962400)|
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| IN= 2---> OUT= 1 | Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	359.89	0.1000	
156.82	355.69	0.1000 /0.0300	Main Channel
171.62	356.28	0.0300 /0.1000	Main Channel
260.01	357.79	0.1000	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.11	355.80	.577E+02	0.1	0.27	9.37
0.22	355.91	.231E+03	0.7	0.43	5.91
0.33	356.02	.519E+03	1.9	0.56	4.51
0.44	356.13	.923E+03	4.1	0.68	3.72
0.55	356.24	.144E+04	7.5	0.79	3.21
0.66	356.35	.209E+04	12.7	0.92	2.75
0.77	356.46	.291E+04	19.6	1.02	2.47
0.88	356.57	.391E+04	28.3	1.10	2.30
0.99	356.68	.509E+04	39.0	1.16	2.18
1.11	356.80	.644E+04	51.7	1.21	2.08
1.22	356.91	.797E+04	66.6	1.26	2.00
1.33	357.02	.968E+04	83.8	1.31	1.92
1.44	357.13	.116E+05	103.5	1.35	1.86
1.55	357.24	.136E+05	125.8	1.40	1.81
1.66	357.35	.159E+05	150.8	1.44	1.75
1.77	357.46	.183E+05	178.7	1.48	1.71
1.88	357.57	.209E+05	209.5	1.52	1.66
1.99	357.68	.237E+05	243.4	1.56	1.62
2.10	357.79	.266E+05	280.5	1.60	1.58

		<---- hydrograph ---->			<-pipe / channel->	
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2 (2900)	8136.80	21.15	41.17	60.30	0.79	1.03
OUTFLOW: ID= 1 (962400)	8136.80	21.15	41.25	95.23	0.79	1.03

CALIB			
NASHYD (2700)	Area (ha)=2465.80	Curve Number (CN)= 89.6	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	
	U.H. Tp(hrs)= 47.40		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58

1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 1.094

PEAK FLOW (cms)= 4.243 (i)
TIME TO PEAK (hrs)= 54.500
RUNOFF VOLUME (mm)= 40.044
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.314

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ROUTE CHN(102800)
IN= 2---> OUT= 1

Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	375.00	0.0800	
116.00	364.42	0.0800 /0.0300	Main Channel
150.00	364.42	0.0300 /0.0800	Main Channel
232.00	377.07	0.0800	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.56	364.98	.182E+06	29.0	1.34	104.49
1.11	365.53	.409E+06	96.2	1.98	70.84
1.67	366.09	.682E+06	197.4	2.43	57.57
2.23	366.65	.100E+07	332.1	2.79	50.19
2.78	367.20	.136E+07	500.9	3.09	45.37
3.34	367.76	.177E+07	704.8	3.34	41.92
3.90	368.32	.223E+07	945.0	3.57	39.28
4.45	368.87	.273E+07	1222.6	3.77	37.18
5.01	369.43	.327E+07	1539.0	3.95	35.44
5.57	369.99	.386E+07	1895.5	4.12	33.97
6.13	370.55	.450E+07	2293.4	4.28	32.70
6.68	371.10	.518E+07	2734.0	4.43	31.59
7.24	371.66	.591E+07	3218.7	4.58	30.60

7.80	372.22	.668E+07	3748.9	4.71	29.71
8.35	372.77	.750E+07	4325.7	4.85	28.90
8.91	373.33	.836E+07	4950.5	4.97	28.16
9.47	373.89	.927E+07	5624.7	5.10	27.48
10.02	374.44	.102E+08	6349.5	5.22	26.85
10.58	375.00	.112E+08	7126.2	5.33	26.26

		<---- hydrograph ---->			<-pipe / channel->	
	AREA	QPEAK	TPEAK	R.V.	MAX DEPTH	MAX VEL
	(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (2700)	2465.80	4.24	54.50	40.04	0.08	1.34
OUTFLOW: ID= 1 (102800)	2465.80	4.24	56.33	74.33	0.08	1.34

CALIB			
NASHYD (2800)	Area (ha)= 1188.80	Curve Number (CN)= 97.9	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	
	U.H. Tp(hrs)= 35.85		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

```
     Unit Hyd Qpeak  (cms)=   0.697

     PEAK FLOW       (cms)=   3.211 (i)
     TIME TO PEAK    (hrs)=  42.583
     RUNOFF VOLUME    (mm)=  63.172
     TOTAL RAINFALL   (mm)= 127.380
     RUNOFF COEFFICIENT   =   0.496

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| ROUTE CHN(972400)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
--------------------
               <------ DATA FOR SECTION (   1.1) ------>
               Distance      Elevation       Manning
                   0.00        366.87        0.1000
                  33.51        360.80    0.1000 /0.0300  Main Channel
                  44.60        359.42        0.0300      Main Channel
                 114.26        364.95    0.0300 /0.1000  Main Channel
                 150.00        366.00        0.1000

      <---------------------- TRAVEL TIME TABLE ---------------------->
       DEPTH     ELEV      VOLUME    FLOW RATE    VELOCITY   TRAV.TIME
         (m)      (m)     (cu.m.)      (cms)        (m/s)      (min)
        0.34   359.76    .715E+03       0.6          0.51      18.84
        0.69   360.11    .286E+04       4.0          0.82      11.87
        1.03   360.45    .643E+04      11.8          1.07       9.06
        1.38   360.80    .114E+05      25.5          1.30       7.48
        1.73   361.15    .178E+05      47.7          1.56       6.22
        2.07   361.49    .255E+05      77.4          1.77       5.48
        2.42   361.84    .344E+05     115.1          1.95       4.98
        2.77   362.19    .445E+05     161.5          2.11       4.60
        3.11   362.53    .560E+05     217.3          2.26       4.29
        3.46   362.88    .687E+05     283.0          2.40       4.05
        3.81   363.23    .827E+05     359.3          2.53       3.84
        4.15   363.57    .979E+05     446.8          2.65       3.65
        4.50   363.92    .114E+06     545.9          2.78       3.49
        4.85   364.27    .132E+06     657.4          2.89       3.35
        5.19   364.61    .151E+06     781.7          3.01       3.23
        5.54   364.96    .172E+06     920.3          3.12       3.11
        5.89   365.31    .194E+06    1103.3          3.31       2.93
        6.23   365.65    .219E+06    1302.0          3.46       2.80
        6.58   366.00    .247E+06    1517.3          3.57       2.71

                                    <---- hydrograph ---->   <-pipe / channel->
                              AREA    QPEAK   TPEAK   R.V.   MAX DEPTH  MAX VEL
                              (ha)    (cms)   (hrs)   (mm)      (m)      (m/s)
   INFLOW : ID= 2 (  2800) 1188.80     3.21   42.58  63.17      0.61      0.72
   OUTFLOW: ID= 1 (972400) 1188.80     3.21   42.75 101.93      0.61      0.71



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--------------------
| ADD HYD  (  0111)|
|   1 +  2 =  3    |         AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (102800):  2465.80   4.241    56.33    74.33
     + ID2= 2 (102900):  6379.70   0.564   166.58     2.89
       ==========================================================
```

```
        ID = 3 (  0111):  8845.50   4.462    60.67    22.81

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------


--------------------
| ADD HYD  (  0111)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
        ID1= 3 (  0111):  8845.50   4.462    60.67    22.81
      + ID2= 2 (962400):  8136.80  21.153    41.25    95.23
        ================================================
        ID = 1 (  0111): 16982.30  25.370    43.58    57.51

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------


--------------------
| ADD HYD  (  0111)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0111): 16982.30  25.370    43.58    57.51
      + ID2= 2 (972400):  1188.80   3.211    42.75   101.93
        ================================================
        ID = 3 (  0111): 18171.10  28.580    43.50    60.41

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------
--------------------
| ROUTE CHN(102400)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
--------------------
               <------ DATA FOR SECTION (   1.1) ------>
               Distance      Elevation       Manning
                   0.00        330.00        0.0900
                 180.00        326.64    0.0900 /0.0300  Main Channel
                 210.00        326.70    0.0300 /0.0800  Main Channel
                 361.00        331.70        0.0800

      <---------------------- TRAVEL TIME TABLE ---------------------->
       DEPTH     ELEV      VOLUME    FLOW RATE    VELOCITY   TRAV.TIME
        (m)       (m)     (cu.m.)      (cms)        (m/s)      (min)
       0.18   326.82    .137E+06       1.6          0.29     ******
       0.35   326.99    .362E+06       6.3          0.44     952.53
       0.53   327.17    .652E+06      14.0          0.54     779.33
       0.71   327.35    .101E+07      24.5          0.61     685.36
       0.88   327.52    .143E+07      38.2          0.67     624.03
       1.06   327.70    .192E+07      55.2          0.72     579.56
       1.24   327.88    .247E+07      75.7          0.77     545.08
       1.41   328.05    .310E+07      99.8          0.81     517.10
       1.59   328.23    .378E+07     127.7          0.85     493.62
       1.77   328.41    .453E+07     159.6          0.89     473.43
       1.95   328.59    .535E+07     195.8          0.92     455.75
       2.12   328.76    .624E+07     236.3          0.95     440.04
       2.30   328.94    .719E+07     281.3          0.99     425.92
       2.48   329.12    .821E+07     331.0          1.02     413.10
       2.65   329.29    .929E+07     385.7          1.05     401.38
       2.83   329.47    .104E+08     445.3          1.07     390.59
       3.01   329.65    .117E+08     510.2          1.10     380.60
       3.18   329.82    .129E+08     580.4          1.13     371.32
       3.36   330.00    .143E+08     656.2          1.16     362.64

                                    <---- hydrograph ---->   <-pipe / channel->
                            AREA    QPEAK   TPEAK   R.V.    MAX DEPTH  MAX VEL
```

		(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (0111)	*******	28.58	43.50	60.41	0.76	0.63
OUTFLOW: ID= 1 (102400)	*******	27.44	56.42	57.63	0.74	0.62

CALIB NASHYD (2400) ID= 1 DT= 5.0 min	Area (ha)=*******	Curve Number (CN)= 93.8
	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70
	U.H. Tp(hrs)= 62.10	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 3.797

PEAK FLOW (cms)= 16.077 (i)
TIME TO PEAK (hrs)= 69.000
RUNOFF VOLUME (mm)= 32.187
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.253

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
NASHYD (2300)	Area (ha)=6277.00	Curve Number (CN)= 89.6	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	
	U.H. Tp(hrs)= 40.05		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 3.296

PEAK FLOW (cms)= 12.778 (i)
TIME TO PEAK (hrs)= 47.167
RUNOFF VOLUME (mm)= 47.613
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.374

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```
| RESERVOIR(  0502)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  5.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                           0.0000      0.0000   |    9.7000    980.5001
                           1.0000    596.8000   |    0.0000      0.0000

                                  AREA     QPEAK     TPEAK       R.V.
                                  (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  2300)   6277.000     12.778     47.17      47.61
   OUTFLOW: ID= 1 (  0502)   6277.000      0.815    166.58       4.25

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)=  6.38
                  TIME SHIFT OF PEAK FLOW          (min)=******
                  MAXIMUM  STORAGE   USED        (ha.m.)=486.6213

--------------------------------------------------------------------------------
--------------------
| ROUTE CHN(102301)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
--------------------
               <------ DATA FOR SECTION (   1.1) ------>
               Distance      Elevation       Manning
                   0.00         383.00        0.1000
                 431.00         374.00    0.1000 /0.0300  Main Channel
                 525.00         374.00        0.0300      Main Channel
                 718.00         374.00    0.0300 /0.1000  Main Channel
                1180.00         379.00        0.1000

      <---------------------- TRAVEL TIME TABLE ---------------------->
       DEPTH     ELEV       VOLUME     FLOW RATE     VELOCITY   TRAV.TIME
         (m)      (m)      (cu.m.)       (cms)         (m/s)      (min)
        0.26   374.26    .245E+05      178.5           2.22       2.29
        0.53   374.53    .520E+05      576.2           3.38       1.50
        0.79   374.79    .825E+05     1151.5           4.26       1.19
        1.05   375.05    .116E+06     1890.3           4.98       1.02
        1.32   375.32    .152E+06     2785.9           5.58       0.91
        1.58   375.58    .192E+06     3834.9           6.11       0.83
        1.84   375.84    .234E+06     5035.6           6.57       0.77
        2.11   376.11    .279E+06     6387.3           6.98       0.73
        2.37   376.37    .327E+06     7890.1           7.35       0.69
        2.63   376.63    .379E+06     9544.7           7.69       0.66
        2.89   376.89    .433E+06    11352.1           8.00       0.64
        3.16   377.16    .490E+06    13313.4           8.29       0.61
        3.42   377.42    .550E+06    15430.2           8.56       0.59
        3.68   377.68    .613E+06    17704.1           8.81       0.58
        3.95   377.95    .679E+06    20136.7           9.05       0.56
        4.21   378.21    .748E+06    22729.9           9.27       0.55
        4.47   378.47    .820E+06    25485.6           9.48       0.54
        4.74   378.74    .895E+06    28405.8           9.68       0.53
        5.00   379.00    .973E+06    31492.6           9.88       0.51

                                     <---- hydrograph ---->   <-pipe / channel->
                                AREA    QPEAK   TPEAK   R.V.   MAX DEPTH  MAX VEL
                                (ha)    (cms)   (hrs)   (mm)       (m)       (m/s)
   INFLOW : ID= 2 (  0502) 6277.00     0.82  166.58   4.25       0.00       2.22
   OUTFLOW: ID= 1 (102301) 6277.00     0.82  166.58   4.25       0.00       2.22



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--------------------
| ROUTE CHN(102300)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
```

```
--------------------
              <------ DATA FOR SECTION (   1.1) ------>
              Distance      Elevation       Manning
                  0.00         342.00        0.1000
                457.00         324.00    0.1000 /0.0300  Main Channel
                531.00         323.00        0.0300      Main Channel
                628.00         330.00    0.0300 /0.1000  Main Channel
                882.00         344.00        0.1000

     <---------------------- TRAVEL TIME TABLE ---------------------->
      DEPTH     ELEV      VOLUME    FLOW RATE    VELOCITY   TRAV.TIME
       (m)       (m)     (cu.m.)      (cms)        (m/s)      (min)
      1.00    324.00    .815E+04      46.1          1.05       2.95
      1.95    324.95    .269E+05     272.4          1.88       1.64
      2.89    325.89    .521E+05     665.9          2.37       1.30
      3.84    326.84    .839E+05    1233.8          2.73       1.13
      4.79    327.79    .122E+06    1988.8          3.02       1.02
      5.74    328.74    .167E+06    2945.1          3.27       0.95
      6.68    329.68    .218E+06    4117.3          3.50       0.88
      7.63    330.63    .276E+06    5654.8          3.79       0.81
      8.58    331.58    .342E+06    7510.8          4.08       0.76
      9.53    332.53    .414E+06    9628.6          4.31       0.72
     10.47    333.47    .494E+06   12016.7          4.51       0.69
     11.42    334.42    .581E+06   14683.0          4.69       0.66
     12.37    335.37    .675E+06   17635.6          4.84       0.64
     13.32    336.32    .777E+06   20882.7          4.99       0.62
     14.26    337.26    .886E+06   24432.4          5.12       0.60
     15.21    338.21    .100E+07   28292.5          5.24       0.59
     16.16    339.16    .112E+07   32471.2          5.35       0.58
     17.11    340.11    .126E+07   36976.5          5.46       0.57
     18.05    341.05    .139E+07   41816.1          5.57       0.56

                                          <---- hydrograph ---->   <-pipe / channel->
                              AREA     QPEAK    TPEAK    R.V.    MAX DEPTH  MAX VEL
                              (ha)     (cms)    (hrs)    (mm)       (m)      (m/s)
   INFLOW : ID= 2 (102301) 6277.00      0.82   166.58    4.25       0.02       1.05
   OUTFLOW: ID= 1 (102300) 6277.00      0.82   166.58    4.25       0.02       1.05



--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0113)|
|   1 +  2 =  3    |          AREA     QPEAK     TPEAK      R.V.
--------------------          (ha)     (cms)     (hrs)      (mm)
        ID1= 1 (102300):  6277.00    0.815    166.58      4.25
      + ID2= 2 (102400): 18171.10   27.442     56.42     57.63
        ==============================================
        ID = 3 (  0113): 24448.10   27.751     56.92     43.93

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0113)|
|   3 +  2 =  1    |          AREA     QPEAK     TPEAK      R.V.
--------------------          (ha)     (cms)     (hrs)      (mm)
        ID1= 3 (  0113): 24448.10   27.751     56.92     43.93
      + ID2= 2 (  2400): 11213.00   16.077     69.00     32.19
        ==============================================
        ID = 1 (  0113): 35661.10   43.641     59.58     51.45

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

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--------------------------------------------------------------------------------
--------------------
| ROUTE CHN(102000)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
--------------------
```

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	350.13	0.0800	
230.00	315.89	0.0800 /0.0300	Main Channel
250.00	315.89	0.0300 /0.0800	Main Channel
460.00	327.53	0.0800	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.61	316.50	.183E+06	15.6	0.92	196.45
1.23	317.12	.468E+06	55.0	1.28	141.87
1.84	317.73	.853E+06	118.9	1.51	119.55
2.45	318.34	.134E+07	209.7	1.70	106.44
3.06	318.95	.193E+07	329.7	1.86	97.38
3.68	319.57	.261E+07	481.3	2.00	90.52
4.29	320.18	.340E+07	667.0	2.13	85.02
4.90	320.79	.429E+07	889.1	2.25	80.46
5.51	321.40	.528E+07	1150.0	2.36	76.56
6.13	322.02	.637E+07	1451.8	2.47	73.18
6.74	322.63	.757E+07	1796.7	2.58	70.19
7.35	323.24	.886E+07	2186.9	2.68	67.52
7.96	323.85	.103E+08	2624.5	2.78	65.11
8.58	324.47	.117E+08	3111.5	2.88	62.93
9.19	325.08	.133E+08	3649.9	2.97	60.93
9.80	325.69	.150E+08	4241.8	3.06	59.10
10.41	326.30	.168E+08	4889.0	3.15	57.40
11.03	326.92	.187E+08	5593.5	3.24	55.83
11.64	327.53	.207E+08	6357.1	3.33	54.36

		<---- hydrograph ---->			<-pipe / channel->	
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2 (0113)	*******	43.64	59.58	51.45	1.05	1.15
OUTFLOW: ID= 1 (102000)	*******	43.60	61.58	50.78	1.04	1.14

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--------------------------------------------------------------------------------
--------------------
| CALIB              |
| NASHYD   (  2000)|   Area    (ha)=3268.30   Curve Number   (CN)= 93.8
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 1.70
--------------------   U.H. Tp(hrs)=  21.15

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.
```

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58

0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 3.249

PEAK FLOW (cms)= 13.693 (i)
TIME TO PEAK (hrs)= 28.250
RUNOFF VOLUME (mm)= 84.899
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.666

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| ROUTE CHN(0094)|
| IN= 2---> OUT= 1 | Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	295.31	0.1000	
10.00	292.00	0.1000 /0.0300	Main Channel
45.08	292.60	0.0300 /0.1000	Main Channel
63.71	295.80	0.1000	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.17	292.17	.113E+03	0.3	0.32	6.22
0.35	292.35	.452E+03	1.9	0.51	3.92
0.52	292.52	.102E+04	5.7	0.67	2.99
0.70	292.70	.178E+04	13.0	0.89	2.27
0.87	292.87	.259E+04	23.9	1.12	1.80
1.05	293.05	.343E+04	37.4	1.32	1.53
1.22	293.22	.431E+04	53.3	1.50	1.35
1.39	293.39	.522E+04	71.5	1.66	1.22
1.57	293.57	.616E+04	91.9	1.81	1.12
1.74	293.74	.714E+04	114.5	1.94	1.04

1.92	293.92	.814E+04	139.2	2.07	0.97
2.09	294.09	.918E+04	165.9	2.19	0.92
2.26	294.26	.103E+05	194.7	2.30	0.88
2.44	294.44	.114E+05	225.5	2.40	0.84
2.61	294.61	.125E+05	258.3	2.50	0.81
2.79	294.79	.137E+05	293.0	2.59	0.78
2.96	294.96	.149E+05	329.7	2.68	0.75
3.14	295.14	.161E+05	368.3	2.77	0.73
3.31	295.31	.174E+05	408.9	2.85	0.71

		<---- hydrograph ---->			<-pipe / channel->	
	AREA	QPEAK	TPEAK	R.V.	MAX DEPTH	MAX VEL
	(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (2000)	3268.30	13.69	28.25	84.90	0.71	0.90
OUTFLOW: ID= 1 (0094)	3268.30	13.69	28.33	105.44	0.71	0.90

CALIB			
NASHYD (1900)	Area (ha)=3249.40	Curve Number (CN)= 93.8	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	
	U.H. Tp(hrs)= 55.65		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28

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              2.833    6.60 | 5.833   13.20 | 8.833   15.18 | 11.83    5.28
              2.917    6.60 | 5.917   13.20 | 8.917   15.18 | 11.92    5.28
              3.000    6.60 | 6.000   13.20 | 9.000   15.18 | 12.00    5.28

     Unit Hyd Qpeak  (cms)=   1.228

     PEAK FLOW       (cms)=   5.198 (i)
     TIME TO PEAK    (hrs)=  62.583
     RUNOFF VOLUME    (mm)=  36.636
     TOTAL RAINFALL   (mm)= 127.380
     RUNOFF COEFFICIENT   =   0.288

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| ADD HYD  (  0115)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (102000): 35661.10  43.596    61.58    50.78
      + ID2= 2 (  1900):  3249.40   5.198    62.58    36.64
        ================================================
        ID = 3 (  0115): 38910.50  48.794    61.67    52.69

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0115)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
        ID1= 3 (  0115): 38910.50  48.794    61.67    52.69
      + ID2= 2 (  0094):  3268.30  13.693    28.33   105.44
        ================================================
        ID = 1 (  0115): 42178.80  58.547    52.42    56.78

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
--------------------
| ROUTE CHN(101300)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
--------------------
               <------ DATA FOR SECTION (   1.1) ------>
               Distance      Elevation       Manning
                   0.00         320.70        0.0800
                 233.00         297.53    0.0800 /0.0300  Main Channel
                 260.00         297.53    0.0300 /0.0800  Main Channel
                 467.00         351.61        0.0800

      <---------------------- TRAVEL TIME TABLE ---------------------->
       DEPTH     ELEV      VOLUME    FLOW RATE    VELOCITY   TRAV.TIME
         (m)      (m)     (cu.m.)      (cms)        (m/s)      (min)
        1.22   298.75    .121E+06      51.7          1.20      38.88
        2.44   299.97    .299E+06     179.7          1.68      27.73
        3.66   301.19    .535E+06     383.7          2.00      23.24
        4.88   302.41    .829E+06     668.8          2.25      20.65
        6.10   303.63    .118E+07    1041.3          2.46      18.88
        7.32   304.85    .159E+07    1507.5          2.65      17.56
        8.54   306.07    .206E+07    2073.8          2.82      16.52
        9.76   307.29    .258E+07    2746.6          2.97      15.65
       10.98   308.51    .316E+07    3531.9          3.12      14.92
       12.19   309.72    .380E+07    4435.9          3.26      14.28
       13.41   310.94    .450E+07    5464.5          3.39      13.72
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14.63	312.16	.525E+07	6623.6	3.52	13.22
15.85	313.38	.606E+07	7918.8	3.64	12.76
17.07	314.60	.693E+07	9355.8	3.77	12.35
18.29	315.82	.786E+07	10940.1	3.88	11.98
19.51	317.04	.885E+07	12677.2	4.00	11.63
20.73	318.26	.989E+07	14572.3	4.11	11.31
21.95	319.48	.110E+08	16630.8	4.22	11.01
23.17	320.70	.121E+08	18857.8	4.33	10.74

		<---- hydrograph ---->			<-pipe / channel->	
	AREA	QPEAK	TPEAK	R.V.	MAX DEPTH	MAX VEL
	(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (0115) *******		58.55	52.42	56.78	1.28	1.21
OUTFLOW: ID= 1 (101300) *******		58.52	53.08	56.64	1.28	1.21

CALIB			
NASHYD (1300)	Area (ha)=6417.00	Curve Number (CN)= 89.6	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	
	U.H. Tp(hrs)= 74.70		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28

2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 1.806

PEAK FLOW (cms)= 7.011 (i)
TIME TO PEAK (hrs)= 81.833
RUNOFF VOLUME (mm)= 23.362
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.183

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0116)		AREA	QPEAK	TPEAK	R.V.
		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (101300):		42178.80	58.515	53.08	56.64
+ ID2= 2 (1300):		6417.00	7.011	81.83	23.36
ID = 3 (0116):		48595.80	65.065	53.92	56.18

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB NASHYD (1200)			
ID= 1 DT= 5.0 min	Area (ha)=2472.10	Curve Number (CN)= 93.8	
	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	
	U.H. Tp(hrs)= 57.75		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28

2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 0.900

PEAK FLOW (cms)= 3.811 (i)
TIME TO PEAK (hrs)= 64.667
RUNOFF VOLUME (mm)= 35.090
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.275

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
NASHYD (1500)	Area (ha)=3641.70	Curve Number (CN)= 93.8	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	
	U.H. Tp(hrs)= 63.00		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28

2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 1.216

PEAK FLOW (cms)= 5.147 (i)
TIME TO PEAK (hrs)= 69.917
RUNOFF VOLUME (mm)= 31.632
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.248

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0118)	1 + 2 = 3		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
	ID1= 1 (0116):	48595.80	65.065	53.92	56.18
+	ID2= 2 (1200):	2472.10	3.811	64.67	35.09
	ID = 3 (0118):	51067.90	68.838	55.75	56.93

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0118)	3 + 2 = 1		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
	ID1= 3 (0118):	51067.90	68.838	55.75	56.93
+	ID2= 2 (1500):	3641.70	5.147	69.92	31.63
	ID = 1 (0118):	54709.59	73.880	56.00	57.60

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ROUTE CHN(10900)| IN= 2---> OUT= 1 | Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	300.43	0.0800	
168.78	292.39	0.0800 /0.0300	Main Channel
190.00	292.39	0.0300 /0.0800	Main Channel
338.00	312.45	0.0800	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.42	292.81	.574E+05	7.2	0.62	133.86
0.85	293.24	.140E+06	24.7	0.88	94.75
1.27	293.66	.248E+06	52.3	1.05	79.10
1.69	294.08	.382E+06	90.7	1.18	70.13
2.12	294.51	.541E+06	140.6	1.30	64.07
2.54	294.93	.725E+06	202.8	1.40	59.57
2.96	295.35	.934E+06	278.0	1.48	56.01
3.39	295.78	.117E+07	367.0	1.57	53.09

3.81	296.20	.143E+07	470.6	1.64	50.62
4.23	296.62	.171E+07	589.5	1.71	48.47
4.66	297.05	.203E+07	724.5	1.78	46.59
5.08	297.47	.236E+07	876.4	1.85	44.91
5.50	297.89	.272E+07	1045.8	1.91	43.40
5.93	298.32	.311E+07	1233.4	1.98	42.02
6.35	298.74	.352E+07	1439.9	2.04	40.77
6.77	299.16	.396E+07	1666.1	2.10	39.61
7.19	299.59	.442E+07	1912.5	2.16	38.54
7.62	300.01	.491E+07	2179.8	2.21	37.54
8.04	300.43	.542E+07	2468.8	2.27	36.62

		<---- hydrograph ---->		<-pipe / channel->	
	AREA	QPEAK	TPEAK	R.V.	MAX DEPTH	MAX VEL
	(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (0118)	*******	73.88	56.00	57.60	1.51	1.12
OUTFLOW: ID= 1 (10900)	*******	73.86	56.75	57.25	1.50	1.12

CALIB			
NASHYD (2500)	Area (ha)= *******	Curve Number (CN)= 68.6
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70
	U.H. Tp(hrs)= 72.30	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28

2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 3.507

PEAK FLOW (cms)= 8.663 (i)
TIME TO PEAK (hrs)= 79.917
RUNOFF VOLUME (mm)= 15.371
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.121

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| ROUTE CHN(0093)|
| IN= 2---> OUT= 1 | Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	347.17	0.1000	
708.75	322.23	0.1000 /0.0300	Main Channel
890.79	331.28	0.0300 /0.1000	Main Channel
1382.17	350.54	0.1000	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
1.31	323.54	.854E+06	28.8	0.69	494.83
2.63	324.86	.341E+07	182.6	1.09	311.73
3.94	326.17	.768E+07	538.2	1.43	237.89
5.25	327.48	.137E+08	1159.2	1.73	196.37
6.56	328.79	.213E+08	2101.7	2.01	169.23
7.88	330.11	.307E+08	3417.7	2.27	149.86
9.19	331.42	.418E+08	5186.9	2.53	134.41
10.50	332.73	.547E+08	7691.9	2.87	118.63
11.81	334.04	.696E+08	10697.9	3.14	108.38
13.13	335.36	.863E+08	14228.6	3.37	101.06
14.44	336.67	.105E+09	18306.7	3.56	95.49
15.75	337.98	.125E+09	22954.8	3.74	91.05
17.06	339.29	.148E+09	28195.2	3.89	87.37
18.38	340.61	.172E+09	34050.1	4.04	84.24
19.69	341.92	.198E+09	40541.5	4.17	81.52
21.00	343.23	.226E+09	47691.0	4.30	79.12
22.31	344.54	.256E+09	55520.3	4.42	76.97
23.63	345.86	.288E+09	64050.6	4.54	75.01
24.94	347.17	.322E+09	73303.1	4.65	73.23

		<---- hydrograph ---->			<-pipe / channel->	
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2 (2500)	*******	8.66	79.92	15.37	0.40	0.69
OUTFLOW: ID= 1 (0093)	*******	8.62	89.25	33.05	0.39	0.69

CALIB			
NASHYD (1700)	Area (ha)=*******	Curve Number (CN)= 93.8	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	

---------- U.H. Tp(hrs)= 96.90

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 3.645

PEAK FLOW (cms)= 15.155 (i)
TIME TO PEAK (hrs)= 83.167
RUNOFF VOLUME (mm)= 18.100
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.142

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| ROUTE CHN(101700)|
| IN= 2---> OUT= 1 | Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	366.00	0.0900	
400.00	322.00	0.0300	Main Channel

600.00	322.00	0.0300	Main Channel
708.75	331.28	0.0300	Main Channel
890.79	340.00	0.0300 /0.1000	Main Channel
1382.17	350.54	0.1000	

<-------------------- TRAVEL TIME TABLE ---------------------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
1.50	323.50	.661E+07	913.6	2.82	120.63
3.00	325.00	.142E+08	2977.8	4.29	79.39
4.51	326.51	.227E+08	6012.5	5.40	62.96
6.01	328.01	.322E+08	9979.0	6.33	53.78
7.51	329.51	.426E+08	14874.7	7.12	47.79
9.01	331.01	.541E+08	20712.4	7.82	43.50
10.51	332.51	.666E+08	27035.6	8.29	41.03
12.02	334.02	.804E+08	34339.8	8.72	39.04
13.52	335.52	.957E+08	42807.1	9.13	37.26
15.02	337.02	.112E+09	52507.3	9.54	35.66
16.52	338.52	.130E+09	63508.4	9.95	34.21
18.03	340.03	.150E+09	75925.9	10.35	32.88
19.53	341.53	.171E+09	92683.6	11.06	30.78
21.03	343.03	.195E+09	*******	11.62	29.29
22.53	344.53	.222E+09	*******	12.07	28.20
24.03	346.03	.251E+09	*******	12.43	27.37
25.54	347.54	.282E+09	*******	12.74	26.71
27.04	349.04	.317E+09	*******	12.99	26.18
28.54	350.54	.353E+09	*******	13.21	25.75

		<---- hydrograph ---->			<-pipe / channel->	
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2 (1700)	*******	15.15	83.17	18.10	0.03	2.82
OUTFLOW: ID= 1 (101700)	*******	15.44	105.83	44.30	0.03	2.82

ADD HYD (0101)		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3	ID1= 1 (101700):	16794.70	15.435	105.83	44.30
	+ ID2= 2 (0093):	12059.30	8.615	89.25	33.05
	ID = 3 (0101):	28854.00	23.973	98.33	39.60

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0503)	OVERFLOW IS OFF			
IN= 2---> OUT= 1				
DT= 5.0 min	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	6.0000	********
	1.0000	900.0000	10.0000	********
	2.0000	********	32.0000	********
	2.7000	********	0.0000	0.0000

		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0101)		********	23.973	98.33	39.60
OUTFLOW: ID= 1 (0503)		********	1.211	166.58	1.09

PEAK FLOW REDUCTION [Qout/Qin](%)= 5.05
TIME SHIFT OF PEAK FLOW (min)=******
MAXIMUM STORAGE USED (ha.m.)=********

| ROUTE CHN(101800)|
| IN= 2---> OUT= 1 | Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	319.48	0.0800	
111.80	310.57	0.0800 /0.0300	Main Channel
160.00	310.57	0.0300 /0.0800	Main Channel
223.00	314.40	0.0800	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.20	310.77	.480E+05	4.5	0.44	176.04
0.40	310.97	.101E+06	14.7	0.68	114.96
0.60	311.17	.160E+06	29.5	0.86	90.71
0.81	311.38	.225E+06	48.5	1.00	77.25
1.01	311.58	.295E+06	71.7	1.13	68.54
1.21	311.78	.370E+06	98.9	1.24	62.37
1.41	311.98	.451E+06	130.2	1.34	57.74
1.61	312.18	.538E+06	165.6	1.43	54.11
1.81	312.38	.630E+06	205.0	1.52	51.18
2.02	312.59	.727E+06	248.6	1.59	48.74
2.22	312.79	.830E+06	296.3	1.66	46.68
2.42	312.99	.938E+06	348.2	1.73	44.91
2.62	313.19	.105E+07	404.3	1.79	43.37
2.82	313.39	.117E+07	464.8	1.85	42.00
3.02	313.59	.130E+07	529.7	1.90	40.79
3.23	313.80	.143E+07	599.0	1.96	39.70
3.43	314.00	.156E+07	672.8	2.01	38.70
3.63	314.20	.170E+07	751.2	2.05	37.80
3.83	314.40	.185E+07	834.2	2.10	36.97

	AREA (ha)	<---- hydrograph ----> QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	<-pipe / channel-> MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2 (0503)	*******	1.21	166.58	1.09	0.05	0.44
OUTFLOW: ID= 1 (101800)	*******	1.19	166.58	1.05	0.05	0.44

| CALIB |
| NASHYD (1800)|
|ID= 1 DT= 5.0 min |

Area (ha)=1008.70 Curve Number (CN)= 97.9
Ia (mm)= 5.00 # of Linear Res.(N)= 1.70
U.H. Tp(hrs)= 39.15

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58

0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 0.542

PEAK FLOW (cms)= 2.496 (i)
TIME TO PEAK (hrs)= 45.917
RUNOFF VOLUME (mm)= 58.184
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.457

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0102)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (101800):	28854.00	1.190	166.58	1.05
	+ ID2= 2 (1800):	1008.70	2.496	45.92	58.18
	ID = 3 (0102):	29862.70	2.678	54.58	4.34

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ROUTE CHN(101400)		
IN= 2---> OUT= 1	Routing time step (min)'=	5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	319.00	0.0800	
131.00	303.70	0.0800 /0.0300	Main Channel

180.00	303.70	0.0300 /0.0800	Main Channel	
262.00	321.40	0.0800		

<-------------------- TRAVEL TIME TABLE ---------------------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.81	304.51	.569E+05	111.3	2.54	8.52
1.61	305.31	.125E+06	365.5	3.81	5.70
2.42	306.12	.204E+06	742.5	4.73	4.58
3.22	306.92	.294E+06	1238.2	5.47	3.96
4.03	307.73	.396E+06	1852.3	6.09	3.56
4.83	308.53	.508E+06	2586.5	6.62	3.28
5.64	309.34	.632E+06	3443.1	7.09	3.06
6.44	310.14	.767E+06	4424.8	7.51	2.89
7.25	310.95	.913E+06	5534.8	7.89	2.75
8.05	311.75	.107E+07	6776.3	8.24	2.63
8.86	312.56	.124E+07	8152.9	8.57	2.53
9.66	313.36	.142E+07	9667.9	8.87	2.44
10.47	314.17	.161E+07	11324.9	9.16	2.37
11.27	314.97	.181E+07	13127.5	9.44	2.30
12.08	315.78	.202E+07	15079.2	9.70	2.23
12.88	316.58	.225E+07	17183.6	9.95	2.18
13.69	317.39	.248E+07	19444.2	10.20	2.13
14.49	318.19	.273E+07	21864.6	10.43	2.08
15.30	319.00	.298E+07	24448.4	10.66	2.03

		<---- hydrograph ---->			<-pipe / channel->	
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2 (0102) *******		2.68	54.58	4.34	0.02	2.54
OUTFLOW: ID= 1 (101400) *******		2.68	54.75	4.33	0.02	2.54

| CALIB |			
| NASHYD (2600)|	Area (ha)=6847.70	Curve Number (CN)= 68.6	
|ID= 1 DT= 5.0 min |	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	
	U.H. Tp(hrs)= 29.25		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58

1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 4.923

PEAK FLOW (cms)= 12.136 (i)
TIME TO PEAK (hrs)= 36.917
RUNOFF VOLUME (mm)= 39.740
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.312

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR(0504) IN= 2---> OUT= 1 DT= 5.0 min	OVERFLOW IS OFF			
OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	1.4000	648.0000
1.0000	616.0000	4.4000	********

		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2	(2600)	6847.700	12.136	36.92	39.74
OUTFLOW: ID= 1	(0504)	6847.700	0.611	166.58	3.25

PEAK FLOW REDUCTION [Qout/Qin](%)= 5.03
TIME SHIFT OF PEAK FLOW (min)=******
MAXIMUM STORAGE USED (ha.m.)=376.0926

ROUTE CHN(102601) IN= 2---> OUT= 1	Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	415.53	0.1000	
105.00	413.61	0.1000	
184.00	403.26	0.1000 /0.0300	Main Channel
248.00	378.48	0.0300	Main Channel
293.00	374.62	0.0300	Main Channel
329.00	376.49	0.0300 /0.1000	Main Channel
513.00	422.52	0.1000	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
1.87	376.49	.206E+06	159.5	2.95	21.54
3.92	378.54	.785E+06	1112.6	5.41	11.76
5.98	380.60	.154E+07	3065.6	7.60	8.37
8.03	382.65	.240E+07	5822.8	9.26	6.87
10.09	384.71	.336E+07	9357.3	10.61	5.99
12.14	386.76	.444E+07	13667.1	11.75	5.41
14.20	388.82	.561E+07	18762.2	12.75	4.99
16.25	390.87	.690E+07	24659.1	13.64	4.66
18.31	392.93	.829E+07	31378.0	14.45	4.40
20.36	394.98	.978E+07	38941.5	15.19	4.19
22.42	397.04	.114E+08	47373.6	15.88	4.01
24.47	399.09	.131E+08	56699.5	16.52	3.85
26.53	401.15	.149E+08	66944.6	17.14	3.71
28.58	403.20	.168E+08	78135.1	17.72	3.59
30.64	405.26	.189E+08	92009.8	18.58	3.42
32.69	407.31	.211E+08	*******	19.32	3.29
34.75	409.37	.236E+08	*******	19.94	3.19
36.80	411.42	.262E+08	*******	20.47	3.11
38.86	413.48	.290E+08	*******	20.93	3.04

		AREA (ha)	<---- hydrograph ----> QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	<-pipe / channel-> MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2	(0504)	6847.70	0.61	166.58	3.25	0.01	2.95
OUTFLOW: ID= 1	(102601)	6847.70	0.61	166.58	3.24	0.01	2.95

CALIB NASHYD (2100) ID= 1 DT= 5.0 min	Area (ha)=5333.50 Curve Number (CN)= 93.8 Ia (mm)= 5.00 # of Linear Res.(N)= 1.70 U.H. Tp(hrs)= 65.70

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58

1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 1.707

PEAK FLOW (cms)= 7.228 (i)
TIME TO PEAK (hrs)= 72.583
RUNOFF VOLUME (mm)= 30.051
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.236

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| ROUTE CHN(102100)|
| IN= 2---> OUT= 1 | Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	339.82	0.0800	
176.00	337.39	0.0800 /0.0300	Main Channel
200.00	337.00	0.0300 /0.0800	Main Channel
352.00	359.14	0.0800	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.15	337.15	.104E+05	0.2	0.30	784.05
0.30	337.30	.416E+05	1.4	0.47	493.92
0.45	337.45	.937E+05	4.4	0.65	356.85
0.59	337.59	.169E+06	9.8	0.81	287.24
0.74	337.74	.270E+06	17.6	0.91	256.05
0.89	337.89	.394E+06	27.7	0.98	236.91
1.04	338.04	.543E+06	40.6	1.04	223.11
1.19	338.19	.717E+06	56.3	1.10	212.20
1.34	338.34	.915E+06	75.0	1.14	203.09
1.48	338.48	.114E+07	97.1	1.19	195.22
1.63	338.63	.138E+07	122.5	1.23	188.25
1.78	338.78	.165E+07	151.5	1.28	182.00
1.93	338.93	.195E+07	184.3	1.32	176.32
2.08	339.08	.227E+07	221.1	1.36	171.12
2.23	339.23	.261E+07	262.0	1.40	166.32
2.37	339.37	.298E+07	307.1	1.44	161.86
2.52	339.52	.338E+07	356.7	1.47	157.71
2.67	339.67	.379E+07	411.0	1.51	153.83
2.82	339.82	.424E+07	470.0	1.55	150.19

	<---- hydrograph ---->			<-pipe / channel->	
AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	MAX DEPTH (m)	MAX VEL (m/s)

INFLOW : ID= 2 (2100)	5333.50	7.23	72.58	30.05	0.52	0.73
OUTFLOW: ID= 1 (102100)	5333.50	7.21	77.08	62.86	0.52	0.72

CALIB NASHYD (2200) ID= 1 DT= 5.0 min	Area (ha)=3089.20	Curve Number (CN)= 89.6
	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70
	U.H. Tp(hrs)= 24.15	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 2.690

PEAK FLOW (cms)= 10.404 (i)
TIME TO PEAK (hrs)= 31.417
RUNOFF VOLUME (mm)= 71.863
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.564

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------------------------------------------------------------------
--------------------
| ROUTE CHN(102200)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
--------------------
              <------ DATA FOR SECTION (   1.1) ------>
              Distance      Elevation       Manning
                  0.00         392.15        0.1000
                375.00         371.63    0.1000 /0.0300  Main Channel
                479.00         359.08        0.0300      Main Channel
                599.00         359.47        0.0300      Main Channel
                695.00         355.05        0.0300      Main Channel
                900.00         367.55    0.0300 /0.1000  Main Channel
               1223.00         380.00        0.1000

     <---------------------- TRAVEL TIME TABLE ---------------------->
      DEPTH     ELEV       VOLUME     FLOW RATE     VELOCITY   TRAV.TIME
       (m)       (m)      (cu.m.)       (cms)         (m/s)      (min)
      1.25    356.30     .138E+06       80.4           2.70       28.55
      2.50    357.55     .551E+06      510.4           4.29       17.98
      3.75    358.80     .124E+07     1504.8           5.62       13.72
      5.00    360.05     .263E+07     3181.8           5.59       13.79
      6.25    361.30     .449E+07     7266.9           7.48       10.30
      7.50    362.55     .653E+07    12782.3           9.05        8.51
      8.75    363.80     .874E+07    19711.0          10.43        7.39
     10.00    365.05     .111E+08    28069.0          11.66        6.61
     11.25    366.30     .137E+08    37887.6          12.78        6.03
     12.50    367.55     .165E+08    49207.0          13.83        5.58
     13.88    368.93     .198E+08    65063.1          15.23        5.06
     15.27    370.32     .234E+08    82890.6          16.42        4.70
     16.65    371.70     .273E+08    *******          17.45        4.42
     18.03    373.08     .315E+08    *******          18.53        4.16
     19.42    374.47     .361E+08    *******          19.43        3.97
     20.80    375.85     .412E+08    *******          20.20        3.82
     22.18    377.23     .466E+08    *******          20.85        3.70
     23.57    378.62     .524E+08    *******          21.41        3.60
     24.95    380.00     .586E+08    *******          21.91        3.52

                                    <---- hydrograph ---->   <-pipe / channel->
                               AREA    QPEAK   TPEAK   R.V.   MAX DEPTH  MAX VEL
                               (ha)    (cms)   (hrs)   (mm)      (m)       (m/s)
   INFLOW : ID= 2 (  2200) 3089.20    10.40   31.42  71.86      0.16       2.70
   OUTFLOW: ID= 1 (102200) 3089.20    10.40   31.92  95.02      0.16       2.70



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--------------------
| RESERVOIR(  0505)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  5.0 min     |     OUTFLOW    STORAGE    |  OUTFLOW    STORAGE
--------------------      (cms)     (ha.m.)    |   (cms)     (ha.m.)
                           0.0000      0.0000   |    2.0000    430.0000
                           1.0000    410.0000   |    4.4000    682.0000

                                 AREA     QPEAK     TPEAK       R.V.
                                 (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (102200)   3089.200     10.402     31.92       95.02
   OUTFLOW: ID= 1 (  0505)   3089.200      0.653    166.58        8.38

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)=  6.28
                  TIME SHIFT OF PEAK FLOW          (min)=******
                  MAXIMUM  STORAGE   USED        (ha.m.)=267.6426
```

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--------------------------------------------------------------------------------
--------------------
| ROUTE CHN(102201)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
--------------------
               <------ DATA FOR SECTION (   1.1) ------>
               Distance      Elevation       Manning
                   0.00         354.87        0.1000
                 116.00         347.03        0.1000
                 223.00         339.81        0.1000
                 281.00         334.37    0.1000 /0.0300  Main Channel
                 320.00         331.39        0.0300      Main Channel
                 358.00         335.83    0.0300 /0.1000  Main Channel
                 563.00         370.73        0.1000

      <---------------------- TRAVEL TIME TABLE ---------------------->
       DEPTH     ELEV       VOLUME     FLOW RATE     VELOCITY   TRAV.TIME
         (m)      (m)      (cu.m.)       (cms)         (m/s)      (min)
        0.99   332.38     .139E+05       27.8           2.60       8.34
        1.99   333.38     .556E+05      176.6           4.13       5.25
        2.98   334.37     .125E+06      520.5           5.42       4.01
        4.26   335.65     .253E+06     1417.3           7.29       2.98
        5.54   336.93     .421E+06     2895.9           8.97       2.42
        6.82   338.21     .623E+06     4878.5          10.20       2.13
        8.10   339.49     .861E+06     7351.1          11.12       1.95
        9.39   340.78     .114E+07    10305.5          11.81       1.84
       10.67   342.06     .146E+07    13790.4          12.33       1.76
       11.95   343.34     .182E+07    17838.3          12.76       1.70
       13.23   344.62     .223E+07    22474.4          13.13       1.65
       14.51   345.90     .268E+07    27723.7          13.47       1.61
       15.79   347.18     .318E+07    33611.1          13.77       1.58
       17.07   348.46     .372E+07    40161.7          14.06       1.54
       18.35   349.74     .430E+07    47399.3          14.34       1.51
       19.64   351.03     .493E+07    55347.8          14.61       1.49
       20.92   352.31     .561E+07    64030.9          14.87       1.46
       22.20   353.59     .633E+07    73472.0          15.13       1.43
       23.48   354.87     .709E+07    83694.3          15.38       1.41

                                                <---- hydrograph ---->   <-pipe / channel->
                                 AREA     QPEAK    TPEAK    R.V.    MAX DEPTH  MAX VEL
                                 (ha)     (cms)    (hrs)    (mm)       (m)       (m/s)
   INFLOW : ID= 2 (  0505) 3089.20      0.65   166.58    8.38       0.02       2.60
   OUTFLOW: ID= 1 (102201) 3089.20      0.65   166.58    8.37       0.02       2.60



--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0104)|
|   1 +  2 =  3    |          AREA     QPEAK     TPEAK      R.V.
--------------------          (ha)     (cms)     (hrs)      (mm)
        ID1= 1 (102100):  5333.50    7.214     77.08     62.86
      + ID2= 2 (102201):  3089.20    0.653    166.58      8.37
        ==========================================================
        ID = 3 (  0104):  8422.70    7.717     81.25     42.88

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0104)|
|   3 +  2 =  1    |          AREA     QPEAK     TPEAK      R.V.
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```
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0104):  8422.70   7.717    81.25    42.88
     + ID2= 2 (102601):  6847.70   0.610   166.58     3.24
       ================================================
       ID = 1 (  0104): 15270.40   8.148    85.25    25.10

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ROUTE CHN(101600)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
--------------------
               <------ DATA FOR SECTION (   1.1) ------>
               Distance      Elevation       Manning
                   0.00         326.35        0.0800
                 215.00         312.00    0.0800 /0.0300  Main Channel
                 250.00         312.01    0.0300 /0.0800  Main Channel
                 431.00         328.62        0.0800

      <---------------------- TRAVEL TIME TABLE ---------------------->
       DEPTH     ELEV      VOLUME    FLOW RATE    VELOCITY   TRAV.TIME
        (m)       (m)     (cu.m.)      (cms)        (m/s)      (min)
       0.76   312.76    .386E+06      41.0          1.22     156.65
       1.51   313.51    .943E+06     142.2          1.73     110.56
       2.27   314.27    .167E+07     302.0          2.08      92.19
       3.02   315.02    .257E+07     523.7          2.34      81.69
       3.78   315.78    .363E+07     811.6          2.57      74.61
       4.53   316.53    .487E+07    1170.2          2.76      69.36
       5.29   317.29    .628E+07    1603.8          2.94      65.22
       6.04   318.04    .785E+07    2116.9          3.10      61.81
       6.80   318.80    .960E+07    2714.0          3.25      58.93
       7.55   319.55    .115E+08    3399.3          3.39      56.44
       8.31   320.31    .136E+08    4177.1          3.53      54.25
       9.06   321.06    .158E+08    5051.5          3.66      52.29
       9.82   321.82    .183E+08    6026.7          3.79      50.54
      10.57   322.57    .209E+08    7106.7          3.91      48.94
      11.33   323.33    .236E+08    8295.5          4.03      47.48
      12.08   324.08    .266E+08    9596.9          4.15      46.13
      12.84   324.84    .297E+08   11014.8          4.27      44.89
      13.59   325.59    .329E+08   12552.9          4.38      43.73
      14.35   326.35    .364E+08   14215.2          4.49      42.65

                                  <---- hydrograph ---->   <-pipe / channel->
                             AREA    QPEAK   TPEAK   R.V.   MAX DEPTH  MAX VEL
                             (ha)    (cms)   (hrs)   (mm)      (m)       (m/s)
   INFLOW : ID= 2 (  0104) *******     8.15   85.25  25.10      0.15      1.22
   OUTFLOW: ID= 1 (101600) *******     8.14   88.00  24.71      0.15      1.22



------------------------------------------------------------------------------
--------------------
| CALIB              |
| NASHYD   (  1600)|   Area    (ha)=5488.90   Curve Number   (CN)= 95.2
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 1.70
--------------------   U.H. Tp(hrs)=  64.20

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
             TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
              hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
            0.083    9.90 | 3.083    1.98 | 6.083   28.38 |  9.08    8.58
```

0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 1.798

PEAK FLOW (cms)= 7.837 (i)
TIME TO PEAK (hrs)= 71.083
RUNOFF VOLUME (mm)= 31.865
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.250

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| ROUTE CHN(0092)|
| IN= 2---> OUT= 1 | Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	301.94	0.1000	
51.81	300.12	0.1000 /0.0300	Main Channel
66.94	300.30	0.0300 /0.1000	Main Channel
104.51	302.86	0.1000	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.10	300.22	.113E+03	0.2	0.41	8.95
0.19	300.31	.451E+03	1.4	0.67	5.45
0.29	300.41	.930E+03	4.2	0.98	3.71

0.38	300.50	.150E+04	8.3	1.21	3.02
0.48	300.60	.215E+04	13.6	1.38	2.64
0.57	300.69	.289E+04	20.1	1.53	2.39
0.67	300.79	.371E+04	27.9	1.65	2.21
0.77	300.89	.462E+04	37.0	1.75	2.08
0.86	300.98	.562E+04	47.4	1.85	1.98
0.96	301.08	.671E+04	59.2	1.93	1.89
1.05	301.17	.788E+04	72.3	2.01	1.82
1.15	301.27	.914E+04	86.8	2.08	1.75
1.25	301.37	.105E+05	102.8	2.15	1.70
1.34	301.46	.119E+05	120.3	2.21	1.65
1.44	301.56	.134E+05	139.2	2.27	1.61
1.53	301.65	.150E+05	159.8	2.33	1.57
1.63	301.75	.167E+05	181.9	2.38	1.53
1.72	301.84	.185E+05	205.7	2.43	1.50
1.82	301.94	.204E+05	231.1	2.48	1.47

		<---- hydrograph ---->			<-pipe / channel->	
	AREA	QPEAK	TPEAK	R.V.	MAX DEPTH	MAX VEL
	(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (1600)	5488.90	7.84	71.08	31.86	0.37	1.18
OUTFLOW: ID= 1 (0092)	5488.90	7.84	71.08	68.04	0.37	1.18

CALIB		
NASHYD (1400)	Area (ha)= 698.10	Curve Number (CN)= 95.2
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70
	U.H. Tp(hrs)= 34.05	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28

2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 0.431

PEAK FLOW (cms)= 1.876 (i)
TIME TO PEAK (hrs)= 41.000
RUNOFF VOLUME (mm)= 62.376
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.490

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0107)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (101400):	29862.70	2.678	54.75	4.33
	+ ID2= 2 (101600):	15270.40	8.144	88.00	24.71
	ID = 3 (0107):	45133.10	10.653	80.67	11.23

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0107)		AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1		(ha)	(cms)	(hrs)	(mm)
	ID1= 3 (0107):	45133.10	10.653	80.67	11.23
	+ ID2= 2 (1400):	698.10	1.876	41.00	62.38
	ID = 1 (0107):	45831.20	12.160	71.00	12.55

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0107)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (0107):	45831.20	12.160	71.00	12.55
	+ ID2= 2 (0092):	5488.90	7.837	71.08	68.04
	ID = 3 (0107):	51320.10	19.996	71.00	18.49

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ROUTE CHN(101100)	
IN= 2---> OUT= 1	Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning

0.00	317.80	0.0800	
156.00	292.19	0.0800 /0.0300	Main Channel
180.00	292.19	0.0300 /0.0800	Main Channel
312.00	316.00	0.0800	

<-------------------- TRAVEL TIME TABLE ---------------------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
1.25	293.44	.449E+06	49.7	1.27	150.73
2.51	294.70	.111E+07	172.1	1.78	107.28
3.76	295.95	.198E+07	366.6	2.13	89.82
5.01	297.20	.305E+07	637.8	2.39	79.77
6.27	298.46	.434E+07	991.4	2.62	72.94
7.52	299.71	.584E+07	1433.4	2.81	67.85
8.77	300.96	.754E+07	1969.4	2.99	63.81
10.03	302.22	.945E+07	2605.5	3.16	60.48
11.28	303.47	.116E+08	3347.3	3.31	57.65
12.53	304.72	.139E+08	4200.4	3.46	55.20
13.78	305.97	.165E+08	5170.3	3.60	53.04
15.04	307.23	.192E+08	6262.5	3.74	51.11
16.29	308.48	.222E+08	7482.3	3.87	49.38
17.54	309.73	.253E+08	8834.8	3.99	47.80
18.80	310.99	.287E+08	10325.3	4.12	46.35
20.05	312.24	.323E+08	11958.7	4.24	45.02
21.30	313.49	.361E+08	13740.0	4.36	43.79
22.56	314.75	.401E+08	15674.1	4.48	42.65
23.81	316.00	.443E+08	17765.8	4.59	41.59

		<---- hydrograph ---->			<-pipe / channel->	
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2 (0107)	*******	20.00	71.00	18.49	0.50	1.27
OUTFLOW: ID= 1 (101100)	*******	19.98	73.83	18.23	0.50	1.27

| CALIB | NASHYD (0900)| ID= 1 DT= 5.0 min |	Area (ha)=1824.20	Curve Number (CN)= 93.8
	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70
	U.H. Tp(hrs)= 61.05	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58

1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 0.628

PEAK FLOW (cms)= 2.660 (i)
TIME TO PEAK (hrs)= 68.000
RUNOFF VOLUME (mm)= 32.853
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.258

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0119)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (101100):	51320.10	19.984	73.83	18.23
	+ ID2= 2 (10900):	54709.59	73.855	56.75	57.25
	ID = 3 (0119):	106029.70	93.296	59.08	38.37

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0119)		AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1		(ha)	(cms)	(hrs)	(mm)
	ID1= 3 (0119):	106029.70	93.296	59.08	38.37
	+ ID2= 2 (0900):	1824.20	2.660	68.00	32.85
	ID = 1 (0119):	107853.90	95.935	59.25	38.88

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ROUTE CHN(0091)	
IN= 2---> OUT= 1	Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning
0.00	295.00	0.1000

40.00	294.24	0.1000 /0.0300	Main Channel
59.90	288.55	0.0300	Main Channel
87.08	288.50	0.0300	Main Channel
100.00	288.50	0.0300	Main Channel
110.00	288.50	0.0300	Main Channel
150.00	288.50	0.0300	Main Channel
700.00	288.50	0.0300	Main Channel
900.00	294.60	0.0300 /0.0800	Main Channel
1000.00	294.60	0.0800	

<-------------------- TRAVEL TIME TABLE ---------------------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.32	288.82	.545E+05	63.3	0.31	14.34
0.64	289.14	.110E+06	202.3	0.49	9.08
0.96	289.46	.167E+06	399.2	0.64	6.97
1.28	289.78	.224E+06	647.2	0.77	5.78
1.59	290.09	.283E+06	942.2	0.88	5.01
1.91	290.41	.343E+06	1281.2	0.99	4.46
2.23	290.73	.403E+06	1662.4	1.10	4.04
2.55	291.05	.465E+06	2084.2	1.19	3.72
2.87	291.37	.527E+06	2545.4	1.28	3.45
3.19	291.69	.591E+06	3045.0	1.37	3.23
3.51	292.01	.655E+06	3582.2	1.45	3.05
3.83	292.33	.721E+06	4156.5	1.53	2.89
4.15	292.65	.787E+06	4767.3	1.61	2.75
4.46	292.96	.855E+06	5414.3	1.68	2.63
4.78	293.28	.923E+06	6096.9	1.75	2.52
5.10	293.60	.993E+06	6815.1	1.82	2.43
5.42	293.92	.106E+07	7568.5	1.89	2.34
5.74	294.24	.113E+07	8357.1	1.96	2.26
6.10	294.60	.122E+07	9298.2	2.03	2.18

		AREA (ha)	<---- hydrograph ----> QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	<-pipe / channel-> MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2 (0119)	*******		95.94	59.25	38.88	0.39	0.34
OUTFLOW: ID= 1 (0091)	*******		95.94	59.25	38.84	0.39	0.34

CALIB NASHYD (1100) ID= 1 DT= 5.0 min	Area (ha)=3229.60	Curve Number (CN)= 93.8
	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70
	U.H. Tp(hrs)= 67.05	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58

0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 1.013

PEAK FLOW (cms)= 4.289 (i)
TIME TO PEAK (hrs)= 74.000
RUNOFF VOLUME (mm)= 29.306
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.230

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0120)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (1100):		3229.60	4.289	74.00	29.31
+ ID2= 2 (0091):		107853.90	95.936	59.25	38.84
ID = 3 (0120):		111083.49	100.141	59.25	39.57

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ROUTE CHN(10800)	
IN= 2---> OUT= 1	Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	331.00	0.1000	
102.00	301.00	0.1000 /0.0350	Main Channel
220.00	301.00	0.0350 /0.0800	Main Channel
354.00	332.79	0.0800	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)

1.58	302.58	.197E+06	963.5	4.92	3.40
3.16	304.16	.412E+06	3112.0	7.58	2.21
4.74	305.74	.647E+06	6221.4	9.65	1.73
6.32	307.32	.901E+06	10217.7	11.39	1.47
7.89	308.89	.117E+07	15065.7	12.89	1.30
9.47	310.47	.147E+07	20747.2	14.21	1.18
11.05	312.05	.178E+07	27254.0	15.40	1.09
12.63	313.63	.211E+07	34583.3	16.48	1.02
14.21	315.21	.246E+07	42736.5	17.47	0.96
15.79	316.79	.282E+07	51717.7	18.39	0.91
17.37	318.37	.321E+07	61532.9	19.24	0.87
18.95	319.95	.362E+07	72189.2	20.04	0.84
20.53	321.53	.404E+07	83695.4	20.79	0.81
22.11	323.11	.449E+07	96060.5	21.50	0.78
23.68	324.68	.495E+07	*******	22.17	0.75
25.26	326.26	.543E+07	*******	22.81	0.73
26.84	327.84	.593E+07	*******	23.42	0.71
28.42	329.42	.646E+07	*******	24.00	0.70
30.00	331.00	.699E+07	*******	24.56	0.68

		<---- hydrograph ---->			<-pipe / channel->	
	AREA	QPEAK	TPEAK	R.V.	MAX DEPTH	MAX VEL
	(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (0120)	*******	100.14	59.25	39.57	0.16	4.92
OUTFLOW: ID= 1 (10800)	*******	100.14	59.33	39.56	0.16	4.92

CALIB			
NASHYD (0800)	Area (ha)=3125.50	Curve Number (CN)= 93.8	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	
	U.H. Tp(hrs)= 75.00		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58

2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 0.876

PEAK FLOW (cms)= 3.711 (i)
TIME TO PEAK (hrs)= 81.833
RUNOFF VOLUME (mm)= 25.443
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.200

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0121)		AREA	QPEAK	TPEAK	R.V.
		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (10800):	111083.49	100.141	59.33	39.56
+ ID2= 2 (0800):	3125.50	3.711	81.83	25.44
ID = 3 (0121):	114209.00	103.715	60.25	40.06

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ROUTE CHN(10700)	
IN= 2---> OUT= 1	Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	316.00	0.0800	
402.00	278.69	0.0800 /0.0300	Main Channel
476.00	278.96	0.0300 /0.0800	Main Channel
805.00	299.83	0.0800	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
1.11	279.80	.701E+06	97.2	1.15	120.17
2.23	280.92	.175E+07	366.3	1.73	79.73
3.34	282.03	.308E+07	790.0	2.13	64.89
4.45	283.14	.467E+07	1371.1	2.43	56.79
5.56	284.25	.654E+07	2115.9	2.68	51.51
6.68	285.37	.868E+07	3032.3	2.89	47.71
7.79	286.48	.111E+08	4128.6	3.08	44.78
8.90	287.59	.138E+08	5413.4	3.26	42.42
10.01	288.70	.167E+08	6895.3	3.41	40.45
11.13	289.82	.200E+08	8582.8	3.56	38.77
12.24	290.93	.235E+08	10484.6	3.70	37.30
13.35	292.04	.272E+08	12609.1	3.84	36.00
14.46	293.15	.313E+08	14964.6	3.96	34.84

15.58	294.27	.356E+08	17559.5	4.09	33.79
16.69	295.38	.402E+08	20401.7	4.21	32.83
17.80	296.49	.451E+08	23499.5	4.32	31.96
18.91	297.60	.502E+08	26860.7	4.43	31.14
20.03	298.72	.556E+08	30493.2	4.54	30.39
21.14	299.83	.613E+08	34404.8	4.65	29.68

		<---- hydrograph ---->			<-pipe / channel->	
	AREA	QPEAK	TPEAK	R.V.	MAX DEPTH	MAX VEL
	(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (0121)	*******	103.72	60.25	40.06	1.14	1.16
OUTFLOW: ID= 1 (10700)	*******	103.66	62.08	39.68	1.14	1.16

| CALIB |		
| NASHYD (0700)|	Area (ha)=5439.40	Curve Number (CN)= 93.8
|ID= 1 DT= 5.0 min |	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70
	U.H. Tp(hrs)= 54.00	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

```
     Unit Hyd Qpeak  (cms)=   2.118

     PEAK FLOW       (cms)=   8.967 (i)
     TIME TO PEAK    (hrs)=  60.917
     RUNOFF VOLUME    (mm)=  37.924
     TOTAL RAINFALL   (mm)= 127.380
     RUNOFF COEFFICIENT   =   0.298

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| ADD HYD  (  0122)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
        ID1= 1 ( 10700):114209.00 103.661    62.08    39.68
      + ID2= 2 (  0700):  5439.40   8.967    60.92    37.92
        ================================================
        ID = 3 (  0122):119648.40 112.627    62.00    41.30

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
--------------------
| ROUTE CHN( 10600)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
--------------------
               <------ DATA FOR SECTION (   1.1) ------>
               Distance      Elevation       Manning
                  0.00         272.70         0.0800
                202.00         264.48    0.0800 /0.0300  Main Channel
                260.00         264.48    0.0300 /0.0800  Main Channel
                487.00         272.32         0.0800

      <--------------------- TRAVEL TIME TABLE ---------------------->
       DEPTH    ELEV      VOLUME    FLOW RATE    VELOCITY   TRAV.TIME
        (m)      (m)     (cu.m.)      (cms)        (m/s)      (min)
       0.41   264.89    .174E+06      18.2          0.64     159.17
       0.83   265.31    .404E+06      61.3          0.93     109.75
       1.24   265.72    .689E+06     127.3          1.13      90.22
       1.65   266.13    .103E+07     216.5          1.28      79.26
       2.06   266.54    .143E+07     330.0          1.41      72.04
       2.48   266.96    .188E+07     468.7          1.52      66.79
       2.89   267.37    .239E+07     633.9          1.62      62.74
       3.30   267.78    .295E+07     826.8          1.71      59.46
       3.71   268.19    .357E+07    1048.5          1.79      56.73
       4.13   268.61    .424E+07    1300.3          1.87      54.39
       4.54   269.02    .497E+07    1583.5          1.94      52.36
       4.95   269.43    .576E+07    1899.1          2.01      50.55
       5.36   269.84    .660E+07    2248.3          2.08      48.94
       5.78   270.26    .750E+07    2632.5          2.14      47.48
       6.19   270.67    .845E+07    3052.6          2.21      46.15
       6.60   271.08    .946E+07    3509.9          2.27      44.93
       7.01   271.49    .105E+08    4005.5          2.32      43.80
       7.43   271.91    .116E+08    4540.5          2.38      42.75
       7.84   272.32    .128E+08    5115.9          2.44      41.77

                                   <---- hydrograph ---->   <-pipe / channel->
                            AREA    QPEAK   TPEAK   R.V.   MAX DEPTH  MAX VEL
                            (ha)    (cms)   (hrs)   (mm)      (m)       (m/s)
  INFLOW : ID= 2 (  0122) *******   112.63   62.00  41.30      1.15      1.08
  OUTFLOW: ID= 1 ( 10600) *******   112.60   63.08  40.95      1.14      1.08
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--------------------
| CALIB              |
| NASHYD   (  0600)|   Area    (ha)=2951.60   Curve Number   (CN)= 84.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 1.70
--------------------   U.H. Tp(hrs)=  71.25

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.
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---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

```
    Unit Hyd Qpeak  (cms)=   0.871

    PEAK FLOW       (cms)=   3.007 (i)
    TIME TO PEAK    (hrs)=  78.500
    RUNOFF VOLUME    (mm)=  21.999
    TOTAL RAINFALL   (mm)= 127.380
    RUNOFF COEFFICIENT   =   0.173

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| ADD HYD  (  0123)|
|   1 +  2 =  3    |          AREA     QPEAK     TPEAK      R.V.
--------------------          (ha)     (cms)     (hrs)      (mm)
       ID1= 1 ( 10600):119648.40 112.599     63.08     40.95
     + ID2= 2 (  0600):  2951.60   3.007     78.50     22.00
       ================================================
       ID = 3 (  0123):122600.00 115.550     63.42     41.15

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
--------------------
| ROUTE CHN( 10400)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
--------------------
              <------ DATA FOR SECTION (   1.1) ------>
              Distance      Elevation       Manning
                  0.00         275.56        0.0800
                168.00         265.25    0.0800 /0.0300  Main Channel
                200.00         264.00    0.0300 /0.0800  Main Channel
                391.00         281.64        0.0800

     <--------------------- TRAVEL TIME TABLE ---------------------->
      DEPTH     ELEV      VOLUME    FLOW RATE    VELOCITY   TRAV.TIME
       (m)       (m)     (cu.m.)      (cms)        (m/s)      (min)
      0.61    264.61    .284E+05       2.3          0.34      204.78
      1.22    265.22    .114E+06      14.7          0.54      129.00
      1.83    265.83    .249E+06      46.7          0.79       88.93
      2.43    266.43    .427E+06      96.5          0.95       73.72
      3.04    267.04    .647E+06     165.1          1.07       65.35
      3.65    267.65    .910E+06     253.6          1.17       59.80
      4.26    268.26    .121E+07     363.3          1.26       55.71
      4.87    268.87    .156E+07     495.8          1.34       52.50
      5.48    269.48    .195E+07     652.2          1.41       49.86
      6.08    270.08    .238E+07     833.9          1.47       47.62
      6.69    270.69    .286E+07    1042.2          1.54       45.68
      7.30    271.30    .337E+07    1278.3          1.60       43.98
      7.91    271.91    .393E+07    1543.6          1.65       42.45
      8.52    272.52    .453E+07    1839.2          1.71       41.07
      9.13    273.13    .518E+07    2166.3          1.76       39.82
      9.73    273.73    .586E+07    2526.2          1.82       38.67
     10.34    274.34    .659E+07    2919.9          1.87       37.61
     10.95    274.95    .736E+07    3348.7          1.92       36.63
     11.56    275.56    .817E+07    3813.7          1.97       35.71

                                    <---- hydrograph ---->   <-pipe / channel->
                              AREA    QPEAK   TPEAK   R.V.   MAX DEPTH  MAX VEL
                              (ha)    (cms)   (hrs)   (mm)      (m)       (m/s)
   INFLOW : ID= 2 (  0123) *******   115.55   63.42  41.15      2.60       0.98
   OUTFLOW: ID= 1 ( 10400) *******   115.53   64.42  40.87      2.60       0.98



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--------------------
| CALIB            |
| NASHYD   (  0400)|   Area    (ha)= 364.20   Curve Number   (CN)= 36.4
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 1.70
--------------------   U.H. Tp(hrs)=  18.45

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                              ---- TRANSFORMED HYETOGRAPH ----
```

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 0.415

PEAK FLOW (cms)= 0.430 (i)
TIME TO PEAK (hrs)= 26.500
RUNOFF VOLUME (mm)= 22.179
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.174

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0124)		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3	ID1= 1 (10400):	122600.00	115.529	64.42	40.87
	+ ID2= 2 (0400):	364.20	0.430	26.50	22.18
	ID = 3 (0124):	122964.20	115.753	64.17	40.83

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ROUTE CHN(0084)

| IN= 2---> OUT= 1 | Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	270.26	0.1000	
50.74	256.20	0.1000 /0.0300	Main Channel
94.20	256.33	0.0300 /0.1000	Main Channel
120.00	270.00	0.1000	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.73	256.93	.135E+05	46.5	1.55	4.85
1.45	257.65	.296E+05	161.9	2.46	3.05
2.18	258.38	.470E+05	330.3	3.16	2.37
2.91	259.11	.658E+05	546.4	3.74	2.01
3.63	259.83	.858E+05	807.6	4.24	1.77
4.36	260.56	.107E+06	1112.1	4.68	1.61
5.08	261.28	.130E+06	1458.9	5.07	1.48
5.81	262.01	.154E+06	1847.3	5.42	1.39
6.54	262.74	.179E+06	2276.9	5.73	1.31
7.26	263.46	.205E+06	2747.4	6.02	1.25
7.99	264.19	.233E+06	3258.7	6.29	1.19
8.72	264.92	.262E+06	3810.7	6.54	1.15
9.44	265.64	.293E+06	4403.7	6.77	1.11
10.17	266.37	.325E+06	5037.5	6.99	1.07
10.89	267.09	.358E+06	5712.5	7.19	1.04
11.62	267.82	.392E+06	6428.7	7.39	1.02
12.35	268.55	.428E+06	7186.5	7.57	0.99
13.07	269.27	.465E+06	7986.1	7.74	0.97
13.80	270.00	.503E+06	8827.8	7.90	0.95

		AREA (ha)	<---- hydrograph ----> QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	<-pipe / channel-> MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2 (	0124)	*******	115.75	64.17	40.83	1.16	1.99
OUTFLOW: ID= 1 (	0084)	*******	115.75	64.25	40.82	1.16	1.99

CALIB NASHYD (0500) | ID= 1 DT= 5.0 min	Area (ha)=******* Curve Number (CN)= 79.8 Ia (mm)= 5.00 # of Linear Res.(N)= 1.70 U.H. Tp(hrs)= 349.20

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58

1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 0.777

PEAK FLOW (cms)= 1.457 (i)
TIME TO PEAK (hrs)= 83.167
RUNOFF VOLUME (mm)= 1.925
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.015

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ROUTE CHN(0083)
IN= 2---> OUT= 1

Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	264.54	0.1000	
32.69	264.21	0.1000 /0.0300	Main Channel
80.91	258.79	0.0300	Main Channel
98.99	258.75	0.0300	Main Channel
150.00	264.50	0.0300 /0.1000	Main Channel
160.00	264.50	0.1000	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.29	259.04	.283E+04	2.0	0.36	23.74
0.57	259.32	.661E+04	7.1	0.56	15.45
0.86	259.61	.111E+05	15.2	0.71	12.20
1.15	259.90	.164E+05	26.4	0.83	10.37
1.44	260.19	.225E+05	41.0	0.94	9.15
1.72	260.47	.293E+05	59.1	1.04	8.26
2.01	260.76	.369E+05	81.1	1.14	7.58
2.30	261.05	.452E+05	107.2	1.23	7.03
2.59	261.34	.543E+05	137.6	1.31	6.58
2.87	261.62	.642E+05	172.5	1.39	6.20
3.16	261.91	.748E+05	212.3	1.47	5.87

3.45	262.20	.862E+05	257.0	1.54	5.59
3.74	262.49	.983E+05	307.0	1.62	5.34
4.02	262.77	.111E+06	362.5	1.69	5.11
4.31	263.06	.125E+06	423.6	1.76	4.91
4.60	263.35	.139E+06	490.7	1.82	4.73
4.89	263.64	.154E+06	563.8	1.89	4.57
5.17	263.92	.170E+06	643.2	1.95	4.41
5.46	264.21	.187E+06	729.2	2.02	4.28

		<---- hydrograph ---->		<-pipe / channel->	
	AREA	QPEAK	TPEAK	R.V.	MAX DEPTH	MAX VEL
	(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (0500) *******		1.46	83.17	1.93	0.29	0.37
OUTFLOW: ID= 1 (0083) *******		2.07	166.58	6.10	0.29	0.37

ADD HYD (0125)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0083):	12896.90	2.071	166.58	6.10
+ ID2= 2 (0084):	122964.20	115.753	64.25	40.82
ID = 3 (0125):	135861.11	116.988	64.75	37.52

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ROUTE CHN(10300)	
IN= 2---> OUT= 1	Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	261.70	0.0900	
34.09	251.40	0.0900 /0.0300	Main Channel
87.18	250.60	0.0300 /0.0900	Main Channel
110.00	261.00	0.0900	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.55	251.15	.215E+05	3.7	0.37	95.66
1.09	251.69	.803E+05	25.9	0.67	51.76
1.64	252.24	.147E+06	68.5	0.98	35.74
2.19	252.79	.217E+06	126.7	1.22	28.52
2.74	253.34	.290E+06	199.1	1.44	24.30
3.28	253.88	.367E+06	284.8	1.63	21.48
3.83	254.43	.447E+06	383.3	1.80	19.45
4.38	254.98	.531E+06	494.2	1.95	17.91
4.93	255.53	.618E+06	617.3	2.09	16.70
5.47	256.07	.709E+06	752.2	2.22	15.71
6.02	256.62	.803E+06	898.9	2.35	14.89
6.57	257.17	.901E+06	1057.2	2.46	14.20
7.12	257.72	.100E+07	1227.2	2.57	13.61
7.66	258.26	.111E+07	1408.6	2.67	13.09
8.21	258.81	.121E+07	1601.4	2.76	12.64
8.76	259.36	.133E+07	1805.8	2.85	12.24
9.31	259.91	.144E+07	2021.6	2.94	11.88
9.85	260.45	.156E+07	2248.8	3.02	11.55
10.40	261.00	.168E+07	2487.5	3.10	11.26

	AREA (ha)	<---- hydrograph ----> QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	<-pipe / channel-> MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2 (0125)	*******	116.99	64.75	37.52	2.10	1.17
OUTFLOW: ID= 1 (10300)	*******	116.99	64.92	37.41	2.09	1.17

CALIB NASHYD (0300) ID= 1 DT= 5.0 min	Area (ha)= 300.70	Curve Number (CN)= 54.6
	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70
	U.H. Tp(hrs)= 49.50	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 0.128

PEAK FLOW (cms)= 0.226 (i)
TIME TO PEAK (hrs)= 57.250
RUNOFF VOLUME (mm)= 17.224
TOTAL RAINFALL (mm)= 127.380

RUNOFF COEFFICIENT = 0.135

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0126)| 1 + 2 = 3		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (10300):			135861.11	116.986	64.92	37.41
+ ID2= 2 (0300):			300.70	0.226	57.25	17.22
ID = 3 (0126):			136161.80	117.210	64.92	37.40

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ROUTE CHN(10200)| IN= 2---> OUT= 1 | Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	260.90	0.0900	
68.64	256.14	0.0300	Main Channel
100.00	249.00	0.0300	Main Channel
130.00	249.00	0.0300	Main Channel
155.00	249.00	0.0300	Main Channel
160.00	256.00	0.0300 /0.0900	Main Channel
290.00	260.40	0.0900	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.58	249.58	.308E+06	13.0	0.39	394.89
1.17	250.17	.632E+06	41.5	0.61	253.74
1.75	250.75	.973E+06	82.2	0.79	197.22
2.33	251.33	.133E+07	133.8	0.94	165.58
2.92	251.92	.170E+07	195.7	1.07	144.96
3.50	252.50	.209E+07	267.6	1.20	130.26
4.08	253.08	.250E+07	349.3	1.31	119.16
4.67	253.67	.292E+07	440.6	1.41	110.42
5.25	254.25	.336E+07	541.5	1.51	103.32
5.83	254.83	.381E+07	652.1	1.60	97.41
6.42	255.42	.428E+07	772.3	1.69	92.40
7.00	256.00	.477E+07	902.3	1.77	88.07
7.63	256.63	.538E+07	1073.9	1.87	83.42
8.26	257.26	.614E+07	1266.3	1.93	80.86
8.89	257.89	.707E+07	1478.0	1.95	79.77
9.51	258.51	.817E+07	1711.1	1.96	79.56
10.14	259.14	.942E+07	1967.5	1.95	79.83
10.77	259.77	.108E+08	2248.8	1.94	80.35
11.40	260.40	.124E+08	2556.6	1.92	80.98

		<---- hydrograph ---->			<-pipe / channel->	
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2 (0126)	*******	117.21	64.92	37.40	2.15	0.89
OUTFLOW: ID= 1 (10200)	*******	117.08	66.83	36.74	2.13	0.88

CALIB	
NASHYD (0200)	Area (ha)=7004.90 Curve Number (CN)= 74.2
ID= 1 DT= 5.0 min	Ia (mm)= 5.00 # of Linear Res.(N)= 1.70
	U.H. Tp(hrs)= 76.05

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 1.937

PEAK FLOW (cms)= 5.419 (i)
TIME TO PEAK (hrs)= 83.167
RUNOFF VOLUME (mm)= 16.342
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.128

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0127)		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3					

```
      ID1= 1 ( 10200):136161.80 117.076    66.83    36.74
    + ID2= 2 (  0200):  7004.90   5.419    83.17    16.34
      ================================================
      ID = 3 (  0127):143166.70 122.392    67.25    36.78

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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| ROUTE CHN( 10100)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
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<-------- DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	255.60	0.0000	
203.00	255.17	0.0300	Main Channel
453.60	255.18	0.0300	Main Channel
700.00	256.20	0.0300 /0.0900	Main Channel
710.00	248.10	0.0900	
790.00	248.10	0.0900 /0.0900	
800.00	248.10	0.0900 /0.0900	
1363.72	256.47	0.0900	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.39	248.49	.139E+06	8.0	0.20	290.68
0.79	248.89	.314E+06	27.5	0.30	190.80
1.18	249.28	.526E+06	58.2	0.38	150.62
1.57	249.67	.773E+06	100.8	0.45	127.92
1.96	250.06	.106E+07	156.0	0.50	112.93
2.36	250.46	.138E+07	224.8	0.56	102.10
2.75	250.85	.173E+07	308.0	0.61	93.81
3.14	251.24	.213E+07	406.4	0.65	87.19
3.54	251.64	.255E+07	520.9	0.70	81.75
3.93	252.03	.302E+07	652.2	0.74	77.16
4.32	252.42	.352E+07	801.3	0.78	73.23
4.71	252.81	.406E+07	968.9	0.82	69.80
5.11	253.21	.463E+07	1155.8	0.85	66.78
5.50	253.60	.524E+07	1362.8	0.89	64.10
5.89	253.99	.589E+07	1590.6	0.92	61.69
6.28	254.38	.657E+07	1840.0	0.96	59.50
6.68	254.78	.729E+07	2111.7	0.99	57.52
7.07	255.17	.804E+07	2406.5	1.02	55.70
7.50	255.60	.950E+07	-Inf	-Inf	0.00

		<---- hydrograph ---->			<-pipe / channel->	
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2 (0127)	*******	122.39	67.25	36.78	1.72	0.47
OUTFLOW: ID= 1 (10100)	*******	122.31	67.83	36.33	1.72	0.47

```
| CALIB              |
| NASHYD   (  0100)|   Area    (ha)= 615.40   Curve Number   (CN)= 74.2
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 1.70
-------------------   U.H. Tp(hrs)=  27.60

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.
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---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	9.90	3.083	1.98	6.083	28.38	9.08	8.58
0.167	9.90	3.167	1.98	6.167	28.38	9.17	8.58
0.250	9.90	3.250	1.98	6.250	28.38	9.25	8.58
0.333	9.90	3.333	1.98	6.333	28.38	9.33	8.58
0.417	9.90	3.417	1.98	6.417	28.38	9.42	8.58
0.500	9.90	3.500	1.98	6.500	28.38	9.50	8.58
0.583	9.90	3.583	1.98	6.583	28.38	9.58	8.58
0.667	9.90	3.667	1.98	6.667	28.38	9.67	8.58
0.750	9.90	3.750	1.98	6.750	28.38	9.75	8.58
0.833	9.90	3.833	1.98	6.833	28.38	9.83	8.58
0.917	9.90	3.917	1.98	6.917	28.38	9.92	8.58
1.000	9.90	4.000	1.98	7.000	28.38	10.00	8.58
1.083	13.20	4.083	3.30	7.083	13.20	10.08	8.58
1.167	13.20	4.167	3.30	7.167	13.20	10.17	8.58
1.250	13.20	4.250	3.30	7.250	13.20	10.25	8.58
1.333	13.20	4.333	3.30	7.333	13.20	10.33	8.58
1.417	13.20	4.417	3.30	7.417	13.20	10.42	8.58
1.500	13.20	4.500	3.30	7.500	13.20	10.50	8.58
1.583	13.20	4.583	3.30	7.583	13.20	10.58	8.58
1.667	13.20	4.667	3.30	7.667	13.20	10.67	8.58
1.750	13.20	4.750	3.30	7.750	13.20	10.75	8.58
1.833	13.20	4.833	3.30	7.833	13.20	10.83	8.58
1.917	13.20	4.917	3.30	7.917	13.20	10.92	8.58
2.000	13.20	5.000	3.30	8.000	13.20	11.00	8.58
2.083	6.60	5.083	13.20	8.083	15.18	11.08	5.28
2.167	6.60	5.167	13.20	8.167	15.18	11.17	5.28
2.250	6.60	5.250	13.20	8.250	15.18	11.25	5.28
2.333	6.60	5.333	13.20	8.333	15.18	11.33	5.28
2.417	6.60	5.417	13.20	8.417	15.18	11.42	5.28
2.500	6.60	5.500	13.20	8.500	15.18	11.50	5.28
2.583	6.60	5.583	13.20	8.583	15.18	11.58	5.28
2.667	6.60	5.667	13.20	8.667	15.18	11.67	5.28
2.750	6.60	5.750	13.20	8.750	15.18	11.75	5.28
2.833	6.60	5.833	13.20	8.833	15.18	11.83	5.28
2.917	6.60	5.917	13.20	8.917	15.18	11.92	5.28
3.000	6.60	6.000	13.20	9.000	15.18	12.00	5.28

Unit Hyd Qpeak (cms)= 0.469

PEAK FLOW (cms)= 1.309 (i)
TIME TO PEAK (hrs)= 35.167
RUNOFF VOLUME (mm)= 47.081
TOTAL RAINFALL (mm)= 127.380
RUNOFF COEFFICIENT = 0.370

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0128)		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3	ID1= 1 (0100):	615.40	1.309	35.17	47.08
	+ ID2= 2 (10100):	143166.70	122.308	67.83	36.33
	ID = 3 (0128):	143782.09	123.295	67.83	36.46

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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      V    V   I    SSSSS  U   U    A    L              (v 6.2.2017)
      V    V   I    SS     U   U   A A   L
       V  V    I     SS    U   U  AAAAA  L
       V  V    I      SS   U   U  A   A  L
        VV     I    SSSSS  UUUUU  A   A  LLLLL

       OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
      O   O    T      T    H   H   Y Y   MM MM  O   O
      O   O    T      T    H   H    Y    M   M  O   O
       OOO     T      T    H   H    Y    M   M   OOO
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                  *****  D E T A I L E D   O U T P U T *****


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output    filename:  C:\Users\rgood\AppData\Local\Civica\VH5\26d0da80-2810-4509-
ab0a-c453ed50a310\77bc9c34-7c08-4b10-91c5-5a3f7475d5a7\scenar
  Summary  filename:  C:\Users\rgood\AppData\Local\Civica\VH5\26d0da80-2810-4509-
ab0a-c453ed50a310\77bc9c34-7c08-4b10-91c5-5a3f7475d5a7\scenar


DATE: 12/09/2025                              TIME: 03:54:59

USER:



COMMENTS: _____________________________________________________________________

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  ************************************************
  ** SIMULATION : Timmins Climate Change (66)   **
  ************************************************



--------------------
|    READ STORM    |    Filename: C:\Users\rgood\AppD
|                  |              ata\Local\Temp\
|                  |              1c26ed5c-32e6-46be-8d7d-2ba8590016e5\bf8a8e38
| Ptotal=154.90 mm |    Comments: Timmins Climate Change
--------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
                0.00   12.00 |  4.00    4.00 |  8.00   18.50 | 12.00    0.00
                1.00   16.10 |  5.00   16.10 |  9.00   10.40 |
                2.00    8.00 |  6.00   34.50 | 10.00   10.40 |
                3.00    2.40 |  7.00   16.10 | 11.00    6.40 |

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| CALIB            |
| NASHYD   (  3000)|   Area    (ha)=6379.70   Curve Number   (CN)= 89.6
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 1.70
--------------------   U.H. Tp(hrs)=  36.00
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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 3.727

PEAK FLOW (cms)= 18.344 (i)
TIME TO PEAK (hrs)= 43.083
RUNOFF VOLUME (mm)= 66.981
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.432

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR(0501)	OVERFLOW IS OFF
IN= 2---> OUT= 1	
DT= 5.0 min	

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	16.6000	********

```
                          1.0000    925.9000   |    0.0000      0.0000

                                AREA     QPEAK     TPEAK       R.V.
                                (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  3000)   6379.700     18.344     43.08      66.98
   OUTFLOW: ID= 1 (  0501)   6379.700      0.723    166.58       3.82

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)=  3.94
                  TIME SHIFT OF PEAK FLOW         (min)=******
                  MAXIMUM  STORAGE   USED       (ha.m.)=669.3957

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--------------------
| ROUTE CHN(102900)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
--------------------
               <------ DATA FOR SECTION (   1.1) ------>
               Distance      Elevation       Manning
                   0.00        374.13        0.0800
                  97.00        355.71    0.0800 /0.0300  Main Channel
                 107.00        355.71    0.0300 /0.0800  Main Channel
                 194.00        372.46        0.0800

      <---------------------- TRAVEL TIME TABLE ---------------------->
       DEPTH     ELEV      VOLUME    FLOW RATE    VELOCITY   TRAV.TIME
         (m)      (m)     (cu.m.)      (cms)        (m/s)      (min)
        0.88   356.59    .175E+06      13.6          1.05     214.46
        1.76   357.47    .459E+06      48.8          1.44     157.00
        2.64   358.35    .854E+06     107.1          1.70     133.03
        3.53   359.24    .136E+07     191.0          1.90     118.66
        4.41   360.12    .198E+07     303.2          2.08     108.56
        5.29   361.00    .270E+07     446.4          2.24     100.83
        6.17   361.88    .354E+07     623.1          2.39      94.60
        7.05   362.76    .448E+07     835.8          2.53      89.39
        7.93   363.64    .554E+07    1086.9          2.66      84.94
        8.82   364.53    .671E+07    1378.8          2.79      81.06
        9.70   365.41    .798E+07    1713.7          2.91      77.64
       10.58   366.29    .937E+07    2093.9          3.03      74.58
       11.46   367.17    .109E+08    2521.5          3.15      71.83
       12.34   368.05    .125E+08    2998.8          3.26      69.33
       13.22   368.93    .142E+08    3527.8          3.37      67.05
       14.11   369.82    .160E+08    4110.5          3.48      64.95
       14.99   370.70    .180E+08    4749.1          3.59      63.02
       15.87   371.58    .200E+08    5445.4          3.69      61.23
       16.75   372.46    .222E+08    6201.4          3.79      59.57

                                    <---- hydrograph ---->   <-pipe / channel->
                               AREA    QPEAK   TPEAK   R.V.   MAX DEPTH  MAX VEL
                               (ha)    (cms)   (hrs)   (mm)      (m)       (m/s)
   INFLOW : ID= 2 (  0501) 6379.70     0.72  166.58   3.82      0.05       1.05
   OUTFLOW: ID= 1 (102900) 6379.70     0.72  166.58   3.68      0.05       1.05



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--------------------
| CALIB              |
| NASHYD   (  2900)|   Area    (ha)=8136.80   Curve Number   (CN)= 93.8
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 1.70
--------------------   U.H. Tp(hrs)=  34.20

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.
```

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 5.003

PEAK FLOW (cms)= 26.494 (i)
TIME TO PEAK (hrs)= 41.083
RUNOFF VOLUME (mm)= 75.624
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.488

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| ROUTE CHN(962400)|
| IN= 2---> OUT= 1 |

Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	359.89	0.1000	
156.82	355.69	0.1000 /0.0300	Main Channel
171.62	356.28	0.0300 /0.1000	Main Channel
260.01	357.79	0.1000	

<-------------------- TRAVEL TIME TABLE ---------------------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.11	355.80	.577E+02	0.1	0.27	9.37
0.22	355.91	.231E+03	0.7	0.43	5.91
0.33	356.02	.519E+03	1.9	0.56	4.51
0.44	356.13	.923E+03	4.1	0.68	3.72
0.55	356.24	.144E+04	7.5	0.79	3.21
0.66	356.35	.209E+04	12.7	0.92	2.75
0.77	356.46	.291E+04	19.6	1.02	2.47
0.88	356.57	.391E+04	28.3	1.10	2.30
0.99	356.68	.509E+04	39.0	1.16	2.18
1.11	356.80	.644E+04	51.7	1.21	2.08
1.22	356.91	.797E+04	66.6	1.26	2.00
1.33	357.02	.968E+04	83.8	1.31	1.92
1.44	357.13	.116E+05	103.5	1.35	1.86
1.55	357.24	.136E+05	125.8	1.40	1.81
1.66	357.35	.159E+05	150.8	1.44	1.75
1.77	357.46	.183E+05	178.7	1.48	1.71
1.88	357.57	.209E+05	209.5	1.52	1.66
1.99	357.68	.237E+05	243.4	1.56	1.62
2.10	357.79	.266E+05	280.5	1.60	1.58

		<---- hydrograph ---->			<-pipe / channel->	
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2 (2900)	8136.80	26.49	41.08	75.62	0.86	1.08
OUTFLOW: ID= 1 (962400)	8136.80	26.49	41.17	119.32	0.86	1.08

CALIB NASHYD (2700) ID= 1 DT= 5.0 min	Area (ha)=2465.80	Curve Number (CN)= 89.6
	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70
	U.H. Tp(hrs)= 47.40	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40

1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 1.094

PEAK FLOW (cms)= 5.389 (i)
TIME TO PEAK (hrs)= 54.417
RUNOFF VOLUME (mm)= 50.940
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.329

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| ROUTE CHN(102800)|
| IN= 2---> OUT= 1 |

Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	375.00	0.0800	
116.00	364.42	0.0800 /0.0300	Main Channel
150.00	364.42	0.0300 /0.0800	Main Channel
232.00	377.07	0.0800	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.56	364.98	.182E+06	29.0	1.34	104.49
1.11	365.53	.409E+06	96.2	1.98	70.84
1.67	366.09	.682E+06	197.4	2.43	57.57
2.23	366.65	.100E+07	332.1	2.79	50.19
2.78	367.20	.136E+07	500.9	3.09	45.37
3.34	367.76	.177E+07	704.8	3.34	41.92
3.90	368.32	.223E+07	945.0	3.57	39.28
4.45	368.87	.273E+07	1222.6	3.77	37.18
5.01	369.43	.327E+07	1539.0	3.95	35.44
5.57	369.99	.386E+07	1895.5	4.12	33.97
6.13	370.55	.450E+07	2293.4	4.28	32.70
6.68	371.10	.518E+07	2734.0	4.43	31.59
7.24	371.66	.591E+07	3218.7	4.58	30.60
7.80	372.22	.668E+07	3748.9	4.71	29.71
8.35	372.77	.750E+07	4325.7	4.85	28.90
8.91	373.33	.836E+07	4950.5	4.97	28.16
9.47	373.89	.927E+07	5624.7	5.10	27.48
10.02	374.44	.102E+08	6349.5	5.22	26.85

10.58	375.00	.112E+08	7126.2		5.33	26.26

		<---- hydrograph ---->			<-pipe / channel->	
	AREA	QPEAK	TPEAK	R.V.	MAX DEPTH	MAX VEL
	(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (2700)	2465.80	5.39	54.42	50.94	0.10	1.34
OUTFLOW: ID= 1 (102800)	2465.80	5.39	56.25	94.44	0.10	1.34

CALIB			
NASHYD (2800)	Area (ha)=1188.80	Curve Number (CN)= 97.9	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	
	U.H. Tp(hrs)= 35.85		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 0.697

```
     PEAK FLOW       (cms)=   3.963 (i)
     TIME TO PEAK    (hrs)=  42.500
     RUNOFF VOLUME    (mm)=  78.049
     TOTAL RAINFALL   (mm)= 154.900
     RUNOFF COEFFICIENT   =   0.504

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
--------------------
| ROUTE CHN(972400)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
--------------------
               <------ DATA FOR SECTION (   1.1) ------>
               Distance      Elevation       Manning
                   0.00         366.87        0.1000
                  33.51         360.80    0.1000 /0.0300  Main Channel
                  44.60         359.42        0.0300      Main Channel
                 114.26         364.95    0.0300 /0.1000  Main Channel
                 150.00         366.00        0.1000

      <---------------------- TRAVEL TIME TABLE ---------------------->
       DEPTH     ELEV       VOLUME    FLOW RATE    VELOCITY   TRAV.TIME
         (m)      (m)      (cu.m.)      (cms)        (m/s)      (min)
        0.34   359.76    .715E+03        0.6          0.51       18.84
        0.69   360.11    .286E+04        4.0          0.82       11.87
        1.03   360.45    .643E+04       11.8          1.07        9.06
        1.38   360.80    .114E+05       25.5          1.30        7.48
        1.73   361.15    .178E+05       47.7          1.56        6.22
        2.07   361.49    .255E+05       77.4          1.77        5.48
        2.42   361.84    .344E+05      115.1          1.95        4.98
        2.77   362.19    .445E+05      161.5          2.11        4.60
        3.11   362.53    .560E+05      217.3          2.26        4.29
        3.46   362.88    .687E+05      283.0          2.40        4.05
        3.81   363.23    .827E+05      359.3          2.53        3.84
        4.15   363.57    .979E+05      446.8          2.65        3.65
        4.50   363.92    .114E+06      545.9          2.78        3.49
        4.85   364.27    .132E+06      657.4          2.89        3.35
        5.19   364.61    .151E+06      781.7          3.01        3.23
        5.54   364.96    .172E+06      920.3          3.12        3.11
        5.89   365.31    .194E+06     1103.3          3.31        2.93
        6.23   365.65    .219E+06     1302.0          3.46        2.80
        6.58   366.00    .247E+06     1517.3          3.57        2.71

                                    <---- hydrograph ---->   <-pipe / channel->
                              AREA    QPEAK   TPEAK   R.V.   MAX DEPTH  MAX VEL
                              (ha)    (cms)   (hrs)   (mm)      (m)       (m/s)
   INFLOW : ID= 2 (  2800) 1188.80     3.96   42.50  78.05      0.68      0.81
   OUTFLOW: ID= 1 (972400) 1188.80     3.97   41.58 125.85      0.68      0.81



--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0111)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (102800):  2465.80   5.386    56.25    94.44
     + ID2= 2 (102900):  6379.70   0.717   166.58     3.68
       ================================================
       ID = 3 (  0111):  8845.50   5.667    60.58    28.98
```

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     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------


--------------------
| ADD HYD  (  0111)|
|   3 +  2 =  1    |          AREA     QPEAK     TPEAK      R.V.
--------------------          (ha)     (cms)     (hrs)      (mm)
        ID1= 3 (  0111):  8845.50    5.667     60.58     28.98
      + ID2= 2 (962400):  8136.80   26.494     41.17    119.32
        ================================================
        ID = 1 (  0111): 16982.30   31.851     43.50     72.26

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0111)|
|   1 +  2 =  3    |          AREA     QPEAK     TPEAK      R.V.
--------------------          (ha)     (cms)     (hrs)      (mm)
        ID1= 1 (  0111): 16982.30   31.851     43.50     72.26
      + ID2= 2 (972400):  1188.80    3.968     41.58    125.85
        ================================================
        ID = 3 (  0111): 18171.10   35.813     43.42     75.77

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------
--------------------
| ROUTE CHN(102400)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
--------------------
               <------ DATA FOR SECTION (   1.1) ------>
               Distance      Elevation       Manning
                   0.00         330.00        0.0900
                 180.00         326.64    0.0900 /0.0300  Main Channel
                 210.00         326.70    0.0300 /0.0800  Main Channel
                 361.00         331.70        0.0800

      <---------------------- TRAVEL TIME TABLE ---------------------->
       DEPTH     ELEV      VOLUME    FLOW RATE    VELOCITY   TRAV.TIME
        (m)       (m)     (cu.m.)      (cms)        (m/s)      (min)
       0.18    326.82    .137E+06       1.6          0.29     ******
       0.35    326.99    .362E+06       6.3          0.44     952.53
       0.53    327.17    .652E+06      14.0          0.54     779.33
       0.71    327.35    .101E+07      24.5          0.61     685.36
       0.88    327.52    .143E+07      38.2          0.67     624.03
       1.06    327.70    .192E+07      55.2          0.72     579.56
       1.24    327.88    .247E+07      75.7          0.77     545.08
       1.41    328.05    .310E+07      99.8          0.81     517.10
       1.59    328.23    .378E+07     127.7          0.85     493.62
       1.77    328.41    .453E+07     159.6          0.89     473.43
       1.95    328.59    .535E+07     195.8          0.92     455.75
       2.12    328.76    .624E+07     236.3          0.95     440.04
       2.30    328.94    .719E+07     281.3          0.99     425.92
       2.48    329.12    .821E+07     331.0          1.02     413.10
       2.65    329.29    .929E+07     385.7          1.05     401.38
       2.83    329.47    .104E+08     445.3          1.07     390.59
       3.01    329.65    .117E+08     510.2          1.10     380.60
       3.18    329.82    .129E+08     580.4          1.13     371.32
       3.36    330.00    .143E+08     656.2          1.16     362.64

                                    <---- hydrograph ---->   <-pipe / channel->
                              AREA    QPEAK   TPEAK   R.V.   MAX DEPTH  MAX VEL
                              (ha)    (cms)   (hrs)   (mm)      (m)       (m/s)
   INFLOW : ID= 2 (  0111) *******    35.81   43.42  75.77      0.85       0.66
```

OUTFLOW: ID= 1 (102400) ******* 34.52 55.33 72.52 0.83 0.65

CALIB			
NASHYD (2400)	Area (ha)=*******	Curve Number (CN)= 93.8	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	
	U.H. Tp(hrs)= 62.10		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 3.797

PEAK FLOW (cms)= 20.138 (i)
TIME TO PEAK (hrs)= 68.917
RUNOFF VOLUME (mm)= 40.381
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.261

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
NASHYD (2300)	Area (ha)=6277.00	Curve Number (CN)= 89.6
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70
	U.H. Tp(hrs)= 40.05	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 3.296

PEAK FLOW (cms)= 16.229 (i)
TIME TO PEAK (hrs)= 47.083
RUNOFF VOLUME (mm)= 60.560
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.391

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| RESERVOIR(0502)| IN= 2---> OUT= 1 | DT= 5.0 min | OVERFLOW IS OFF

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	9.7000	980.5001
1.0000	596.8000	0.0000	0.0000

		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2	(2300)	6277.000	16.229	47.08	60.56
OUTFLOW: ID= 1	(0502)	6277.000	1.462	166.58	5.57

PEAK FLOW REDUCTION [Qout/Qin](%)= 9.01
TIME SHIFT OF PEAK FLOW (min)=******
MAXIMUM STORAGE USED (ha.m.)=617.2205

| ROUTE CHN(102301)| IN= 2---> OUT= 1 | Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	383.00	0.1000	
431.00	374.00	0.1000 /0.0300	Main Channel
525.00	374.00	0.0300	Main Channel
718.00	374.00	0.0300 /0.1000	Main Channel
1180.00	379.00	0.1000	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.26	374.26	.245E+05	178.5	2.22	2.29
0.53	374.53	.520E+05	576.2	3.38	1.50
0.79	374.79	.825E+05	1151.5	4.26	1.19
1.05	375.05	.116E+06	1890.3	4.98	1.02
1.32	375.32	.152E+06	2785.9	5.58	0.91
1.58	375.58	.192E+06	3834.9	6.11	0.83
1.84	375.84	.234E+06	5035.6	6.57	0.77
2.11	376.11	.279E+06	6387.3	6.98	0.73
2.37	376.37	.327E+06	7890.1	7.35	0.69
2.63	376.63	.379E+06	9544.7	7.69	0.66
2.89	376.89	.433E+06	11352.1	8.00	0.64
3.16	377.16	.490E+06	13313.4	8.29	0.61
3.42	377.42	.550E+06	15430.2	8.56	0.59
3.68	377.68	.613E+06	17704.1	8.81	0.58
3.95	377.95	.679E+06	20136.7	9.05	0.56
4.21	378.21	.748E+06	22729.9	9.27	0.55
4.47	378.47	.820E+06	25485.6	9.48	0.54
4.74	378.74	.895E+06	28405.8	9.68	0.53
5.00	379.00	.973E+06	31492.6	9.88	0.51

		AREA (ha)	<---- hydrograph ----> QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	<-pipe / channel-> MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2	(0502)	6277.00	1.46	166.58	5.57	0.00	2.22
OUTFLOW: ID= 1	(102301)	6277.00	1.46	166.58	5.57	0.00	2.22

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--------------------
| ROUTE CHN(102300)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
--------------------
               <------ DATA FOR SECTION (   1.1) ------>
               Distance      Elevation       Manning
                   0.00        342.00        0.1000
                 457.00        324.00    0.1000 /0.0300  Main Channel
                 531.00        323.00        0.0300      Main Channel
                 628.00        330.00    0.0300 /0.1000  Main Channel
                 882.00        344.00        0.1000

      <-------------------- TRAVEL TIME TABLE ---------------------->
       DEPTH     ELEV      VOLUME    FLOW RATE    VELOCITY   TRAV.TIME
         (m)      (m)     (cu.m.)      (cms)        (m/s)      (min)
        1.00   324.00    .815E+04      46.1          1.05       2.95
        1.95   324.95    .269E+05     272.4          1.88       1.64
        2.89   325.89    .521E+05     665.9          2.37       1.30
        3.84   326.84    .839E+05    1233.8          2.73       1.13
        4.79   327.79    .122E+06    1988.8          3.02       1.02
        5.74   328.74    .167E+06    2945.1          3.27       0.95
        6.68   329.68    .218E+06    4117.3          3.50       0.88
        7.63   330.63    .276E+06    5654.8          3.79       0.81
        8.58   331.58    .342E+06    7510.8          4.08       0.76
        9.53   332.53    .414E+06    9628.6          4.31       0.72
       10.47   333.47    .494E+06   12016.7          4.51       0.69
       11.42   334.42    .581E+06   14683.0          4.69       0.66
       12.37   335.37    .675E+06   17635.6          4.84       0.64
       13.32   336.32    .777E+06   20882.7          4.99       0.62
       14.26   337.26    .886E+06   24432.4          5.12       0.60
       15.21   338.21    .100E+07   28292.5          5.24       0.59
       16.16   339.16    .112E+07   32471.2          5.35       0.58
       17.11   340.11    .126E+07   36976.5          5.46       0.57
       18.05   341.05    .139E+07   41816.1          5.57       0.56

                                          <---- hydrograph ---->   <-pipe / channel->
                                AREA     QPEAK    TPEAK    R.V.   MAX DEPTH  MAX VEL
                                (ha)     (cms)    (hrs)    (mm)      (m)      (m/s)
   INFLOW : ID= 2 (102301) 6277.00      1.46   166.58    5.57      0.03      1.05
   OUTFLOW: ID= 1 (102300) 6277.00      1.46   166.58    5.57      0.03      1.05



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--------------------
| ADD HYD  (  0113)|
|   1 +  2 =  3    |          AREA     QPEAK     TPEAK      R.V.
--------------------          (ha)     (cms)     (hrs)      (mm)
       ID1= 1 (102300):  6277.00   1.459   166.58     5.57
     + ID2= 2 (102400): 18171.10  34.517    55.33    72.52
       ================================================
       ID = 3 (  0113): 24448.10  34.900    55.75    55.33

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0113)|
|   3 +  2 =  1    |          AREA     QPEAK     TPEAK      R.V.
--------------------          (ha)     (cms)     (hrs)      (mm)
       ID1= 3 (  0113): 24448.10  34.900    55.75    55.33
     + ID2= 2 (  2400): 11213.00  20.138    68.92    40.38
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      ================================================
      ID = 1 (  0113): 35661.10  54.764    58.83    64.67

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ROUTE CHN(102000)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
--------------------
               <------ DATA FOR SECTION (   1.1) ------>
               Distance      Elevation       Manning
                   0.00         350.13        0.0800
                 230.00         315.89    0.0800 /0.0300  Main Channel
                 250.00         315.89    0.0300 /0.0800  Main Channel
                 460.00         327.53        0.0800

      <---------------------- TRAVEL TIME TABLE ---------------------->
       DEPTH     ELEV       VOLUME     FLOW RATE     VELOCITY   TRAV.TIME
         (m)      (m)      (cu.m.)       (cms)         (m/s)      (min)
        0.61   316.50     .183E+06        15.6          0.92     196.45
        1.23   317.12     .468E+06        55.0          1.28     141.87
        1.84   317.73     .853E+06       118.9          1.51     119.55
        2.45   318.34     .134E+07       209.7          1.70     106.44
        3.06   318.95     .193E+07       329.7          1.86      97.38
        3.68   319.57     .261E+07       481.3          2.00      90.52
        4.29   320.18     .340E+07       667.0          2.13      85.02
        4.90   320.79     .429E+07       889.1          2.25      80.46
        5.51   321.40     .528E+07      1150.0          2.36      76.56
        6.13   322.02     .637E+07      1451.8          2.47      73.18
        6.74   322.63     .757E+07      1796.7          2.58      70.19
        7.35   323.24     .886E+07      2186.9          2.68      67.52
        7.96   323.85     .103E+08      2624.5          2.78      65.11
        8.58   324.47     .117E+08      3111.5          2.88      62.93
        9.19   325.08     .133E+08      3649.9          2.97      60.93
        9.80   325.69     .150E+08      4241.8          3.06      59.10
       10.41   326.30     .168E+08      4889.0          3.15      57.40
       11.03   326.92     .187E+08      5593.5          3.24      55.83
       11.64   327.53     .207E+08      6357.1          3.33      54.36

                                      <---- hydrograph ---->   <-pipe / channel->
                              AREA      QPEAK    TPEAK    R.V.   MAX DEPTH  MAX VEL
                              (ha)      (cms)    (hrs)    (mm)      (m)       (m/s)
   INFLOW : ID= 2 (  0113) *******     54.76    58.83   64.67      1.22       1.27
   OUTFLOW: ID= 1 (102000) *******     54.74    59.92   63.86      1.22       1.27



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--------------------
| CALIB              |
| NASHYD   (  2000)|   Area    (ha)=3268.30   Curve Number   (CN)= 93.8
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 1.70
--------------------   U.H. Tp(hrs)=  21.15

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
             TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
              hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
            0.083   12.00 | 3.333    2.40 | 6.583   34.50 |  9.83   10.40
            0.167   12.00 | 3.417    2.40 | 6.667   34.50 |  9.92   10.40
            0.250   12.00 | 3.500    2.40 | 6.750   34.50 | 10.00   10.40
            0.333   12.00 | 3.583    2.40 | 6.833   34.50 | 10.08   10.40
```

0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 3.249

PEAK FLOW (cms)= 17.148 (i)
TIME TO PEAK (hrs)= 28.167
RUNOFF VOLUME (mm)= 106.417
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.687

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| ROUTE CHN(0094)|
| IN= 2---> OUT= 1 | Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	295.31	0.1000	
10.00	292.00	0.1000 /0.0300	Main Channel
45.08	292.60	0.0300 /0.1000	Main Channel
63.71	295.80	0.1000	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.17	292.17	.113E+03	0.3	0.32	6.22
0.35	292.35	.452E+03	1.9	0.51	3.92
0.52	292.52	.102E+04	5.7	0.67	2.99

0.70	292.70	.178E+04	13.0	0.89	2.27
0.87	292.87	.259E+04	23.9	1.12	1.80
1.05	293.05	.343E+04	37.4	1.32	1.53
1.22	293.22	.431E+04	53.3	1.50	1.35
1.39	293.39	.522E+04	71.5	1.66	1.22
1.57	293.57	.616E+04	91.9	1.81	1.12
1.74	293.74	.714E+04	114.5	1.94	1.04
1.92	293.92	.814E+04	139.2	2.07	0.97
2.09	294.09	.918E+04	165.9	2.19	0.92
2.26	294.26	.103E+05	194.7	2.30	0.88
2.44	294.44	.114E+05	225.5	2.40	0.84
2.61	294.61	.125E+05	258.3	2.50	0.81
2.79	294.79	.137E+05	293.0	2.59	0.78
2.96	294.96	.149E+05	329.7	2.68	0.75
3.14	295.14	.161E+05	368.3	2.77	0.73
3.31	295.31	.174E+05	408.9	2.85	0.71

		<---- hydrograph ---->			<-pipe / channel->	
	AREA	QPEAK	TPEAK	R.V.	MAX DEPTH	MAX VEL
	(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (2000)	3268.30	17.15	28.17	106.42	0.76	0.96
OUTFLOW: ID= 1 (0094)	3268.30	17.15	28.17	132.09	0.76	0.96

CALIB			
NASHYD (1900)	Area (ha)=3249.40	Curve Number (CN)= 93.8	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	
	U.H. Tp(hrs)= 55.65		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40

2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 1.228

PEAK FLOW (cms)= 6.511 (i)
TIME TO PEAK (hrs)= 62.500
RUNOFF VOLUME (mm)= 45.960
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.297

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0115)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (102000):	35661.10	54.737	59.92	63.86
	+ ID2= 2 (1900):	3249.40	6.511	62.50	45.96
	ID = 3 (0115):	38910.50	61.244	60.25	66.23

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0115)		AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1		(ha)	(cms)	(hrs)	(mm)
	ID1= 3 (0115):	38910.50	61.244	60.25	66.23
	+ ID2= 2 (0094):	3268.30	17.148	28.17	132.09
	ID = 1 (0115):	42178.80	73.708	52.25	71.34

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ROUTE CHN(101300)		
IN= 2---> OUT= 1	Routing time step (min)'=	5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	320.70	0.0800	
233.00	297.53	0.0800 /0.0300	Main Channel
260.00	297.53	0.0300 /0.0800	Main Channel
467.00	351.61	0.0800	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
1.22	298.75	.121E+06	51.7	1.20	38.88

2.44	299.97	.299E+06	179.7	1.68	27.73
3.66	301.19	.535E+06	383.7	2.00	23.24
4.88	302.41	.829E+06	668.8	2.25	20.65
6.10	303.63	.118E+07	1041.3	2.46	18.88
7.32	304.85	.159E+07	1507.5	2.65	17.56
8.54	306.07	.206E+07	2073.8	2.82	16.52
9.76	307.29	.258E+07	2746.6	2.97	15.65
10.98	308.51	.316E+07	3531.9	3.12	14.92
12.19	309.72	.380E+07	4435.9	3.26	14.28
13.41	310.94	.450E+07	5464.5	3.39	13.72
14.63	312.16	.525E+07	6623.6	3.52	13.22
15.85	313.38	.606E+07	7918.8	3.64	12.76
17.07	314.60	.693E+07	9355.8	3.77	12.35
18.29	315.82	.786E+07	10940.1	3.88	11.98
19.51	317.04	.885E+07	12677.2	4.00	11.63
20.73	318.26	.989E+07	14572.3	4.11	11.31
21.95	319.48	.110E+08	16630.8	4.22	11.01
23.17	320.70	.121E+08	18857.8	4.33	10.74

		<---- hydrograph ---->		<-pipe / channel->	
	AREA	QPEAK	TPEAK	R.V.	MAX DEPTH	MAX VEL
	(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (0115) *******		73.71	52.25	71.34	1.43	1.26
OUTFLOW: ID= 1 (101300) *******		73.65	52.75	71.17	1.43	1.26

CALIB			
NASHYD (1300)	Area (ha)=6417.00	Curve Number (CN)= 89.6	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	
	U.H. Tp(hrs)= 74.70		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40

2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 1.806

PEAK FLOW (cms)= 8.905 (i)
TIME TO PEAK (hrs)= 81.667
RUNOFF VOLUME (mm)= 29.728
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.192

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0116)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (101300):	42178.80	73.654	52.75	71.17
+	ID2= 2 (1300):	6417.00	8.905	81.67	29.73
	ID = 3 (0116):	48595.80	81.951	53.08	70.68

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB NASHYD (1200)				
ID= 1 DT= 5.0 min	Area (ha)=2472.10	Curve Number (CN)= 93.8		
	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70		
	U.H. Tp(hrs)= 57.75			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40

1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 0.900

PEAK FLOW (cms)= 4.774 (i)
TIME TO PEAK (hrs)= 64.583
RUNOFF VOLUME (mm)= 44.022
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.284

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
NASHYD (1500)	Area (ha)=3641.70 Curve Number (CN)= 93.8
ID= 1 DT= 5.0 min	Ia (mm)= 5.00 # of Linear Res.(N)= 1.70
	U.H. Tp(hrs)= 63.00

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40

1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 1.216

PEAK FLOW (cms)= 6.447 (i)
TIME TO PEAK (hrs)= 69.833
RUNOFF VOLUME (mm)= 39.685
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.256

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0118)		AREA	QPEAK	TPEAK	R.V.
		(ha)	(cms)	(hrs)	(mm)
1 + 2 = 3	ID1= 1 (0116):	48595.80	81.951	53.08	70.68
	+ ID2= 2 (1200):	2472.10	4.774	64.58	44.02
	ID = 3 (0118):	51067.90	86.649	53.17	71.61

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0118)		AREA	QPEAK	TPEAK	R.V.
		(ha)	(cms)	(hrs)	(mm)
3 + 2 = 1	ID1= 3 (0118):	51067.90	86.649	53.17	71.61
	+ ID2= 2 (1500):	3641.70	6.447	69.83	39.69
	ID = 1 (0118):	54709.59	92.916	53.67	72.44

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ROUTE CHN(10900)	
IN= 2---> OUT= 1	Routing time step (min)'= 5.00

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               <------ DATA FOR SECTION (   1.1) ------>
               Distance      Elevation       Manning
                   0.00         300.43        0.0800
                 168.78         292.39    0.0800 /0.0300  Main Channel
                 190.00         292.39    0.0300 /0.0800  Main Channel
                 338.00         312.45        0.0800

      <--------------------- TRAVEL TIME TABLE ---------------------->
       DEPTH     ELEV       VOLUME     FLOW RATE     VELOCITY   TRAV.TIME
         (m)      (m)      (cu.m.)       (cms)         (m/s)      (min)
        0.42   292.81     .574E+05        7.2           0.62      133.86
        0.85   293.24     .140E+06       24.7           0.88       94.75
        1.27   293.66     .248E+06       52.3           1.05       79.10
        1.69   294.08     .382E+06       90.7           1.18       70.13
        2.12   294.51     .541E+06      140.6           1.30       64.07
        2.54   294.93     .725E+06      202.8           1.40       59.57
        2.96   295.35     .934E+06      278.0           1.48       56.01
        3.39   295.78     .117E+07      367.0           1.57       53.09
        3.81   296.20     .143E+07      470.6           1.64       50.62
        4.23   296.62     .171E+07      589.5           1.71       48.47
        4.66   297.05     .203E+07      724.5           1.78       46.59
        5.08   297.47     .236E+07      876.4           1.85       44.91
        5.50   297.89     .272E+07     1045.8           1.91       43.40
        5.93   298.32     .311E+07     1233.4           1.98       42.02
        6.35   298.74     .352E+07     1439.9           2.04       40.77
        6.77   299.16     .396E+07     1666.1           2.10       39.61
        7.19   299.59     .442E+07     1912.5           2.16       38.54
        7.62   300.01     .491E+07     2179.8           2.21       37.54
        8.04   300.43     .542E+07     2468.8           2.27       36.62

                                                <---- hydrograph ---->   <-pipe / channel->
                                    AREA        QPEAK     TPEAK     R.V.   MAX DEPTH  MAX VEL
                                    (ha)        (cms)     (hrs)     (mm)       (m)       (m/s)
   INFLOW : ID= 2 (  0118) *******     92.92     53.67   72.44       1.71       1.19
   OUTFLOW: ID= 1 ( 10900) *******     92.88     56.58   72.03       1.71       1.19



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| CALIB              |
| NASHYD   (  2500)|   Area    (ha)=*******   Curve Number   (CN)= 68.6
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 1.70
--------------------   U.H. Tp(hrs)=  72.30

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                              ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.083   12.00 | 3.333    2.40 | 6.583   34.50 |  9.83   10.40
               0.167   12.00 | 3.417    2.40 | 6.667   34.50 |  9.92   10.40
               0.250   12.00 | 3.500    2.40 | 6.750   34.50 | 10.00   10.40
               0.333   12.00 | 3.583    2.40 | 6.833   34.50 | 10.08   10.40
               0.417   12.00 | 3.667    2.40 | 6.917   34.50 | 10.17   10.40
               0.500   12.00 | 3.750    2.40 | 7.000   34.50 | 10.25   10.40
               0.583   12.00 | 3.833    2.40 | 7.083   16.10 | 10.33   10.40
               0.667   12.00 | 3.917    2.40 | 7.167   16.10 | 10.42   10.40
               0.750   12.00 | 4.000    2.40 | 7.250   16.10 | 10.50   10.40
               0.833   12.00 | 4.083    4.00 | 7.333   16.10 | 10.58   10.40
               0.917   12.00 | 4.167    4.00 | 7.417   16.10 | 10.67   10.40
               1.000   12.00 | 4.250    4.00 | 7.500   16.10 | 10.75   10.40
```

1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 3.507

PEAK FLOW (cms)= 11.653 (i)
TIME TO PEAK (hrs)= 79.833
RUNOFF VOLUME (mm)= 20.711
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.134

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| ROUTE CHN(0093)|
| IN= 2---> OUT= 1 | Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	347.17	0.1000	
708.75	322.23	0.1000 /0.0300	Main Channel
890.79	331.28	0.0300 /0.1000	Main Channel
1382.17	350.54	0.1000	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
1.31	323.54	.854E+06	28.8	0.69	494.83
2.63	324.86	.341E+07	182.6	1.09	311.73
3.94	326.17	.768E+07	538.2	1.43	237.89
5.25	327.48	.137E+08	1159.2	1.73	196.37
6.56	328.79	.213E+08	2101.7	2.01	169.23
7.88	330.11	.307E+08	3417.7	2.27	149.86
9.19	331.42	.418E+08	5186.9	2.53	134.41
10.50	332.73	.547E+08	7691.9	2.87	118.63
11.81	334.04	.696E+08	10697.9	3.14	108.38
13.13	335.36	.863E+08	14228.6	3.37	101.06
14.44	336.67	.105E+09	18306.7	3.56	95.49

15.75	337.98	.125E+09	22954.8	3.74	91.05
17.06	339.29	.148E+09	28195.2	3.89	87.37
18.38	340.61	.172E+09	34050.1	4.04	84.24
19.69	341.92	.198E+09	40541.5	4.17	81.52
21.00	343.23	.226E+09	47691.0	4.30	79.12
22.31	344.54	.256E+09	55520.3	4.42	76.97
23.63	345.86	.288E+09	64050.6	4.54	75.01
24.94	347.17	.322E+09	73303.1	4.65	73.23

		<---- hydrograph ---->			<-pipe / channel->	
	AREA	QPEAK	TPEAK	R.V.	MAX DEPTH	MAX VEL
	(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (2500)	*******	11.65	79.83	20.71	0.53	0.69
OUTFLOW: ID= 1 (0093)	*******	11.59	89.17	44.49	0.53	0.69

CALIB			
NASHYD (1700)	Area (ha)=	*******	Curve Number (CN)= 93.8
ID= 1 DT= 5.0 min	Ia (mm)=	5.00	# of Linear Res.(N)= 1.70
	U.H. Tp(hrs)=	96.90	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00

2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 3.645

PEAK FLOW (cms)= 18.986 (i)
TIME TO PEAK (hrs)= 83.167
RUNOFF VOLUME (mm)= 22.713
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.147

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ROUTE CHN(101700)	
IN= 2---> OUT= 1	Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	366.00	0.0900	
400.00	322.00	0.0300	Main Channel
600.00	322.00	0.0300	Main Channel
708.75	331.28	0.0300	Main Channel
890.79	340.00	0.0300 /0.1000	Main Channel
1382.17	350.54	0.1000	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
1.50	323.50	.661E+07	913.6	2.82	120.63
3.00	325.00	.142E+08	2977.8	4.29	79.39
4.51	326.51	.227E+08	6012.5	5.40	62.96
6.01	328.01	.322E+08	9979.0	6.33	53.78
7.51	329.51	.426E+08	14874.7	7.12	47.79
9.01	331.01	.541E+08	20712.4	7.82	43.50
10.51	332.51	.666E+08	27035.6	8.29	41.03
12.02	334.02	.804E+08	34339.8	8.72	39.04
13.52	335.52	.957E+08	42807.1	9.13	37.26
15.02	337.02	.112E+09	52507.3	9.54	35.66
16.52	338.52	.130E+09	63508.4	9.95	34.21
18.03	340.03	.150E+09	75925.9	10.35	32.88
19.53	341.53	.171E+09	92683.6	11.06	30.78
21.03	343.03	.195E+09	*******	11.62	29.29
22.53	344.53	.222E+09	*******	12.07	28.20
24.03	346.03	.251E+09	*******	12.43	27.37
25.54	347.54	.282E+09	*******	12.74	26.71
27.04	349.04	.317E+09	*******	12.99	26.18
28.54	350.54	.353E+09	*******	13.21	25.75

		<---- hydrograph ---->			<-pipe / channel->	
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2 (1700)	*******	18.99	83.17	22.71	0.03	2.82
OUTFLOW: ID= 1 (101700)	*******	19.33	105.75	55.53	0.03	2.82

```
| ADD HYD  (  0101)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (101700): 16794.70  19.334   105.75    55.53
      + ID2= 2 (  0093): 12059.30  11.589    89.17    44.49
        ================================================
        ID = 3 (  0101): 28854.00  30.821    97.92    50.92

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
-------------------
| RESERVOIR(  0503)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  5.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
-------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                          0.0000      0.0000   |    6.0000    ********
                          1.0000    900.0000   |   10.0000    ********
                          2.0000    ********   |   32.0000    ********
                          2.7000    ********   |    0.0000      0.0000

                                AREA     QPEAK     TPEAK       R.V.
                                (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  0101)   ********     30.821     97.92      50.92
   OUTFLOW: ID= 1 (  0503)   ********      1.529    166.58       1.39

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)=  4.96
                  TIME SHIFT OF PEAK FLOW         (min)=******
                  MAXIMUM  STORAGE   USED       (ha.m.)=********

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-------------------
| ROUTE CHN(101800)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
-------------------
              <------ DATA FOR SECTION (   1.1) ------>
              Distance      Elevation       Manning
                  0.00        319.48        0.0800
                111.80        310.57    0.0800 /0.0300  Main Channel
                160.00        310.57    0.0300 /0.0800  Main Channel
                223.00        314.40        0.0800

     <--------------------- TRAVEL TIME TABLE ---------------------->
      DEPTH    ELEV      VOLUME    FLOW RATE    VELOCITY   TRAV.TIME
       (m)      (m)     (cu.m.)      (cms)        (m/s)      (min)
      0.20   310.77    .480E+05       4.5          0.44     176.04
      0.40   310.97    .101E+06      14.7          0.68     114.96
      0.60   311.17    .160E+06      29.5          0.86      90.71
      0.81   311.38    .225E+06      48.5          1.00      77.25
      1.01   311.58    .295E+06      71.7          1.13      68.54
      1.21   311.78    .370E+06      98.9          1.24      62.37
      1.41   311.98    .451E+06     130.2          1.34      57.74
      1.61   312.18    .538E+06     165.6          1.43      54.11
      1.81   312.38    .630E+06     205.0          1.52      51.18
      2.02   312.59    .727E+06     248.6          1.59      48.74
      2.22   312.79    .830E+06     296.3          1.66      46.68
      2.42   312.99    .938E+06     348.2          1.73      44.91
      2.62   313.19    .105E+07     404.3          1.79      43.37
      2.82   313.39    .117E+07     464.8          1.85      42.00
      3.02   313.59    .130E+07     529.7          1.90      40.79
      3.23   313.80    .143E+07     599.0          1.96      39.70
      3.43   314.00    .156E+07     672.8          2.01      38.70
      3.63   314.20    .170E+07     751.2          2.05      37.80
      3.83   314.40    .185E+07     834.2          2.10      36.97
```

	AREA (ha)	<---- hydrograph ----> QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	<-pipe / channel-> MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2 (0503)	*******	1.53	166.58	1.39	0.07	0.44
OUTFLOW: ID= 1 (101800)	*******	1.50	166.58	1.34	0.07	0.44

CALIB NASHYD (1800) ID= 1 DT= 5.0 min	Area (ha)=1008.70	Curve Number (CN)= 97.9
	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70
	U.H. Tp(hrs)= 39.15	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 0.542

PEAK FLOW (cms)= 3.081 (i)

```
     TIME TO PEAK    (hrs)=  45.833
     RUNOFF VOLUME    (mm)=  71.891
     TOTAL RAINFALL   (mm)= 154.900
     RUNOFF COEFFICIENT   =   0.464

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| ADD HYD  (  0102)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (101800): 28854.00   1.502   166.58     1.34
      + ID2= 2 (  1800):  1008.70   3.081    45.83    71.89
        ================================================
        ID = 3 (  0102): 29862.70   3.317    55.08     5.39

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
--------------------
| ROUTE CHN(101400)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
--------------------
               <------ DATA FOR SECTION (   1.1) ------>
               Distance      Elevation       Manning
                   0.00         319.00        0.0800
                 131.00         303.70    0.0800 /0.0300  Main Channel
                 180.00         303.70    0.0300 /0.0800  Main Channel
                 262.00         321.40        0.0800

      <---------------------- TRAVEL TIME TABLE ---------------------->
       DEPTH     ELEV      VOLUME    FLOW RATE    VELOCITY   TRAV.TIME
        (m)       (m)     (cu.m.)      (cms)        (m/s)      (min)
       0.81   304.51    .569E+05     111.3          2.54       8.52
       1.61   305.31    .125E+06     365.5          3.81       5.70
       2.42   306.12    .204E+06     742.5          4.73       4.58
       3.22   306.92    .294E+06    1238.2          5.47       3.96
       4.03   307.73    .396E+06    1852.3          6.09       3.56
       4.83   308.53    .508E+06    2586.5          6.62       3.28
       5.64   309.34    .632E+06    3443.1          7.09       3.06
       6.44   310.14    .767E+06    4424.8          7.51       2.89
       7.25   310.95    .913E+06    5534.8          7.89       2.75
       8.05   311.75    .107E+07    6776.3          8.24       2.63
       8.86   312.56    .124E+07    8152.9          8.57       2.53
       9.66   313.36    .142E+07    9667.9          8.87       2.44
      10.47   314.17    .161E+07   11324.9          9.16       2.37
      11.27   314.97    .181E+07   13127.5          9.44       2.30
      12.08   315.78    .202E+07   15079.2          9.70       2.23
      12.88   316.58    .225E+07   17183.6          9.95       2.18
      13.69   317.39    .248E+07   19444.2         10.20       2.13
      14.49   318.19    .273E+07   21864.6         10.43       2.08
      15.30   319.00    .298E+07   24448.4         10.66       2.03

                                          <---- hydrograph ---->   <-pipe / channel->
                                AREA    QPEAK   TPEAK   R.V.    MAX DEPTH  MAX VEL
                                (ha)    (cms)   (hrs)   (mm)       (m)       (m/s)
   INFLOW : ID= 2 (  0102) *******     3.32   55.08   5.39       0.02       2.54
   OUTFLOW: ID= 1 (101400) *******     3.32   55.17   5.39       0.02       2.54



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CALIB					
NASHYD (2600)	Area (ha)=6847.70	Curve Number (CN)= 68.6			
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70			
	U.H. Tp(hrs)= 29.25				

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 4.923

PEAK FLOW (cms)= 16.324 (i)
TIME TO PEAK (hrs)= 36.833
RUNOFF VOLUME (mm)= 53.512
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.345

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR(0504)	OVERFLOW IS OFF

| IN= 2---> OUT= 1 |
| DT= 5.0 min |

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	1.4000	648.0000
1.0000	616.0000	4.4000	********

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (2600)	6847.700	16.324	36.83	53.51
OUTFLOW: ID= 1 (0504)	6847.700	0.821	166.58	4.38

PEAK FLOW REDUCTION [Qout/Qin](%)= 5.03
TIME SHIFT OF PEAK FLOW (min)=******
MAXIMUM STORAGE USED (ha.m.)=505.9715

| ROUTE CHN(102601)|
| IN= 2---> OUT= 1 |

Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	415.53	0.1000	
105.00	413.61	0.1000	
184.00	403.26	0.1000 /0.0300	Main Channel
248.00	378.48	0.0300	Main Channel
293.00	374.62	0.0300	Main Channel
329.00	376.49	0.0300 /0.1000	Main Channel
513.00	422.52	0.1000	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
1.87	376.49	.206E+06	159.5	2.95	21.54
3.92	378.54	.785E+06	1112.6	5.41	11.76
5.98	380.60	.154E+07	3065.6	7.60	8.37
8.03	382.65	.240E+07	5822.8	9.26	6.87
10.09	384.71	.336E+07	9357.3	10.61	5.99
12.14	386.76	.444E+07	13667.1	11.75	5.41
14.20	388.82	.561E+07	18762.2	12.75	4.99
16.25	390.87	.690E+07	24659.1	13.64	4.66
18.31	392.93	.829E+07	31378.0	14.45	4.40
20.36	394.98	.978E+07	38941.5	15.19	4.19
22.42	397.04	.114E+08	47373.6	15.88	4.01
24.47	399.09	.131E+08	56699.5	16.52	3.85
26.53	401.15	.149E+08	66944.6	17.14	3.71
28.58	403.20	.168E+08	78135.1	17.72	3.59
30.64	405.26	.189E+08	92009.8	18.58	3.42
32.69	407.31	.211E+08	*******	19.32	3.29
34.75	409.37	.236E+08	*******	19.94	3.19
36.80	411.42	.262E+08	*******	20.47	3.11
38.86	413.48	.290E+08	*******	20.93	3.04

		<---- hydrograph ---->			<-pipe / channel->	
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2 (0504)	6847.70	0.82	166.58	4.38	0.01	2.95
OUTFLOW: ID= 1 (102601)	6847.70	0.82	166.58	4.36	0.01	2.95

| CALIB |

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| NASHYD   (  2100)|   Area    (ha)=5333.50   Curve Number   (CN)= 93.8
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 1.70
-------------------   U.H. Tp(hrs)=  65.70

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.
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---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

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    Unit Hyd Qpeak  (cms)=   1.707

    PEAK FLOW       (cms)=   9.054 (i)
    TIME TO PEAK    (hrs)=  72.500
    RUNOFF VOLUME    (mm)=  37.703
    TOTAL RAINFALL   (mm)= 154.900
    RUNOFF COEFFICIENT   =   0.243

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| ROUTE CHN(102100)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
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               <------ DATA FOR SECTION (   1.1) ------>
               Distance      Elevation       Manning
                   0.00         339.82        0.0800
                 176.00         337.39    0.0800 /0.0300  Main Channel
                 200.00         337.00    0.0300 /0.0800  Main Channel
                 352.00         359.14        0.0800

      <--------------------- TRAVEL TIME TABLE ---------------------->
       DEPTH     ELEV      VOLUME    FLOW RATE    VELOCITY   TRAV.TIME
        (m)       (m)     (cu.m.)      (cms)        (m/s)      (min)
       0.15    337.15    .104E+05       0.2          0.30      784.05
       0.30    337.30    .416E+05       1.4          0.47      493.92
       0.45    337.45    .937E+05       4.4          0.65      356.85
       0.59    337.59    .169E+06       9.8          0.81      287.24
       0.74    337.74    .270E+06      17.6          0.91      256.05
       0.89    337.89    .394E+06      27.7          0.98      236.91
       1.04    338.04    .543E+06      40.6          1.04      223.11
       1.19    338.19    .717E+06      56.3          1.10      212.20
       1.34    338.34    .915E+06      75.0          1.14      203.09
       1.48    338.48    .114E+07      97.1          1.19      195.22
       1.63    338.63    .138E+07     122.5          1.23      188.25
       1.78    338.78    .165E+07     151.5          1.28      182.00
       1.93    338.93    .195E+07     184.3          1.32      176.32
       2.08    339.08    .227E+07     221.1          1.36      171.12
       2.23    339.23    .261E+07     262.0          1.40      166.32
       2.37    339.37    .298E+07     307.1          1.44      161.86
       2.52    339.52    .338E+07     356.7          1.47      157.71
       2.67    339.67    .379E+07     411.0          1.51      153.83
       2.82    339.82    .424E+07     470.0          1.55      150.19

                                      <---- hydrograph ---->   <-pipe / channel->
                              AREA     QPEAK    TPEAK    R.V.   MAX DEPTH  MAX VEL
                              (ha)     (cms)    (hrs)    (mm)       (m)       (m/s)
   INFLOW : ID= 2 (  2100) 5333.50      9.05    72.50   37.70       0.57       0.78
   OUTFLOW: ID= 1 (102100) 5333.50      9.05    74.75   78.90       0.57       0.78



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| CALIB              |
| NASHYD   (  2200)|   Area    (ha)=3089.20   Curve Number   (CN)= 89.6
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 1.70
--------------------   U.H. Tp(hrs)=  24.15

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
              TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
               hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
             0.083   12.00 | 3.333    2.40 | 6.583   34.50 |  9.83   10.40
             0.167   12.00 | 3.417    2.40 | 6.667   34.50 |  9.92   10.40
             0.250   12.00 | 3.500    2.40 | 6.750   34.50 | 10.00   10.40
             0.333   12.00 | 3.583    2.40 | 6.833   34.50 | 10.08   10.40
             0.417   12.00 | 3.667    2.40 | 6.917   34.50 | 10.17   10.40
             0.500   12.00 | 3.750    2.40 | 7.000   34.50 | 10.25   10.40
             0.583   12.00 | 3.833    2.40 | 7.083   16.10 | 10.33   10.40
             0.667   12.00 | 3.917    2.40 | 7.167   16.10 | 10.42   10.40
             0.750   12.00 | 4.000    2.40 | 7.250   16.10 | 10.50   10.40
             0.833   12.00 | 4.083    4.00 | 7.333   16.10 | 10.58   10.40
             0.917   12.00 | 4.167    4.00 | 7.417   16.10 | 10.67   10.40
             1.000   12.00 | 4.250    4.00 | 7.500   16.10 | 10.75   10.40
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1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 2.690

PEAK FLOW (cms)= 13.212 (i)
TIME TO PEAK (hrs)= 31.333
RUNOFF VOLUME (mm)= 91.358
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.590

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| ROUTE CHN(102200)| IN= 2---> OUT= 1 | Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	392.15	0.1000	
375.00	371.63	0.1000 /0.0300	Main Channel
479.00	359.08	0.0300	Main Channel
599.00	359.47	0.0300	Main Channel
695.00	355.05	0.0300	Main Channel
900.00	367.55	0.0300 /0.1000	Main Channel
1223.00	380.00	0.1000	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
1.25	356.30	.138E+06	80.4	2.70	28.55
2.50	357.55	.551E+06	510.4	4.29	17.98
3.75	358.80	.124E+07	1504.8	5.62	13.72
5.00	360.05	.263E+07	3181.8	5.59	13.79
6.25	361.30	.449E+07	7266.9	7.48	10.30
7.50	362.55	.653E+07	12782.3	9.05	8.51
8.75	363.80	.874E+07	19711.0	10.43	7.39
10.00	365.05	.111E+08	28069.0	11.66	6.61

11.25	366.30	.137E+08	37887.6	12.78	6.03
12.50	367.55	.165E+08	49207.0	13.83	5.58
13.88	368.93	.198E+08	65063.1	15.23	5.06
15.27	370.32	.234E+08	82890.6	16.42	4.70
16.65	371.70	.273E+08	*******	17.45	4.42
18.03	373.08	.315E+08	*******	18.53	4.16
19.42	374.47	.361E+08	*******	19.43	3.97
20.80	375.85	.412E+08	*******	20.20	3.82
22.18	377.23	.466E+08	*******	20.85	3.70
23.57	378.62	.524E+08	*******	21.41	3.60
24.95	380.00	.586E+08	*******	21.91	3.52

		<---- hydrograph ---->			<-pipe / channel->	
	AREA	QPEAK	TPEAK	R.V.	MAX DEPTH	MAX VEL
	(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (2200)	3089.20	13.21	31.33	91.36	0.21	2.70
OUTFLOW: ID= 1 (102200)	3089.20	13.21	31.83	120.70	0.20	2.70

RESERVOIR(0505) | IN= 2---> OUT= 1 | DT= 5.0 min	OVERFLOW IS OFF			
OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)	
0.0000	0.0000	2.0000	430.0000	
1.0000	410.0000	4.4000	682.0000	

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (102200)	3089.200	13.210	31.83	120.70
OUTFLOW: ID= 1 (0505)	3089.200	0.829	166.58	10.66

PEAK FLOW REDUCTION [Qout/Qin](%)= 6.28
TIME SHIFT OF PEAK FLOW (min)=******
MAXIMUM STORAGE USED (ha.m.)=339.9492

ROUTE CHN(102201) | IN= 2---> OUT= 1 |	Routing time step (min)'= 5.00		
<------ DATA FOR SECTION (1.1) ------>			
Distance	Elevation	Manning	
0.00	354.87	0.1000	
116.00	347.03	0.1000	
223.00	339.81	0.1000	
281.00	334.37	0.1000 /0.0300	Main Channel
320.00	331.39	0.0300	Main Channel
358.00	335.83	0.0300 /0.1000	Main Channel
563.00	370.73	0.1000	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.99	332.38	.139E+05	27.8	2.60	8.34
1.99	333.38	.556E+05	176.6	4.13	5.25
2.98	334.37	.125E+06	520.5	5.42	4.01
4.26	335.65	.253E+06	1417.3	7.29	2.98
5.54	336.93	.421E+06	2895.9	8.97	2.42
6.82	338.21	.623E+06	4878.5	10.20	2.13
8.10	339.49	.861E+06	7351.1	11.12	1.95
9.39	340.78	.114E+07	10305.5	11.81	1.84

10.67	342.06	.146E+07	13790.4	12.33	1.76
11.95	343.34	.182E+07	17838.3	12.76	1.70
13.23	344.62	.223E+07	22474.4	13.13	1.65
14.51	345.90	.268E+07	27723.7	13.47	1.61
15.79	347.18	.318E+07	33611.1	13.77	1.58
17.07	348.46	.372E+07	40161.7	14.06	1.54
18.35	349.74	.430E+07	47399.3	14.34	1.51
19.64	351.03	.493E+07	55347.8	14.61	1.49
20.92	352.31	.561E+07	64030.9	14.87	1.46
22.20	353.59	.633E+07	73472.0	15.13	1.43
23.48	354.87	.709E+07	83694.3	15.38	1.41

		<---- hydrograph ---->			<-pipe / channel->	
	AREA	QPEAK	TPEAK	R.V.	MAX DEPTH	MAX VEL
	(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (0505)	3089.20	0.83	166.58	10.66	0.03	2.60
OUTFLOW: ID= 1 (102201)	3089.20	0.83	166.58	10.65	0.03	2.60

ADD HYD (0104)
1 + 2 = 3

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (102100):	5333.50	9.048	74.75	78.90
+ ID2= 2 (102201):	3089.20	0.829	166.58	10.65
ID = 3 (0104):	8422.70	9.678	80.08	53.87

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0104)
3 + 2 = 1

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (0104):	8422.70	9.678	80.08	53.87
+ ID2= 2 (102601):	6847.70	0.821	166.58	4.36
ID = 1 (0104):	15270.40	10.254	84.83	31.67

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ROUTE CHN(101600)
IN= 2---> OUT= 1

Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	326.35	0.0800	
215.00	312.00	0.0800 /0.0300	Main Channel
250.00	312.01	0.0300 /0.0800	Main Channel
431.00	328.62	0.0800	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.76	312.76	.386E+06	41.0	1.22	156.65
1.51	313.51	.943E+06	142.2	1.73	110.56
2.27	314.27	.167E+07	302.0	2.08	92.19
3.02	315.02	.257E+07	523.7	2.34	81.69
3.78	315.78	.363E+07	811.6	2.57	74.61

4.53	316.53	.487E+07	1170.2	2.76	69.36
5.29	317.29	.628E+07	1603.8	2.94	65.22
6.04	318.04	.785E+07	2116.9	3.10	61.81
6.80	318.80	.960E+07	2714.0	3.25	58.93
7.55	319.55	.115E+08	3399.3	3.39	56.44
8.31	320.31	.136E+08	4177.1	3.53	54.25
9.06	321.06	.158E+08	5051.5	3.66	52.29
9.82	321.82	.183E+08	6026.7	3.79	50.54
10.57	322.57	.209E+08	7106.7	3.91	48.94
11.33	323.33	.236E+08	8295.5	4.03	47.48
12.08	324.08	.266E+08	9596.9	4.15	46.13
12.84	324.84	.297E+08	11014.8	4.27	44.89
13.59	325.59	.329E+08	12552.9	4.38	43.73
14.35	326.35	.364E+08	14215.2	4.49	42.65

		<---- hydrograph ---->			<-pipe / channel->	
	AREA	QPEAK	TPEAK	R.V.	MAX DEPTH	MAX VEL
	(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (0104) *******		10.25	84.83	31.67	0.19	1.22
OUTFLOW: ID= 1 (101600) *******		10.25	87.42	31.17	0.19	1.22

**** WARNING: COMPUTATIONS FAILED TO CONVERGE.

CALIB			
NASHYD (1600)	Area (ha)=5488.90	Curve Number (CN)= 95.2	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	
	U.H. Tp(hrs)= 64.20		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40

2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 1.798

PEAK FLOW (cms)= 9.769 (i)
TIME TO PEAK (hrs)= 70.917
RUNOFF VOLUME (mm)= 39.781
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.257

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ROUTE CHN(0092)
IN= 2---> OUT= 1

Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	301.94	0.1000	
51.81	300.12	0.1000 /0.0300	Main Channel
66.94	300.30	0.0300 /0.1000	Main Channel
104.51	302.86	0.1000	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.10	300.22	.113E+03	0.2	0.41	8.95
0.19	300.31	.451E+03	1.4	0.67	5.45
0.29	300.41	.930E+03	4.2	0.98	3.71
0.38	300.50	.150E+04	8.3	1.21	3.02
0.48	300.60	.215E+04	13.6	1.38	2.64
0.57	300.69	.289E+04	20.1	1.53	2.39
0.67	300.79	.371E+04	27.9	1.65	2.21
0.77	300.89	.462E+04	37.0	1.75	2.08
0.86	300.98	.562E+04	47.4	1.85	1.98
0.96	301.08	.671E+04	59.2	1.93	1.89
1.05	301.17	.788E+04	72.3	2.01	1.82
1.15	301.27	.914E+04	86.8	2.08	1.75
1.25	301.37	.105E+05	102.8	2.15	1.70
1.34	301.46	.119E+05	120.3	2.21	1.65
1.44	301.56	.134E+05	139.2	2.27	1.61
1.53	301.65	.150E+05	159.8	2.33	1.57
1.63	301.75	.167E+05	181.9	2.38	1.53
1.72	301.84	.185E+05	205.7	2.43	1.50
1.82	301.94	.204E+05	231.1	2.48	1.47

			<---- hydrograph ---->			<-pipe / channel->	
		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2 (	1600)	5488.90	9.77	70.92	39.78	0.41	1.25
OUTFLOW: ID= 1 (	0092)	5488.90	9.77	71.00	84.86	0.41	1.25

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--------------------
| CALIB              |
| NASHYD   (  1400)|   Area    (ha)= 698.10   Curve Number   (CN)= 95.2
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 1.70
--------------------   U.H. Tp(hrs)=  34.05

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.
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---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

```
    Unit Hyd Qpeak  (cms)=   0.431

    PEAK FLOW       (cms)=   2.339 (i)
    TIME TO PEAK    (hrs)=  40.917
    RUNOFF VOLUME    (mm)=  77.837
    TOTAL RAINFALL   (mm)= 154.900
    RUNOFF COEFFICIENT   =   0.503

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
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--------------------
| ADD HYD  (  0107)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (101400): 29862.70   3.317    55.17     5.39
      + ID2= 2 (101600): 15270.40  10.249    87.42    31.17
        ================================================
        ID = 3 (  0107): 45133.10  13.375    80.33    14.11

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0107)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
        ID1= 3 (  0107): 45133.10  13.375    80.33    14.11
      + ID2= 2 (  1400):   698.10   2.339    40.92    77.84
        ================================================
        ID = 1 (  0107): 45831.20  15.247    70.75    15.76

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0107)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0107): 45831.20  15.247    70.75    15.76
      + ID2= 2 (  0092):  5488.90   9.769    71.00    84.86
        ================================================
        ID = 3 (  0107): 51320.10  25.015    70.83    23.15

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
--------------------
| ROUTE CHN(101100)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
--------------------
               <------ DATA FOR SECTION (   1.1) ------>
               Distance      Elevation       Manning
                  0.00         317.80        0.0800
                156.00         292.19    0.0800 /0.0300  Main Channel
                180.00         292.19    0.0300 /0.0800  Main Channel
                312.00         316.00        0.0800

      <--------------------- TRAVEL TIME TABLE ---------------------->
       DEPTH     ELEV      VOLUME    FLOW RATE    VELOCITY   TRAV.TIME
        (m)       (m)     (cu.m.)      (cms)        (m/s)      (min)
       1.25    293.44    .449E+06       49.7         1.27     150.73
       2.51    294.70    .111E+07      172.1         1.78     107.28
       3.76    295.95    .198E+07      366.6         2.13      89.82
       5.01    297.20    .305E+07      637.8         2.39      79.77
       6.27    298.46    .434E+07      991.4         2.62      72.94
       7.52    299.71    .584E+07     1433.4         2.81      67.85
       8.77    300.96    .754E+07     1969.4         2.99      63.81
      10.03    302.22    .945E+07     2605.5         3.16      60.48
      11.28    303.47    .116E+08     3347.3         3.31      57.65
      12.53    304.72    .139E+08     4200.4         3.46      55.20
      13.78    305.97    .165E+08     5170.3         3.60      53.04
      15.04    307.23    .192E+08     6262.5         3.74      51.11
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16.29	308.48	.222E+08	7482.3	3.87	49.38	
17.54	309.73	.253E+08	8834.8	3.99	47.80	
18.80	310.99	.287E+08	10325.3	4.12	46.35	
20.05	312.24	.323E+08	11958.7	4.24	45.02	
21.30	313.49	.361E+08	13740.0	4.36	43.79	
22.56	314.75	.401E+08	15674.1	4.48	42.65	
23.81	316.00	.443E+08	17765.8	4.59	41.59	

		<---- hydrograph ---->			<-pipe / channel->	
	AREA	QPEAK	TPEAK	R.V.	MAX DEPTH	MAX VEL
	(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (0107) *******		25.02	70.83	23.15	0.63	1.27
OUTFLOW: ID= 1 (101100) *******		25.00	74.08	22.84	0.63	1.27

CALIB			
NASHYD (0900)	Area (ha)=1824.20	Curve Number (CN)= 93.8	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	
	U.H. Tp(hrs)= 61.05		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00

```
              3.000    8.00 | 6.250   34.50 | 9.500   10.40 | 12.75    0.00
              3.083    2.40 | 6.333   34.50 | 9.583   10.40 | 12.83    0.00
              3.167    2.40 | 6.417   34.50 | 9.667   10.40 | 12.92    0.00
              3.250    2.40 | 6.500   34.50 | 9.750   10.40 | 13.00    0.00

     Unit Hyd Qpeak  (cms)=   0.628

     PEAK FLOW       (cms)=   3.332 (i)
     TIME TO PEAK    (hrs)=  67.833
     RUNOFF VOLUME    (mm)=  41.217
     TOTAL RAINFALL   (mm)= 154.900
     RUNOFF COEFFICIENT   =   0.266

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0119)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (101100): 51320.10  25.000    74.08    22.84
      + ID2= 2 ( 10900): 54709.59  92.884    56.58    72.03
        ================================================
        ID = 3 (  0119):106029.70 117.186    58.33    48.22

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0119)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
        ID1= 3 (  0119):106029.70 117.186    58.33    48.22
      + ID2= 2 (  0900):  1824.20   3.332    67.83    41.22
        ================================================
        ID = 1 (  0119):107853.90 120.487    58.42    48.86

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
--------------------
| ROUTE CHN(  0091)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
--------------------
               <------ DATA FOR SECTION (   1.1) ------>
               Distance      Elevation       Manning
                   0.00         295.00        0.1000
                  40.00         294.24    0.1000 /0.0300  Main Channel
                  59.90         288.55        0.0300      Main Channel
                  87.08         288.50        0.0300      Main Channel
                 100.00         288.50        0.0300      Main Channel
                 110.00         288.50        0.0300      Main Channel
                 150.00         288.50        0.0300      Main Channel
                 700.00         288.50        0.0300      Main Channel
                 900.00         294.60    0.0300 /0.0800  Main Channel
                1000.00         294.60        0.0800

      <--------------------- TRAVEL TIME TABLE ---------------------->
       DEPTH     ELEV      VOLUME    FLOW RATE    VELOCITY   TRAV.TIME
        (m)       (m)     (cu.m.)      (cms)        (m/s)      (min)
       0.32    288.82    .545E+05      63.3          0.31      14.34
       0.64    289.14    .110E+06     202.3          0.49       9.08
       0.96    289.46    .167E+06     399.2          0.64       6.97
       1.28    289.78    .224E+06     647.2          0.77       5.78
```

1.59	290.09	.283E+06	942.2	0.88	5.01
1.91	290.41	.343E+06	1281.2	0.99	4.46
2.23	290.73	.403E+06	1662.4	1.10	4.04
2.55	291.05	.465E+06	2084.2	1.19	3.72
2.87	291.37	.527E+06	2545.4	1.28	3.45
3.19	291.69	.591E+06	3045.0	1.37	3.23
3.51	292.01	.655E+06	3582.2	1.45	3.05
3.83	292.33	.721E+06	4156.5	1.53	2.89
4.15	292.65	.787E+06	4767.3	1.61	2.75
4.46	292.96	.855E+06	5414.3	1.68	2.63
4.78	293.28	.923E+06	6096.9	1.75	2.52
5.10	293.60	.993E+06	6815.1	1.82	2.43
5.42	293.92	.106E+07	7568.5	1.89	2.34
5.74	294.24	.113E+07	8357.1	1.96	2.26
6.10	294.60	.122E+07	9298.2	2.03	2.18

		<---- hydrograph ---->			<-pipe / channel->	
	AREA	QPEAK	TPEAK	R.V.	MAX DEPTH	MAX VEL
	(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (0119) *******		120.49	58.42	48.86	0.45	0.36
OUTFLOW: ID= 1 (0091) *******		120.49	58.42	48.81	0.45	0.36

CALIB			
NASHYD (1100)	Area (ha)=3229.60	Curve Number (CN)= 93.8	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	
	U.H. Tp(hrs)= 67.05		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40

2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 1.013

PEAK FLOW (cms)= 5.372 (i)
TIME TO PEAK (hrs)= 73.833
RUNOFF VOLUME (mm)= 36.769
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.237

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0120)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (1100):	3229.60	5.372	73.83	36.77
	+ ID2= 2 (0091):	107853.90	120.489	58.42	48.81
	ID = 3 (0120):	111083.49	125.745	58.67	49.71

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ROUTE CHN(10800)	
IN= 2---> OUT= 1	Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	331.00	0.1000	
102.00	301.00	0.1000 /0.0350	Main Channel
220.00	301.00	0.0350 /0.0800	Main Channel
354.00	332.79	0.0800	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
1.58	302.58	.197E+06	963.5	4.92	3.40
3.16	304.16	.412E+06	3112.0	7.58	2.21
4.74	305.74	.647E+06	6221.4	9.65	1.73
6.32	307.32	.901E+06	10217.7	11.39	1.47
7.89	308.89	.117E+07	15065.7	12.89	1.30
9.47	310.47	.147E+07	20747.2	14.21	1.18
11.05	312.05	.178E+07	27254.0	15.40	1.09
12.63	313.63	.211E+07	34583.3	16.48	1.02
14.21	315.21	.246E+07	42736.5	17.47	0.96
15.79	316.79	.282E+07	51717.7	18.39	0.91
17.37	318.37	.321E+07	61532.9	19.24	0.87
18.95	319.95	.362E+07	72189.2	20.04	0.84
20.53	321.53	.404E+07	83695.4	20.79	0.81
22.11	323.11	.449E+07	96060.5	21.50	0.78

23.68	324.68	.495E+07	*******	22.17	0.75
25.26	326.26	.543E+07	*******	22.81	0.73
26.84	327.84	.593E+07	*******	23.42	0.71
28.42	329.42	.646E+07	*******	24.00	0.70
30.00	331.00	.699E+07	*******	24.56	0.68

		<---- hydrograph ---->			<-pipe / channel->	
	AREA	QPEAK	TPEAK	R.V.	MAX DEPTH	MAX VEL
	(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (0120)	*******	125.75	58.67	49.71	0.21	4.92
OUTFLOW: ID= 1 (10800)	*******	125.75	58.67	49.70	0.20	4.92

CALIB			
NASHYD (0800)	Area (ha)=3125.50	Curve Number (CN)= 93.8	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	
	U.H. Tp(hrs)= 75.00		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00

3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 0.876

PEAK FLOW (cms)= 4.649 (i)
TIME TO PEAK (hrs)= 81.833
RUNOFF VOLUME (mm)= 31.924
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.206

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0121)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (10800):		111083.49	125.745	58.67	49.70
+ ID2= 2 (0800):		3125.50	4.649	81.83	31.92
ID = 3 (0121):		114209.00	130.207	59.17	50.32

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ROUTE CHN(10700)	
IN= 2---> OUT= 1	Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	316.00	0.0800	
402.00	278.69	0.0800 /0.0300	Main Channel
476.00	278.96	0.0300 /0.0800	Main Channel
805.00	299.83	0.0800	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
1.11	279.80	.701E+06	97.2	1.15	120.17
2.23	280.92	.175E+07	366.3	1.73	79.73
3.34	282.03	.308E+07	790.0	2.13	64.89
4.45	283.14	.467E+07	1371.1	2.43	56.79
5.56	284.25	.654E+07	2115.9	2.68	51.51
6.68	285.37	.868E+07	3032.3	2.89	47.71
7.79	286.48	.111E+08	4128.6	3.08	44.78
8.90	287.59	.138E+08	5413.4	3.26	42.42
10.01	288.70	.167E+08	6895.3	3.41	40.45
11.13	289.82	.200E+08	8582.8	3.56	38.77
12.24	290.93	.235E+08	10484.6	3.70	37.30
13.35	292.04	.272E+08	12609.1	3.84	36.00
14.46	293.15	.313E+08	14964.6	3.96	34.84
15.58	294.27	.356E+08	17559.5	4.09	33.79
16.69	295.38	.402E+08	20401.7	4.21	32.83
17.80	296.49	.451E+08	23499.5	4.32	31.96
18.91	297.60	.502E+08	26860.7	4.43	31.14
20.03	298.72	.556E+08	30493.2	4.54	30.39
21.14	299.83	.613E+08	34404.8	4.65	29.68

		<---- hydrograph ---->			<-pipe / channel->	
	AREA	QPEAK	TPEAK	R.V.	MAX DEPTH	MAX VEL
	(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (0121) *******		130.21	59.17	50.32	1.25	1.20

OUTFLOW: ID= 1 (10700) ******* 130.12 61.17 49.86 1.25 1.20

CALIB			
NASHYD (0700)	Area (ha)=5439.40	Curve Number (CN)= 93.8	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	
	U.H. Tp(hrs)= 54.00		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 2.118

PEAK FLOW (cms)= 11.232 (i)
TIME TO PEAK (hrs)= 60.833
RUNOFF VOLUME (mm)= 47.575
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.307

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0122)|	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3	ID1= 1 (10700):	114209.00	130.124	61.17	49.86
	+ ID2= 2 (0700):	5439.40	11.232	60.83	47.57
	ID = 3 (0122):	119648.40	141.355	61.17	51.88

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ROUTE CHN(10600)	
IN= 2---> OUT= 1	Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	272.70	0.0800	
202.00	264.48	0.0800 /0.0300	Main Channel
260.00	264.48	0.0300 /0.0800	Main Channel
487.00	272.32	0.0800	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.41	264.89	.174E+06	18.2	0.64	159.17
0.83	265.31	.404E+06	61.3	0.93	109.75
1.24	265.72	.689E+06	127.3	1.13	90.22
1.65	266.13	.103E+07	216.5	1.28	79.26
2.06	266.54	.143E+07	330.0	1.41	72.04
2.48	266.96	.188E+07	468.7	1.52	66.79
2.89	267.37	.239E+07	633.9	1.62	62.74
3.30	267.78	.295E+07	826.8	1.71	59.46
3.71	268.19	.357E+07	1048.5	1.79	56.73
4.13	268.61	.424E+07	1300.3	1.87	54.39
4.54	269.02	.497E+07	1583.5	1.94	52.36
4.95	269.43	.576E+07	1899.1	2.01	50.55
5.36	269.84	.660E+07	2248.3	2.08	48.94
5.78	270.26	.750E+07	2632.5	2.14	47.48
6.19	270.67	.845E+07	3052.6	2.21	46.15
6.60	271.08	.946E+07	3509.9	2.27	44.93
7.01	271.49	.105E+08	4005.5	2.32	43.80
7.43	271.91	.116E+08	4540.5	2.38	42.75
7.84	272.32	.128E+08	5115.9	2.44	41.77

		<---- hydrograph ----> AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	<-pipe / channel-> MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2 (0122)	*******	141.35	61.17	51.88	1.30	1.15
OUTFLOW: ID= 1 (10600)	*******	141.31	62.50	51.46	1.30	1.15

CALIB			
NASHYD (0600)	Area (ha)=2951.60	Curve Number (CN)= 84.0	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	
	U.H. Tp(hrs)= 71.25		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 0.871

PEAK FLOW (cms)= 3.885 (i)
TIME TO PEAK (hrs)= 78.417
RUNOFF VOLUME (mm)= 28.478
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.184

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0123)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (10600):	119648.40	141.311	62.50	51.46

```
      + ID2= 2 (  0600):  2951.60   3.885    78.42    28.48
        ================================================
        ID = 3 (  0123):122600.00 145.118    62.75    51.75

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ROUTE CHN( 10400)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
--------------------
               <------ DATA FOR SECTION (   1.1) ------>
               Distance      Elevation       Manning
                   0.00         275.56        0.0800
                 168.00         265.25    0.0800 /0.0300  Main Channel
                 200.00         264.00    0.0300 /0.0800  Main Channel
                 391.00         281.64        0.0800

      <--------------------- TRAVEL TIME TABLE ---------------------->
       DEPTH     ELEV      VOLUME    FLOW RATE    VELOCITY   TRAV.TIME
         (m)      (m)     (cu.m.)      (cms)        (m/s)      (min)
        0.61   264.61    .284E+05       2.3          0.34     204.78
        1.22   265.22    .114E+06      14.7          0.54     129.00
        1.83   265.83    .249E+06      46.7          0.79      88.93
        2.43   266.43    .427E+06      96.5          0.95      73.72
        3.04   267.04    .647E+06     165.1          1.07      65.35
        3.65   267.65    .910E+06     253.6          1.17      59.80
        4.26   268.26    .121E+07     363.3          1.26      55.71
        4.87   268.87    .156E+07     495.8          1.34      52.50
        5.48   269.48    .195E+07     652.2          1.41      49.86
        6.08   270.08    .238E+07     833.9          1.47      47.62
        6.69   270.69    .286E+07    1042.2          1.54      45.68
        7.30   271.30    .337E+07    1278.3          1.60      43.98
        7.91   271.91    .393E+07    1543.6          1.65      42.45
        8.52   272.52    .453E+07    1839.2          1.71      41.07
        9.13   273.13    .518E+07    2166.3          1.76      39.82
        9.73   273.73    .586E+07    2526.2          1.82      38.67
       10.34   274.34    .659E+07    2919.9          1.87      37.61
       10.95   274.95    .736E+07    3348.7          1.92      36.63
       11.56   275.56    .817E+07    3813.7          1.97      35.71

                                    <---- hydrograph ---->   <-pipe / channel->
                              AREA    QPEAK   TPEAK   R.V.   MAX DEPTH  MAX VEL
                              (ha)    (cms)   (hrs)   (mm)      (m)       (m/s)
   INFLOW : ID= 2 (  0123) *******   145.12   62.75  51.75      2.86      1.04
   OUTFLOW: ID= 1 ( 10400) *******   145.08   63.83  51.43      2.86      1.04



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| CALIB              |
| NASHYD   (  0400)|   Area    (ha)= 364.20   Curve Number   (CN)= 36.4
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 1.70
--------------------   U.H. Tp(hrs)=  18.45

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
             TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
              hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
            0.083   12.00 | 3.333    2.40 | 6.583   34.50 |  9.83   10.40
            0.167   12.00 | 3.417    2.40 | 6.667   34.50 |  9.92   10.40
            0.250   12.00 | 3.500    2.40 | 6.750   34.50 | 10.00   10.40
```

0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 0.415

PEAK FLOW (cms)= 0.615 (i)
TIME TO PEAK (hrs)= 26.500
RUNOFF VOLUME (mm)= 31.745
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.205

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0124)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (10400):	122600.00	145.081	63.83	51.43
	+ ID2= 2 (0400):	364.20	0.615	26.50	31.75
	ID = 3 (0124):	122964.20	145.405	63.67	51.39

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ROUTE CHN(0084)	
IN= 2---> OUT= 1	Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	270.26	0.1000	
50.74	256.20	0.1000 /0.0300	Main Channel
94.20	256.33	0.0300 /0.1000	Main Channel
120.00	270.00	0.1000	

<-------------------- TRAVEL TIME TABLE ---------------------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.73	256.93	.135E+05	46.5	1.55	4.85
1.45	257.65	.296E+05	161.9	2.46	3.05
2.18	258.38	.470E+05	330.3	3.16	2.37
2.91	259.11	.658E+05	546.4	3.74	2.01
3.63	259.83	.858E+05	807.6	4.24	1.77
4.36	260.56	.107E+06	1112.1	4.68	1.61
5.08	261.28	.130E+06	1458.9	5.07	1.48
5.81	262.01	.154E+06	1847.3	5.42	1.39
6.54	262.74	.179E+06	2276.9	5.73	1.31
7.26	263.46	.205E+06	2747.4	6.02	1.25
7.99	264.19	.233E+06	3258.7	6.29	1.19
8.72	264.92	.262E+06	3810.7	6.54	1.15
9.44	265.64	.293E+06	4403.7	6.77	1.11
10.17	266.37	.325E+06	5037.5	6.99	1.07
10.89	267.09	.358E+06	5712.5	7.19	1.04
11.62	267.82	.392E+06	6428.7	7.39	1.02
12.35	268.55	.428E+06	7186.5	7.57	0.99
13.07	269.27	.465E+06	7986.1	7.74	0.97
13.80	270.00	.503E+06	8827.8	7.90	0.95

		AREA (ha)	<---- hydrograph ----> QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	<-pipe / channel-> MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2 (	0124)	*******	145.41	63.67	51.39	1.35	2.27
OUTFLOW: ID= 1 (	0084)	*******	145.41	63.67	51.37	1.35	2.27

CALIB NASHYD (0500) | ID= 1 DT= 5.0 min	Area (ha)= *******	Curve Number (CN)= 79.8
	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70
	U.H. Tp(hrs)= 349.20	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40

1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 0.777

PEAK FLOW (cms)= 1.907 (i)
TIME TO PEAK (hrs)= 83.167
RUNOFF VOLUME (mm)= 2.524
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.016

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| ROUTE CHN(0083)|
| IN= 2---> OUT= 1 |

Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	264.54	0.1000	
32.69	264.21	0.1000 /0.0300	Main Channel
80.91	258.79	0.0300	Main Channel
98.99	258.75	0.0300	Main Channel
150.00	264.50	0.0300 /0.1000	Main Channel
160.00	264.50	0.1000	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.29	259.04	.283E+04	2.0	0.36	23.74
0.57	259.32	.661E+04	7.1	0.56	15.45
0.86	259.61	.111E+05	15.2	0.71	12.20
1.15	259.90	.164E+05	26.4	0.83	10.37
1.44	260.19	.225E+05	41.0	0.94	9.15
1.72	260.47	.293E+05	59.1	1.04	8.26
2.01	260.76	.369E+05	81.1	1.14	7.58
2.30	261.05	.452E+05	107.2	1.23	7.03
2.59	261.34	.543E+05	137.6	1.31	6.58
2.87	261.62	.642E+05	172.5	1.39	6.20

3.16	261.91	.748E+05	212.3	1.47	5.87
3.45	262.20	.862E+05	257.0	1.54	5.59
3.74	262.49	.983E+05	307.0	1.62	5.34
4.02	262.77	.111E+06	362.5	1.69	5.11
4.31	263.06	.125E+06	423.6	1.76	4.91
4.60	263.35	.139E+06	490.7	1.82	4.73
4.89	263.64	.154E+06	563.8	1.89	4.57
5.17	263.92	.170E+06	643.2	1.95	4.41
5.46	264.21	.187E+06	729.2	2.02	4.28

		<---- hydrograph ---->			<-pipe / channel->	
	AREA	QPEAK	TPEAK	R.V.	MAX DEPTH	MAX VEL
	(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (0500) *******		1.91	83.17	2.52	0.33	0.38
OUTFLOW: ID= 1 (0083) *******		2.71	166.58	7.99	0.33	0.38

ADD HYD (0125)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0083):	12896.90	2.708	166.58	7.99
+ ID2= 2 (0084):	122964.20	145.405	63.67	51.37
ID = 3 (0125):	135861.11	147.014	64.08	47.25

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ROUTE CHN(10300)	
IN= 2---> OUT= 1	Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	261.70	0.0900	
34.09	251.40	0.0900 /0.0300	Main Channel
87.18	250.60	0.0300 /0.0900	Main Channel
110.00	261.00	0.0900	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.55	251.15	.215E+05	3.7	0.37	95.66
1.09	251.69	.803E+05	25.9	0.67	51.76
1.64	252.24	.147E+06	68.5	0.98	35.74
2.19	252.79	.217E+06	126.7	1.22	28.52
2.74	253.34	.290E+06	199.1	1.44	24.30
3.28	253.88	.367E+06	284.8	1.63	21.48
3.83	254.43	.447E+06	383.3	1.80	19.45
4.38	254.98	.531E+06	494.2	1.95	17.91
4.93	255.53	.618E+06	617.3	2.09	16.70
5.47	256.07	.709E+06	752.2	2.22	15.71
6.02	256.62	.803E+06	898.9	2.35	14.89
6.57	257.17	.901E+06	1057.2	2.46	14.20
7.12	257.72	.100E+07	1227.2	2.57	13.61
7.66	258.26	.111E+07	1408.6	2.67	13.09
8.21	258.81	.121E+07	1601.4	2.76	12.64
8.76	259.36	.133E+07	1805.8	2.85	12.24
9.31	259.91	.144E+07	2021.6	2.94	11.88
9.85	260.45	.156E+07	2248.8	3.02	11.55
10.40	261.00	.168E+07	2487.5	3.10	11.26

		<---- hydrograph ---->		<-pipe / channel->	
	AREA	QPEAK	TPEAK	R.V.	MAX DEPTH	MAX VEL
	(ha)	(cms)	(hrs)	(mm)	(m)	(m/s)
INFLOW : ID= 2 (0125)	*******	147.01	64.08	47.25	2.34	1.28
OUTFLOW: ID= 1 (10300)	*******	147.01	64.25	47.12	2.33	1.27

CALIB NASHYD (0300) ID= 1 DT= 5.0 min	Area (ha)= 300.70	Curve Number (CN)= 54.6
	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70
	U.H. Tp(hrs)= 49.50	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 0.128

```
     PEAK FLOW       (cms)=   0.313 (i)
     TIME TO PEAK    (hrs)=  57.167
     RUNOFF VOLUME    (mm)=  23.901
     TOTAL RAINFALL   (mm)= 154.900
     RUNOFF COEFFICIENT   =   0.154

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| ADD HYD  (  0126)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
        ID1= 1 ( 10300):135861.11 147.011    64.25    47.12
      + ID2= 2 (  0300):   300.70   0.313    57.17    23.90
        ================================================
        ID = 3 (  0126):136161.80 147.321    64.25    47.12

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
--------------------
| ROUTE CHN( 10200)|
| IN= 2---> OUT= 1 |     Routing time step (min)'=  5.00
--------------------
               <------ DATA FOR SECTION (   1.1) ------>
               Distance      Elevation       Manning
                   0.00        260.90        0.0900
                  68.64        256.14        0.0300      Main Channel
                 100.00        249.00        0.0300      Main Channel
                 130.00        249.00        0.0300      Main Channel
                 155.00        249.00        0.0300      Main Channel
                 160.00        256.00    0.0300 /0.0900  Main Channel
                 290.00        260.40        0.0900

      <--------------------- TRAVEL TIME TABLE ---------------------->
       DEPTH     ELEV      VOLUME    FLOW RATE    VELOCITY   TRAV.TIME
         (m)      (m)     (cu.m.)      (cms)        (m/s)      (min)
        0.58   249.58    .308E+06      13.0          0.39      394.89
        1.17   250.17    .632E+06      41.5          0.61      253.74
        1.75   250.75    .973E+06      82.2          0.79      197.22
        2.33   251.33    .133E+07     133.8          0.94      165.58
        2.92   251.92    .170E+07     195.7          1.07      144.96
        3.50   252.50    .209E+07     267.6          1.20      130.26
        4.08   253.08    .250E+07     349.3          1.31      119.16
        4.67   253.67    .292E+07     440.6          1.41      110.42
        5.25   254.25    .336E+07     541.5          1.51      103.32
        5.83   254.83    .381E+07     652.1          1.60       97.41
        6.42   255.42    .428E+07     772.3          1.69       92.40
        7.00   256.00    .477E+07     902.3          1.77       88.07
        7.63   256.63    .538E+07    1073.9          1.87       83.42
        8.26   257.26    .614E+07    1266.3          1.93       80.86
        8.89   257.89    .707E+07    1478.0          1.95       79.77
        9.51   258.51    .817E+07    1711.1          1.96       79.56
       10.14   259.14    .942E+07    1967.5          1.95       79.83
       10.77   259.77    .108E+08    2248.8          1.94       80.35
       11.40   260.40    .124E+08    2556.6          1.92       80.98

                                    <---- hydrograph ---->   <-pipe / channel->
                             AREA    QPEAK   TPEAK   R.V.   MAX DEPTH  MAX VEL
                             (ha)    (cms)   (hrs)   (mm)      (m)       (m/s)
   INFLOW : ID= 2 (  0126) *******   147.32   64.25  47.12      2.46       0.97
   OUTFLOW: ID= 1 ( 10200) *******   147.15   66.17  46.36      2.45       0.97
```

**** WARNING: COMPUTATIONS FAILED TO CONVERGE.

CALIB			
NASHYD (0200)	Area (ha)=7004.90	Curve Number (CN)= 74.2	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 1.70	
	U.H. Tp(hrs)= 76.05		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

Unit Hyd Qpeak (cms)= 1.937

PEAK FLOW (cms)= 7.190 (i)
TIME TO PEAK (hrs)= 83.167
RUNOFF VOLUME (mm)= 21.725
TOTAL RAINFALL (mm)= 154.900
RUNOFF COEFFICIENT = 0.140

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| ADD HYD (0127)|
| 1 + 2 = 3 |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (10200):	136161.80	147.154	66.17	46.36
+ ID2= 2 (0200):	7004.90	7.190	83.17	21.72
ID = 3 (0127):	143166.70	154.196	66.58	46.54

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ROUTE CHN(10100)|
| IN= 2---> OUT= 1 |

Routing time step (min)'= 5.00

<------ DATA FOR SECTION (1.1) ------>

Distance	Elevation	Manning	
0.00	255.60	0.0000	
203.00	255.17	0.0300	Main Channel
453.60	255.18	0.0300	Main Channel
700.00	256.20	0.0300 /0.0900	Main Channel
710.00	248.10	0.0900	
790.00	248.10	0.0900 /0.0900	
800.00	248.10	0.0900 /0.0900	
1363.72	256.47	0.0900	

<---------- TRAVEL TIME TABLE ---------->

DEPTH (m)	ELEV (m)	VOLUME (cu.m.)	FLOW RATE (cms)	VELOCITY (m/s)	TRAV.TIME (min)
0.39	248.49	.139E+06	8.0	0.20	290.68
0.79	248.89	.314E+06	27.5	0.30	190.80
1.18	249.28	.526E+06	58.2	0.38	150.62
1.57	249.67	.773E+06	100.8	0.45	127.92
1.96	250.06	.106E+07	156.0	0.50	112.93
2.36	250.46	.138E+07	224.8	0.56	102.10
2.75	250.85	.173E+07	308.0	0.61	93.81
3.14	251.24	.213E+07	406.4	0.65	87.19
3.54	251.64	.255E+07	520.9	0.70	81.75
3.93	252.03	.302E+07	652.2	0.74	77.16
4.32	252.42	.352E+07	801.3	0.78	73.23
4.71	252.81	.406E+07	968.9	0.82	69.80
5.11	253.21	.463E+07	1155.8	0.85	66.78
5.50	253.60	.524E+07	1362.8	0.89	64.10
5.89	253.99	.589E+07	1590.6	0.92	61.69
6.28	254.38	.657E+07	1840.0	0.96	59.50
6.68	254.78	.729E+07	2111.7	0.99	57.52
7.07	255.17	.804E+07	2406.5	1.02	55.70
7.50	255.60	.950E+07	-Inf	-Inf	0.00

		<---- hydrograph ---->			<-pipe / channel->	
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	MAX DEPTH (m)	MAX VEL (m/s)
INFLOW : ID= 2 (0127)	*******	154.20	66.58	46.54	1.95	0.50
OUTFLOW: ID= 1 (10100)	*******	154.12	68.08	46.02	1.95	0.50

| CALIB |

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| NASHYD   (  0100)|   Area    (ha)= 615.40   Curve Number   (CN)= 74.2
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 1.70
-------------------   U.H. Tp(hrs)=  27.60

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.
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---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	12.00	3.333	2.40	6.583	34.50	9.83	10.40
0.167	12.00	3.417	2.40	6.667	34.50	9.92	10.40
0.250	12.00	3.500	2.40	6.750	34.50	10.00	10.40
0.333	12.00	3.583	2.40	6.833	34.50	10.08	10.40
0.417	12.00	3.667	2.40	6.917	34.50	10.17	10.40
0.500	12.00	3.750	2.40	7.000	34.50	10.25	10.40
0.583	12.00	3.833	2.40	7.083	16.10	10.33	10.40
0.667	12.00	3.917	2.40	7.167	16.10	10.42	10.40
0.750	12.00	4.000	2.40	7.250	16.10	10.50	10.40
0.833	12.00	4.083	4.00	7.333	16.10	10.58	10.40
0.917	12.00	4.167	4.00	7.417	16.10	10.67	10.40
1.000	12.00	4.250	4.00	7.500	16.10	10.75	10.40
1.083	16.10	4.333	4.00	7.583	16.10	10.83	10.40
1.167	16.10	4.417	4.00	7.667	16.10	10.92	10.40
1.250	16.10	4.500	4.00	7.750	16.10	11.00	10.40
1.333	16.10	4.583	4.00	7.833	16.10	11.08	6.40
1.417	16.10	4.667	4.00	7.917	16.10	11.17	6.40
1.500	16.10	4.750	4.00	8.000	16.10	11.25	6.40
1.583	16.10	4.833	4.00	8.083	18.50	11.33	6.40
1.667	16.10	4.917	4.00	8.167	18.50	11.42	6.40
1.750	16.10	5.000	4.00	8.250	18.50	11.50	6.40
1.833	16.10	5.083	16.10	8.333	18.50	11.58	6.40
1.917	16.10	5.167	16.10	8.417	18.50	11.67	6.40
2.000	16.10	5.250	16.10	8.500	18.50	11.75	6.40
2.083	8.00	5.333	16.10	8.583	18.50	11.83	6.40
2.167	8.00	5.417	16.10	8.667	18.50	11.92	6.40
2.250	8.00	5.500	16.10	8.750	18.50	12.00	6.40
2.333	8.00	5.583	16.10	8.833	18.50	12.08	0.00
2.417	8.00	5.667	16.10	8.917	18.50	12.17	0.00
2.500	8.00	5.750	16.10	9.000	18.50	12.25	0.00
2.583	8.00	5.833	16.10	9.083	10.40	12.33	0.00
2.667	8.00	5.917	16.10	9.167	10.40	12.42	0.00
2.750	8.00	6.000	16.10	9.250	10.40	12.50	0.00
2.833	8.00	6.083	34.50	9.333	10.40	12.58	0.00
2.917	8.00	6.167	34.50	9.417	10.40	12.67	0.00
3.000	8.00	6.250	34.50	9.500	10.40	12.75	0.00
3.083	2.40	6.333	34.50	9.583	10.40	12.83	0.00
3.167	2.40	6.417	34.50	9.667	10.40	12.92	0.00
3.250	2.40	6.500	34.50	9.750	10.40	13.00	0.00

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     Unit Hyd Qpeak  (cms)=   0.469

     PEAK FLOW       (cms)=   1.736 (i)
     TIME TO PEAK    (hrs)=  35.083
     RUNOFF VOLUME    (mm)=  62.539
     TOTAL RAINFALL   (mm)= 154.900
     RUNOFF COEFFICIENT   =   0.404

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| ADD HYD  (  0128)|
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|   1 +  2 =  3    |          AREA     QPEAK     TPEAK      R.V.
--------------------          (ha)     (cms)     (hrs)      (mm)
        ID1= 1 (  0100):    615.40    1.736     35.08     62.54
      + ID2= 2 ( 10100):143166.70  154.115     68.08     46.02
        ==========================================================
        ID = 3 (  0128):143782.09  155.422     67.75     46.20

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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Appendix C

Hydraulic Modelling

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16852	Timmins_Uncalibr	441.16	274.14	278.7		278.84	0.000261	1.7	290.64	85.74	0.25
KinmoutDS	16852	Timmins_Calibrat	112.6	274.14	276.37		276.41	0.000197	0.91	129.43	62.89	0.2
KinmoutDS	16852	TimminsCC_Calibr	141.4	274.14	276.7		276.75	0.000194	0.99	150.22	63.55	0.2
KinmoutDS	16852	2y	107.1	274.14	276.3		276.34	0.000198	0.89	125.15	62.75	0.2
KinmoutDS	16852	5y	142.8	274.14	276.71		276.76	0.000194	1	151.19	63.58	0.2
KinmoutDS	16852	10y	166.9	274.14	276.95		277.01	0.000195	1.06	166.5	63.9	0.2
KinmoutDS	16852	25y	198.6	274.14	277.23		277.29	0.000201	1.15	184.09	64.21	0.21
KinmoutDS	16852	50y	223.9	274.14	277.42		277.5	0.000207	1.21	196.79	65.59	0.21
KinmoutDS	16852	100y	251.2	274.14	277.62		277.7	0.000215	1.28	209.71	68.17	0.22
KinmoutDS	16852	200y	281.2	274.14	277.82		277.91	0.000222	1.35	223.5	70.41	0.23
KinmoutDS	16852	350y	307.7	274.14	277.98		278.08	0.00023	1.42	234.88	71.62	0.23
KinmoutDS	16852	Sept 25 2021	68.8	274.14	275.75		275.78	0.000224	0.78	90.88	60.18	0.2
KinmoutDS	16852	July 13 2024	53.2	274.14	275.47		275.5	0.000252	0.73	74.62	59.55	0.2
KinmoutDS	16852	April 21 2019	223.6	274.14	277.42		277.5	0.000207	1.21	196.67	65.57	0.21
KinmoutDS	16852	Nov 2 2013	77	274.14	275.88		275.91	0.000215	0.81	98.88	61.05	0.2
KinmoutDS	16852	April 16 2014	175	274.14	277.03		277.08	0.000197	1.08	171.16	63.97	0.2
KinmoutDS	16852	May 8 2017	142	274.14	276.7		276.75	0.000194	0.99	150.64	63.56	0.2
KinmoutDS	16852	April 21 2013	211.8	274.14	277.34		277.4	0.000204	1.18	191	64.34	0.21
KinmoutDS	16833	Timmins_Uncalibr	441.16	274.14	278.71		278.83	0.000221	1.57	313.16	91.26	0.23
KinmoutDS	16833	Timmins_Calibrat	112.6	274.14	276.37		276.41	0.000167	0.84	138.82	66.89	0.18
KinmoutDS	16833	TimminsCC_Calibr	141.4	274.14	276.7		276.74	0.000165	0.92	160.97	67.46	0.18
KinmoutDS	16833	2y	107.1	274.14	276.3		276.34	0.000168	0.83	134.25	66.71	0.18
KinmoutDS	16833	5y	142.8	274.14	276.71		276.76	0.000165	0.92	162	67.48	0.18
KinmoutDS	16833	10y	166.9	274.14	276.96		277	0.000166	0.98	178.28	67.86	0.19
KinmoutDS	16833	25y	198.6	274.14	277.23		277.29	0.000171	1.06	197.04	68.31	0.19
KinmoutDS	16833	50y	223.9	274.14	277.43		277.49	0.000176	1.12	210.58	68.73	0.2
KinmoutDS	16833	100y	251.2	274.14	277.62		277.69	0.000183	1.19	223.97	69.16	0.2
KinmoutDS	16833	200y	281.2	274.14	277.82		277.9	0.00019	1.26	238.63	78.56	0.21
KinmoutDS	16833	350y	307.7	274.14	277.98		278.07	0.000196	1.32	251.49	80.64	0.21
KinmoutDS	16833	Sept 25 2021	68.8	274.14	275.74		275.77	0.000191	0.72	97.51	65.09	0.18
KinmoutDS	16833	July 13 2024	53.2	274.14	275.47		275.49	0.000215	0.68	79.88	64.23	0.19
KinmoutDS	16833	April 21 2019	223.6	274.14	277.43		277.49	0.000176	1.12	210.45	68.72	0.2
KinmoutDS	16833	Nov 2 2013	77	274.14	275.88		275.9	0.000182	0.75	106.18	65.53	0.18
KinmoutDS	16833	April 16 2014	175	274.14	277.03		277.08	0.000167	1	183.25	67.98	0.19
KinmoutDS	16833	May 8 2017	142	274.14	276.71		276.75	0.000165	0.92	161.42	67.47	0.18
KinmoutDS	16833	April 21 2013	211.8	274.14	277.34		277.4	0.000173	1.09	204.42	68.53	0.2
KinmoutDS	16812	Timmins_Uncalibr	441.16	274.14	278.73		278.81	0.000149	1.3	367.18	96.89	0.19
KinmoutDS	16812	Timmins_Calibrat	112.6	274.14	276.37		276.4	0.000115	0.71	163.81	77.95	0.15
KinmoutDS	16812	TimminsCC_Calibr	141.4	274.14	276.71		276.73	0.000113	0.77	189.91	79.69	0.15
KinmoutDS	16812	2y	107.1	274.14	276.31		276.33	0.000116	0.7	158.47	77.72	0.15
KinmoutDS	16812	5y	142.8	274.14	276.72		276.75	0.000113	0.77	191.13	79.77	0.15
KinmoutDS	16812	10y	166.9	274.14	276.96		277	0.000114	0.82	210.59	81.19	0.16
KinmoutDS	16812	25y	198.6	274.14	277.24		277.28	0.000117	0.89	233.59	85.57	0.16
KinmoutDS	16812	50y	223.9	274.14	277.44		277.48	0.00012	0.94	250.78	86.98	0.17

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16812	100y	251.2	274.14	277.63		277.68	0.000124	0.99	267.89	87.66	0.17
KinmoutDS	16812	200y	281.2	274.14	277.84		277.89	0.000128	1.05	285.58	88.27	0.17
KinmoutDS	16812	350y	307.7	274.14	278		278.06	0.000132	1.09	299.99	88.81	0.18
KinmoutDS	16812	Sept 25 2021	68.8	274.14	275.75		275.76	0.000132	0.61	115.51	75.83	0.15
KinmoutDS	16812	July 13 2024	53.2	274.14	275.47		275.49	0.000148	0.57	94.92	74.81	0.16
KinmoutDS	16812	April 21 2019	223.6	274.14	277.44		277.48	0.00012	0.94	250.62	86.97	0.17
KinmoutDS	16812	Nov 2 2013	77	274.14	275.88		275.9	0.000126	0.63	125.65	76.34	0.15
KinmoutDS	16812	April 16 2014	175	274.14	277.04		277.07	0.000114	0.84	216.58	81.73	0.16
KinmoutDS	16812	May 8 2017	142	274.14	276.71		276.74	0.000113	0.77	190.45	79.72	0.15
KinmoutDS	16812	April 21 2013	211.8	274.14	277.35		277.39	0.000118	0.91	242.93	86.51	0.16
KinmoutDS	16792	Timmins_Uncalibr	441.16	273.49	278.73		278.81	0.000135	1.3	433.33	117.36	0.19
KinmoutDS	16792	Timmins_Calibrat	112.6	273.49	276.37		276.4	0.000101	0.71	182.64	94	0.15
KinmoutDS	16792	TimminsCC_Calibr	141.4	273.49	276.7		276.73	0.000101	0.77	214.38	98.08	0.15
KinmoutDS	16792	2y	107.1	273.49	276.3		276.33	0.000102	0.7	176.2	93.38	0.15
KinmoutDS	16792	5y	142.8	273.49	276.72		276.75	0.000101	0.78	215.89	98.41	0.15
KinmoutDS	16792	10y	166.9	273.49	276.96		276.99	0.000103	0.83	240.46	103.2	0.15
KinmoutDS	16792	25y	198.6	273.49	277.24		277.28	0.000106	0.89	269.35	104.88	0.16
KinmoutDS	16792	50y	223.9	273.49	277.44		277.48	0.000108	0.94	290.33	105.66	0.16
KinmoutDS	16792	100y	251.2	273.49	277.63		277.68	0.000112	0.99	311.14	106.38	0.17
KinmoutDS	16792	200y	281.2	273.49	277.84		277.89	0.000116	1.05	332.69	108.15	0.17
KinmoutDS	16792	350y	307.7	273.49	278		278.05	0.00012	1.09	350.42	109.28	0.17
KinmoutDS	16792	Sept 25 2021	68.8	273.49	275.74		275.76	0.000111	0.61	125.43	87.08	0.15
KinmoutDS	16792	July 13 2024	53.2	273.49	275.47		275.49	0.00012	0.56	102.11	83.56	0.15
KinmoutDS	16792	April 21 2019	223.6	273.49	277.44		277.48	0.000108	0.94	290.13	105.65	0.16
KinmoutDS	16792	Nov 2 2013	77	273.49	275.88		275.9	0.000108	0.63	137.18	89.12	0.15
KinmoutDS	16792	April 16 2014	175	273.49	277.03		277.07	0.000103	0.84	248.08	103.66	0.15
KinmoutDS	16792	May 8 2017	142	273.49	276.71		276.74	0.000101	0.78	215.04	98.23	0.15
KinmoutDS	16792	April 21 2013	211.8	273.49	277.35		277.39	0.000107	0.92	280.77	105.35	0.16
KinmoutDS	16774	Timmins_Uncalibr	441.16	272.93	278.75		278.8	0.000073	1.01	531.42	132.82	0.14
KinmoutDS	16774	Timmins_Calibrat	112.6	272.93	276.38		276.39	0.000043	0.51	248.78	107.39	0.1
KinmoutDS	16774	TimminsCC_Calibr	141.4	272.93	276.71		276.73	0.000045	0.56	284.79	109.34	0.1
KinmoutDS	16774	2y	107.1	272.93	276.31		276.32	0.000042	0.49	241.39	106.91	0.1
KinmoutDS	16774	5y	142.8	272.93	276.73		276.74	0.000045	0.56	286.46	109.43	0.1
KinmoutDS	16774	10y	166.9	272.93	276.97		276.99	0.000047	0.61	313.22	110.83	0.11
KinmoutDS	16774	25y	198.6	272.93	277.25		277.27	0.000051	0.66	344.61	116.97	0.11
KinmoutDS	16774	50y	223.9	272.93	277.45		277.47	0.000054	0.71	368.37	120.04	0.12
KinmoutDS	16774	100y	251.2	272.93	277.65		277.67	0.000056	0.75	392.27	122.77	0.12
KinmoutDS	16774	200y	281.2	272.93	277.85		277.88	0.000059	0.8	417.28	124.09	0.12
KinmoutDS	16774	350y	307.7	272.93	278.01		278.05	0.000062	0.84	437.7	124.85	0.13
KinmoutDS	16774	Sept 25 2021	68.8	272.93	275.75		275.76	0.00004	0.41	182.81	101.85	0.09
KinmoutDS	16774	July 13 2024	53.2	272.93	275.48		275.48	0.000039	0.37	155.38	98.3	0.09
KinmoutDS	16774	April 21 2019	223.6	272.93	277.45		277.47	0.000053	0.71	368.15	120.02	0.12
KinmoutDS	16774	Nov 2 2013	77	272.93	275.88		275.89	0.00004	0.43	196.51	103.27	0.09
KinmoutDS	16774	April 16 2014	175	272.93	277.04		277.06	0.000048	0.62	321.44	111.57	0.11

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16774	May 8 2017	142	272.93	276.72		276.73	0.000045	0.56	285.52	109.38	0.1
KinmoutDS	16774	April 21 2013	211.8	272.93	277.36		277.38	0.000052	0.69	357.5	119.01	0.11
KinmoutDS	16753	Timmins_Uncalibr	441.16	272.21	278.77		278.79	0.000032	0.73	680.12	153.39	0.1
KinmoutDS	16753	Timmins_Calibrat	112.6	272.21	276.38		276.39	0.000013	0.32	364.84	118.04	0.06
KinmoutDS	16753	TimminsCC_Calibr	141.4	272.21	276.72		276.72	0.000015	0.37	404.57	120.68	0.06
KinmoutDS	16753	2y	107.1	272.21	276.32		276.32	0.000012	0.31	356.71	117.53	0.05
KinmoutDS	16753	5y	142.8	272.21	276.73		276.74	0.000015	0.37	406.42	120.82	0.06
KinmoutDS	16753	10y	166.9	272.21	276.98		276.98	0.000016	0.41	436.19	123.68	0.06
KinmoutDS	16753	25y	198.6	272.21	277.26		277.27	0.000018	0.45	471.47	128.96	0.07
KinmoutDS	16753	50y	223.9	272.21	277.46		277.47	0.00002	0.48	497.57	130.92	0.07
KinmoutDS	16753	100y	251.2	272.21	277.65		277.67	0.000022	0.52	523.62	132.25	0.08
KinmoutDS	16753	200y	281.2	272.21	277.86		277.87	0.000023	0.56	550.7	134.35	0.08
KinmoutDS	16753	350y	307.7	272.21	278.02		278.04	0.000025	0.59	573.33	140.86	0.08
KinmoutDS	16753	Sept 25 2021	68.8	272.21	275.75		275.76	0.000009	0.24	291.39	114.92	0.05
KinmoutDS	16753	July 13 2024	53.2	272.21	275.48		275.48	0.000008	0.21	260.21	111.75	0.04
KinmoutDS	16753	April 21 2019	223.6	272.21	277.45		277.47	0.00002	0.48	497.33	130.9	0.07
KinmoutDS	16753	Nov 2 2013	77	272.21	275.89		275.89	0.00001	0.26	306.81	115.62	0.05
KinmoutDS	16753	April 16 2014	175	272.21	277.05		277.06	0.000017	0.42	445.4	124.8	0.07
KinmoutDS	16753	May 8 2017	142	272.21	276.72		276.73	0.000015	0.37	405.38	120.74	0.06
KinmoutDS	16753	April 21 2013	211.8	272.21	277.37		277.38	0.000019	0.47	485.65	130.17	0.07
KinmoutDS	16733	Timmins_Uncalibr	441.16	272.13	278.77		278.79	0.000028	0.69	745.37	164.29	0.09
KinmoutDS	16733	Timmins_Calibrat	112.6	272.13	276.38		276.39	0.000011	0.31	400.1	131.64	0.05
KinmoutDS	16733	TimminsCC_Calibr	141.4	272.13	276.72		276.72	0.000013	0.35	444.31	133.81	0.06
KinmoutDS	16733	2y	107.1	272.13	276.32		276.32	0.000011	0.3	391.03	131.16	0.05
KinmoutDS	16733	5y	142.8	272.13	276.73		276.74	0.000013	0.35	446.37	133.93	0.06
KinmoutDS	16733	10y	166.9	272.13	276.98		276.98	0.000014	0.39	479.36	136.96	0.06
KinmoutDS	16733	25y	198.6	272.13	277.26		277.27	0.000016	0.43	518.21	140.28	0.07
KinmoutDS	16733	50y	223.9	272.13	277.46		277.47	0.000018	0.46	546.59	142.32	0.07
KinmoutDS	16733	100y	251.2	272.13	277.66		277.67	0.000019	0.49	575.12	145.68	0.07
KinmoutDS	16733	200y	281.2	272.13	277.86		277.87	0.000021	0.53	604.99	147.84	0.08
KinmoutDS	16733	350y	307.7	272.13	278.02		278.04	0.000022	0.56	629.58	150.06	0.08
KinmoutDS	16733	Sept 25 2021	68.8	272.13	275.75		275.76	0.000008	0.23	319.55	123.34	0.04
KinmoutDS	16733	July 13 2024	53.2	272.13	275.48		275.48	0.000007	0.2	285.86	121.67	0.04
KinmoutDS	16733	April 21 2019	223.6	272.13	277.46		277.47	0.000018	0.46	546.32	142.3	0.07
KinmoutDS	16733	Nov 2 2013	77	272.13	275.89		275.89	0.000009	0.25	336.1	124.09	0.05
KinmoutDS	16733	April 16 2014	175	272.13	277.05		277.06	0.000015	0.4	489.59	138.49	0.06
KinmoutDS	16733	May 8 2017	142	272.13	276.72		276.73	0.000013	0.35	445.21	133.86	0.06
KinmoutDS	16733	April 21 2013	211.8	272.13	277.37		277.38	0.000017	0.44	533.63	141.39	0.07
KinmoutDS	16713	Timmins_Uncalibr	441.16	272.35	278.77		278.79	0.000031	0.71	781.02	188.29	0.1
KinmoutDS	16713	Timmins_Calibrat	112.6	272.35	276.38		276.39	0.000013	0.33	396.3	142.01	0.06
KinmoutDS	16713	TimminsCC_Calibr	141.4	272.35	276.72		276.72	0.000015	0.37	444.47	146.72	0.06
KinmoutDS	16713	2y	107.1	272.35	276.31		276.32	0.000013	0.32	386.56	139.62	0.06
KinmoutDS	16713	5y	142.8	272.35	276.73		276.74	0.000015	0.37	446.72	146.86	0.06

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16713	10y	166.9	272.35	276.98		276.98	0.000017	0.41	482.82	149.9	0.07
KinmoutDS	16713	25y	198.6	272.35	277.26		277.26	0.000019	0.45	525.2	153.45	0.07
KinmoutDS	16713	50y	223.9	272.35	277.46		277.47	0.00002	0.48	556.34	157.1	0.07
KinmoutDS	16713	100y	251.2	272.35	277.65		277.67	0.000022	0.52	587.77	160.48	0.08
KinmoutDS	16713	200y	281.2	272.35	277.86		277.87	0.000023	0.55	620.88	164.67	0.08
KinmoutDS	16713	350y	307.7	272.35	278.02		278.04	0.000025	0.58	648.64	171.64	0.08
KinmoutDS	16713	Sept 25 2021	68.8	272.35	275.75		275.76	0.00001	0.25	310.6	132.64	0.05
KinmoutDS	16713	July 13 2024	53.2	272.35	275.48		275.48	0.000009	0.21	274.43	130.62	0.04
KinmoutDS	16713	April 21 2019	223.6	272.35	277.45		277.47	0.00002	0.48	556.04	157.02	0.07
KinmoutDS	16713	Nov 2 2013	77	272.35	275.89		275.89	0.000011	0.26	328.41	133.66	0.05
KinmoutDS	16713	April 16 2014	175	272.35	277.05		277.06	0.000017	0.42	493.97	150.58	0.07
KinmoutDS	16713	May 8 2017	142	272.35	276.72		276.73	0.000015	0.37	445.45	146.78	0.06
KinmoutDS	16713	April 21 2013	211.8	272.35	277.36		277.38	0.000019	0.47	542.08	155.22	0.07
KinmoutDS	16692	Timmins_Uncalibr	441.16	272.55	278.76		278.79	0.000039	0.78	760.47	196.78	0.11
KinmoutDS	16692	Timmins_Calibrat	112.6	272.55	276.38		276.39	0.000018	0.37	361.88	134.22	0.07
KinmoutDS	16692	TimminsCC_Calibr	141.4	272.55	276.71		276.72	0.00002	0.42	408.23	148.59	0.07
KinmoutDS	16692	2y	107.1	272.55	276.31		276.32	0.000018	0.36	352.64	133.74	0.06
KinmoutDS	16692	5y	142.8	272.55	276.73		276.74	0.000021	0.42	410.51	148.82	0.07
KinmoutDS	16692	10y	166.9	272.55	276.97		276.98	0.000022	0.46	447.06	151.47	0.07
KinmoutDS	16692	25y	198.6	272.55	277.25		277.26	0.000024	0.5	490.17	160.44	0.08
KinmoutDS	16692	50y	223.9	272.55	277.45		277.47	0.000026	0.54	522.91	167.56	0.08
KinmoutDS	16692	100y	251.2	272.55	277.65		277.67	0.000028	0.57	556.19	170.17	0.09
KinmoutDS	16692	200y	281.2	272.55	277.85		277.87	0.00003	0.61	591.03	173.8	0.09
KinmoutDS	16692	350y	307.7	272.55	278.02		278.04	0.000032	0.64	620.2	179.36	0.09
KinmoutDS	16692	Sept 25 2021	68.8	272.55	275.75		275.76	0.000014	0.28	280.36	126.18	0.06
KinmoutDS	16692	July 13 2024	53.2	272.55	275.48		275.48	0.000013	0.25	245.98	124.32	0.05
KinmoutDS	16692	April 21 2019	223.6	272.55	277.45		277.46	0.000026	0.54	522.59	167.55	0.08
KinmoutDS	16692	Nov 2 2013	77	272.55	275.89		275.89	0.000015	0.3	297.28	127.02	0.06
KinmoutDS	16692	April 16 2014	175	272.55	277.05		277.06	0.000023	0.47	458.34	152.72	0.08
KinmoutDS	16692	May 8 2017	142	272.55	276.72		276.73	0.00002	0.42	409.22	148.69	0.07
KinmoutDS	16692	April 21 2013	211.8	272.55	277.36		277.37	0.000025	0.52	507.84	163.62	0.08
KinmoutDS	16672	Timmins_Uncalibr	441.16	272.67	278.75		278.79	0.000053	0.9	693.6	200.85	0.12
KinmoutDS	16672	Timmins_Calibrat	112.6	272.67	276.38		276.39	0.000027	0.44	301.57	122.15	0.08
KinmoutDS	16672	TimminsCC_Calibr	141.4	272.67	276.71		276.72	0.00003	0.49	343.58	131.89	0.09
KinmoutDS	16672	2y	107.1	272.67	276.31		276.32	0.000026	0.43	293.27	118.83	0.08
KinmoutDS	16672	5y	142.8	272.67	276.73		276.74	0.00003	0.5	345.62	133.37	0.09
KinmoutDS	16672	10y	166.9	272.67	276.97		276.98	0.000033	0.54	379.71	143.15	0.09
KinmoutDS	16672	25y	198.6	272.67	277.25		277.26	0.000036	0.6	421.25	158.29	0.1
KinmoutDS	16672	50y	223.9	272.67	277.45		277.47	0.000038	0.63	453.52	163.84	0.1
KinmoutDS	16672	100y	251.2	272.67	277.64		277.66	0.000041	0.67	486.01	165.54	0.1
KinmoutDS	16672	200y	281.2	272.67	277.85		277.87	0.000043	0.72	520.6	175.74	0.11
KinmoutDS	16672	350y	307.7	272.67	278.01		278.04	0.000045	0.75	550.08	183.49	0.11
KinmoutDS	16672	Sept 25 2021	68.8	272.67	275.75		275.75	0.000022	0.34	231.33	107.84	0.07
KinmoutDS	16672	July 13 2024	53.2	272.67	275.48		275.48	0.00002	0.3	201.97	106.38	0.06

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16672	April 21 2019	223.6	272.67	277.44		277.46	0.000038	0.63	453.2	163.82	0.1
KinmoutDS	16672	Nov 2 2013	77	272.67	275.88		275.89	0.000023	0.36	245.77	108.72	0.07
KinmoutDS	16672	April 16 2014	175	272.67	277.04		277.06	0.000034	0.55	390.32	143.7	0.09
KinmoutDS	16672	May 8 2017	142	272.67	276.72		276.73	0.00003	0.49	344.46	132.73	0.09
KinmoutDS	16672	April 21 2013	211.8	272.67	277.36		277.37	0.000037	0.62	438.67	162.55	0.1
KinmoutDS	16652	Timmins_Uncalibr	441.16	272.81	278.73		278.78	0.000083	1.1	590.08	192.34	0.15
KinmoutDS	16652	Timmins_Calibrat	112.6	272.81	276.37		276.39	0.000047	0.55	235.64	92.4	0.1
KinmoutDS	16652	TimminsCC_Calibr	141.4	272.81	276.7		276.72	0.000051	0.62	266.88	96.55	0.11
KinmoutDS	16652	2y	107.1	272.81	276.3		276.32	0.000046	0.54	229.34	91.49	0.1
KinmoutDS	16652	5y	142.8	272.81	276.72		276.74	0.000051	0.62	268.35	96.85	0.11
KinmoutDS	16652	10y	166.9	272.81	276.96		276.98	0.000057	0.69	295.21	129.7	0.12
KinmoutDS	16652	25y	198.6	272.81	277.23		277.26	0.000061	0.75	331.9	136.75	0.12
KinmoutDS	16652	50y	223.9	272.81	277.43		277.46	0.000064	0.8	360.69	149.85	0.13
KinmoutDS	16652	100y	251.2	272.81	277.63		277.66	0.000067	0.84	390.37	153.49	0.13
KinmoutDS	16652	200y	281.2	272.81	277.83		277.87	0.000071	0.89	423.24	169.53	0.14
KinmoutDS	16652	350y	307.7	272.81	277.99		278.03	0.000074	0.93	451.64	180.66	0.14
KinmoutDS	16652	Sept 25 2021	68.8	272.81	275.74		275.75	0.00004	0.43	179.53	87.76	0.09
KinmoutDS	16652	July 13 2024	53.2	272.81	275.47		275.48	0.000037	0.38	155.69	86.59	0.09
KinmoutDS	16652	April 21 2019	223.6	272.81	277.43		277.46	0.000064	0.8	360.4	149.82	0.13
KinmoutDS	16652	Nov 2 2013	77	272.81	275.88		275.89	0.000041	0.46	191.24	88.33	0.09
KinmoutDS	16652	April 16 2014	175	272.81	277.03		277.05	0.000058	0.7	304.79	130.92	0.12
KinmoutDS	16652	May 8 2017	142	272.81	276.71		276.73	0.000051	0.62	267.52	96.68	0.11
KinmoutDS	16652	April 21 2013	211.8	272.81	277.34		277.37	0.000062	0.77	347.3	146.8	0.13
KinmoutDS	16632	Timmins_Uncalibr	441.16	272.93	278.69		278.78	0.000137	1.37	475.98	182.68	0.19
KinmoutDS	16632	Timmins_Calibrat	112.6	272.93	276.36		276.38	0.00008	0.7	179.95	71.46	0.13
KinmoutDS	16632	TimminsCC_Calibr	141.4	272.93	276.69		276.72	0.000086	0.78	203.55	72.58	0.14
KinmoutDS	16632	2y	107.1	272.93	276.29		276.32	0.000078	0.68	175.09	71.26	0.13
KinmoutDS	16632	5y	142.8	272.93	276.7		276.73	0.000086	0.78	204.65	72.63	0.14
KinmoutDS	16632	10y	166.9	272.93	276.94		276.98	0.000092	0.85	222.66	83.13	0.15
KinmoutDS	16632	25y	198.6	272.93	277.21		277.26	0.000102	0.94	248.39	101.16	0.16
KinmoutDS	16632	50y	223.9	272.93	277.41		277.46	0.000107	1	268.43	102.8	0.16
KinmoutDS	16632	100y	251.2	272.93	277.6		277.66	0.000113	1.06	290.4	125.9	0.17
KinmoutDS	16632	200y	281.2	272.93	277.8		277.86	0.000119	1.12	318.01	160.88	0.18
KinmoutDS	16632	350y	307.7	272.93	277.96		278.03	0.000126	1.19	344.61	173.4	0.18
KinmoutDS	16632	Sept 25 2021	68.8	272.93	275.74		275.75	0.000071	0.55	135.92	69.82	0.12
KinmoutDS	16632	July 13 2024	53.2	272.93	275.47		275.48	0.000067	0.49	117.02	69.08	0.12
KinmoutDS	16632	April 21 2019	223.6	272.93	277.41		277.46	0.000107	1	268.24	102.79	0.16
KinmoutDS	16632	Nov 2 2013	77	272.93	275.87		275.89	0.000072	0.58	145.18	70.15	0.12
KinmoutDS	16632	April 16 2014	175	272.93	277.01		277.05	0.000097	0.88	228.81	90.13	0.15
KinmoutDS	16632	May 8 2017	142	272.93	276.7		276.72	0.000086	0.78	204.03	72.61	0.14
KinmoutDS	16632	April 21 2013	211.8	272.93	277.32		277.37	0.000105	0.97	259.29	102.06	0.16
KinmoutDS	16611	Timmins_Uncalibr	441.16	273.05	278.67		278.77	0.000198	1.54	433.13	174.57	0.22
KinmoutDS	16611	Timmins_Calibrat	112.6	273.05	276.35		276.38	0.00014	0.84	143.19	60.27	0.17

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16611	TimminsCC_Calibr	141.4	273.05	276.67		276.71	0.000148	0.94	162.99	61.5	0.18
KinmoutDS	16611	2y	107.1	273.05	276.28		276.31	0.000139	0.82	139.13	60.01	0.17
KinmoutDS	16611	5y	142.8	273.05	276.69		276.73	0.000148	0.94	163.92	61.96	0.18
KinmoutDS	16611	10y	166.9	273.05	276.92		276.97	0.000157	1.02	182.01	92.78	0.18
KinmoutDS	16611	25y	198.6	273.05	277.19		277.25	0.000165	1.11	210.03	107.04	0.19
KinmoutDS	16611	50y	223.9	273.05	277.39		277.46	0.000171	1.17	231.56	113.6	0.2
KinmoutDS	16611	100y	251.2	273.05	277.58		277.65	0.000177	1.23	254.78	131.01	0.2
KinmoutDS	16611	200y	281.2	273.05	277.78		277.86	0.000185	1.3	282.97	154.21	0.21
KinmoutDS	16611	350y	307.7	273.05	277.94		278.02	0.000189	1.35	308.28	161.41	0.21
KinmoutDS	16611	Sept 25 2021	68.8	273.05	275.73		275.75	0.000132	0.68	106.49	58.25	0.16
KinmoutDS	16611	July 13 2024	53.2	273.05	275.46		275.47	0.00013	0.62	90.84	57.42	0.15
KinmoutDS	16611	April 21 2019	223.6	273.05	277.39		277.45	0.000171	1.17	231.35	113.54	0.2
KinmoutDS	16611	Nov 2 2013	77	273.05	275.86		275.88	0.000133	0.72	114.19	58.66	0.16
KinmoutDS	16611	April 16 2014	175	273.05	276.99		277.05	0.000159	1.04	188.99	102.68	0.19
KinmoutDS	16611	May 8 2017	142	273.05	276.68		276.72	0.000148	0.94	163.4	61.54	0.18
KinmoutDS	16611	April 21 2013	211.8	273.05	277.3		277.36	0.000168	1.14	221.59	111.62	0.19
KinmoutDS	16590	Timmins_Uncalibr	441.16	273.19	278.65		278.77	0.000243	1.62	408.01	171.51	0.24
KinmoutDS	16590	Timmins_Calibrat	112.6	273.19	276.33		276.38	0.000193	0.93	123.64	53.2	0.19
KinmoutDS	16590	TimminsCC_Calibr	141.4	273.19	276.66		276.71	0.000201	1.03	141.8	59.47	0.2
KinmoutDS	16590	2y	107.1	273.19	276.27		276.31	0.000192	0.91	120.08	53.01	0.19
KinmoutDS	16590	5y	142.8	273.19	276.67		276.73	0.000201	1.03	142.69	60.1	0.2
KinmoutDS	16590	10y	166.9	273.19	276.91		276.97	0.000208	1.11	159.78	87.83	0.2
KinmoutDS	16590	25y	198.6	273.19	277.18		277.25	0.000218	1.2	186.19	104.11	0.21
KinmoutDS	16590	50y	223.9	273.19	277.37		277.45	0.000224	1.26	207.55	114.7	0.22
KinmoutDS	16590	100y	251.2	273.19	277.56		277.65	0.000231	1.33	231.25	141.96	0.22
KinmoutDS	16590	200y	281.2	273.19	277.76		277.85	0.000235	1.39	260.42	151.38	0.23
KinmoutDS	16590	350y	307.7	273.19	277.92		278.02	0.00024	1.44	285.2	158.33	0.23
KinmoutDS	16590	Sept 25 2021	68.8	273.19	275.72		275.75	0.00019	0.76	91.38	51.44	0.18
KinmoutDS	16590	July 13 2024	53.2	273.19	275.45		275.47	0.000194	0.69	77.61	50.69	0.18
KinmoutDS	16590	April 21 2019	223.6	273.19	277.37		277.45	0.000224	1.26	207.34	114.57	0.22
KinmoutDS	16590	Nov 2 2013	77	273.19	275.85		275.88	0.000189	0.79	98.15	51.8	0.18
KinmoutDS	16590	April 16 2014	175	273.19	276.98		277.04	0.000211	1.13	166.32	93.82	0.21
KinmoutDS	16590	May 8 2017	142	273.19	276.66		276.72	0.000201	1.03	142.19	59.84	0.2
KinmoutDS	16590	April 21 2013	211.8	273.19	277.28		277.36	0.00022	1.23	197.59	111.26	0.21
KinmoutDS	16570	Timmins_Uncalibr	441.16	273.28	278.63		278.76	0.000327	1.74	366.16	159.22	0.26
KinmoutDS	16570	Timmins_Calibrat	112.6	273.28	276.32		276.37	0.000209	1.01	112.02	47.57	0.21
KinmoutDS	16570	TimminsCC_Calibr	141.4	273.28	276.64		276.71	0.000217	1.11	127.64	55.33	0.22
KinmoutDS	16570	2y	107.1	273.28	276.25		276.3	0.000207	0.98	108.84	47.52	0.21
KinmoutDS	16570	5y	142.8	273.28	276.66		276.72	0.000217	1.12	128.47	56.01	0.22
KinmoutDS	16570	10y	166.9	273.28	276.89		276.96	0.000226	1.2	143.04	74.45	0.22
KinmoutDS	16570	25y	198.6	273.28	277.16		277.24	0.000246	1.3	165.59	91.34	0.23
KinmoutDS	16570	50y	223.9	273.28	277.35		277.44	0.00026	1.37	183.43	95.05	0.24
KinmoutDS	16570	100y	251.2	273.28	277.54		277.64	0.000276	1.44	203.78	119.9	0.24
KinmoutDS	16570	200y	281.2	273.28	277.73		277.85	0.00029	1.51	229.59	140.36	0.25

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16570	350y	307.7	273.28	277.89		278.01	0.0003	1.56	252.34	145.81	0.25
KinmoutDS	16570	Sept 25 2021	68.8	273.28	275.71		275.74	0.000206	0.83	82.97	46.73	0.2
KinmoutDS	16570	July 13 2024	53.2	273.28	275.44		275.47	0.000208	0.76	70.46	46.29	0.2
KinmoutDS	16570	April 21 2019	223.6	273.28	277.35		277.44	0.00026	1.37	183.26	94.76	0.24
KinmoutDS	16570	Nov 2 2013	77	273.28	275.84		275.88	0.000204	0.86	89.1	46.97	0.2
KinmoutDS	16570	April 16 2014	175	273.28	276.96		277.04	0.000232	1.23	148.63	80.43	0.23
KinmoutDS	16570	May 8 2017	142	273.28	276.65		276.71	0.000217	1.11	128	55.63	0.22
KinmoutDS	16570	April 21 2013	211.8	273.28	277.26		277.35	0.000253	1.33	175.28	92.63	0.23
KinmoutDS	16552	Timmins_Uncalibr	441.16	273.38	278.61		278.76	0.000325	1.79	350.7	149.49	0.26
KinmoutDS	16552	Timmins_Calibrat	112.6	273.38	276.32		276.37	0.000212	1.02	110.65	46.66	0.21
KinmoutDS	16552	TimminsCC_Calibr	141.4	273.38	276.64		276.7	0.000225	1.13	126.13	55.46	0.22
KinmoutDS	16552	2y	107.1	273.38	276.25		276.3	0.00021	1	107.53	46.61	0.21
KinmoutDS	16552	5y	142.8	273.38	276.65		276.72	0.000226	1.13	126.96	56.04	0.22
KinmoutDS	16552	10y	166.9	273.38	276.88		276.96	0.000242	1.21	141.96	68.65	0.23
KinmoutDS	16552	25y	198.6	273.38	277.15		277.24	0.000263	1.32	162.62	85.61	0.23
KinmoutDS	16552	50y	223.9	273.38	277.34		277.44	0.00028	1.39	180.05	96.84	0.24
KinmoutDS	16552	100y	251.2	273.38	277.53		277.64	0.000295	1.46	199.32	112.63	0.25
KinmoutDS	16552	200y	281.2	273.38	277.73		277.84	0.000311	1.53	224.07	133.84	0.25
KinmoutDS	16552	350y	307.7	273.38	277.88		278.01	0.00032	1.58	245.56	136.29	0.26
KinmoutDS	16552	Sept 25 2021	68.8	273.38	275.7		275.74	0.000208	0.84	82.15	46	0.2
KinmoutDS	16552	July 13 2024	53.2	273.38	275.43		275.46	0.00021	0.76	69.85	45.56	0.2
KinmoutDS	16552	April 21 2019	223.6	273.38	277.34		277.44	0.00028	1.39	179.87	96.81	0.24
KinmoutDS	16552	Nov 2 2013	77	273.38	275.83		275.87	0.000208	0.87	88.18	46.3	0.2
KinmoutDS	16552	April 16 2014	175	273.38	276.96		277.03	0.000248	1.24	146.88	70.56	0.23
KinmoutDS	16552	May 8 2017	142	273.38	276.64		276.71	0.000225	1.13	126.49	55.71	0.22
KinmoutDS	16552	April 21 2013	211.8	273.38	277.26		277.35	0.000271	1.35	171.84	91.35	0.24
KinmoutDS	16532	Timmins_Uncalibr	441.16	273.45	278.59		278.75	0.0003	1.85	333.43	134.89	0.27
KinmoutDS	16532	Timmins_Calibrat	112.6	273.45	276.31		276.36	0.000216	1.04	109.04	51.62	0.21
KinmoutDS	16532	TimminsCC_Calibr	141.4	273.45	276.63		276.7	0.000224	1.14	129.87	68.61	0.22
KinmoutDS	16532	2y	107.1	273.45	276.24		276.3	0.000214	1.01	105.74	47.78	0.21
KinmoutDS	16532	5y	142.8	273.45	276.64		276.71	0.000224	1.15	130.88	68.7	0.22
KinmoutDS	16532	10y	166.9	273.45	276.88		276.95	0.000237	1.23	148.52	80.45	0.23
KinmoutDS	16532	25y	198.6	273.45	277.15		277.23	0.000251	1.32	170.85	88.02	0.23
KinmoutDS	16532	50y	223.9	273.45	277.34		277.43	0.00026	1.4	188.56	96.93	0.24
KinmoutDS	16532	100y	251.2	273.45	277.53		277.63	0.000266	1.47	207.06	98.4	0.25
KinmoutDS	16532	200y	281.2	273.45	277.72		277.83	0.000273	1.54	226.56	102.43	0.25
KinmoutDS	16532	350y	307.7	273.45	277.88		278	0.000279	1.6	243.15	108.23	0.26
KinmoutDS	16532	Sept 25 2021	68.8	273.45	275.7		275.73	0.000209	0.85	81.02	44.73	0.2
KinmoutDS	16532	July 13 2024	53.2	273.45	275.43		275.46	0.000209	0.77	69.09	44.22	0.2
KinmoutDS	16532	April 21 2019	223.6	273.45	277.34		277.43	0.000259	1.4	188.38	96.9	0.24
KinmoutDS	16532	Nov 2 2013	77	273.45	275.83		275.87	0.000209	0.89	86.87	44.87	0.2
KinmoutDS	16532	April 16 2014	175	273.45	276.95		277.03	0.000243	1.25	154.28	81.58	0.23
KinmoutDS	16532	May 8 2017	142	273.45	276.64		276.7	0.000224	1.15	130.31	68.65	0.22
KinmoutDS	16532	April 21 2013	211.8	273.45	277.25		277.34	0.000254	1.36	180.34	92.93	0.24

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16512	Timmins_Uncalibr	441.16	273.42	278.54		278.74	0.00038	2.03	292.28	122.15	0.3
KinmoutDS	16512	Timmins_Calibrat	112.6	273.42	276.3		276.36	0.000243	1.09	103.73	43.46	0.22
KinmoutDS	16512	TimminsCC_Calibr	141.4	273.42	276.62		276.69	0.000268	1.21	118.3	51.19	0.23
KinmoutDS	16512	2y	107.1	273.42	276.23		276.29	0.000238	1.06	100.86	43.34	0.22
KinmoutDS	16512	5y	142.8	273.42	276.63		276.71	0.000269	1.21	119.05	51.55	0.23
KinmoutDS	16512	10y	166.9	273.42	276.86		276.95	0.000285	1.3	131.69	56.37	0.24
KinmoutDS	16512	25y	198.6	273.42	277.12		277.23	0.000301	1.42	148.35	70.45	0.25
KinmoutDS	16512	50y	223.9	273.42	277.31		277.43	0.000315	1.5	162.55	82.4	0.26
KinmoutDS	16512	100y	251.2	273.42	277.5		277.62	0.000327	1.59	178.36	88.53	0.27
KinmoutDS	16512	200y	281.2	273.42	277.69		277.83	0.000339	1.67	196.12	98.36	0.27
KinmoutDS	16512	350y	307.7	273.42	277.84		277.99	0.000349	1.74	211.76	103.86	0.28
KinmoutDS	16512	Sept 25 2021	68.8	273.42	275.69		275.73	0.000228	0.89	77.39	42.77	0.21
KinmoutDS	16512	July 13 2024	53.2	273.42	275.42		275.45	0.000227	0.81	66.05	42.1	0.21
KinmoutDS	16512	April 21 2019	223.6	273.42	277.31		277.42	0.000314	1.5	162.41	82.36	0.26
KinmoutDS	16512	Nov 2 2013	77	273.42	275.82		275.86	0.000229	0.93	82.98	43.03	0.21
KinmoutDS	16512	April 16 2014	175	273.42	276.93		277.02	0.000289	1.33	135.73	60.67	0.24
KinmoutDS	16512	May 8 2017	142	273.42	276.62		276.7	0.000268	1.21	118.62	51.34	0.23
KinmoutDS	16512	April 21 2013	211.8	273.42	277.23		277.33	0.000307	1.46	155.79	74.99	0.26
KinmoutDS	16492	Timmins_Uncalibr	441.16	273.39	278.49		278.73	0.000399	2.19	269.53	105.04	0.33
KinmoutDS	16492	Timmins_Calibrat	112.6	273.39	276.29		276.35	0.000249	1.13	101.01	45.21	0.23
KinmoutDS	16492	TimminsCC_Calibr	141.4	273.39	276.61		276.68	0.00026	1.25	115.71	48	0.24
KinmoutDS	16492	2y	107.1	273.39	276.22		276.28	0.000247	1.1	98.05	44.63	0.23
KinmoutDS	16492	5y	142.8	273.39	276.62		276.7	0.000261	1.26	116.41	48.12	0.24
KinmoutDS	16492	10y	166.9	273.39	276.85		276.94	0.000272	1.35	127.63	50.47	0.25
KinmoutDS	16492	25y	198.6	273.39	277.11		277.22	0.000291	1.48	143.31	70.77	0.26
KinmoutDS	16492	50y	223.9	273.39	277.29		277.42	0.000304	1.57	157.15	79.15	0.27
KinmoutDS	16492	100y	251.2	273.39	277.48		277.62	0.00032	1.66	172.29	86.89	0.28
KinmoutDS	16492	200y	281.2	273.39	277.66		277.82	0.000334	1.76	188.83	89.76	0.29
KinmoutDS	16492	350y	307.7	273.39	277.81		277.98	0.000347	1.84	202.53	90.84	0.3
KinmoutDS	16492	Sept 25 2021	68.8	273.39	275.68		275.72	0.000241	0.92	74.85	41.23	0.22
KinmoutDS	16492	July 13 2024	53.2	273.39	275.41		275.45	0.00024	0.83	63.91	40.65	0.21
KinmoutDS	16492	April 21 2019	223.6	273.39	277.29		277.42	0.000304	1.57	157.02	79.05	0.27
KinmoutDS	16492	Nov 2 2013	77	273.39	275.81		275.86	0.000242	0.96	80.24	41.9	0.22
KinmoutDS	16492	April 16 2014	175	273.39	276.92		277.01	0.000277	1.39	131.19	53.82	0.25
KinmoutDS	16492	May 8 2017	142	273.39	276.61		276.69	0.000261	1.25	116.02	48.05	0.24
KinmoutDS	16492	April 21 2013	211.8	273.39	277.21		277.33	0.000297	1.53	150.69	74.6	0.27
KinmoutDS	16471	Timmins_Uncalibr	441.16	273.35	278.47		278.72	0.000462	2.27	271.55	102.25	0.34
KinmoutDS	16471	Timmins_Calibrat	112.6	273.35	276.28		276.35	0.000293	1.18	97.79	42.84	0.24
KinmoutDS	16471	TimminsCC_Calibr	141.4	273.35	276.59		276.68	0.000308	1.31	111.86	47.23	0.25
KinmoutDS	16471	2y	107.1	273.35	276.21		276.28	0.000291	1.15	94.99	42.42	0.24
KinmoutDS	16471	5y	142.8	273.35	276.61		276.69	0.000309	1.32	112.54	48.28	0.25
KinmoutDS	16471	10y	166.9	273.35	276.83		276.93	0.000324	1.42	126.22	73.11	0.26
KinmoutDS	16471	25y	198.6	273.35	277.09		277.21	0.000342	1.54	146.33	79.93	0.27

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16471	50y	223.9	273.35	277.28		277.41	0.000357	1.63	161.51	85.07	0.28
KinmoutDS	16471	100y	251.2	273.35	277.46		277.61	0.000372	1.73	177.15	86.48	0.29
KinmoutDS	16471	200y	281.2	273.35	277.64		277.81	0.000388	1.82	193.46	89.24	0.3
KinmoutDS	16471	350y	307.7	273.35	277.8		277.97	0.000402	1.9	207.07	90.59	0.31
KinmoutDS	16471	Sept 25 2021	68.8	273.35	275.67		275.72	0.000259	0.96	72.62	40.74	0.23
KinmoutDS	16471	July 13 2024	53.2	273.35	275.4		275.44	0.000257	0.87	61.86	40.04	0.22
KinmoutDS	16471	April 21 2019	223.6	273.35	277.27		277.41	0.000356	1.63	161.37	85.06	0.28
KinmoutDS	16471	Nov 2 2013	77	273.35	275.8		275.85	0.000261	1	77.91	41.01	0.23
KinmoutDS	16471	April 16 2014	175	273.35	276.9		277.01	0.000329	1.45	131.38	76.84	0.26
KinmoutDS	16471	May 8 2017	142	273.35	276.6		276.68	0.000309	1.31	112.16	47.37	0.25
KinmoutDS	16471	April 21 2013	211.8	273.35	277.19		277.32	0.000348	1.59	154.47	81.79	0.28
KinmoutDS	16451	Timmins_Uncalibr	441.16	273.3	278.47		278.71	0.000494	2.28	288.22	105.45	0.34
KinmoutDS	16451	Timmins_Calibrat	112.6	273.3	276.27		276.34	0.000332	1.22	103.62	58.52	0.25
KinmoutDS	16451	TimminsCC_Calibr	141.4	273.3	276.58		276.67	0.000341	1.34	123.05	67.48	0.26
KinmoutDS	16451	2y	107.1	273.3	276.2		276.27	0.000331	1.19	99.78	57.83	0.25
KinmoutDS	16451	5y	142.8	273.3	276.6		276.69	0.000341	1.34	124.04	68.16	0.26
KinmoutDS	16451	10y	166.9	273.3	276.83		276.93	0.000351	1.44	141.33	80	0.27
KinmoutDS	16451	25y	198.6	273.3	277.09		277.2	0.000367	1.55	162.56	82.74	0.28
KinmoutDS	16451	50y	223.9	273.3	277.27		277.4	0.00038	1.64	178.2	86.19	0.28
KinmoutDS	16451	100y	251.2	273.3	277.45		277.6	0.000395	1.73	194.08	87.37	0.29
KinmoutDS	16451	200y	281.2	273.3	277.64		277.8	0.00041	1.82	210.52	88.51	0.3
KinmoutDS	16451	350y	307.7	273.3	277.79		277.96	0.000424	1.9	223.98	89.31	0.31
KinmoutDS	16451	Sept 25 2021	68.8	273.3	275.66		275.71	0.00029	1	71.33	46.4	0.24
KinmoutDS	16451	July 13 2024	53.2	273.3	275.4		275.44	0.000286	0.91	60.1	40.59	0.23
KinmoutDS	16451	April 21 2019	223.6	273.3	277.27		277.4	0.00038	1.64	178.06	86.18	0.28
KinmoutDS	16451	Nov 2 2013	77	273.3	275.79		275.85	0.000297	1.05	77.51	49.01	0.24
KinmoutDS	16451	April 16 2014	175	273.3	276.9		277	0.000355	1.47	146.91	80.83	0.27
KinmoutDS	16451	May 8 2017	142	273.3	276.59		276.68	0.000341	1.34	123.48	67.77	0.26
KinmoutDS	16451	April 21 2013	211.8	273.3	277.19		277.31	0.000372	1.6	171.03	84.61	0.28
KinmoutDS	16433	Timmins_Uncalibr	441.16	273.27	278.46		278.69	0.000501	2.26	282.22	102.56	0.33
KinmoutDS	16433	Timmins_Calibrat	112.6	273.27	276.26		276.33	0.000333	1.2	98.54	51.15	0.25
KinmoutDS	16433	TimminsCC_Calibr	141.4	273.27	276.58		276.66	0.00035	1.34	117.72	69.66	0.26
KinmoutDS	16433	2y	107.1	273.27	276.2		276.27	0.00033	1.18	95.31	46.32	0.24
KinmoutDS	16433	5y	142.8	273.27	276.59		276.68	0.00035	1.34	118.74	70.22	0.26
KinmoutDS	16433	10y	166.9	273.27	276.82		276.92	0.000361	1.44	135.66	75.61	0.26
KinmoutDS	16433	25y	198.6	273.27	277.08		277.2	0.00038	1.56	155.85	81.46	0.27
KinmoutDS	16433	50y	223.9	273.27	277.26		277.39	0.000395	1.65	171.33	87.02	0.28
KinmoutDS	16433	100y	251.2	273.27	277.44		277.59	0.000411	1.74	187.47	89.86	0.29
KinmoutDS	16433	200y	281.2	273.27	277.63		277.79	0.000427	1.83	204.31	90.91	0.3
KinmoutDS	16433	350y	307.7	273.27	277.78		277.95	0.000442	1.91	218.11	91.79	0.31
KinmoutDS	16433	Sept 25 2021	68.8	273.27	275.66		275.71	0.00032	0.98	72.5	41.6	0.23
KinmoutDS	16433	July 13 2024	53.2	273.27	275.39		275.43	0.000318	0.89	61.51	41.11	0.22
KinmoutDS	16433	April 21 2019	223.6	273.27	277.26		277.39	0.000395	1.65	171.19	86.71	0.28
KinmoutDS	16433	Nov 2 2013	77	273.27	275.79		275.84	0.000321	1.03	77.88	41.8	0.23

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16433	April 16 2014	175	273.27	276.89		276.99	0.000366	1.47	140.92	76.72	0.27
KinmoutDS	16433	May 8 2017	142	273.27	276.58		276.67	0.00035	1.34	118.16	69.92	0.26
KinmoutDS	16433	April 21 2013	211.8	273.27	277.18		277.3	0.000387	1.6	164.16	84.67	0.28
KinmoutDS	16411	Timmins_Uncalibr	441.16	273.23	278.43		278.68	0.00055	2.37	296.74	123.03	0.35
KinmoutDS	16411	Timmins_Calibrat	112.6	273.23	276.24		276.32	0.000394	1.31	92.54	56.79	0.27
KinmoutDS	16411	TimminsCC_Calibr	141.4	273.23	276.55		276.65	0.000412	1.45	112.26	71.08	0.28
KinmoutDS	16411	2y	107.1	273.23	276.17		276.26	0.000391	1.28	89.01	52.06	0.27
KinmoutDS	16411	5y	142.8	273.23	276.56		276.67	0.000412	1.46	113.29	71.32	0.28
KinmoutDS	16411	10y	166.9	273.23	276.79		276.91	0.000424	1.56	129.97	78.94	0.29
KinmoutDS	16411	25y	198.6	273.23	277.05		277.18	0.000444	1.68	151.27	90.1	0.3
KinmoutDS	16411	50y	223.9	273.23	277.23		277.38	0.000458	1.77	168.38	95.68	0.31
KinmoutDS	16411	100y	251.2	273.23	277.41		277.58	0.000472	1.86	186.03	97.91	0.31
KinmoutDS	16411	200y	281.2	273.23	277.6		277.78	0.000486	1.96	204.62	100.95	0.32
KinmoutDS	16411	350y	307.7	273.23	277.75		277.94	0.000499	2.03	220.07	103.19	0.33
KinmoutDS	16411	Sept 25 2021	68.8	273.23	275.64		275.7	0.000362	1.07	66.58	38.29	0.25
KinmoutDS	16411	July 13 2024	53.2	273.23	275.38		275.42	0.000344	0.97	56.57	37.66	0.24
KinmoutDS	16411	April 21 2019	223.6	273.23	277.23		277.38	0.000458	1.77	168.23	95.63	0.31
KinmoutDS	16411	Nov 2 2013	77	273.23	275.77		275.83	0.000381	1.12	71.5	38.69	0.25
KinmoutDS	16411	April 16 2014	175	273.23	276.86		276.98	0.00043	1.59	135.41	80.97	0.29
KinmoutDS	16411	May 8 2017	142	273.23	276.56		276.66	0.000412	1.46	112.71	71.19	0.28
KinmoutDS	16411	April 21 2013	211.8	273.23	277.15		277.29	0.00045	1.73	160.53	93.45	0.3
KinmoutDS	16391	Timmins_Uncalibr	441.16	273.2	278.4		278.67	0.000559	2.48	300.75	115.61	0.37
KinmoutDS	16391	Timmins_Calibrat	112.6	273.2	276.22		276.31	0.000418	1.4	87.35	45.9	0.29
KinmoutDS	16391	TimminsCC_Calibr	141.4	273.2	276.52		276.64	0.000445	1.56	104.42	78.39	0.3
KinmoutDS	16391	2y	107.1	273.2	276.15		276.25	0.000413	1.37	84.44	44.72	0.28
KinmoutDS	16391	5y	142.8	273.2	276.54		276.66	0.000445	1.57	105.34	79.5	0.3
KinmoutDS	16391	10y	166.9	273.2	276.76		276.9	0.00046	1.68	123.06	101.24	0.31
KinmoutDS	16391	25y	198.6	273.2	277.02		277.17	0.000475	1.8	149.33	103.76	0.32
KinmoutDS	16391	50y	223.9	273.2	277.2		277.37	0.000486	1.89	168.55	105.27	0.33
KinmoutDS	16391	100y	251.2	273.2	277.38		277.56	0.000498	1.98	187.84	107.09	0.33
KinmoutDS	16391	200y	281.2	273.2	277.57		277.77	0.000509	2.07	207.95	108.36	0.34
KinmoutDS	16391	350y	307.7	273.2	277.72		277.93	0.00052	2.15	224.4	109.29	0.34
KinmoutDS	16391	Sept 25 2021	68.8	273.2	275.62		275.69	0.000393	1.13	63.8	36.65	0.26
KinmoutDS	16391	July 13 2024	53.2	273.2	275.36		275.41	0.00039	1.02	54.3	36.01	0.26
KinmoutDS	16391	April 21 2019	223.6	273.2	277.2		277.37	0.000485	1.89	168.39	105.26	0.33
KinmoutDS	16391	Nov 2 2013	77	273.2	275.75		275.82	0.000395	1.19	68.48	37.06	0.27
KinmoutDS	16391	April 16 2014	175	273.2	276.83		276.97	0.000464	1.71	129.98	102.01	0.31
KinmoutDS	16391	May 8 2017	142	273.2	276.53		276.65	0.000445	1.57	104.82	78.88	0.3
KinmoutDS	16391	April 21 2013	211.8	273.2	277.12		277.28	0.000479	1.85	159.83	104.64	0.32
KinmoutDS	16372	Timmins_Uncalibr	441.16	273.15	278.4		278.65	0.000648	2.43	314.27	127.03	0.36
KinmoutDS	16372	Timmins_Calibrat	112.6	273.15	276.2		276.31	0.00051	1.41	85.98	60.71	0.29
KinmoutDS	16372	TimminsCC_Calibr	141.4	273.15	276.51		276.63	0.00054	1.57	103.38	87.76	0.3
KinmoutDS	16372	2y	107.1	273.15	276.14		276.24	0.000504	1.38	82.91	54.03	0.28

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16372	5y	142.8	273.15	276.53		276.65	0.000541	1.58	104.29	89.41	0.3
KinmoutDS	16372	10y	166.9	273.15	276.75		276.89	0.000559	1.69	120.33	110.82	0.31
KinmoutDS	16372	25y	198.6	273.15	277		277.16	0.000575	1.81	149.01	113.16	0.32
KinmoutDS	16372	50y	223.9	273.15	277.19		277.36	0.000585	1.89	170.09	114.91	0.32
KinmoutDS	16372	100y	251.2	273.15	277.37		277.55	0.000595	1.97	191.3	116.43	0.33
KinmoutDS	16372	200y	281.2	273.15	277.56		277.75	0.000603	2.05	213.31	117.64	0.33
KinmoutDS	16372	350y	307.7	273.15	277.71		277.91	0.000612	2.12	231.33	118.23	0.34
KinmoutDS	16372	Sept 25 2021	68.8	273.15	275.61		275.68	0.000473	1.14	62.73	36.14	0.26
KinmoutDS	16372	July 13 2024	53.2	273.15	275.35		275.41	0.000464	1.02	53.4	35.32	0.25
KinmoutDS	16372	April 21 2019	223.6	273.15	277.19		277.36	0.000585	1.89	169.91	114.89	0.32
KinmoutDS	16372	Nov 2 2013	77	273.15	275.74		275.81	0.000477	1.19	67.33	36.59	0.27
KinmoutDS	16372	April 16 2014	175	273.15	276.82		276.96	0.000564	1.72	127.85	111.44	0.31
KinmoutDS	16372	May 8 2017	142	273.15	276.52		276.64	0.000541	1.57	103.78	88.5	0.3
KinmoutDS	16372	April 21 2013	211.8	273.15	277.11		277.27	0.000579	1.85	160.52	114.08	0.32
KinmoutDS	16353	Timmins_Uncalibr	441.16	273.12	278.33		278.63	0.000646	2.66	299.69	133.07	0.39
KinmoutDS	16353	Timmins_Calibrat	112.6	273.12	276.19		276.3	0.000448	1.48	83.27	50.91	0.3
KinmoutDS	16353	TimminsCC_Calibr	141.4	273.12	276.49		276.62	0.000482	1.65	96.63	78.06	0.31
KinmoutDS	16353	2y	107.1	273.12	276.12		276.23	0.000442	1.44	80.79	48.71	0.29
KinmoutDS	16353	5y	142.8	273.12	276.5		276.64	0.000484	1.66	97.35	79.39	0.31
KinmoutDS	16353	10y	166.9	273.12	276.72		276.88	0.000511	1.79	109.34	98.69	0.33
KinmoutDS	16353	25y	198.6	273.12	276.97		277.15	0.000544	1.94	133.6	108.86	0.34
KinmoutDS	16353	50y	223.9	273.12	277.14		277.35	0.000569	2.06	153.47	115.85	0.35
KinmoutDS	16353	100y	251.2	273.12	277.32		277.54	0.000585	2.16	174.37	118.94	0.36
KinmoutDS	16353	200y	281.2	273.12	277.5		277.74	0.000598	2.25	196.17	120.58	0.37
KinmoutDS	16353	350y	307.7	273.12	277.65		277.9	0.000611	2.33	214.26	122.77	0.37
KinmoutDS	16353	Sept 25 2021	68.8	273.12	275.6		275.67	0.000406	1.18	61.43	35.21	0.27
KinmoutDS	16353	July 13 2024	53.2	273.12	275.34		275.4	0.000392	1.06	52.42	34.24	0.26
KinmoutDS	16353	April 21 2019	223.6	273.12	277.14		277.34	0.000568	2.06	153.3	115.83	0.35
KinmoutDS	16353	Nov 2 2013	77	273.12	275.73		275.8	0.000412	1.24	65.89	35.81	0.27
KinmoutDS	16353	April 16 2014	175	273.12	276.78		276.95	0.000521	1.83	114.65	101.82	0.33
KinmoutDS	16353	May 8 2017	142	273.12	276.49		276.63	0.000483	1.65	96.93	79.12	0.31
KinmoutDS	16353	April 21 2013	211.8	273.12	277.06		277.26	0.000559	2.01	144.17	113.76	0.35
KinmoutDS	16332	Timmins_Uncalibr	441.16	273.07	278.33		278.62	0.000561	2.63	313.58	137.08	0.39
KinmoutDS	16332	Timmins_Calibrat	112.6	273.07	276.18		276.29	0.000391	1.47	88.22	62.76	0.29
KinmoutDS	16332	TimminsCC_Calibr	141.4	273.07	276.48		276.61	0.000421	1.64	105.26	90.2	0.31
KinmoutDS	16332	2y	107.1	273.07	276.12		276.22	0.000385	1.44	85.31	56.8	0.29
KinmoutDS	16332	5y	142.8	273.07	276.49		276.63	0.000422	1.65	106.13	90.55	0.31
KinmoutDS	16332	10y	166.9	273.07	276.71		276.87	0.000444	1.78	119.92	99.33	0.32
KinmoutDS	16332	25y	198.6	273.07	276.96		277.14	0.000471	1.93	144.38	109.16	0.33
KinmoutDS	16332	50y	223.9	273.07	277.14		277.33	0.000491	2.03	164.17	116.45	0.34
KinmoutDS	16332	100y	251.2	273.07	277.32		277.52	0.000505	2.13	185.26	120.99	0.35
KinmoutDS	16332	200y	281.2	273.07	277.5		277.72	0.000521	2.23	207.5	124.38	0.36
KinmoutDS	16332	350y	307.7	273.07	277.65		277.88	0.000531	2.31	226.18	125.37	0.37
KinmoutDS	16332	Sept 25 2021	68.8	273.07	275.59		275.66	0.000349	1.17	64.73	37.43	0.26

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16332	July 13 2024	53.2	273.07	275.33		275.39	0.000334	1.05	55.17	36.31	0.25
KinmoutDS	16332	April 21 2019	223.6	273.07	277.14		277.33	0.00049	2.03	164.01	116.28	0.34
KinmoutDS	16332	Nov 2 2013	77	273.07	275.72		275.8	0.000356	1.23	69.47	38.18	0.27
KinmoutDS	16332	April 16 2014	175	273.07	276.78		276.94	0.000452	1.82	125.19	101.07	0.33
KinmoutDS	16332	May 8 2017	142	273.07	276.49		276.62	0.000421	1.65	105.63	90.35	0.31
KinmoutDS	16332	April 21 2013	211.8	273.07	277.06		277.24	0.000481	1.98	154.98	112.33	0.34
KinmoutDS	16312	Timmins_Uncalibr	441.16	273	278.3		278.6	0.000639	2.67	303.35	135.29	0.39
KinmoutDS	16312	Timmins_Calibrat	112.6	273	276.17		276.28	0.000439	1.48	85.47	68.03	0.29
KinmoutDS	16312	TimminsCC_Calibr	141.4	273	276.47		276.6	0.000471	1.65	100.96	82.14	0.31
KinmoutDS	16312	2y	107.1	273	276.11		276.21	0.000431	1.44	82.64	64.31	0.29
KinmoutDS	16312	5y	142.8	273	276.48		276.62	0.000472	1.66	101.73	83.9	0.31
KinmoutDS	16312	10y	166.9	273	276.7		276.86	0.000497	1.78	114	90.16	0.32
KinmoutDS	16312	25y	198.6	273	276.95		277.13	0.000531	1.94	137.07	111.46	0.34
KinmoutDS	16312	50y	223.9	273	277.12		277.32	0.000551	2.04	157.19	116.53	0.35
KinmoutDS	16312	100y	251.2	273	277.3		277.51	0.000569	2.15	178.15	121.11	0.36
KinmoutDS	16312	200y	281.2	273	277.48		277.71	0.000587	2.25	200.13	122.63	0.36
KinmoutDS	16312	350y	307.7	273	277.63		277.87	0.000599	2.33	218.33	123.17	0.37
KinmoutDS	16312	Sept 25 2021	68.8	273	275.58		275.65	0.000395	1.18	62.03	45.92	0.27
KinmoutDS	16312	July 13 2024	53.2	273	275.33		275.38	0.000379	1.05	52.45	36.37	0.26
KinmoutDS	16312	April 21 2019	223.6	273	277.12		277.32	0.000551	2.04	157.03	116.5	0.35
KinmoutDS	16312	Nov 2 2013	77	273	275.71		275.79	0.000401	1.24	66.81	53.88	0.27
KinmoutDS	16312	April 16 2014	175	273	276.76		276.93	0.000507	1.83	118.28	94.64	0.33
KinmoutDS	16312	May 8 2017	142	273	276.47		276.61	0.000471	1.65	101.29	82.99	0.31
KinmoutDS	16312	April 21 2013	211.8	273	277.04		277.23	0.000541	1.99	147.9	114.54	0.34
KinmoutDS	16291	Timmins_Uncalibr	441.16	272.89	278.3		278.59	0.000575	2.63	317.38	151.87	0.39
KinmoutDS	16291	Timmins_Calibrat	112.6	272.89	276.16		276.27	0.00041	1.49	85.37	67.88	0.3
KinmoutDS	16291	TimminsCC_Calibr	141.4	272.89	276.46		276.59	0.000437	1.65	100.83	97.61	0.31
KinmoutDS	16291	2y	107.1	272.89	276.09		276.2	0.000405	1.46	82.27	66.99	0.3
KinmoutDS	16291	5y	142.8	272.89	276.47		276.61	0.000438	1.66	101.58	100.44	0.31
KinmoutDS	16291	10y	166.9	272.89	276.69		276.85	0.000461	1.79	113.48	111.55	0.33
KinmoutDS	16291	25y	198.6	272.89	276.94		277.12	0.00049	1.94	138.86	122.88	0.34
KinmoutDS	16291	50y	223.9	272.89	277.11		277.31	0.000506	2.04	160.93	125.61	0.35
KinmoutDS	16291	100y	251.2	272.89	277.29		277.5	0.000519	2.13	183.32	126.31	0.36
KinmoutDS	16291	200y	281.2	272.89	277.47		277.7	0.000531	2.23	206.28	126.88	0.36
KinmoutDS	16291	350y	307.7	272.89	277.62		277.86	0.000542	2.31	225.13	127.3	0.37
KinmoutDS	16291	Sept 25 2021	68.8	272.89	275.57		275.65	0.000374	1.2	59.53	53	0.27
KinmoutDS	16291	July 13 2024	53.2	272.89	275.32		275.37	0.000359	1.07	50.46	33.32	0.26
KinmoutDS	16291	April 21 2019	223.6	272.89	277.11		277.31	0.000506	2.04	160.75	125.6	0.35
KinmoutDS	16291	Nov 2 2013	77	272.89	275.7		275.78	0.00038	1.26	64.6	56.88	0.28
KinmoutDS	16291	April 16 2014	175	272.89	276.75		276.92	0.00047	1.83	117.36	113.94	0.33
KinmoutDS	16291	May 8 2017	142	272.89	276.46		276.6	0.000437	1.66	101.15	99.02	0.31
KinmoutDS	16291	April 21 2013	211.8	272.89	277.03		277.22	0.000498	1.99	150.8	125.28	0.34
KinmoutDS	16269	Timmins_Uncalibr	441.16	272.76	278.3		278.57	0.000508	2.51	338.58	143.81	0.37

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16269	Timmins_Calibrat	112.6	272.76	276.16		276.26	0.000339	1.38	97.68	67.22	0.27
KinmoutDS	16269	TimminsCC_Calibr	141.4	272.76	276.46		276.58	0.000364	1.54	113.12	93.19	0.29
KinmoutDS	16269	2y	107.1	272.76	276.1		276.19	0.000335	1.35	94.51	64.98	0.27
KinmoutDS	16269	5y	142.8	272.76	276.48		276.59	0.000365	1.55	113.85	96.92	0.29
KinmoutDS	16269	10y	166.9	272.76	276.7		276.83	0.000388	1.67	125.77	115.13	0.3
KinmoutDS	16269	25y	198.6	272.76	276.94		277.1	0.000415	1.81	153.33	129.37	0.31
KinmoutDS	16269	50y	223.9	272.76	277.12		277.29	0.000431	1.91	176.47	131.84	0.32
KinmoutDS	16269	100y	251.2	272.76	277.3		277.48	0.000446	2.01	200.13	133.91	0.33
KinmoutDS	16269	200y	281.2	272.76	277.48		277.68	0.000459	2.1	224.55	135.17	0.34
KinmoutDS	16269	350y	307.7	272.76	277.63		277.84	0.00047	2.18	244.69	136.24	0.34
KinmoutDS	16269	Sept 25 2021	68.8	272.76	275.57		275.64	0.000308	1.11	69.24	58.34	0.25
KinmoutDS	16269	July 13 2024	53.2	272.76	275.31		275.36	0.000295	1	57.25	46.58	0.24
KinmoutDS	16269	April 21 2019	223.6	272.76	277.12		277.29	0.000431	1.91	176.28	131.82	0.32
KinmoutDS	16269	Nov 2 2013	77	272.76	275.7		275.77	0.000313	1.17	75.2	60.06	0.25
KinmoutDS	16269	April 16 2014	175	272.76	276.76		276.9	0.000396	1.71	130.16	121.71	0.3
KinmoutDS	16269	May 8 2017	142	272.76	276.47		276.59	0.000365	1.54	113.43	94.96	0.29
KinmoutDS	16269	April 21 2013	211.8	272.76	277.04		277.2	0.000423	1.87	165.84	130.73	0.32
KinmoutDS	16252	Timmins_Uncalibr	441.16	272.65	278.3		278.56	0.000548	2.44	314.91	135.05	0.36
KinmoutDS	16252	Timmins_Calibrat	112.6	272.65	276.16		276.25	0.000337	1.3	93.78	72.46	0.25
KinmoutDS	16252	TimminsCC_Calibr	141.4	272.65	276.46		276.57	0.00037	1.46	106.35	87.34	0.27
KinmoutDS	16252	2y	107.1	272.65	276.1		276.18	0.000331	1.26	91.25	71.09	0.25
KinmoutDS	16252	5y	142.8	272.65	276.48		276.58	0.000372	1.47	106.95	87.97	0.27
KinmoutDS	16252	10y	166.9	272.65	276.69		276.82	0.0004	1.59	116.59	102.9	0.28
KinmoutDS	16252	25y	198.6	272.65	276.94		277.09	0.000434	1.74	140.6	119.97	0.3
KinmoutDS	16252	50y	223.9	272.65	277.12		277.28	0.000456	1.85	162.39	126.55	0.31
KinmoutDS	16252	100y	251.2	272.65	277.29		277.47	0.000473	1.94	184.9	127.51	0.32
KinmoutDS	16252	200y	281.2	272.65	277.47		277.67	0.000489	2.04	208.01	128.09	0.33
KinmoutDS	16252	350y	307.7	272.65	277.62		277.83	0.000502	2.12	226.99	128.55	0.33
KinmoutDS	16252	Sept 25 2021	68.8	272.65	275.58		275.63	0.00028	1.02	71.29	50.17	0.23
KinmoutDS	16252	July 13 2024	53.2	272.65	275.32		275.36	0.000246	0.91	61.74	42.32	0.21
KinmoutDS	16252	April 21 2019	223.6	272.65	277.11		277.28	0.000455	1.85	162.21	126.53	0.31
KinmoutDS	16252	Nov 2 2013	77	272.65	275.7		275.76	0.0003	1.08	75.99	53.63	0.23
KinmoutDS	16252	April 16 2014	175	272.65	276.76		276.89	0.00041	1.63	120.17	107	0.29
KinmoutDS	16252	May 8 2017	142	272.65	276.47		276.58	0.000371	1.46	106.61	87.63	0.27
KinmoutDS	16252	April 21 2013	211.8	272.65	277.04		277.19	0.000445	1.8	152.33	124.41	0.31
KinmoutDS	16232	Timmins_Uncalibr	441.16	272.52	278.27		278.55	0.000513	2.48	302.76	133.82	0.36
KinmoutDS	16232	Timmins_Calibrat	112.6	272.52	276.15		276.24	0.00031	1.3	90.21	69.07	0.26
KinmoutDS	16232	TimminsCC_Calibr	141.4	272.52	276.45		276.56	0.000339	1.47	101.64	81.91	0.27
KinmoutDS	16232	2y	107.1	272.52	276.09		276.17	0.000304	1.27	87.83	67.19	0.25
KinmoutDS	16232	5y	142.8	272.52	276.47		276.58	0.00034	1.47	102.17	83.29	0.27
KinmoutDS	16232	10y	166.9	272.52	276.68		276.81	0.000366	1.6	110.55	97.91	0.29
KinmoutDS	16232	25y	198.6	272.52	276.93		277.08	0.000399	1.76	132.74	117.09	0.3
KinmoutDS	16232	50y	223.9	272.52	277.1		277.27	0.000419	1.86	153.57	121.25	0.31
KinmoutDS	16232	100y	251.2	272.52	277.28		277.46	0.000437	1.96	174.87	122.21	0.32

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16232	200y	281.2	272.52	277.46		277.66	0.000455	2.06	196.91	125.81	0.33
KinmoutDS	16232	350y	307.7	272.52	277.6		277.82	0.000469	2.15	215.37	127.31	0.34
KinmoutDS	16232	Sept 25 2021	68.8	272.52	275.57		275.62	0.000269	1.03	68.56	53.69	0.23
KinmoutDS	16232	July 13 2024	53.2	272.52	275.31		275.35	0.00025	0.91	59.27	43.11	0.22
KinmoutDS	16232	April 21 2019	223.6	272.52	277.1		277.27	0.000418	1.86	153.4	121.24	0.31
KinmoutDS	16232	Nov 2 2013	77	272.52	275.69		275.75	0.000276	1.08	73.12	57.44	0.23
KinmoutDS	16232	April 16 2014	175	272.52	276.75		276.88	0.000376	1.64	113.16	102.43	0.29
KinmoutDS	16232	May 8 2017	142	272.52	276.46		276.57	0.00034	1.47	101.87	82.38	0.27
KinmoutDS	16232	April 21 2013	211.8	272.52	277.02		277.18	0.000409	1.81	143.95	119.51	0.31
KinmoutDS	16211	Timmins_Uncalibr	441.16	272.38	278.3		278.52	0.000404	2.27	347.14	154.16	0.33
KinmoutDS	16211	Timmins_Calibrat	112.6	272.38	276.16		276.23	0.000247	1.21	105.51	81.25	0.23
KinmoutDS	16211	TimminsCC_Calibr	141.4	272.38	276.46		276.55	0.00027	1.35	124	102.4	0.25
KinmoutDS	16211	2y	107.1	272.38	276.09		276.16	0.000243	1.18	102.03	72.68	0.23
KinmoutDS	16211	5y	142.8	272.38	276.47		276.57	0.000271	1.36	124.91	103.63	0.25
KinmoutDS	16211	10y	166.9	272.38	276.69		276.8	0.000287	1.46	139.49	105.84	0.26
KinmoutDS	16211	25y	198.6	272.38	276.94		277.07	0.000315	1.61	163.58	109.77	0.28
KinmoutDS	16211	50y	223.9	272.38	277.12		277.26	0.000329	1.7	184.38	121.67	0.28
KinmoutDS	16211	100y	251.2	272.38	277.29		277.45	0.000343	1.79	206.57	129.22	0.29
KinmoutDS	16211	200y	281.2	272.38	277.47		277.64	0.000356	1.88	230.29	134.02	0.3
KinmoutDS	16211	350y	307.7	272.38	277.62		277.8	0.000367	1.96	250.11	134.64	0.31
KinmoutDS	16211	Sept 25 2021	68.8	272.38	275.57		275.61	0.000212	0.95	78.22	57.88	0.21
KinmoutDS	16211	July 13 2024	53.2	272.38	275.31		275.35	0.000197	0.84	67.24	54.04	0.2
KinmoutDS	16211	April 21 2019	223.6	272.38	277.12		277.25	0.000329	1.7	184.21	121.63	0.28
KinmoutDS	16211	Nov 2 2013	77	272.38	275.7		275.75	0.000218	1	83.66	59.34	0.21
KinmoutDS	16211	April 16 2014	175	272.38	276.76		276.87	0.000302	1.52	143.92	106.44	0.27
KinmoutDS	16211	May 8 2017	142	272.38	276.47		276.56	0.00027	1.35	124.4	103.16	0.25
KinmoutDS	16211	April 21 2013	211.8	272.38	277.04		277.17	0.000322	1.66	174.68	118.6	0.28
KinmoutDS	16192	Timmins_Uncalibr	441.16	272.23	278.3		278.51	0.000392	2.18	345.52	151.12	0.32
KinmoutDS	16192	Timmins_Calibrat	112.6	272.23	276.16		276.22	0.000227	1.13	111.97	77.08	0.22
KinmoutDS	16192	TimminsCC_Calibr	141.4	272.23	276.46		276.54	0.000247	1.27	128.5	79.71	0.23
KinmoutDS	16192	2y	107.1	272.23	276.1		276.16	0.000223	1.1	108.55	75.57	0.22
KinmoutDS	16192	5y	142.8	272.23	276.48		276.56	0.000248	1.27	129.27	79.96	0.23
KinmoutDS	16192	10y	166.9	272.23	276.7		276.79	0.000266	1.38	141.61	90.62	0.24
KinmoutDS	16192	25y	198.6	272.23	276.94		277.06	0.000295	1.52	163.93	101.67	0.26
KinmoutDS	16192	50y	223.9	272.23	277.12		277.25	0.000311	1.62	182.69	112.85	0.27
KinmoutDS	16192	100y	251.2	272.23	277.3		277.44	0.000326	1.71	204.55	130.25	0.28
KinmoutDS	16192	200y	281.2	272.23	277.48		277.63	0.000341	1.8	228.25	132.51	0.29
KinmoutDS	16192	350y	307.7	272.23	277.62		277.79	0.000353	1.88	247.93	134.81	0.29
KinmoutDS	16192	Sept 25 2021	68.8	272.23	275.57		275.61	0.000196	0.89	82.88	62.02	0.19
KinmoutDS	16192	July 13 2024	53.2	272.23	275.31		275.34	0.000182	0.79	70.84	55.95	0.18
KinmoutDS	16192	April 21 2019	223.6	272.23	277.12		277.24	0.000311	1.62	182.54	112.66	0.27
KinmoutDS	16192	Nov 2 2013	77	272.23	275.7		275.74	0.000201	0.94	88.88	63.98	0.2
KinmoutDS	16192	April 16 2014	175	272.23	276.76		276.86	0.00028	1.43	145.89	96.1	0.25
KinmoutDS	16192	May 8 2017	142	272.23	276.47		276.55	0.000248	1.27	128.83	79.82	0.23

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16192	April 21 2013	211.8	272.23	277.04		277.16	0.000303	1.57	173.92	106.61	0.26
KinmoutDS	16171	Timmins_Uncalibr	441.16	272.08	278.31		278.49	0.00032	2.06	362.72	146.52	0.29
KinmoutDS	16171	Timmins_Calibrat	112.6	272.08	276.16		276.22	0.00017	1.03	129.92	60.94	0.2
KinmoutDS	16171	TimminsCC_Calibr	141.4	272.08	276.47		276.53	0.000187	1.16	148.38	69.69	0.21
KinmoutDS	16171	2y	107.1	272.08	276.1		276.15	0.000166	1	126.21	59.32	0.19
KinmoutDS	16171	5y	142.8	272.08	276.48		276.55	0.000188	1.16	149.28	70.07	0.21
KinmoutDS	16171	10y	166.9	272.08	276.7		276.78	0.000203	1.26	163.86	81.2	0.22
KinmoutDS	16171	25y	198.6	272.08	276.95		277.04	0.000224	1.39	184.83	112.52	0.23
KinmoutDS	16171	50y	223.9	272.08	277.13		277.23	0.000242	1.49	204.66	118.19	0.25
KinmoutDS	16171	100y	251.2	272.08	277.31		277.42	0.000255	1.58	225.9	121.35	0.25
KinmoutDS	16171	200y	281.2	272.08	277.49		277.62	0.000268	1.67	247.97	124.93	0.26
KinmoutDS	16171	350y	307.7	272.08	277.63		277.77	0.000279	1.74	266.74	130.98	0.27
KinmoutDS	16171	Sept 25 2021	68.8	272.08	275.57		275.6	0.000145	0.81	96.6	54.51	0.17
KinmoutDS	16171	July 13 2024	53.2	272.08	275.31		275.34	0.000133	0.72	82.58	53.38	0.16
KinmoutDS	16171	April 21 2019	223.6	272.08	277.13		277.23	0.000241	1.49	204.5	118.18	0.24
KinmoutDS	16171	Nov 2 2013	77	272.08	275.7		275.73	0.000149	0.86	103.57	55.36	0.18
KinmoutDS	16171	April 16 2014	175	272.08	276.77		276.85	0.000208	1.3	168.74	90.64	0.22
KinmoutDS	16171	May 8 2017	142	272.08	276.48		276.54	0.000187	1.16	148.77	69.85	0.21
KinmoutDS	16171	April 21 2013	211.8	272.08	277.05		277.15	0.000235	1.45	195.08	117.35	0.24
KinmoutDS	16151	Timmins_Uncalibr	441.16	271.95	278.31		278.48	0.000288	1.98	360.19	137.89	0.28
KinmoutDS	16151	Timmins_Calibrat	112.6	271.95	276.17		276.21	0.000142	0.97	136.16	63.52	0.18
KinmoutDS	16151	TimminsCC_Calibr	141.4	271.95	276.47		276.53	0.00016	1.09	154.93	84.13	0.19
KinmoutDS	16151	2y	107.1	271.95	276.1		276.14	0.000139	0.94	132.51	61.18	0.18
KinmoutDS	16151	5y	142.8	271.95	276.48		276.54	0.00016	1.1	155.92	84.28	0.19
KinmoutDS	16151	10y	166.9	271.95	276.71		276.77	0.000173	1.19	171.84	91.2	0.2
KinmoutDS	16151	25y	198.6	271.95	276.96		277.04	0.000192	1.31	194.05	113	0.22
KinmoutDS	16151	50y	223.9	271.95	277.13		277.23	0.000207	1.41	213.47	114.75	0.23
KinmoutDS	16151	100y	251.2	271.95	277.31		277.41	0.00022	1.49	234.03	116.42	0.24
KinmoutDS	16151	200y	281.2	271.95	277.49		277.61	0.000233	1.58	255.2	117.79	0.25
KinmoutDS	16151	350y	307.7	271.95	277.64		277.76	0.000244	1.66	272.65	118.85	0.25
KinmoutDS	16151	Sept 25 2021	68.8	271.95	275.57		275.6	0.000116	0.75	103.44	53.46	0.16
KinmoutDS	16151	July 13 2024	53.2	271.95	275.31		275.33	0.000105	0.66	89.62	52.46	0.15
KinmoutDS	16151	April 21 2019	223.6	271.95	277.13		277.22	0.000207	1.41	213.31	114.74	0.23
KinmoutDS	16151	Nov 2 2013	77	271.95	275.7		275.73	0.000121	0.79	110.25	54.14	0.16
KinmoutDS	16151	April 16 2014	175	271.95	276.77		276.84	0.000178	1.22	177.08	98.75	0.21
KinmoutDS	16151	May 8 2017	142	271.95	276.48		276.53	0.00016	1.09	155.36	84.19	0.19
KinmoutDS	16151	April 21 2013	211.8	271.95	277.05		277.14	0.000201	1.37	204.16	113.93	0.22
KinmoutDS	16131	Timmins_Uncalibr	441.16	271.81	278.32		278.47	0.000257	1.88	375.71	130.52	0.26
KinmoutDS	16131	Timmins_Calibrat	112.6	271.81	276.17		276.21	0.000125	0.91	150.98	71.61	0.17
KinmoutDS	16131	TimminsCC_Calibr	141.4	271.81	276.47		276.52	0.000139	1.03	173.67	77.09	0.18
KinmoutDS	16131	2y	107.1	271.81	276.1		276.14	0.000123	0.89	146.39	70.92	0.17
KinmoutDS	16131	5y	142.8	271.81	276.49		276.54	0.00014	1.03	174.77	77.15	0.18
KinmoutDS	16131	10y	166.9	271.81	276.71		276.77	0.000151	1.12	192.54	84.92	0.19

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16131	25y	198.6	271.81	276.96		277.03	0.000167	1.23	215.6	100.49	0.2
KinmoutDS	16131	50y	223.9	271.81	277.14		277.22	0.00018	1.32	234.69	111.08	0.21
KinmoutDS	16131	100y	251.2	271.81	277.32		277.41	0.000191	1.4	254.58	111.85	0.22
KinmoutDS	16131	200y	281.2	271.81	277.5		277.6	0.000203	1.49	274.91	112.49	0.23
KinmoutDS	16131	350y	307.7	271.81	277.65		277.75	0.000214	1.56	291.59	113.53	0.24
KinmoutDS	16131	Sept 25 2021	68.8	271.81	275.57		275.6	0.000103	0.71	111.29	60.47	0.15
KinmoutDS	16131	July 13 2024	53.2	271.81	275.31		275.33	0.000092	0.63	95.81	58.14	0.14
KinmoutDS	16131	April 21 2019	223.6	271.81	277.14		277.22	0.00018	1.32	234.53	111.07	0.21
KinmoutDS	16131	Nov 2 2013	77	271.81	275.7		275.73	0.000107	0.75	119.1	62.58	0.15
KinmoutDS	16131	April 16 2014	175	271.81	276.78		276.84	0.000155	1.15	198.32	89	0.19
KinmoutDS	16131	May 8 2017	142	271.81	276.48		276.53	0.000139	1.03	174.15	77.12	0.18
KinmoutDS	16131	April 21 2013	211.8	271.81	277.06		277.13	0.000173	1.28	225.71	108.92	0.21
KinmoutDS	16113	Timmins_Uncalibr	441.16	271.68	278.31		278.47	0.000258	1.89	364.56	123.23	0.27
KinmoutDS	16113	Timmins_Calibrat	112.6	271.68	276.16		276.2	0.000122	0.91	144.63	64.07	0.17
KinmoutDS	16113	TimminsCC_Calibr	141.4	271.68	276.47		276.52	0.000137	1.03	166.55	75.59	0.18
KinmoutDS	16113	2y	107.1	271.68	276.1		276.14	0.000119	0.89	140.66	61.18	0.17
KinmoutDS	16113	5y	142.8	271.68	276.48		276.53	0.000138	1.03	167.63	75.72	0.18
KinmoutDS	16113	10y	166.9	271.68	276.7		276.76	0.00015	1.12	185.47	87.33	0.19
KinmoutDS	16113	25y	198.6	271.68	276.95		277.03	0.000167	1.24	209.9	106.35	0.2
KinmoutDS	16113	50y	223.9	271.68	277.13		277.21	0.000178	1.32	228.99	107.73	0.21
KinmoutDS	16113	100y	251.2	271.68	277.31		277.4	0.00019	1.41	248.21	108.49	0.22
KinmoutDS	16113	200y	281.2	271.68	277.49		277.59	0.000203	1.49	267.85	109.29	0.23
KinmoutDS	16113	350y	307.7	271.68	277.64		277.75	0.000214	1.57	283.99	110.71	0.24
KinmoutDS	16113	Sept 25 2021	68.8	271.68	275.57		275.59	0.000098	0.7	109.46	56.72	0.14
KinmoutDS	16113	July 13 2024	53.2	271.68	275.31		275.33	0.000087	0.62	95.07	53.75	0.13
KinmoutDS	16113	April 21 2019	223.6	271.68	277.13		277.21	0.000178	1.32	228.83	107.72	0.21
KinmoutDS	16113	Nov 2 2013	77	271.68	275.7		275.72	0.000103	0.75	116.72	57.84	0.15
KinmoutDS	16113	April 16 2014	175	271.68	276.77		276.83	0.000154	1.15	191.32	89.99	0.19
KinmoutDS	16113	May 8 2017	142	271.68	276.48		276.53	0.000138	1.03	167.02	75.65	0.18
KinmoutDS	16113	April 21 2013	211.8	271.68	277.05		277.13	0.000172	1.28	220.23	106.87	0.21
KinmoutDS	16092	Timmins_Uncalibr	441.16	271.61	278.3		278.46	0.000271	1.92	358.62	121.29	0.27
KinmoutDS	16092	Timmins_Calibrat	112.6	271.61	276.16		276.2	0.00013	0.93	136.11	68.18	0.17
KinmoutDS	16092	TimminsCC_Calibr	141.4	271.61	276.46		276.52	0.000146	1.05	158.65	78.4	0.19
KinmoutDS	16092	2y	107.1	271.61	276.09		276.13	0.000127	0.91	131.84	64.84	0.17
KinmoutDS	16092	5y	142.8	271.61	276.48		276.53	0.000147	1.06	159.75	78.6	0.19
KinmoutDS	16092	10y	166.9	271.61	276.7		276.76	0.000159	1.15	178.7	93.14	0.2
KinmoutDS	16092	25y	198.6	271.61	276.94		277.02	0.000176	1.27	204.11	107.62	0.21
KinmoutDS	16092	50y	223.9	271.61	277.12		277.21	0.000189	1.35	223.34	108.77	0.22
KinmoutDS	16092	100y	251.2	271.61	277.3		277.4	0.000201	1.43	242.67	109.66	0.23
KinmoutDS	16092	200y	281.2	271.61	277.48		277.59	0.000214	1.52	262.44	110.77	0.23
KinmoutDS	16092	350y	307.7	271.61	277.62		277.74	0.000227	1.6	278.76	115.1	0.24
KinmoutDS	16092	Sept 25 2021	68.8	271.61	275.57		275.59	0.000103	0.72	103.03	50.42	0.15
KinmoutDS	16092	July 13 2024	53.2	271.61	275.31		275.33	0.000091	0.62	90.02	49.59	0.14
KinmoutDS	16092	April 21 2019	223.6	271.61	277.12		277.21	0.000188	1.35	223.18	108.76	0.22

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16092	Nov 2 2013	77	271.61	275.69		275.72	0.000108	0.76	109.44	51.06	0.15
KinmoutDS	16092	April 16 2014	175	271.61	276.76		276.83	0.000163	1.18	185.03	98.65	0.2
KinmoutDS	16092	May 8 2017	142	271.61	276.47		276.52	0.000146	1.05	159.12	78.45	0.19
KinmoutDS	16092	April 21 2013	211.8	271.61	277.04		277.12	0.000182	1.31	214.53	108.27	0.21
KinmoutDS	16071	Timmins_Uncalibr	441.16	271.62	278.27		278.45	0.000315	2.01	335.61	117.17	0.29
KinmoutDS	16071	Timmins_Calibrat	112.6	271.62	276.15		276.2	0.000153	0.98	119.63	63.42	0.18
KinmoutDS	16071	TimminsCC_Calibr	141.4	271.62	276.45		276.51	0.000173	1.11	141.06	79.58	0.2
KinmoutDS	16071	2y	107.1	271.62	276.09		276.13	0.000149	0.95	115.78	57.43	0.18
KinmoutDS	16071	5y	142.8	271.62	276.47		276.53	0.000173	1.11	142.18	81.06	0.2
KinmoutDS	16071	10y	166.9	271.62	276.68		276.76	0.000188	1.21	162.24	98.23	0.21
KinmoutDS	16071	25y	198.6	271.62	276.93		277.02	0.000207	1.33	187.47	103.72	0.22
KinmoutDS	16071	50y	223.9	271.62	277.11		277.21	0.000221	1.41	205.82	104.57	0.23
KinmoutDS	16071	100y	251.2	271.62	277.28		277.39	0.000235	1.5	224.24	105.77	0.24
KinmoutDS	16071	200y	281.2	271.62	277.46		277.58	0.00025	1.59	243.15	106.82	0.25
KinmoutDS	16071	350y	307.7	271.62	277.61		277.74	0.000263	1.67	258.94	111.93	0.25
KinmoutDS	16071	Sept 25 2021	68.8	271.62	275.56		275.59	0.000121	0.75	92.73	41.14	0.16
KinmoutDS	16071	July 13 2024	53.2	271.62	275.3		275.32	0.000106	0.65	82.17	40.39	0.14
KinmoutDS	16071	April 21 2019	223.6	271.62	277.11		277.2	0.00022	1.41	205.67	104.56	0.23
KinmoutDS	16071	Nov 2 2013	77	271.62	275.69		275.72	0.000127	0.79	97.93	41.56	0.16
KinmoutDS	16071	April 16 2014	175	271.62	276.75		276.83	0.000193	1.24	168.76	100.86	0.21
KinmoutDS	16071	May 8 2017	142	271.62	276.46		276.52	0.000173	1.11	141.54	80.17	0.2
KinmoutDS	16071	April 21 2013	211.8	271.62	277.03		277.12	0.000214	1.37	197.42	104.17	0.22
KinmoutDS	16051	Timmins_Uncalibr	441.16	271.64	278.26		278.45	0.000319	2.01	347.86	125.58	0.28
KinmoutDS	16051	Timmins_Calibrat	112.6	271.64	276.14		276.19	0.000158	0.99	119.39	59.86	0.18
KinmoutDS	16051	TimminsCC_Calibr	141.4	271.64	276.45		276.51	0.000178	1.12	140.52	87.4	0.2
KinmoutDS	16051	2y	107.1	271.64	276.08		276.13	0.000154	0.96	115.72	55.77	0.18
KinmoutDS	16051	5y	142.8	271.64	276.46		276.52	0.000179	1.12	141.76	90.36	0.2
KinmoutDS	16051	10y	166.9	271.64	276.68		276.75	0.000194	1.22	163.73	105.29	0.21
KinmoutDS	16051	25y	198.6	271.64	276.93		277.01	0.000212	1.34	190.23	107.82	0.22
KinmoutDS	16051	50y	223.9	271.64	277.1		277.2	0.000226	1.42	209.28	108.5	0.23
KinmoutDS	16051	100y	251.2	271.64	277.28		277.39	0.000241	1.51	228.41	110.91	0.24
KinmoutDS	16051	200y	281.2	271.64	277.45		277.58	0.000256	1.6	248.72	118.19	0.25
KinmoutDS	16051	350y	307.7	271.64	277.6		277.73	0.000271	1.69	265.91	120.44	0.26
KinmoutDS	16051	Sept 25 2021	68.8	271.64	275.56		275.59	0.000124	0.75	92.19	41.03	0.16
KinmoutDS	16051	July 13 2024	53.2	271.64	275.3		275.32	0.000109	0.65	81.69	40.09	0.14
KinmoutDS	16051	April 21 2019	223.6	271.64	277.1		277.2	0.000226	1.42	209.13	108.5	0.23
KinmoutDS	16051	Nov 2 2013	77	271.64	275.68		275.72	0.00013	0.8	97.36	41.44	0.16
KinmoutDS	16051	April 16 2014	175	271.64	276.74		276.82	0.000199	1.25	170.68	107.01	0.21
KinmoutDS	16051	May 8 2017	142	271.64	276.45		276.52	0.000179	1.12	141.05	88.54	0.2
KinmoutDS	16051	April 21 2013	211.8	271.64	277.02		277.11	0.000219	1.38	200.56	108.19	0.23
KinmoutDS	16012	Timmins_Uncalibr	441.16	271.68	278.26		278.43	0.000364	1.95	365.42	128.22	0.28
KinmoutDS	16012	Timmins_Calibrat	112.6	271.68	276.14		276.19	0.000182	0.99	119.15	73.92	0.18
KinmoutDS	16012	TimminsCC_Calibr	141.4	271.68	276.44		276.5	0.000216	1.12	147.46	105.33	0.2

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16012	2y	107.1	271.68	276.07		276.12	0.000175	0.97	114.8	64.08	0.18
KinmoutDS	16012	5y	142.8	271.68	276.45		276.52	0.000216	1.13	148.93	105.38	0.2
KinmoutDS	16012	10y	166.9	271.68	276.67		276.74	0.000231	1.21	172.59	111.69	0.21
KinmoutDS	16012	25y	198.6	271.68	276.92		277	0.000251	1.32	200.48	113.64	0.22
KinmoutDS	16012	50y	223.9	271.68	277.1		277.19	0.000266	1.41	220.63	114.93	0.23
KinmoutDS	16012	100y	251.2	271.68	277.27		277.38	0.000282	1.49	241.28	120.62	0.23
KinmoutDS	16012	200y	281.2	271.68	277.45		277.56	0.0003	1.58	263.08	123.49	0.24
KinmoutDS	16012	350y	307.7	271.68	277.59		277.72	0.000314	1.65	281.04	124.36	0.25
KinmoutDS	16012	Sept 25 2021	68.8	271.68	275.55		275.58	0.000126	0.76	91.36	38.8	0.15
KinmoutDS	16012	July 13 2024	53.2	271.68	275.3		275.32	0.000104	0.65	81.46	38.07	0.14
KinmoutDS	16012	April 21 2019	223.6	271.68	277.09		277.19	0.000266	1.4	220.47	114.92	0.23
KinmoutDS	16012	Nov 2 2013	77	271.68	275.68		275.71	0.000137	0.8	96.23	39.16	0.16
KinmoutDS	16012	April 16 2014	175	271.68	276.74		276.81	0.000237	1.24	179.92	112.16	0.21
KinmoutDS	16012	May 8 2017	142	271.68	276.44		276.51	0.000216	1.12	148.09	105.36	0.2
KinmoutDS	16012	April 21 2013	211.8	271.68	277.01		277.1	0.000259	1.37	211.4	114.34	0.22
KinmoutDS	15972	Timmins_Uncalibr	441.16	271.73	278.25		278.41	0.000334	1.97	386.79	136.7	0.28
KinmoutDS	15972	Timmins_Calibrat	112.6	271.73	276.13		276.18	0.000178	1.01	125.06	77.66	0.18
KinmoutDS	15972	TimminsCC_Calibr	141.4	271.73	276.43		276.49	0.000199	1.14	153.44	110.87	0.2
KinmoutDS	15972	2y	107.1	271.73	276.07		276.11	0.000173	0.98	120.28	74.97	0.18
KinmoutDS	15972	5y	142.8	271.73	276.44		276.51	0.0002	1.14	154.98	111.02	0.2
KinmoutDS	15972	10y	166.9	271.73	276.66		276.74	0.000214	1.23	180.03	116.74	0.21
KinmoutDS	15972	25y	198.6	271.73	276.91		276.99	0.000232	1.34	209.43	121.85	0.22
KinmoutDS	15972	50y	223.9	271.73	277.08		277.18	0.000247	1.43	231.37	128.69	0.23
KinmoutDS	15972	100y	251.2	271.73	277.26		277.36	0.000262	1.51	254.05	130.7	0.24
KinmoutDS	15972	200y	281.2	271.73	277.44		277.55	0.000276	1.6	277.52	132.02	0.24
KinmoutDS	15972	350y	307.7	271.73	277.58		277.71	0.000289	1.67	296.67	132.97	0.25
KinmoutDS	15972	Sept 25 2021	68.8	271.73	275.55		275.58	0.000136	0.77	90.62	38.21	0.16
KinmoutDS	15972	July 13 2024	53.2	271.73	275.29		275.31	0.00011	0.66	80.9	37.76	0.14
KinmoutDS	15972	April 21 2019	223.6	271.73	277.08		277.18	0.000246	1.42	231.2	128.52	0.23
KinmoutDS	15972	Nov 2 2013	77	271.73	275.67		275.71	0.000146	0.82	96.01	49.86	0.16
KinmoutDS	15972	April 16 2014	175	271.73	276.73		276.8	0.000219	1.26	187.68	117.62	0.21
KinmoutDS	15972	May 8 2017	142	271.73	276.44		276.5	0.0002	1.14	154.11	110.93	0.2
KinmoutDS	15972	April 21 2013	211.8	271.73	277		277.09	0.000239	1.39	221.18	125.05	0.22
KinmoutDS	15930	Timmins_Uncalibr	441.16	271.76	278.23		278.4	0.000358	2.02	384.91	136.3	0.28
KinmoutDS	15930	Timmins_Calibrat	112.6	271.76	276.12		276.17	0.000191	1.04	125.63	89.37	0.19
KinmoutDS	15930	TimminsCC_Calibr	141.4	271.76	276.42		276.48	0.000212	1.17	156.1	111.52	0.2
KinmoutDS	15930	2y	107.1	271.76	276.06		276.11	0.000186	1.02	120.19	83.92	0.19
KinmoutDS	15930	5y	142.8	271.76	276.43		276.5	0.000212	1.17	157.65	111.64	0.2
KinmoutDS	15930	10y	166.9	271.76	276.65		276.73	0.000227	1.27	182.14	113.72	0.21
KinmoutDS	15930	25y	198.6	271.76	276.89		276.98	0.000247	1.38	210.57	118.16	0.22
KinmoutDS	15930	50y	223.9	271.76	277.07		277.17	0.000262	1.46	231.97	125.86	0.23
KinmoutDS	15930	100y	251.2	271.76	277.24		277.35	0.00028	1.56	254.15	129.34	0.24
KinmoutDS	15930	200y	281.2	271.76	277.42		277.54	0.000295	1.64	277.25	130.55	0.25
KinmoutDS	15930	350y	307.7	271.76	277.56		277.69	0.000309	1.72	296.08	131.5	0.26

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	15930	Sept 25 2021	68.8	271.76	275.54		275.57	0.000141	0.8	88.37	38.89	0.16
KinmoutDS	15930	July 13 2024	53.2	271.76	275.28		275.31	0.000114	0.69	78.61	37.79	0.15
KinmoutDS	15930	April 21 2019	223.6	271.76	277.07		277.17	0.000262	1.46	231.8	125.82	0.23
KinmoutDS	15930	Nov 2 2013	77	271.76	275.66		275.7	0.000154	0.85	93.89	52.42	0.17
KinmoutDS	15930	April 16 2014	175	271.76	276.71		276.79	0.000232	1.3	189.55	114.5	0.22
KinmoutDS	15930	May 8 2017	142	271.76	276.42		276.49	0.000212	1.17	156.77	111.58	0.2
KinmoutDS	15930	April 21 2013	211.8	271.76	276.99		277.08	0.000254	1.42	222.04	123.7	0.23
KinmoutDS	15892	Timmins_Uncalibr	441.16	271.79	278.18		278.38	0.000362	2.18	364.28	127.74	0.3
KinmoutDS	15892	Timmins_Calibrat	112.6	271.79	276.11		276.16	0.000177	1.09	124.99	95.94	0.2
KinmoutDS	15892	TimminsCC_Calibr	141.4	271.79	276.4		276.48	0.000198	1.22	154.04	98.67	0.21
KinmoutDS	15892	2y	107.1	271.79	276.04		276.1	0.000172	1.06	119.07	93.46	0.19
KinmoutDS	15892	5y	142.8	271.79	276.42		276.49	0.000199	1.23	155.4	98.78	0.21
KinmoutDS	15892	10y	166.9	271.79	276.63		276.72	0.000214	1.33	177.23	105.58	0.22
KinmoutDS	15892	25y	198.6	271.79	276.88		276.97	0.000236	1.45	203.72	113.24	0.23
KinmoutDS	15892	50y	223.9	271.79	277.04		277.16	0.000256	1.55	223.59	118.98	0.25
KinmoutDS	15892	100y	251.2	271.79	277.22		277.34	0.000272	1.65	244.12	119.91	0.25
KinmoutDS	15892	200y	281.2	271.79	277.39		277.53	0.000289	1.74	265.15	121.56	0.26
KinmoutDS	15892	350y	307.7	271.79	277.53		277.68	0.000304	1.83	282.34	122.72	0.27
KinmoutDS	15892	Sept 25 2021	68.8	271.79	275.53		275.57	0.000134	0.83	84.77	36.27	0.16
KinmoutDS	15892	July 13 2024	53.2	271.79	275.28		275.3	0.000113	0.71	75.93	34.39	0.15
KinmoutDS	15892	April 21 2019	223.6	271.79	277.04		277.16	0.000255	1.55	223.43	118.97	0.24
KinmoutDS	15892	Nov 2 2013	77	271.79	275.65		275.69	0.000143	0.88	90.2	51.02	0.17
KinmoutDS	15892	April 16 2014	175	271.79	276.7		276.78	0.00022	1.36	184.09	108.52	0.22
KinmoutDS	15892	May 8 2017	142	271.79	276.41		276.48	0.000198	1.22	154.63	98.72	0.21
KinmoutDS	15892	April 21 2013	211.8	271.79	276.97		277.07	0.000244	1.5	214.52	118.36	0.24
KinmoutDS	15853	Timmins_Uncalibr	441.16	271.84	278.13		278.36	0.000426	2.33	340.56	124.26	0.33
KinmoutDS	15853	Timmins_Calibrat	112.6	271.84	276.09		276.16	0.0002	1.15	117.24	84.96	0.21
KinmoutDS	15853	TimminsCC_Calibr	141.4	271.84	276.39		276.47	0.000226	1.29	144.6	97.69	0.22
KinmoutDS	15853	2y	107.1	271.84	276.03		276.09	0.000194	1.12	112.06	83.01	0.2
KinmoutDS	15853	5y	142.8	271.84	276.4		276.48	0.000227	1.3	145.94	97.88	0.22
KinmoutDS	15853	10y	166.9	271.84	276.61		276.71	0.000245	1.41	166.96	100.01	0.23
KinmoutDS	15853	25y	198.6	271.84	276.85		276.96	0.00027	1.54	191.25	102.77	0.25
KinmoutDS	15853	50y	223.9	271.84	277.02		277.15	0.000293	1.65	208.95	109.12	0.26
KinmoutDS	15853	100y	251.2	271.84	277.19		277.33	0.000313	1.75	227.47	110.38	0.27
KinmoutDS	15853	200y	281.2	271.84	277.36		277.52	0.000338	1.87	246.62	118.17	0.28
KinmoutDS	15853	350y	307.7	271.84	277.49		277.67	0.000357	1.96	263.04	119.53	0.29
KinmoutDS	15853	Sept 25 2021	68.8	271.84	275.52		275.56	0.000149	0.87	81.6	42.2	0.17
KinmoutDS	15853	July 13 2024	53.2	271.84	275.27		275.3	0.000125	0.74	72.36	33.71	0.15
KinmoutDS	15853	April 21 2019	223.6	271.84	277.02		277.14	0.000293	1.65	208.81	109.11	0.26
KinmoutDS	15853	Nov 2 2013	77	271.84	275.64		275.69	0.00016	0.93	86.97	46.51	0.18
KinmoutDS	15853	April 16 2014	175	271.84	276.68		276.77	0.000252	1.44	173.32	100.69	0.24
KinmoutDS	15853	May 8 2017	142	271.84	276.39		276.47	0.000226	1.3	145.18	97.77	0.22
KinmoutDS	15853	April 21 2013	211.8	271.84	276.94		277.06	0.00028	1.59	200.83	106.58	0.25

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	15810	Timmins_Uncalibr	441.16	271.87	278.1		278.35	0.00045	2.41	333.61	116.16	0.33
KinmoutDS	15810	Timmins_Calibrat	112.6	271.87	276.08		276.15	0.000202	1.17	124.19	81.93	0.21
KinmoutDS	15810	TimminsCC_Calibr	141.4	271.87	276.37		276.46	0.000229	1.32	149.67	89.27	0.22
KinmoutDS	15810	2y	107.1	271.87	276.02		276.08	0.000196	1.14	119.24	79.6	0.2
KinmoutDS	15810	5y	142.8	271.87	276.39		276.47	0.00023	1.32	150.89	89.43	0.22
KinmoutDS	15810	10y	166.9	271.87	276.6		276.7	0.00025	1.43	170.03	92.26	0.24
KinmoutDS	15810	25y	198.6	271.87	276.84		276.95	0.000278	1.58	193.12	100.7	0.25
KinmoutDS	15810	50y	223.9	271.87	277		277.13	0.0003	1.68	210.26	106.09	0.26
KinmoutDS	15810	100y	251.2	271.87	277.17		277.31	0.000328	1.8	227.99	109.9	0.28
KinmoutDS	15810	200y	281.2	271.87	277.33		277.5	0.000351	1.91	246.46	110.85	0.29
KinmoutDS	15810	350y	307.7	271.87	277.47		277.65	0.000371	2.01	261.91	111.64	0.3
KinmoutDS	15810	Sept 25 2021	68.8	271.87	275.51		275.55	0.000151	0.89	84.58	54.31	0.17
KinmoutDS	15810	July 13 2024	53.2	271.87	275.26		275.29	0.000126	0.76	72.2	37.95	0.16
KinmoutDS	15810	April 21 2019	223.6	271.87	277		277.13	0.0003	1.68	210.13	106.05	0.26
KinmoutDS	15810	Nov 2 2013	77	271.87	275.63		275.68	0.000162	0.95	91.41	59.03	0.18
KinmoutDS	15810	April 16 2014	175	271.87	276.66		276.76	0.000258	1.47	175.89	94.54	0.24
KinmoutDS	15810	May 8 2017	142	271.87	276.38		276.46	0.000229	1.32	150.2	89.34	0.22
KinmoutDS	15810	April 21 2013	211.8	271.87	276.93		277.05	0.000289	1.63	202.35	102.09	0.26
KinmoutDS	15773	Timmins_Uncalibr	441.16	271.92	278.08		278.33	0.000441	2.45	347.76	127.7	0.34
KinmoutDS	15773	Timmins_Calibrat	112.6	271.92	276.07		276.14	0.0002	1.2	116.22	73.1	0.21
KinmoutDS	15773	TimminsCC_Calibr	141.4	271.92	276.36		276.45	0.000231	1.37	142.15	102.93	0.23
KinmoutDS	15773	2y	107.1	271.92	276.01		276.08	0.000193	1.17	112.05	65.36	0.21
KinmoutDS	15773	5y	142.8	271.92	276.37		276.46	0.000232	1.38	143.54	103.3	0.23
KinmoutDS	15773	10y	166.9	271.92	276.58		276.69	0.000253	1.49	166.02	110.89	0.24
KinmoutDS	15773	25y	198.6	271.92	276.82		276.94	0.00028	1.63	192.54	113.34	0.26
KinmoutDS	15773	50y	223.9	271.92	276.98		277.12	0.000302	1.74	211.66	119.71	0.27
KinmoutDS	15773	100y	251.2	271.92	277.15		277.3	0.000326	1.85	231.53	121.52	0.28
KinmoutDS	15773	200y	281.2	271.92	277.32		277.49	0.000349	1.97	251.86	122.36	0.29
KinmoutDS	15773	350y	307.7	271.92	277.45		277.64	0.000367	2.06	268.85	123.09	0.3
KinmoutDS	15773	Sept 25 2021	68.8	271.92	275.51		275.55	0.000144	0.9	84.54	46.84	0.17
KinmoutDS	15773	July 13 2024	53.2	271.92	275.26		275.29	0.000119	0.77	74.05	38.83	0.16
KinmoutDS	15773	April 21 2019	223.6	271.92	276.98		277.12	0.000301	1.74	211.51	119.67	0.27
KinmoutDS	15773	Nov 2 2013	77	271.92	275.63		275.67	0.000155	0.96	90.34	49.48	0.18
KinmoutDS	15773	April 16 2014	175	271.92	276.64		276.75	0.00026	1.53	172.97	111.57	0.25
KinmoutDS	15773	May 8 2017	142	271.92	276.36		276.46	0.000232	1.37	142.76	103.09	0.23
KinmoutDS	15773	April 21 2013	211.8	271.92	276.91		277.04	0.000291	1.69	202.87	114.47	0.26
KinmoutDS	15731	Timmins_Uncalibr	441.16	271.96	278.06		278.31	0.000492	2.47	351.53	135.03	0.34
KinmoutDS	15731	Timmins_Calibrat	112.6	271.96	276.06		276.13	0.000231	1.24	109.65	62.28	0.22
KinmoutDS	15731	TimminsCC_Calibr	141.4	271.96	276.34		276.44	0.000269	1.41	130.95	99.81	0.24
KinmoutDS	15731	2y	107.1	271.96	276		276.07	0.000223	1.2	105.92	61.54	0.21
KinmoutDS	15731	5y	142.8	271.96	276.35		276.45	0.00027	1.42	132.3	102.48	0.24
KinmoutDS	15731	10y	166.9	271.96	276.56		276.68	0.000297	1.54	154.98	117.93	0.25
KinmoutDS	15731	25y	198.6	271.96	276.79		276.93	0.000331	1.69	183.19	124.31	0.27
KinmoutDS	15731	50y	223.9	271.96	276.96		277.11	0.000356	1.8	203.93	129.84	0.28

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	15731	100y	251.2	271.96	277.12		277.29	0.00038	1.91	225.71	132.69	0.29
KinmoutDS	15731	200y	281.2	271.96	277.29		277.47	0.000403	2.02	247.84	133.16	0.3
KinmoutDS	15731	350y	307.7	271.96	277.43		277.62	0.000422	2.1	266.44	133.47	0.31
KinmoutDS	15731	Sept 25 2021	68.8	271.96	275.5		275.54	0.000165	0.92	80.2	43.97	0.18
KinmoutDS	15731	July 13 2024	53.2	271.96	275.25		275.28	0.000135	0.79	70.39	34.91	0.16
KinmoutDS	15731	April 21 2019	223.6	271.96	276.96		277.11	0.000355	1.8	203.78	129.8	0.28
KinmoutDS	15731	Nov 2 2013	77	271.96	275.62		275.67	0.000178	0.99	85.6	46.34	0.19
KinmoutDS	15731	April 16 2014	175	271.96	276.62		276.74	0.000308	1.59	162.1	120.44	0.26
KinmoutDS	15731	May 8 2017	142	271.96	276.35		276.44	0.000269	1.41	131.53	100.73	0.24
KinmoutDS	15731	April 21 2013	211.8	271.96	276.88		277.03	0.000343	1.75	194.44	125.77	0.27
KinmoutDS	15692	Timmins_Uncalibr	441.16	271.98	278.04		278.29	0.000442	2.5	355.82	136.93	0.34
KinmoutDS	15692	Timmins_Calibrat	112.6	271.98	276.05		276.12	0.000194	1.23	112.65	73.95	0.21
KinmoutDS	15692	TimminsCC_Calibr	141.4	271.98	276.33		276.43	0.000228	1.4	138.96	109.33	0.23
KinmoutDS	15692	2y	107.1	271.98	275.99		276.06	0.000188	1.19	108.39	69.37	0.21
KinmoutDS	15692	5y	142.8	271.98	276.35		276.44	0.000229	1.41	140.42	110.06	0.23
KinmoutDS	15692	10y	166.9	271.98	276.55		276.66	0.000252	1.53	164.13	118.15	0.25
KinmoutDS	15692	25y	198.6	271.98	276.78		276.91	0.00028	1.67	191.8	120.71	0.26
KinmoutDS	15692	50y	223.9	271.98	276.95		277.09	0.000304	1.79	211.81	127.32	0.28
KinmoutDS	15692	100y	251.2	271.98	277.11		277.27	0.000326	1.9	232.75	128.19	0.29
KinmoutDS	15692	200y	281.2	271.98	277.28		277.45	0.000349	2.01	253.99	129.91	0.3
KinmoutDS	15692	350y	307.7	271.98	277.41		277.61	0.000368	2.1	271.98	131.06	0.31
KinmoutDS	15692	Sept 25 2021	68.8	271.98	275.49		275.54	0.000135	0.91	83.36	41.13	0.17
KinmoutDS	15692	July 13 2024	53.2	271.98	275.25		275.28	0.00011	0.78	73.76	36.98	0.15
KinmoutDS	15692	April 21 2019	223.6	271.98	276.95		277.09	0.000304	1.79	211.65	127.31	0.28
KinmoutDS	15692	Nov 2 2013	77	271.98	275.61		275.66	0.000147	0.98	88.37	43.1	0.18
KinmoutDS	15692	April 16 2014	175	271.98	276.61		276.73	0.00026	1.57	171.26	118.89	0.25
KinmoutDS	15692	May 8 2017	142	271.98	276.34		276.43	0.000228	1.4	139.59	109.63	0.23
KinmoutDS	15692	April 21 2013	211.8	271.98	276.87		277.01	0.000291	1.73	202.65	122.13	0.27
KinmoutDS	15652	Timmins_Uncalibr	441.16	272	278.01		278.28	0.000457	2.55	338.25	130.58	0.35
KinmoutDS	15652	Timmins_Calibrat	112.6	272	276.04		276.11	0.000197	1.23	109.12	72.2	0.21
KinmoutDS	15652	TimminsCC_Calibr	141.4	272	276.32		276.42	0.00023	1.41	134.25	102.29	0.23
KinmoutDS	15652	2y	107.1	272	275.98		276.05	0.00019	1.2	105	64.98	0.21
KinmoutDS	15652	5y	142.8	272	276.34		276.43	0.000231	1.41	135.61	102.56	0.24
KinmoutDS	15652	10y	166.9	272	276.54		276.65	0.000255	1.54	157.16	109.87	0.25
KinmoutDS	15652	25y	198.6	272	276.77		276.9	0.000286	1.69	183.1	114.87	0.27
KinmoutDS	15652	50y	223.9	272	276.93		277.08	0.000311	1.81	202.04	121.8	0.28
KinmoutDS	15652	100y	251.2	272	277.09		277.26	0.000334	1.92	221.89	123.02	0.29
KinmoutDS	15652	200y	281.2	272	277.26		277.44	0.000358	2.04	242.01	123.84	0.3
KinmoutDS	15652	350y	307.7	272	277.39		277.59	0.000378	2.13	259	125.98	0.31
KinmoutDS	15652	Sept 25 2021	68.8	272	275.49		275.53	0.000137	0.92	82.59	38.31	0.17
KinmoutDS	15652	July 13 2024	53.2	272	275.24		275.27	0.000112	0.78	73.43	36.54	0.16
KinmoutDS	15652	April 21 2019	223.6	272	276.93		277.08	0.00031	1.81	201.9	121.79	0.28
KinmoutDS	15652	Nov 2 2013	77	272	275.61		275.65	0.000149	0.98	87.2	39.34	0.18
KinmoutDS	15652	April 16 2014	175	272	276.6		276.72	0.000264	1.58	163.77	112.71	0.25

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	15652	May 8 2017	142	272	276.33		276.43	0.000231	1.41	134.84	102.41	0.24
KinmoutDS	15652	April 21 2013	211.8	272	276.86		277	0.000297	1.75	193.34	118.01	0.27
KinmoutDS	15613	Timmins_Uncalibr	441.16	272.01	277.99		278.26	0.000479	2.59	339.67	128.78	0.36
KinmoutDS	15613	Timmins_Calibrat	112.6	272.01	276.03		276.11	0.000212	1.27	113.1	82.97	0.22
KinmoutDS	15613	TimminsCC_Calibr	141.4	272.01	276.31		276.41	0.000245	1.44	139.9	105.4	0.24
KinmoutDS	15613	2y	107.1	272.01	275.97		276.04	0.000205	1.24	108.36	77.62	0.22
KinmoutDS	15613	5y	142.8	272.01	276.32		276.42	0.000246	1.45	141.29	105.69	0.24
KinmoutDS	15613	10y	166.9	272.01	276.53		276.64	0.000269	1.57	163.24	108.67	0.26
KinmoutDS	15613	25y	198.6	272.01	276.76		276.89	0.0003	1.72	188.43	111.78	0.27
KinmoutDS	15613	50y	223.9	272.01	276.92		277.07	0.000324	1.83	206.64	114.42	0.28
KinmoutDS	15613	100y	251.2	272.01	277.08		277.25	0.000352	1.96	225.59	121.83	0.3
KinmoutDS	15613	200y	281.2	272.01	277.24		277.43	0.000376	2.08	245.38	122.38	0.31
KinmoutDS	15613	350y	307.7	272.01	277.37		277.58	0.000397	2.17	262.01	123.45	0.32
KinmoutDS	15613	Sept 25 2021	68.8	272.01	275.48		275.52	0.000151	0.95	79.12	50.97	0.18
KinmoutDS	15613	July 13 2024	53.2	272.01	275.24		275.27	0.000123	0.81	69.1	34.46	0.16
KinmoutDS	15613	April 21 2019	223.6	272.01	276.92		277.07	0.000323	1.83	206.51	114.39	0.28
KinmoutDS	15613	Nov 2 2013	77	272.01	275.6		275.65	0.000163	1.02	85.25	53.02	0.19
KinmoutDS	15613	April 16 2014	175	272.01	276.59		276.71	0.000278	1.61	169.69	109.42	0.26
KinmoutDS	15613	May 8 2017	142	272.01	276.32		276.42	0.000246	1.45	140.5	105.51	0.24
KinmoutDS	15613	April 21 2013	211.8	272.01	276.84		276.99	0.000312	1.78	198.33	112.75	0.28
KinmoutDS	15574	Timmins_Uncalibr	441.16	272.03	277.98		278.23	0.000472	2.54	358.88	131.16	0.35
KinmoutDS	15574	Timmins_Calibrat	112.6	272.03	276.02		276.1	0.000222	1.28	121.74	96.65	0.22
KinmoutDS	15574	TimminsCC_Calibr	141.4	272.03	276.3		276.4	0.000252	1.44	150.69	107.12	0.24
KinmoutDS	15574	2y	107.1	272.03	275.96		276.04	0.000215	1.25	116.05	95.02	0.22
KinmoutDS	15574	5y	142.8	272.03	276.31		276.41	0.000254	1.45	152.1	107.62	0.24
KinmoutDS	15574	10y	166.9	272.03	276.52		276.63	0.000277	1.57	175.07	116.31	0.26
KinmoutDS	15574	25y	198.6	272.03	276.75		276.88	0.000306	1.71	201.83	117.83	0.27
KinmoutDS	15574	50y	223.9	272.03	276.91		277.05	0.00033	1.83	221.01	123.24	0.28
KinmoutDS	15574	100y	251.2	272.03	277.07		277.23	0.000354	1.94	241	126.43	0.3
KinmoutDS	15574	200y	281.2	272.03	277.23		277.41	0.000378	2.05	261.57	127.12	0.31
KinmoutDS	15574	350y	307.7	272.03	277.36		277.56	0.000397	2.15	278.87	128.08	0.32
KinmoutDS	15574	Sept 25 2021	68.8	272.03	275.47		275.52	0.000163	0.98	79.93	62.24	0.19
KinmoutDS	15574	July 13 2024	53.2	272.03	275.23		275.26	0.000134	0.83	67.17	38.64	0.17
KinmoutDS	15574	April 21 2019	223.6	272.03	276.91		277.05	0.000329	1.83	220.87	123.2	0.28
KinmoutDS	15574	Nov 2 2013	77	272.03	275.59		275.64	0.000176	1.04	87.41	65.91	0.2
KinmoutDS	15574	April 16 2014	175	272.03	276.58		276.7	0.000286	1.61	181.96	116.93	0.26
KinmoutDS	15574	May 8 2017	142	272.03	276.31		276.41	0.000253	1.45	151.3	107.33	0.24
KinmoutDS	15574	April 21 2013	211.8	272.03	276.84		276.97	0.000317	1.77	212.26	118.37	0.28
KinmoutDS	15531	Timmins_Uncalibr	441.16	272.04	277.98		278.21	0.000451	2.49	384.12	135.89	0.35
KinmoutDS	15531	Timmins_Calibrat	112.6	272.04	276.01		276.09	0.00022	1.28	134.16	101.49	0.22
KinmoutDS	15531	TimminsCC_Calibr	141.4	272.04	276.29		276.39	0.000248	1.43	164.11	110.48	0.24
KinmoutDS	15531	2y	107.1	272.04	275.95		276.03	0.000214	1.25	128.19	99.66	0.22
KinmoutDS	15531	5y	142.8	272.04	276.31		276.4	0.000249	1.44	165.57	111.02	0.24

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	15531	10y	166.9	272.04	276.51		276.62	0.000275	1.57	189.3	125.07	0.26
KinmoutDS	15531	25y	198.6	272.04	276.74		276.86	0.0003	1.71	218.12	129.68	0.27
KinmoutDS	15531	50y	223.9	272.04	276.9		277.04	0.000324	1.82	239.24	133.2	0.28
KinmoutDS	15531	100y	251.2	272.04	277.06		277.21	0.000344	1.92	260.64	133.63	0.29
KinmoutDS	15531	200y	281.2	272.04	277.22		277.39	0.000366	2.03	282.37	134.02	0.3
KinmoutDS	15531	350y	307.7	272.04	277.36		277.54	0.000383	2.12	300.62	134.35	0.31
KinmoutDS	15531	Sept 25 2021	68.8	272.04	275.46		275.51	0.000166	0.99	88.06	74.74	0.19
KinmoutDS	15531	July 13 2024	53.2	272.04	275.22		275.26	0.000139	0.85	71.38	63.53	0.17
KinmoutDS	15531	April 21 2019	223.6	272.04	276.9		277.04	0.000324	1.82	239.1	133.2	0.28
KinmoutDS	15531	Nov 2 2013	77	272.04	275.58		275.63	0.000178	1.05	97.07	77.54	0.2
KinmoutDS	15531	April 16 2014	175	272.04	276.57		276.68	0.000282	1.61	196.69	125.58	0.26
KinmoutDS	15531	May 8 2017	142	272.04	276.3		276.39	0.000249	1.44	164.74	110.71	0.24
KinmoutDS	15531	April 21 2013	211.8	272.04	276.83		276.96	0.000313	1.76	229.57	132.6	0.28
KinmoutDS	15492	Timmins_Uncalibr	441.16	272.06	277.98		278.18	0.000421	2.35	427.7	163.5	0.33
KinmoutDS	15492	Timmins_Calibrat	112.6	272.06	276		276.08	0.000241	1.3	129.93	116.43	0.23
KinmoutDS	15492	TimminsCC_Calibr	141.4	272.06	276.28		276.38	0.000269	1.45	165.43	134.72	0.25
KinmoutDS	15492	2y	107.1	272.06	275.94		276.02	0.000235	1.27	123.36	104.5	0.23
KinmoutDS	15492	5y	142.8	272.06	276.3		276.39	0.00027	1.46	167.22	135.51	0.25
KinmoutDS	15492	10y	166.9	272.06	276.5		276.61	0.000289	1.56	195.97	143.62	0.26
KinmoutDS	15492	25y	198.6	272.06	276.73		276.85	0.000312	1.69	229.75	151.25	0.27
KinmoutDS	15492	50y	223.9	272.06	276.89		277.02	0.000329	1.78	254.47	153.33	0.28
KinmoutDS	15492	100y	251.2	272.06	277.05		277.19	0.000345	1.87	279.38	154.92	0.29
KinmoutDS	15492	200y	281.2	272.06	277.22		277.37	0.000361	1.96	305.04	156.57	0.3
KinmoutDS	15492	350y	307.7	272.06	277.36		277.51	0.000374	2.04	326.71	158.15	0.3
KinmoutDS	15492	Sept 25 2021	68.8	272.06	275.46		275.5	0.000181	1	83.8	62.41	0.19
KinmoutDS	15492	July 13 2024	53.2	272.06	275.22		275.25	0.000151	0.86	71.1	47.81	0.17
KinmoutDS	15492	April 21 2019	223.6	272.06	276.89		277.02	0.000328	1.78	254.3	153.33	0.28
KinmoutDS	15492	Nov 2 2013	77	272.06	275.57		275.63	0.000195	1.07	91.87	73.75	0.2
KinmoutDS	15492	April 16 2014	175	272.06	276.56		276.67	0.000295	1.6	204.5	144.76	0.26
KinmoutDS	15492	May 8 2017	142	272.06	276.29		276.38	0.000269	1.45	166.2	135.21	0.25
KinmoutDS	15492	April 21 2013	211.8	272.06	276.82		276.94	0.00032	1.74	243.18	152.89	0.27
KinmoutDS	15451	Timmins_Uncalibr	441.16	272.07	277.96		278.16	0.000451	2.42	427.2	171.67	0.34
KinmoutDS	15451	Timmins_Calibrat	112.6	272.07	275.98		276.07	0.000277	1.38	120.78	113.88	0.24
KinmoutDS	15451	TimminsCC_Calibr	141.4	272.07	276.26		276.36	0.000306	1.53	156.72	138.75	0.26
KinmoutDS	15451	2y	107.1	272.07	275.92		276	0.00027	1.35	114.39	104.25	0.24
KinmoutDS	15451	5y	142.8	272.07	276.27		276.38	0.000307	1.54	158.56	139.74	0.26
KinmoutDS	15451	10y	166.9	272.07	276.48		276.59	0.000325	1.64	188.02	146.72	0.27
KinmoutDS	15451	25y	198.6	272.07	276.7		276.84	0.000349	1.77	222.35	155.98	0.28
KinmoutDS	15451	50y	223.9	272.07	276.87		277.01	0.000364	1.86	247.73	157.51	0.29
KinmoutDS	15451	100y	251.2	272.07	277.03		277.18	0.00038	1.95	273.26	158.99	0.3
KinmoutDS	15451	200y	281.2	272.07	277.19		277.35	0.000396	2.04	299.52	160.25	0.31
KinmoutDS	15451	350y	307.7	272.07	277.33		277.5	0.000409	2.11	321.77	162.8	0.31
KinmoutDS	15451	Sept 25 2021	68.8	272.07	275.44		275.5	0.000209	1.06	76.52	64.76	0.21
KinmoutDS	15451	July 13 2024	53.2	272.07	275.2		275.25	0.000173	0.91	63.86	42.77	0.18

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	15451	April 21 2019	223.6	272.07	276.86		277	0.000364	1.86	247.56	157.5	0.29
KinmoutDS	15451	Nov 2 2013	77	272.07	275.55		275.62	0.000224	1.13	84.3	71.55	0.21
KinmoutDS	15451	April 16 2014	175	272.07	276.53		276.66	0.000331	1.68	196.68	147.47	0.27
KinmoutDS	15451	May 8 2017	142	272.07	276.26		276.37	0.000306	1.54	157.52	139.19	0.26
KinmoutDS	15451	April 21 2013	211.8	272.07	276.79		276.93	0.000356	1.82	236.2	156.78	0.29
KinmoutDS	15412	Timmins_Uncalibr	441.16	272.09	277.97		278.13	0.000403	2.26	487.65	210.5	0.32
KinmoutDS	15412	Timmins_Calibrat	112.6	272.09	275.97		276.06	0.000288	1.39	123.73	119.46	0.25
KinmoutDS	15412	TimminsCC_Calibr	141.4	272.09	276.25		276.35	0.000316	1.54	161.95	150.19	0.26
KinmoutDS	15412	2y	107.1	272.09	275.91		275.99	0.000281	1.35	117.11	108.49	0.24
KinmoutDS	15412	5y	142.8	272.09	276.26		276.37	0.000316	1.54	163.95	150.84	0.26
KinmoutDS	15412	10y	166.9	272.09	276.46		276.58	0.00033	1.63	196.2	162.94	0.27
KinmoutDS	15412	25y	198.6	272.09	276.69		276.82	0.000347	1.74	234.63	177	0.28
KinmoutDS	15412	50y	223.9	272.09	276.86		276.99	0.000362	1.83	264.62	187.39	0.29
KinmoutDS	15412	100y	251.2	272.09	277.02		277.16	0.000373	1.91	295.72	194.19	0.29
KinmoutDS	15412	200y	281.2	272.09	277.19		277.33	0.000382	1.98	328.6	198.7	0.3
KinmoutDS	15412	350y	307.7	272.09	277.33		277.47	0.000389	2.04	356.51	201.01	0.3
KinmoutDS	15412	Sept 25 2021	68.8	272.09	275.43		275.49	0.000218	1.07	77.08	62.53	0.21
KinmoutDS	15412	July 13 2024	53.2	272.09	275.2		275.24	0.000181	0.92	64.9	46.52	0.19
KinmoutDS	15412	April 21 2019	223.6	272.09	276.86		276.99	0.000362	1.83	264.41	187.33	0.29
KinmoutDS	15412	Nov 2 2013	77	272.09	275.54		275.61	0.000234	1.14	84.83	71.49	0.22
KinmoutDS	15412	April 16 2014	175	272.09	276.52		276.64	0.000336	1.67	205.85	165.26	0.27
KinmoutDS	15412	May 8 2017	142	272.09	276.25		276.36	0.000316	1.54	162.82	150.47	0.26
KinmoutDS	15412	April 21 2013	211.8	272.09	276.78		276.91	0.000356	1.79	250.79	186.3	0.28
KinmoutDS	15374	Timmins_Uncalibr	441.16	272.1	277.94		278.11	0.000434	2.31	506.08	211.3	0.32
KinmoutDS	15374	Timmins_Calibrat	112.6	272.1	275.96		276.04	0.000301	1.4	133.68	121.61	0.25
KinmoutDS	15374	TimminsCC_Calibr	141.4	272.1	276.24		276.34	0.000326	1.54	170.97	152.02	0.26
KinmoutDS	15374	2y	107.1	272.1	275.9		275.98	0.000294	1.36	126.79	116.64	0.24
KinmoutDS	15374	5y	142.8	272.1	276.25		276.35	0.000326	1.54	172.99	153.31	0.26
KinmoutDS	15374	10y	166.9	272.1	276.45		276.57	0.000342	1.64	207.17	175.62	0.27
KinmoutDS	15374	25y	198.6	272.1	276.68		276.8	0.000359	1.75	249.57	190.12	0.28
KinmoutDS	15374	50y	223.9	272.1	276.84		276.97	0.000375	1.83	280.8	198.04	0.29
KinmoutDS	15374	100y	251.2	272.1	277		277.14	0.000396	1.93	312.32	199.55	0.3
KinmoutDS	15374	200y	281.2	272.1	277.17		277.32	0.000406	2.01	345.74	202.98	0.3
KinmoutDS	15374	350y	307.7	272.1	277.31		277.46	0.000414	2.07	374.06	204.11	0.31
KinmoutDS	15374	Sept 25 2021	68.8	272.1	275.42		275.48	0.000236	1.1	78.95	79.37	0.21
KinmoutDS	15374	July 13 2024	53.2	272.1	275.19		275.23	0.000198	0.95	64.09	55.19	0.19
KinmoutDS	15374	April 21 2019	223.6	272.1	276.84		276.97	0.000374	1.83	280.59	198.01	0.29
KinmoutDS	15374	Nov 2 2013	77	272.1	275.53		275.6	0.000251	1.16	88.88	91.69	0.22
KinmoutDS	15374	April 16 2014	175	272.1	276.51		276.63	0.000348	1.67	217.75	182.99	0.27
KinmoutDS	15374	May 8 2017	142	272.1	276.24		276.34	0.000326	1.54	171.85	152.66	0.26
KinmoutDS	15374	April 21 2013	211.8	272.1	276.77		276.9	0.000365	1.79	266.55	192.94	0.28
KinmoutDS	15333	Timmins_Uncalibr	441.16	272.12	277.92		278.1	0.000451	2.3	492.28	217.74	0.32
KinmoutDS	15333	Timmins_Calibrat	112.6	272.12	275.95		276.03	0.000297	1.36	140.43	122.05	0.24

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	15333	TimminsCC_Calibr	141.4	272.12	276.23		276.32	0.000324	1.5	177.24	141.06	0.26
KinmoutDS	15333	2y	107.1	272.12	275.89		275.97	0.000291	1.33	133.47	117.82	0.24
KinmoutDS	15333	5y	142.8	272.12	276.24		276.34	0.000324	1.5	179.12	141.23	0.26
KinmoutDS	15333	10y	166.9	272.12	276.44		276.55	0.000337	1.59	209.14	153.36	0.26
KinmoutDS	15333	25y	198.6	272.12	276.67		276.79	0.000356	1.7	245.79	167.85	0.27
KinmoutDS	15333	50y	223.9	272.12	276.83		276.96	0.000372	1.78	273.53	175.98	0.28
KinmoutDS	15333	100y	251.2	272.12	276.99		277.13	0.0004	1.9	301.37	183.97	0.29
KinmoutDS	15333	200y	281.2	272.12	277.15		277.3	0.000414	1.98	332.37	192.5	0.3
KinmoutDS	15333	350y	307.7	272.12	277.29		277.44	0.000426	2.05	359.58	202.52	0.31
KinmoutDS	15333	Sept 25 2021	68.8	272.12	275.41		275.47	0.000238	1.07	84.7	78.45	0.21
KinmoutDS	15333	July 13 2024	53.2	272.12	275.18		275.22	0.000202	0.93	68.37	63.51	0.19
KinmoutDS	15333	April 21 2019	223.6	272.12	276.83		276.95	0.000371	1.78	273.23	175.89	0.28
KinmoutDS	15333	Nov 2 2013	77	272.12	275.53		275.59	0.000252	1.14	94.3	91.96	0.22
KinmoutDS	15333	April 16 2014	175	272.12	276.5		276.61	0.000343	1.62	218.18	156.03	0.27
KinmoutDS	15333	May 8 2017	142	272.12	276.23		276.33	0.000324	1.5	178.05	141.14	0.26
KinmoutDS	15333	April 21 2013	211.8	272.12	276.76		276.88	0.000364	1.74	260.75	171.67	0.28
KinmoutDS	15293	Timmins_Uncalibr	441.16	272.15	277.78		278.06	0.000673	2.76	360.19	157.74	0.4
KinmoutDS	15293	Timmins_Calibrat	112.6	272.15	275.91		276.02	0.000369	1.49	111.76	106.2	0.27
KinmoutDS	15293	TimminsCC_Calibr	141.4	272.15	276.18		276.31	0.000403	1.65	142.56	117.96	0.29
KinmoutDS	15293	2y	107.1	272.15	275.85		275.95	0.00036	1.45	105.88	102.07	0.27
KinmoutDS	15293	5y	142.8	272.15	276.2		276.32	0.000405	1.65	144.09	118.18	0.29
KinmoutDS	15293	10y	166.9	272.15	276.39		276.53	0.000429	1.77	167.7	122.56	0.3
KinmoutDS	15293	25y	198.6	272.15	276.61		276.77	0.000466	1.92	194.86	129.21	0.32
KinmoutDS	15293	50y	223.9	272.15	276.76		276.93	0.000492	2.02	214.9	130.56	0.33
KinmoutDS	15293	100y	251.2	272.15	276.92		277.1	0.000519	2.13	235.03	132.04	0.34
KinmoutDS	15293	200y	281.2	272.15	277.07		277.27	0.000546	2.24	255.7	132.94	0.35
KinmoutDS	15293	350y	307.7	272.15	277.2		277.42	0.000568	2.33	273.28	138.71	0.36
KinmoutDS	15293	Sept 25 2021	68.8	272.15	275.39		275.46	0.000282	1.15	67.9	54.89	0.23
KinmoutDS	15293	July 13 2024	53.2	272.15	275.16		275.21	0.000235	0.99	57.54	41.51	0.21
KinmoutDS	15293	April 21 2019	223.6	272.15	276.76		276.93	0.000492	2.02	214.69	130.55	0.33
KinmoutDS	15293	Nov 2 2013	77	272.15	275.5		275.58	0.000302	1.23	74.91	68.9	0.24
KinmoutDS	15293	April 16 2014	175	272.15	276.45		276.59	0.00044	1.81	174.56	123.82	0.3
KinmoutDS	15293	May 8 2017	142	272.15	276.19		276.31	0.000404	1.65	143.22	118.05	0.29
KinmoutDS	15293	April 21 2013	211.8	272.15	276.69		276.86	0.000479	1.97	205.8	129.9	0.32
KinmoutDS	15253	Timmins_Uncalibr	441.16	272.18	277.7		278.03	0.000741	2.92	318.73	140.56	0.42
KinmoutDS	15253	Timmins_Calibrat	112.6	272.18	275.9		276	0.000351	1.47	102.82	72.97	0.27
KinmoutDS	15253	TimminsCC_Calibr	141.4	272.18	276.16		276.29	0.000405	1.67	125.15	105.17	0.29
KinmoutDS	15253	2y	107.1	272.18	275.84		275.94	0.000341	1.43	98.87	69.23	0.27
KinmoutDS	15253	5y	142.8	272.18	276.17		276.3	0.000408	1.68	126.42	106.32	0.3
KinmoutDS	15253	10y	166.9	272.18	276.36		276.51	0.000445	1.82	146.94	111.52	0.31
KinmoutDS	15253	25y	198.6	272.18	276.57		276.75	0.000488	1.98	170.78	113.82	0.33
KinmoutDS	15253	50y	223.9	272.18	276.72		276.91	0.000523	2.11	188.22	121.29	0.34
KinmoutDS	15253	100y	251.2	272.18	276.86		277.08	0.000565	2.24	205.61	126.26	0.36
KinmoutDS	15253	200y	281.2	272.18	277.01		277.25	0.000599	2.37	224.57	128.47	0.37

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	15253	350y	307.7	272.18	277.13		277.39	0.000643	2.5	239.78	135.73	0.39
KinmoutDS	15253	Sept 25 2021	68.8	272.18	275.38		275.44	0.000262	1.12	71.63	52.41	0.23
KinmoutDS	15253	July 13 2024	53.2	272.18	275.16		275.2	0.000219	0.96	60.62	42.92	0.2
KinmoutDS	15253	April 21 2019	223.6	272.18	276.72		276.91	0.000522	2.11	188.03	121.27	0.34
KinmoutDS	15253	Nov 2 2013	77	272.18	275.49		275.56	0.000281	1.2	77.54	54.88	0.24
KinmoutDS	15253	April 16 2014	175	272.18	276.41		276.57	0.000458	1.87	152.97	112.15	0.32
KinmoutDS	15253	May 8 2017	142	272.18	276.16		276.3	0.000407	1.68	125.68	105.69	0.29
KinmoutDS	15253	April 21 2013	211.8	272.18	276.65		276.84	0.000505	2.05	180.18	118.21	0.34
KinmoutDS	15213	Timmins_Uncalibr	441.16	272.2	277.66		278	0.000777	2.9	295.7	208.67	0.43
KinmoutDS	15213	Timmins_Calibrat	112.6	272.2	275.89		275.98	0.000354	1.43	104.05	72.49	0.27
KinmoutDS	15213	TimminsCC_Calibr	141.4	272.2	276.15		276.27	0.000401	1.61	125.06	96.54	0.29
KinmoutDS	15213	2y	107.1	272.2	275.83		275.92	0.000343	1.39	100.14	69.89	0.26
KinmoutDS	15213	5y	142.8	272.2	276.16		276.29	0.000403	1.62	126.12	97.79	0.29
KinmoutDS	15213	10y	166.9	272.2	276.35		276.49	0.000439	1.76	144.59	121.47	0.3
KinmoutDS	15213	25y	198.6	272.2	276.56		276.72	0.00049	1.93	167.35	139.48	0.32
KinmoutDS	15213	50y	223.9	272.2	276.7		276.89	0.000525	2.05	183.56	147.38	0.34
KinmoutDS	15213	100y	251.2	272.2	276.84		277.05	0.000565	2.18	199.16	152.85	0.35
KinmoutDS	15213	200y	281.2	272.2	276.99		277.22	0.000604	2.31	215.46	157.41	0.37
KinmoutDS	15213	350y	307.7	272.2	277.11		277.36	0.00064	2.42	228.6	165.65	0.38
KinmoutDS	15213	Sept 25 2021	68.8	272.2	275.37		275.43	0.000261	1.08	74.64	46.45	0.22
KinmoutDS	15213	July 13 2024	53.2	272.2	275.15		275.19	0.000219	0.93	64.73	41.62	0.2
KinmoutDS	15213	April 21 2019	223.6	272.2	276.7		276.89	0.000525	2.05	183.39	147.31	0.34
KinmoutDS	15213	Nov 2 2013	77	272.2	275.48		275.55	0.000279	1.15	79.85	48.62	0.23
KinmoutDS	15213	April 16 2014	175	272.2	276.4		276.55	0.000458	1.81	150.17	130.07	0.31
KinmoutDS	15213	May 8 2017	142	272.2	276.16		276.28	0.000402	1.61	125.5	97.06	0.29
KinmoutDS	15213	April 21 2013	211.8	272.2	276.64		276.81	0.000507	1.99	176.24	141.55	0.33
KinmoutDS	15172	Timmins_Uncalibr	441.16	272.24	277.63		277.97	0.000811	2.87	295.18	135.03	0.43
KinmoutDS	15172	Timmins_Calibrat	112.6	272.24	275.87		275.97	0.000388	1.44	100.43	82.01	0.27
KinmoutDS	15172	TimminsCC_Calibr	141.4	272.24	276.13		276.25	0.000434	1.62	124.18	95.5	0.29
KinmoutDS	15172	2y	107.1	272.24	275.81		275.91	0.000379	1.41	96	77.96	0.27
KinmoutDS	15172	5y	142.8	272.24	276.14		276.27	0.000435	1.62	125.32	95.7	0.29
KinmoutDS	15172	10y	166.9	272.24	276.33		276.47	0.000469	1.75	143.45	100.62	0.31
KinmoutDS	15172	25y	198.6	272.24	276.53		276.7	0.000519	1.92	165.29	107.43	0.33
KinmoutDS	15172	50y	223.9	272.24	276.68		276.87	0.000556	2.04	180.95	108.75	0.34
KinmoutDS	15172	100y	251.2	272.24	276.82		277.03	0.000598	2.17	196.19	110.85	0.36
KinmoutDS	15172	200y	281.2	272.24	276.96		277.19	0.000639	2.3	212.4	113.1	0.37
KinmoutDS	15172	350y	307.7	272.24	277.08		277.33	0.000676	2.41	225.56	113.96	0.38
KinmoutDS	15172	Sept 25 2021	68.8	272.24	275.36		275.42	0.000296	1.1	67.53	48.26	0.23
KinmoutDS	15172	July 13 2024	53.2	272.24	275.14		275.18	0.000249	0.95	58.46	35.7	0.21
KinmoutDS	15172	April 21 2019	223.6	272.24	276.68		276.87	0.000555	2.04	180.79	108.73	0.34
KinmoutDS	15172	Nov 2 2013	77	272.24	275.47		275.54	0.000316	1.17	73.22	54.3	0.24
KinmoutDS	15172	April 16 2014	175	272.24	276.38		276.53	0.000484	1.8	148.93	105.29	0.31
KinmoutDS	15172	May 8 2017	142	272.24	276.13		276.26	0.000434	1.62	124.66	95.58	0.29
KinmoutDS	15172	April 21 2013	211.8	272.24	276.61		276.79	0.000537	1.98	173.9	107.89	0.33

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	15130	Timmins_Uncalibr	441.16	272.28	277.5		277.92	0.000967	3.11	239.18	108.39	0.47
KinmoutDS	15130	Timmins_Calibrat	112.6	272.28	275.85		275.95	0.000394	1.45	89.48	61.3	0.28
KinmoutDS	15130	TimminsCC_Calibr	141.4	272.28	276.1		276.24	0.00045	1.65	107.38	78.67	0.3
KinmoutDS	15130	2y	107.1	272.28	275.79		275.89	0.000383	1.41	86.29	57.53	0.28
KinmoutDS	15130	5y	142.8	272.28	276.12		276.25	0.000453	1.65	108.29	79.22	0.31
KinmoutDS	15130	10y	166.9	272.28	276.29		276.45	0.000497	1.8	123.35	88.54	0.32
KinmoutDS	15130	25y	198.6	272.28	276.49		276.68	0.000552	1.98	141.23	89.89	0.34
KinmoutDS	15130	50y	223.9	272.28	276.63		276.84	0.000599	2.12	153.68	90.82	0.36
KinmoutDS	15130	100y	251.2	272.28	276.76		277	0.000652	2.26	165.62	92.27	0.38
KinmoutDS	15130	200y	281.2	272.28	276.89		277.16	0.000709	2.42	177.88	93.73	0.4
KinmoutDS	15130	350y	307.7	272.28	277		277.29	0.00076	2.55	187.81	95.09	0.41
KinmoutDS	15130	Sept 25 2021	68.8	272.28	275.35		275.41	0.000299	1.1	65.74	37.03	0.24
KinmoutDS	15130	July 13 2024	53.2	272.28	275.13		275.17	0.000255	0.95	57.84	34.79	0.21
KinmoutDS	15130	April 21 2019	223.6	272.28	276.63		276.84	0.000598	2.11	153.55	90.81	0.36
KinmoutDS	15130	Nov 2 2013	77	272.28	275.45		275.52	0.000318	1.18	69.77	37.84	0.25
KinmoutDS	15130	April 16 2014	175	272.28	276.35		276.51	0.000513	1.85	127.91	88.9	0.33
KinmoutDS	15130	May 8 2017	142	272.28	276.11		276.24	0.000451	1.65	107.76	78.91	0.3
KinmoutDS	15130	April 21 2013	211.8	272.28	276.57		276.77	0.000575	2.05	148.09	90.39	0.35
KinmoutDS	15093	Timmins_Uncalibr	441.16	272.3	277.39		277.88	0.001193	3.26	209.01	96.02	0.51
KinmoutDS	15093	Timmins_Calibrat	112.6	272.3	275.83		275.94	0.00044	1.46	88.38	55.49	0.28
KinmoutDS	15093	TimminsCC_Calibr	141.4	272.3	276.08		276.22	0.000502	1.65	103.35	63.04	0.31
KinmoutDS	15093	2y	107.1	272.3	275.78		275.88	0.000426	1.41	85.53	52.45	0.28
KinmoutDS	15093	5y	142.8	272.3	276.09		276.23	0.000505	1.66	104.07	63.57	0.31
KinmoutDS	15093	10y	166.9	272.3	276.27		276.43	0.000562	1.82	116.12	74.66	0.33
KinmoutDS	15093	25y	198.6	272.3	276.46		276.66	0.000633	2.01	131.1	78.39	0.35
KinmoutDS	15093	50y	223.9	272.3	276.59		276.82	0.000692	2.16	141.46	79.22	0.37
KinmoutDS	15093	100y	251.2	272.3	276.72		276.97	0.000758	2.31	151.36	79.72	0.39
KinmoutDS	15093	200y	281.2	272.3	276.84		277.13	0.000831	2.48	161.35	80.32	0.41
KinmoutDS	15093	350y	307.7	272.3	276.94		277.26	0.000897	2.62	169.3	80.84	0.43
KinmoutDS	15093	Sept 25 2021	68.8	272.3	275.33		275.4	0.000336	1.11	64.12	41.99	0.24
KinmoutDS	15093	July 13 2024	53.2	272.3	275.12		275.16	0.000285	0.95	56.33	31.62	0.22
KinmoutDS	15093	April 21 2019	223.6	272.3	276.59		276.82	0.000691	2.16	141.35	79.21	0.37
KinmoutDS	15093	Nov 2 2013	77	272.3	275.44		275.51	0.000357	1.18	68.85	45.7	0.25
KinmoutDS	15093	April 16 2014	175	272.3	276.32		276.49	0.000583	1.87	119.86	76.25	0.34
KinmoutDS	15093	May 8 2017	142	272.3	276.09		276.22	0.000503	1.66	103.65	63.18	0.31
KinmoutDS	15093	April 21 2013	211.8	272.3	276.53		276.75	0.000662	2.09	136.79	78.86	0.36
KinmoutDS	15052	Timmins_Uncalibr	441.16	272.34	277.25		277.82	0.001301	3.44	185.2	94.89	0.55
KinmoutDS	15052	Timmins_Calibrat	112.6	272.34	275.82		275.92	0.000406	1.44	86.92	47.78	0.28
KinmoutDS	15052	TimminsCC_Calibr	141.4	272.34	276.06		276.2	0.000468	1.64	99.97	57.3	0.31
KinmoutDS	15052	2y	107.1	272.34	275.76		275.86	0.000394	1.4	84.42	46.82	0.28
KinmoutDS	15052	5y	142.8	272.34	276.08		276.21	0.000471	1.65	100.61	57.68	0.31
KinmoutDS	15052	10y	166.9	272.34	276.25		276.41	0.000524	1.81	110.8	61.56	0.33
KinmoutDS	15052	25y	198.6	272.34	276.44		276.63	0.000596	2.01	122.82	64.13	0.36

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	15052	50y	223.9	272.34	276.56		276.79	0.000658	2.16	130.94	64.78	0.38
KinmoutDS	15052	100y	251.2	272.34	276.68		276.94	0.00073	2.33	138.75	66.78	0.4
KinmoutDS	15052	200y	281.2	272.34	276.8		277.1	0.000811	2.51	146.5	67.9	0.42
KinmoutDS	15052	350y	307.7	272.34	276.89		277.23	0.000885	2.67	152.88	74.87	0.44
KinmoutDS	15052	Sept 25 2021	68.8	272.34	275.32		275.38	0.00031	1.09	65.4	39.68	0.24
KinmoutDS	15052	July 13 2024	53.2	272.34	275.11		275.15	0.000266	0.94	57.39	34.35	0.22
KinmoutDS	15052	April 21 2019	223.6	272.34	276.56		276.79	0.000658	2.16	130.86	64.72	0.38
KinmoutDS	15052	Nov 2 2013	77	272.34	275.43		275.5	0.000329	1.16	69.68	41.02	0.25
KinmoutDS	15052	April 16 2014	175	272.34	276.3		276.47	0.000545	1.86	113.84	63.5	0.34
KinmoutDS	15052	May 8 2017	142	272.34	276.07		276.2	0.000469	1.64	100.24	57.46	0.31
KinmoutDS	15052	April 21 2013	211.8	272.34	276.51		276.72	0.000627	2.09	127.3	64.45	0.37
KinmoutDS	15012	Timmins_Uncalibr	441.16	272.37	277.23		277.75	0.001257	3.33	192.6	105.28	0.53
KinmoutDS	15012	Timmins_Calibrat	112.6	272.37	275.8		275.9	0.000401	1.41	89.55	50.21	0.28
KinmoutDS	15012	TimminsCC_Calibr	141.4	272.37	276.05		276.18	0.00046	1.6	102.46	60.13	0.3
KinmoutDS	15012	2y	107.1	272.37	275.75		275.84	0.00039	1.37	86.92	49.81	0.27
KinmoutDS	15012	5y	142.8	272.37	276.06		276.19	0.000463	1.61	103.07	60.42	0.3
KinmoutDS	15012	10y	166.9	272.37	276.23		276.39	0.000517	1.77	112.83	68.14	0.32
KinmoutDS	15012	25y	198.6	272.37	276.42		276.61	0.000593	1.97	124.87	76.94	0.35
KinmoutDS	15012	50y	223.9	272.37	276.54		276.76	0.000658	2.13	133.74	82.77	0.37
KinmoutDS	15012	100y	251.2	272.37	276.66		276.91	0.00073	2.29	142.46	85.98	0.39
KinmoutDS	15012	200y	281.2	272.37	276.77		277.07	0.000814	2.47	151.24	93.49	0.42
KinmoutDS	15012	350y	307.7	272.37	276.86		277.19	0.000893	2.63	158.57	99.22	0.44
KinmoutDS	15012	Sept 25 2021	68.8	272.37	275.31		275.37	0.000306	1.07	66.87	36.43	0.23
KinmoutDS	15012	July 13 2024	53.2	272.37	275.1		275.14	0.000262	0.92	59.22	35.16	0.21
KinmoutDS	15012	April 21 2019	223.6	272.37	276.54		276.76	0.000658	2.13	133.65	82.74	0.37
KinmoutDS	15012	Nov 2 2013	77	272.37	275.42		275.48	0.000326	1.14	70.92	40.96	0.24
KinmoutDS	15012	April 16 2014	175	272.37	276.28		276.44	0.000537	1.82	115.8	69.92	0.33
KinmoutDS	15012	May 8 2017	142	272.37	276.06		276.18	0.000461	1.61	102.71	60.25	0.3
KinmoutDS	15012	April 21 2013	211.8	272.37	276.49		276.69	0.000625	2.05	129.72	81.31	0.36
KinmoutDS	14971	Timmins_Uncalibr	441.16	271.81	277.42		277.63	0.00037	2.11	291.84	127.91	0.31
KinmoutDS	14971	Timmins_Calibrat	112.6	271.81	275.84		275.88	0.000111	0.87	144.79	92.37	0.16
KinmoutDS	14971	TimminsCC_Calibr	141.4	271.81	276.1		276.15	0.000131	1	166.52	103.44	0.18
KinmoutDS	14971	2y	107.1	271.81	275.78		275.82	0.000107	0.85	140.38	83.68	0.16
KinmoutDS	14971	5y	142.8	271.81	276.11		276.16	0.000132	1.01	167.53	103.67	0.18
KinmoutDS	14971	10y	166.9	271.81	276.29		276.35	0.000149	1.11	183.33	107.99	0.19
KinmoutDS	14971	25y	198.6	271.81	276.49		276.56	0.000173	1.24	201.52	112.58	0.21
KinmoutDS	14971	50y	223.9	271.81	276.62		276.71	0.000193	1.34	214.03	114.28	0.22
KinmoutDS	14971	100y	251.2	271.81	276.75		276.85	0.000215	1.45	226.07	116.26	0.23
KinmoutDS	14971	200y	281.2	271.81	276.88		276.99	0.00024	1.56	238.2	124.15	0.25
KinmoutDS	14971	350y	307.7	271.81	276.98		277.11	0.000263	1.66	248.19	124.88	0.26
KinmoutDS	14971	Sept 25 2021	68.8	271.81	275.33		275.35	0.000077	0.65	112.83	54.47	0.13
KinmoutDS	14971	July 13 2024	53.2	271.81	275.11		275.13	0.000063	0.55	101.18	51.78	0.11
KinmoutDS	14971	April 21 2019	223.6	271.81	276.62		276.71	0.000192	1.34	213.91	114.26	0.22
KinmoutDS	14971	Nov 2 2013	77	271.81	275.44		275.46	0.000084	0.69	118.77	55.24	0.14

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	14971	April 16 2014	175	271.81	276.34		276.4	0.000156	1.15	187.95	109.85	0.19
KinmoutDS	14971	May 8 2017	142	271.81	276.1		276.15	0.000132	1.01	166.94	103.54	0.18
KinmoutDS	14971	April 21 2013	211.8	271.81	276.56		276.64	0.000183	1.29	208.43	113.52	0.21
KinmoutDS	14930	Timmins_Uncalibr	441.16	272.05	277.45		277.6	0.000312	1.89	396.78	185.64	0.28
KinmoutDS	14930	Timmins_Calibrat	112.6	272.05	275.84		275.87	0.000117	0.86	168.1	123.04	0.16
KinmoutDS	14930	TimminsCC_Calibr	141.4	272.05	276.09		276.14	0.000134	0.98	199.89	158.99	0.18
KinmoutDS	14930	2y	107.1	272.05	275.78		275.81	0.000113	0.84	162.51	114.92	0.16
KinmoutDS	14930	5y	142.8	272.05	276.11		276.15	0.000135	0.98	201.47	159.62	0.18
KinmoutDS	14930	10y	166.9	272.05	276.29		276.34	0.000148	1.07	226.43	168.37	0.19
KinmoutDS	14930	25y	198.6	272.05	276.49		276.55	0.000166	1.18	255.24	171.93	0.2
KinmoutDS	14930	50y	223.9	272.05	276.63		276.7	0.000181	1.26	274.96	173.87	0.21
KinmoutDS	14930	100y	251.2	272.05	276.76		276.84	0.000198	1.35	293.88	175.57	0.22
KinmoutDS	14930	200y	281.2	272.05	276.89		276.98	0.000217	1.44	312.75	181.21	0.23
KinmoutDS	14930	350y	307.7	272.05	276.99		277.09	0.000235	1.53	328.23	182.86	0.24
KinmoutDS	14930	Sept 25 2021	68.8	272.05	275.33		275.35	0.000088	0.66	123.32	76.68	0.14
KinmoutDS	14930	July 13 2024	53.2	272.05	275.11		275.12	0.000074	0.57	107.41	68.79	0.12
KinmoutDS	14930	April 21 2019	223.6	272.05	276.62		276.69	0.000181	1.26	274.76	173.85	0.21
KinmoutDS	14930	Nov 2 2013	77	272.05	275.44		275.46	0.000094	0.7	131.74	78.78	0.14
KinmoutDS	14930	April 16 2014	175	272.05	276.34		276.39	0.000153	1.1	233.8	169.45	0.19
KinmoutDS	14930	May 8 2017	142	272.05	276.1		276.14	0.000134	0.98	200.55	159.25	0.18
KinmoutDS	14930	April 21 2013	211.8	272.05	276.56		276.63	0.000174	1.22	266.13	172.89	0.2
KinmoutDS	14892	Timmins_Uncalibr	441.16	273.29	277.24		277.56	0.001022	2.88	293.53	187.8	0.5
KinmoutDS	14892	Timmins_Calibrat	112.6	273.29	275.75		275.85	0.000609	1.52	96.99	75.55	0.35
KinmoutDS	14892	TimminsCC_Calibr	141.4	273.29	275.99		276.12	0.000633	1.67	114.76	118.89	0.36
KinmoutDS	14892	2y	107.1	273.29	275.7		275.8	0.000607	1.49	93.73	68.78	0.35
KinmoutDS	14892	5y	142.8	273.29	276.01		276.13	0.000634	1.68	115.83	123.01	0.36
KinmoutDS	14892	10y	166.9	273.29	276.18		276.32	0.000656	1.8	136.18	161.29	0.37
KinmoutDS	14892	25y	198.6	273.29	276.36		276.53	0.000712	1.97	161.96	176.14	0.39
KinmoutDS	14892	50y	223.9	273.29	276.49		276.67	0.000737	2.07	181.04	177.13	0.4
KinmoutDS	14892	100y	251.2	273.29	276.61		276.81	0.000771	2.18	199.05	178.07	0.42
KinmoutDS	14892	200y	281.2	273.29	276.73		276.95	0.000812	2.3	216.7	178.89	0.43
KinmoutDS	14892	350y	307.7	273.29	276.82		277.06	0.00085	2.41	230.87	179.56	0.44
KinmoutDS	14892	Sept 25 2021	68.8	273.29	275.26		275.34	0.000623	1.27	68	56.16	0.34
KinmoutDS	14892	July 13 2024	53.2	273.29	275.05		275.11	0.000648	1.16	56.25	54.54	0.33
KinmoutDS	14892	April 21 2019	223.6	273.29	276.49		276.67	0.000737	2.07	180.85	177.12	0.4
KinmoutDS	14892	Nov 2 2013	77	273.29	275.37		275.45	0.000611	1.31	73.94	56.89	0.34
KinmoutDS	14892	April 16 2014	175	273.29	276.22		276.37	0.000667	1.84	142.7	165.83	0.38
KinmoutDS	14892	May 8 2017	142	273.29	276		276.13	0.000633	1.68	115.2	120.99	0.36
KinmoutDS	14892	April 21 2013	211.8	273.29	276.43		276.61	0.000721	2.02	172.63	176.69	0.4
KinmoutDS	14855	Timmins_Uncalibr	441.16	272.89	277.28		277.5	0.000631	2.4	351.12	206.53	0.39
KinmoutDS	14855	Timmins_Calibrat	112.6	272.89	275.76		275.83	0.000303	1.2	117.74	87.18	0.25
KinmoutDS	14855	TimminsCC_Calibr	141.4	272.89	276.01		276.09	0.000334	1.34	142.61	154.66	0.27
KinmoutDS	14855	2y	107.1	272.89	275.71		275.77	0.000297	1.17	113.82	76.98	0.25

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	14855	5y	142.8	272.89	276.02		276.1	0.000336	1.35	144.13	160.29	0.27
KinmoutDS	14855	10y	166.9	272.89	276.19		276.29	0.000362	1.46	170.86	190.3	0.28
KinmoutDS	14855	25y	198.6	272.89	276.38		276.49	0.00039	1.59	201.75	193.85	0.29
KinmoutDS	14855	50y	223.9	272.89	276.51		276.63	0.000414	1.68	223.22	195.14	0.3
KinmoutDS	14855	100y	251.2	272.89	276.63		276.77	0.000441	1.78	243.53	196.19	0.32
KinmoutDS	14855	200y	281.2	272.89	276.75		276.9	0.000473	1.89	263.51	197.55	0.33
KinmoutDS	14855	350y	307.7	272.89	276.85		277.02	0.000501	1.98	279.62	198.67	0.34
KinmoutDS	14855	Sept 25 2021	68.8	272.89	275.27		275.31	0.000257	0.94	86.03	57.63	0.22
KinmoutDS	14855	July 13 2024	53.2	272.89	275.06		275.09	0.000234	0.83	74.37	53.81	0.21
KinmoutDS	14855	April 21 2019	223.6	272.89	276.51		276.63	0.000413	1.68	223.01	195.13	0.3
KinmoutDS	14855	Nov 2 2013	77	272.89	275.38		275.42	0.000266	0.99	92.18	58.85	0.23
KinmoutDS	14855	April 16 2014	175	272.89	276.24		276.34	0.00037	1.49	178.87	191.06	0.28
KinmoutDS	14855	May 8 2017	142	272.89	276.01		276.1	0.000335	1.35	143.24	156.51	0.27
KinmoutDS	14855	April 21 2013	211.8	272.89	276.45		276.57	0.000401	1.63	213.74	194.58	0.3
KinmoutDS	14811	Timmins_Uncalibr	441.16	272.48	277.25		277.48	0.000578	2.38	367.31	222.57	0.37
KinmoutDS	14811	Timmins_Calibrat	112.6	272.48	275.75		275.81	0.000235	1.13	115.86	88.32	0.22
KinmoutDS	14811	TimminsCC_Calibr	141.4	272.48	276		276.08	0.000271	1.29	143.85	183.01	0.24
KinmoutDS	14811	2y	107.1	272.48	275.7		275.76	0.000227	1.1	111.98	75.67	0.21
KinmoutDS	14811	5y	142.8	272.48	276.01		276.09	0.000272	1.3	145.64	185.93	0.24
KinmoutDS	14811	10y	166.9	272.48	276.18		276.27	0.000298	1.41	174.87	204.33	0.25
KinmoutDS	14811	25y	198.6	272.48	276.36		276.47	0.00033	1.54	208	208.1	0.27
KinmoutDS	14811	50y	223.9	272.48	276.49		276.62	0.000356	1.64	231.04	209.91	0.28
KinmoutDS	14811	100y	251.2	272.48	276.62		276.75	0.000385	1.74	252.8	211.51	0.29
KinmoutDS	14811	200y	281.2	272.48	276.73		276.89	0.000418	1.85	274.18	212.98	0.31
KinmoutDS	14811	350y	307.7	272.48	276.83		276.99	0.000446	1.95	291.47	214.24	0.32
KinmoutDS	14811	Sept 25 2021	68.8	272.48	275.27		275.3	0.000173	0.86	88.04	47.11	0.18
KinmoutDS	14811	July 13 2024	53.2	272.48	275.05		275.08	0.000144	0.73	78.36	45.35	0.16
KinmoutDS	14811	April 21 2019	223.6	272.48	276.49		276.61	0.000356	1.64	230.81	209.89	0.28
KinmoutDS	14811	Nov 2 2013	77	272.48	275.37		275.41	0.000185	0.91	93.06	48.73	0.19
KinmoutDS	14811	April 16 2014	175	272.48	276.23		276.32	0.000307	1.44	183.45	205.64	0.26
KinmoutDS	14811	May 8 2017	142	272.48	276		276.08	0.000272	1.29	144.59	184.87	0.24
KinmoutDS	14811	April 21 2013	211.8	272.48	276.44		276.55	0.000342	1.59	220.87	209.02	0.27
KinmoutDS	14770	Timmins_Uncalibr	441.16	273.35	277.05		277.43	0.001466	3.3	309.49	214.87	0.58
KinmoutDS	14770	Timmins_Calibrat	112.6	273.35	275.57		275.78	0.001343	2.13	72.8	103.82	0.5
KinmoutDS	14770	TimminsCC_Calibr	141.4	273.35	275.81	275.16	276.04	0.00127	2.25	101.87	153.86	0.5
KinmoutDS	14770	2y	107.1	273.35	275.52		275.73	0.001356	2.1	67.69	97.71	0.5
KinmoutDS	14770	5y	142.8	273.35	275.82	275.16	276.05	0.001265	2.25	103.48	155.91	0.5
KinmoutDS	14770	10y	166.9	273.35	276	275.36	276.24	0.001235	2.35	129.48	184.93	0.5
KinmoutDS	14770	25y	198.6	273.35	276.19	275.61	276.44	0.001205	2.45	161.5	200.22	0.5
KinmoutDS	14770	50y	223.9	273.35	276.32	275.75	276.58	0.001199	2.53	184.01	203.53	0.5
KinmoutDS	14770	100y	251.2	273.35	276.44	275.88	276.71	0.001213	2.62	204.94	204.91	0.51
KinmoutDS	14770	200y	281.2	273.35	276.56		276.84	0.001246	2.74	224.97	206.11	0.52
KinmoutDS	14770	350y	307.7	273.35	276.65		276.95	0.001282	2.84	240.93	206.84	0.53
KinmoutDS	14770	Sept 25 2021	68.8	273.35	275.11		275.27	0.001441	1.82	41.36	38.05	0.5

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	14770	July 13 2024	53.2	273.35	274.92		275.06	0.001434	1.64	34.57	34.46	0.48
KinmoutDS	14770	April 21 2019	223.6	273.35	276.32	275.74	276.58	0.001199	2.53	183.8	203.52	0.5
KinmoutDS	14770	Nov 2 2013	77	273.35	275.21		275.38	0.001423	1.89	45.35	47.22	0.5
KinmoutDS	14770	April 16 2014	175	273.35	276.05	275.43	276.29	0.001232	2.38	137.44	190	0.5
KinmoutDS	14770	May 8 2017	142	273.35	275.82	275.15	276.05	0.001269	2.25	102.51	154.42	0.5
KinmoutDS	14770	April 21 2013	211.8	273.35	276.26	275.68	276.52	0.001194	2.49	174.21	202.92	0.5
KinmoutDS	14731	Timmins_Uncalibr	441.16	273.31	276.59	276.59	277.32	0.003418	4.39	219.34	205.92	0.85
KinmoutDS	14731	Timmins_Calibrat	112.6	273.31	275.09	275.09	275.65	0.005343	3.36	36.17	39.71	0.96
KinmoutDS	14731	TimminsCC_Calibr	141.4	273.31	275.31	275.31	275.92	0.005194	3.52	46.39	56.96	0.95
KinmoutDS	14731	2y	107.1	273.31	275.04	275.04	275.6	0.005428	3.34	34.24	35.09	0.96
KinmoutDS	14731	5y	142.8	273.31	275.32	275.32	275.93	0.005203	3.53	46.87	57.56	0.95
KinmoutDS	14731	10y	166.9	273.31	275.51	275.51	276.12	0.004473	3.56	60.98	87.91	0.9
KinmoutDS	14731	25y	198.6	273.31	275.73	275.73	276.33	0.00387	3.61	83.47	143.43	0.85
KinmoutDS	14731	50y	223.9	273.31	275.87	275.87	276.47	0.003598	3.66	102.75	167	0.83
KinmoutDS	14731	100y	251.2	273.31	276	276	276.61	0.003423	3.73	122.72	189.06	0.82
KinmoutDS	14731	200y	281.2	273.31	276.16	276.16	276.75	0.003132	3.74	147.8	201.36	0.79
KinmoutDS	14731	350y	307.7	273.31	276.24	276.24	276.85	0.003207	3.87	160.52	202.34	0.81
KinmoutDS	14731	Sept 25 2021	68.8	273.31	274.75	274.7	275.15	0.005285	2.84	25.19	29.02	0.92
KinmoutDS	14731	July 13 2024	53.2	273.31	274.62	274.54	274.94	0.004856	2.52	21.71	27.79	0.86
KinmoutDS	14731	April 21 2019	223.6	273.31	275.87	275.87	276.47	0.003603	3.66	102.48	166.77	0.83
KinmoutDS	14731	Nov 2 2013	77	273.31	274.79	274.77	275.25	0.005725	3.03	26.48	29.4	0.96
KinmoutDS	14731	April 16 2014	175	273.31	275.57	275.57	276.17	0.00424	3.56	66.69	106.2	0.88
KinmoutDS	14731	May 8 2017	142	273.31	275.31	275.31	275.92	0.005187	3.52	46.65	57.28	0.94
KinmoutDS	14731	April 21 2013	211.8	273.31	275.8	275.8	276.41	0.00379	3.66	92.39	154.7	0.85
KinmoutDS	14693	Timmins_Uncalibr	441.16	273.08	276.47	276.47	277.18	0.003115	4.64	194.25	208.03	0.85
KinmoutDS	14693	Timmins_Calibrat	112.6	273.08	274.87	274.87	275.4	0.004692	3.44	36.53	34.85	0.92
KinmoutDS	14693	TimminsCC_Calibr	141.4	273.08	275.06	275.06	275.66	0.004528	3.68	43.37	38.82	0.93
KinmoutDS	14693	2y	107.1	273.08	274.83	274.83	275.35	0.004736	3.4	35.18	34.34	0.92
KinmoutDS	14693	5y	142.8	273.08	275.07	275.07	275.67	0.004524	3.69	43.71	39.25	0.93
KinmoutDS	14693	10y	166.9	273.08	275.21	275.21	275.86	0.004451	3.87	49.62	43.94	0.93
KinmoutDS	14693	25y	198.6	273.08	275.4	275.4	276.1	0.004264	4.05	58.56	54.6	0.93
KinmoutDS	14693	50y	223.9	273.08	275.54	275.54	276.27	0.004065	4.15	67.83	88.01	0.92
KinmoutDS	14693	100y	251.2	273.08	275.79	275.79	276.42	0.003242	3.99	91.59	144.37	0.83
KinmoutDS	14693	200y	281.2	273.08	275.92	275.92	276.56	0.003213	4.12	107.93	166.59	0.84
KinmoutDS	14693	350y	307.7	273.08	276.01	276.01	276.68	0.003244	4.24	121.09	174.22	0.85
KinmoutDS	14693	Sept 25 2021	68.8	273.08	274.52	274.52	274.95	0.005225	3.01	25.12	30.86	0.93
KinmoutDS	14693	July 13 2024	53.2	273.08	274.38	274.38	274.75	0.005418	2.79	20.77	29.17	0.92
KinmoutDS	14693	April 21 2019	223.6	273.08	275.53	275.53	276.26	0.004136	4.17	67.08	85.7	0.92
KinmoutDS	14693	Nov 2 2013	77	273.08	274.6	274.6	275.04	0.004987	3.09	27.6	31.75	0.92
KinmoutDS	14693	April 16 2014	175	273.08	275.26	275.26	275.93	0.004417	3.92	51.73	46.08	0.93
KinmoutDS	14693	May 8 2017	142	273.08	275.06	275.06	275.67	0.004526	3.68	43.52	39.09	0.93
KinmoutDS	14693	April 21 2013	211.8	273.08	275.45	275.45	276.19	0.004357	4.17	61.62	65.28	0.94
KinmoutDS	14655	Timmins_Uncalibr	441.16	271.22	274.85	274.85	276.16	0.003795	5.27	89.83	35.77	0.93

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	14655	Timmins_Calibrat	112.6	271.22	272.91	272.91	273.56	0.005469	3.6	32.03	25.25	0.97
KinmoutDS	14655	TimminsCC_Calibr	141.4	271.22	273.13	273.13	273.87	0.005261	3.85	37.68	25.84	0.97
KinmoutDS	14655	2y	107.1	271.22	272.87	272.87	273.49	0.005463	3.53	31.01	25.16	0.97
KinmoutDS	14655	5y	142.8	271.22	273.14	273.14	273.88	0.005253	3.86	37.95	25.88	0.97
KinmoutDS	14655	10y	166.9	271.22	273.31	273.31	274.12	0.005112	4.04	42.47	26.39	0.97
KinmoutDS	14655	25y	198.6	271.22	273.53	273.53	274.42	0.004908	4.25	48.27	28.93	0.97
KinmoutDS	14655	50y	223.9	271.22	273.69	273.69	274.64	0.004727	4.4	52.96	29.43	0.96
KinmoutDS	14655	100y	251.2	271.22	273.85	273.85	274.86	0.004554	4.54	57.89	29.97	0.96
KinmoutDS	14655	200y	281.2	271.22	274.03	274.03	275.09	0.00434	4.66	63.37	30.58	0.95
KinmoutDS	14655	350y	307.7	271.22	274.17	274.17	275.29	0.004305	4.81	67.43	31.07	0.95
KinmoutDS	14655	Sept 25 2021	68.8	271.22	272.51	272.51	273.01	0.006171	3.11	22.32	23.47	0.99
KinmoutDS	14655	July 13 2024	53.2	271.22	272.35	272.35	272.77	0.006705	2.89	18.44	22.64	1
KinmoutDS	14655	April 21 2019	223.6	271.22	273.68	273.68	274.64	0.004729	4.39	52.9	29.43	0.96
KinmoutDS	14655	Nov 2 2013	77	271.22	272.6	272.6	273.12	0.005985	3.22	24.24	24.11	0.98
KinmoutDS	14655	April 16 2014	175	271.22	273.37	273.37	274.2	0.005059	4.1	43.96	26.53	0.97
KinmoutDS	14655	May 8 2017	142	271.22	273.13	273.13	273.88	0.005258	3.86	37.8	25.86	0.97
KinmoutDS	14655	April 21 2013	211.8	271.22	273.61	273.61	274.53	0.004795	4.32	50.79	29.21	0.97
KinmoutDS	14609	Timmins_Uncalibr	441.16	270.36	273.14	273.14	274.14	0.004496	4.81	104.04	54.97	0.99
KinmoutDS	14609	Timmins_Calibrat	112.6	270.36	271.75	271.75	272.22	0.006013	3.14	37.58	40.63	0.99
KinmoutDS	14609	TimminsCC_Calibr	141.4	270.36	271.91	271.91	272.44	0.005719	3.38	44.3	43.23	0.99
KinmoutDS	14609	2y	107.1	270.36	271.72	271.72	272.17	0.006217	3.12	36.04	39.92	1
KinmoutDS	14609	5y	142.8	270.36	271.92	271.92	272.45	0.005698	3.39	44.64	43.29	0.99
KinmoutDS	14609	10y	166.9	270.36	272.04	272.04	272.63	0.005527	3.56	49.98	44.43	0.99
KinmoutDS	14609	25y	198.6	270.36	272.18	272.18	272.84	0.005543	3.81	56.19	45.37	1.01
KinmoutDS	14609	50y	223.9	270.36	272.29	272.29	273	0.005434	3.97	61.4	46.28	1.01
KinmoutDS	14609	100y	251.2	270.36	272.41	272.41	273.17	0.00531	4.12	66.97	47.54	1.01
KinmoutDS	14609	200y	281.2	270.36	272.56	272.56	273.34	0.00497	4.21	73.96	48.83	0.99
KinmoutDS	14609	350y	307.7	270.36	272.66	272.66	273.49	0.004886	4.33	78.99	49.8	0.99
KinmoutDS	14609	Sept 25 2021	68.8	270.36	271.48	271.48	271.83	0.006792	2.71	26.7	39.16	1
KinmoutDS	14609	July 13 2024	53.2	270.36	271.37	271.37	271.66	0.007059	2.5	22.52	38.91	1
KinmoutDS	14609	April 21 2019	223.6	270.36	272.29	272.29	273	0.005436	3.96	61.34	46.27	1.01
KinmoutDS	14609	Nov 2 2013	77	270.36	271.53	271.53	271.9	0.006668	2.81	28.77	39.28	1
KinmoutDS	14609	April 16 2014	175	270.36	272.07	272.07	272.68	0.005595	3.64	51.39	44.65	1
KinmoutDS	14609	May 8 2017	142	270.36	271.92	271.92	272.45	0.005708	3.38	44.45	43.25	0.99
KinmoutDS	14609	April 21 2013	211.8	270.36	272.24	272.24	272.93	0.005478	3.89	58.95	45.83	1.01
KinmoutDS	14573	Timmins_Uncalibr	441.16	268.11	271.42	271.42	272.61	0.003836	5.06	99.14	48.38	0.94
KinmoutDS	14573	Timmins_Calibrat	112.6	268.11	269.72	269.72	270.29	0.005465	3.39	34.09	30.47	0.97
KinmoutDS	14573	TimminsCC_Calibr	141.4	268.11	269.91	269.91	270.57	0.005206	3.65	40.11	31.51	0.97
KinmoutDS	14573	2y	107.1	268.11	269.68	269.68	270.24	0.005552	3.35	32.84	30.29	0.98
KinmoutDS	14573	5y	142.8	268.11	269.92	269.92	270.59	0.005202	3.66	40.38	31.57	0.97
KinmoutDS	14573	10y	166.9	268.11	270.07	270.07	270.8	0.005065	3.86	45.1	32.53	0.98
KinmoutDS	14573	25y	198.6	268.11	270.28	270.28	271.07	0.00462	4	52.15	33.98	0.95
KinmoutDS	14573	50y	223.9	268.11	270.42	270.42	271.26	0.004509	4.15	56.87	34.7	0.95
KinmoutDS	14573	100y	251.2	268.11	270.56	270.56	271.46	0.004387	4.3	62.02	36.95	0.95

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Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	14573	200y	281.2	268.11	270.72	270.72	271.66	0.004226	4.43	67.96	38.69	0.94
KinmoutDS	14573	350y	307.7	268.11	270.84	270.84	271.83	0.004144	4.55	73	41.71	0.94
KinmoutDS	14573	Sept 25 2021	68.8	268.11	269.37	269.37	269.8	0.006209	2.91	23.92	28.62	0.98
KinmoutDS	14573	July 13 2024	53.2	268.11	269.23	269.23	269.6	0.006829	2.71	19.74	27.85	1
KinmoutDS	14573	April 21 2019	223.6	268.11	270.41	270.41	271.26	0.004512	4.15	56.81	34.69	0.95
KinmoutDS	14573	Nov 2 2013	77	268.11	269.44	269.44	269.9	0.006143	3.03	25.77	28.92	0.99
KinmoutDS	14573	April 16 2014	175	268.11	270.12	270.12	270.87	0.004926	3.89	46.97	33	0.97
KinmoutDS	14573	May 8 2017	142	268.11	269.91	269.91	270.58	0.005206	3.66	40.22	31.54	0.97
KinmoutDS	14573	April 21 2013	211.8	268.11	270.35	270.35	271.17	0.004575	4.09	54.57	34.35	0.95
KinmoutDS	14538	Timmins_Uncalibr	441.16	267.95	271.76		272.05	0.000978	2.91	232.41	90.97	0.49
KinmoutDS	14538	Timmins_Calibrat	112.6	267.95	269.76		269.93	0.001497	2.06	69.17	68.39	0.53
KinmoutDS	14538	TimminsCC_Calibr	141.4	267.95	269.99		270.18	0.001399	2.19	85.64	74.72	0.52
KinmoutDS	14538	2y	107.1	267.95	269.71		269.88	0.001516	2.04	66.14	65.26	0.53
KinmoutDS	14538	5y	142.8	267.95	270		270.19	0.001394	2.19	86.44	74.82	0.52
KinmoutDS	14538	10y	166.9	267.95	270.17		270.37	0.001323	2.27	99.77	76.18	0.52
KinmoutDS	14538	25y	198.6	267.95	270.39		270.6	0.001248	2.37	116.69	78.29	0.51
KinmoutDS	14538	50y	223.9	267.95	270.56		270.78	0.001198	2.44	129.74	79.1	0.51
KinmoutDS	14538	100y	251.2	267.95	270.73		270.96	0.001157	2.51	143.35	81.08	0.51
KinmoutDS	14538	200y	281.2	267.95	270.91		271.15	0.001115	2.58	158.12	82.71	0.5
KinmoutDS	14538	350y	307.7	267.95	271.06		271.31	0.001085	2.64	170.88	84.36	0.5
KinmoutDS	14538	Sept 25 2021	68.8	267.95	269.37		269.51	0.001704	1.81	45.07	58.03	0.54
KinmoutDS	14538	July 13 2024	53.2	267.95	269.21		269.33	0.001816	1.69	35.83	53.95	0.54
KinmoutDS	14538	April 21 2019	223.6	267.95	270.56		270.78	0.001198	2.44	129.59	79.09	0.51
KinmoutDS	14538	Nov 2 2013	77	267.95	269.45		269.6	0.00166	1.87	49.66	59.08	0.54
KinmoutDS	14538	April 16 2014	175	267.95	270.23		270.43	0.001303	2.3	104.12	76.77	0.52
KinmoutDS	14538	May 8 2017	142	267.95	269.99		270.18	0.001397	2.19	85.99	74.76	0.52
KinmoutDS	14538	April 21 2013	211.8	267.95	270.48		270.7	0.00122	2.41	123.56	78.72	0.51
KinmoutDS	14496	Timmins_Uncalibr	441.16	267.89	271.76		272	0.000732	2.61	230.58	117.34	0.43
KinmoutDS	14496	Timmins_Calibrat	112.6	267.89	269.78		269.87	0.000699	1.54	93.77	100.63	0.37
KinmoutDS	14496	TimminsCC_Calibr	141.4	267.89	270.01		270.11	0.000711	1.69	108.55	103.42	0.38
KinmoutDS	14496	2y	107.1	267.89	269.73		269.82	0.000694	1.51	90.85	100.1	0.37
KinmoutDS	14496	5y	142.8	267.89	270.02		270.12	0.000712	1.7	109.23	103.52	0.38
KinmoutDS	14496	10y	166.9	267.89	270.19		270.31	0.00072	1.8	120.74	105.06	0.39
KinmoutDS	14496	25y	198.6	267.89	270.41		270.54	0.000727	1.93	135.16	107.2	0.4
KinmoutDS	14496	50y	223.9	267.89	270.57		270.72	0.00073	2.02	146.26	109.31	0.4
KinmoutDS	14496	100y	251.2	267.89	270.74		270.9	0.000733	2.11	157.85	111.32	0.41
KinmoutDS	14496	200y	281.2	267.89	270.92		271.09	0.000733	2.2	170.34	112.7	0.41
KinmoutDS	14496	350y	307.7	267.89	271.07		271.26	0.000732	2.28	181.02	113.44	0.42
KinmoutDS	14496	Sept 25 2021	68.8	267.89	269.38		269.44	0.000658	1.27	68.59	96	0.35
KinmoutDS	14496	July 13 2024	53.2	267.89	269.22		269.27	0.000634	1.14	58.21	94.37	0.33
KinmoutDS	14496	April 21 2019	223.6	267.89	270.57		270.72	0.00073	2.02	146.13	109.29	0.4
KinmoutDS	14496	Nov 2 2013	77	267.89	269.46		269.53	0.00067	1.33	73.6	96.87	0.35
KinmoutDS	14496	April 16 2014	175	267.89	270.25		270.37	0.000722	1.84	124.47	105.55	0.39
KinmoutDS	14496	May 8 2017	142	267.89	270.01		270.11	0.000712	1.69	108.84	103.47	0.38

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Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	14496	April 21 2013	211.8	267.89	270.49		270.64	0.000729	1.98	140.99	108.34	0.4
KinmoutDS	14455	Timmins_Uncalibr	441.16	267.75	271.63		271.96	0.001083	3.15	184.79	111.54	0.52
KinmoutDS	14455	Timmins_Calibrat	112.6	267.75	269.69		269.83	0.001098	1.94	73.45	99.43	0.46
KinmoutDS	14455	TimminsCC_Calibr	141.4	267.75	269.91		270.07	0.001104	2.11	85.76	101.47	0.48
KinmoutDS	14455	2y	107.1	267.75	269.65		269.78	0.001094	1.91	71	99.04	0.46
KinmoutDS	14455	5y	142.8	267.75	269.93		270.08	0.001104	2.11	86.34	101.58	0.48
KinmoutDS	14455	10y	166.9	267.75	270.1		270.27	0.001107	2.23	95.92	102.95	0.48
KinmoutDS	14455	25y	198.6	267.75	270.31		270.5	0.001105	2.38	107.91	105.13	0.49
KinmoutDS	14455	50y	223.9	267.75	270.47		270.68	0.001103	2.48	117.05	106.16	0.49
KinmoutDS	14455	100y	251.2	267.75	270.63		270.86	0.0011	2.58	126.5	107.03	0.5
KinmoutDS	14455	200y	281.2	267.75	270.81		271.05	0.001098	2.69	136.48	107.97	0.5
KinmoutDS	14455	350y	307.7	267.75	270.95		271.21	0.001094	2.77	145.07	108.68	0.51
KinmoutDS	14455	Sept 25 2021	68.8	267.75	269.31		269.41	0.001061	1.62	52.35	95.92	0.44
KinmoutDS	14455	July 13 2024	53.2	267.75	269.15		269.23	0.001033	1.48	43.62	94.42	0.42
KinmoutDS	14455	April 21 2019	223.6	267.75	270.47		270.68	0.001103	2.48	116.94	106.15	0.49
KinmoutDS	14455	Nov 2 2013	77	267.75	269.39		269.49	0.001075	1.69	56.54	96.49	0.45
KinmoutDS	14455	April 16 2014	175	267.75	270.15		270.33	0.001108	2.27	99.03	103.64	0.49
KinmoutDS	14455	May 8 2017	142	267.75	269.92		270.07	0.001104	2.11	86.01	101.52	0.48
KinmoutDS	14455	April 21 2013	211.8	267.75	270.39		270.59	0.001104	2.43	112.73	105.72	0.49
KinmoutDS	14418	Timmins_Uncalibr	441.16	267.54	270.67	270.67	271.8	0.004544	5.42	97.44	69.95	1.02
KinmoutDS	14418	Timmins_Calibrat	112.6	267.54	269.23	269.23	269.72	0.004818	3.52	38.83	44.59	0.94
KinmoutDS	14418	TimminsCC_Calibr	141.4	267.54	269.38	269.38	269.95	0.00492	3.81	44.83	57.58	0.96
KinmoutDS	14418	2y	107.1	267.54	269.19	269.19	269.67	0.004843	3.47	37.49	42.23	0.93
KinmoutDS	14418	5y	142.8	267.54	269.39	269.39	269.96	0.00492	3.82	45.13	57.65	0.96
KinmoutDS	14418	10y	166.9	267.54	269.52	269.52	270.15	0.004886	4.01	50.12	59.09	0.97
KinmoutDS	14418	25y	198.6	267.54	269.67	269.67	270.37	0.004881	4.24	56.19	60.92	0.98
KinmoutDS	14418	50y	223.9	267.54	269.79	269.79	270.55	0.004874	4.41	60.82	62.14	0.99
KinmoutDS	14418	100y	251.2	267.54	269.91	269.91	270.72	0.004837	4.57	65.74	63.37	1
KinmoutDS	14418	200y	281.2	267.54	270.04	270.04	270.91	0.004771	4.72	71.11	64.6	1
KinmoutDS	14418	350y	307.7	267.54	270.15	270.15	271.07	0.004768	4.87	75.45	65.28	1.01
KinmoutDS	14418	Sept 25 2021	68.8	267.54	268.94	268.94	269.31	0.004725	3.01	28.06	37.12	0.89
KinmoutDS	14418	July 13 2024	53.2	267.54	268.82	268.82	269.14	0.004545	2.75	23.79	36.76	0.86
KinmoutDS	14418	April 21 2019	223.6	267.54	269.79	269.79	270.54	0.004874	4.41	60.76	62.13	0.99
KinmoutDS	14418	Nov 2 2013	77	267.54	269	269	269.39	0.004679	3.1	30.4	37.35	0.9
KinmoutDS	14418	April 16 2014	175	267.54	269.56	269.56	270.21	0.004861	4.06	51.79	59.51	0.97
KinmoutDS	14418	May 8 2017	142	267.54	269.39	269.39	269.96	0.004922	3.81	44.95	57.61	0.96
KinmoutDS	14418	April 21 2013	211.8	267.54	269.73	269.73	270.47	0.004881	4.33	58.61	61.56	0.99
KinmoutDS	14378	Timmins_Uncalibr	441.16	265.4	270.8		270.91	0.000175	1.51	330.42	85.96	0.22
KinmoutDS	14378	Timmins_Calibrat	112.6	265.4	267.69		267.75	0.0004	1.16	98.2	59.89	0.28
KinmoutDS	14378	TimminsCC_Calibr	141.4	265.4	268.04		268.11	0.000339	1.21	120.07	63.77	0.26
KinmoutDS	14378	2y	107.1	265.4	267.61		267.67	0.000423	1.16	93.46	58.73	0.28
KinmoutDS	14378	5y	142.8	265.4	268.05		268.12	0.000341	1.22	120.64	63.83	0.26
KinmoutDS	14378	10y	166.9	265.4	268.32		268.4	0.000306	1.25	138.49	65.79	0.26

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	14378	25y	198.6	265.4	268.66		268.74	0.000275	1.29	161.51	70.92	0.25
KinmoutDS	14378	50y	223.9	265.4	268.92		269	0.000256	1.32	179.88	73.16	0.24
KinmoutDS	14378	100y	251.2	265.4	269.18		269.27	0.00024	1.35	199.3	74.96	0.24
KinmoutDS	14378	200y	281.2	265.4	269.45		269.55	0.000225	1.38	220.31	76.69	0.23
KinmoutDS	14378	350y	307.7	265.4	269.69		269.78	0.000214	1.41	238.55	78.8	0.23
KinmoutDS	14378	Sept 25 2021	68.8	265.4	267.04		267.1	0.00065	1.12	61.47	54.07	0.33
KinmoutDS	14378	July 13 2024	53.2	265.4	266.78		266.84	0.000837	1.11	47.97	50.46	0.36
KinmoutDS	14378	April 21 2019	223.6	265.4	268.91		269	0.000256	1.32	179.67	73.13	0.24
KinmoutDS	14378	Nov 2 2013	77	265.4	267.16		267.23	0.000581	1.13	68.37	55.02	0.32
KinmoutDS	14378	April 16 2014	175	265.4	268.38		268.47	0.000308	1.27	142.58	66.27	0.26
KinmoutDS	14378	May 8 2017	142	265.4	268.02		268.09	0.000354	1.23	118.73	63.63	0.27
KinmoutDS	14378	April 21 2013	211.8	265.4	268.79		268.88	0.000265	1.31	171.09	72.09	0.25
KinmoutDS	14337	Timmins_Uncalibr	441.16	265.28	270.84		270.88	0.000069	0.99	550.32	119.37	0.14
KinmoutDS	14337	Timmins_Calibrat	112.6	265.28	267.71		267.73	0.000102	0.65	196.83	102.69	0.15
KinmoutDS	14337	TimminsCC_Calibr	141.4	265.28	268.07		268.09	0.000095	0.7	234.01	107.28	0.14
KinmoutDS	14337	2y	107.1	265.28	267.63		267.65	0.000106	0.65	188.64	102.26	0.15
KinmoutDS	14337	5y	142.8	265.28	268.08		268.1	0.000095	0.7	235	107.42	0.14
KinmoutDS	14337	10y	166.9	265.28	268.35		268.38	0.00009	0.74	265.07	109.38	0.14
KinmoutDS	14337	25y	198.6	265.28	268.69		268.72	0.000085	0.78	302.45	110.86	0.14
KinmoutDS	14337	50y	223.9	265.28	268.95		268.98	0.000083	0.8	330.97	112.13	0.14
KinmoutDS	14337	100y	251.2	265.28	269.21		269.24	0.00008	0.83	360.61	113.44	0.14
KinmoutDS	14337	200y	281.2	265.28	269.49		269.52	0.000078	0.86	392.35	114.75	0.14
KinmoutDS	14337	350y	307.7	265.28	269.73		269.76	0.000076	0.89	419.51	115.72	0.14
KinmoutDS	14337	Sept 25 2021	68.8	265.28	267.06		267.08	0.000137	0.59	131.02	99.12	0.16
KinmoutDS	14337	July 13 2024	53.2	265.28	266.8		266.82	0.000162	0.56	105.82	96.43	0.17
KinmoutDS	14337	April 21 2019	223.6	265.28	268.95		268.98	0.000083	0.8	330.65	112.11	0.14
KinmoutDS	14337	Nov 2 2013	77	265.28	267.19		267.21	0.000129	0.6	143.69	100.07	0.16
KinmoutDS	14337	April 16 2014	175	265.28	268.42		268.44	0.000092	0.75	271.98	109.66	0.14
KinmoutDS	14337	May 8 2017	142	265.28	268.05		268.07	0.000098	0.71	231.84	107.09	0.15
KinmoutDS	14337	April 21 2013	211.8	265.28	268.83		268.86	0.000084	0.79	317.4	111.41	0.14
KinmoutDS	14292	Timmins_Uncalibr	441.16	265.28	270.85		270.88	0.000045	0.81	657.3	136.88	0.11
KinmoutDS	14292	Timmins_Calibrat	112.6	265.28	267.71		267.73	0.000065	0.53	244.05	125.54	0.12
KinmoutDS	14292	TimminsCC_Calibr	141.4	265.28	268.07		268.08	0.000061	0.56	289.17	127.82	0.12
KinmoutDS	14292	2y	107.1	265.28	267.63		267.65	0.000067	0.52	234.01	124.97	0.12
KinmoutDS	14292	5y	142.8	265.28	268.08		268.09	0.000061	0.57	290.35	127.86	0.12
KinmoutDS	14292	10y	166.9	265.28	268.36		268.37	0.000058	0.59	326.02	128.9	0.11
KinmoutDS	14292	25y	198.6	265.28	268.7		268.72	0.000055	0.63	370.07	130.08	0.11
KinmoutDS	14292	50y	223.9	265.28	268.95		268.97	0.000053	0.65	403.55	130.97	0.11
KinmoutDS	14292	100y	251.2	265.28	269.22		269.24	0.000052	0.68	438.17	131.87	0.11
KinmoutDS	14292	200y	281.2	265.28	269.49		269.52	0.000051	0.7	475.05	132.73	0.11
KinmoutDS	14292	350y	307.7	265.28	269.73		269.76	0.00005	0.72	506.46	133.43	0.11
KinmoutDS	14292	Sept 25 2021	68.8	265.28	267.06		267.07	0.000086	0.47	163.38	121.49	0.13
KinmoutDS	14292	July 13 2024	53.2	265.28	266.8		266.81	0.000101	0.45	132.01	119.78	0.13
KinmoutDS	14292	April 21 2019	223.6	265.28	268.95		268.97	0.000053	0.65	403.17	130.96	0.11

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	14292	Nov 2 2013	77	265.28	267.19		267.2	0.000081	0.49	178.94	122.2	0.12
KinmoutDS	14292	April 16 2014	175	265.28	268.42		268.44	0.000059	0.61	334.18	129.12	0.12
KinmoutDS	14292	May 8 2017	142	265.28	268.05		268.06	0.000063	0.57	286.59	127.73	0.12
KinmoutDS	14292	April 21 2013	211.8	265.28	268.83		268.85	0.000054	0.64	387.63	130.55	0.11
KinmoutDS	14249	Timmins_Uncalibr	441.16	265.45	270.84		270.87	0.000055	0.89	627.11	140.5	0.12
KinmoutDS	14249	Timmins_Calibrat	112.6	265.45	267.71		267.72	0.00008	0.58	232.21	120.02	0.13
KinmoutDS	14249	TimminsCC_Calibr	141.4	265.45	268.06		268.08	0.000074	0.62	275.43	122.35	0.13
KinmoutDS	14249	2y	107.1	265.45	267.63		267.64	0.000083	0.57	222.63	118.98	0.13
KinmoutDS	14249	5y	142.8	265.45	268.07		268.09	0.000075	0.62	276.55	122.38	0.13
KinmoutDS	14249	10y	166.9	265.45	268.35		268.37	0.000071	0.65	310.65	123.17	0.13
KinmoutDS	14249	25y	198.6	265.45	268.69		268.71	0.000067	0.69	352.69	124.06	0.13
KinmoutDS	14249	50y	223.9	265.45	268.95		268.97	0.000065	0.71	384.59	124.73	0.13
KinmoutDS	14249	100y	251.2	265.45	269.21		269.24	0.000063	0.74	417.52	125.42	0.13
KinmoutDS	14249	200y	281.2	265.45	269.49		269.52	0.000061	0.77	452.56	126.15	0.12
KinmoutDS	14249	350y	307.7	265.45	269.72		269.75	0.00006	0.79	482.4	126.86	0.12
KinmoutDS	14249	Sept 25 2021	68.8	265.45	267.05		267.07	0.000109	0.52	155.09	116.34	0.14
KinmoutDS	14249	July 13 2024	53.2	265.45	266.79		266.8	0.00013	0.5	124.93	115.04	0.15
KinmoutDS	14249	April 21 2019	223.6	265.45	268.94		268.97	0.000065	0.71	384.23	124.73	0.13
KinmoutDS	14249	Nov 2 2013	77	265.45	267.18		267.2	0.000102	0.54	170.01	116.91	0.14
KinmoutDS	14249	April 16 2014	175	265.45	268.41		268.43	0.000072	0.67	318.43	123.34	0.13
KinmoutDS	14249	May 8 2017	142	265.45	268.04		268.06	0.000077	0.63	272.93	122.29	0.13
KinmoutDS	14249	April 21 2013	211.8	265.45	268.83		268.85	0.000066	0.7	369.43	124.42	0.13
KinmoutDS	14214	Timmins_Uncalibr	441.16	265.51	270.82		270.87	0.000096	1.06	605.02	169.32	0.15
KinmoutDS	14214	Timmins_Calibrat	112.6	265.51	267.7		267.72	0.00016	0.73	200.3	112.94	0.17
KinmoutDS	14214	TimminsCC_Calibr	141.4	265.51	268.05		268.08	0.000144	0.77	240.75	114.88	0.16
KinmoutDS	14214	2y	107.1	265.51	267.62		267.64	0.000167	0.73	191.23	112.66	0.17
KinmoutDS	14214	5y	142.8	265.51	268.06		268.09	0.000145	0.78	241.79	114.99	0.16
KinmoutDS	14214	10y	166.9	265.51	268.34		268.37	0.000135	0.81	274.11	117.62	0.16
KinmoutDS	14214	25y	198.6	265.51	268.68		268.71	0.000126	0.85	315.07	122.45	0.16
KinmoutDS	14214	50y	223.9	265.51	268.93		268.97	0.000121	0.88	346.64	123.91	0.16
KinmoutDS	14214	100y	251.2	265.51	269.2		269.23	0.000116	0.9	379.37	124.93	0.15
KinmoutDS	14214	200y	281.2	265.51	269.48		269.51	0.000112	0.93	414.28	125.96	0.15
KinmoutDS	14214	350y	307.7	265.51	269.71		269.75	0.000109	0.96	444.06	126.74	0.15
KinmoutDS	14214	Sept 25 2021	68.8	265.51	267.04		267.06	0.000236	0.68	126.87	110.85	0.19
KinmoutDS	14214	July 13 2024	53.2	265.51	266.78		266.8	0.000297	0.66	98	109.13	0.2
KinmoutDS	14214	April 21 2019	223.6	265.51	268.93		268.96	0.000121	0.88	346.28	123.9	0.16
KinmoutDS	14214	Nov 2 2013	77	265.51	267.17		267.19	0.000215	0.69	141.13	111.31	0.18
KinmoutDS	14214	April 16 2014	175	265.51	268.4		268.43	0.000137	0.83	281.57	119.65	0.16
KinmoutDS	14214	May 8 2017	142	265.51	268.03		268.06	0.00015	0.78	238.36	114.69	0.16
KinmoutDS	14214	April 21 2013	211.8	265.51	268.81		268.84	0.000123	0.86	331.61	123.27	0.16
KinmoutDS	14173	Timmins_Uncalibr	441.16	265.44	270.81		270.87	0.000114	1.28	647.86	180.09	0.18
KinmoutDS	14173	Timmins_Calibrat	112.6	265.44	267.68		267.71	0.000212	0.94	176.13	108.78	0.21
KinmoutDS	14173	TimminsCC_Calibr	141.4	265.44	268.03		268.07	0.000192	1	217.26	130.85	0.2

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	14173	2y	107.1	265.44	267.59		267.63	0.000221	0.94	167.43	107.14	0.21
KinmoutDS	14173	5y	142.8	265.44	268.04		268.08	0.000193	1	218.42	131.17	0.21
KinmoutDS	14173	10y	166.9	265.44	268.32		268.36	0.000178	1.04	256.49	138.51	0.2
KinmoutDS	14173	25y	198.6	265.44	268.66		268.7	0.000163	1.07	303.89	139.82	0.2
KinmoutDS	14173	50y	223.9	265.44	268.91		268.96	0.000154	1.1	339.9	140.72	0.19
KinmoutDS	14173	100y	251.2	265.44	269.18		269.23	0.000147	1.13	377.09	141.54	0.19
KinmoutDS	14173	200y	281.2	265.44	269.46		269.51	0.00014	1.16	417.05	147.82	0.19
KinmoutDS	14173	350y	307.7	265.44	269.69		269.74	0.000134	1.18	453.17	158.22	0.19
KinmoutDS	14173	Sept 25 2021	68.8	265.44	267.02		267.05	0.000304	0.87	110.29	93.28	0.24
KinmoutDS	14173	July 13 2024	53.2	265.44	266.75		266.78	0.000377	0.85	85.77	92.34	0.25
KinmoutDS	14173	April 21 2019	223.6	265.44	268.91		268.96	0.000154	1.1	339.49	140.71	0.19
KinmoutDS	14173	Nov 2 2013	77	265.44	267.15		267.18	0.00028	0.89	122.34	93.69	0.23
KinmoutDS	14173	April 16 2014	175	265.44	268.38		268.42	0.00018	1.06	265.12	138.81	0.2
KinmoutDS	14173	May 8 2017	142	265.44	268.01		268.05	0.000199	1.01	214.48	127.04	0.21
KinmoutDS	14173	April 21 2013	211.8	265.44	268.79		268.84	0.000159	1.09	322.78	140.29	0.19
KinmoutDS	14129	Timmins_Uncalibr	441.16	265.44	270.79		270.86	0.000129	1.36	594.07	171.95	0.19
KinmoutDS	14129	Timmins_Calibrat	112.6	265.44	267.65		267.7	0.000248	1.03	149.71	111.85	0.23
KinmoutDS	14129	TimminsCC_Calibr	141.4	265.44	268.01		268.06	0.00022	1.07	190.41	114.98	0.22
KinmoutDS	14129	2y	107.1	265.44	267.57		267.62	0.000259	1.02	140.69	110.34	0.23
KinmoutDS	14129	5y	142.8	265.44	268.02		268.07	0.000222	1.08	191.41	115	0.22
KinmoutDS	14129	10y	166.9	265.44	268.3		268.35	0.000204	1.11	223.54	115.69	0.22
KinmoutDS	14129	25y	198.6	265.44	268.64		268.69	0.000187	1.15	263.08	116.46	0.21
KinmoutDS	14129	50y	223.9	265.44	268.89		268.95	0.000177	1.18	293.2	122.8	0.21
KinmoutDS	14129	100y	251.2	265.44	269.16		269.22	0.000168	1.21	326.51	134.89	0.2
KinmoutDS	14129	200y	281.2	265.44	269.43		269.5	0.000163	1.26	368.21	161.56	0.2
KinmoutDS	14129	350y	307.7	265.44	269.67		269.74	0.00016	1.29	406.41	164.17	0.2
KinmoutDS	14129	Sept 25 2021	68.8	265.44	266.99		267.03	0.000351	0.95	87.43	71.09	0.25
KinmoutDS	14129	July 13 2024	53.2	265.44	266.73		266.76	0.000424	0.91	68.99	64.89	0.27
KinmoutDS	14129	April 21 2019	223.6	265.44	268.89		268.95	0.000177	1.18	292.85	122.66	0.21
KinmoutDS	14129	Nov 2 2013	77	265.44	267.12		267.16	0.000327	0.97	96.94	80.19	0.25
KinmoutDS	14129	April 16 2014	175	265.44	268.36		268.41	0.000206	1.14	230.67	115.83	0.22
KinmoutDS	14129	May 8 2017	142	265.44	267.99		268.04	0.00023	1.09	187.84	114.92	0.22
KinmoutDS	14129	April 21 2013	211.8	265.44	268.77		268.83	0.000181	1.17	278.81	116.77	0.21
KinmoutDS	14094	Timmins_Uncalibr	441.16	265.31	270.76		270.85	0.00016	1.51	517.52	150.59	0.21
KinmoutDS	14094	Timmins_Calibrat	112.6	265.31	267.63		267.69	0.000303	1.11	138.19	100.84	0.25
KinmoutDS	14094	TimminsCC_Calibr	141.4	265.31	267.99		268.05	0.000264	1.16	174.71	102.92	0.24
KinmoutDS	14094	2y	107.1	265.31	267.55		267.61	0.000313	1.1	130.28	96.4	0.25
KinmoutDS	14094	5y	142.8	265.31	268		268.06	0.000266	1.17	175.58	102.95	0.24
KinmoutDS	14094	10y	166.9	265.31	268.28		268.34	0.000243	1.2	204.41	103.79	0.23
KinmoutDS	14094	25y	198.6	265.31	268.62		268.68	0.000223	1.24	239.9	104.8	0.23
KinmoutDS	14094	50y	223.9	265.31	268.87		268.94	0.000211	1.28	267.19	112.9	0.23
KinmoutDS	14094	100y	251.2	265.31	269.13		269.21	0.000208	1.33	298.34	124.37	0.23
KinmoutDS	14094	200y	281.2	265.31	269.41		269.49	0.000196	1.36	333.29	126.75	0.22
KinmoutDS	14094	350y	307.7	265.31	269.64		269.73	0.000188	1.39	363.49	129.23	0.22

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	14094	Sept 25 2021	68.8	265.31	266.97		267.02	0.00045	1.05	79.79	78.46	0.29
KinmoutDS	14094	July 13 2024	53.2	265.31	266.7		266.75	0.00057	1.02	60.15	66.41	0.31
KinmoutDS	14094	April 21 2019	223.6	265.31	268.87		268.94	0.000211	1.28	266.87	112.75	0.23
KinmoutDS	14094	Nov 2 2013	77	265.31	267.1		267.15	0.00041	1.06	90.24	81.04	0.28
KinmoutDS	14094	April 16 2014	175	265.31	268.34		268.4	0.000246	1.23	210.74	103.96	0.24
KinmoutDS	14094	May 8 2017	142	265.31	267.96		268.03	0.000276	1.18	172.32	102.83	0.24
KinmoutDS	14094	April 21 2013	211.8	265.31	268.75		268.82	0.000216	1.26	254.05	105.4	0.23
KinmoutDS	14053	Timmins_Uncalibr	441.16	265.08	270.76		270.85	0.000148	1.48	525.86	151.22	0.21
KinmoutDS	14053	Timmins_Calibrat	112.6	265.08	267.63		267.67	0.000234	1.03	153.39	96.95	0.22
KinmoutDS	14053	TimminsCC_Calibr	141.4	265.08	267.98		268.04	0.000213	1.09	188.52	98.93	0.22
KinmoutDS	14053	2y	107.1	265.08	267.55		267.59	0.000242	1.02	145.55	96.54	0.22
KinmoutDS	14053	5y	142.8	265.08	267.99		268.05	0.000214	1.09	189.36	98.97	0.22
KinmoutDS	14053	10y	166.9	265.08	268.27		268.33	0.000201	1.14	217.15	100.16	0.22
KinmoutDS	14053	25y	198.6	265.08	268.61		268.67	0.00019	1.19	251.59	102.71	0.21
KinmoutDS	14053	50y	223.9	265.08	268.87		268.93	0.000185	1.24	278.98	110.66	0.21
KinmoutDS	14053	100y	251.2	265.08	269.13		269.2	0.000181	1.29	309.13	119.64	0.21
KinmoutDS	14053	200y	281.2	265.08	269.41		269.48	0.000174	1.32	342.75	121.42	0.21
KinmoutDS	14053	350y	307.7	265.08	269.64		269.72	0.000168	1.35	371.61	124.28	0.21
KinmoutDS	14053	Sept 25 2021	68.8	265.08	266.96		267	0.00031	0.93	92.85	81.85	0.24
KinmoutDS	14053	July 13 2024	53.2	265.08	266.69		266.72	0.000366	0.89	72.63	69.28	0.25
KinmoutDS	14053	April 21 2019	223.6	265.08	268.87		268.93	0.000185	1.23	278.66	110.5	0.21
KinmoutDS	14053	Nov 2 2013	77	265.08	267.09		267.13	0.000291	0.95	103.84	85.1	0.24
KinmoutDS	14053	April 16 2014	175	265.08	268.33		268.39	0.000205	1.16	223.25	100.41	0.22
KinmoutDS	14053	May 8 2017	142	265.08	267.96		268.02	0.000222	1.1	186.21	98.79	0.22
KinmoutDS	14053	April 21 2013	211.8	265.08	268.75		268.81	0.000188	1.22	265.78	107.19	0.21
KinmoutDS	14012	Timmins_Uncalibr	441.16	264.74	270.7		270.83	0.000224	1.85	448.37	128.99	0.25
KinmoutDS	14012	Timmins_Calibrat	112.6	264.74	267.57		267.66	0.000378	1.38	104.84	79.84	0.29
KinmoutDS	14012	TimminsCC_Calibr	141.4	264.74	267.92		268.02	0.000355	1.47	135.66	95.92	0.28
KinmoutDS	14012	2y	107.1	264.74	267.49		267.58	0.000387	1.37	98.65	74.38	0.29
KinmoutDS	14012	5y	142.8	264.74	267.93		268.03	0.000359	1.48	136.41	96.06	0.28
KinmoutDS	14012	10y	166.9	264.74	268.21		268.31	0.000337	1.53	164.13	103.72	0.28
KinmoutDS	14012	25y	198.6	264.74	268.55		268.66	0.000313	1.58	199.84	105.06	0.27
KinmoutDS	14012	50y	223.9	264.74	268.81		268.92	0.000297	1.62	227.02	106.02	0.27
KinmoutDS	14012	100y	251.2	264.74	269.07		269.19	0.000284	1.65	254.98	106.97	0.27
KinmoutDS	14012	200y	281.2	264.74	269.35		269.47	0.000271	1.69	284.98	108.03	0.26
KinmoutDS	14012	350y	307.7	264.74	269.59		269.71	0.000262	1.73	311.17	112.74	0.26
KinmoutDS	14012	Sept 25 2021	68.8	264.74	266.91		266.98	0.000443	1.21	65.32	47.92	0.29
KinmoutDS	14012	July 13 2024	53.2	264.74	266.64		266.7	0.000473	1.12	53.2	42.95	0.29
KinmoutDS	14012	April 21 2019	223.6	264.74	268.81		268.92	0.000297	1.62	226.71	106.01	0.27
KinmoutDS	14012	Nov 2 2013	77	264.74	267.04		267.12	0.000432	1.25	71.66	50.33	0.29
KinmoutDS	14012	April 16 2014	175	264.74	268.27		268.38	0.000343	1.56	170.25	104.01	0.28
KinmoutDS	14012	May 8 2017	142	264.74	267.9		268	0.000371	1.49	133.2	95.25	0.29
KinmoutDS	14012	April 21 2013	211.8	264.74	268.69		268.8	0.000304	1.6	214.1	105.59	0.27

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	13973	Timmins_Uncalibr	441.16	264.51	270.7		270.82	0.00025	1.96	484.55	129.95	0.26
KinmoutDS	13973	Timmins_Calibrat	112.6	264.51	267.55		267.64	0.000396	1.48	120.74	88.78	0.29
KinmoutDS	13973	TimminsCC_Calibr	141.4	264.51	267.91		268.01	0.00038	1.57	155.34	102.22	0.29
KinmoutDS	13973	2y	107.1	264.51	267.47		267.56	0.000405	1.46	113.69	86.01	0.29
KinmoutDS	13973	5y	142.8	264.51	267.91		268.02	0.000383	1.58	156.12	102.36	0.29
KinmoutDS	13973	10y	166.9	264.51	268.19		268.3	0.000362	1.63	185.44	105.82	0.28
KinmoutDS	13973	25y	198.6	264.51	268.54		268.65	0.000341	1.68	222.94	111.79	0.28
KinmoutDS	13973	50y	223.9	264.51	268.8		268.91	0.000325	1.72	252.05	112.77	0.28
KinmoutDS	13973	100y	251.2	264.51	269.06		269.17	0.000312	1.76	281.92	113.75	0.27
KinmoutDS	13973	200y	281.2	264.51	269.34		269.46	0.0003	1.8	314	115.86	0.27
KinmoutDS	13973	350y	307.7	264.51	269.58		269.7	0.000292	1.84	342.45	122.85	0.27
KinmoutDS	13973	Sept 25 2021	68.8	264.51	266.89		266.96	0.000438	1.29	71.12	60.28	0.29
KinmoutDS	13973	July 13 2024	53.2	264.51	266.62		266.69	0.000442	1.18	56.07	51.38	0.28
KinmoutDS	13973	April 21 2019	223.6	264.51	268.79		268.9	0.000325	1.72	251.72	112.76	0.28
KinmoutDS	13973	Nov 2 2013	77	264.51	267.02		267.1	0.000434	1.34	79.13	64.55	0.29
KinmoutDS	13973	April 16 2014	175	264.51	268.25		268.36	0.00037	1.66	191.68	106.82	0.29
KinmoutDS	13973	May 8 2017	142	264.51	267.88		267.98	0.000397	1.59	152.59	101.73	0.29
KinmoutDS	13973	April 21 2013	211.8	264.51	268.67		268.78	0.000332	1.7	238.22	112.31	0.28
KinmoutDS	13934	Timmins_Uncalibr	441.16	264.45	270.71		270.81	0.000202	1.76	558.17	143.23	0.23
KinmoutDS	13934	Timmins_Calibrat	112.6	264.45	267.55		267.62	0.000316	1.34	146.53	106.05	0.25
KinmoutDS	13934	TimminsCC_Calibr	141.4	264.45	267.91		267.99	0.000303	1.42	187.56	118.64	0.25
KinmoutDS	13934	2y	107.1	264.45	267.47		267.54	0.000323	1.32	138.02	102.65	0.26
KinmoutDS	13934	5y	142.8	264.45	267.92		268	0.000305	1.42	188.48	118.76	0.26
KinmoutDS	13934	10y	166.9	264.45	268.2		268.28	0.000288	1.47	222.74	123.68	0.25
KinmoutDS	13934	25y	198.6	264.45	268.54		268.63	0.000271	1.51	266.35	127.69	0.25
KinmoutDS	13934	50y	223.9	264.45	268.8		268.89	0.000259	1.54	299.71	128.6	0.24
KinmoutDS	13934	100y	251.2	264.45	269.07		269.16	0.000249	1.58	333.88	129.65	0.24
KinmoutDS	13934	200y	281.2	264.45	269.35		269.44	0.000239	1.61	370.5	131.1	0.24
KinmoutDS	13934	350y	307.7	264.45	269.59		269.68	0.000232	1.64	401.82	132.57	0.24
KinmoutDS	13934	Sept 25 2021	68.8	264.45	266.88		266.94	0.000357	1.18	84.82	83.38	0.26
KinmoutDS	13934	July 13 2024	53.2	264.45	266.61		266.67	0.000359	1.09	64.35	67.49	0.25
KinmoutDS	13934	April 21 2019	223.6	264.45	268.8		268.89	0.000259	1.54	299.33	128.59	0.24
KinmoutDS	13934	Nov 2 2013	77	264.45	267.01		267.08	0.000351	1.22	95.84	84.98	0.26
KinmoutDS	13934	April 16 2014	175	264.45	268.26		268.34	0.000295	1.5	230.09	124.77	0.25
KinmoutDS	13934	May 8 2017	142	264.45	267.88		267.96	0.000317	1.44	184.36	118.31	0.26
KinmoutDS	13934	April 21 2013	211.8	264.45	268.68		268.77	0.000264	1.53	283.88	128.2	0.25
KinmoutDS	13895	Timmins_Uncalibr	441.16	264.36	270.71		270.79	0.000184	1.65	600.84	160.94	0.21
KinmoutDS	13895	Timmins_Calibrat	112.6	264.36	267.54		267.61	0.000299	1.28	140.73	107.27	0.24
KinmoutDS	13895	TimminsCC_Calibr	141.4	264.36	267.9		267.97	0.000286	1.36	180.97	120.68	0.24
KinmoutDS	13895	2y	107.1	264.36	267.46		267.53	0.000304	1.27	131.96	106.42	0.24
KinmoutDS	13895	5y	142.8	264.36	267.91		267.98	0.000288	1.37	181.89	121.27	0.24
KinmoutDS	13895	10y	166.9	264.36	268.19		268.27	0.000275	1.41	217.18	127.64	0.24
KinmoutDS	13895	25y	198.6	264.36	268.54		268.62	0.00026	1.46	263.03	139.01	0.24
KinmoutDS	13895	50y	223.9	264.36	268.79		268.88	0.000253	1.5	300.35	149.51	0.24

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	13895	100y	251.2	264.36	269.06		269.15	0.000242	1.53	340.95	154.46	0.23
KinmoutDS	13895	200y	281.2	264.36	269.34		269.43	0.000229	1.55	384.76	155.39	0.23
KinmoutDS	13895	350y	307.7	264.36	269.58		269.67	0.00022	1.57	421.99	156.33	0.23
KinmoutDS	13895	Sept 25 2021	68.8	264.36	266.87		266.93	0.000308	1.09	83.82	66.94	0.23
KinmoutDS	13895	July 13 2024	53.2	264.36	266.61		266.65	0.000298	0.99	67.06	55.31	0.23
KinmoutDS	13895	April 21 2019	223.6	264.36	268.79		268.88	0.000253	1.5	299.91	149.45	0.24
KinmoutDS	13895	Nov 2 2013	77	264.36	267		267.06	0.000309	1.14	92.68	69.46	0.24
KinmoutDS	13895	April 16 2014	175	264.36	268.25		268.33	0.000282	1.44	224.76	129.47	0.24
KinmoutDS	13895	May 8 2017	142	264.36	267.87		267.95	0.000299	1.38	177.7	117.97	0.25
KinmoutDS	13895	April 21 2013	211.8	264.36	268.67		268.75	0.000255	1.48	282.46	143.88	0.24
KinmoutDS	13853	Timmins_Uncalibr	441.16	264.23	270.72		270.78	0.000131	1.43	730.02	176.96	0.18
KinmoutDS	13853	Timmins_Calibrat	112.6	264.23	267.54		267.59	0.000209	1.11	195.81	142.53	0.2
KinmoutDS	13853	TimminsCC_Calibr	141.4	264.23	267.91		267.96	0.000198	1.17	249.29	152.7	0.2
KinmoutDS	13853	2y	107.1	264.23	267.46		267.51	0.000214	1.1	184.21	139.32	0.21
KinmoutDS	13853	5y	142.8	264.23	267.91		267.97	0.0002	1.17	250.48	152.95	0.2
KinmoutDS	13853	10y	166.9	264.23	268.2		268.25	0.000189	1.21	295.19	160.93	0.2
KinmoutDS	13853	25y	198.6	264.23	268.54		268.6	0.00018	1.25	352.59	168.65	0.2
KinmoutDS	13853	50y	223.9	264.23	268.81		268.86	0.000171	1.27	396.93	170.26	0.2
KinmoutDS	13853	100y	251.2	264.23	269.07		269.13	0.000164	1.3	442.44	171.42	0.19
KinmoutDS	13853	200y	281.2	264.23	269.36		269.41	0.000157	1.32	491.06	172.54	0.19
KinmoutDS	13853	350y	307.7	264.23	269.59		269.65	0.000152	1.34	532.37	173.34	0.19
KinmoutDS	13853	Sept 25 2021	68.8	264.23	266.87		266.91	0.000221	0.97	110.74	97.83	0.2
KinmoutDS	13853	July 13 2024	53.2	264.23	266.6		266.64	0.000213	0.88	86.99	81.24	0.19
KinmoutDS	13853	April 21 2019	223.6	264.23	268.8		268.86	0.000171	1.27	396.44	170.24	0.2
KinmoutDS	13853	Nov 2 2013	77	264.23	267		267.05	0.000224	1.01	124.22	110.44	0.2
KinmoutDS	13853	April 16 2014	175	264.23	268.26		268.31	0.000194	1.23	304.81	162.72	0.2
KinmoutDS	13853	May 8 2017	142	264.23	267.88		267.93	0.000207	1.19	245.15	151.76	0.21
KinmoutDS	13853	April 21 2013	211.8	264.23	268.68		268.74	0.000175	1.26	375.88	169.64	0.2
KinmoutDS	13814	Timmins_Uncalibr	441.16	264.03	270.73		270.77	0.00009	1.22	904.95	208.86	0.15
KinmoutDS	13814	Timmins_Calibrat	112.6	264.03	267.55		267.58	0.000126	0.9	270.1	161.99	0.16
KinmoutDS	13814	TimminsCC_Calibr	141.4	264.03	267.91		267.95	0.000123	0.96	332.9	182.91	0.16
KinmoutDS	13814	2y	107.1	264.03	267.47		267.5	0.000128	0.89	256.83	159.27	0.16
KinmoutDS	13814	5y	142.8	264.03	267.92		267.95	0.000124	0.96	334.34	183.32	0.16
KinmoutDS	13814	10y	166.9	264.03	268.21		268.24	0.00012	1	388.8	198.04	0.16
KinmoutDS	13814	25y	198.6	264.03	268.55		268.59	0.000114	1.03	457.98	200.11	0.16
KinmoutDS	13814	50y	223.9	264.03	268.82		268.85	0.000111	1.06	510.53	201.95	0.16
KinmoutDS	13814	100y	251.2	264.03	269.08		269.12	0.000107	1.08	564.5	203.35	0.16
KinmoutDS	13814	200y	281.2	264.03	269.37		269.4	0.000104	1.11	622.16	204.59	0.16
KinmoutDS	13814	350y	307.7	264.03	269.6		269.64	0.000101	1.13	671.15	205.54	0.16
KinmoutDS	13814	Sept 25 2021	68.8	264.03	266.88		266.9	0.000138	0.8	168.61	137.57	0.16
KinmoutDS	13814	July 13 2024	53.2	264.03	266.6		266.63	0.00014	0.74	131.82	133.1	0.16
KinmoutDS	13814	April 21 2019	223.6	264.03	268.81		268.85	0.000111	1.06	509.95	201.93	0.16
KinmoutDS	13814	Nov 2 2013	77	264.03	267.01		267.04	0.000137	0.82	187.01	141.15	0.16
KinmoutDS	13814	April 16 2014	175	264.03	268.27		268.3	0.000123	1.02	400.64	198.34	0.17

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	13814	May 8 2017	142	264.03	267.89		267.92	0.000128	0.97	328.01	181.34	0.17
KinmoutDS	13814	April 21 2013	211.8	264.03	268.69		268.73	0.000112	1.05	485.58	201.08	0.16
KinmoutDS	13773	Timmins_Uncalibr	441.16	263.14	270.73		270.77	0.000059	1.05	1036.5	233.52	0.13
KinmoutDS	13773	Timmins_Calibrat	112.6	263.14	267.55		267.57	0.000065	0.73	323.72	199.65	0.12
KinmoutDS	13773	TimminsCC_Calibr	141.4	263.14	267.92		267.94	0.000066	0.79	397.48	207.29	0.13
KinmoutDS	13773	2y	107.1	263.14	267.47		267.49	0.000066	0.72	307.3	198.11	0.12
KinmoutDS	13773	5y	142.8	263.14	267.92		267.95	0.000067	0.79	399.12	207.47	0.13
KinmoutDS	13773	10y	166.9	263.14	268.21		268.23	0.000067	0.83	459.3	214.43	0.13
KinmoutDS	13773	25y	198.6	263.14	268.56		268.58	0.000067	0.87	535.55	225	0.13
KinmoutDS	13773	50y	223.9	263.14	268.82		268.84	0.000066	0.9	594.59	226.94	0.13
KinmoutDS	13773	100y	251.2	263.14	269.08		269.11	0.000065	0.92	655.22	228.18	0.13
KinmoutDS	13773	200y	281.2	263.14	269.37		269.39	0.000064	0.95	719.89	229.24	0.13
KinmoutDS	13773	350y	307.7	263.14	269.61		269.63	0.000063	0.97	774.78	230.13	0.13
KinmoutDS	13773	Sept 25 2021	68.8	263.14	266.88		266.9	0.000062	0.62	200.56	160.61	0.12
KinmoutDS	13773	July 13 2024	53.2	263.14	266.61		266.62	0.000057	0.56	159.49	146.12	0.11
KinmoutDS	13773	April 21 2019	223.6	263.14	268.82		268.84	0.000066	0.9	593.93	226.91	0.13
KinmoutDS	13773	Nov 2 2013	77	263.14	267.01		267.03	0.000064	0.65	222.2	166.79	0.12
KinmoutDS	13773	April 16 2014	175	263.14	268.27		268.29	0.000069	0.85	472.16	215.67	0.13
KinmoutDS	13773	May 8 2017	142	263.14	267.89		267.91	0.000069	0.8	391.94	206.81	0.13
KinmoutDS	13773	April 21 2013	211.8	263.14	268.69		268.72	0.000066	0.89	566.57	225.74	0.13
KinmoutDS	13735	Timmins_Uncalibr	441.16	260.57	270.74		270.76	0.000028	0.81	1138.72	236.63	0.09
KinmoutDS	13735	Timmins_Calibrat	112.6	260.57	267.56		267.57	0.000018	0.46	414.28	205.25	0.07
KinmoutDS	13735	TimminsCC_Calibr	141.4	260.57	267.92		267.93	0.00002	0.51	489.66	211.14	0.07
KinmoutDS	13735	2y	107.1	260.57	267.48		267.49	0.000017	0.45	397.41	204.22	0.07
KinmoutDS	13735	5y	142.8	260.57	267.93		267.94	0.00002	0.52	491.34	211.49	0.07
KinmoutDS	13735	10y	166.9	260.57	268.22		268.23	0.000022	0.56	552.91	219.29	0.08
KinmoutDS	13735	25y	198.6	260.57	268.56		268.58	0.000024	0.6	630.76	230.07	0.08
KinmoutDS	13735	50y	223.9	260.57	268.82		268.84	0.000024	0.63	690.95	230.94	0.08
KinmoutDS	13735	100y	251.2	260.57	269.09		269.11	0.000025	0.66	752.51	231.73	0.08
KinmoutDS	13735	200y	281.2	260.57	269.37		269.39	0.000026	0.69	818.09	232.55	0.09
KinmoutDS	13735	350y	307.7	260.57	269.61		269.63	0.000026	0.71	873.69	233.28	0.09
KinmoutDS	13735	Sept 25 2021	68.8	260.57	266.89		266.89	0.000013	0.35	288.58	156.14	0.06
KinmoutDS	13735	July 13 2024	53.2	260.57	266.61		266.62	0.00001	0.3	246.83	149.06	0.05
KinmoutDS	13735	April 21 2019	223.6	260.57	268.82		268.84	0.000024	0.63	690.28	230.93	0.08
KinmoutDS	13735	Nov 2 2013	77	260.57	267.02		267.02	0.000014	0.38	310.08	168.7	0.06
KinmoutDS	13735	April 16 2014	175	260.57	268.28		268.29	0.000023	0.57	566.09	220.27	0.08
KinmoutDS	13735	May 8 2017	142	260.57	267.9		267.91	0.000021	0.52	484.08	210.53	0.07
KinmoutDS	13735	April 21 2013	211.8	260.57	268.7		268.71	0.000024	0.62	662.41	230.54	0.08
KinmoutDS	13693	Timmins_Uncalibr	441.16	257.97	270.74		270.76	0.000021	0.73	1036.7	198.9	0.08
KinmoutDS	13693	Timmins_Calibrat	112.6	257.97	267.56		267.57	0.000008	0.34	435.82	167.55	0.04
KinmoutDS	13693	TimminsCC_Calibr	141.4	257.97	267.93		267.93	0.00001	0.39	497.41	172.84	0.05
KinmoutDS	13693	2y	107.1	257.97	267.48		267.49	0.000008	0.33	422.05	166.6	0.04
KinmoutDS	13693	5y	142.8	257.97	267.93		267.94	0.00001	0.39	498.79	172.97	0.05

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	13693	10y	166.9	257.97	268.22		268.23	0.000012	0.44	548.61	177.9	0.05
KinmoutDS	13693	25y	198.6	257.97	268.56		268.58	0.000013	0.48	612.67	190.35	0.06
KinmoutDS	13693	50y	223.9	257.97	268.83		268.84	0.000015	0.52	662.46	191.46	0.06
KinmoutDS	13693	100y	251.2	257.97	269.09		269.1	0.000016	0.55	713.46	192.49	0.07
KinmoutDS	13693	200y	281.2	257.97	269.37		269.39	0.000017	0.59	768.06	194.63	0.07
KinmoutDS	13693	350y	307.7	257.97	269.61		269.63	0.000018	0.62	814.58	195.61	0.07
KinmoutDS	13693	Sept 25 2021	68.8	257.97	266.89		266.89	0.000005	0.24	333.86	126.46	0.03
KinmoutDS	13693	July 13 2024	53.2	257.97	266.61		266.62	0.000003	0.2	299.9	120.85	0.03
KinmoutDS	13693	April 21 2019	223.6	257.97	268.82		268.83	0.000015	0.52	661.9	191.45	0.06
KinmoutDS	13693	Nov 2 2013	77	257.97	267.02		267.02	0.000005	0.26	350.91	135.24	0.04
KinmoutDS	13693	April 16 2014	175	257.97	268.28		268.29	0.000012	0.45	559.31	179.33	0.06
KinmoutDS	13693	May 8 2017	142	257.97	267.9		267.91	0.00001	0.4	492.86	172.33	0.05
KinmoutDS	13693	April 21 2013	211.8	257.97	268.7		268.71	0.000014	0.5	638.84	190.89	0.06
KinmoutDS	13647	Timmins_Uncalibr	441.16	261.5	270.73		270.76	0.000202	0.9	733.32	179.23	0.1
KinmoutDS	13647	Timmins_Calibrat	112.6	261.5	267.55		267.57	0.000172	0.58	243.53	115.59	0.09
KinmoutDS	13647	TimminsCC_Calibr	141.4	261.5	267.91		267.93	0.00019	0.65	286.4	128.5	0.09
KinmoutDS	13647	2y	107.1	261.5	267.47		267.48	0.000169	0.57	234.1	113.94	0.09
KinmoutDS	13647	5y	142.8	261.5	267.92		267.94	0.000193	0.65	287.34	128.63	0.09
KinmoutDS	13647	10y	166.9	261.5	268.2		268.22	0.000202	0.69	321.64	139.47	0.1
KinmoutDS	13647	25y	198.6	261.5	268.55		268.57	0.00021	0.74	365.06	146.85	0.1
KinmoutDS	13647	50y	223.9	261.5	268.81		268.83	0.000218	0.77	405.09	158.38	0.1
KinmoutDS	13647	100y	251.2	261.5	269.08		269.1	0.000219	0.8	447.47	160.75	0.1
KinmoutDS	13647	200y	281.2	261.5	269.36		269.38	0.000218	0.82	493.58	165.36	0.1
KinmoutDS	13647	350y	307.7	261.5	269.6		269.62	0.000217	0.84	533.58	170.11	0.11
KinmoutDS	13647	Sept 25 2021	68.8	261.5	266.88		266.89	0.000125	0.45	174.56	81.06	0.07
KinmoutDS	13647	July 13 2024	53.2	261.5	266.61		266.62	0.000099	0.38	153.9	73.64	0.06
KinmoutDS	13647	April 21 2019	223.6	261.5	268.81		268.83	0.000218	0.77	404.63	158.36	0.1
KinmoutDS	13647	Nov 2 2013	77	261.5	267.01		267.02	0.000138	0.48	185.73	89.1	0.08
KinmoutDS	13647	April 16 2014	175	261.5	268.26		268.28	0.00021	0.71	328.86	140.74	0.1
KinmoutDS	13647	May 8 2017	142	261.5	267.88		267.9	0.000197	0.65	283.17	127.97	0.1
KinmoutDS	13647	April 21 2013	211.8	261.5	268.69		268.71	0.000213	0.75	385.68	156.05	0.1
KinmoutDS	13610	Timmins_Uncalibr	441.16	262.12	270.67		270.75	0.000156	1.39	581.04	165.75	0.17
KinmoutDS	13610	Timmins_Calibrat	112.6	262.12	267.53		267.56	0.000124	0.82	162.39	91.51	0.14
KinmoutDS	13610	TimminsCC_Calibr	141.4	262.12	267.88		267.92	0.000138	0.92	193	98.91	0.15
KinmoutDS	13610	2y	107.1	262.12	267.45		267.48	0.000122	0.8	155.52	90.12	0.13
KinmoutDS	13610	5y	142.8	262.12	267.89		267.93	0.00014	0.93	193.64	99.02	0.15
KinmoutDS	13610	10y	166.9	262.12	268.17		268.22	0.000148	1	218.23	102.59	0.15
KinmoutDS	13610	25y	198.6	262.12	268.51		268.57	0.000157	1.08	249.07	125.79	0.16
KinmoutDS	13610	50y	223.9	262.12	268.76		268.83	0.000166	1.16	283.44	141.61	0.17
KinmoutDS	13610	100y	251.2	262.12	269.03		269.09	0.000168	1.2	321.33	146.69	0.17
KinmoutDS	13610	200y	281.2	262.12	269.31		269.38	0.000168	1.25	363.03	150.49	0.17
KinmoutDS	13610	350y	307.7	262.12	269.55		269.62	0.000167	1.28	399.02	152.51	0.17
KinmoutDS	13610	Sept 25 2021	68.8	262.12	266.87		266.89	0.000093	0.63	114.13	53.47	0.11
KinmoutDS	13610	July 13 2024	53.2	262.12	266.6		266.61	0.000076	0.53	101.29	43.8	0.1

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	13610	April 21 2019	223.6	262.12	268.76		268.82	0.000166	1.16	283.03	141.51	0.17
KinmoutDS	13610	Nov 2 2013	77	262.12	267		267.02	0.000101	0.67	121.58	63.6	0.12
KinmoutDS	13610	April 16 2014	175	262.12	268.23		268.28	0.000155	1.03	223.32	105.37	0.16
KinmoutDS	13610	May 8 2017	142	262.12	267.86		267.9	0.000143	0.94	190.59	98.49	0.15
KinmoutDS	13610	April 21 2013	211.8	262.12	268.65		268.7	0.000159	1.11	266.85	137.33	0.16
KinmoutDS	13573	Timmins_Uncalibr	441.16	263.34	270.58		270.73	0.000217	1.95	452.15	141.89	0.25
KinmoutDS	13573	Timmins_Calibrat	112.6	263.34	267.48		267.55	0.000214	1.22	111.66	56.46	0.22
KinmoutDS	13573	TimminsCC_Calibr	141.4	263.34	267.83		267.91	0.00023	1.36	131.41	57.84	0.23
KinmoutDS	13573	2y	107.1	263.34	267.4		267.47	0.000213	1.2	107.17	56.15	0.22
KinmoutDS	13573	5y	142.8	263.34	267.83		267.92	0.000233	1.37	131.79	57.87	0.24
KinmoutDS	13573	10y	166.9	263.34	268.1		268.21	0.000242	1.47	147.67	67.01	0.24
KinmoutDS	13573	25y	198.6	263.34	268.43		268.55	0.000251	1.58	167.48	104.11	0.25
KinmoutDS	13573	50y	223.9	263.34	268.69		268.81	0.000255	1.66	192.75	121.21	0.26
KinmoutDS	13573	100y	251.2	263.34	268.94		269.08	0.000265	1.75	224.95	133.7	0.26
KinmoutDS	13573	200y	281.2	263.34	269.22		269.36	0.000258	1.8	262.58	135.37	0.26
KinmoutDS	13573	350y	307.7	263.34	269.45		269.6	0.000252	1.84	294.84	136.66	0.26
KinmoutDS	13573	Sept 25 2021	68.8	263.34	266.83		266.88	0.000183	0.96	78.06	41.37	0.2
KinmoutDS	13573	July 13 2024	53.2	263.34	266.57		266.61	0.000161	0.84	68.03	37.51	0.18
KinmoutDS	13573	April 21 2019	223.6	263.34	268.68		268.81	0.000255	1.66	192.41	121.13	0.26
KinmoutDS	13573	Nov 2 2013	77	263.34	266.96		267.01	0.000193	1.02	83.74	48.21	0.2
KinmoutDS	13573	April 16 2014	175	263.34	268.16		268.27	0.000253	1.51	150.81	71.69	0.25
KinmoutDS	13573	May 8 2017	142	263.34	267.8		267.89	0.00024	1.38	129.7	57.73	0.24
KinmoutDS	13573	April 21 2013	211.8	263.34	268.57		268.69	0.000254	1.62	178.7	113.01	0.25
KinmoutDS	13534	Timmins_Uncalibr	441.16	263.92	270.52		270.72	0.000377	2.16	367.5	122.59	0.29
KinmoutDS	13534	Timmins_Calibrat	112.6	263.92	267.43		267.54	0.000516	1.48	81.95	40.1	0.3
KinmoutDS	13534	TimminsCC_Calibr	141.4	263.92	267.76		267.9	0.000529	1.63	96.07	51.02	0.31
KinmoutDS	13534	2y	107.1	263.92	267.35		267.45	0.000521	1.46	78.83	39.32	0.3
KinmoutDS	13534	5y	142.8	263.92	267.77		267.9	0.000536	1.65	96.31	51.32	0.31
KinmoutDS	13534	10y	166.9	263.92	268.04		268.19	0.000538	1.75	108.13	72.85	0.32
KinmoutDS	13534	25y	198.6	263.92	268.36		268.53	0.000541	1.87	123.31	102.81	0.32
KinmoutDS	13534	50y	223.9	263.92	268.61		268.79	0.000538	1.96	141.44	106.63	0.32
KinmoutDS	13534	100y	251.2	263.92	268.86		269.06	0.000527	2.02	169.29	112.43	0.32
KinmoutDS	13534	200y	281.2	263.92	269.14		269.34	0.000505	2.07	201.36	117.43	0.32
KinmoutDS	13534	350y	307.7	263.92	269.38		269.58	0.00048	2.1	229.7	118.39	0.32
KinmoutDS	13534	Sept 25 2021	68.8	263.92	266.79		266.87	0.000516	1.22	58.27	34.79	0.28
KinmoutDS	13534	July 13 2024	53.2	263.92	266.53		266.59	0.000504	1.1	49.55	33.42	0.27
KinmoutDS	13534	April 21 2019	223.6	263.92	268.6		268.79	0.000538	1.96	141.14	106.59	0.32
KinmoutDS	13534	Nov 2 2013	77	263.92	266.91		267	0.000522	1.28	62.62	35.68	0.29
KinmoutDS	13534	April 16 2014	175	263.92	268.08		268.25	0.00056	1.8	110.37	80.45	0.32
KinmoutDS	13534	May 8 2017	142	263.92	267.73		267.87	0.000555	1.66	94.69	49.16	0.31
KinmoutDS	13534	April 21 2013	211.8	263.92	268.49		268.67	0.000541	1.92	129.67	104.81	0.32
KinmoutDS	13494	Timmins_Uncalibr	441.16	263.64	270.5		270.71	0.000311	2.2	374.78	122.95	0.29
KinmoutDS	13494	Timmins_Calibrat	112.6	263.64	267.41		267.52	0.00035	1.42	84.02	54.42	0.27

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	13494	TimminsCC_Calibr	141.4	263.64	267.75		267.88	0.000376	1.59	96.95	81.11	0.29
KinmoutDS	13494	2y	107.1	263.64	267.34		267.43	0.000348	1.39	81.28	51.41	0.27
KinmoutDS	13494	5y	142.8	263.64	267.76		267.88	0.000381	1.6	97.19	81.22	0.29
KinmoutDS	13494	10y	166.9	263.64	268.02		268.17	0.000393	1.72	109.55	86.61	0.3
KinmoutDS	13494	25y	198.6	263.64	268.34		268.51	0.000404	1.85	126.43	102.71	0.3
KinmoutDS	13494	50y	223.9	263.64	268.59		268.77	0.000407	1.94	146.07	110.71	0.31
KinmoutDS	13494	100y	251.2	263.64	268.84		269.04	0.000408	2.02	175.1	116.73	0.31
KinmoutDS	13494	200y	281.2	263.64	269.12		269.32	0.000392	2.07	207.95	117.89	0.31
KinmoutDS	13494	350y	307.7	263.64	269.36		269.57	0.000378	2.1	236.37	119.23	0.31
KinmoutDS	13494	Sept 25 2021	68.8	263.64	266.78		266.85	0.000309	1.13	62.87	34.12	0.24
KinmoutDS	13494	July 13 2024	53.2	263.64	266.53		266.58	0.00028	0.99	54.91	30.8	0.23
KinmoutDS	13494	April 21 2019	223.6	263.64	268.59		268.77	0.000407	1.94	145.77	110.66	0.31
KinmoutDS	13494	Nov 2 2013	77	263.64	266.9		266.98	0.000322	1.2	66.81	39.21	0.25
KinmoutDS	13494	April 16 2014	175	263.64	268.07		268.22	0.000411	1.77	111.87	87.23	0.3
KinmoutDS	13494	May 8 2017	142	263.64	267.72		267.85	0.000393	1.61	95.53	77.57	0.29
KinmoutDS	13494	April 21 2013	211.8	263.64	268.47		268.65	0.000406	1.9	134.45	108.59	0.31
KinmoutDS	13455	Timmins_Uncalibr	441.16	263.31	270.51		270.69	0.000246	2.07	428.05	136.55	0.26
KinmoutDS	13455	Timmins_Calibrat	112.6	263.31	267.42		267.5	0.000243	1.3	97.56	71.61	0.24
KinmoutDS	13455	TimminsCC_Calibr	141.4	263.31	267.75		267.86	0.000268	1.46	114.69	101.28	0.25
KinmoutDS	13455	2y	107.1	263.31	267.34		267.42	0.00024	1.27	93.99	63.12	0.23
KinmoutDS	13455	5y	142.8	263.31	267.76		267.86	0.000271	1.47	114.98	101.42	0.25
KinmoutDS	13455	10y	166.9	263.31	268.02		268.15	0.000285	1.58	129.76	111.3	0.26
KinmoutDS	13455	25y	198.6	263.31	268.35		268.49	0.000298	1.71	150.58	125.18	0.27
KinmoutDS	13455	50y	223.9	263.31	268.59		268.75	0.000311	1.82	172.51	128.06	0.28
KinmoutDS	13455	100y	251.2	263.31	268.85		269.02	0.000308	1.88	205.81	130.41	0.28
KinmoutDS	13455	200y	281.2	263.31	269.13		269.3	0.0003	1.93	242.61	131.63	0.28
KinmoutDS	13455	350y	307.7	263.31	269.37		269.54	0.000291	1.96	274.34	132.63	0.28
KinmoutDS	13455	Sept 25 2021	68.8	263.31	266.78		266.83	0.000198	1.01	72.96	52.51	0.21
KinmoutDS	13455	July 13 2024	53.2	263.31	266.53		266.56	0.000172	0.88	64.06	48.99	0.19
KinmoutDS	13455	April 21 2019	223.6	263.31	268.59		268.75	0.000311	1.82	172.15	128.03	0.28
KinmoutDS	13455	Nov 2 2013	77	263.31	266.9		266.96	0.000211	1.08	77.41	54.1	0.21
KinmoutDS	13455	April 16 2014	175	263.31	268.07		268.2	0.0003	1.64	132.71	114.26	0.27
KinmoutDS	13455	May 8 2017	142	263.31	267.72		267.83	0.000279	1.48	112.97	100.06	0.26
KinmoutDS	13455	April 21 2013	211.8	263.31	268.48		268.63	0.000302	1.76	159.25	126.67	0.27
KinmoutDS	13411	Timmins_Uncalibr	441.16	262.94	270.53		270.66	0.000183	1.85	513.05	140.93	0.23
KinmoutDS	13411	Timmins_Calibrat	112.6	262.94	267.42		267.49	0.000172	1.17	120.62	99.79	0.2
KinmoutDS	13411	TimminsCC_Calibr	141.4	262.94	267.76		267.84	0.000192	1.32	144.66	123.66	0.22
KinmoutDS	13411	2y	107.1	262.94	267.34		267.4	0.000169	1.15	115.4	93.36	0.2
KinmoutDS	13411	5y	142.8	262.94	267.76		267.85	0.000194	1.33	145.06	123.82	0.22
KinmoutDS	13411	10y	166.9	262.94	268.03		268.13	0.000211	1.45	169.67	132.6	0.23
KinmoutDS	13411	25y	198.6	262.94	268.36		268.47	0.000215	1.54	213.93	134.05	0.23
KinmoutDS	13411	50y	223.9	262.94	268.61		268.73	0.000214	1.59	247.84	135.01	0.24
KinmoutDS	13411	100y	251.2	262.94	268.87		268.99	0.000213	1.65	283.07	135.91	0.24
KinmoutDS	13411	200y	281.2	262.94	269.15		269.28	0.000208	1.69	321.48	136.81	0.24

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	13411	350y	307.7	262.94	269.4		269.52	0.000204	1.73	354.45	137.52	0.24
KinmoutDS	13411	Sept 25 2021	68.8	262.94	266.78		266.82	0.000131	0.9	85.66	54.31	0.17
KinmoutDS	13411	July 13 2024	53.2	262.94	266.53		266.56	0.000108	0.77	75.51	39.63	0.15
KinmoutDS	13411	April 21 2019	223.6	262.94	268.61		268.72	0.000214	1.59	247.46	135	0.24
KinmoutDS	13411	Nov 2 2013	77	262.94	266.91		266.95	0.000141	0.96	91.07	58.16	0.18
KinmoutDS	13411	April 16 2014	175	262.94	268.08		268.19	0.00022	1.49	176.27	132.84	0.23
KinmoutDS	13411	May 8 2017	142	262.94	267.73		267.81	0.0002	1.34	142.31	122.73	0.22
KinmoutDS	13411	April 21 2013	211.8	262.94	268.49		268.61	0.000215	1.57	231.75	134.58	0.23
KinmoutDS	13373	Timmins_Uncalibr	441.16	262.59	270.55		270.65	0.000151	1.65	574.23	140.61	0.2
KinmoutDS	13373	Timmins_Calibrat	112.6	262.59	267.42		267.47	0.000133	1.03	155.83	124.91	0.17
KinmoutDS	13373	TimminsCC_Calibr	141.4	262.59	267.77		267.83	0.000153	1.17	196.08	130.03	0.18
KinmoutDS	13373	2y	107.1	262.59	267.35		267.39	0.00013	1	149.67	117.16	0.17
KinmoutDS	13373	5y	142.8	262.59	267.77		267.84	0.000155	1.18	196.82	130.07	0.19
KinmoutDS	13373	10y	166.9	262.59	268.04		268.11	0.000159	1.25	232.51	131.65	0.19
KinmoutDS	13373	25y	198.6	262.59	268.38		268.45	0.000163	1.32	276.74	133.07	0.19
KinmoutDS	13373	50y	223.9	262.59	268.63		268.71	0.000164	1.38	310.51	133.94	0.2
KinmoutDS	13373	100y	251.2	262.59	268.89		268.97	0.000164	1.43	345.53	134.89	0.2
KinmoutDS	13373	200y	281.2	262.59	269.17		269.26	0.000163	1.47	383.67	135.8	0.2
KinmoutDS	13373	350y	307.7	262.59	269.41		269.5	0.000161	1.51	416.41	136.71	0.2
KinmoutDS	13373	Sept 25 2021	68.8	262.59	266.78		266.81	0.000099	0.79	110.49	73.94	0.14
KinmoutDS	13373	July 13 2024	53.2	262.59	266.53		266.55	0.000081	0.67	95	60.09	0.13
KinmoutDS	13373	April 21 2019	223.6	262.59	268.63		268.71	0.000164	1.38	310.12	133.93	0.2
KinmoutDS	13373	Nov 2 2013	77	262.59	266.91		266.94	0.000107	0.84	118.54	82.43	0.15
KinmoutDS	13373	April 16 2014	175	262.59	268.09		268.17	0.000166	1.29	239.2	131.88	0.19
KinmoutDS	13373	May 8 2017	142	262.59	267.73		267.8	0.00016	1.19	191.84	129.8	0.19
KinmoutDS	13373	April 21 2013	211.8	262.59	268.51		268.59	0.000163	1.35	294.49	133.53	0.2
KinmoutDS	13334	Timmins_Uncalibr	441.16	262.22	270.53		270.64	0.000156	1.72	514.37	125.34	0.2
KinmoutDS	13334	Timmins_Calibrat	112.6	262.22	267.42		267.47	0.000112	1.01	140.15	114.25	0.16
KinmoutDS	13334	TimminsCC_Calibr	141.4	262.22	267.76		267.82	0.000128	1.13	179.46	116.28	0.17
KinmoutDS	13334	2y	107.1	262.22	267.34		267.39	0.000109	0.98	131.11	113.41	0.16
KinmoutDS	13334	5y	142.8	262.22	267.77		267.83	0.00013	1.14	180.11	116.31	0.17
KinmoutDS	13334	10y	166.9	262.22	268.04		268.11	0.000138	1.23	211.72	117.5	0.18
KinmoutDS	13334	25y	198.6	262.22	268.37		268.45	0.000147	1.32	250.79	118.74	0.19
KinmoutDS	13334	50y	223.9	262.22	268.62		268.7	0.000151	1.39	280.63	119.6	0.19
KinmoutDS	13334	100y	251.2	262.22	268.88		268.97	0.000155	1.45	311.62	120.39	0.2
KinmoutDS	13334	200y	281.2	262.22	269.16		269.25	0.000157	1.5	345.38	121.33	0.2
KinmoutDS	13334	350y	307.7	262.22	269.39		269.49	0.000158	1.55	374.42	122.11	0.2
KinmoutDS	13334	Sept 25 2021	68.8	262.22	266.78		266.81	0.000075	0.74	99.27	96.59	0.13
KinmoutDS	13334	July 13 2024	53.2	262.22	266.53		266.55	0.000059	0.62	90.08	91.39	0.11
KinmoutDS	13334	April 21 2019	223.6	262.22	268.62		268.7	0.000151	1.38	280.29	119.59	0.19
KinmoutDS	13334	Nov 2 2013	77	262.22	266.91		266.94	0.000084	0.8	103.82	98.91	0.13
KinmoutDS	13334	April 16 2014	175	262.22	268.09		268.16	0.000145	1.27	217.6	117.71	0.18
KinmoutDS	13334	May 8 2017	142	262.22	267.73		267.79	0.000133	1.15	175.67	116.13	0.17
KinmoutDS	13334	April 21 2013	211.8	262.22	268.5		268.58	0.000149	1.36	266.47	119.18	0.19

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	13293	Timmins_Uncalibr	441.16	261.88	270.53		270.63	0.000145	1.65	545.45	135.55	0.19
KinmoutDS	13293	Timmins_Calibrat	112.6	261.88	267.42		267.46	0.000099	0.95	144.53	105.32	0.14
KinmoutDS	13293	TimminsCC_Calibr	141.4	261.88	267.76		267.82	0.000115	1.08	184.53	124.04	0.16
KinmoutDS	13293	2y	107.1	261.88	267.34		267.38	0.000096	0.93	136.22	104.67	0.14
KinmoutDS	13293	5y	142.8	261.88	267.77		267.82	0.000117	1.09	185.22	124.07	0.16
KinmoutDS	13293	10y	166.9	261.88	268.04		268.1	0.000126	1.17	218.97	125.52	0.17
KinmoutDS	13293	25y	198.6	261.88	268.37		268.44	0.000135	1.27	260.77	127.33	0.17
KinmoutDS	13293	50y	223.9	261.88	268.62		268.69	0.000139	1.33	292.81	128.43	0.18
KinmoutDS	13293	100y	251.2	261.88	268.88		268.96	0.000143	1.39	326.18	130.11	0.18
KinmoutDS	13293	200y	281.2	261.88	269.16		269.24	0.000145	1.44	362.7	130.82	0.19
KinmoutDS	13293	350y	307.7	261.88	269.39		269.48	0.000147	1.49	394.06	131.69	0.19
KinmoutDS	13293	Sept 25 2021	68.8	261.88	266.78		266.81	0.000065	0.69	106.05	97.54	0.11
KinmoutDS	13293	July 13 2024	53.2	261.88	266.53		266.54	0.000049	0.58	96.86	88.86	0.1
KinmoutDS	13293	April 21 2019	223.6	261.88	268.61		268.69	0.000139	1.33	292.44	128.41	0.18
KinmoutDS	13293	Nov 2 2013	77	261.88	266.91		266.93	0.000072	0.75	110.6	98.65	0.12
KinmoutDS	13293	April 16 2014	175	261.88	268.09		268.15	0.000133	1.21	225.24	125.82	0.17
KinmoutDS	13293	May 8 2017	142	261.88	267.73		267.79	0.00012	1.1	180.48	123.84	0.16
KinmoutDS	13293	April 21 2013	211.8	261.88	268.5		268.57	0.000137	1.3	277.61	127.86	0.18
KinmoutDS	13253	Timmins_Uncalibr	441.16	261.76	270.54		270.62	0.000116	1.5	616.54	140.22	0.18
KinmoutDS	13253	Timmins_Calibrat	112.6	261.76	267.42		267.46	0.000083	0.89	195.8	125.23	0.14
KinmoutDS	13253	TimminsCC_Calibr	141.4	261.76	267.76		267.81	0.000094	0.99	240.2	130.75	0.15
KinmoutDS	13253	2y	107.1	261.76	267.34		267.38	0.000082	0.87	185.89	123.28	0.13
KinmoutDS	13253	5y	142.8	261.76	267.77		267.81	0.000096	1	240.93	130.77	0.15
KinmoutDS	13253	10y	166.9	261.76	268.04		268.09	0.000101	1.07	276.6	131.63	0.15
KinmoutDS	13253	25y	198.6	261.76	268.37		268.43	0.000107	1.15	320.52	132.83	0.16
KinmoutDS	13253	50y	223.9	261.76	268.63		268.68	0.000111	1.2	354.05	133.91	0.16
KinmoutDS	13253	100y	251.2	261.76	268.88		268.95	0.000114	1.25	388.91	135.02	0.17
KinmoutDS	13253	200y	281.2	261.76	269.16		269.23	0.000115	1.3	426.9	135.85	0.17
KinmoutDS	13253	350y	307.7	261.76	269.4		269.47	0.000116	1.34	459.5	136.59	0.17
KinmoutDS	13253	Sept 25 2021	68.8	261.76	266.78		266.8	0.00006	0.67	123.61	93.78	0.11
KinmoutDS	13253	July 13 2024	53.2	261.76	266.53		266.54	0.000047	0.57	101.89	80.49	0.1
KinmoutDS	13253	April 21 2019	223.6	261.76	268.62		268.68	0.000111	1.2	353.67	133.9	0.16
KinmoutDS	13253	Nov 2 2013	77	261.76	266.91		266.93	0.000066	0.72	135.38	101.65	0.12
KinmoutDS	13253	April 16 2014	175	261.76	268.09		268.14	0.000107	1.1	283.24	131.81	0.16
KinmoutDS	13253	May 8 2017	142	261.76	267.73		267.78	0.000098	1.01	235.94	130.62	0.15
KinmoutDS	13253	April 21 2013	211.8	261.76	268.51		268.56	0.000109	1.18	338.15	133.38	0.16
KinmoutDS	13213	Timmins_Uncalibr	441.16	261.64	270.54		270.61	0.000115	1.46	627.23	141.93	0.17
KinmoutDS	13213	Timmins_Calibrat	112.6	261.64	267.42		267.45	0.000082	0.86	200.54	128.14	0.13
KinmoutDS	13213	TimminsCC_Calibr	141.4	261.64	267.76		267.8	0.000093	0.96	243.34	132.97	0.14
KinmoutDS	13213	2y	107.1	261.64	267.34		267.37	0.00008	0.84	192.37	124.26	0.13
KinmoutDS	13213	5y	142.8	261.64	267.77		267.81	0.000095	0.97	244.08	133.16	0.14
KinmoutDS	13213	10y	166.9	261.64	268.04		268.09	0.000101	1.04	280.6	135.35	0.15
KinmoutDS	13213	25y	198.6	261.64	268.37		268.42	0.000106	1.12	325.73	136.46	0.16

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	13213	50y	223.9	261.64	268.62		268.68	0.00011	1.17	360.14	137.2	0.16
KinmoutDS	13213	100y	251.2	261.64	268.88		268.94	0.000112	1.22	395.8	137.86	0.16
KinmoutDS	13213	200y	281.2	261.64	269.16		269.23	0.000114	1.27	434.55	138.5	0.17
KinmoutDS	13213	350y	307.7	261.64	269.4		269.47	0.000115	1.31	467.77	139.12	0.17
KinmoutDS	13213	Sept 25 2021	68.8	261.64	266.78		266.8	0.000058	0.65	141.51	76.56	0.11
KinmoutDS	13213	July 13 2024	53.2	261.64	266.52		266.54	0.000046	0.55	122.4	72.41	0.09
KinmoutDS	13213	April 21 2019	223.6	261.64	268.62		268.68	0.00011	1.17	359.75	137.19	0.16
KinmoutDS	13213	Nov 2 2013	77	261.64	266.9		266.93	0.000063	0.69	151.14	80.43	0.11
KinmoutDS	13213	April 16 2014	175	261.64	268.09		268.14	0.000106	1.07	287.42	135.49	0.15
KinmoutDS	13213	May 8 2017	142	261.64	267.73		267.77	0.000097	0.98	239.01	132.47	0.15
KinmoutDS	13213	April 21 2013	211.8	261.64	268.5		268.56	0.000108	1.15	343.83	136.85	0.16
KinmoutDS	13179	Timmins_Uncalibr	441.16	261.54	270.51		270.61	0.000121	1.57	536.71	107.9	0.18
KinmoutDS	13179	Timmins_Calibrat	112.6	261.54	267.42		267.45	0.000072	0.85	213.1	100.99	0.13
KinmoutDS	13179	TimminsCC_Calibr	141.4	261.54	267.76		267.8	0.000083	0.95	247.8	101.92	0.14
KinmoutDS	13179	2y	107.1	261.54	267.34		267.37	0.000071	0.83	205.06	100.7	0.13
KinmoutDS	13179	5y	142.8	261.54	267.77		267.81	0.000084	0.96	248.37	101.93	0.14
KinmoutDS	13179	10y	166.9	261.54	268.04		268.08	0.000091	1.04	276.06	102.57	0.15
KinmoutDS	13179	25y	198.6	261.54	268.37		268.42	0.000098	1.13	310.05	103.26	0.16
KinmoutDS	13179	50y	223.9	261.54	268.62		268.68	0.000103	1.19	335.89	103.79	0.16
KinmoutDS	13179	100y	251.2	261.54	268.87		268.94	0.000108	1.25	362.65	104.36	0.17
KinmoutDS	13179	200y	281.2	261.54	269.15		269.22	0.000111	1.31	391.75	104.95	0.17
KinmoutDS	13179	350y	307.7	261.54	269.39		269.46	0.000114	1.37	416.73	105.5	0.17
KinmoutDS	13179	Sept 25 2021	68.8	261.54	266.78		266.8	0.000052	0.64	150.73	91.92	0.11
KinmoutDS	13179	July 13 2024	53.2	261.54	266.52		266.54	0.000041	0.55	127.84	86.2	0.09
KinmoutDS	13179	April 21 2019	223.6	261.54	268.61		268.67	0.000103	1.19	335.59	103.78	0.16
KinmoutDS	13179	Nov 2 2013	77	261.54	266.9		266.93	0.000057	0.69	162.21	93.45	0.11
KinmoutDS	13179	April 16 2014	175	261.54	268.09		268.14	0.000096	1.07	281.2	102.69	0.15
KinmoutDS	13179	May 8 2017	142	261.54	267.73		267.77	0.000086	0.97	244.47	101.84	0.14
KinmoutDS	13179	April 21 2013	211.8	261.54	268.5		268.55	0.000101	1.16	323.64	103.53	0.16
KinmoutDS	13136	Timmins_Uncalibr	441.16	263.58	270.53		270.59	0.000116	1.23	580.44	123.44	0.16
KinmoutDS	13136	Timmins_Calibrat	112.6	263.58	267.42		267.45	0.000121	0.77	209.15	113.13	0.15
KinmoutDS	13136	TimminsCC_Calibr	141.4	263.58	267.76		267.79	0.000123	0.84	248.41	115.43	0.15
KinmoutDS	13136	2y	107.1	263.58	267.34		267.36	0.000122	0.76	200.1	112.65	0.15
KinmoutDS	13136	5y	142.8	263.58	267.77		267.8	0.000125	0.84	249.06	115.46	0.15
KinmoutDS	13136	10y	166.9	263.58	268.04		268.08	0.000125	0.89	280.71	116.91	0.15
KinmoutDS	13136	25y	198.6	263.58	268.37		268.41	0.000125	0.95	319.76	118.09	0.16
KinmoutDS	13136	50y	223.9	263.58	268.62		268.67	0.000125	0.99	349.49	118.72	0.16
KinmoutDS	13136	100y	251.2	263.58	268.88		268.93	0.000125	1.03	380.28	119.36	0.16
KinmoutDS	13136	200y	281.2	263.58	269.16		269.21	0.000123	1.07	413.76	120.06	0.16
KinmoutDS	13136	350y	307.7	263.58	269.4		269.45	0.000122	1.1	442.5	120.74	0.16
KinmoutDS	13136	Sept 25 2021	68.8	263.58	266.78		266.8	0.000119	0.64	140.08	96.3	0.14
KinmoutDS	13136	July 13 2024	53.2	263.58	266.52		266.54	0.000113	0.57	115.88	93.05	0.13
KinmoutDS	13136	April 21 2019	223.6	263.58	268.62		268.66	0.000125	0.99	349.15	118.71	0.16
KinmoutDS	13136	Nov 2 2013	77	263.58	266.9		266.92	0.000121	0.67	152.29	102.5	0.14

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	13136	April 16 2014	175	263.58	268.09		268.13	0.00013	0.92	286.62	117.12	0.16
KinmoutDS	13136	May 8 2017	142	263.58	267.73		267.76	0.000129	0.85	244.63	115.25	0.15
KinmoutDS	13136	April 21 2013	211.8	263.58	268.51		268.55	0.000125	0.97	335.4	118.42	0.16
KinmoutDS	13095	Timmins_Uncalibr	441.16	264.23	270.49		270.58	0.000144	1.46	483.23	114.95	0.2
KinmoutDS	13095	Timmins_Calibrat	112.6	264.23	267.39		267.44	0.000178	0.96	147.52	102.05	0.19
KinmoutDS	13095	TimminsCC_Calibr	141.4	264.23	267.73		267.79	0.000177	1.04	182.74	104.13	0.19
KinmoutDS	13095	2y	107.1	264.23	267.31		267.36	0.000181	0.95	139.4	101.33	0.19
KinmoutDS	13095	5y	142.8	264.23	267.74		267.79	0.000179	1.05	183.28	104.16	0.2
KinmoutDS	13095	10y	166.9	264.23	268.01		268.07	0.000175	1.1	211.67	105.06	0.2
KinmoutDS	13095	25y	198.6	264.23	268.34		268.4	0.000171	1.16	246.56	105.89	0.2
KinmoutDS	13095	50y	223.9	264.23	268.59		268.66	0.000168	1.21	273.13	106.49	0.2
KinmoutDS	13095	100y	251.2	264.23	268.85		268.92	0.000165	1.25	300.66	107.18	0.2
KinmoutDS	13095	200y	281.2	264.23	269.13		269.2	0.000161	1.29	330.61	107.87	0.2
KinmoutDS	13095	350y	307.7	264.23	269.37		269.44	0.000158	1.32	356.36	108.61	0.2
KinmoutDS	13095	Sept 25 2021	68.8	264.23	266.76		266.79	0.000182	0.8	93.39	57.43	0.18
KinmoutDS	13095	July 13 2024	53.2	264.23	266.5		266.53	0.000176	0.72	79.4	53.98	0.18
KinmoutDS	13095	April 21 2019	223.6	264.23	268.59		268.65	0.000168	1.2	272.82	106.48	0.2
KinmoutDS	13095	Nov 2 2013	77	264.23	266.88		266.91	0.000184	0.84	101.07	66.15	0.19
KinmoutDS	13095	April 16 2014	175	264.23	268.06		268.12	0.000182	1.13	216.82	105.17	0.2
KinmoutDS	13095	May 8 2017	142	264.23	267.7		267.75	0.000186	1.06	179.19	103.94	0.2
KinmoutDS	13095	April 21 2013	211.8	264.23	268.47		268.54	0.000169	1.18	260.54	106.21	0.2
KinmoutDS	13056	Timmins_Uncalibr	441.16	264.23	270.49		270.57	0.000177	1.42	513.16	127.53	0.19
KinmoutDS	13056	Timmins_Calibrat	112.6	264.23	267.38		267.43	0.000254	0.99	155.93	99.58	0.2
KinmoutDS	13056	TimminsCC_Calibr	141.4	264.23	267.73		267.78	0.000244	1.05	190.44	101.72	0.2
KinmoutDS	13056	2y	107.1	264.23	267.3		267.35	0.000261	0.98	147.94	98.99	0.2
KinmoutDS	13056	5y	142.8	264.23	267.73		267.78	0.000247	1.06	190.96	101.76	0.2
KinmoutDS	13056	10y	166.9	264.23	268		268.06	0.000238	1.11	218.83	103.07	0.2
KinmoutDS	13056	25y	198.6	264.23	268.34		268.4	0.000228	1.16	253.72	110.68	0.2
KinmoutDS	13056	50y	223.9	264.23	268.59		268.65	0.000222	1.2	282.04	114.91	0.2
KinmoutDS	13056	100y	251.2	264.23	268.85		268.91	0.000216	1.24	312.23	118.23	0.2
KinmoutDS	13056	200y	281.2	264.23	269.12		269.19	0.000208	1.28	345.49	119.66	0.2
KinmoutDS	13056	350y	307.7	264.23	269.36		269.43	0.000202	1.3	374.18	120.65	0.2
KinmoutDS	13056	Sept 25 2021	68.8	264.23	266.74		266.78	0.000288	0.86	96.54	80.04	0.2
KinmoutDS	13056	July 13 2024	53.2	264.23	266.49		266.52	0.000296	0.78	77.23	72.03	0.2
KinmoutDS	13056	April 21 2019	223.6	264.23	268.58		268.65	0.000222	1.2	281.71	114.86	0.2
KinmoutDS	13056	Nov 2 2013	77	264.23	266.87		266.91	0.000286	0.89	106.74	86.61	0.21
KinmoutDS	13056	April 16 2014	175	264.23	268.05		268.11	0.000246	1.14	223.88	103.28	0.21
KinmoutDS	13056	May 8 2017	142	264.23	267.69		267.75	0.000258	1.07	186.92	101.51	0.21
KinmoutDS	13056	April 21 2013	211.8	264.23	268.47		268.53	0.000225	1.18	268.51	113.08	0.2
KinmoutDS	13021	Timmins_Uncalibr	441.16	262.9	270.5		270.57	0.000086	1.25	633.48	149.99	0.15
KinmoutDS	13021	Timmins_Calibrat	112.6	262.9	267.4		267.42	0.000062	0.7	228.55	96.99	0.12
KinmoutDS	13021	TimminsCC_Calibr	141.4	262.9	267.74		267.77	0.000069	0.79	262.52	102.93	0.13
KinmoutDS	13021	2y	107.1	262.9	267.32		267.34	0.000061	0.69	220.77	96.78	0.12

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	13021	5y	142.8	262.9	267.74		267.77	0.00007	0.79	263.06	103	0.13
KinmoutDS	13021	10y	166.9	262.9	268.02		268.05	0.000075	0.86	293.21	115.19	0.13
KinmoutDS	13021	25y	198.6	262.9	268.35		268.38	0.000079	0.93	331.97	118.96	0.14
KinmoutDS	13021	50y	223.9	262.9	268.6		268.64	0.000082	0.98	362.25	123.56	0.14
KinmoutDS	13021	100y	251.2	262.9	268.86		268.9	0.000084	1.03	394.81	129.53	0.15
KinmoutDS	13021	200y	281.2	262.9	269.13		269.18	0.000086	1.07	432.47	138.43	0.15
KinmoutDS	13021	350y	307.7	262.9	269.37		269.42	0.000087	1.11	466.15	145.75	0.15
KinmoutDS	13021	Sept 25 2021	68.8	262.9	266.76		266.77	0.000049	0.55	166.94	94.98	0.1
KinmoutDS	13021	July 13 2024	53.2	262.9	266.5		266.51	0.000041	0.47	142.98	90.08	0.09
KinmoutDS	13021	April 21 2019	223.6	262.9	268.59		268.64	0.000082	0.98	361.9	123.51	0.14
KinmoutDS	13021	Nov 2 2013	77	262.9	266.88		266.89	0.000052	0.58	178.7	95.42	0.11
KinmoutDS	13021	April 16 2014	175	262.9	268.06		268.1	0.000079	0.89	298.9	115.7	0.14
KinmoutDS	13021	May 8 2017	142	262.9	267.7		267.73	0.000072	0.8	259.04	102.33	0.13
KinmoutDS	13021	April 21 2013	211.8	262.9	268.48		268.52	0.000081	0.95	347.79	120.61	0.14
KinmoutDS	12952	Timmins_Uncalibr	454.35	260.03	270.51		270.56	0.000038	0.94	706.7	141.83	0.1
KinmoutDS	12952	Timmins_Calibrat	115.6	260.03	267.41		267.41	0.000012	0.4	334.45	89.42	0.05
KinmoutDS	12952	TimminsCC_Calibr	145.1	260.03	267.75		267.76	0.000015	0.47	365.67	91.96	0.06
KinmoutDS	12952	2y	109.2	260.03	267.32		267.33	0.000011	0.38	327.29	88.7	0.05
KinmoutDS	12952	5y	145.6	260.03	267.75		267.77	0.000015	0.47	366.18	91.99	0.06
KinmoutDS	12952	10y	170.2	260.03	268.03		268.04	0.000018	0.52	392.02	101.25	0.06
KinmoutDS	12952	25y	202.5	260.03	268.36		268.38	0.000021	0.59	426.78	107.35	0.07
KinmoutDS	12952	50y	228.3	260.03	268.61		268.63	0.000023	0.63	454.13	110.64	0.07
KinmoutDS	12952	100y	256.1	260.03	268.87		268.89	0.000026	0.68	483.51	117.53	0.08
KinmoutDS	12952	200y	286.7	260.03	269.15		269.17	0.000028	0.73	517.81	128.17	0.08
KinmoutDS	12952	350y	313.8	260.03	269.39		269.41	0.00003	0.77	549.33	136.44	0.09
KinmoutDS	12952	Sept 25 2021	68.8	260.03	266.76		266.77	0.000006	0.27	279.15	80.86	0.04
KinmoutDS	12952	July 13 2024	53.2	260.03	266.5		266.51	0.000004	0.22	258.61	78.52	0.03
KinmoutDS	12952	April 21 2019	228	260.03	268.61		268.63	0.000023	0.63	453.81	110.6	0.07
KinmoutDS	12952	Nov 2 2013	77	260.03	266.89		266.89	0.000007	0.29	289.34	84.9	0.04
KinmoutDS	12952	April 16 2014	175	260.03	268.08		268.09	0.000018	0.53	397.16	102.77	0.07
KinmoutDS	12952	May 8 2017	142	260.03	267.72		267.73	0.000015	0.46	362.63	91.76	0.06
KinmoutDS	12952	April 21 2013	216	260.03	268.49		268.51	0.000022	0.61	441.09	109.12	0.07
KinmoutDS	12913	Timmins_Uncalibr	454.35	263.63	270.42		270.54	0.000189	1.72	423.17	112.23	0.22
KinmoutDS	12913	Timmins_Calibrat	115.6	263.63	267.36		267.41	0.000152	0.98	144.25	65.05	0.18
KinmoutDS	12913	TimminsCC_Calibr	145.1	263.63	267.7		267.75	0.000166	1.1	166.55	68.8	0.19
KinmoutDS	12913	2y	109.2	263.63	267.28		267.33	0.000148	0.96	139.16	64.66	0.17
KinmoutDS	12913	5y	145.6	263.63	267.7		267.76	0.000166	1.1	166.91	68.83	0.19
KinmoutDS	12913	10y	170.2	263.63	267.97		268.03	0.000174	1.18	185.51	71.11	0.19
KinmoutDS	12913	25y	202.5	263.63	268.29		268.37	0.000182	1.28	209.12	75.9	0.2
KinmoutDS	12913	50y	228.3	263.63	268.54		268.62	0.000187	1.34	228.69	82.58	0.21
KinmoutDS	12913	100y	256.1	263.63	268.79		268.88	0.000191	1.41	250.69	91.53	0.21
KinmoutDS	12913	200y	286.7	263.63	269.07		269.16	0.000193	1.47	276.92	98.23	0.21
KinmoutDS	12913	350y	313.8	263.63	269.3		269.4	0.000193	1.52	300.59	104.07	0.21
KinmoutDS	12913	Sept 25 2021	68.8	263.63	266.73		266.76	0.000119	0.75	104.62	59.17	0.15

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	12913	July 13 2024	53.2	263.63	266.48		266.5	0.000103	0.65	90.57	52.96	0.14
KinmoutDS	12913	April 21 2019	228	263.63	268.54		268.62	0.000187	1.34	228.45	82.52	0.21
KinmoutDS	12913	Nov 2 2013	77	263.63	266.86		266.89	0.000126	0.8	111.93	61.64	0.16
KinmoutDS	12913	April 16 2014	175	263.63	268.02		268.08	0.000175	1.2	189.01	71.32	0.2
KinmoutDS	12913	May 8 2017	142	263.63	267.66		267.72	0.000164	1.09	164.33	68.44	0.19
KinmoutDS	12913	April 21 2013	216	263.63	268.42		268.5	0.000184	1.31	219.23	80.23	0.2
KinmoutDS	12871	Timmins_Uncalibr	454.35	264.09	270.34		270.53	0.000308	2.1	348.09	93.4	0.28
KinmoutDS	12871	Timmins_Calibrat	115.6	264.09	267.31		267.4	0.000316	1.3	103.7	61.17	0.25
KinmoutDS	12871	TimminsCC_Calibr	145.1	264.09	267.64		267.74	0.000332	1.43	124.39	66.32	0.26
KinmoutDS	12871	2y	109.2	264.09	267.24		267.31	0.000312	1.26	99.16	58.49	0.25
KinmoutDS	12871	5y	145.6	264.09	267.64		267.75	0.000332	1.43	124.74	66.41	0.26
KinmoutDS	12871	10y	170.2	264.09	267.91		268.02	0.000339	1.53	143.19	73.51	0.27
KinmoutDS	12871	25y	202.5	264.09	268.23		268.35	0.000341	1.63	167.16	75.81	0.27
KinmoutDS	12871	50y	228.3	264.09	268.47		268.61	0.00034	1.7	185.76	77.13	0.27
KinmoutDS	12871	100y	256.1	264.09	268.72		268.87	0.000339	1.77	205.26	78.76	0.28
KinmoutDS	12871	200y	286.7	264.09	268.99		269.15	0.000338	1.84	227.47	84.01	0.28
KinmoutDS	12871	350y	313.8	264.09	269.22		269.39	0.000334	1.9	247.4	86.85	0.28
KinmoutDS	12871	Sept 25 2021	68.8	264.09	266.7		266.75	0.000267	1.01	73.07	42.03	0.22
KinmoutDS	12871	July 13 2024	53.2	264.09	266.46		266.5	0.000241	0.88	63.11	39.34	0.21
KinmoutDS	12871	April 21 2019	228	264.09	268.47		268.6	0.00034	1.7	185.55	77.12	0.27
KinmoutDS	12871	Nov 2 2013	77	264.09	266.82		266.88	0.000278	1.07	78.1	43.44	0.23
KinmoutDS	12871	April 16 2014	175	264.09	267.95		268.07	0.000339	1.54	146.76	73.94	0.27
KinmoutDS	12871	May 8 2017	142	264.09	267.61		267.71	0.00033	1.42	122.32	64.81	0.26
KinmoutDS	12871	April 21 2013	216	264.09	268.35		268.49	0.000341	1.67	176.9	76.59	0.27
KinmoutDS	12830	Timmins_Uncalibr	454.35	264.1	270.33		270.51	0.000277	2.07	331.44	74.86	0.27
KinmoutDS	12830	Timmins_Calibrat	115.6	264.1	267.31		267.38	0.00024	1.2	123.34	61.16	0.23
KinmoutDS	12830	TimminsCC_Calibr	145.1	264.1	267.64		267.72	0.000256	1.33	143.8	63.42	0.24
KinmoutDS	12830	2y	109.2	264.1	267.23		267.3	0.000236	1.16	118.67	60.53	0.22
KinmoutDS	12830	5y	145.6	264.1	267.64		267.73	0.000256	1.33	144.14	63.46	0.24
KinmoutDS	12830	10y	170.2	264.1	267.91		268	0.000264	1.42	160.95	65.01	0.24
KinmoutDS	12830	25y	202.5	264.1	268.23		268.33	0.000271	1.53	182.05	66.54	0.25
KinmoutDS	12830	50y	228.3	264.1	268.47		268.59	0.000275	1.61	198.32	67.59	0.26
KinmoutDS	12830	100y	256.1	264.1	268.72		268.85	0.000279	1.68	215.36	68.85	0.26
KinmoutDS	12830	200y	286.7	264.1	268.99		269.13	0.00028	1.76	234.16	70.18	0.26
KinmoutDS	12830	350y	313.8	264.1	269.22		269.37	0.00028	1.82	250.58	71.13	0.27
KinmoutDS	12830	Sept 25 2021	68.8	264.1	266.7		266.74	0.000201	0.93	87.41	56.44	0.2
KinmoutDS	12830	July 13 2024	53.2	264.1	266.45		266.49	0.000181	0.82	73.76	54.99	0.18
KinmoutDS	12830	April 21 2019	228	264.1	268.47		268.58	0.000275	1.61	198.13	67.57	0.26
KinmoutDS	12830	Nov 2 2013	77	264.1	266.82		266.86	0.000209	0.99	94.11	57.03	0.2
KinmoutDS	12830	April 16 2014	175	264.1	267.95		268.05	0.000265	1.44	164.1	65.29	0.25
KinmoutDS	12830	May 8 2017	142	264.1	267.61		267.69	0.000254	1.31	141.81	63.18	0.24
KinmoutDS	12830	April 21 2013	216	264.1	268.35		268.47	0.000273	1.57	190.58	67.08	0.25
KinmoutDS	12792	Timmins_Uncalibr	454.35	263.95	270.21		270.49	0.000397	2.39	225.28	57.02	0.31

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	12792	Timmins_Calibrat	115.6	263.95	267.29		267.37	0.000274	1.26	95.25	38.19	0.23
KinmoutDS	12792	TimminsCC_Calibr	145.1	263.95	267.61		267.71	0.000304	1.42	107.75	39.77	0.25
KinmoutDS	12792	2y	109.2	263.95	267.21		267.29	0.000266	1.22	92.41	37.65	0.23
KinmoutDS	12792	5y	145.6	263.95	267.61		267.72	0.000304	1.42	107.96	39.8	0.25
KinmoutDS	12792	10y	170.2	263.95	267.87		267.99	0.000322	1.54	118.2	40.59	0.26
KinmoutDS	12792	25y	202.5	263.95	268.18		268.32	0.000341	1.67	130.98	41.56	0.27
KinmoutDS	12792	50y	228.3	263.95	268.41		268.57	0.000353	1.77	140.84	42.3	0.28
KinmoutDS	12792	100y	256.1	263.95	268.66		268.83	0.000365	1.87	151.18	43.06	0.29
KinmoutDS	12792	200y	286.7	263.95	268.92		269.11	0.000373	1.97	162.59	43.91	0.29
KinmoutDS	12792	350y	313.8	263.95	269.14		269.35	0.000379	2.05	172.59	45	0.3
KinmoutDS	12792	Sept 25 2021	68.8	263.95	266.69		266.73	0.000208	0.94	73.47	34.01	0.2
KinmoutDS	12792	July 13 2024	53.2	263.95	266.45		266.48	0.000179	0.81	65.52	31.7	0.18
KinmoutDS	12792	April 21 2019	228	263.95	268.41		268.57	0.000353	1.77	140.73	42.29	0.28
KinmoutDS	12792	Nov 2 2013	77	263.95	266.8		266.85	0.000222	1.01	77.48	34.93	0.2
KinmoutDS	12792	April 16 2014	175	263.95	267.92		268.04	0.000325	1.56	120.12	40.73	0.26
KinmoutDS	12792	May 8 2017	142	263.95	267.58		267.68	0.0003	1.4	106.54	39.63	0.25
KinmoutDS	12792	April 21 2013	216	263.95	268.3		268.45	0.000348	1.72	136.15	41.95	0.28
KinmoutDS	12756	Timmins_Uncalibr	454.35	263.8	270.2		270.48	0.000401	2.4	230.67	80.01	0.31
KinmoutDS	12756	Timmins_Calibrat	115.6	263.8	267.28		267.36	0.00026	1.23	96.7	36.7	0.23
KinmoutDS	12756	TimminsCC_Calibr	145.1	263.8	267.6		267.7	0.000293	1.4	108.73	38.76	0.24
KinmoutDS	12756	2y	109.2	263.8	267.21		267.28	0.000252	1.2	93.98	36.22	0.22
KinmoutDS	12756	5y	145.6	263.8	267.6		267.7	0.000293	1.4	108.93	38.78	0.24
KinmoutDS	12756	10y	170.2	263.8	267.86		267.97	0.000313	1.52	118.91	39.85	0.25
KinmoutDS	12756	25y	202.5	263.8	268.17		268.31	0.000335	1.66	131.43	41.13	0.27
KinmoutDS	12756	50y	228.3	263.8	268.4		268.56	0.00035	1.76	141.27	42.84	0.28
KinmoutDS	12756	100y	256.1	263.8	268.64		268.82	0.000363	1.86	151.81	44.47	0.28
KinmoutDS	12756	200y	286.7	263.8	268.91		269.1	0.000373	1.96	163.61	45.73	0.29
KinmoutDS	12756	350y	313.8	263.8	269.13		269.34	0.00038	2.04	174	46.75	0.29
KinmoutDS	12756	Sept 25 2021	68.8	263.8	266.68		266.72	0.000192	0.92	75.8	33.17	0.19
KinmoutDS	12756	July 13 2024	53.2	263.8	266.44		266.47	0.000162	0.79	67.97	32.08	0.17
KinmoutDS	12756	April 21 2019	228	263.8	268.4		268.56	0.00035	1.76	141.16	42.82	0.28
KinmoutDS	12756	Nov 2 2013	77	263.8	266.8		266.85	0.000206	0.98	79.68	33.84	0.19
KinmoutDS	12756	April 16 2014	175	263.8	267.91		268.03	0.000317	1.54	120.78	40.02	0.26
KinmoutDS	12756	May 8 2017	142	263.8	267.57		267.67	0.000289	1.38	107.55	38.6	0.24
KinmoutDS	12756	April 21 2013	216	263.8	268.29		268.44	0.000344	1.72	136.56	42.07	0.27
KinmoutDS	12714	Timmins_Uncalibr	454.35	263.6	270.19		270.46	0.000384	2.36	248.57	77.2	0.31
KinmoutDS	12714	Timmins_Calibrat	115.6	263.6	267.27		267.35	0.00024	1.21	100.1	37.41	0.22
KinmoutDS	12714	TimminsCC_Calibr	145.1	263.6	267.59		267.69	0.000273	1.37	112.33	39.72	0.23
KinmoutDS	12714	2y	109.2	263.6	267.2		267.27	0.000232	1.17	97.33	37.07	0.21
KinmoutDS	12714	5y	145.6	263.6	267.6		267.69	0.000273	1.37	112.53	39.76	0.23
KinmoutDS	12714	10y	170.2	263.6	267.85		267.96	0.000294	1.49	122.87	41.91	0.25
KinmoutDS	12714	25y	202.5	263.6	268.16		268.29	0.000317	1.63	136.47	45.66	0.26
KinmoutDS	12714	50y	228.3	263.6	268.39		268.54	0.000331	1.73	147.31	46.93	0.27
KinmoutDS	12714	100y	256.1	263.6	268.63		268.8	0.000345	1.84	158.93	49.66	0.28

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	12714	200y	286.7	263.6	268.9		269.08	0.000355	1.93	172.16	51.18	0.28
KinmoutDS	12714	350y	313.8	263.6	269.12		269.32	0.000362	2.01	183.83	52.71	0.29
KinmoutDS	12714	Sept 25 2021	68.8	263.6	266.68		266.72	0.000172	0.89	78.58	34.55	0.18
KinmoutDS	12714	July 13 2024	53.2	263.6	266.44		266.47	0.000143	0.76	70.46	32.94	0.16
KinmoutDS	12714	April 21 2019	228	263.6	268.39		268.54	0.000331	1.73	147.18	46.92	0.27
KinmoutDS	12714	Nov 2 2013	77	263.6	266.79		266.84	0.000186	0.95	82.6	35.25	0.19
KinmoutDS	12714	April 16 2014	175	263.6	267.9		268.01	0.000298	1.52	124.83	42.59	0.25
KinmoutDS	12714	May 8 2017	142	263.6	267.56		267.65	0.000269	1.35	111.13	39.47	0.23
KinmoutDS	12714	April 21 2013	216	263.6	268.28		268.42	0.000325	1.69	142.13	46.31	0.26
KinmoutDS	12674	Timmins_Uncalibr	454.35	263.41	270.19		270.44	0.000323	2.29	273.78	73.53	0.29
KinmoutDS	12674	Timmins_Calibrat	115.6	263.41	267.27		267.34	0.000199	1.18	106.93	44.47	0.21
KinmoutDS	12674	TimminsCC_Calibr	145.1	263.41	267.58		267.67	0.000228	1.34	121.37	46.39	0.22
KinmoutDS	12674	2y	109.2	263.41	267.19		267.26	0.000192	1.14	103.65	43.91	0.2
KinmoutDS	12674	5y	145.6	263.41	267.59		267.68	0.000228	1.34	121.61	46.43	0.22
KinmoutDS	12674	10y	170.2	263.41	267.84		267.95	0.000246	1.45	133.58	48.01	0.24
KinmoutDS	12674	25y	202.5	263.41	268.15		268.28	0.000266	1.59	148.77	50.1	0.25
KinmoutDS	12674	50y	228.3	263.41	268.39		268.53	0.000278	1.69	160.67	51.43	0.26
KinmoutDS	12674	100y	256.1	263.41	268.63		268.78	0.00029	1.79	173.29	52.84	0.26
KinmoutDS	12674	200y	286.7	263.41	268.89		269.06	0.000299	1.88	187.33	54.17	0.27
KinmoutDS	12674	350y	313.8	263.41	269.12		269.3	0.000306	1.96	199.91	60.52	0.28
KinmoutDS	12674	Sept 25 2021	68.8	263.41	266.67		266.71	0.00014	0.86	82.76	36.73	0.17
KinmoutDS	12674	July 13 2024	53.2	263.41	266.43		266.46	0.000114	0.73	74.2	34.82	0.15
KinmoutDS	12674	April 21 2019	228	263.41	268.38		268.52	0.000278	1.69	160.53	51.42	0.26
KinmoutDS	12674	Nov 2 2013	77	263.41	266.79		266.83	0.000152	0.92	87.04	37.86	0.18
KinmoutDS	12674	April 16 2014	175	263.41	267.89		268	0.000249	1.48	135.83	48.29	0.24
KinmoutDS	12674	May 8 2017	142	263.41	267.55		267.64	0.000225	1.32	119.97	46.19	0.22
KinmoutDS	12674	April 21 2013	216	263.41	268.28		268.41	0.000273	1.64	154.99	50.78	0.25
KinmoutDS	12632	Timmins_Uncalibr	454.35	263.16	270.17		270.42	0.000318	2.31	260.49	61.04	0.29
KinmoutDS	12632	Timmins_Calibrat	115.6	263.16	267.26		267.33	0.000178	1.15	110.7	42.02	0.2
KinmoutDS	12632	TimminsCC_Calibr	145.1	263.16	267.58		267.66	0.000207	1.31	124.27	43.76	0.22
KinmoutDS	12632	2y	109.2	263.16	267.19		267.25	0.000171	1.11	107.6	41.64	0.19
KinmoutDS	12632	5y	145.6	263.16	267.58		267.67	0.000207	1.32	124.5	43.78	0.22
KinmoutDS	12632	10y	170.2	263.16	267.84		267.94	0.000226	1.43	135.72	45.05	0.23
KinmoutDS	12632	25y	202.5	263.16	268.14		268.27	0.000247	1.57	149.8	46.13	0.24
KinmoutDS	12632	50y	228.3	263.16	268.38		268.52	0.000261	1.68	160.67	46.95	0.25
KinmoutDS	12632	100y	256.1	263.16	268.62		268.77	0.000274	1.78	172.16	48.61	0.26
KinmoutDS	12632	200y	286.7	263.16	268.88		269.05	0.000286	1.88	185.18	51.12	0.27
KinmoutDS	12632	350y	313.8	263.16	269.1		269.29	0.000294	1.96	197.09	55.87	0.27
KinmoutDS	12632	Sept 25 2021	68.8	263.16	266.67		266.7	0.000121	0.84	86.73	37.19	0.16
KinmoutDS	12632	July 13 2024	53.2	263.16	266.43		266.45	0.000097	0.71	78.07	35.56	0.14
KinmoutDS	12632	April 21 2019	228	263.16	268.38		268.51	0.000261	1.68	160.55	46.94	0.25
KinmoutDS	12632	Nov 2 2013	77	263.16	266.78		266.82	0.000133	0.9	91.17	39.5	0.17
KinmoutDS	12632	April 16 2014	175	263.16	267.88		267.99	0.000229	1.46	137.82	45.24	0.23
KinmoutDS	12632	May 8 2017	142	263.16	267.55		267.63	0.000204	1.3	122.96	43.6	0.21

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	12632	April 21 2013	216	263.16	268.27		268.4	0.000254	1.63	155.49	46.56	0.25
KinmoutDS	12591	Timmins_Uncalibr	454.35	262.86	270.16		270.41	0.000329	2.32	260.78	61.16	0.29
KinmoutDS	12591	Timmins_Calibrat	115.6	262.86	267.25		267.32	0.000178	1.15	110.47	41.63	0.19
KinmoutDS	12591	TimminsCC_Calibr	145.1	262.86	267.57		267.66	0.000208	1.31	123.82	43.06	0.21
KinmoutDS	12591	2y	109.2	262.86	267.18		267.24	0.000171	1.11	107.42	41.28	0.19
KinmoutDS	12591	5y	145.6	262.86	267.57		267.66	0.000209	1.31	124.04	43.09	0.21
KinmoutDS	12591	10y	170.2	262.86	267.83		267.93	0.000229	1.44	135.01	44.28	0.23
KinmoutDS	12591	25y	202.5	262.86	268.13		268.26	0.000252	1.58	148.85	46.09	0.24
KinmoutDS	12591	50y	228.3	262.86	268.36		268.5	0.000267	1.68	159.84	48.84	0.25
KinmoutDS	12591	100y	256.1	262.86	268.6		268.76	0.000282	1.79	172.16	52.16	0.26
KinmoutDS	12591	200y	286.7	262.86	268.87		269.04	0.000294	1.89	186.02	54.37	0.27
KinmoutDS	12591	350y	313.8	262.86	269.09		269.28	0.000302	1.97	198.34	55.69	0.27
KinmoutDS	12591	Sept 25 2021	68.8	262.86	266.66		266.7	0.000118	0.83	86.81	38.59	0.15
KinmoutDS	12591	July 13 2024	53.2	262.86	266.43		266.45	0.000094	0.7	78.03	35.36	0.14
KinmoutDS	12591	April 21 2019	228	262.86	268.36		268.5	0.000267	1.68	159.71	48.66	0.25
KinmoutDS	12591	Nov 2 2013	77	262.86	266.78		266.82	0.00013	0.89	91.25	39.14	0.16
KinmoutDS	12591	April 16 2014	175	262.86	267.87		267.98	0.000232	1.46	137.07	44.51	0.23
KinmoutDS	12591	May 8 2017	142	262.86	267.54		267.62	0.000205	1.29	122.53	42.93	0.21
KinmoutDS	12591	April 21 2013	216	262.86	268.25		268.39	0.00026	1.64	154.57	47.39	0.25
KinmoutDS	12555	Timmins_Uncalibr	454.35	262.59	270.16		270.39	0.000326	2.22	270.48	59.66	0.28
KinmoutDS	12555	Timmins_Calibrat	115.6	262.59	267.25		267.31	0.000168	1.08	117.35	41.79	0.18
KinmoutDS	12555	TimminsCC_Calibr	145.1	262.59	267.57		267.64	0.000199	1.24	130.93	44.92	0.2
KinmoutDS	12555	2y	109.2	262.59	267.18		267.23	0.000161	1.04	114.28	41.39	0.18
KinmoutDS	12555	5y	145.6	262.59	267.57		267.65	0.000199	1.24	131.16	44.99	0.2
KinmoutDS	12555	10y	170.2	262.59	267.82		267.92	0.00022	1.36	142.92	47.95	0.21
KinmoutDS	12555	25y	202.5	262.59	268.13		268.24	0.000243	1.5	157.95	49.77	0.22
KinmoutDS	12555	50y	228.3	262.59	268.37		268.49	0.000259	1.6	169.71	51.73	0.23
KinmoutDS	12555	100y	256.1	262.59	268.61		268.75	0.000274	1.7	182.34	53.47	0.24
KinmoutDS	12555	200y	286.7	262.59	268.87		269.02	0.000286	1.8	196.51	54.76	0.25
KinmoutDS	12555	350y	313.8	262.59	269.09		269.26	0.000295	1.87	208.88	55.6	0.25
KinmoutDS	12555	Sept 25 2021	68.8	262.59	266.66		266.69	0.000109	0.77	93.67	38	0.14
KinmoutDS	12555	July 13 2024	53.2	262.59	266.42		266.45	0.000086	0.65	84.81	36.74	0.12
KinmoutDS	12555	April 21 2019	228	262.59	268.36		268.49	0.000259	1.6	169.57	51.71	0.23
KinmoutDS	12555	Nov 2 2013	77	262.59	266.78		266.81	0.00012	0.83	98.06	38.9	0.15
KinmoutDS	12555	April 16 2014	175	262.59	267.87		267.97	0.000224	1.38	145.14	48.24	0.21
KinmoutDS	12555	May 8 2017	142	262.59	267.54		267.61	0.000195	1.22	129.59	44.57	0.2
KinmoutDS	12555	April 21 2013	216	262.59	268.25		268.37	0.000252	1.55	164.08	50.47	0.23
KinmoutDS	12514	Timmins_Uncalibr	454.35	263.09	270.12		270.37	0.000349	2.33	268.44	65.72	0.3
KinmoutDS	12514	Timmins_Calibrat	115.6	263.09	267.23		267.3	0.000206	1.18	110.17	45.93	0.21
KinmoutDS	12514	TimminsCC_Calibr	145.1	263.09	267.55		267.63	0.000237	1.35	124.73	47.34	0.22
KinmoutDS	12514	2y	109.2	263.09	267.16		267.23	0.000198	1.15	106.84	45.41	0.2
KinmoutDS	12514	5y	145.6	263.09	267.55		267.64	0.000238	1.35	124.97	47.36	0.22
KinmoutDS	12514	10y	170.2	263.09	267.8		267.91	0.000257	1.47	136.92	48.35	0.24

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	12514	25y	202.5	263.09	268.1		268.23	0.00028	1.61	151.92	50.18	0.25
KinmoutDS	12514	50y	228.3	263.09	268.34		268.48	0.000295	1.71	163.75	52.01	0.26
KinmoutDS	12514	100y	256.1	263.09	268.58		268.73	0.000308	1.81	176.32	53.19	0.27
KinmoutDS	12514	200y	286.7	263.09	268.83		269.01	0.000319	1.91	190.37	55.52	0.27
KinmoutDS	12514	350y	313.8	263.09	269.06		269.25	0.000327	1.99	202.95	57.18	0.28
KinmoutDS	12514	Sept 25 2021	68.8	263.09	266.65		266.69	0.000141	0.86	84.57	41.12	0.17
KinmoutDS	12514	July 13 2024	53.2	263.09	266.41		266.44	0.000114	0.73	75.3	37.76	0.15
KinmoutDS	12514	April 21 2019	228	263.09	268.33		268.47	0.000294	1.71	163.61	51.99	0.26
KinmoutDS	12514	Nov 2 2013	77	263.09	266.76		266.81	0.000154	0.93	89.25	41.94	0.17
KinmoutDS	12514	April 16 2014	175	263.09	267.85		267.95	0.000261	1.49	139.15	48.58	0.24
KinmoutDS	12514	May 8 2017	142	263.09	267.52		267.6	0.000234	1.33	123.33	47.23	0.22
KinmoutDS	12514	April 21 2013	216	263.09	268.23		268.36	0.000288	1.66	158.08	51.27	0.25
KinmoutDS	12476	Timmins_Uncalibr	454.35	263.75	270.09		270.36	0.000398	2.45	266.01	75.76	0.32
KinmoutDS	12476	Timmins_Calibrat	115.6	263.75	267.2		267.29	0.000295	1.34	98.63	46.73	0.25
KinmoutDS	12476	TimminsCC_Calibr	145.1	263.75	267.51		267.62	0.000327	1.51	113.25	48.02	0.27
KinmoutDS	12476	2y	109.2	263.75	267.13		267.21	0.000287	1.3	95.28	46.4	0.24
KinmoutDS	12476	5y	145.6	263.75	267.52		267.63	0.000327	1.51	113.49	48.04	0.27
KinmoutDS	12476	10y	170.2	263.75	267.76		267.89	0.000345	1.63	125.55	49.38	0.28
KinmoutDS	12476	25y	202.5	263.75	268.07		268.22	0.000364	1.77	140.76	51.39	0.29
KinmoutDS	12476	50y	228.3	263.75	268.3		268.46	0.000376	1.87	152.86	53.65	0.3
KinmoutDS	12476	100y	256.1	263.75	268.53		268.72	0.000386	1.97	165.84	55.14	0.3
KinmoutDS	12476	200y	286.7	263.75	268.79		268.99	0.000391	2.06	180.36	56.56	0.31
KinmoutDS	12476	350y	313.8	263.75	269.02		269.23	0.000394	2.13	193.13	57.92	0.31
KinmoutDS	12476	Sept 25 2021	68.8	263.75	266.63		266.68	0.000223	1.01	72.71	43.02	0.21
KinmoutDS	12476	July 13 2024	53.2	263.75	266.4		266.44	0.000189	0.87	63.59	36.53	0.19
KinmoutDS	12476	April 21 2019	228	263.75	268.29		268.46	0.000376	1.87	152.71	53.63	0.3
KinmoutDS	12476	Nov 2 2013	77	263.75	266.74		266.8	0.000238	1.08	77.52	43.79	0.22
KinmoutDS	12476	April 16 2014	175	263.75	267.81		267.94	0.000349	1.65	127.8	49.64	0.28
KinmoutDS	12476	May 8 2017	142	263.75	267.48		267.59	0.000323	1.49	111.85	47.9	0.26
KinmoutDS	12476	April 21 2013	216	263.75	268.19		268.35	0.000371	1.82	147.05	52.64	0.29
KinmoutDS	12436	Timmins_Uncalibr	454.35	264.14	270.03		270.34	0.000513	2.63	249.26	76.06	0.36
KinmoutDS	12436	Timmins_Calibrat	115.6	264.14	267.15		267.27	0.000517	1.59	82.48	41.43	0.32
KinmoutDS	12436	TimminsCC_Calibr	145.1	264.14	267.45		267.6	0.000548	1.77	95.16	42.8	0.34
KinmoutDS	12436	2y	109.2	264.14	267.08		267.2	0.00051	1.55	79.57	41.07	0.32
KinmoutDS	12436	5y	145.6	264.14	267.46		267.61	0.000549	1.77	95.37	42.82	0.34
KinmoutDS	12436	10y	170.2	264.14	267.7		267.87	0.000561	1.89	105.95	44.76	0.34
KinmoutDS	12436	25y	202.5	264.14	268		268.19	0.000572	2.03	119.9	48.73	0.35
KinmoutDS	12436	50y	228.3	264.14	268.23		268.44	0.000575	2.13	131.69	53.38	0.36
KinmoutDS	12436	100y	256.1	264.14	268.46		268.69	0.000575	2.22	144.52	54.78	0.36
KinmoutDS	12436	200y	286.7	264.14	268.72		268.97	0.000568	2.3	159	56.48	0.36
KinmoutDS	12436	350y	313.8	264.14	268.95		269.21	0.00056	2.37	171.95	61.71	0.36
KinmoutDS	12436	Sept 25 2021	68.8	264.14	266.59		266.66	0.000442	1.24	60.1	37.77	0.28
KinmoutDS	12436	July 13 2024	53.2	264.14	266.36		266.42	0.000402	1.09	51.86	35.76	0.26
KinmoutDS	12436	April 21 2019	228	264.14	268.22		268.44	0.000575	2.13	131.54	53.36	0.36

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	12436	Nov 2 2013	77	264.14	266.7		266.78	0.000459	1.31	64.24	38.7	0.29
KinmoutDS	12436	April 16 2014	175	264.14	267.74		267.92	0.000563	1.91	107.97	45.36	0.35
KinmoutDS	12436	May 8 2017	142	264.14	267.42		267.57	0.000544	1.75	93.95	42.66	0.33
KinmoutDS	12436	April 21 2013	216	264.14	268.12		268.32	0.000575	2.08	125.91	52.69	0.36
KinmoutDS	12396	Timmins_Uncalibr	454.35	264.41	270.02		270.31	0.000566	2.62	259.32	75.95	0.37
KinmoutDS	12396	Timmins_Calibrat	115.6	264.41	267.08		267.24	0.000907	1.84	73.73	43.37	0.41
KinmoutDS	12396	TimminsCC_Calibr	145.1	264.41	267.38		267.57	0.000886	2	87.05	45.99	0.41
KinmoutDS	12396	2y	109.2	264.41	267.01		267.17	0.000915	1.81	70.66	43.11	0.41
KinmoutDS	12396	5y	145.6	264.41	267.39		267.58	0.000886	2	87.27	46.14	0.41
KinmoutDS	12396	10y	170.2	264.41	267.63		267.84	0.000852	2.09	99.42	50.41	0.41
KinmoutDS	12396	25y	202.5	264.41	267.94		268.16	0.000813	2.2	115.19	54.37	0.41
KinmoutDS	12396	50y	228.3	264.41	268.17		268.41	0.000783	2.27	128.31	57.88	0.41
KinmoutDS	12396	100y	256.1	264.41	268.42		268.67	0.000755	2.34	143.36	66.65	0.41
KinmoutDS	12396	200y	286.7	264.41	268.69		268.94	0.000716	2.4	161.97	70.64	0.4
KinmoutDS	12396	350y	313.8	264.41	268.92		269.18	0.000683	2.44	178.48	71.55	0.39
KinmoutDS	12396	Sept 25 2021	68.8	264.41	266.52		266.63	0.000978	1.55	49.93	40.7	0.4
KinmoutDS	12396	July 13 2024	53.2	264.41	266.29		266.39	0.001023	1.43	40.98	39.43	0.4
KinmoutDS	12396	April 21 2019	228	264.41	268.17		268.41	0.000783	2.27	128.15	57.84	0.41
KinmoutDS	12396	Nov 2 2013	77	264.41	266.62		266.75	0.000964	1.61	54.36	41.47	0.4
KinmoutDS	12396	April 16 2014	175	264.41	267.68		267.89	0.000847	2.11	101.73	50.59	0.41
KinmoutDS	12396	May 8 2017	142	264.41	267.35		267.54	0.000885	1.98	85.76	44.8	0.41
KinmoutDS	12396	April 21 2013	216	264.41	268.06		268.29	0.000798	2.24	121.97	56.13	0.41
KinmoutDS	12352	Timmins_Uncalibr	454.35	264.2	270.11		270.25	0.000287	1.99	432.26	501.67	0.28
KinmoutDS	12352	Timmins_Calibrat	115.6	264.2	267.12		267.19	0.000441	1.39	147.82	371.12	0.3
KinmoutDS	12352	TimminsCC_Calibr	145.1	264.2	267.43		267.51	0.000418	1.48	176.44	414.61	0.3
KinmoutDS	12352	2y	109.2	264.2	267.04		267.11	0.000448	1.37	141.17	356.53	0.3
KinmoutDS	12352	5y	145.6	264.2	267.44		267.52	0.000418	1.48	176.9	414.65	0.3
KinmoutDS	12352	10y	170.2	264.2	267.7		267.78	0.000397	1.54	200.44	435.93	0.3
KinmoutDS	12352	25y	202.5	264.2	268.01		268.1	0.000376	1.61	229.66	450.88	0.29
KinmoutDS	12352	50y	228.3	264.2	268.25		268.35	0.000363	1.66	252.11	465.52	0.29
KinmoutDS	12352	100y	256.1	264.2	268.5		268.6	0.00035	1.72	275.66	481.74	0.29
KinmoutDS	12352	200y	286.7	264.2	268.77		268.88	0.000336	1.76	301.51	493.36	0.29
KinmoutDS	12352	350y	313.8	264.2	269.01		269.12	0.000325	1.81	323.93	497.1	0.29
KinmoutDS	12352	Sept 25 2021	68.8	264.2	266.53		266.59	0.00052	1.22	95.78	249.55	0.31
KinmoutDS	12352	July 13 2024	53.2	264.2	266.29		266.35	0.000578	1.16	75.66	195.84	0.32
KinmoutDS	12352	April 21 2019	228	264.2	268.25		268.34	0.000363	1.66	251.85	465.45	0.29
KinmoutDS	12352	Nov 2 2013	77	264.2	266.64		266.7	0.0005	1.25	105.61	266.89	0.31
KinmoutDS	12352	April 16 2014	175	264.2	267.74		267.83	0.000394	1.55	204.8	437.84	0.3
KinmoutDS	12352	May 8 2017	142	264.2	267.4		267.48	0.000419	1.47	173.73	414.32	0.3
KinmoutDS	12352	April 21 2013	216	264.2	268.14		268.23	0.000369	1.64	241.42	457.76	0.29
KinmoutDS	12314	Timmins_Uncalibr	454.35	263.17	269.97		270.22	0.000387	2.33	260.95	60.89	0.31
KinmoutDS	12314	Timmins_Calibrat	115.6	263.17	267.1		267.18	0.000278	1.26	100.95	42.76	0.23
KinmoutDS	12314	TimminsCC_Calibr	145.1	263.17	267.4		267.5	0.000315	1.43	115.05	51.26	0.25

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	12314	2y	109.2	263.17	267.03		267.1	0.00027	1.23	97.95	42.35	0.23
KinmoutDS	12314	5y	145.6	263.17	267.4		267.5	0.000315	1.43	115.29	51.3	0.25
KinmoutDS	12314	10y	170.2	263.17	267.65		267.76	0.000334	1.55	128.07	53.13	0.26
KinmoutDS	12314	25y	202.5	263.17	267.95		268.08	0.000353	1.68	144.27	54.3	0.27
KinmoutDS	12314	50y	228.3	263.17	268.18		268.33	0.000364	1.77	156.84	55.06	0.28
KinmoutDS	12314	100y	256.1	263.17	268.42		268.58	0.000373	1.87	170.13	55.85	0.29
KinmoutDS	12314	200y	286.7	263.17	268.68		268.86	0.000378	1.95	184.86	56.64	0.29
KinmoutDS	12314	350y	313.8	263.17	268.9		269.1	0.000381	2.02	197.71	57.32	0.29
KinmoutDS	12314	Sept 25 2021	68.8	263.17	266.53		266.57	0.000205	0.94	77.5	39.78	0.19
KinmoutDS	12314	July 13 2024	53.2	263.17	266.3		266.33	0.000172	0.81	68.61	37.61	0.17
KinmoutDS	12314	April 21 2019	228	263.17	268.17		268.32	0.000364	1.77	156.69	55.05	0.28
KinmoutDS	12314	Nov 2 2013	77	263.17	266.64		266.69	0.00022	1.01	81.9	40.25	0.2
KinmoutDS	12314	April 16 2014	175	263.17	267.69		267.81	0.000338	1.57	130.47	53.36	0.26
KinmoutDS	12314	May 8 2017	142	263.17	267.37		267.47	0.000311	1.41	113.61	51.03	0.25
KinmoutDS	12314	April 21 2013	216	263.17	268.07		268.21	0.00036	1.73	150.83	54.7	0.28
KinmoutDS	12276	Timmins_Uncalibr	454.35	261.96	270.01		270.19	0.00023	1.97	309.87	63.66	0.24
KinmoutDS	12276	Timmins_Calibrat	115.6	261.96	267.11		267.16	0.000113	0.95	136.73	54.79	0.15
KinmoutDS	12276	TimminsCC_Calibr	145.1	261.96	267.42		267.48	0.000136	1.1	153.61	56.23	0.17
KinmoutDS	12276	2y	109.2	261.96	267.04		267.08	0.000108	0.92	132.83	54.38	0.15
KinmoutDS	12276	5y	145.6	261.96	267.42		267.48	0.000136	1.1	153.88	56.25	0.17
KinmoutDS	12276	10y	170.2	261.96	267.67		267.74	0.000151	1.2	167.88	57.18	0.18
KinmoutDS	12276	25y	202.5	261.96	267.97		268.06	0.000168	1.33	185.44	58.29	0.19
KinmoutDS	12276	50y	228.3	261.96	268.2		268.3	0.00018	1.42	199.04	59.03	0.2
KinmoutDS	12276	100y	256.1	261.96	268.45		268.55	0.00019	1.5	213.38	59.76	0.21
KinmoutDS	12276	200y	286.7	261.96	268.71		268.83	0.000199	1.59	229.2	60.37	0.22
KinmoutDS	12276	350y	313.8	261.96	268.94		269.07	0.000206	1.66	242.95	60.9	0.22
KinmoutDS	12276	Sept 25 2021	68.8	261.96	266.54		266.56	0.00007	0.68	107.48	44	0.12
KinmoutDS	12276	July 13 2024	53.2	261.96	266.31		266.32	0.000054	0.56	97.88	40.02	0.1
KinmoutDS	12276	April 21 2019	228	261.96	268.2		268.3	0.00018	1.41	198.88	59.03	0.2
KinmoutDS	12276	Nov 2 2013	77	261.96	266.65		266.68	0.000079	0.73	112.52	46.65	0.13
KinmoutDS	12276	April 16 2014	175	261.96	267.71		267.79	0.000154	1.22	170.49	57.37	0.18
KinmoutDS	12276	May 8 2017	142	261.96	267.39		267.45	0.000133	1.08	152	56.11	0.17
KinmoutDS	12276	April 21 2013	216	261.96	268.09		268.19	0.000174	1.37	192.55	58.69	0.2
KinmoutDS	12234	Timmins_Uncalibr	454.35	260.46	270.03		270.17	0.000147	1.71	355.25	70.95	0.2
KinmoutDS	12234	Timmins_Calibrat	115.6	260.46	267.12		267.15	0.000056	0.76	171.33	54.31	0.11
KinmoutDS	12234	TimminsCC_Calibr	145.1	260.46	267.43		267.47	0.00007	0.89	188.42	58.04	0.13
KinmoutDS	12234	2y	109.2	260.46	267.05		267.08	0.000052	0.73	167.44	53.86	0.11
KinmoutDS	12234	5y	145.6	260.46	267.43		267.47	0.00007	0.9	188.71	58.07	0.13
KinmoutDS	12234	10y	170.2	260.46	267.68		267.73	0.00008	0.99	203.3	59.43	0.14
KinmoutDS	12234	25y	202.5	260.46	267.99		268.04	0.000092	1.1	221.63	60.43	0.15
KinmoutDS	12234	50y	228.3	260.46	268.22		268.29	0.000101	1.18	235.81	61.28	0.16
KinmoutDS	12234	100y	256.1	260.46	268.46		268.54	0.00011	1.27	250.82	62.34	0.16
KinmoutDS	12234	200y	286.7	260.46	268.73		268.81	0.000117	1.35	267.45	63.36	0.17
KinmoutDS	12234	350y	313.8	260.46	268.95		269.05	0.000123	1.42	281.99	64.37	0.18

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	12234	Sept 25 2021	68.8	260.46	266.54		266.56	0.000031	0.53	141.88	46.89	0.08
KinmoutDS	12234	July 13 2024	53.2	260.46	266.31		266.32	0.000023	0.43	131.12	45.72	0.07
KinmoutDS	12234	April 21 2019	228	260.46	268.22		268.28	0.000101	1.18	235.65	61.27	0.16
KinmoutDS	12234	Nov 2 2013	77	260.46	266.65		266.67	0.000036	0.57	147.16	47.66	0.09
KinmoutDS	12234	April 16 2014	175	260.46	267.73		267.78	0.000082	1.01	206.03	59.58	0.14
KinmoutDS	12234	May 8 2017	142	260.46	267.4		267.44	0.000068	0.88	186.75	57.89	0.13
KinmoutDS	12234	April 21 2013	216	260.46	268.11		268.17	0.000097	1.15	229.04	60.86	0.15
KinmoutDS	12193	Timmins_Uncalibr	454.35	261.47	269.92		270.15	0.000281	2.21	273.59	66.37	0.27
KinmoutDS	12193	Timmins_Calibrat	115.6	261.47	267.09		267.14	0.000127	1.03	122.73	42.81	0.17
KinmoutDS	12193	TimminsCC_Calibr	145.1	261.47	267.39		267.46	0.000155	1.19	136.05	46.89	0.19
KinmoutDS	12193	2y	109.2	261.47	267.02		267.07	0.000121	0.99	119.77	41.95	0.16
KinmoutDS	12193	5y	145.6	261.47	267.39		267.46	0.000155	1.2	136.27	46.95	0.19
KinmoutDS	12193	10y	170.2	261.47	267.63		267.72	0.000174	1.32	147.84	48.77	0.2
KinmoutDS	12193	25y	202.5	261.47	267.93		268.04	0.000196	1.46	162.5	49.95	0.21
KinmoutDS	12193	50y	228.3	261.47	268.16		268.28	0.000211	1.56	173.9	50.89	0.22
KinmoutDS	12193	100y	256.1	261.47	268.39		268.53	0.000225	1.66	186.03	52.12	0.23
KinmoutDS	12193	200y	286.7	261.47	268.65		268.8	0.000237	1.76	199.63	53.54	0.24
KinmoutDS	12193	350y	313.8	261.47	268.87		269.03	0.000246	1.84	211.64	54.78	0.25
KinmoutDS	12193	Sept 25 2021	68.8	261.47	266.53		266.55	0.000077	0.72	99.82	38.52	0.13
KinmoutDS	12193	July 13 2024	53.2	261.47	266.3		266.32	0.000059	0.6	91.37	35.47	0.11
KinmoutDS	12193	April 21 2019	228	261.47	268.15		268.27	0.000211	1.56	173.77	50.88	0.22
KinmoutDS	12193	Nov 2 2013	77	261.47	266.64		266.67	0.000087	0.78	104.08	39.29	0.13
KinmoutDS	12193	April 16 2014	175	261.47	267.68		267.77	0.000178	1.34	150.02	49	0.2
KinmoutDS	12193	May 8 2017	142	261.47	267.36		267.43	0.000152	1.18	134.75	46.52	0.18
KinmoutDS	12193	April 21 2013	216	261.47	268.05		268.16	0.000204	1.51	168.45	50.41	0.22
KinmoutDS	12156	Timmins_Uncalibr	454.35	262.38	269.94		270.13	0.000314	2.2	396.29	115.12	0.29
KinmoutDS	12156	Timmins_Calibrat	115.6	262.38	267.04		267.13	0.000304	1.39	105.31	60.31	0.25
KinmoutDS	12156	TimminsCC_Calibr	145.1	262.38	267.33		267.45	0.000347	1.57	125.73	85.23	0.27
KinmoutDS	12156	2y	109.2	262.38	266.97		267.06	0.000295	1.35	101.24	59.22	0.25
KinmoutDS	12156	5y	145.6	262.38	267.33		267.45	0.000347	1.58	126.13	85.44	0.27
KinmoutDS	12156	10y	170.2	262.38	267.57		267.71	0.000364	1.69	148.38	98.65	0.28
KinmoutDS	12156	25y	202.5	262.38	267.87		268.02	0.00037	1.8	178.46	100.15	0.29
KinmoutDS	12156	50y	228.3	262.38	268.11		268.26	0.000368	1.86	201.96	100.93	0.29
KinmoutDS	12156	100y	256.1	262.38	268.35		268.51	0.000363	1.92	226.84	101.75	0.29
KinmoutDS	12156	200y	286.7	262.38	268.62		268.79	0.000354	1.98	254.33	102.65	0.29
KinmoutDS	12156	350y	313.8	262.38	268.85		269.02	0.000346	2.02	278.27	103.47	0.29
KinmoutDS	12156	Sept 25 2021	68.8	262.38	266.49		266.55	0.00022	1.04	74.5	50.72	0.21
KinmoutDS	12156	July 13 2024	53.2	262.38	266.27		266.31	0.000181	0.89	64.3	42.81	0.19
KinmoutDS	12156	April 21 2019	228	262.38	268.1		268.26	0.000368	1.86	201.68	100.92	0.29
KinmoutDS	12156	Nov 2 2013	77	262.38	266.6		266.66	0.000238	1.11	80.05	53.65	0.22
KinmoutDS	12156	April 16 2014	175	262.38	267.61		267.75	0.000368	1.71	152.7	99.29	0.29
KinmoutDS	12156	May 8 2017	142	262.38	267.3		267.42	0.000343	1.56	123.43	83.67	0.27
KinmoutDS	12156	April 21 2013	216	262.38	268		268.15	0.000369	1.83	190.73	100.56	0.29

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	12115	Timmins_Uncalibr	454.35	263.17	269.9		270.11	0.000421	2.41	413.62	132.89	0.34
KinmoutDS	12115	Timmins_Calibrat	115.6	263.17	266.92		267.11	0.000811	1.94	78.49	65.06	0.41
KinmoutDS	12115	TimminsCC_Calibr	145.1	263.17	267.2		267.42	0.000831	2.12	98.25	77.78	0.42
KinmoutDS	12115	2y	109.2	263.17	266.86		267.03	0.000807	1.9	74.25	63.33	0.4
KinmoutDS	12115	5y	145.6	263.17	267.21		267.42	0.000831	2.12	98.6	78.06	0.42
KinmoutDS	12115	10y	170.2	263.17	267.44		267.67	0.000824	2.23	119.75	104.3	0.42
KinmoutDS	12115	25y	202.5	263.17	267.76		267.99	0.000743	2.27	154.49	111.72	0.41
KinmoutDS	12115	50y	228.3	263.17	268.01		268.24	0.000682	2.29	182.42	113.77	0.4
KinmoutDS	12115	100y	256.1	263.17	268.27		268.49	0.000626	2.3	212.12	115.58	0.38
KinmoutDS	12115	200y	286.7	263.17	268.55		268.77	0.00057	2.31	245.02	117.7	0.37
KinmoutDS	12115	350y	313.8	263.17	268.79		269	0.00053	2.32	273.73	119.53	0.36
KinmoutDS	12115	Sept 25 2021	68.8	263.17	266.41		266.52	0.000714	1.54	50.58	44.8	0.37
KinmoutDS	12115	July 13 2024	53.2	263.17	266.2		266.29	0.000653	1.36	42.22	37.89	0.35
KinmoutDS	12115	April 21 2019	228	263.17	268.01		268.23	0.000683	2.29	182.09	113.75	0.4
KinmoutDS	12115	Nov 2 2013	77	263.17	266.5		266.64	0.00074	1.62	55.15	47.25	0.38
KinmoutDS	12115	April 16 2014	175	263.17	267.49		267.72	0.000813	2.24	124.65	105.19	0.42
KinmoutDS	12115	May 8 2017	142	263.17	267.18		267.39	0.000827	2.1	96.23	75.35	0.42
KinmoutDS	12115	April 21 2013	216	263.17	267.89		268.12	0.000711	2.28	169.04	112.83	0.4
KinmoutDS	12073	Timmins_Uncalibr	454.35	263.63	269.94		270.07	0.000308	2.05	489.97	135.82	0.29
KinmoutDS	12073	Timmins_Calibrat	115.6	263.63	266.94		267.06	0.000642	1.67	126.25	106.57	0.36
KinmoutDS	12073	TimminsCC_Calibr	145.1	263.63	267.24		267.36	0.000593	1.74	158.77	110.66	0.35
KinmoutDS	12073	2y	109.2	263.63	266.87		266.98	0.000657	1.65	118.78	105.38	0.36
KinmoutDS	12073	5y	145.6	263.63	267.25		267.36	0.000592	1.75	159.3	110.72	0.35
KinmoutDS	12073	10y	170.2	263.63	267.49		267.61	0.000559	1.81	187.09	117.32	0.35
KinmoutDS	12073	25y	202.5	263.63	267.81		267.94	0.000496	1.83	225.14	118.61	0.33
KinmoutDS	12073	50y	228.3	263.63	268.06		268.18	0.000457	1.85	254.57	119.73	0.33
KinmoutDS	12073	100y	256.1	263.63	268.32		268.44	0.000423	1.87	285.53	120.82	0.32
KinmoutDS	12073	200y	286.7	263.63	268.6		268.72	0.00039	1.89	319.51	121.96	0.31
KinmoutDS	12073	350y	313.8	263.63	268.84		268.96	0.000367	1.91	348.93	122.94	0.3
KinmoutDS	12073	Sept 25 2021	68.8	263.63	266.39		266.49	0.000762	1.5	71.09	90.39	0.37
KinmoutDS	12073	July 13 2024	53.2	263.63	266.17		266.26	0.0008	1.4	53.04	78.06	0.38
KinmoutDS	12073	April 21 2019	228	263.63	268.06		268.18	0.000457	1.85	254.23	119.72	0.33
KinmoutDS	12073	Nov 2 2013	77	263.63	266.49		266.6	0.00074	1.54	80.82	94.36	0.37
KinmoutDS	12073	April 16 2014	175	263.63	267.54		267.66	0.00055	1.81	192.69	117.51	0.35
KinmoutDS	12073	May 8 2017	142	263.63	267.21		267.33	0.000595	1.73	155.67	110.34	0.35
KinmoutDS	12073	April 21 2013	216	263.63	267.94		268.06	0.000475	1.84	240.53	119.19	0.33
KinmoutDS	12025	Timmins_Uncalibr	454.35	263.94	269.99		270.04	0.000154	1.46	699.4	174.83	0.21
KinmoutDS	12025	Timmins_Calibrat	115.6	263.94	266.96		267.01	0.000341	1.21	195.09	161.5	0.26
KinmoutDS	12025	TimminsCC_Calibr	145.1	263.94	267.27		267.32	0.000305	1.25	244.37	162.45	0.26
KinmoutDS	12025	2y	109.2	263.94	266.89		266.94	0.000353	1.21	183.51	161.28	0.27
KinmoutDS	12025	5y	145.6	263.94	267.27		267.32	0.000305	1.25	245.16	162.47	0.26
KinmoutDS	12025	10y	170.2	263.94	267.52		267.57	0.000278	1.28	285.71	163.28	0.25
KinmoutDS	12025	25y	202.5	263.94	267.85		267.9	0.000246	1.3	338.87	164.13	0.24
KinmoutDS	12025	50y	228.3	263.94	268.09		268.15	0.000228	1.31	379.61	164.84	0.23

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	12025	100y	256.1	263.94	268.35		268.4	0.000211	1.33	422.24	165.63	0.23
KinmoutDS	12025	200y	286.7	263.94	268.63		268.68	0.000196	1.35	468.84	166.74	0.22
KinmoutDS	12025	350y	313.8	263.94	268.87		268.93	0.000185	1.36	509.09	167.85	0.22
KinmoutDS	12025	Sept 25 2021	68.8	263.94	266.39		266.44	0.000444	1.13	107.54	137.04	0.29
KinmoutDS	12025	July 13 2024	53.2	263.94	266.17		266.22	0.000493	1.07	79.52	113.13	0.29
KinmoutDS	12025	April 21 2019	228	263.94	268.09		268.14	0.000228	1.31	379.13	164.83	0.23
KinmoutDS	12025	Nov 2 2013	77	263.94	266.5		266.55	0.000423	1.15	123.03	146.01	0.28
KinmoutDS	12025	April 16 2014	175	263.94	267.57		267.62	0.000272	1.28	293.74	163.43	0.25
KinmoutDS	12025	May 8 2017	142	263.94	267.24		267.29	0.000307	1.25	239.72	162.36	0.26
KinmoutDS	12025	April 21 2013	216	263.94	267.98		268.03	0.000236	1.3	360.2	164.51	0.23
KinmoutDS	11995	Timmins_Uncalibr	454.35	264.12	269.99		270.03	0.000128	1.34	735.58	181.71	0.19
KinmoutDS	11995	Timmins_Calibrat	115.6	264.12	266.96		267	0.000282	1.1	208.45	167.7	0.24
KinmoutDS	11995	TimminsCC_Calibr	145.1	264.12	267.27		267.31	0.000253	1.14	259.88	169.37	0.23
KinmoutDS	11995	2y	109.2	264.12	266.89		266.93	0.00029	1.09	196.45	164.61	0.24
KinmoutDS	11995	5y	145.6	264.12	267.27		267.31	0.000252	1.14	260.7	169.39	0.23
KinmoutDS	11995	10y	170.2	264.12	267.52		267.56	0.00023	1.16	303.11	170.33	0.23
KinmoutDS	11995	25y	202.5	264.12	267.85		267.89	0.000204	1.18	358.7	171.35	0.22
KinmoutDS	11995	50y	228.3	264.12	268.09		268.14	0.000189	1.2	401.31	172.12	0.21
KinmoutDS	11995	100y	256.1	264.12	268.35		268.4	0.000176	1.21	445.89	172.97	0.21
KinmoutDS	11995	200y	286.7	264.12	268.63		268.68	0.000163	1.23	494.64	174.2	0.2
KinmoutDS	11995	350y	313.8	264.12	268.87		268.92	0.000154	1.24	536.75	175.4	0.2
KinmoutDS	11995	Sept 25 2021	68.8	264.12	266.39		266.43	0.000364	1.01	120.68	139.5	0.26
KinmoutDS	11995	July 13 2024	53.2	264.12	266.16		266.2	0.000414	0.97	90.69	123.16	0.27
KinmoutDS	11995	April 21 2019	228	264.12	268.09		268.13	0.000189	1.2	400.81	172.11	0.21
KinmoutDS	11995	Nov 2 2013	77	264.12	266.5		266.54	0.000343	1.03	136.36	145.12	0.26
KinmoutDS	11995	April 16 2014	175	264.12	267.57		267.61	0.000226	1.16	311.51	170.49	0.22
KinmoutDS	11995	May 8 2017	142	264.12	267.24		267.28	0.000254	1.13	255.03	169.22	0.23
KinmoutDS	11995	April 21 2013	216	264.12	267.98		268.02	0.000196	1.19	381.01	171.76	0.21
KinmoutDS	11955	Timmins_Uncalibr	454.35	264.3	269.95		270.03	0.000173	1.54	582.59	149.84	0.22
KinmoutDS	11955	Timmins_Calibrat	115.6	264.3	266.93		266.99	0.000337	1.19	159.71	109.95	0.26
KinmoutDS	11955	TimminsCC_Calibr	145.1	264.3	267.23		267.29	0.000321	1.27	195.14	127.47	0.26
KinmoutDS	11955	2y	109.2	264.3	266.86		266.92	0.000342	1.17	152.05	107.11	0.26
KinmoutDS	11955	5y	145.6	264.3	267.24		267.3	0.000321	1.27	195.75	128.04	0.26
KinmoutDS	11955	10y	170.2	264.3	267.48		267.55	0.000306	1.33	228.75	134.96	0.26
KinmoutDS	11955	25y	202.5	264.3	267.81		267.88	0.000274	1.36	272.92	136.35	0.25
KinmoutDS	11955	50y	228.3	264.3	268.06		268.13	0.000255	1.38	306.89	137.42	0.25
KinmoutDS	11955	100y	256.1	264.3	268.32		268.38	0.000238	1.4	342.61	140.62	0.24
KinmoutDS	11955	200y	286.7	264.3	268.6		268.67	0.000224	1.43	382.9	145.31	0.24
KinmoutDS	11955	350y	313.8	264.3	268.84		268.91	0.000211	1.45	418.09	146.22	0.23
KinmoutDS	11955	Sept 25 2021	68.8	264.3	266.37		266.41	0.000396	1.05	100.6	100.81	0.27
KinmoutDS	11955	July 13 2024	53.2	264.3	266.14		266.18	0.000427	0.98	79.08	88.87	0.27
KinmoutDS	11955	April 21 2019	228	264.3	268.05		268.12	0.000255	1.38	306.49	137.41	0.25
KinmoutDS	11955	Nov 2 2013	77	264.3	266.47		266.52	0.00038	1.08	111.72	102.14	0.27
KinmoutDS	11955	April 16 2014	175	264.3	267.53		267.6	0.000301	1.33	235.42	135.16	0.26

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	11955	May 8 2017	142	264.3	267.2		267.27	0.00032	1.26	191.64	123.22	0.26
KinmoutDS	11955	April 21 2013	216	264.3	267.94		268.01	0.000264	1.37	290.69	136.93	0.25
KinmoutDS	11913	Timmins_Uncalibr	454.35	264.35	269.89		270.01	0.000237	1.76	449.02	114.3	0.25
KinmoutDS	11913	Timmins_Calibrat	115.6	264.35	266.9		266.97	0.000415	1.29	130.84	92.61	0.28
KinmoutDS	11913	TimminsCC_Calibr	145.1	264.35	267.19		267.28	0.000401	1.39	159.84	98.86	0.29
KinmoutDS	11913	2y	109.2	264.35	266.83		266.9	0.00042	1.27	124.41	90.66	0.28
KinmoutDS	11913	5y	145.6	264.35	267.2		267.28	0.000401	1.39	160.32	98.88	0.29
KinmoutDS	11913	10y	170.2	264.35	267.45		267.53	0.000378	1.44	184.86	100.23	0.28
KinmoutDS	11913	25y	202.5	264.35	267.77		267.86	0.000347	1.49	217.57	102	0.28
KinmoutDS	11913	50y	228.3	264.35	268.01		268.11	0.000328	1.53	242.94	104.04	0.27
KinmoutDS	11913	100y	256.1	264.35	268.27		268.37	0.000311	1.57	269.88	106.61	0.27
KinmoutDS	11913	200y	286.7	264.35	268.55		268.65	0.000292	1.6	299.88	107.9	0.26
KinmoutDS	11913	350y	313.8	264.35	268.79		268.9	0.000278	1.62	325.92	109.14	0.26
KinmoutDS	11913	Sept 25 2021	68.8	264.35	266.33		266.39	0.000467	1.12	81.94	82.4	0.29
KinmoutDS	11913	July 13 2024	53.2	264.35	266.11		266.16	0.000495	1.04	64.21	77	0.29
KinmoutDS	11913	April 21 2019	228	264.35	268.01		268.11	0.000328	1.53	242.64	104	0.27
KinmoutDS	11913	Nov 2 2013	77	264.35	266.44		266.51	0.000454	1.15	90.98	84.15	0.29
KinmoutDS	11913	April 16 2014	175	264.35	267.49		267.58	0.000373	1.45	189.78	100.52	0.28
KinmoutDS	11913	May 8 2017	142	264.35	267.17		267.25	0.000402	1.38	157.09	98.72	0.29
KinmoutDS	11913	April 21 2013	216	264.35	267.9		267.99	0.000337	1.51	230.8	103.24	0.27
KinmoutDS	11876	Timmins_Uncalibr	454.35	264.23	269.85		270	0.000259	1.9	397.49	113.07	0.27
KinmoutDS	11876	Timmins_Calibrat	115.6	264.23	266.88		266.96	0.000363	1.28	115.74	75.75	0.27
KinmoutDS	11876	TimminsCC_Calibr	145.1	264.23	267.17		267.26	0.000366	1.39	138.17	77.25	0.28
KinmoutDS	11876	2y	109.2	264.23	266.81		266.88	0.000364	1.25	110.49	75.49	0.27
KinmoutDS	11876	5y	145.6	264.23	267.18		267.27	0.000366	1.4	138.53	77.29	0.28
KinmoutDS	11876	10y	170.2	264.23	267.42		267.52	0.000359	1.47	157.42	78.23	0.28
KinmoutDS	11876	25y	202.5	264.23	267.74		267.85	0.000342	1.54	182.57	79.61	0.28
KinmoutDS	11876	50y	228.3	264.23	267.98		268.1	0.000332	1.6	202.15	82.9	0.28
KinmoutDS	11876	100y	256.1	264.23	268.23		268.36	0.00032	1.65	225.19	95.1	0.28
KinmoutDS	11876	200y	286.7	264.23	268.51		268.64	0.000309	1.7	252.28	102.63	0.28
KinmoutDS	11876	350y	313.8	264.23	268.74		268.88	0.000304	1.76	276.94	106.5	0.28
KinmoutDS	11876	Sept 25 2021	68.8	264.23	266.32		266.38	0.000358	1.05	76.91	63.39	0.26
KinmoutDS	11876	July 13 2024	53.2	264.23	266.1		266.15	0.000351	0.95	63.26	60.42	0.25
KinmoutDS	11876	April 21 2019	228	264.23	267.98		268.09	0.000332	1.6	201.91	82.8	0.28
KinmoutDS	11876	Nov 2 2013	77	264.23	266.43		266.49	0.00036	1.1	83.81	64.87	0.26
KinmoutDS	11876	April 16 2014	175	264.23	267.47		267.57	0.000356	1.48	161.2	78.39	0.28
KinmoutDS	11876	May 8 2017	142	264.23	267.14		267.23	0.000364	1.38	136.06	77.04	0.28
KinmoutDS	11876	April 21 2013	216	264.23	267.87		267.98	0.000337	1.57	192.75	80.31	0.28
KinmoutDS	11836	Timmins_Uncalibr	454.35	264.16	269.84		269.99	0.000276	1.88	403.22	114.82	0.26
KinmoutDS	11836	Timmins_Calibrat	115.6	264.16	266.86		266.94	0.000384	1.29	101.8	63.7	0.27
KinmoutDS	11836	TimminsCC_Calibr	145.1	264.16	267.15		267.25	0.000403	1.43	122.16	77.96	0.28
KinmoutDS	11836	2y	109.2	264.16	266.79		266.87	0.00038	1.26	97.56	61.19	0.27
KinmoutDS	11836	5y	145.6	264.16	267.15		267.25	0.000403	1.43	122.52	78.01	0.28

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	11836	10y	170.2	264.16	267.39		267.5	0.000401	1.51	141.94	83.18	0.28
KinmoutDS	11836	25y	202.5	264.16	267.71		267.83	0.000386	1.59	169.85	91.51	0.28
KinmoutDS	11836	50y	228.3	264.16	267.96		268.08	0.000373	1.64	193.23	101.57	0.28
KinmoutDS	11836	100y	256.1	264.16	268.21		268.34	0.000361	1.69	220.05	109.26	0.28
KinmoutDS	11836	200y	286.7	264.16	268.49		268.63	0.000341	1.72	251	110.79	0.28
KinmoutDS	11836	350y	313.8	264.16	268.73		268.87	0.000325	1.75	277.8	111.45	0.27
KinmoutDS	11836	Sept 25 2021	68.8	264.16	266.31		266.36	0.000338	1.01	70.49	51.01	0.24
KinmoutDS	11836	July 13 2024	53.2	264.16	266.09		266.13	0.000312	0.89	60.13	42.15	0.23
KinmoutDS	11836	April 21 2019	228	264.16	267.95		268.08	0.000373	1.64	192.95	101.4	0.28
KinmoutDS	11836	Nov 2 2013	77	264.16	266.42		266.47	0.000349	1.07	76.08	53.97	0.25
KinmoutDS	11836	April 16 2014	175	264.16	267.44		267.55	0.000399	1.52	145.96	84.52	0.28
KinmoutDS	11836	May 8 2017	142	264.16	267.12		267.22	0.0004	1.41	120.07	77.68	0.28
KinmoutDS	11836	April 21 2013	216	264.16	267.84		267.96	0.00038	1.62	181.82	95.88	0.28
KinmoutDS	11797	Timmins_Uncalibr	454.35	263.96	269.86		269.97	0.000208	1.7	492.15	128.47	0.23
KinmoutDS	11797	Timmins_Calibrat	115.6	263.96	266.86		266.92	0.000285	1.18	132.17	102.39	0.24
KinmoutDS	11797	TimminsCC_Calibr	145.1	263.96	267.15		267.23	0.000295	1.3	162.74	107.83	0.25
KinmoutDS	11797	2y	109.2	263.96	266.79		266.85	0.000283	1.16	125.12	101.63	0.24
KinmoutDS	11797	5y	145.6	263.96	267.15		267.23	0.000295	1.3	163.25	107.9	0.25
KinmoutDS	11797	10y	170.2	263.96	267.4		267.48	0.000294	1.37	190.79	117.65	0.25
KinmoutDS	11797	25y	202.5	263.96	267.72		267.81	0.00028	1.43	229.05	119.19	0.25
KinmoutDS	11797	50y	228.3	263.96	267.97		268.06	0.000269	1.46	258.6	120.23	0.24
KinmoutDS	11797	100y	256.1	263.96	268.22		268.32	0.000258	1.5	289.57	121.02	0.24
KinmoutDS	11797	200y	286.7	263.96	268.5		268.6	0.000245	1.53	323.76	121.79	0.24
KinmoutDS	11797	350y	313.8	263.96	268.75		268.85	0.000235	1.56	353.27	122.51	0.24
KinmoutDS	11797	Sept 25 2021	68.8	263.96	266.3		266.35	0.000249	0.94	79.97	69.11	0.21
KinmoutDS	11797	July 13 2024	53.2	263.96	266.09		266.12	0.000221	0.82	67.24	52.26	0.2
KinmoutDS	11797	April 21 2019	228	263.96	267.96		268.06	0.000269	1.46	258.25	120.22	0.24
KinmoutDS	11797	Nov 2 2013	77	263.96	266.41		266.46	0.00026	0.99	88.34	89.35	0.22
KinmoutDS	11797	April 16 2014	175	263.96	267.44		267.53	0.000292	1.38	196.54	117.89	0.25
KinmoutDS	11797	May 8 2017	142	263.96	267.12		267.2	0.000293	1.28	159.81	107.46	0.24
KinmoutDS	11797	April 21 2013	216	263.96	267.85		267.94	0.000274	1.45	244.48	119.78	0.25
KinmoutDS	11755	Timmins_Uncalibr	454.35	263.66	269.84		269.96	0.000211	1.73	443.89	106.63	0.23
KinmoutDS	11755	Timmins_Calibrat	115.6	263.66	266.85		266.91	0.000232	1.1	141.32	94.66	0.22
KinmoutDS	11755	TimminsCC_Calibr	145.1	263.66	267.14		267.21	0.000247	1.22	169.33	96.87	0.23
KinmoutDS	11755	2y	109.2	263.66	266.78		266.84	0.000229	1.08	134.81	93.99	0.21
KinmoutDS	11755	5y	145.6	263.66	267.15		267.22	0.000247	1.22	169.78	96.9	0.23
KinmoutDS	11755	10y	170.2	263.66	267.39		267.47	0.00025	1.29	193.46	97.9	0.23
KinmoutDS	11755	25y	202.5	263.66	267.71		267.8	0.000246	1.37	225.16	99.32	0.23
KinmoutDS	11755	50y	228.3	263.66	267.96		268.05	0.000242	1.42	249.66	100.12	0.23
KinmoutDS	11755	100y	256.1	263.66	268.21		268.31	0.000238	1.47	275.34	101.06	0.23
KinmoutDS	11755	200y	286.7	263.66	268.49		268.59	0.000231	1.51	303.8	102	0.23
KinmoutDS	11755	350y	313.8	263.66	268.73		268.84	0.000226	1.55	328.36	102.76	0.23
KinmoutDS	11755	Sept 25 2021	68.8	263.66	266.3		266.34	0.000192	0.86	92.1	79.7	0.19
KinmoutDS	11755	July 13 2024	53.2	263.66	266.08		266.11	0.000167	0.75	76.47	59.98	0.17

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	11755	April 21 2019	228	263.66	267.96		268.04	0.000242	1.42	249.37	100.11	0.23
KinmoutDS	11755	Nov 2 2013	77	263.66	266.41		266.45	0.000201	0.91	100.97	85.05	0.19
KinmoutDS	11755	April 16 2014	175	263.66	267.44		267.52	0.00025	1.31	198.23	98.09	0.23
KinmoutDS	11755	May 8 2017	142	263.66	267.12		267.18	0.000245	1.21	166.7	96.75	0.22
KinmoutDS	11755	April 21 2013	216	263.66	267.84		267.93	0.000245	1.4	237.96	99.74	0.23
KinmoutDS	11714	Timmins_Uncalibr	454.35	263.36	269.84		269.95	0.000208	1.67	467.52	117.01	0.22
KinmoutDS	11714	Timmins_Calibrat	115.6	263.36	266.85		266.9	0.000218	1.06	144.06	89.37	0.2
KinmoutDS	11714	TimminsCC_Calibr	145.1	263.36	267.14		267.2	0.000238	1.18	171.8	97.1	0.21
KinmoutDS	11714	2y	109.2	263.36	266.78		266.83	0.000213	1.03	137.98	87.53	0.2
KinmoutDS	11714	5y	145.6	263.36	267.14		267.21	0.000238	1.18	172.25	97.22	0.21
KinmoutDS	11714	10y	170.2	263.36	267.38		267.46	0.000244	1.25	196.27	99.73	0.22
KinmoutDS	11714	25y	202.5	263.36	267.71		267.79	0.000243	1.33	229.4	104.42	0.22
KinmoutDS	11714	50y	228.3	263.36	267.95		268.04	0.00024	1.38	255.39	106.47	0.22
KinmoutDS	11714	100y	256.1	263.36	268.21		268.3	0.000236	1.43	282.91	108.53	0.22
KinmoutDS	11714	200y	286.7	263.36	268.49		268.58	0.00023	1.47	313.68	110.29	0.22
KinmoutDS	11714	350y	313.8	263.36	268.73		268.83	0.000225	1.5	340.34	111.35	0.22
KinmoutDS	11714	Sept 25 2021	68.8	263.36	266.3		266.33	0.000154	0.81	98.48	71.25	0.17
KinmoutDS	11714	July 13 2024	53.2	263.36	266.08		266.1	0.000126	0.69	83.92	62.41	0.15
KinmoutDS	11714	April 21 2019	228	263.36	267.95		268.03	0.00024	1.38	255.09	106.46	0.22
KinmoutDS	11714	Nov 2 2013	77	263.36	266.4		266.44	0.000169	0.86	106.48	80.97	0.18
KinmoutDS	11714	April 16 2014	175	263.36	267.43		267.51	0.000244	1.27	201.17	101.51	0.22
KinmoutDS	11714	May 8 2017	142	263.36	267.11		267.17	0.000236	1.16	169.18	96.8	0.21
KinmoutDS	11714	April 21 2013	216	263.36	267.83		267.92	0.000242	1.36	242.95	105.72	0.22
KinmoutDS	11674	Timmins_Uncalibr	454.35	263.07	269.83		269.94	0.000179	1.66	485.58	126.12	0.22
KinmoutDS	11674	Timmins_Calibrat	115.6	263.07	266.84		266.89	0.000161	1	156.78	82.68	0.18
KinmoutDS	11674	TimminsCC_Calibr	145.1	263.07	267.13		267.19	0.00018	1.12	181.45	85.88	0.2
KinmoutDS	11674	2y	109.2	263.07	266.77		266.82	0.000156	0.97	151.16	81.55	0.18
KinmoutDS	11674	5y	145.6	263.07	267.14		267.2	0.00018	1.12	181.85	85.9	0.2
KinmoutDS	11674	10y	170.2	263.07	267.38		267.45	0.000189	1.2	202.77	86.83	0.2
KinmoutDS	11674	25y	202.5	263.07	267.7		267.78	0.000193	1.29	231.95	95.13	0.21
KinmoutDS	11674	50y	228.3	263.07	267.95		268.03	0.000195	1.35	256.38	105.61	0.21
KinmoutDS	11674	100y	256.1	263.07	268.2		268.29	0.000195	1.41	285.37	117.39	0.21
KinmoutDS	11674	200y	286.7	263.07	268.48		268.57	0.000192	1.45	319.05	120.83	0.22
KinmoutDS	11674	350y	313.8	263.07	268.72		268.82	0.000189	1.49	348.23	121.84	0.22
KinmoutDS	11674	Sept 25 2021	68.8	263.07	266.3		266.32	0.000118	0.75	114.36	72.46	0.15
KinmoutDS	11674	July 13 2024	53.2	263.07	266.08		266.1	0.000098	0.64	99.08	68.46	0.14
KinmoutDS	11674	April 21 2019	228	263.07	267.94		268.02	0.000195	1.35	256.08	105.5	0.21
KinmoutDS	11674	Nov 2 2013	77	263.07	266.4		266.43	0.000126	0.79	122.14	74.1	0.16
KinmoutDS	11674	April 16 2014	175	263.07	267.43		267.5	0.00019	1.22	206.99	86.99	0.2
KinmoutDS	11674	May 8 2017	142	263.07	267.11		267.16	0.000178	1.11	179.14	85.77	0.19
KinmoutDS	11674	April 21 2013	216	263.07	267.83		267.91	0.000194	1.32	244.32	98.41	0.21
KinmoutDS	11636	Timmins_Uncalibr	454.35	262.79	269.81		269.93	0.000172	1.66	449.99	119.11	0.21
KinmoutDS	11636	Timmins_Calibrat	115.6	262.79	266.84		266.88	0.000131	0.93	149.43	70.43	0.17

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	11636	TimminsCC_Calibr	145.1	262.79	267.13		267.18	0.000151	1.06	170.6	74.29	0.18
KinmoutDS	11636	2y	109.2	262.79	266.77		266.81	0.000126	0.9	144.71	67.45	0.16
KinmoutDS	11636	5y	145.6	262.79	267.13		267.19	0.000152	1.07	170.94	74.31	0.18
KinmoutDS	11636	10y	170.2	262.79	267.38		267.44	0.000162	1.15	189	75.35	0.19
KinmoutDS	11636	25y	202.5	262.79	267.69		267.77	0.00017	1.25	215.31	89.03	0.2
KinmoutDS	11636	50y	228.3	262.79	267.94		268.02	0.000175	1.31	237.81	97.77	0.2
KinmoutDS	11636	100y	256.1	262.79	268.19		268.28	0.000178	1.38	263.78	106.13	0.21
KinmoutDS	11636	200y	286.7	262.79	268.47		268.57	0.000178	1.43	294.28	112.5	0.21
KinmoutDS	11636	350y	313.8	262.79	268.71		268.81	0.000177	1.48	321.4	113.8	0.21
KinmoutDS	11636	Sept 25 2021	68.8	262.79	266.29		266.32	0.00009	0.69	114.84	59.89	0.13
KinmoutDS	11636	July 13 2024	53.2	262.79	266.08		266.09	0.000073	0.58	101.99	58.59	0.12
KinmoutDS	11636	April 21 2019	228	262.79	267.94		268.02	0.000175	1.31	237.54	97.63	0.2
KinmoutDS	11636	Nov 2 2013	77	262.79	266.4		266.43	0.000099	0.73	121.23	60.76	0.14
KinmoutDS	11636	April 16 2014	175	262.79	267.42		267.49	0.000164	1.17	192.67	77.76	0.19
KinmoutDS	11636	May 8 2017	142	262.79	267.1		267.16	0.000149	1.05	168.61	74.14	0.18
KinmoutDS	11636	April 21 2013	216	262.79	267.82		267.9	0.000173	1.28	226.85	91.76	0.2
KinmoutDS	11596	Timmins_Uncalibr	454.35	263.12	269.81		269.92	0.00016	1.62	459.35	121.99	0.21
KinmoutDS	11596	Timmins_Calibrat	115.6	263.12	266.83		266.88	0.000144	0.97	141.69	75.92	0.18
KinmoutDS	11596	TimminsCC_Calibr	145.1	263.12	267.12		267.18	0.000161	1.09	164.24	79.48	0.19
KinmoutDS	11596	2y	109.2	263.12	266.76		266.81	0.000139	0.94	136.62	72.25	0.18
KinmoutDS	11596	5y	145.6	263.12	267.12		267.18	0.000162	1.09	164.61	79.51	0.2
KinmoutDS	11596	10y	170.2	263.12	267.37		267.43	0.00017	1.17	184.27	86.3	0.2
KinmoutDS	11596	25y	202.5	263.12	267.69		267.76	0.000174	1.26	214.57	102.1	0.21
KinmoutDS	11596	50y	228.3	263.12	267.93		268.01	0.000177	1.32	240.51	110.25	0.21
KinmoutDS	11596	100y	256.1	263.12	268.19		268.27	0.000176	1.37	268.91	111.63	0.21
KinmoutDS	11596	200y	286.7	263.12	268.47		268.56	0.000172	1.42	300.4	113.26	0.21
KinmoutDS	11596	350y	313.8	263.12	268.71		268.8	0.00017	1.46	327.9	115.6	0.21
KinmoutDS	11596	Sept 25 2021	68.8	263.12	266.29		266.31	0.000105	0.72	104.87	62.61	0.15
KinmoutDS	11596	July 13 2024	53.2	263.12	266.07		266.09	0.000087	0.62	91.83	56.28	0.13
KinmoutDS	11596	April 21 2019	228	263.12	267.93		268.01	0.000177	1.32	240.2	110.23	0.21
KinmoutDS	11596	Nov 2 2013	77	263.12	266.39		266.42	0.000113	0.77	111.54	64.01	0.16
KinmoutDS	11596	April 16 2014	175	263.12	267.41		267.48	0.000171	1.19	188.5	88.32	0.2
KinmoutDS	11596	May 8 2017	142	263.12	267.09		267.15	0.000159	1.08	162.12	79.32	0.19
KinmoutDS	11596	April 21 2013	216	263.12	267.81		267.89	0.000175	1.29	227.94	106.59	0.21
KinmoutDS	11555	Timmins_Uncalibr	454.35	263.33	269.81		269.92	0.000172	1.59	431.99	106.58	0.21
KinmoutDS	11555	Timmins_Calibrat	115.6	263.33	266.83		266.87	0.000175	0.96	146.7	71.33	0.19
KinmoutDS	11555	TimminsCC_Calibr	145.1	263.33	267.11		267.17	0.00019	1.07	167.43	72.31	0.2
KinmoutDS	11555	2y	109.2	263.33	266.76		266.8	0.000171	0.93	141.84	71.08	0.19
KinmoutDS	11555	5y	145.6	263.33	267.12		267.17	0.00019	1.07	167.76	72.33	0.2
KinmoutDS	11555	10y	170.2	263.33	267.36		267.42	0.000197	1.16	186.5	84.7	0.21
KinmoutDS	11555	25y	202.5	263.33	267.68		267.75	0.0002	1.24	215.52	94.69	0.21
KinmoutDS	11555	50y	228.3	263.33	267.93		268	0.000199	1.3	239.27	98.03	0.22
KinmoutDS	11555	100y	256.1	263.33	268.18		268.26	0.000195	1.34	264.54	99.28	0.22
KinmoutDS	11555	200y	286.7	263.33	268.46		268.55	0.00019	1.39	292.56	100.84	0.21

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	11555	350y	313.8	263.33	268.7		268.79	0.000186	1.42	316.93	101.86	0.21
KinmoutDS	11555	Sept 25 2021	68.8	263.33	266.28		266.31	0.000142	0.74	108.4	69	0.16
KinmoutDS	11555	July 13 2024	53.2	263.33	266.07		266.09	0.000126	0.65	93.65	67.84	0.15
KinmoutDS	11555	April 21 2019	228	263.33	267.92		268	0.000199	1.29	238.99	98.02	0.22
KinmoutDS	11555	Nov 2 2013	77	263.33	266.39		266.42	0.000149	0.78	115.72	69.55	0.17
KinmoutDS	11555	April 16 2014	175	263.33	267.41		267.47	0.000198	1.17	190.65	86.53	0.21
KinmoutDS	11555	May 8 2017	142	263.33	267.09		267.14	0.000188	1.06	165.49	72.2	0.2
KinmoutDS	11555	April 21 2013	216	263.33	267.81		267.88	0.000201	1.27	227.85	97.45	0.21
KinmoutDS	11516	Timmins_Uncalibr	454.35	263.34	269.78		269.91	0.000172	1.64	370.49	99.96	0.22
KinmoutDS	11516	Timmins_Calibrat	115.6	263.34	266.82		266.86	0.000153	0.93	133.48	58.95	0.18
KinmoutDS	11516	TimminsCC_Calibr	145.1	263.34	267.11		267.16	0.00017	1.06	151.78	65.38	0.2
KinmoutDS	11516	2y	109.2	263.34	266.75		266.79	0.000149	0.91	129.5	58.17	0.18
KinmoutDS	11516	5y	145.6	263.34	267.11		267.17	0.00017	1.06	152.08	65.4	0.2
KinmoutDS	11516	10y	170.2	263.34	267.35		267.42	0.000177	1.14	167.97	66.56	0.2
KinmoutDS	11516	25y	202.5	263.34	267.67		267.75	0.00018	1.22	189.66	70.17	0.21
KinmoutDS	11516	50y	228.3	263.34	267.92		268	0.000181	1.28	206.97	71.9	0.21
KinmoutDS	11516	100y	256.1	263.34	268.17		268.26	0.000181	1.34	225.5	74.8	0.21
KinmoutDS	11516	200y	286.7	263.34	268.45		268.54	0.00018	1.4	246.76	78.73	0.22
KinmoutDS	11516	350y	313.8	263.34	268.68		268.79	0.00018	1.44	266.95	88.13	0.22
KinmoutDS	11516	Sept 25 2021	68.8	263.34	266.28		266.3	0.000118	0.71	102.67	54.86	0.16
KinmoutDS	11516	July 13 2024	53.2	263.34	266.06		266.08	0.000101	0.61	91	53.79	0.14
KinmoutDS	11516	April 21 2019	228	263.34	267.91		267.99	0.000181	1.28	206.77	71.88	0.21
KinmoutDS	11516	Nov 2 2013	77	263.34	266.38		266.41	0.000125	0.75	108.48	55.61	0.16
KinmoutDS	11516	April 16 2014	175	263.34	267.4		267.47	0.000178	1.15	171.19	66.75	0.2
KinmoutDS	11516	May 8 2017	142	263.34	267.08		267.13	0.000168	1.04	150.04	65.23	0.2
KinmoutDS	11516	April 21 2013	216	263.34	267.8		267.88	0.000181	1.25	198.7	71.1	0.21
KinmoutDS	11467	Timmins_Uncalibr	454.35	263.03	269.75		269.9	0.000197	1.76	346.33	95.22	0.23
KinmoutDS	11467	Timmins_Calibrat	115.6	263.03	266.81		266.86	0.000148	0.96	129.56	56.03	0.18
KinmoutDS	11467	TimminsCC_Calibr	145.1	263.03	267.09		267.15	0.000168	1.09	145.6	56.71	0.19
KinmoutDS	11467	2y	109.2	263.03	266.74		266.79	0.000143	0.93	125.81	55.12	0.18
KinmoutDS	11467	5y	145.6	263.03	267.1		267.16	0.000169	1.09	145.85	56.71	0.2
KinmoutDS	11467	10y	170.2	263.03	267.34		267.41	0.00018	1.18	159.45	57.3	0.2
KinmoutDS	11467	25y	202.5	263.03	267.65		267.74	0.000187	1.28	177.7	57.87	0.21
KinmoutDS	11467	50y	228.3	263.03	267.9		267.99	0.000192	1.35	191.72	58.34	0.22
KinmoutDS	11467	100y	256.1	263.03	268.15		268.25	0.000195	1.42	206.49	60.7	0.22
KinmoutDS	11467	200y	286.7	263.03	268.42		268.53	0.000197	1.48	225.78	79.13	0.22
KinmoutDS	11467	350y	313.8	263.03	268.65		268.77	0.000202	1.56	245.73	89.05	0.23
KinmoutDS	11467	Sept 25 2021	68.8	263.03	266.27		266.3	0.000102	0.7	100.32	51.29	0.15
KinmoutDS	11467	July 13 2024	53.2	263.03	266.06		266.08	0.000081	0.6	90.06	46.82	0.13
KinmoutDS	11467	April 21 2019	228	263.03	267.89		267.98	0.000192	1.35	191.56	58.33	0.22
KinmoutDS	11467	Nov 2 2013	77	263.03	266.38		266.4	0.000113	0.75	105.83	53.54	0.15
KinmoutDS	11467	April 16 2014	175	263.03	267.39		267.46	0.000181	1.2	162.2	57.42	0.21
KinmoutDS	11467	May 8 2017	142	263.03	267.07		267.13	0.000166	1.07	144.11	56.66	0.19
KinmoutDS	11467	April 21 2013	216	263.03	267.78		267.87	0.00019	1.32	185.05	58.1	0.21

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	11431	Timmins_Uncalibr	454.35	262.81	269.74		269.89	0.00022	1.79	374.64	119.51	0.23
KinmoutDS	11431	Timmins_Calibrat	115.6	262.81	266.81		266.85	0.000151	0.95	129.22	49.52	0.17
KinmoutDS	11431	TimminsCC_Calibr	145.1	262.81	267.09		267.15	0.000177	1.09	143.3	50.13	0.19
KinmoutDS	11431	2y	109.2	262.81	266.74		266.78	0.000145	0.92	125.9	49.38	0.17
KinmoutDS	11431	5y	145.6	262.81	267.09		267.15	0.000177	1.09	143.53	50.14	0.19
KinmoutDS	11431	10y	170.2	262.81	267.33		267.4	0.000192	1.19	155.47	50.65	0.2
KinmoutDS	11431	25y	202.5	262.81	267.64		267.73	0.000205	1.3	171.51	51.28	0.21
KinmoutDS	11431	50y	228.3	262.81	267.88		267.98	0.000213	1.38	184.33	57.97	0.21
KinmoutDS	11431	100y	256.1	262.81	268.13		268.24	0.000221	1.46	200.42	73.71	0.22
KinmoutDS	11431	200y	286.7	262.81	268.41		268.52	0.000225	1.53	223.76	101.28	0.22
KinmoutDS	11431	350y	313.8	262.81	268.64		268.77	0.000229	1.59	248.88	109.78	0.23
KinmoutDS	11431	Sept 25 2021	68.8	262.81	266.27		266.29	0.0001	0.69	103.02	47.89	0.14
KinmoutDS	11431	July 13 2024	53.2	262.81	266.06		266.07	0.000079	0.58	93.18	44.32	0.12
KinmoutDS	11431	April 21 2019	228	262.81	267.88		267.98	0.000213	1.38	184.18	57.9	0.21
KinmoutDS	11431	Nov 2 2013	77	262.81	266.37		266.4	0.00011	0.74	108.02	48.37	0.14
KinmoutDS	11431	April 16 2014	175	262.81	267.38		267.45	0.000194	1.21	157.88	50.73	0.2
KinmoutDS	11431	May 8 2017	142	262.81	267.06		267.12	0.000174	1.08	142	50.07	0.19
KinmoutDS	11431	April 21 2013	216	262.81	267.77		267.86	0.000209	1.34	178	51.99	0.21
KinmoutDS	11394	Timmins_Uncalibr	454.35	262.57	269.72		269.88	0.000234	1.89	395.26	140.85	0.24
KinmoutDS	11394	Timmins_Calibrat	115.6	262.57	266.79		266.84	0.000151	1	121.92	43.28	0.17
KinmoutDS	11394	TimminsCC_Calibr	145.1	262.57	267.07		267.14	0.000181	1.16	134.46	49.87	0.19
KinmoutDS	11394	2y	109.2	262.57	266.73		266.77	0.000144	0.96	119.05	43.08	0.17
KinmoutDS	11394	5y	145.6	262.57	267.08		267.14	0.000182	1.16	134.68	50.16	0.19
KinmoutDS	11394	10y	170.2	262.57	267.31		267.39	0.000202	1.27	147.06	54.52	0.21
KinmoutDS	11394	25y	202.5	262.57	267.62		267.72	0.000219	1.39	164.98	63.17	0.22
KinmoutDS	11394	50y	228.3	262.57	267.86		267.97	0.000229	1.48	181.37	78.97	0.22
KinmoutDS	11394	100y	256.1	262.57	268.11		268.23	0.000236	1.56	203.13	93.4	0.23
KinmoutDS	11394	200y	286.7	262.57	268.38		268.51	0.000239	1.63	231.11	109.42	0.23
KinmoutDS	11394	350y	313.8	262.57	268.62		268.76	0.00024	1.68	257.63	117.21	0.24
KinmoutDS	11394	Sept 25 2021	68.8	262.57	266.26		266.29	0.000095	0.71	99.42	41.37	0.13
KinmoutDS	11394	July 13 2024	53.2	262.57	266.05		266.07	0.000074	0.59	90.93	38.4	0.12
KinmoutDS	11394	April 21 2019	228	262.57	267.86		267.97	0.000229	1.48	181.15	78.68	0.22
KinmoutDS	11394	Nov 2 2013	77	262.57	266.37		266.4	0.000106	0.77	103.7	41.81	0.14
KinmoutDS	11394	April 16 2014	175	262.57	267.36		267.44	0.000204	1.29	149.64	55.01	0.21
KinmoutDS	11394	May 8 2017	142	262.57	267.05		267.11	0.000178	1.14	133.2	48.28	0.19
KinmoutDS	11394	April 21 2013	216	262.57	267.75		267.85	0.000224	1.44	173.11	67.47	0.22
KinmoutDS	11355	Timmins_Uncalibr	454.35	262.34	269.71		269.87	0.000275	1.94	430.06	498.38	0.24
KinmoutDS	11355	Timmins_Calibrat	115.6	262.34	266.78		266.84	0.000187	1.08	117.43	173.08	0.18
KinmoutDS	11355	TimminsCC_Calibr	145.1	262.34	267.05		267.13	0.000229	1.26	131.89	220.24	0.2
KinmoutDS	11355	2y	109.2	262.34	266.71		266.77	0.000177	1.04	114.74	166.58	0.17
KinmoutDS	11355	5y	145.6	262.34	267.06		267.14	0.000229	1.26	132.18	220.76	0.2
KinmoutDS	11355	10y	170.2	262.34	267.29		267.38	0.000254	1.38	148.02	246.8	0.21
KinmoutDS	11355	25y	202.5	262.34	267.6		267.71	0.000274	1.5	171.46	295.67	0.23

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	11355	50y	228.3	262.34	267.84		267.96	0.000285	1.58	192.56	323.53	0.23
KinmoutDS	11355	100y	256.1	262.34	268.09		268.22	0.000292	1.66	217.22	352.68	0.24
KinmoutDS	11355	200y	286.7	262.34	268.37		268.5	0.000294	1.72	248.45	390.17	0.24
KinmoutDS	11355	350y	313.8	262.34	268.6		268.75	0.000294	1.77	278.47	412.36	0.24
KinmoutDS	11355	Sept 25 2021	68.8	262.34	266.26		266.28	0.000113	0.76	96.22	146.55	0.14
KinmoutDS	11355	July 13 2024	53.2	262.34	266.05		266.07	0.000086	0.63	87.97	127.81	0.12
KinmoutDS	11355	April 21 2019	228	262.34	267.84		267.95	0.000285	1.58	192.31	323.34	0.23
KinmoutDS	11355	Nov 2 2013	77	262.34	266.36		266.39	0.000127	0.82	100.3	148.94	0.15
KinmoutDS	11355	April 16 2014	175	262.34	267.34		267.43	0.000258	1.4	151.34	255.67	0.22
KinmoutDS	11355	May 8 2017	142	262.34	267.03		267.1	0.000224	1.24	130.24	215.99	0.2
KinmoutDS	11355	April 21 2013	216	262.34	267.72		267.84	0.000281	1.55	182.22	310.73	0.23
KinmoutDS	11312	Timmins_Uncalibr	454.35	262.02	269.7		269.86	0.000237	2	487.82	162.82	0.24
KinmoutDS	11312	Timmins_Calibrat	115.6	262.02	266.77		266.83	0.000156	1.13	124.77	77.96	0.18
KinmoutDS	11312	TimminsCC_Calibr	145.1	262.02	267.04		267.12	0.000191	1.3	146.24	79.42	0.2
KinmoutDS	11312	2y	109.2	262.02	266.7		266.76	0.000148	1.08	119.75	76.75	0.17
KinmoutDS	11312	5y	145.6	262.02	267.04		267.13	0.000192	1.3	146.58	79.45	0.2
KinmoutDS	11312	10y	170.2	262.02	267.28		267.37	0.000213	1.42	165.07	81.21	0.21
KinmoutDS	11312	25y	202.5	262.02	267.59		267.7	0.000231	1.55	191.98	94.06	0.22
KinmoutDS	11312	50y	228.3	262.02	267.82		267.95	0.000241	1.63	217.04	114.06	0.23
KinmoutDS	11312	100y	256.1	262.02	268.08		268.21	0.000247	1.71	247.02	124.85	0.24
KinmoutDS	11312	200y	286.7	262.02	268.35		268.49	0.000248	1.77	283.11	133.52	0.24
KinmoutDS	11312	350y	313.8	262.02	268.59		268.73	0.000248	1.82	315.89	142.62	0.24
KinmoutDS	11312	Sept 25 2021	68.8	262.02	266.25		266.28	0.000091	0.78	94.39	39.08	0.13
KinmoutDS	11312	July 13 2024	53.2	262.02	266.04		266.06	0.000067	0.64	86.95	34.86	0.11
KinmoutDS	11312	April 21 2019	228	262.02	267.82		267.94	0.000241	1.63	216.73	113.98	0.23
KinmoutDS	11312	Nov 2 2013	77	262.02	266.35		266.39	0.000103	0.85	98.57	44.53	0.14
KinmoutDS	11312	April 16 2014	175	262.02	267.32		267.42	0.000216	1.44	168.93	83.08	0.21
KinmoutDS	11312	May 8 2017	142	262.02	267.01		267.09	0.000187	1.28	144.26	79.3	0.2
KinmoutDS	11312	April 21 2013	216	262.02	267.71		267.83	0.000236	1.59	204.47	106.19	0.23
KinmoutDS	11269	Timmins_Uncalibr	454.35	261.89	269.71		269.84	0.00024	1.96	522.87	165.43	0.24
KinmoutDS	11269	Timmins_Calibrat	115.6	261.89	266.76		266.82	0.000175	1.16	138.11	80.13	0.18
KinmoutDS	11269	TimminsCC_Calibr	145.1	261.89	267.03		267.11	0.000211	1.33	160.28	82.27	0.2
KinmoutDS	11269	2y	109.2	261.89	266.69		266.75	0.000167	1.12	132.93	79.58	0.18
KinmoutDS	11269	5y	145.6	261.89	267.04		267.12	0.000211	1.33	160.64	82.3	0.2
KinmoutDS	11269	10y	170.2	261.89	267.27		267.36	0.000232	1.45	180.93	95.64	0.22
KinmoutDS	11269	25y	202.5	261.89	267.58		267.69	0.000248	1.56	212.51	108.06	0.23
KinmoutDS	11269	50y	228.3	261.89	267.82		267.93	0.000255	1.64	239.88	120.28	0.23
KinmoutDS	11269	100y	256.1	261.89	268.07		268.19	0.00026	1.71	271.65	132.18	0.23
KinmoutDS	11269	200y	286.7	261.89	268.35		268.48	0.000259	1.76	309.73	140.23	0.24
KinmoutDS	11269	350y	313.8	261.89	268.59		268.72	0.000267	1.84	343.93	150.08	0.24
KinmoutDS	11269	Sept 25 2021	68.8	261.89	266.24		266.28	0.000106	0.83	98.33	64.39	0.14
KinmoutDS	11269	July 13 2024	53.2	261.89	266.04		266.06	0.000078	0.68	87.55	45.91	0.12
KinmoutDS	11269	April 21 2019	228	261.89	267.82		267.93	0.000255	1.64	239.55	120.17	0.23
KinmoutDS	11269	Nov 2 2013	77	261.89	266.34		266.38	0.00012	0.89	105.4	76.29	0.15

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	11269	April 16 2014	175	261.89	267.31		267.41	0.000235	1.47	185.47	97.88	0.22
KinmoutDS	11269	May 8 2017	142	261.89	267.01		267.09	0.000207	1.31	158.23	82.13	0.2
KinmoutDS	11269	April 21 2013	216	261.89	267.7		267.82	0.000252	1.6	226.47	114.63	0.23
KinmoutDS	11227	Timmins_Uncalibr	454.35	261.93	269.7		269.83	0.000194	1.88	516.8	160.53	0.23
KinmoutDS	11227	Timmins_Calibrat	115.6	261.93	266.76		266.81	0.000125	1.05	151.76	76.44	0.17
KinmoutDS	11227	TimminsCC_Calibr	145.1	261.93	267.03		267.1	0.000152	1.2	172.82	77.81	0.19
KinmoutDS	11227	2y	109.2	261.93	266.7		266.74	0.000119	1.01	146.8	76.09	0.16
KinmoutDS	11227	5y	145.6	261.93	267.04		267.11	0.000153	1.21	173.16	77.84	0.19
KinmoutDS	11227	10y	170.2	261.93	267.27		267.35	0.000169	1.31	192.53	89.71	0.2
KinmoutDS	11227	25y	202.5	261.93	267.58		267.67	0.000183	1.43	222.6	103.83	0.21
KinmoutDS	11227	50y	228.3	261.93	267.82		267.92	0.00019	1.51	248.63	115.19	0.21
KinmoutDS	11227	100y	256.1	261.93	268.07		268.18	0.000196	1.58	278.29	121	0.22
KinmoutDS	11227	200y	286.7	261.93	268.35		268.46	0.000199	1.64	312.9	133.04	0.22
KinmoutDS	11227	350y	313.8	261.93	268.58		268.71	0.000205	1.71	345.74	141.77	0.23
KinmoutDS	11227	Sept 25 2021	68.8	261.93	266.24		266.27	0.000076	0.74	113.42	68.69	0.13
KinmoutDS	11227	July 13 2024	53.2	261.93	266.04		266.06	0.000056	0.62	100.66	55.76	0.11
KinmoutDS	11227	April 21 2019	228	261.93	267.82		267.92	0.00019	1.51	248.31	115.07	0.21
KinmoutDS	11227	Nov 2 2013	77	261.93	266.34		266.37	0.000085	0.8	120.46	72.05	0.13
KinmoutDS	11227	April 16 2014	175	261.93	267.32		267.4	0.000171	1.33	196.78	91.65	0.2
KinmoutDS	11227	May 8 2017	142	261.93	267.01		267.07	0.000149	1.19	170.87	77.65	0.18
KinmoutDS	11227	April 21 2013	216	261.93	267.71		267.8	0.000187	1.47	235.88	109.14	0.21
KinmoutDS	11189	Timmins_Uncalibr	454.35	262.21	269.65		269.82	0.000253	2.08	453.2	152.77	0.26
KinmoutDS	11189	Timmins_Calibrat	115.6	262.21	266.74		266.81	0.000168	1.16	126.52	58.64	0.19
KinmoutDS	11189	TimminsCC_Calibr	145.1	262.21	267.01		267.09	0.000205	1.34	142.48	61.59	0.21
KinmoutDS	11189	2y	109.2	262.21	266.68		266.74	0.00016	1.12	122.8	58.23	0.19
KinmoutDS	11189	5y	145.6	262.21	267.01		267.1	0.000206	1.34	142.74	61.64	0.21
KinmoutDS	11189	10y	170.2	262.21	267.24		267.34	0.000229	1.46	158.27	72.76	0.23
KinmoutDS	11189	25y	202.5	262.21	267.54		267.66	0.000247	1.6	181.55	80.55	0.24
KinmoutDS	11189	50y	228.3	262.21	267.78		267.91	0.000258	1.69	201.7	92.1	0.25
KinmoutDS	11189	100y	256.1	262.21	268.03		268.17	0.000267	1.77	226.25	108.4	0.25
KinmoutDS	11189	200y	286.7	262.21	268.3		268.45	0.000271	1.85	259.42	131.86	0.26
KinmoutDS	11189	350y	313.8	262.21	268.53		268.69	0.000277	1.92	290.73	137.18	0.26
KinmoutDS	11189	Sept 25 2021	68.8	262.21	266.23		266.27	0.000102	0.82	98.72	50.59	0.14
KinmoutDS	11189	July 13 2024	53.2	262.21	266.03		266.05	0.000077	0.68	88.6	48.48	0.12
KinmoutDS	11189	April 21 2019	228	262.21	267.78		267.91	0.000258	1.69	201.46	91.73	0.25
KinmoutDS	11189	Nov 2 2013	77	262.21	266.33		266.37	0.000114	0.88	103.74	51.25	0.15
KinmoutDS	11189	April 16 2014	175	262.21	267.28		267.39	0.000232	1.49	161.64	73.64	0.23
KinmoutDS	11189	May 8 2017	142	262.21	266.98		267.07	0.000201	1.32	141	61.01	0.21
KinmoutDS	11189	April 21 2013	216	262.21	267.67		267.79	0.000254	1.64	191.76	86.2	0.24
KinmoutDS	11154	Timmins_Uncalibr	454.35	262.97	269.55		269.8	0.000376	2.45	331.23	109.89	0.32
KinmoutDS	11154	Timmins_Calibrat	115.6	262.97	266.71		266.8	0.000267	1.36	97.93	41.89	0.24
KinmoutDS	11154	TimminsCC_Calibr	145.1	262.97	266.96		267.08	0.000322	1.57	108.76	42.84	0.27
KinmoutDS	11154	2y	109.2	262.97	266.64		266.73	0.000255	1.31	95.37	41.67	0.23

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	11154	5y	145.6	262.97	266.96		267.09	0.000323	1.57	108.93	42.85	0.27
KinmoutDS	11154	10y	170.2	262.97	267.18		267.33	0.000356	1.72	119.69	59.61	0.28
KinmoutDS	11154	25y	202.5	262.97	267.48		267.65	0.000381	1.87	138.9	67.66	0.3
KinmoutDS	11154	50y	228.3	262.97	267.71		267.89	0.000394	1.98	154.79	71.62	0.31
KinmoutDS	11154	100y	256.1	262.97	267.95		268.15	0.000404	2.08	173.08	82.67	0.31
KinmoutDS	11154	200y	286.7	262.97	268.22		268.43	0.000406	2.16	196.39	88.77	0.32
KinmoutDS	11154	350y	313.8	262.97	268.45		268.68	0.000402	2.22	217.77	96.38	0.32
KinmoutDS	11154	Sept 25 2021	68.8	262.97	266.21		266.26	0.000169	0.97	78	37.99	0.19
KinmoutDS	11154	July 13 2024	53.2	262.97	266.02		266.05	0.000131	0.81	70.64	36.48	0.16
KinmoutDS	11154	April 21 2019	228	262.97	267.71		267.89	0.000393	1.97	154.61	71.48	0.31
KinmoutDS	11154	Nov 2 2013	77	262.97	266.31		266.36	0.000188	1.05	81.68	39.21	0.2
KinmoutDS	11154	April 16 2014	175	262.97	267.23		267.37	0.000361	1.75	122.44	62.96	0.29
KinmoutDS	11154	May 8 2017	142	262.97	266.94		267.06	0.000316	1.55	107.78	42.75	0.26
KinmoutDS	11154	April 21 2013	216	262.97	267.6		267.78	0.000388	1.93	147.11	69.41	0.3
KinmoutDS	11092	Timmins_Uncalibr	454.35	264.04	269.4		269.76	0.00067	2.89	234.1	72.83	0.41
KinmoutDS	11092	Timmins_Calibrat	115.6	264.04	266.61		266.76	0.000764	1.81	75.2	44.75	0.38
KinmoutDS	11092	TimminsCC_Calibr	145.1	264.04	266.85		267.04	0.000843	2.03	86.46	47.76	0.41
KinmoutDS	11092	2y	109.2	264.04	266.55		266.7	0.000746	1.76	72.66	43.42	0.38
KinmoutDS	11092	5y	145.6	264.04	266.85		267.05	0.000845	2.04	86.63	47.79	0.41
KinmoutDS	11092	10y	170.2	264.04	267.06		267.29	0.000866	2.18	96.89	49.02	0.42
KinmoutDS	11092	25y	202.5	264.04	267.36		267.61	0.000847	2.31	111.61	50.39	0.42
KinmoutDS	11092	50y	228.3	264.04	267.59		267.85	0.00083	2.39	123.24	51.51	0.42
KinmoutDS	11092	100y	256.1	264.04	267.83		268.11	0.000809	2.48	135.75	52.6	0.42
KinmoutDS	11092	200y	286.7	264.04	268.1		268.39	0.000778	2.55	150.08	54.18	0.42
KinmoutDS	11092	350y	313.8	264.04	268.33		268.64	0.000752	2.61	162.89	56.14	0.42
KinmoutDS	11092	Sept 25 2021	68.8	264.04	266.15		266.24	0.000599	1.38	56.31	38.87	0.33
KinmoutDS	11092	July 13 2024	53.2	264.04	265.96		266.03	0.000522	1.2	49.21	37.81	0.3
KinmoutDS	11092	April 21 2019	228	264.04	267.58		267.85	0.00083	2.39	123.1	51.5	0.42
KinmoutDS	11092	Nov 2 2013	77	264.04	266.23		266.34	0.000633	1.46	59.83	39.47	0.34
KinmoutDS	11092	April 16 2014	175	264.04	267.11		267.33	0.000864	2.2	99.07	49.24	0.42
KinmoutDS	11092	May 8 2017	142	264.04	266.83		267.02	0.000832	2.01	85.45	47.62	0.41
KinmoutDS	11092	April 21 2013	216	264.04	267.48		267.73	0.000839	2.35	117.65	50.94	0.42
KinmoutDS	11052	Timmins_Uncalibr	454.35	264.24	269.38		269.73	0.000658	2.81	221.41	92.47	0.41
KinmoutDS	11052	Timmins_Calibrat	115.6	264.24	266.54		266.73	0.001042	1.95	69.4	51.57	0.44
KinmoutDS	11052	TimminsCC_Calibr	145.1	264.24	266.79		267.01	0.001077	2.14	81.14	57.43	0.46
KinmoutDS	11052	2y	109.2	264.24	266.49		266.66	0.001035	1.9	66.64	50.69	0.44
KinmoutDS	11052	5y	145.6	264.24	266.79		267.01	0.001078	2.14	81.32	57.48	0.46
KinmoutDS	11052	10y	170.2	264.24	267.01		267.25	0.001054	2.25	91.9	59.61	0.46
KinmoutDS	11052	25y	202.5	264.24	267.31		267.57	0.000976	2.35	107.15	62.01	0.45
KinmoutDS	11052	50y	228.3	264.24	267.55		267.82	0.000922	2.41	119.17	63.48	0.45
KinmoutDS	11052	100y	256.1	264.24	267.79		268.07	0.000873	2.47	131.88	65.08	0.44
KinmoutDS	11052	200y	286.7	264.24	268.07		268.36	0.000817	2.53	146.27	67.08	0.43
KinmoutDS	11052	350y	313.8	264.24	268.3		268.6	0.000775	2.57	158.91	73.05	0.43
KinmoutDS	11052	Sept 25 2021	68.8	264.24	266.09		266.21	0.000949	1.56	48.83	42.45	0.4

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	11052	July 13 2024	53.2	264.24	265.91		266	0.000888	1.38	41.46	40.43	0.38
KinmoutDS	11052	April 21 2019	228	264.24	267.55		267.81	0.000923	2.41	119.03	63.45	0.45
KinmoutDS	11052	Nov 2 2013	77	264.24	266.17		266.31	0.000972	1.64	52.52	43.57	0.41
KinmoutDS	11052	April 16 2014	175	264.24	267.05		267.3	0.001042	2.27	94.16	60.05	0.46
KinmoutDS	11052	May 8 2017	142	264.24	266.77		266.98	0.001068	2.12	80.13	57.14	0.46
KinmoutDS	11052	April 21 2013	216	264.24	267.44		267.7	0.000947	2.38	113.44	62.79	0.45
KinmoutDS	11010	Timmins_Uncalibr	454.35	263.61	269.27		269.69	0.00071	2.95	192.05	48.38	0.41
KinmoutDS	11010	Timmins_Calibrat	115.6	263.61	266.54		266.68	0.000583	1.64	74.88	36.66	0.33
KinmoutDS	11010	TimminsCC_Calibr	145.1	263.61	266.78		266.96	0.000676	1.87	83.76	38.29	0.36
KinmoutDS	11010	2y	109.2	263.61	266.49		266.61	0.000562	1.58	72.81	36.24	0.32
KinmoutDS	11010	5y	145.6	263.61	266.78		266.96	0.000677	1.88	83.9	38.3	0.36
KinmoutDS	11010	10y	170.2	263.61	266.99		267.2	0.00072	2.03	92.02	39.32	0.38
KinmoutDS	11010	25y	202.5	263.61	267.29		267.53	0.000735	2.19	103.82	40.58	0.39
KinmoutDS	11010	50y	228.3	263.61	267.52		267.78	0.000739	2.29	113.27	41.68	0.39
KinmoutDS	11010	100y	256.1	263.61	267.75		268.04	0.000741	2.4	123.2	42.49	0.4
KinmoutDS	11010	200y	286.7	263.61	268.01		268.32	0.000736	2.5	134.32	43.45	0.4
KinmoutDS	11010	350y	313.8	263.61	268.24		268.57	0.000728	2.58	144.25	44.3	0.4
KinmoutDS	11010	Sept 25 2021	68.8	263.61	266.09		266.17	0.000401	1.19	59.34	32.34	0.26
KinmoutDS	11010	July 13 2024	53.2	263.61	265.92		265.97	0.000324	1.01	53.66	31.1	0.23
KinmoutDS	11010	April 21 2019	228	263.61	267.52		267.78	0.000739	2.29	113.16	41.67	0.39
KinmoutDS	11010	Nov 2 2013	77	263.61	266.18		266.26	0.000437	1.28	62.2	33.19	0.28
KinmoutDS	11010	April 16 2014	175	263.61	267.04		267.25	0.000724	2.06	93.77	39.51	0.38
KinmoutDS	11010	May 8 2017	142	263.61	266.76		266.93	0.000664	1.85	82.99	38.18	0.36
KinmoutDS	11010	April 21 2013	216	263.61	267.41		267.66	0.000739	2.24	108.72	41.15	0.39
KinmoutDS	10976	Timmins_Uncalibr	454.35	262.88	269.35		269.64	0.000438	2.53	250.32	61.48	0.34
KinmoutDS	10976	Timmins_Calibrat	115.6	262.88	266.56		266.65	0.000304	1.36	102.02	47.48	0.25
KinmoutDS	10976	TimminsCC_Calibr	145.1	262.88	266.81		266.92	0.000361	1.56	113.73	48.49	0.28
KinmoutDS	10976	2y	109.2	262.88	266.51		266.59	0.000291	1.31	99.26	47.22	0.25
KinmoutDS	10976	5y	145.6	262.88	266.81		266.93	0.000362	1.56	113.91	48.5	0.28
KinmoutDS	10976	10y	170.2	262.88	267.03		267.16	0.000392	1.7	124.41	49.23	0.29
KinmoutDS	10976	25y	202.5	262.88	267.33		267.49	0.00041	1.84	139.42	50.45	0.3
KinmoutDS	10976	50y	228.3	262.88	267.56		267.74	0.000419	1.93	151.36	51.45	0.31
KinmoutDS	10976	100y	256.1	262.88	267.8		267.99	0.000426	2.03	163.85	52.38	0.32
KinmoutDS	10976	200y	286.7	262.88	268.07		268.27	0.000429	2.12	177.77	53.3	0.32
KinmoutDS	10976	350y	313.8	262.88	268.3		268.52	0.00043	2.19	190.11	54.07	0.32
KinmoutDS	10976	Sept 25 2021	68.8	262.88	266.1		266.15	0.000197	0.98	80.64	45.38	0.2
KinmoutDS	10976	July 13 2024	53.2	262.88	265.92		265.96	0.000154	0.82	72.48	44.15	0.17
KinmoutDS	10976	April 21 2019	228	262.88	267.56		267.73	0.000418	1.93	151.22	51.43	0.31
KinmoutDS	10976	Nov 2 2013	77	262.88	266.19		266.25	0.000218	1.05	84.7	45.84	0.21
KinmoutDS	10976	April 16 2014	175	262.88	267.07		267.21	0.000395	1.72	126.63	49.39	0.29
KinmoutDS	10976	May 8 2017	142	262.88	266.79		266.9	0.000354	1.54	112.72	48.42	0.28
KinmoutDS	10976	April 21 2013	216	262.88	267.45		267.62	0.000415	1.89	145.63	50.97	0.31
KinmoutDS	10927	Timmins_Uncalibr	454.35	261.65	269.38		269.6	0.000307	2.25	303.16	71.56	0.28

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	10927	Timmins_Calibrat	115.6	261.65	266.57		266.63	0.000163	1.13	125.06	56.56	0.19
KinmoutDS	10927	TimminsCC_Calibr	145.1	261.65	266.82		266.9	0.000203	1.31	139.13	57.84	0.21
KinmoutDS	10927	2y	109.2	261.65	266.51		266.57	0.000155	1.08	121.76	55.85	0.18
KinmoutDS	10927	5y	145.6	261.65	266.82		266.91	0.000203	1.31	139.35	57.86	0.21
KinmoutDS	10927	10y	170.2	261.65	267.04		267.14	0.000228	1.44	152.04	59.4	0.23
KinmoutDS	10927	25y	202.5	261.65	267.34		267.46	0.000248	1.57	170.29	60.81	0.24
KinmoutDS	10927	50y	228.3	261.65	267.58		267.71	0.00026	1.67	184.72	61.7	0.25
KinmoutDS	10927	100y	256.1	261.65	267.82		267.96	0.000271	1.76	199.77	62.58	0.25
KinmoutDS	10927	200y	286.7	261.65	268.08		268.24	0.000279	1.85	216.48	63.65	0.26
KinmoutDS	10927	350y	313.8	261.65	268.32		268.48	0.000284	1.92	231.33	64.86	0.26
KinmoutDS	10927	Sept 25 2021	68.8	261.65	266.11		266.14	0.000094	0.78	100.27	50.63	0.14
KinmoutDS	10927	July 13 2024	53.2	261.65	265.93		265.95	0.000069	0.64	91.49	45.57	0.12
KinmoutDS	10927	April 21 2019	228	261.65	267.57		267.7	0.00026	1.67	184.56	61.69	0.25
KinmoutDS	10927	Nov 2 2013	77	261.65	266.2		266.23	0.000107	0.85	104.84	51.21	0.15
KinmoutDS	10927	April 16 2014	175	261.65	267.08		267.19	0.000232	1.46	154.75	59.65	0.23
KinmoutDS	10927	May 8 2017	142	261.65	266.8		266.88	0.000198	1.29	137.91	57.71	0.21
KinmoutDS	10927	April 21 2013	216	261.65	267.46		267.59	0.000255	1.62	177.8	61.24	0.24
KinmoutDS	10888	Timmins_Uncalibr	454.35	261.04	269.37		269.58	0.000305	2.2	321.25	95.64	0.27
KinmoutDS	10888	Timmins_Calibrat	115.6	261.04	266.57		266.63	0.000143	1.06	128.84	53.59	0.17
KinmoutDS	10888	TimminsCC_Calibr	145.1	261.04	266.82		266.89	0.000182	1.24	142.14	54.79	0.19
KinmoutDS	10888	2y	109.2	261.04	266.51		266.56	0.000135	1.02	125.71	53.3	0.16
KinmoutDS	10888	5y	145.6	261.04	266.82		266.9	0.000182	1.24	142.34	54.81	0.19
KinmoutDS	10888	10y	170.2	261.04	267.04		267.13	0.000207	1.37	154.32	56.5	0.21
KinmoutDS	10888	25y	202.5	261.04	267.34		267.45	0.00023	1.51	171.67	58.48	0.22
KinmoutDS	10888	50y	228.3	261.04	267.57		267.7	0.000245	1.61	185.62	61.14	0.23
KinmoutDS	10888	100y	256.1	261.04	267.81		267.95	0.000258	1.7	200.63	63.25	0.24
KinmoutDS	10888	200y	286.7	261.04	268.08		268.23	0.00027	1.8	217.73	67.05	0.24
KinmoutDS	10888	350y	313.8	261.04	268.31		268.47	0.000278	1.87	233.94	72.96	0.25
KinmoutDS	10888	Sept 25 2021	68.8	261.04	266.11		266.13	0.000079	0.73	105.06	46.42	0.12
KinmoutDS	10888	July 13 2024	53.2	261.04	265.93		265.94	0.000057	0.59	96.79	44.37	0.1
KinmoutDS	10888	April 21 2019	228	261.04	267.57		267.69	0.000245	1.61	185.47	61.11	0.23
KinmoutDS	10888	Nov 2 2013	77	261.04	266.2		266.23	0.000091	0.79	109.33	48.85	0.13
KinmoutDS	10888	April 16 2014	175	261.04	267.08		267.17	0.000211	1.39	156.89	56.75	0.21
KinmoutDS	10888	May 8 2017	142	261.04	266.79		266.87	0.000177	1.22	140.98	54.68	0.19
KinmoutDS	10888	April 21 2013	216	261.04	267.46		267.58	0.000238	1.56	178.9	59.38	0.23
KinmoutDS	10848	Timmins_Uncalibr	454.35	261.09	269.35		269.57	0.000296	2.25	316.42	94.4	0.28
KinmoutDS	10848	Timmins_Calibrat	115.6	261.09	266.56		266.62	0.000144	1.1	127.03	50.68	0.18
KinmoutDS	10848	TimminsCC_Calibr	145.1	261.09	266.8		266.88	0.000181	1.28	139.59	52.64	0.2
KinmoutDS	10848	2y	109.2	261.09	266.5		266.56	0.000136	1.05	124.1	50.39	0.17
KinmoutDS	10848	5y	145.6	261.09	266.81		266.89	0.000182	1.28	139.78	52.67	0.2
KinmoutDS	10848	10y	170.2	261.09	267.02		267.12	0.000207	1.41	151.23	53.98	0.22
KinmoutDS	10848	25y	202.5	261.09	267.32		267.44	0.000228	1.55	167.74	55.88	0.23
KinmoutDS	10848	50y	228.3	261.09	267.56		267.69	0.000242	1.65	181	57.53	0.24
KinmoutDS	10848	100y	256.1	261.09	267.8		267.94	0.000257	1.76	195.57	64.95	0.25

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	10848	200y	286.7	261.09	268.06		268.22	0.000266	1.85	213.04	67.81	0.25
KinmoutDS	10848	350y	313.8	261.09	268.29		268.46	0.000272	1.92	228.93	69.5	0.26
KinmoutDS	10848	Sept 25 2021	68.8	261.09	266.1		266.13	0.00008	0.75	104.21	48.76	0.13
KinmoutDS	10848	July 13 2024	53.2	261.09	265.92		265.94	0.000059	0.62	95.44	47.87	0.11
KinmoutDS	10848	April 21 2019	228	261.09	267.55		267.68	0.000242	1.65	180.85	57.51	0.24
KinmoutDS	10848	Nov 2 2013	77	261.09	266.19		266.22	0.000092	0.82	108.56	49.16	0.14
KinmoutDS	10848	April 16 2014	175	261.09	267.07		267.17	0.00021	1.44	153.67	54.24	0.22
KinmoutDS	10848	May 8 2017	142	261.09	266.78		266.86	0.000177	1.26	138.5	52.47	0.2
KinmoutDS	10848	April 21 2013	216	261.09	267.45		267.57	0.000236	1.61	174.61	56.74	0.23
KinmoutDS	10808	Timmins_Uncalibr	454.35	261.15	269.3		269.56	0.000356	2.37	299.71	100.58	0.3
KinmoutDS	10808	Timmins_Calibrat	115.6	261.15	266.55		266.61	0.000176	1.16	112.85	45.58	0.19
KinmoutDS	10808	TimminsCC_Calibr	145.1	261.15	266.78		266.87	0.000223	1.36	124.33	49.51	0.22
KinmoutDS	10808	2y	109.2	261.15	266.49		266.55	0.000166	1.12	110.3	44.41	0.18
KinmoutDS	10808	5y	145.6	261.15	266.79		266.88	0.000224	1.36	124.51	49.52	0.22
KinmoutDS	10808	10y	170.2	261.15	267		267.11	0.000254	1.5	135.01	50.4	0.23
KinmoutDS	10808	25y	202.5	261.15	267.29		267.43	0.000282	1.65	150.4	53.25	0.25
KinmoutDS	10808	50y	228.3	261.15	267.52		267.67	0.000299	1.76	163.01	58.04	0.26
KinmoutDS	10808	100y	256.1	261.15	267.76		267.93	0.000315	1.87	177.98	67.62	0.27
KinmoutDS	10808	200y	286.7	261.15	268.02		268.2	0.000325	1.96	196.06	70.14	0.27
KinmoutDS	10808	350y	313.8	261.15	268.25		268.45	0.000331	2.04	212.43	72.19	0.28
KinmoutDS	10808	Sept 25 2021	68.8	261.15	266.1		266.13	0.000098	0.8	93.81	40.33	0.14
KinmoutDS	10808	July 13 2024	53.2	261.15	265.92		265.94	0.000071	0.65	86.71	38.33	0.12
KinmoutDS	10808	April 21 2019	228	261.15	267.52		267.67	0.000299	1.76	162.87	57.91	0.26
KinmoutDS	10808	Nov 2 2013	77	261.15	266.18		266.22	0.000112	0.86	97.37	41.01	0.15
KinmoutDS	10808	April 16 2014	175	261.15	267.04		267.16	0.000259	1.53	137.25	50.74	0.24
KinmoutDS	10808	May 8 2017	142	261.15	266.76		266.85	0.000218	1.34	123.33	49.4	0.21
KinmoutDS	10808	April 21 2013	216	261.15	267.41		267.55	0.000291	1.71	156.87	54.2	0.25
KinmoutDS	10769	Timmins_Uncalibr	454.35	261.21	269.27		269.54	0.000375	2.47	305.27	104.3	0.31
KinmoutDS	10769	Timmins_Calibrat	115.6	261.21	266.53		266.6	0.000196	1.23	106.96	46.86	0.2
KinmoutDS	10769	TimminsCC_Calibr	145.1	261.21	266.76		266.86	0.000248	1.45	118.06	48.82	0.23
KinmoutDS	10769	2y	109.2	261.21	266.47		266.54	0.000185	1.19	104.35	46.58	0.2
KinmoutDS	10769	5y	145.6	261.21	266.77		266.87	0.000249	1.45	118.23	48.85	0.23
KinmoutDS	10769	10y	170.2	261.21	266.97		267.1	0.000282	1.6	128.48	50.51	0.25
KinmoutDS	10769	25y	202.5	261.21	267.26		267.41	0.000311	1.76	143.62	53.47	0.27
KinmoutDS	10769	50y	228.3	261.21	267.49		267.66	0.000332	1.87	156.92	64.51	0.28
KinmoutDS	10769	100y	256.1	261.21	267.73		267.91	0.000346	1.98	172.46	66.97	0.29
KinmoutDS	10769	200y	286.7	261.21	267.99		268.19	0.000356	2.07	190.29	69.25	0.29
KinmoutDS	10769	350y	313.8	261.21	268.22		268.43	0.000361	2.15	206.6	72.29	0.3
KinmoutDS	10769	Sept 25 2021	68.8	261.21	266.09		266.12	0.000109	0.85	87.08	40.66	0.15
KinmoutDS	10769	July 13 2024	53.2	261.21	265.91		265.93	0.000079	0.7	80.58	34.71	0.13
KinmoutDS	10769	April 21 2019	228	261.21	267.49		267.66	0.000332	1.87	156.75	64.48	0.28
KinmoutDS	10769	Nov 2 2013	77	261.21	266.17		266.22	0.000125	0.92	90.74	43.9	0.16
KinmoutDS	10769	April 16 2014	175	261.21	267.02		267.14	0.000287	1.62	130.7	50.86	0.25
KinmoutDS	10769	May 8 2017	142	261.21	266.74		266.84	0.000242	1.42	117.11	48.67	0.23

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	10769	April 21 2013	216	261.21	267.38		267.54	0.000322	1.82	150.24	59.33	0.27
KinmoutDS	10732	Timmins_Uncalibr	454.35	261.38	269.26		269.52	0.000362	2.43	301.45	97.86	0.31
KinmoutDS	10732	Timmins_Calibrat	115.6	261.38	266.52		266.6	0.000199	1.24	109.79	51.39	0.21
KinmoutDS	10732	TimminsCC_Calibr	145.1	261.38	266.75		266.85	0.000249	1.44	122.12	54.15	0.24
KinmoutDS	10732	2y	109.2	261.38	266.47		266.54	0.000188	1.19	106.96	50.75	0.2
KinmoutDS	10732	5y	145.6	261.38	266.76		266.86	0.00025	1.44	122.31	54.16	0.24
KinmoutDS	10732	10y	170.2	261.38	266.96		267.08	0.000281	1.59	133.56	55.03	0.25
KinmoutDS	10732	25y	202.5	261.38	267.26		267.4	0.000306	1.73	149.99	58.43	0.27
KinmoutDS	10732	50y	228.3	261.38	267.48		267.64	0.000325	1.85	164.52	69.31	0.28
KinmoutDS	10732	100y	256.1	261.38	267.72		267.9	0.000336	1.94	181.23	71.14	0.28
KinmoutDS	10732	200y	286.7	261.38	267.98		268.17	0.000342	2.03	200.08	72.49	0.29
KinmoutDS	10732	350y	313.8	261.38	268.21		268.41	0.000344	2.1	216.87	73.67	0.29
KinmoutDS	10732	Sept 25 2021	68.8	261.38	266.08		266.12	0.000113	0.85	88.06	44.3	0.15
KinmoutDS	10732	July 13 2024	53.2	261.38	265.91		265.93	0.000083	0.7	81.01	37.33	0.13
KinmoutDS	10732	April 21 2019	228	261.38	267.48		267.64	0.000324	1.85	164.35	69.29	0.28
KinmoutDS	10732	Nov 2 2013	77	261.38	266.17		266.21	0.000129	0.93	92.09	48.68	0.16
KinmoutDS	10732	April 16 2014	175	261.38	267.01		267.13	0.000286	1.61	135.98	55.22	0.25
KinmoutDS	10732	May 8 2017	142	261.38	266.73		266.83	0.000243	1.42	121.07	54.04	0.23
KinmoutDS	10732	April 21 2013	216	261.38	267.38		267.53	0.000315	1.79	157.24	65.01	0.27
KinmoutDS	10690	Timmins_Uncalibr	454.35	261.92	269.23		269.51	0.00037	2.46	269.66	75.65	0.32
KinmoutDS	10690	Timmins_Calibrat	115.6	261.92	266.51		266.59	0.000215	1.26	105.02	46.32	0.22
KinmoutDS	10690	TimminsCC_Calibr	145.1	261.92	266.74		266.84	0.000267	1.47	115.72	47.4	0.25
KinmoutDS	10690	2y	109.2	261.92	266.46		266.53	0.000204	1.21	102.49	46.01	0.22
KinmoutDS	10690	5y	145.6	261.92	266.74		266.85	0.000268	1.47	115.87	47.41	0.25
KinmoutDS	10690	10y	170.2	261.92	266.95		267.07	0.0003	1.61	125.63	48.37	0.27
KinmoutDS	10690	25y	202.5	261.92	267.24		267.39	0.000324	1.76	140.13	52.03	0.28
KinmoutDS	10690	50y	228.3	261.92	267.46		267.63	0.000339	1.87	152.34	55.78	0.29
KinmoutDS	10690	100y	256.1	261.92	267.7		267.88	0.000352	1.97	166.1	60.59	0.3
KinmoutDS	10690	200y	286.7	261.92	267.95		268.16	0.00036	2.07	182.47	65.27	0.3
KinmoutDS	10690	350y	313.8	261.92	268.18		268.4	0.000361	2.14	197.45	66.03	0.31
KinmoutDS	10690	Sept 25 2021	68.8	261.92	266.07		266.11	0.000125	0.88	85.64	41.84	0.17
KinmoutDS	10690	July 13 2024	53.2	261.92	265.9		265.93	0.000093	0.73	78.57	39.69	0.14
KinmoutDS	10690	April 21 2019	228	261.92	267.46		267.63	0.000338	1.87	152.2	55.7	0.29
KinmoutDS	10690	Nov 2 2013	77	261.92	266.16		266.2	0.000142	0.95	89.23	42.79	0.18
KinmoutDS	10690	April 16 2014	175	261.92	266.99		267.12	0.000304	1.64	127.73	48.59	0.27
KinmoutDS	10690	May 8 2017	142	261.92	266.72		266.82	0.000261	1.44	114.81	47.33	0.25
KinmoutDS	10690	April 21 2013	216	261.92	267.35		267.51	0.000333	1.82	146.39	54	0.29
KinmoutDS	10651	Timmins_Uncalibr	454.35	262.34	269.19		269.49	0.000436	2.47	227.8	77.85	0.33
KinmoutDS	10651	Timmins_Calibrat	115.6	262.34	266.5		266.58	0.000257	1.24	98.7	40.08	0.23
KinmoutDS	10651	TimminsCC_Calibr	145.1	262.34	266.73		266.83	0.000316	1.44	107.87	41.07	0.26
KinmoutDS	10651	2y	109.2	262.34	266.45		266.52	0.000245	1.19	96.53	39.75	0.22
KinmoutDS	10651	5y	145.6	262.34	266.73		266.83	0.000317	1.44	108.01	41.09	0.26
KinmoutDS	10651	10y	170.2	262.34	266.93		267.06	0.000351	1.58	116.4	41.87	0.27

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	10651	25y	202.5	262.34	267.22		267.37	0.000375	1.72	128.67	42.83	0.29
KinmoutDS	10651	50y	228.3	262.34	267.45		267.61	0.000389	1.83	138.44	43.64	0.29
KinmoutDS	10651	100y	256.1	262.34	267.68		267.86	0.000401	1.93	148.74	44.71	0.3
KinmoutDS	10651	200y	286.7	262.34	267.94		268.14	0.000409	2.02	160.35	45.58	0.31
KinmoutDS	10651	350y	313.8	262.34	268.16		268.38	0.000412	2.1	170.69	46.32	0.31
KinmoutDS	10651	Sept 25 2021	68.8	262.34	266.07		266.11	0.000149	0.86	81.93	36.97	0.17
KinmoutDS	10651	July 13 2024	53.2	262.34	265.9		265.92	0.000103	0.72	75.84	34.67	0.15
KinmoutDS	10651	April 21 2019	228	262.34	267.45		267.61	0.000389	1.83	138.33	43.63	0.29
KinmoutDS	10651	Nov 2 2013	77	262.34	266.15		266.2	0.000174	0.94	85.11	38.23	0.18
KinmoutDS	10651	April 16 2014	175	262.34	266.98		267.1	0.000355	1.6	118.21	42.02	0.28
KinmoutDS	10651	May 8 2017	142	262.34	266.71		266.81	0.000309	1.42	107.1	41	0.25
KinmoutDS	10651	April 21 2013	216	262.34	267.34		267.5	0.000383	1.78	133.74	43.24	0.29
KinmoutDS	10609	Timmins_Uncalibr	454.35	262.3	269.22		269.45	0.000332	2.25	284.65	86.02	0.3
KinmoutDS	10609	Timmins_Calibrat	115.6	262.3	266.5		266.57	0.000225	1.19	109.35	52.03	0.22
KinmoutDS	10609	TimminsCC_Calibr	145.1	262.3	266.72		266.81	0.000272	1.37	121.27	53.47	0.25
KinmoutDS	10609	2y	109.2	262.3	266.44		266.51	0.000214	1.15	106.52	51.7	0.22
KinmoutDS	10609	5y	145.6	262.3	266.72		266.82	0.000273	1.38	121.45	53.49	0.25
KinmoutDS	10609	10y	170.2	262.3	266.93		267.04	0.000298	1.5	132.49	54.97	0.26
KinmoutDS	10609	25y	202.5	262.3	267.22		267.35	0.000313	1.63	148.84	56.76	0.27
KinmoutDS	10609	50y	228.3	262.3	267.45		267.59	0.000321	1.72	161.95	57.96	0.28
KinmoutDS	10609	100y	256.1	262.3	267.68		267.84	0.000327	1.8	175.81	59.44	0.29
KinmoutDS	10609	200y	286.7	262.3	267.95		268.12	0.000328	1.88	191.45	60.73	0.29
KinmoutDS	10609	350y	313.8	262.3	268.17		268.35	0.000328	1.95	205.46	62.25	0.29
KinmoutDS	10609	Sept 25 2021	68.8	262.3	266.06		266.1	0.00014	0.84	87.6	47.33	0.17
KinmoutDS	10609	July 13 2024	53.2	262.3	265.89		265.92	0.000107	0.7	79.73	44.75	0.15
KinmoutDS	10609	April 21 2019	228	262.3	267.45		267.59	0.00032	1.71	161.8	57.95	0.28
KinmoutDS	10609	Nov 2 2013	77	262.3	266.15		266.19	0.000156	0.91	91.66	49.56	0.18
KinmoutDS	10609	April 16 2014	175	262.3	266.97		267.09	0.000301	1.52	134.89	55.27	0.27
KinmoutDS	10609	May 8 2017	142	262.3	266.7		266.79	0.000266	1.35	120.27	53.31	0.25
KinmoutDS	10609	April 21 2013	216	262.3	267.34		267.48	0.000318	1.68	155.63	57.37	0.28
KinmoutDS	10570	Timmins_Uncalibr	454.35	263.55	269.13		269.43	0.000557	2.5	222.43	69.01	0.37
KinmoutDS	10570	Timmins_Calibrat	115.6	263.55	266.42		266.55	0.00073	1.59	75.31	44.64	0.37
KinmoutDS	10570	TimminsCC_Calibr	145.1	263.55	266.63		266.79	0.000808	1.8	84.89	45.89	0.39
KinmoutDS	10570	2y	109.2	263.55	266.37		266.49	0.000714	1.55	73.03	44.19	0.36
KinmoutDS	10570	5y	145.6	263.55	266.63		266.8	0.00081	1.8	85.03	45.9	0.39
KinmoutDS	10570	10y	170.2	263.55	266.83		267.02	0.00082	1.92	94.15	46.84	0.4
KinmoutDS	10570	25y	202.5	263.55	267.12		267.33	0.000779	2.03	108.14	49.72	0.4
KinmoutDS	10570	50y	228.3	263.55	267.35		267.57	0.000744	2.09	119.69	51	0.4
KinmoutDS	10570	100y	256.1	263.55	267.59		267.82	0.000712	2.16	131.88	52.09	0.39
KinmoutDS	10570	200y	286.7	263.55	267.85		268.09	0.000675	2.22	145.75	54.01	0.39
KinmoutDS	10570	350y	313.8	263.55	268.08		268.33	0.000644	2.27	158.39	55.7	0.38
KinmoutDS	10570	Sept 25 2021	68.8	263.55	266.01		266.09	0.000573	1.21	57.9	41.4	0.31
KinmoutDS	10570	July 13 2024	53.2	263.55	265.85		265.91	0.000499	1.04	51.32	40.19	0.29
KinmoutDS	10570	April 21 2019	228	263.55	267.35		267.57	0.000744	2.09	119.56	50.98	0.4

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	10570	Nov 2 2013	77	263.55	266.09		266.18	0.000605	1.28	61.19	42.06	0.32
KinmoutDS	10570	April 16 2014	175	263.55	266.87		267.06	0.000815	1.94	96.18	47.09	0.4
KinmoutDS	10570	May 8 2017	142	263.55	266.61		266.77	0.000795	1.77	84.12	45.82	0.39
KinmoutDS	10570	April 21 2013	216	263.55	267.24		267.45	0.000762	2.06	114.11	50.49	0.4
KinmoutDS	10530	Timmins_Uncalibr	454.35	264.49	269.05		269.4	0.000731	2.82	176.53	54.52	0.44
KinmoutDS	10530	Timmins_Calibrat	115.6	264.49	265.94	265.94	266.45	0.00582	3.28	37.14	37.28	0.99
KinmoutDS	10530	TimminsCC_Calibr	145.1	264.49	266.15	266.12	266.69	0.004989	3.4	45.05	39.18	0.94
KinmoutDS	10530	2y	109.2	264.49	265.91	265.91	266.39	0.005766	3.2	35.95	37.16	0.98
KinmoutDS	10530	5y	145.6	264.49	266.16	266.12	266.7	0.004914	3.39	45.37	39.27	0.94
KinmoutDS	10530	10y	170.2	264.49	266.51		266.94	0.002887	3.04	59.49	41.19	0.75
KinmoutDS	10530	25y	202.5	264.49	266.88		267.26	0.001973	2.87	75.22	42.64	0.64
KinmoutDS	10530	50y	228.3	264.49	267.15		267.51	0.001615	2.82	86.64	43.42	0.59
KinmoutDS	10530	100y	256.1	264.49	267.41		267.77	0.001379	2.79	98.11	44.05	0.55
KinmoutDS	10530	200y	286.7	264.49	267.7		268.05	0.001184	2.78	110.82	45.02	0.52
KinmoutDS	10530	350y	313.8	264.49	267.94		268.29	0.001053	2.77	122.06	45.88	0.5
KinmoutDS	10530	Sept 25 2021	68.8	264.49	265.64	265.64	266.01	0.006416	2.79	26.05	36.13	0.99
KinmoutDS	10530	July 13 2024	53.2	264.49	265.52	265.52	265.84	0.006719	2.57	21.83	35.33	0.98
KinmoutDS	10530	April 21 2019	228	264.49	267.15		267.51	0.001617	2.82	86.52	43.41	0.59
KinmoutDS	10530	Nov 2 2013	77	264.49	265.7	265.7	266.09	0.006339	2.9	28.07	36.31	0.99
KinmoutDS	10530	April 16 2014	175	264.49	266.57		266.99	0.002684	3	62.01	41.45	0.72
KinmoutDS	10530	May 8 2017	142	264.49	266.1	266.1	266.67	0.005514	3.48	43.02	38.6	0.99
KinmoutDS	10530	April 21 2013	216	264.49	267.02		267.39	0.00177	2.84	81.18	43.07	0.61
KinmoutDS	10491	Timmins_Uncalibr	454.35	263.41	269.21		269.32	0.000158	1.53	329.85	75.67	0.21
KinmoutDS	10491	Timmins_Calibrat	115.6	263.41	266.1		266.15	0.000227	1.03	118.95	59.22	0.22
KinmoutDS	10491	TimminsCC_Calibr	145.1	263.41	266.46		266.52	0.00021	1.09	140.54	61.25	0.22
KinmoutDS	10491	2y	109.2	263.41	266.02		266.07	0.000232	1.01	114.04	58.86	0.22
KinmoutDS	10491	5y	145.6	263.41	266.47		266.52	0.00021	1.09	140.89	61.27	0.22
KinmoutDS	10491	10y	170.2	263.41	266.74		266.81	0.000199	1.14	158.18	62.89	0.21
KinmoutDS	10491	25y	202.5	263.41	267.08		267.15	0.00019	1.2	179.56	63.96	0.21
KinmoutDS	10491	50y	228.3	263.41	267.33		267.41	0.000185	1.24	195.95	65.4	0.21
KinmoutDS	10491	100y	256.1	263.41	267.59		267.67	0.00018	1.29	212.76	66.32	0.21
KinmoutDS	10491	200y	286.7	263.41	267.87		267.95	0.000175	1.33	231.87	69.72	0.21
KinmoutDS	10491	350y	313.8	263.41	268.11		268.2	0.00017	1.37	249.03	71.4	0.21
KinmoutDS	10491	Sept 25 2021	68.8	263.41	265.41		265.45	0.000302	0.93	78.58	57.29	0.24
KinmoutDS	10491	July 13 2024	53.2	263.41	265.12		265.16	0.000377	0.9	62.26	56.32	0.26
KinmoutDS	10491	April 21 2019	228	263.41	267.33		267.4	0.000185	1.24	195.77	65.39	0.21
KinmoutDS	10491	Nov 2 2013	77	263.41	265.55		265.59	0.000278	0.94	86.5	57.65	0.23
KinmoutDS	10491	April 16 2014	175	263.41	266.8		266.86	0.000198	1.15	161.51	63.06	0.21
KinmoutDS	10491	May 8 2017	142	263.41	266.42		266.48	0.000212	1.09	138.29	61.09	0.22
KinmoutDS	10491	April 21 2013	216	263.41	267.21		267.28	0.000187	1.22	188.08	64.69	0.21
KinmoutDS	10449	Timmins_Uncalibr	454.35	261.36	269.26		269.29	0.000033	0.72	717.01	132.22	0.1
KinmoutDS	10449	Timmins_Calibrat	115.6	261.36	266.13		266.14	0.00003	0.41	312.32	126.26	0.08
KinmoutDS	10449	TimminsCC_Calibr	145.1	261.36	266.49		266.5	0.00003	0.45	357.98	126.83	0.08

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	10449	2y	109.2	261.36	266.04		266.05	0.000029	0.4	301.71	126.1	0.08
KinmoutDS	10449	5y	145.6	261.36	266.5		266.51	0.00003	0.45	358.71	126.84	0.08
KinmoutDS	10449	10y	170.2	261.36	266.78		266.79	0.000031	0.48	394.39	127.28	0.08
KinmoutDS	10449	25y	202.5	261.36	267.12		267.13	0.000031	0.52	437.79	127.84	0.09
KinmoutDS	10449	50y	228.3	261.36	267.37		267.39	0.000032	0.54	470.55	128.28	0.09
KinmoutDS	10449	100y	256.1	261.36	267.63		267.65	0.000032	0.57	503.69	128.81	0.09
KinmoutDS	10449	200y	286.7	261.36	267.91		267.93	0.000032	0.6	540.04	129.39	0.09
KinmoutDS	10449	350y	313.8	261.36	268.16		268.18	0.000032	0.62	571.76	129.84	0.09
KinmoutDS	10449	Sept 25 2021	68.8	261.36	265.43		265.44	0.000029	0.33	224.56	124.83	0.08
KinmoutDS	10449	July 13 2024	53.2	261.36	265.14		265.15	0.00003	0.3	188.72	124.04	0.08
KinmoutDS	10449	April 21 2019	228	261.36	267.37		267.38	0.000032	0.54	470.2	128.27	0.09
KinmoutDS	10449	Nov 2 2013	77	261.36	265.57		265.57	0.000029	0.35	241.87	125.19	0.08
KinmoutDS	10449	April 16 2014	175	261.36	266.83		266.84	0.000031	0.48	401.19	127.36	0.08
KinmoutDS	10449	May 8 2017	142	261.36	266.45		266.46	0.00003	0.44	353.28	126.76	0.08
KinmoutDS	10449	April 21 2013	216	261.36	267.25		267.26	0.000031	0.53	454.92	128.07	0.09
KinmoutDS	10410	Timmins_Uncalibr	454.35	260.14	269.27		269.29	0.000019	0.6	934	160.1	0.08
KinmoutDS	10410	Timmins_Calibrat	115.6	260.14	266.13		266.14	0.000012	0.31	442.26	152.89	0.05
KinmoutDS	10410	TimminsCC_Calibr	145.1	260.14	266.49		266.5	0.000013	0.35	497.64	153.8	0.06
KinmoutDS	10410	2y	109.2	260.14	266.05		266.05	0.000012	0.3	429.4	152.67	0.05
KinmoutDS	10410	5y	145.6	260.14	266.5		266.5	0.000013	0.35	498.52	153.82	0.06
KinmoutDS	10410	10y	170.2	260.14	266.78		266.79	0.000014	0.38	541.87	154.58	0.06
KinmoutDS	10410	25y	202.5	260.14	267.12		267.13	0.000015	0.41	594.66	155.43	0.06
KinmoutDS	10410	50y	228.3	260.14	267.38		267.38	0.000016	0.43	634.54	156.01	0.06
KinmoutDS	10410	100y	256.1	260.14	267.63		267.64	0.000016	0.46	674.88	156.59	0.07
KinmoutDS	10410	200y	286.7	260.14	267.92		267.93	0.000017	0.49	719.11	157.23	0.07
KinmoutDS	10410	350y	313.8	260.14	268.16		268.17	0.000017	0.51	757.68	157.79	0.07
KinmoutDS	10410	Sept 25 2021	68.8	260.14	265.43		265.43	0.00001	0.24	335.99	151.01	0.05
KinmoutDS	10410	July 13 2024	53.2	260.14	265.14		265.15	0.000009	0.21	292.6	150.25	0.04
KinmoutDS	10410	April 21 2019	228	260.14	267.37		267.38	0.000016	0.43	634.1	156	0.06
KinmoutDS	10410	Nov 2 2013	77	260.14	265.57		265.57	0.00001	0.25	356.94	151.4	0.05
KinmoutDS	10410	April 16 2014	175	260.14	266.83		266.84	0.000014	0.38	550.13	154.71	0.06
KinmoutDS	10410	May 8 2017	142	260.14	266.45		266.46	0.000013	0.34	491.94	153.71	0.06
KinmoutDS	10410	April 21 2013	216	260.14	267.25		267.26	0.000015	0.42	615.51	155.73	0.06
KinmoutDS	10377	Timmins_Uncalibr	454.35	260.68	269.27		269.29	0.000022	0.65	877.75	155.5	0.08
KinmoutDS	10377	Timmins_Calibrat	115.6	260.68	266.13		266.13	0.000016	0.34	402.9	146.62	0.06
KinmoutDS	10377	TimminsCC_Calibr	145.1	260.68	266.49		266.5	0.000017	0.38	456.04	148.02	0.07
KinmoutDS	10377	2y	109.2	260.68	266.05		266.05	0.000015	0.33	390.58	146.39	0.06
KinmoutDS	10377	5y	145.6	260.68	266.5		266.5	0.000017	0.38	456.89	148.04	0.07
KinmoutDS	10377	10y	170.2	260.68	266.78		266.78	0.000018	0.41	498.63	148.98	0.07
KinmoutDS	10377	25y	202.5	260.68	267.12		267.13	0.000019	0.45	549.49	149.87	0.07
KinmoutDS	10377	50y	228.3	260.68	267.37		267.38	0.000019	0.47	587.96	150.68	0.07
KinmoutDS	10377	100y	256.1	260.68	267.63		267.64	0.00002	0.5	626.92	151.37	0.07
KinmoutDS	10377	200y	286.7	260.68	267.91		267.93	0.000021	0.53	669.67	152.13	0.08
KinmoutDS	10377	350y	313.8	260.68	268.16		268.17	0.000021	0.55	706.98	152.67	0.08

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	10377	Sept 25 2021	68.8	260.68	265.43		265.43	0.000013	0.27	301.12	144.54	0.05
KinmoutDS	10377	July 13 2024	53.2	260.68	265.14		265.15	0.000012	0.24	259.62	143.6	0.05
KinmoutDS	10377	April 21 2019	228	260.68	267.37		267.38	0.000019	0.47	587.54	150.68	0.07
KinmoutDS	10377	Nov 2 2013	77	260.68	265.57		265.57	0.000014	0.28	321.16	144.98	0.06
KinmoutDS	10377	April 16 2014	175	260.68	266.83		266.84	0.000018	0.42	506.59	149.14	0.07
KinmoutDS	10377	May 8 2017	142	260.68	266.45		266.46	0.000017	0.38	450.56	147.87	0.06
KinmoutDS	10377	April 21 2013	216	260.68	267.25		267.26	0.000019	0.46	569.6	150.31	0.07
KinmoutDS	10330	Timmins_Uncalibr	454.35	261.39	269.23		269.28	0.000055	0.97	483.18	97.97	0.13
KinmoutDS	10330	Timmins_Calibrat	115.6	261.39	266.12		266.13	0.000039	0.51	227.25	77.03	0.09
KinmoutDS	10330	TimminsCC_Calibr	145.1	261.39	266.48		266.49	0.000042	0.57	254.98	77.6	0.1
KinmoutDS	10330	2y	109.2	261.39	266.04		266.05	0.000038	0.49	220.82	76.78	0.09
KinmoutDS	10330	5y	145.6	261.39	266.48		266.5	0.000042	0.57	255.43	77.61	0.1
KinmoutDS	10330	10y	170.2	261.39	266.76		266.78	0.000045	0.61	277.14	77.98	0.1
KinmoutDS	10330	25y	202.5	261.39	267.1		267.12	0.000047	0.67	303.57	78.39	0.11
KinmoutDS	10330	50y	228.3	261.39	267.36		267.38	0.000048	0.71	323.53	78.77	0.11
KinmoutDS	10330	100y	256.1	261.39	267.61		267.64	0.00005	0.75	343.74	79.2	0.11
KinmoutDS	10330	200y	286.7	261.39	267.89		267.92	0.000051	0.79	365.98	79.88	0.12
KinmoutDS	10330	350y	313.8	261.39	268.13		268.17	0.000051	0.82	385.51	80.95	0.12
KinmoutDS	10330	Sept 25 2021	68.8	261.39	265.42		265.43	0.000032	0.39	174.5	74.72	0.08
KinmoutDS	10330	July 13 2024	53.2	261.39	265.14		265.14	0.000029	0.35	153.24	73.7	0.08
KinmoutDS	10330	April 21 2019	228	261.39	267.35		267.38	0.000048	0.71	323.31	78.77	0.11
KinmoutDS	10330	Nov 2 2013	77	261.39	265.56		265.57	0.000033	0.42	184.83	75.16	0.08
KinmoutDS	10330	April 16 2014	175	261.39	266.82		266.84	0.000045	0.62	281.28	78.04	0.1
KinmoutDS	10330	May 8 2017	142	261.39	266.44		266.46	0.000042	0.56	252.13	77.55	0.1
KinmoutDS	10330	April 21 2013	216	261.39	267.23		267.26	0.000048	0.69	314	78.58	0.11
KinmoutDS	10291	Timmins_Uncalibr	454.35	262.02	269.2		269.28	0.000092	1.23	406.73	117.81	0.16
KinmoutDS	10291	Timmins_Calibrat	115.6	262.02	266.11		266.13	0.000071	0.67	174.64	65.84	0.13
KinmoutDS	10291	TimminsCC_Calibr	145.1	262.02	266.46		266.49	0.000076	0.75	198.23	66.6	0.13
KinmoutDS	10291	2y	109.2	262.02	266.02		266.05	0.00007	0.65	169.18	65.69	0.13
KinmoutDS	10291	5y	145.6	262.02	266.47		266.5	0.000076	0.75	198.6	66.62	0.13
KinmoutDS	10291	10y	170.2	262.02	266.75		266.78	0.000078	0.8	217.18	67.45	0.14
KinmoutDS	10291	25y	202.5	262.02	267.08		267.12	0.000081	0.87	240	68.5	0.14
KinmoutDS	10291	50y	228.3	262.02	267.33		267.38	0.000083	0.92	257.37	69.29	0.15
KinmoutDS	10291	100y	256.1	262.02	267.59		267.64	0.000086	0.96	275.06	69.96	0.15
KinmoutDS	10291	200y	286.7	262.02	267.87		267.92	0.000087	1.01	294.57	70.58	0.15
KinmoutDS	10291	350y	313.8	262.02	268.11		268.16	0.000088	1.05	311.7	71.3	0.15
KinmoutDS	10291	Sept 25 2021	68.8	262.02	265.42		265.43	0.000063	0.53	129.65	62.1	0.12
KinmoutDS	10291	July 13 2024	53.2	262.02	265.13		265.14	0.00006	0.47	112.34	60.18	0.11
KinmoutDS	10291	April 21 2019	228	262.02	267.33		267.37	0.000083	0.91	257.18	69.28	0.15
KinmoutDS	10291	Nov 2 2013	77	262.02	265.55		265.57	0.000065	0.56	138.45	64.73	0.12
KinmoutDS	10291	April 16 2014	175	262.02	266.8		266.83	0.000079	0.81	220.74	67.62	0.14
KinmoutDS	10291	May 8 2017	142	262.02	266.43		266.45	0.000075	0.74	195.79	66.52	0.13
KinmoutDS	10291	April 21 2013	216	262.02	267.21		267.25	0.000083	0.89	249.06	68.91	0.14

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	10253	Timmins_Uncalibr	454.35	262.63	269.14		269.27	0.000157	1.6	367.43	131.84	0.21
KinmoutDS	10253	Timmins_Calibrat	115.6	262.63	266.08		266.12	0.000132	0.89	138.55	56.17	0.17
KinmoutDS	10253	TimminsCC_Calibr	145.1	262.63	266.44		266.49	0.000138	0.99	158.46	56.99	0.18
KinmoutDS	10253	2y	109.2	262.63	266		266.04	0.000131	0.87	133.94	55.97	0.17
KinmoutDS	10253	5y	145.6	262.63	266.44		266.49	0.000138	0.99	158.78	57.01	0.18
KinmoutDS	10253	10y	170.2	262.63	266.72		266.77	0.000142	1.06	174.49	57.65	0.19
KinmoutDS	10253	25y	202.5	262.63	267.05		267.11	0.000146	1.15	193.73	58.45	0.19
KinmoutDS	10253	50y	228.3	262.63	267.3		267.37	0.000148	1.21	208.36	59.07	0.19
KinmoutDS	10253	100y	256.1	262.63	267.55		267.63	0.000151	1.27	223.24	59.7	0.2
KinmoutDS	10253	200y	286.7	262.63	267.82		267.91	0.000153	1.33	239.71	60.5	0.2
KinmoutDS	10253	350y	313.8	262.63	268.06		268.15	0.000154	1.38	254.25	62.46	0.2
KinmoutDS	10253	Sept 25 2021	68.8	262.63	265.4		265.43	0.000125	0.72	100.75	54.11	0.16
KinmoutDS	10253	July 13 2024	53.2	262.63	265.12		265.14	0.000124	0.65	85.55	53.23	0.16
KinmoutDS	10253	April 21 2019	228	262.63	267.29		267.37	0.000148	1.21	208.2	59.07	0.19
KinmoutDS	10253	Nov 2 2013	77	262.63	265.54		265.56	0.000126	0.75	108.14	54.52	0.16
KinmoutDS	10253	April 16 2014	175	262.63	266.77		266.83	0.000142	1.07	177.5	57.77	0.19
KinmoutDS	10253	May 8 2017	142	262.63	266.4		266.45	0.000138	0.98	156.4	56.91	0.18
KinmoutDS	10253	April 21 2013	216	262.63	267.18		267.25	0.000147	1.18	201.36	58.78	0.19
KinmoutDS	10214	Timmins_Uncalibr	454.35	263.01	269.09		269.25	0.000227	1.9	386.17	159.61	0.26
KinmoutDS	10214	Timmins_Calibrat	115.6	263.01	266.06		266.12	0.000218	1.11	119	53.21	0.22
KinmoutDS	10214	TimminsCC_Calibr	145.1	263.01	266.4		266.48	0.000224	1.23	137.68	54.08	0.23
KinmoutDS	10214	2y	109.2	263.01	265.97		266.03	0.000217	1.09	114.69	52.94	0.22
KinmoutDS	10214	5y	145.6	263.01	266.41		266.48	0.000224	1.23	137.98	54.09	0.23
KinmoutDS	10214	10y	170.2	263.01	266.68		266.76	0.000227	1.31	152.74	54.8	0.23
KinmoutDS	10214	25y	202.5	263.01	267.01		267.1	0.000231	1.41	170.79	55.59	0.24
KinmoutDS	10214	50y	228.3	263.01	267.25		267.36	0.000233	1.48	184.52	56.08	0.24
KinmoutDS	10214	100y	256.1	263.01	267.5		267.62	0.000237	1.56	200.05	69.46	0.25
KinmoutDS	10214	200y	286.7	263.01	267.77		267.9	0.000237	1.63	220.64	80.93	0.25
KinmoutDS	10214	350y	313.8	263.01	268.01		268.14	0.000235	1.68	241.73	102.44	0.25
KinmoutDS	10214	Sept 25 2021	68.8	263.01	265.38		265.42	0.000215	0.91	83.79	50.04	0.21
KinmoutDS	10214	July 13 2024	53.2	263.01	265.1		265.13	0.000219	0.83	70	48.21	0.21
KinmoutDS	10214	April 21 2019	228	263.01	267.25		267.36	0.000233	1.48	184.37	56.07	0.24
KinmoutDS	10214	Nov 2 2013	77	263.01	265.51		265.56	0.000215	0.95	90.6	51.14	0.21
KinmoutDS	10214	April 16 2014	175	263.01	266.73		266.82	0.000227	1.33	155.56	54.93	0.23
KinmoutDS	10214	May 8 2017	142	263.01	266.37		266.44	0.000223	1.22	135.74	54.02	0.23
KinmoutDS	10214	April 21 2013	216	263.01	267.14		267.24	0.000232	1.45	177.96	55.81	0.24
KinmoutDS	10170	Timmins_Uncalibr	454.35	262.85	269.07	265.74	269.24	0.000212	1.85	411.79	211.18	0.25
KinmoutDS	10170	Timmins_Calibrat	115.6	262.85	266.04	264.32	266.1	0.000198	1.08	115.38	47.96	0.21
KinmoutDS	10170	TimminsCC_Calibr	145.1	262.85	266.39	264.48	266.46	0.000207	1.2	132.23	51.04	0.22
KinmoutDS	10170	2y	109.2	262.85	265.96	264.28	266.02	0.000196	1.05	111.5	47.7	0.21
KinmoutDS	10170	5y	145.6	262.85	266.4	264.48	266.47	0.000207	1.2	132.5	51.14	0.22
KinmoutDS	10170	10y	170.2	262.85	266.67	264.61	266.75	0.000212	1.28	145.91	59.97	0.23
KinmoutDS	10170	25y	202.5	262.85	266.99	264.75	267.09	0.000218	1.39	162.46	80.54	0.23
KinmoutDS	10170	50y	228.3	262.85	267.24	264.87	267.34	0.000222	1.46	175.26	93.47	0.24

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	10170	100y	256.1	262.85	267.49	264.99	267.6	0.000226	1.54	188.46	104.08	0.24
KinmoutDS	10170	200y	286.7	262.85	267.76	265.12	267.88	0.000228	1.61	203.3	112.34	0.25
KinmoutDS	10170	350y	313.8	262.85	267.99	265.22	268.13	0.000229	1.67	216.49	123.36	0.25
KinmoutDS	10170	Sept 25 2021	68.8	262.85	265.37	264.04	265.4	0.000188	0.87	83.64	45.74	0.2
KinmoutDS	10170	July 13 2024	53.2	262.85	265.09	263.82	265.12	0.000187	0.78	70.93	44.79	0.19
KinmoutDS	10170	April 21 2019	228	262.85	267.24	264.87	267.34	0.000222	1.46	175.12	93.37	0.24
KinmoutDS	10170	Nov 2 2013	77	262.85	265.5	264.09	265.54	0.000189	0.91	89.84	46.2	0.2
KinmoutDS	10170	April 16 2014	175	262.85	266.72	264.63	266.8	0.000212	1.3	148.48	62.22	0.23
KinmoutDS	10170	May 8 2017	142	262.85	266.36	264.46	266.43	0.000206	1.18	130.48	50.4	0.22
KinmoutDS	10170	April 21 2013	216	262.85	267.12	264.81	267.22	0.00022	1.43	169.1	86.52	0.24
KinmoutDS	10146	Concession Road	Bridge									
KinmoutDS	10123	Timmins_Uncalibr	454.35	262.21	268.91		269.03	0.00018	1.71	406.58	230.97	0.23
KinmoutDS	10123	Timmins_Calibrat	115.6	262.21	266.02		266.07	0.000152	0.99	122.69	50.77	0.19
KinmoutDS	10123	TimminsCC_Calibr	145.1	262.21	266.37		266.43	0.000161	1.09	140.52	53.02	0.2
KinmoutDS	10123	2y	109.2	262.21	265.94		265.99	0.00015	0.96	118.62	50.36	0.18
KinmoutDS	10123	5y	145.6	262.21	266.37		266.43	0.000162	1.1	140.81	53.05	0.2
KinmoutDS	10123	10y	170.2	262.21	266.64		266.71	0.000166	1.17	155.2	54.15	0.2
KinmoutDS	10123	25y	202.5	262.21	266.96		267.04	0.000172	1.27	173.06	84.28	0.21
KinmoutDS	10123	50y	228.3	262.21	267.21		267.3	0.000175	1.33	186.82	97.12	0.21
KinmoutDS	10123	100y	256.1	262.21	267.45		267.55	0.000179	1.4	200.82	109.06	0.22
KinmoutDS	10123	200y	286.7	262.21	267.71		267.82	0.000182	1.47	215.97	129.18	0.22
KinmoutDS	10123	350y	313.8	262.21	267.93		268.05	0.000185	1.52	228.84	137.85	0.22
KinmoutDS	10123	Sept 25 2021	68.8	262.21	265.35		265.38	0.000137	0.78	90.51	45.5	0.17
KinmoutDS	10123	July 13 2024	53.2	262.21	265.07		265.1	0.000131	0.7	77.95	44.72	0.16
KinmoutDS	10123	April 21 2019	228	262.21	267.21		267.29	0.000175	1.33	186.67	97.01	0.21
KinmoutDS	10123	Nov 2 2013	77	262.21	265.49		265.52	0.000139	0.82	96.63	45.95	0.17
KinmoutDS	10123	April 16 2014	175	262.21	266.69		266.76	0.000167	1.19	157.97	54.8	0.2
KinmoutDS	10123	May 8 2017	142	262.21	266.33		266.39	0.000161	1.08	138.64	52.85	0.19
KinmoutDS	10123	April 21 2013	216	262.21	267.09		267.18	0.000174	1.3	180.22	90.12	0.21
KinmoutDS	10093	Timmins_Uncalibr	454.35	262.34	268.9		269.02	0.000177	1.67	409.34	192.08	0.22
KinmoutDS	10093	Timmins_Calibrat	115.6	262.34	266.01		266.07	0.000175	1.04	136.12	90.71	0.2
KinmoutDS	10093	TimminsCC_Calibr	145.1	262.34	266.36		266.42	0.00018	1.14	163.36	109.77	0.2
KinmoutDS	10093	2y	109.2	262.34	265.93		265.98	0.000174	1.02	130.19	83.72	0.2
KinmoutDS	10093	5y	145.6	262.34	266.36		266.43	0.00018	1.14	163.81	109.87	0.21
KinmoutDS	10093	10y	170.2	262.34	266.63		266.7	0.000179	1.2	186.2	117.87	0.21
KinmoutDS	10093	25y	202.5	262.34	266.96		267.04	0.00018	1.28	213.61	126.58	0.21
KinmoutDS	10093	50y	228.3	262.34	267.2		267.29	0.00018	1.33	234.46	130.69	0.21
KinmoutDS	10093	100y	256.1	262.34	267.45		267.54	0.00018	1.39	255.52	141	0.22
KinmoutDS	10093	200y	286.7	262.34	267.71		267.81	0.00018	1.44	278.14	145.36	0.22
KinmoutDS	10093	350y	313.8	262.34	267.93		268.03	0.00018	1.49	297.42	153.22	0.22
KinmoutDS	10093	Sept 25 2021	68.8	262.34	265.34		265.38	0.000169	0.85	90.12	62.29	0.19
KinmoutDS	10093	July 13 2024	53.2	262.34	265.06		265.09	0.000164	0.77	73.74	53.51	0.18
KinmoutDS	10093	April 21 2019	228	262.34	267.2		267.28	0.00018	1.33	234.23	130.66	0.21

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	10093	Nov 2 2013	77	262.34	265.47		265.51	0.000171	0.89	98.77	66.86	0.19
KinmoutDS	10093	April 16 2014	175	262.34	266.69		266.76	0.000179	1.21	190.49	120.55	0.21
KinmoutDS	10093	May 8 2017	142	262.34	266.32		266.38	0.00018	1.13	160.43	108.47	0.2
KinmoutDS	10093	April 21 2013	216	262.34	267.09		267.17	0.00018	1.31	224.48	128.98	0.21
KinmoutDS	10051	Timmins_Uncalibr	454.35	261.99	268.83		269.01	0.000258	2.01	284.28	100.27	0.26
KinmoutDS	10051	Timmins_Calibrat	115.6	261.99	265.99		266.06	0.000193	1.15	107.07	38.79	0.2
KinmoutDS	10051	TimminsCC_Calibr	145.1	261.99	266.33		266.41	0.000214	1.29	120.42	40.38	0.22
KinmoutDS	10051	2y	109.2	261.99	265.91		265.97	0.000188	1.12	104.02	38.53	0.2
KinmoutDS	10051	5y	145.6	261.99	266.34		266.42	0.000214	1.29	120.64	40.41	0.22
KinmoutDS	10051	10y	170.2	261.99	266.6		266.69	0.000227	1.4	131.52	42.21	0.23
KinmoutDS	10051	25y	202.5	261.99	266.91		267.02	0.000242	1.52	145.1	43.91	0.24
KinmoutDS	10051	50y	228.3	261.99	267.15		267.27	0.000252	1.6	155.65	44.95	0.24
KinmoutDS	10051	100y	256.1	261.99	267.39		267.53	0.000262	1.69	166.44	45.98	0.25
KinmoutDS	10051	200y	286.7	261.99	267.64		267.79	0.000278	1.81	178.57	52.82	0.26
KinmoutDS	10051	350y	313.8	261.99	267.84		268.01	0.000296	1.91	190.25	63.46	0.27
KinmoutDS	10051	Sept 25 2021	68.8	261.99	265.33		265.37	0.000151	0.88	82.31	35.92	0.17
KinmoutDS	10051	July 13 2024	53.2	261.99	265.06		265.09	0.000133	0.76	72.6	34.84	0.16
KinmoutDS	10051	April 21 2019	228	261.99	267.15		267.27	0.000252	1.6	155.53	44.93	0.24
KinmoutDS	10051	Nov 2 2013	77	261.99	265.46		265.51	0.00016	0.93	87.08	36.54	0.18
KinmoutDS	10051	April 16 2014	175	261.99	266.65		266.74	0.000229	1.41	133.63	42.52	0.23
KinmoutDS	10051	May 8 2017	142	261.99	266.3		266.37	0.000212	1.28	119.02	40.15	0.21
KinmoutDS	10051	April 21 2013	216	261.99	267.04		267.16	0.000248	1.56	150.57	44.53	0.24
KinmoutDS	10010	Timmins_Uncalibr	454.35	260.93	268.87		268.98	0.000144	1.61	357.61	108.7	0.2
KinmoutDS	10010	Timmins_Calibrat	115.6	260.93	266		266.05	0.00012	1.02	125.42	40.6	0.16
KinmoutDS	10010	TimminsCC_Calibr	145.1	260.93	266.33		266.4	0.000142	1.18	139.54	45.3	0.18
KinmoutDS	10010	2y	109.2	260.93	265.92		265.96	0.000115	0.99	122.22	40.26	0.16
KinmoutDS	10010	5y	145.6	260.93	266.34		266.41	0.000143	1.18	139.79	45.57	0.18
KinmoutDS	10010	10y	170.2	260.93	266.6		266.68	0.000155	1.28	152.76	50.43	0.19
KinmoutDS	10010	25y	202.5	260.93	266.92		267.01	0.000166	1.39	171.26	64.42	0.2
KinmoutDS	10010	50y	228.3	260.93	267.16		267.26	0.000172	1.46	187.73	75.47	0.21
KinmoutDS	10010	100y	256.1	260.93	267.4		267.51	0.000174	1.51	207.9	89.27	0.21
KinmoutDS	10010	200y	286.7	260.93	267.66		267.77	0.000181	1.59	231.67	99.46	0.21
KinmoutDS	10010	350y	313.8	260.93	267.88		267.99	0.000173	1.6	253.55	99.93	0.21
KinmoutDS	10010	Sept 25 2021	68.8	260.93	265.33		265.36	0.000082	0.75	99.4	37.94	0.13
KinmoutDS	10010	July 13 2024	53.2	260.93	265.06		265.08	0.000067	0.64	89.11	36.84	0.12
KinmoutDS	10010	April 21 2019	228	260.93	267.16		267.26	0.000172	1.46	187.53	75.39	0.21
KinmoutDS	10010	Nov 2 2013	77	260.93	265.47		265.5	0.00009	0.8	104.45	38.51	0.14
KinmoutDS	10010	April 16 2014	175	260.93	266.65		266.73	0.000157	1.3	155.3	50.66	0.19
KinmoutDS	10010	May 8 2017	142	260.93	266.3		266.36	0.00014	1.16	138	43.83	0.18
KinmoutDS	10010	April 21 2013	216	260.93	267.05		267.14	0.00017	1.43	179.46	67.03	0.2
KinmoutDS	9971	Timmins_Uncalibr	454.35	261.24	268.88		268.97	0.000123	1.47	384.01	110.46	0.18
KinmoutDS	9971	Timmins_Calibrat	115.6	261.24	265.99		266.04	0.000129	1.03	130.97	48.59	0.17
KinmoutDS	9971	TimminsCC_Calibr	145.1	261.24	266.33		266.39	0.000145	1.15	147.67	50.29	0.18

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	9971	2y	109.2	261.24	265.91		265.96	0.000125	1	127.14	48.17	0.17
KinmoutDS	9971	5y	145.6	261.24	266.34		266.4	0.000145	1.16	147.94	50.32	0.18
KinmoutDS	9971	10y	170.2	261.24	266.6		266.67	0.000156	1.25	161.58	53.21	0.19
KinmoutDS	9971	25y	202.5	261.24	266.92		267	0.000165	1.35	183.69	87.5	0.2
KinmoutDS	9971	50y	228.3	261.24	267.16		267.25	0.000171	1.42	206.43	98.08	0.21
KinmoutDS	9971	100y	256.1	261.24	267.41		267.5	0.000163	1.43	230.77	98.55	0.2
KinmoutDS	9971	200y	286.7	261.24	267.67		267.76	0.000154	1.44	256.71	99.41	0.2
KinmoutDS	9971	350y	313.8	261.24	267.89		267.97	0.000147	1.44	278.56	100.45	0.2
KinmoutDS	9971	Sept 25 2021	68.8	261.24	265.33		265.36	0.000096	0.77	100.26	43.6	0.14
KinmoutDS	9971	July 13 2024	53.2	261.24	265.05		265.08	0.000081	0.67	88.48	42.1	0.13
KinmoutDS	9971	April 21 2019	228	261.24	267.16		267.25	0.000171	1.42	206.16	98.07	0.21
KinmoutDS	9971	Nov 2 2013	77	261.24	265.46		265.49	0.000103	0.83	106.07	44.57	0.15
KinmoutDS	9971	April 16 2014	175	261.24	266.65		266.72	0.000158	1.27	164.26	53.63	0.19
KinmoutDS	9971	May 8 2017	142	261.24	266.3		266.36	0.000144	1.14	145.93	50.05	0.18
KinmoutDS	9971	April 21 2013	216	261.24	267.04		267.13	0.000175	1.41	194.87	97.95	0.21
KinmoutDS	9931	Timmins_Uncalibr	454.35	261.34	268.81		268.96	0.000192	1.82	330.34	94.68	0.23
KinmoutDS	9931	Timmins_Calibrat	115.6	261.34	265.98		266.04	0.000145	1.07	120.83	45.14	0.18
KinmoutDS	9931	TimminsCC_Calibr	145.1	261.34	266.31		266.39	0.000165	1.21	136.36	47.62	0.2
KinmoutDS	9931	2y	109.2	261.34	265.9		265.95	0.000141	1.04	117.31	44.67	0.18
KinmoutDS	9931	5y	145.6	261.34	266.32		266.39	0.000165	1.21	136.61	47.66	0.2
KinmoutDS	9931	10y	170.2	261.34	266.58		266.66	0.000181	1.32	149.87	54.22	0.21
KinmoutDS	9931	25y	202.5	261.34	266.89		266.99	0.000195	1.44	169.08	65.68	0.22
KinmoutDS	9931	50y	228.3	261.34	267.13		267.24	0.000199	1.51	185.06	67.69	0.22
KinmoutDS	9931	100y	256.1	261.34	267.37		267.49	0.000203	1.57	201.34	69.52	0.23
KinmoutDS	9931	200y	286.7	261.34	267.61		267.74	0.000219	1.69	220.09	88.17	0.24
KinmoutDS	9931	350y	313.8	261.34	267.83		267.96	0.000215	1.72	239.32	89.73	0.24
KinmoutDS	9931	Sept 25 2021	68.8	261.34	265.32		265.35	0.000107	0.8	92.97	40.67	0.15
KinmoutDS	9931	July 13 2024	53.2	261.34	265.05		265.07	0.000092	0.69	82.02	39.39	0.14
KinmoutDS	9931	April 21 2019	228	261.34	267.13		267.24	0.000199	1.51	184.88	67.67	0.22
KinmoutDS	9931	Nov 2 2013	77	261.34	265.45		265.49	0.000115	0.85	98.35	41.24	0.16
KinmoutDS	9931	April 16 2014	175	261.34	266.63		266.72	0.000183	1.34	152.59	55.42	0.21
KinmoutDS	9931	May 8 2017	142	261.34	266.28		266.35	0.000163	1.19	134.73	47.32	0.19
KinmoutDS	9931	April 21 2013	216	261.34	267.02		267.12	0.000197	1.48	177.43	66.77	0.22
KinmoutDS	9890	Timmins_Uncalibr	454.35	261.41	268.76		268.94	0.000291	2.04	304.02	91.86	0.26
KinmoutDS	9890	Timmins_Calibrat	115.6	261.41	265.97		266.03	0.00019	1.11	112.56	43.03	0.19
KinmoutDS	9890	TimminsCC_Calibr	145.1	261.41	266.3		266.38	0.000214	1.26	128.26	48.74	0.21
KinmoutDS	9890	2y	109.2	261.41	265.89		265.95	0.000184	1.08	109.23	42.2	0.19
KinmoutDS	9890	5y	145.6	261.41	266.31		266.38	0.000215	1.26	128.51	48.76	0.21
KinmoutDS	9890	10y	170.2	261.41	266.57		266.66	0.000229	1.36	141.48	51.36	0.21
KinmoutDS	9890	25y	202.5	261.41	266.88		266.98	0.000248	1.48	159.98	67.5	0.23
KinmoutDS	9890	50y	228.3	261.41	267.12		267.23	0.000255	1.56	176.32	69.84	0.23
KinmoutDS	9890	100y	256.1	261.41	267.35		267.48	0.000262	1.63	192.97	71.32	0.24
KinmoutDS	9890	200y	286.7	261.41	267.6		267.74	0.000268	1.71	210.92	72.75	0.24
KinmoutDS	9890	350y	313.8	261.41	267.81		267.95	0.000271	1.76	226.31	74.08	0.24

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	9890	Sept 25 2021	68.8	261.41	265.31		265.35	0.000143	0.84	85.56	39.76	0.16
KinmoutDS	9890	July 13 2024	53.2	261.41	265.04		265.07	0.000121	0.72	75.46	33.84	0.14
KinmoutDS	9890	April 21 2019	228	261.41	267.11		267.23	0.000255	1.56	176.14	69.82	0.23
KinmoutDS	9890	Nov 2 2013	77	261.41	265.44		265.48	0.000152	0.89	90.8	40.46	0.17
KinmoutDS	9890	April 16 2014	175	261.41	266.62		266.71	0.000232	1.38	144.04	52.46	0.22
KinmoutDS	9890	May 8 2017	142	261.41	266.27		266.34	0.000212	1.24	126.59	48.58	0.2
KinmoutDS	9890	April 21 2013	216	261.41	267		267.11	0.000253	1.53	168.49	68.96	0.23
KinmoutDS	9850	Timmins_Uncalibr	454.35	261.53	268.75		268.92	0.000223	1.97	333.83	121.81	0.25
KinmoutDS	9850	Timmins_Calibrat	115.6	261.53	265.96		266.02	0.000148	1.09	117.97	49.89	0.19
KinmoutDS	9850	TimminsCC_Calibr	145.1	261.53	266.29		266.36	0.000166	1.22	136.49	59.24	0.2
KinmoutDS	9850	2y	109.2	261.53	265.88		265.94	0.000144	1.06	114.16	47.96	0.18
KinmoutDS	9850	5y	145.6	261.53	266.3		266.37	0.000166	1.23	136.79	59.32	0.2
KinmoutDS	9850	10y	170.2	261.53	266.56		266.64	0.000177	1.32	152.88	64.27	0.21
KinmoutDS	9850	25y	202.5	261.53	266.87		266.97	0.000187	1.43	173.44	66.55	0.22
KinmoutDS	9850	50y	228.3	261.53	267.11		267.21	0.000193	1.5	189.4	68.09	0.22
KinmoutDS	9850	100y	256.1	261.53	267.35		267.46	0.000199	1.57	205.67	69.81	0.23
KinmoutDS	9850	200y	286.7	261.53	267.59		267.72	0.000203	1.64	223.19	70.99	0.23
KinmoutDS	9850	350y	313.8	261.53	267.8		267.93	0.000206	1.7	238.19	72.34	0.24
KinmoutDS	9850	Sept 25 2021	68.8	261.53	265.31		265.34	0.000113	0.83	89.37	40.05	0.16
KinmoutDS	9850	July 13 2024	53.2	261.53	265.04		265.06	0.000097	0.72	78.7	38.71	0.14
KinmoutDS	9850	April 21 2019	228	261.53	267.11		267.21	0.000193	1.5	189.22	68.07	0.22
KinmoutDS	9850	Nov 2 2013	77	261.53	265.44		265.47	0.00012	0.88	94.67	41.28	0.16
KinmoutDS	9850	April 16 2014	175	261.53	266.61		266.69	0.000178	1.34	156.09	65.06	0.21
KinmoutDS	9850	May 8 2017	142	261.53	266.26		266.33	0.000164	1.21	134.46	58.75	0.2
KinmoutDS	9850	April 21 2013	216	261.53	267		267.1	0.00019	1.47	181.78	67.18	0.22
KinmoutDS	9771	Timmins_Uncalibr	454.35	261.62	268.75		268.91	0.000195	1.84	378.49	148	0.23
KinmoutDS	9771	Timmins_Calibrat	115.6	261.62	265.95		266.01	0.000141	1.06	117.26	56.31	0.18
KinmoutDS	9771	TimminsCC_Calibr	145.1	261.62	266.29		266.36	0.000155	1.18	136.73	59.47	0.19
KinmoutDS	9771	2y	109.2	261.62	265.88		265.93	0.000138	1.03	112.97	53.69	0.18
KinmoutDS	9771	5y	145.6	261.62	266.29		266.36	0.000155	1.18	137.03	59.5	0.19
KinmoutDS	9771	10y	170.2	261.62	266.55		266.63	0.000162	1.27	152.77	60.84	0.2
KinmoutDS	9771	25y	202.5	261.62	266.87		266.96	0.000171	1.36	172.02	62.28	0.21
KinmoutDS	9771	50y	228.3	261.62	267.1		267.2	0.000176	1.43	186.96	64.81	0.21
KinmoutDS	9771	100y	256.1	261.62	267.34		267.45	0.000181	1.5	203.25	77.57	0.22
KinmoutDS	9771	200y	286.7	261.62	267.59		267.71	0.000188	1.58	224.65	94.74	0.22
KinmoutDS	9771	350y	313.8	261.62	267.79		267.92	0.000191	1.63	245.96	109.09	0.23
KinmoutDS	9771	Sept 25 2021	68.8	261.62	265.3		265.33	0.000111	0.82	86.78	38.98	0.16
KinmoutDS	9771	July 13 2024	53.2	261.62	265.03		265.06	0.000097	0.72	76.5	37.19	0.14
KinmoutDS	9771	April 21 2019	228	261.62	267.1		267.2	0.000176	1.43	186.79	64.76	0.21
KinmoutDS	9771	Nov 2 2013	77	261.62	265.43		265.47	0.000117	0.87	91.91	39.84	0.16
KinmoutDS	9771	April 16 2014	175	261.62	266.6		266.68	0.000163	1.28	155.8	61.05	0.2
KinmoutDS	9771	May 8 2017	142	261.62	266.25		266.32	0.000154	1.17	134.69	59.28	0.19
KinmoutDS	9771	April 21 2013	216	261.62	266.99		267.09	0.000173	1.4	179.82	62.99	0.21

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	9729	Timmins_Uncalibr	454.35	261.72	268.71		268.89	0.000244	2.08	388.95	157.91	0.26
KinmoutDS	9729	Timmins_Calibrat	115.6	261.72	265.94		266	0.000156	1.13	115.93	56.66	0.19
KinmoutDS	9729	TimminsCC_Calibr	145.1	261.72	266.27		266.35	0.000176	1.28	135.01	59.01	0.21
KinmoutDS	9729	2y	109.2	261.72	265.86		265.92	0.000151	1.1	111.58	55.92	0.19
KinmoutDS	9729	5y	145.6	261.72	266.27		266.35	0.000176	1.28	135.3	59.04	0.21
KinmoutDS	9729	10y	170.2	261.72	266.53		266.62	0.000189	1.38	150.81	61.03	0.22
KinmoutDS	9729	25y	202.5	261.72	266.84		266.95	0.000203	1.5	170.03	63.92	0.23
KinmoutDS	9729	50y	228.3	261.72	267.08		267.19	0.000211	1.59	186.67	74.99	0.23
KinmoutDS	9729	100y	256.1	261.72	267.31		267.44	0.00022	1.67	204.75	84.02	0.24
KinmoutDS	9729	200y	286.7	261.72	267.55		267.69	0.000227	1.76	227.98	102.16	0.25
KinmoutDS	9729	350y	313.8	261.72	267.76		267.91	0.000233	1.83	250.76	116.73	0.25
KinmoutDS	9729	Sept 25 2021	68.8	261.72	265.29		265.33	0.000114	0.85	86.47	36.97	0.16
KinmoutDS	9729	July 13 2024	53.2	261.72	265.02		265.05	0.000096	0.73	76.75	35.4	0.14
KinmoutDS	9729	April 21 2019	228	261.72	267.07		267.19	0.000211	1.59	186.48	74.95	0.23
KinmoutDS	9729	Nov 2 2013	77	261.72	265.42		265.46	0.000122	0.91	91.28	37.72	0.17
KinmoutDS	9729	April 16 2014	175	261.72	266.58		266.67	0.000191	1.4	153.81	61.4	0.22
KinmoutDS	9729	May 8 2017	142	261.72	266.23		266.31	0.000174	1.27	133.01	58.77	0.21
KinmoutDS	9729	April 21 2013	216	261.72	266.96		267.08	0.000208	1.55	178.43	72.69	0.23
KinmoutDS	9690	Timmins_Uncalibr	454.35	261.63	268.7		268.88	0.000259	2.06	393.18	146.58	0.26
KinmoutDS	9690	Timmins_Calibrat	115.6	261.63	265.93		266	0.000174	1.14	116.81	55.53	0.2
KinmoutDS	9690	TimminsCC_Calibr	145.1	261.63	266.26		266.34	0.000195	1.29	135.2	56.57	0.21
KinmoutDS	9690	2y	109.2	261.63	265.85		265.91	0.000168	1.11	112.56	54.76	0.19
KinmoutDS	9690	5y	145.6	261.63	266.26		266.34	0.000195	1.29	135.48	56.58	0.21
KinmoutDS	9690	10y	170.2	261.63	266.52		266.61	0.000208	1.39	150.21	57.91	0.22
KinmoutDS	9690	25y	202.5	261.63	266.83		266.94	0.000224	1.51	169.3	67.59	0.23
KinmoutDS	9690	50y	228.3	261.63	267.06		267.18	0.000234	1.6	186.44	77.91	0.24
KinmoutDS	9690	100y	256.1	261.63	267.29		267.43	0.000242	1.68	206.59	100.08	0.24
KinmoutDS	9690	200y	286.7	261.63	267.54		267.69	0.00025	1.77	234.31	118.58	0.25
KinmoutDS	9690	350y	313.8	261.63	267.75		267.9	0.000253	1.82	259.66	124.68	0.25
KinmoutDS	9690	Sept 25 2021	68.8	261.63	265.29		265.32	0.000129	0.86	84.98	42.85	0.16
KinmoutDS	9690	July 13 2024	53.2	261.63	265.02		265.05	0.000109	0.74	74.63	36.22	0.15
KinmoutDS	9690	April 21 2019	228	261.63	267.06		267.18	0.000234	1.6	186.24	77.77	0.24
KinmoutDS	9690	Nov 2 2013	77	261.63	265.42		265.46	0.000138	0.92	90.65	45.89	0.17
KinmoutDS	9690	April 16 2014	175	261.63	266.57		266.67	0.00021	1.41	153.05	58.18	0.22
KinmoutDS	9690	May 8 2017	142	261.63	266.23		266.3	0.000193	1.27	133.29	56.46	0.21
KinmoutDS	9690	April 21 2013	216	261.63	266.95		267.07	0.00023	1.56	178.05	73.86	0.23
KinmoutDS	9630	Timmins_Uncalibr	454.35	261.26	268.72		268.85	0.000216	1.77	450.27	162.45	0.22
KinmoutDS	9630	Timmins_Calibrat	115.6	261.26	265.93		265.98	0.00015	1.02	129.07	54.32	0.17
KinmoutDS	9630	TimminsCC_Calibr	145.1	261.26	266.26		266.32	0.00017	1.15	148.03	60.57	0.18
KinmoutDS	9630	2y	109.2	261.26	265.85		265.9	0.000145	0.99	124.92	53.12	0.16
KinmoutDS	9630	5y	145.6	261.26	266.27		266.33	0.00017	1.15	148.33	60.66	0.18
KinmoutDS	9630	10y	170.2	261.26	266.52		266.6	0.000182	1.24	165.9	75.24	0.19
KinmoutDS	9630	25y	202.5	261.26	266.83		266.92	0.000195	1.34	191.86	92.89	0.2
KinmoutDS	9630	50y	228.3	261.26	267.07		267.16	0.000203	1.41	215.29	105.41	0.2

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	9630	100y	256.1	261.26	267.3		267.4	0.000208	1.48	242.01	123.2	0.21
KinmoutDS	9630	200y	286.7	261.26	267.55		267.66	0.000211	1.53	274.01	132.81	0.21
KinmoutDS	9630	350y	313.8	261.26	267.76		267.87	0.000212	1.58	302.99	142.49	0.21
KinmoutDS	9630	Sept 25 2021	68.8	261.26	265.29		265.31	0.000107	0.76	98	42.81	0.14
KinmoutDS	9630	July 13 2024	53.2	261.26	265.02		265.04	0.000088	0.65	86.81	40.83	0.12
KinmoutDS	9630	April 21 2019	228	261.26	267.07		267.16	0.000203	1.41	215.02	105.23	0.2
KinmoutDS	9630	Nov 2 2013	77	261.26	265.41		265.45	0.000116	0.81	103.59	44.7	0.14
KinmoutDS	9630	April 16 2014	175	261.26	266.57		266.65	0.000184	1.25	169.72	78.82	0.19
KinmoutDS	9630	May 8 2017	142	261.26	266.23		266.29	0.000168	1.14	145.98	59.99	0.18
KinmoutDS	9630	April 21 2013	216	261.26	266.96		267.05	0.000201	1.38	203.79	99.17	0.2
KinmoutDS	9590	Timmins_Uncalibr	454.35	260.96	268.72		268.84	0.000171	1.7	490.97	166.5	0.21
KinmoutDS	9590	Timmins_Calibrat	115.6	260.96	265.93		265.98	0.00012	0.99	132.14	70.59	0.16
KinmoutDS	9590	TimminsCC_Calibr	145.1	260.96	266.26		266.32	0.000136	1.12	158.65	87.35	0.17
KinmoutDS	9590	2y	109.2	260.96	265.85		265.9	0.000116	0.96	126.81	68.11	0.16
KinmoutDS	9590	5y	145.6	260.96	266.26		266.32	0.000137	1.12	159.08	87.45	0.17
KinmoutDS	9590	10y	170.2	260.96	266.52		266.59	0.000146	1.2	182.95	100.24	0.18
KinmoutDS	9590	25y	202.5	260.96	266.83		266.91	0.000155	1.3	215.19	108.74	0.19
KinmoutDS	9590	50y	228.3	260.96	267.07		267.15	0.00016	1.36	242.93	123.39	0.19
KinmoutDS	9590	100y	256.1	260.96	267.3		267.39	0.000165	1.42	273.49	135.98	0.2
KinmoutDS	9590	200y	286.7	260.96	267.55		267.65	0.000167	1.48	308.12	141.2	0.2
KinmoutDS	9590	350y	313.8	260.96	267.76		267.87	0.000171	1.53	339.13	153.77	0.21
KinmoutDS	9590	Sept 25 2021	68.8	260.96	265.28		265.31	0.000084	0.73	97.99	40.3	0.13
KinmoutDS	9590	July 13 2024	53.2	260.96	265.02		265.04	0.000069	0.63	87.5	38.29	0.12
KinmoutDS	9590	April 21 2019	228	260.96	267.06		267.15	0.00016	1.36	242.61	123.3	0.19
KinmoutDS	9590	Nov 2 2013	77	260.96	265.41		265.44	0.000091	0.79	103.29	43.18	0.14
KinmoutDS	9590	April 16 2014	175	260.96	266.57		266.64	0.000148	1.22	187.92	101.45	0.18
KinmoutDS	9590	May 8 2017	142	260.96	266.22		266.28	0.000135	1.1	155.69	86.6	0.17
KinmoutDS	9590	April 21 2013	216	260.96	266.95		267.04	0.000158	1.33	229.24	119.9	0.19
KinmoutDS	9550	Timmins_Uncalibr	454.35	260.66	268.73		268.83	0.000152	1.62	539.68	167.16	0.2
KinmoutDS	9550	Timmins_Calibrat	115.6	260.66	265.93		265.97	0.000105	0.94	146.96	86.83	0.15
KinmoutDS	9550	TimminsCC_Calibr	145.1	260.66	266.25		266.31	0.00012	1.06	179.77	105.95	0.16
KinmoutDS	9550	2y	109.2	260.66	265.85		265.89	0.000101	0.92	140.43	82.17	0.15
KinmoutDS	9550	5y	145.6	260.66	266.26		266.31	0.00012	1.07	180.29	106	0.16
KinmoutDS	9550	10y	170.2	260.66	266.52		266.58	0.000128	1.14	208.46	114.2	0.17
KinmoutDS	9550	25y	202.5	260.66	266.83		266.9	0.000136	1.23	245.45	123.06	0.18
KinmoutDS	9550	50y	228.3	260.66	267.07		267.14	0.00014	1.29	275.46	132	0.18
KinmoutDS	9550	100y	256.1	260.66	267.3		267.38	0.000144	1.35	307.61	145.12	0.19
KinmoutDS	9550	200y	286.7	260.66	267.55		267.64	0.00015	1.42	345.97	159.6	0.19
KinmoutDS	9550	350y	313.8	260.66	267.76		267.86	0.000151	1.46	380.36	163.78	0.19
KinmoutDS	9550	Sept 25 2021	68.8	260.66	265.28		265.31	0.000072	0.7	104.82	51.47	0.12
KinmoutDS	9550	July 13 2024	53.2	260.66	265.01		265.03	0.000058	0.59	92.05	40.91	0.11
KinmoutDS	9550	April 21 2019	228	260.66	267.06		267.14	0.00014	1.29	275.12	131.96	0.18
KinmoutDS	9550	Nov 2 2013	77	260.66	265.41		265.44	0.000079	0.75	111.66	55.26	0.13
KinmoutDS	9550	April 16 2014	175	260.66	266.57		266.63	0.000129	1.16	214.15	115.82	0.17

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	9550	May 8 2017	142	260.66	266.22		266.27	0.000119	1.05	176.16	105.57	0.16
KinmoutDS	9550	April 21 2013	216	260.66	266.95		267.03	0.000138	1.26	260.86	126.39	0.18
KinmoutDS	9510	Timmins_Uncalibr	454.35	260.35	268.72		268.83	0.000135	1.62	561.85	174.62	0.2
KinmoutDS	9510	Timmins_Calibrat	115.6	260.35	265.92		265.96	0.000083	0.91	162.12	105.12	0.14
KinmoutDS	9510	TimminsCC_Calibr	145.1	260.35	266.25		266.3	0.000096	1.02	197.61	108.96	0.15
KinmoutDS	9510	2y	109.2	260.35	265.85		265.89	0.00008	0.88	154.1	102.92	0.14
KinmoutDS	9510	5y	145.6	260.35	266.26		266.31	0.000096	1.02	198.14	108.98	0.16
KinmoutDS	9510	10y	170.2	260.35	266.52		266.58	0.000103	1.1	226.56	110.08	0.16
KinmoutDS	9510	25y	202.5	260.35	266.83		266.89	0.000111	1.19	263.83	129.7	0.17
KinmoutDS	9510	50y	228.3	260.35	267.07		267.14	0.000116	1.26	295.72	137.93	0.18
KinmoutDS	9510	100y	256.1	260.35	267.3		267.38	0.00012	1.32	328.67	142.7	0.18
KinmoutDS	9510	200y	286.7	260.35	267.55		267.63	0.000126	1.39	366.45	160.66	0.19
KinmoutDS	9510	350y	313.8	260.35	267.76		267.85	0.00013	1.44	400.84	164.95	0.19
KinmoutDS	9510	Sept 25 2021	68.8	260.35	265.28		265.3	0.000055	0.66	111.47	50.88	0.11
KinmoutDS	9510	July 13 2024	53.2	260.35	265.01		265.03	0.000044	0.56	99.69	40.1	0.1
KinmoutDS	9510	April 21 2019	228	260.35	267.06		267.13	0.000116	1.26	295.37	137.9	0.17
KinmoutDS	9510	Nov 2 2013	77	260.35	265.41		265.43	0.000061	0.71	118.72	63.2	0.12
KinmoutDS	9510	April 16 2014	175	260.35	266.57		266.63	0.000105	1.12	232.03	111.33	0.16
KinmoutDS	9510	May 8 2017	142	260.35	266.22		266.27	0.000095	1.01	193.89	108.82	0.15
KinmoutDS	9510	April 21 2013	216	260.35	266.95		267.02	0.000114	1.23	280.25	136.12	0.17
KinmoutDS	9471	Timmins_Uncalibr	454.35	260.77	268.68		268.82	0.000181	1.85	500.35	164.44	0.23
KinmoutDS	9471	Timmins_Calibrat	115.6	260.77	265.91		265.96	0.000112	1.02	150.01	103.26	0.16
KinmoutDS	9471	TimminsCC_Calibr	145.1	260.77	266.24		266.3	0.000126	1.15	184.02	104.4	0.18
KinmoutDS	9471	2y	109.2	260.77	265.83		265.88	0.000108	0.99	142.11	102.96	0.16
KinmoutDS	9471	5y	145.6	260.77	266.24		266.3	0.000126	1.15	184.53	104.41	0.18
KinmoutDS	9471	10y	170.2	260.77	266.5		266.57	0.000135	1.23	211.6	105.34	0.18
KinmoutDS	9471	25y	202.5	260.77	266.81		266.89	0.000144	1.33	244.75	112.11	0.19
KinmoutDS	9471	50y	228.3	260.77	267.04		267.13	0.000151	1.41	271.82	123.41	0.2
KinmoutDS	9471	100y	256.1	260.77	267.28		267.37	0.000158	1.48	301.36	128.63	0.21
KinmoutDS	9471	200y	286.7	260.77	267.53		267.63	0.000161	1.54	333.66	129.71	0.21
KinmoutDS	9471	350y	313.8	260.77	267.74		267.84	0.000163	1.59	361.08	130.85	0.21
KinmoutDS	9471	Sept 25 2021	68.8	260.77	265.27		265.3	0.000077	0.76	97.46	51.65	0.13
KinmoutDS	9471	July 13 2024	53.2	260.77	265.01		265.03	0.000062	0.64	86.23	38.37	0.12
KinmoutDS	9471	April 21 2019	228	260.77	267.04		267.13	0.000151	1.4	271.51	123.14	0.2
KinmoutDS	9471	Nov 2 2013	77	260.77	265.4		265.43	0.000084	0.81	104.78	61.84	0.14
KinmoutDS	9471	April 16 2014	175	260.77	266.55		266.62	0.000136	1.25	216.79	105.54	0.19
KinmoutDS	9471	May 8 2017	142	260.77	266.2		266.26	0.000125	1.13	180.48	104.29	0.18
KinmoutDS	9471	April 21 2013	216	260.77	266.93		267.01	0.000147	1.37	258.75	115.97	0.2
KinmoutDS	9428	Timmins_Uncalibr	454.35	261.16	268.69		268.8	0.000144	1.62	474.19	147.58	0.2
KinmoutDS	9428	Timmins_Calibrat	115.6	261.16	265.91		265.95	0.000111	0.98	151.84	86.02	0.16
KinmoutDS	9428	TimminsCC_Calibr	145.1	261.16	266.23		266.29	0.000127	1.11	181.52	92.66	0.18
KinmoutDS	9428	2y	109.2	261.16	265.83		265.87	0.000108	0.95	145.5	79.93	0.16
KinmoutDS	9428	5y	145.6	261.16	266.24		266.3	0.000127	1.11	181.98	92.7	0.18

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	9428	10y	170.2	261.16	266.5		266.56	0.000132	1.18	206.53	98.91	0.18
KinmoutDS	9428	25y	202.5	261.16	266.81		266.88	0.000137	1.26	238.37	104.9	0.19
KinmoutDS	9428	50y	228.3	261.16	267.05		267.12	0.000138	1.3	263.28	106.53	0.19
KinmoutDS	9428	100y	256.1	261.16	267.28		267.36	0.000139	1.35	288.57	108.98	0.19
KinmoutDS	9428	200y	286.7	261.16	267.53		267.61	0.000139	1.4	316.48	113.6	0.19
KinmoutDS	9428	350y	313.8	261.16	267.74		267.83	0.00014	1.43	341.45	124.88	0.2
KinmoutDS	9428	Sept 25 2021	68.8	261.16	265.27		265.3	0.000082	0.74	103.37	64.05	0.14
KinmoutDS	9428	July 13 2024	53.2	261.16	265		265.02	0.000068	0.64	88.34	48.67	0.12
KinmoutDS	9428	April 21 2019	228	261.16	267.04		267.12	0.000138	1.3	263.01	106.51	0.19
KinmoutDS	9428	Nov 2 2013	77	261.16	265.4		265.43	0.000088	0.79	111.91	71.92	0.14
KinmoutDS	9428	April 16 2014	175	261.16	266.55		266.61	0.000133	1.19	211.45	100.15	0.18
KinmoutDS	9428	May 8 2017	142	261.16	266.2		266.26	0.000126	1.1	178.37	92.39	0.18
KinmoutDS	9428	April 21 2013	216	261.16	266.93		267.01	0.000138	1.28	251.39	105.57	0.19
KinmoutDS	9390	Timmins_Uncalibr	454.35	261.46	268.71		268.79	0.000093	1.29	501.71	156.19	0.16
KinmoutDS	9390	Timmins_Calibrat	115.6	261.46	265.9		265.95	0.000124	1	149.7	94.38	0.17
KinmoutDS	9390	TimminsCC_Calibr	145.1	261.46	266.23		266.28	0.000129	1.08	181.46	97.55	0.18
KinmoutDS	9390	2y	109.2	261.46	265.83		265.87	0.000119	0.97	143.02	80.95	0.17
KinmoutDS	9390	5y	145.6	261.46	266.24		266.29	0.000129	1.08	181.95	97.6	0.18
KinmoutDS	9390	10y	170.2	261.46	266.5		266.55	0.000126	1.12	208.01	102.5	0.18
KinmoutDS	9390	25y	202.5	261.46	266.81		266.87	0.000122	1.16	241.09	110.61	0.18
KinmoutDS	9390	50y	228.3	261.46	267.05		267.11	0.000117	1.18	268.19	117.17	0.18
KinmoutDS	9390	100y	256.1	261.46	267.29		267.35	0.000114	1.2	296.69	123.67	0.17
KinmoutDS	9390	200y	286.7	261.46	267.54		267.6	0.00011	1.22	329.04	134.58	0.17
KinmoutDS	9390	350y	313.8	261.46	267.75		267.82	0.000108	1.24	358.68	141.53	0.17
KinmoutDS	9390	Sept 25 2021	68.8	261.46	265.26		265.29	0.000094	0.76	106.26	59.41	0.14
KinmoutDS	9390	July 13 2024	53.2	261.46	265		265.02	0.000081	0.66	90.84	56.59	0.13
KinmoutDS	9390	April 21 2019	228	261.46	267.05		267.11	0.000117	1.18	267.89	117.11	0.18
KinmoutDS	9390	Nov 2 2013	77	261.46	265.39		265.42	0.000099	0.81	113.86	60.52	0.15
KinmoutDS	9390	April 16 2014	175	261.46	266.55		266.6	0.000126	1.13	213.14	103.08	0.18
KinmoutDS	9390	May 8 2017	142	261.46	266.2		266.25	0.000129	1.08	178.11	97.26	0.18
KinmoutDS	9390	April 21 2013	216	261.46	266.94		267	0.000119	1.17	255.11	113.86	0.18
KinmoutDS	9351	Timmins_Uncalibr	454.35	261.78	268.73		268.78	0.000059	1.01	523.78	152.74	0.13
KinmoutDS	9351	Timmins_Calibrat	115.6	261.78	265.9		265.94	0.000129	0.98	148.87	109.73	0.18
KinmoutDS	9351	TimminsCC_Calibr	145.1	261.78	266.24		266.28	0.000114	0.99	186.96	114.78	0.17
KinmoutDS	9351	2y	109.2	261.78	265.82		265.87	0.000131	0.98	140.58	104.23	0.18
KinmoutDS	9351	5y	145.6	261.78	266.24		266.28	0.000114	0.99	187.56	114.82	0.17
KinmoutDS	9351	10y	170.2	261.78	266.51		266.55	0.000102	0.98	218.19	116.95	0.16
KinmoutDS	9351	25y	202.5	261.78	266.82		266.86	0.000091	0.98	255.88	122.99	0.15
KinmoutDS	9351	50y	228.3	261.78	267.06		267.1	0.000084	0.97	286.05	128.04	0.15
KinmoutDS	9351	100y	256.1	261.78	267.3		267.34	0.00008	0.99	316.92	134.75	0.15
KinmoutDS	9351	200y	286.7	261.78	267.55		267.59	0.000076	0.99	351.93	139.85	0.14
KinmoutDS	9351	350y	313.8	261.78	267.77		267.81	0.000071	0.99	382.1	142.56	0.14
KinmoutDS	9351	Sept 25 2021	68.8	261.78	265.26		265.29	0.000117	0.81	95.94	53.18	0.16
KinmoutDS	9351	July 13 2024	53.2	261.78	264.99		265.02	0.000104	0.71	82.82	46.7	0.15

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	9351	April 21 2019	228	261.78	267.06		267.1	0.000084	0.97	285.71	128.02	0.15
KinmoutDS	9351	Nov 2 2013	77	261.78	265.38		265.42	0.000122	0.85	103.18	63.22	0.17
KinmoutDS	9351	April 16 2014	175	261.78	266.56		266.6	0.0001	0.98	224.07	117.36	0.16
KinmoutDS	9351	May 8 2017	142	261.78	266.2		266.24	0.000116	0.99	182.97	114.54	0.17
KinmoutDS	9351	April 21 2013	216	261.78	266.95		266.99	0.000087	0.98	271.57	126.95	0.15
KinmoutDS	9312	Timmins_Uncalibr	454.35	261.94	268.73		268.77	0.000048	0.82	557.67	159.99	0.11
KinmoutDS	9312	Timmins_Calibrat	115.6	261.94	265.89		265.94	0.000185	1.03	138.77	122.67	0.19
KinmoutDS	9312	TimminsCC_Calibr	145.1	261.94	266.23		266.27	0.000147	0.99	182.55	131.17	0.17
KinmoutDS	9312	2y	109.2	261.94	265.81		265.86	0.000193	1.04	129.05	119.64	0.19
KinmoutDS	9312	5y	145.6	261.94	266.24		266.28	0.000147	0.99	183.25	131.24	0.17
KinmoutDS	9312	10y	170.2	261.94	266.5		266.54	0.000121	0.95	218.72	133.93	0.16
KinmoutDS	9312	25y	202.5	261.94	266.82		266.86	0.0001	0.91	261.6	135.97	0.14
KinmoutDS	9312	50y	228.3	261.94	267.06		267.1	0.000088	0.88	295.68	146.15	0.14
KinmoutDS	9312	100y	256.1	261.94	267.3		267.33	0.000084	0.9	331.4	155.4	0.14
KinmoutDS	9312	200y	286.7	261.94	267.56		267.59	0.000073	0.87	371.15	156.31	0.13
KinmoutDS	9312	350y	313.8	261.94	267.77		267.8	0.000066	0.85	404.72	157.08	0.12
KinmoutDS	9312	Sept 25 2021	68.8	261.94	265.24		265.28	0.000193	0.9	81.21	46.82	0.18
KinmoutDS	9312	July 13 2024	53.2	261.94	264.98		265.01	0.000169	0.78	70.63	39.11	0.17
KinmoutDS	9312	April 21 2019	228	261.94	267.06		267.09	0.000088	0.88	295.3	145.93	0.14
KinmoutDS	9312	Nov 2 2013	77	261.94	265.37		265.41	0.000202	0.95	87.91	69.75	0.19
KinmoutDS	9312	April 16 2014	175	261.94	266.55		266.59	0.000117	0.94	225.5	134.18	0.15
KinmoutDS	9312	May 8 2017	142	261.94	266.2		266.24	0.000151	1	177.93	130.68	0.17
KinmoutDS	9312	April 21 2013	216	261.94	266.95		266.98	0.000093	0.89	279.22	141.62	0.14
KinmoutDS	9272	Timmins_Uncalibr	454.35	261.91	268.73		268.77	0.000081	1.12	624.37	174.61	0.15
KinmoutDS	9272	Timmins_Calibrat	115.6	261.91	265.89		265.93	0.000152	1	161.89	139.35	0.18
KinmoutDS	9272	TimminsCC_Calibr	145.1	261.91	266.23		266.27	0.000136	1.01	210.21	144.59	0.17
KinmoutDS	9272	2y	109.2	261.91	265.81		265.85	0.000156	1	150.87	137.21	0.18
KinmoutDS	9272	5y	145.6	261.91	266.23		266.27	0.000136	1.01	210.97	144.65	0.17
KinmoutDS	9272	10y	170.2	261.91	266.5		266.54	0.000124	1.02	249.81	149.41	0.17
KinmoutDS	9272	25y	202.5	261.91	266.81		266.85	0.000113	1.02	299.03	158.93	0.16
KinmoutDS	9272	50y	228.3	261.91	267.06		267.09	0.000106	1.03	337.66	162.51	0.16
KinmoutDS	9272	100y	256.1	261.91	267.29		267.33	0.000101	1.04	377.28	168.44	0.16
KinmoutDS	9272	200y	286.7	261.91	267.55		267.59	0.000096	1.05	420.6	170.49	0.15
KinmoutDS	9272	350y	313.8	261.91	267.76		267.8	0.000092	1.06	457.26	171.18	0.15
KinmoutDS	9272	Sept 25 2021	68.8	261.91	265.24		265.27	0.000161	0.88	87.33	71.13	0.18
KinmoutDS	9272	July 13 2024	53.2	261.91	264.98		265.01	0.000144	0.78	72.62	42.96	0.17
KinmoutDS	9272	April 21 2019	228	261.91	267.05		267.09	0.000106	1.03	337.23	162.46	0.16
KinmoutDS	9272	Nov 2 2013	77	261.91	265.36		265.4	0.000164	0.92	97.2	90.6	0.18
KinmoutDS	9272	April 16 2014	175	261.91	266.55		266.59	0.000122	1.02	257.4	151.29	0.17
KinmoutDS	9272	May 8 2017	142	261.91	266.19		266.23	0.000138	1.01	205.14	144.12	0.17
KinmoutDS	9272	April 21 2013	216	261.91	266.94		266.98	0.000109	1.03	319.21	160.36	0.16
KinmoutDS	9232	Timmins_Uncalibr	454.35	261.85	268.68		268.76	0.000159	1.59	671.82	197.76	0.21
KinmoutDS	9232	Timmins_Calibrat	115.6	261.85	265.87		265.92	0.000162	1.05	189.39	145.52	0.19

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	9232	TimminsCC_Calibr	145.1	261.85	266.2		266.26	0.000165	1.14	238.28	149.59	0.19
KinmoutDS	9232	2y	109.2	261.85	265.8		265.84	0.000161	1.03	178.14	144.76	0.19
KinmoutDS	9232	5y	145.6	261.85	266.21		266.26	0.000165	1.14	239.05	149.65	0.19
KinmoutDS	9232	10y	170.2	261.85	266.47		266.53	0.000165	1.19	278.49	153.82	0.2
KinmoutDS	9232	25y	202.5	261.85	266.78		266.84	0.000164	1.25	327.38	158.5	0.2
KinmoutDS	9232	50y	228.3	261.85	267.02		267.08	0.000163	1.3	365.33	162.87	0.2
KinmoutDS	9232	100y	256.1	261.85	267.25		267.32	0.000163	1.35	405.26	174.6	0.2
KinmoutDS	9232	200y	286.7	261.85	267.5		267.58	0.000167	1.41	449.87	180.6	0.21
KinmoutDS	9232	350y	313.8	261.85	267.72		267.79	0.000165	1.44	488.59	182.76	0.21
KinmoutDS	9232	Sept 25 2021	68.8	261.85	265.23		265.27	0.000143	0.85	104.67	97.2	0.17
KinmoutDS	9232	July 13 2024	53.2	261.85	264.97		265	0.000128	0.75	83.7	70.66	0.16
KinmoutDS	9232	April 21 2019	228	261.85	267.02		267.08	0.000163	1.3	364.91	162.77	0.2
KinmoutDS	9232	Nov 2 2013	77	261.85	265.36		265.4	0.000149	0.9	117.96	119.29	0.18
KinmoutDS	9232	April 16 2014	175	261.85	266.52		266.58	0.000165	1.2	286.15	154.92	0.2
KinmoutDS	9232	May 8 2017	142	261.85	266.17		266.22	0.000165	1.13	233.15	149.15	0.19
KinmoutDS	9232	April 21 2013	216	261.85	266.91		266.97	0.000164	1.28	347.22	160.11	0.2
KinmoutDS	9192	Timmins_Uncalibr	454.35	261.8	268.69		268.75	0.000117	1.42	866.52	248.42	0.18
KinmoutDS	9192	Timmins_Calibrat	115.6	261.8	265.87		265.91	0.000128	0.98	239.99	164.63	0.17
KinmoutDS	9192	TimminsCC_Calibr	145.1	261.8	266.21		266.25	0.00013	1.05	296.02	171.86	0.18
KinmoutDS	9192	2y	109.2	261.8	265.8		265.84	0.000127	0.96	227.29	162	0.17
KinmoutDS	9192	5y	145.6	261.8	266.21		266.26	0.00013	1.05	296.9	172.09	0.18
KinmoutDS	9192	10y	170.2	261.8	266.47		266.52	0.000132	1.11	344.51	196.2	0.18
KinmoutDS	9192	25y	202.5	261.8	266.79		266.83	0.000131	1.17	409.02	215.83	0.18
KinmoutDS	9192	50y	228.3	261.8	267.02		267.07	0.000129	1.2	461.91	228.01	0.18
KinmoutDS	9192	100y	256.1	261.8	267.26		267.31	0.000131	1.25	516.65	239.83	0.19
KinmoutDS	9192	200y	286.7	261.8	267.51		267.57	0.000129	1.29	577.4	242.27	0.19
KinmoutDS	9192	350y	313.8	261.8	267.73		267.78	0.000126	1.31	629.43	243.4	0.19
KinmoutDS	9192	Sept 25 2021	68.8	261.8	265.23		265.26	0.000118	0.81	142.19	138.26	0.16
KinmoutDS	9192	July 13 2024	53.2	261.8	264.97		264.99	0.000106	0.72	110.21	106.71	0.15
KinmoutDS	9192	April 21 2019	228	261.8	267.02		267.07	0.000129	1.2	461.31	227.95	0.18
KinmoutDS	9192	Nov 2 2013	77	261.8	265.36		265.39	0.000121	0.85	159.91	142.4	0.16
KinmoutDS	9192	April 16 2014	175	261.8	266.52		266.57	0.000132	1.12	354.33	198.27	0.18
KinmoutDS	9192	May 8 2017	142	261.8	266.17		266.22	0.00013	1.05	290.11	170.83	0.18
KinmoutDS	9192	April 21 2013	216	261.8	266.91		266.96	0.00013	1.19	436.44	222.7	0.18
KinmoutDS	9154	Timmins_Uncalibr	454.35	261.74	268.69		268.74	0.000115	1.33	944.17	284.51	0.17
KinmoutDS	9154	Timmins_Calibrat	115.6	261.74	265.87		265.91	0.000141	0.98	231.81	176.72	0.17
KinmoutDS	9154	TimminsCC_Calibr	145.1	261.74	266.2		266.24	0.000142	1.05	292.65	193.26	0.18
KinmoutDS	9154	2y	109.2	261.74	265.79		265.83	0.00014	0.96	218.39	169.38	0.17
KinmoutDS	9154	5y	145.6	261.74	266.21		266.25	0.000142	1.05	293.65	193.49	0.18
KinmoutDS	9154	10y	170.2	261.74	266.47		266.51	0.00014	1.09	346.49	214.03	0.18
KinmoutDS	9154	25y	202.5	261.74	266.78		266.83	0.000138	1.13	420.02	248.2	0.18
KinmoutDS	9154	50y	228.3	261.74	267.02		267.07	0.000143	1.2	480.19	261.49	0.18
KinmoutDS	9154	100y	256.1	261.74	267.26		267.31	0.000137	1.22	542.99	265.45	0.18
KinmoutDS	9154	200y	286.7	261.74	267.51		267.56	0.000132	1.24	611.53	276.04	0.18

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	9154	350y	313.8	261.74	267.72		267.77	0.00013	1.26	671.15	279.71	0.18
KinmoutDS	9154	Sept 25 2021	68.8	261.74	265.23		265.26	0.000126	0.8	137.71	114.73	0.16
KinmoutDS	9154	July 13 2024	53.2	261.74	264.97		264.99	0.000116	0.71	110.19	103.16	0.15
KinmoutDS	9154	April 21 2019	228	261.74	267.02		267.07	0.000143	1.2	479.5	261.38	0.18
KinmoutDS	9154	Nov 2 2013	77	261.74	265.35		265.38	0.000131	0.84	153.1	130.7	0.16
KinmoutDS	9154	April 16 2014	175	261.74	266.52		266.56	0.00014	1.09	357.27	218.51	0.18
KinmoutDS	9154	May 8 2017	142	261.74	266.17		266.21	0.000143	1.04	286.03	190.44	0.18
KinmoutDS	9154	April 21 2013	216	261.74	266.91		266.95	0.000137	1.15	451.57	255.54	0.18
KinmoutDS	9112	Timmins_Uncalibr	454.35	261.14	268.7		268.73	0.000055	0.94	1232.38	438.97	0.12
KinmoutDS	9112	Timmins_Calibrat	115.6	261.14	265.88		265.9	0.000058	0.66	342.81	327.15	0.11
KinmoutDS	9112	TimminsCC_Calibr	145.1	261.14	266.21		266.23	0.00006	0.71	436.43	335.43	0.11
KinmoutDS	9112	2y	109.2	261.14	265.8		265.82	0.000057	0.64	321.58	319.28	0.11
KinmoutDS	9112	5y	145.6	261.14	266.22		266.24	0.00006	0.71	437.89	335.48	0.11
KinmoutDS	9112	10y	170.2	261.14	266.48		266.5	0.00006	0.74	511.83	339.13	0.11
KinmoutDS	9112	25y	202.5	261.14	266.8		266.82	0.000059	0.77	602.08	354.98	0.12
KinmoutDS	9112	50y	228.3	261.14	267.03		267.06	0.000059	0.79	673.29	377.12	0.12
KinmoutDS	9112	100y	256.1	261.14	267.27		267.3	0.000058	0.82	748.65	407.46	0.12
KinmoutDS	9112	200y	286.7	261.14	267.53		267.55	0.000057	0.84	831.31	421.62	0.12
KinmoutDS	9112	350y	313.8	261.14	267.74		267.76	0.000058	0.87	903.07	428.58	0.12
KinmoutDS	9112	Sept 25 2021	68.8	261.14	265.23		265.25	0.000048	0.52	202.81	209.11	0.1
KinmoutDS	9112	July 13 2024	53.2	261.14	264.97		264.98	0.000042	0.46	162.68	190.8	0.09
KinmoutDS	9112	April 21 2019	228	261.14	267.03		267.05	0.000059	0.79	672.49	376.92	0.12
KinmoutDS	9112	Nov 2 2013	77	261.14	265.36		265.37	0.000051	0.55	224.06	226.46	0.1
KinmoutDS	9112	April 16 2014	175	261.14	266.53		266.55	0.000059	0.74	525.99	340.62	0.12
KinmoutDS	9112	May 8 2017	142	261.14	266.18		266.2	0.00006	0.7	426.69	335.02	0.11
KinmoutDS	9112	April 21 2013	216	261.14	266.92		266.94	0.000059	0.78	639.02	367.09	0.12
KinmoutDS	9048	Timmins_Uncalibr	454.35	260.58	268.7		268.73	0.000043	0.89	1161.21	327.87	0.11
KinmoutDS	9048	Timmins_Calibrat	115.6	260.58	265.88		265.89	0.000037	0.56	325.45	246.24	0.1
KinmoutDS	9048	TimminsCC_Calibr	145.1	260.58	266.21		266.23	0.00004	0.61	410.06	260.12	0.1
KinmoutDS	9048	2y	109.2	260.58	265.8		265.82	0.000037	0.55	306.32	244.66	0.09
KinmoutDS	9048	5y	145.6	260.58	266.22		266.24	0.00004	0.61	411.41	260.19	0.1
KinmoutDS	9048	10y	170.2	260.58	266.48		266.5	0.000041	0.65	479.94	265.15	0.1
KinmoutDS	9048	25y	202.5	260.58	266.79		266.81	0.000042	0.69	564.81	273.8	0.1
KinmoutDS	9048	50y	228.3	260.58	267.03		267.05	0.000042	0.72	630.67	282.81	0.11
KinmoutDS	9048	100y	256.1	260.58	267.27		267.29	0.000043	0.74	700.51	305.71	0.11
KinmoutDS	9048	200y	286.7	260.58	267.52		267.54	0.000043	0.78	778.83	318.26	0.11
KinmoutDS	9048	350y	313.8	260.58	267.74		267.76	0.000044	0.8	847.52	322.64	0.11
KinmoutDS	9048	Sept 25 2021	68.8	260.58	265.23		265.24	0.000029	0.43	201.94	128.38	0.08
KinmoutDS	9048	July 13 2024	53.2	260.58	264.97		264.98	0.000025	0.38	171.01	113.59	0.07
KinmoutDS	9048	April 21 2019	228	260.58	267.03		267.05	0.000042	0.72	629.93	282.68	0.11
KinmoutDS	9048	Nov 2 2013	77	260.58	265.36		265.37	0.000031	0.46	219.47	148.2	0.08
KinmoutDS	9048	April 16 2014	175	260.58	266.53		266.55	0.000041	0.65	493.22	267.07	0.1
KinmoutDS	9048	May 8 2017	142	260.58	266.18		266.2	0.00004	0.61	401.08	259.67	0.1
KinmoutDS	9048	April 21 2013	216	260.58	266.92		266.94	0.000042	0.7	599.29	276.44	0.11

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	9012	Timmins_Uncalibr	454.35	261.04	268.68		268.72	0.000072	1.13	940.74	284.54	0.14
KinmoutDS	9012	Timmins_Calibrat	115.6	261.04	265.87		265.89	0.000064	0.71	246.02	180.72	0.12
KinmoutDS	9012	TimminsCC_Calibr	145.1	261.04	266.2		266.23	0.000068	0.78	309.4	199.8	0.13
KinmoutDS	9012	2y	109.2	261.04	265.79		265.81	0.000062	0.69	232.07	179.79	0.12
KinmoutDS	9012	5y	145.6	261.04	266.2		266.23	0.000068	0.78	310.43	199.92	0.13
KinmoutDS	9012	10y	170.2	261.04	266.46		266.49	0.000069	0.82	363.45	207.78	0.13
KinmoutDS	9012	25y	202.5	261.04	266.78		266.81	0.000071	0.88	430.2	218.09	0.14
KinmoutDS	9012	50y	228.3	261.04	267.01		267.05	0.000072	0.91	484.55	242.24	0.14
KinmoutDS	9012	100y	256.1	261.04	267.25		267.29	0.000073	0.95	545.71	269.97	0.14
KinmoutDS	9012	200y	286.7	261.04	267.5		267.54	0.000075	1	613.71	272.65	0.14
KinmoutDS	9012	350y	313.8	261.04	267.71		267.76	0.000074	1.02	672.19	273.95	0.14
KinmoutDS	9012	Sept 25 2021	68.8	261.04	265.23		265.24	0.00005	0.55	145.17	108.52	0.11
KinmoutDS	9012	July 13 2024	53.2	261.04	264.97		264.98	0.000042	0.47	121.53	75.83	0.1
KinmoutDS	9012	April 21 2019	228	261.04	267.01		267.05	0.000072	0.91	483.91	241.7	0.14
KinmoutDS	9012	Nov 2 2013	77	261.04	265.35		265.37	0.000053	0.58	159.9	128.41	0.11
KinmoutDS	9012	April 16 2014	175	261.04	266.51		266.54	0.000069	0.83	373.81	209.05	0.13
KinmoutDS	9012	May 8 2017	142	261.04	266.16		266.19	0.000067	0.77	302.54	199.03	0.13
KinmoutDS	9012	April 21 2013	216	261.04	266.9		266.94	0.000071	0.9	458.18	229.05	0.14
KinmoutDS	8970	Timmins_Uncalibr	454.35	261.8	268.68		268.72	0.000081	1.16	970.58	291.5	0.15
KinmoutDS	8970	Timmins_Calibrat	115.6	261.8	265.86		265.89	0.000094	0.81	242.48	178.54	0.15
KinmoutDS	8970	TimminsCC_Calibr	145.1	261.8	266.19		266.22	0.000096	0.88	301.97	179.9	0.15
KinmoutDS	8970	2y	109.2	261.8	265.78		265.81	0.000094	0.8	228.63	178.21	0.15
KinmoutDS	8970	5y	145.6	261.8	266.2		266.23	0.000096	0.88	302.9	180.23	0.15
KinmoutDS	8970	10y	170.2	261.8	266.46		266.49	0.000095	0.92	354.66	216.91	0.15
KinmoutDS	8970	25y	202.5	261.8	266.77		266.81	0.000094	0.96	428.97	254.34	0.15
KinmoutDS	8970	50y	228.3	261.8	267.01		267.05	0.000092	0.99	491.67	272.3	0.15
KinmoutDS	8970	100y	256.1	261.8	267.25		267.28	0.000091	1.02	557.37	283.16	0.15
KinmoutDS	8970	200y	286.7	261.8	267.5		267.54	0.000092	1.07	629.01	287.09	0.16
KinmoutDS	8970	350y	313.8	261.8	267.71		267.75	0.000089	1.08	690.78	287.83	0.16
KinmoutDS	8970	Sept 25 2021	68.8	261.8	265.22		265.24	0.000085	0.66	137.98	126.23	0.14
KinmoutDS	8970	July 13 2024	53.2	261.8	264.96		264.98	0.000077	0.58	108.62	101.32	0.13
KinmoutDS	8970	April 21 2019	228	261.8	267.01		267.04	0.000092	0.99	490.96	272.19	0.15
KinmoutDS	8970	Nov 2 2013	77	261.8	265.34		265.37	0.000089	0.7	155.18	149.12	0.14
KinmoutDS	8970	April 16 2014	175	261.8	266.51		266.54	0.000095	0.92	365.56	221.55	0.15
KinmoutDS	8970	May 8 2017	142	261.8	266.16		266.19	0.000096	0.87	295.78	179.74	0.15
KinmoutDS	8970	April 21 2013	216	261.8	266.9		266.93	0.000093	0.98	461.32	263.73	0.15
KinmoutDS	8932	Timmins_Uncalibr	454.35	262.32	268.67		268.72	0.000102	1.27	910.65	282.06	0.17
KinmoutDS	8932	Timmins_Calibrat	115.6	262.32	265.84		265.88	0.000143	0.94	214.81	154.02	0.18
KinmoutDS	8932	TimminsCC_Calibr	145.1	262.32	266.18		266.22	0.00014	1	269.5	181.03	0.18
KinmoutDS	8932	2y	109.2	262.32	265.77		265.8	0.000144	0.92	202.88	153.54	0.18
KinmoutDS	8932	5y	145.6	262.32	266.18		266.22	0.00014	1	270.44	181.9	0.18
KinmoutDS	8932	10y	170.2	262.32	266.44		266.49	0.000136	1.04	321.34	207.67	0.18
KinmoutDS	8932	25y	202.5	262.32	266.76		266.8	0.000131	1.08	391.32	233.09	0.18

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	8932	50y	228.3	262.32	267		267.04	0.000126	1.11	448.56	244.75	0.18
KinmoutDS	8932	100y	256.1	262.32	267.23		267.28	0.000123	1.14	509.89	276.11	0.18
KinmoutDS	8932	200y	286.7	262.32	267.48		267.53	0.000123	1.18	579.38	277.94	0.18
KinmoutDS	8932	350y	313.8	262.32	267.7		267.75	0.000117	1.19	639.37	278.69	0.18
KinmoutDS	8932	Sept 25 2021	68.8	262.32	265.2		265.23	0.000144	0.79	122.43	121.41	0.17
KinmoutDS	8932	July 13 2024	53.2	262.32	264.95		264.97	0.000139	0.72	94.25	97.54	0.17
KinmoutDS	8932	April 21 2019	228	262.32	266.99		267.04	0.000126	1.11	447.92	244.71	0.18
KinmoutDS	8932	Nov 2 2013	77	262.32	265.33		265.36	0.000146	0.83	138.51	134.12	0.18
KinmoutDS	8932	April 16 2014	175	262.32	266.49		266.54	0.000135	1.05	331.84	213.1	0.18
KinmoutDS	8932	May 8 2017	142	262.32	266.14		266.18	0.000141	1	263.37	174.55	0.18
KinmoutDS	8932	April 21 2013	216	262.32	266.88		266.93	0.000129	1.1	421.01	242.21	0.18
KinmoutDS	8894	Timmins_Uncalibr	454.35	262.2	268.66		268.71	0.000106	1.3	905.22	288.5	0.17
KinmoutDS	8894	Timmins_Calibrat	115.6	262.2	265.84		265.88	0.000141	0.95	208.38	145.92	0.18
KinmoutDS	8894	TimminsCC_Calibr	145.1	262.2	266.17		266.21	0.000141	1.02	258.06	154.98	0.18
KinmoutDS	8894	2y	109.2	262.2	265.76		265.8	0.000141	0.93	197.23	142.86	0.18
KinmoutDS	8894	5y	145.6	262.2	266.17		266.22	0.000141	1.03	258.86	155.13	0.18
KinmoutDS	8894	10y	170.2	262.2	266.43		266.48	0.00014	1.07	301.97	186.79	0.18
KinmoutDS	8894	25y	202.5	262.2	266.75		266.8	0.000139	1.13	366.21	225.59	0.19
KinmoutDS	8894	50y	228.3	262.2	266.98		267.04	0.000139	1.18	426.95	281.16	0.19
KinmoutDS	8894	100y	256.1	262.2	267.22		267.27	0.000133	1.2	494.38	282.45	0.19
KinmoutDS	8894	200y	286.7	262.2	267.47		267.53	0.000126	1.22	566.4	283.95	0.18
KinmoutDS	8894	350y	313.8	262.2	267.69		267.74	0.000121	1.23	627.74	284.75	0.18
KinmoutDS	8894	Sept 25 2021	68.8	262.2	265.2		265.23	0.000132	0.78	126.66	108.28	0.17
KinmoutDS	8894	July 13 2024	53.2	262.2	264.94		264.96	0.000126	0.7	99.95	98.41	0.16
KinmoutDS	8894	April 21 2019	228	262.2	266.98		267.03	0.000139	1.18	426.21	281.15	0.19
KinmoutDS	8894	Nov 2 2013	77	262.2	265.32		265.35	0.000134	0.82	140.57	116.85	0.17
KinmoutDS	8894	April 16 2014	175	262.2	266.48		266.53	0.000139	1.08	311.53	198.24	0.18
KinmoutDS	8894	May 8 2017	142	262.2	266.13		266.18	0.000142	1.02	252.75	154.01	0.18
KinmoutDS	8894	April 21 2013	216	262.2	266.87		266.92	0.000139	1.16	396.44	258.74	0.19
KinmoutDS	8834	Timmins_Uncalibr	454.35	261.63	268.68		268.7	0.000043	0.84	1332.37	326.31	0.11
KinmoutDS	8834	Timmins_Calibrat	115.6	261.63	265.85		265.86	0.000065	0.68	424.02	315.12	0.12
KinmoutDS	8834	TimminsCC_Calibr	145.1	261.63	266.18		266.2	0.000059	0.69	529.76	316.58	0.12
KinmoutDS	8834	2y	109.2	261.63	265.77		265.79	0.000067	0.68	399.37	314.74	0.12
KinmoutDS	8834	5y	145.6	261.63	266.19		266.2	0.000059	0.69	531.41	316.6	0.12
KinmoutDS	8834	10y	170.2	261.63	266.45		266.46	0.000055	0.7	614.64	317.59	0.12
KinmoutDS	8834	25y	202.5	261.63	266.77		266.78	0.000052	0.72	714.96	318.77	0.11
KinmoutDS	8834	50y	228.3	261.63	267.01		267.02	0.00005	0.73	790.95	319.71	0.11
KinmoutDS	8834	100y	256.1	261.63	267.24		267.26	0.000048	0.74	867.53	320.84	0.11
KinmoutDS	8834	200y	286.7	261.63	267.5		267.51	0.000046	0.76	949.11	321.85	0.11
KinmoutDS	8834	350y	313.8	261.63	267.71		267.73	0.000045	0.77	1018.51	322.7	0.11
KinmoutDS	8834	Sept 25 2021	68.8	261.63	265.2		265.22	0.000082	0.65	230.13	266.14	0.13
KinmoutDS	8834	July 13 2024	53.2	261.63	264.94		264.96	0.000089	0.63	163.52	240.87	0.13
KinmoutDS	8834	April 21 2019	228	261.63	267		267.02	0.00005	0.73	790.1	319.7	0.11
KinmoutDS	8834	Nov 2 2013	77	261.63	265.33		265.34	0.000078	0.66	264.27	274.32	0.13

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	8834	April 16 2014	175	261.63	266.5		266.51	0.000055	0.7	630.56	317.8	0.12
KinmoutDS	8834	May 8 2017	142	261.63	266.15		266.16	0.00006	0.69	518.77	316.45	0.12
KinmoutDS	8834	April 21 2013	216	261.63	266.89		266.91	0.000051	0.72	755.01	319.28	0.11
KinmoutDS	8793	Timmins_Uncalibr	454.35	261.56	268.62		268.69	0.000121	1.42	748.12	188.68	0.18
KinmoutDS	8793	Timmins_Calibrat	115.6	261.56	265.82		265.86	0.000119	0.94	235.86	176.02	0.17
KinmoutDS	8793	TimminsCC_Calibr	145.1	261.56	266.15		266.19	0.000121	1.01	294.29	177.67	0.17
KinmoutDS	8793	2y	109.2	261.56	265.74		265.78	0.000119	0.92	222.3	175.62	0.16
KinmoutDS	8793	5y	145.6	261.56	266.16		266.2	0.000121	1.01	295.21	177.69	0.17
KinmoutDS	8793	10y	170.2	261.56	266.42		266.46	0.000121	1.06	341.53	178.72	0.17
KinmoutDS	8793	25y	202.5	261.56	266.73		266.77	0.000121	1.11	397.58	180.34	0.17
KinmoutDS	8793	50y	228.3	261.56	266.96		267.01	0.00012	1.15	440.3	181.73	0.17
KinmoutDS	8793	100y	256.1	261.56	267.2		267.25	0.00012	1.19	483.52	182.99	0.18
KinmoutDS	8793	200y	286.7	261.56	267.45		267.5	0.00012	1.23	529.73	183.94	0.18
KinmoutDS	8793	350y	313.8	261.56	267.67		267.72	0.000119	1.26	569.12	184.9	0.18
KinmoutDS	8793	Sept 25 2021	68.8	261.56	265.18		265.21	0.000107	0.77	129.7	128.8	0.15
KinmoutDS	8793	July 13 2024	53.2	261.56	264.93		264.95	0.000094	0.67	101.97	92.28	0.14
KinmoutDS	8793	April 21 2019	228	261.56	266.96		267.01	0.00012	1.15	439.82	181.72	0.17
KinmoutDS	8793	Nov 2 2013	77	261.56	265.31		265.34	0.000112	0.81	147.35	156.6	0.16
KinmoutDS	8793	April 16 2014	175	261.56	266.46		266.51	0.000121	1.06	350.41	178.98	0.17
KinmoutDS	8793	May 8 2017	142	261.56	266.12		266.16	0.000121	1	288.19	177.51	0.17
KinmoutDS	8793	April 21 2013	216	261.56	266.85		266.9	0.000121	1.13	420.07	181.03	0.17
KinmoutDS	8754	Timmins_Uncalibr	454.35	261.19	268.64		268.68	0.000076	1.16	959.63	232.85	0.15
KinmoutDS	8754	Timmins_Calibrat	115.6	261.19	265.83		265.85	0.000074	0.77	325.73	212.86	0.13
KinmoutDS	8754	TimminsCC_Calibr	145.1	261.19	266.16		266.18	0.000075	0.83	396.59	214.61	0.13
KinmoutDS	8754	2y	109.2	261.19	265.75		265.77	0.000073	0.76	309.28	212.33	0.13
KinmoutDS	8754	5y	145.6	261.19	266.16		266.19	0.000075	0.83	397.7	214.66	0.13
KinmoutDS	8754	10y	170.2	261.19	266.42		266.45	0.000076	0.87	454.34	221.51	0.14
KinmoutDS	8754	25y	202.5	261.19	266.74		266.76	0.000076	0.91	524.28	224.59	0.14
KinmoutDS	8754	50y	228.3	261.19	266.97		267	0.000076	0.94	577.6	225.82	0.14
KinmoutDS	8754	100y	256.1	261.19	267.21		267.24	0.000076	0.97	631.42	226.97	0.14
KinmoutDS	8754	200y	286.7	261.19	267.46		267.49	0.000076	1	688.88	228.05	0.14
KinmoutDS	8754	350y	313.8	261.19	267.68		267.71	0.000075	1.03	737.82	228.79	0.14
KinmoutDS	8754	Sept 25 2021	68.8	261.19	265.19		265.21	0.000068	0.65	193	190.51	0.12
KinmoutDS	8754	July 13 2024	53.2	261.19	264.93		264.95	0.000061	0.58	150.57	140.05	0.11
KinmoutDS	8754	April 21 2019	228	261.19	266.97		267	0.000076	0.94	576.99	225.81	0.14
KinmoutDS	8754	Nov 2 2013	77	261.19	265.31		265.33	0.00007	0.68	217.57	206.26	0.12
KinmoutDS	8754	April 16 2014	175	261.19	266.47		266.5	0.000076	0.87	465.39	222.52	0.14
KinmoutDS	8754	May 8 2017	142	261.19	266.12		266.15	0.000075	0.82	389.19	214.43	0.13
KinmoutDS	8754	April 21 2013	216	261.19	266.86		266.89	0.000076	0.93	552.36	225.24	0.14
KinmoutDS	8715	Timmins_Uncalibr	454.35	260.76	268.64		268.67	0.000071	1.12	1003.36	254.12	0.14
KinmoutDS	8715	Timmins_Calibrat	115.6	260.76	265.83		265.85	0.000064	0.74	330.57	202.06	0.12
KinmoutDS	8715	TimminsCC_Calibr	145.1	260.76	266.16		266.18	0.000067	0.8	398.93	212.23	0.12
KinmoutDS	8715	2y	109.2	260.76	265.75		265.77	0.000063	0.73	314.95	201.7	0.12

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	8715	5y	145.6	260.76	266.16		266.18	0.000067	0.8	400.03	212.36	0.12
KinmoutDS	8715	10y	170.2	260.76	266.42		266.45	0.000068	0.84	456.31	223.19	0.13
KinmoutDS	8715	25y	202.5	260.76	266.74		266.76	0.00007	0.89	528.03	233.1	0.13
KinmoutDS	8715	50y	228.3	260.76	266.97		267	0.000072	0.93	585.17	245.9	0.13
KinmoutDS	8715	100y	256.1	260.76	267.21		267.24	0.000072	0.96	644.03	248.2	0.13
KinmoutDS	8715	200y	286.7	260.76	267.46		267.49	0.000071	0.99	706.96	249.43	0.13
KinmoutDS	8715	350y	313.8	260.76	267.68		267.71	0.000071	1.01	760.56	250.29	0.13
KinmoutDS	8715	Sept 25 2021	68.8	260.76	265.19		265.2	0.000055	0.61	203.9	187.21	0.11
KinmoutDS	8715	July 13 2024	53.2	260.76	264.93		264.94	0.000047	0.54	160.35	149.07	0.1
KinmoutDS	8715	April 21 2019	228	260.76	266.97		267	0.000072	0.93	584.52	245.88	0.13
KinmoutDS	8715	Nov 2 2013	77	260.76	265.31		265.33	0.000058	0.64	227.43	195.46	0.11
KinmoutDS	8715	April 16 2014	175	260.76	266.47		266.5	0.000069	0.85	467.55	227.05	0.13
KinmoutDS	8715	May 8 2017	142	260.76	266.12		266.14	0.000067	0.8	391.64	211.25	0.12
KinmoutDS	8715	April 21 2013	216	260.76	266.86		266.89	0.000072	0.92	557.68	244.27	0.13
KinmoutDS	8676	Timmins_Uncalibr	454.35	261.15	268.59		268.66	0.000151	1.53	637.62	172.69	0.19
KinmoutDS	8676	Timmins_Calibrat	115.6	261.15	265.81		265.84	0.00011	0.9	207.57	104.03	0.15
KinmoutDS	8676	TimminsCC_Calibr	145.1	261.15	266.13		266.17	0.000124	1.01	243.84	118	0.16
KinmoutDS	8676	2y	109.2	261.15	265.73		265.76	0.000106	0.88	199.79	101.18	0.15
KinmoutDS	8676	5y	145.6	261.15	266.13		266.18	0.000124	1.02	244.44	118.08	0.16
KinmoutDS	8676	10y	170.2	261.15	266.39		266.44	0.000131	1.09	276.8	134.8	0.17
KinmoutDS	8676	25y	202.5	261.15	266.7		266.75	0.000139	1.17	320.74	151.69	0.17
KinmoutDS	8676	50y	228.3	261.15	266.93		266.99	0.000143	1.23	357.36	160.95	0.18
KinmoutDS	8676	100y	256.1	261.15	267.16		267.23	0.000149	1.29	396.02	167.15	0.18
KinmoutDS	8676	200y	286.7	261.15	267.42		267.48	0.000149	1.34	438.11	168.17	0.18
KinmoutDS	8676	350y	313.8	261.15	267.63		267.7	0.000149	1.37	474.06	168.93	0.18
KinmoutDS	8676	Sept 25 2021	68.8	261.15	265.18		265.2	0.000081	0.69	144.62	98.37	0.12
KinmoutDS	8676	July 13 2024	53.2	261.15	264.92		264.94	0.000067	0.59	120.99	90.94	0.11
KinmoutDS	8676	April 21 2019	228	261.15	266.93		266.99	0.000143	1.23	356.94	160.78	0.18
KinmoutDS	8676	Nov 2 2013	77	261.15	265.3		265.32	0.000087	0.73	156.7	99.3	0.13
KinmoutDS	8676	April 16 2014	175	261.15	266.44		266.49	0.000133	1.1	283.45	136.94	0.17
KinmoutDS	8676	May 8 2017	142	261.15	266.1		266.14	0.000122	1	239.87	117.23	0.16
KinmoutDS	8676	April 21 2013	216	261.15	266.82		266.88	0.000142	1.2	339.84	157.03	0.18
KinmoutDS	8636	Timmins_Uncalibr	454.35	261.35	268.58		268.66	0.000138	1.46	603.69	203.85	0.18
KinmoutDS	8636	Timmins_Calibrat	115.6	261.35	265.8		265.84	0.000117	0.92	185.14	114.93	0.15
KinmoutDS	8636	TimminsCC_Calibr	145.1	261.35	266.12		266.17	0.000131	1.03	223.5	148.49	0.17
KinmoutDS	8636	2y	109.2	261.35	265.72		265.76	0.000114	0.9	177.4	111.67	0.15
KinmoutDS	8636	5y	145.6	261.35	266.13		266.17	0.000131	1.03	224.18	148.66	0.17
KinmoutDS	8636	10y	170.2	261.35	266.38		266.43	0.000138	1.1	259.05	165.61	0.17
KinmoutDS	8636	25y	202.5	261.35	266.69		266.75	0.000141	1.17	303.79	183.37	0.18
KinmoutDS	8636	50y	228.3	261.35	266.93		266.99	0.000141	1.21	339.06	187.96	0.18
KinmoutDS	8636	100y	256.1	261.35	267.16		267.22	0.000141	1.25	375.43	191.66	0.18
KinmoutDS	8636	200y	286.7	261.35	267.41		267.48	0.00014	1.29	414.77	193.23	0.18
KinmoutDS	8636	350y	313.8	261.35	267.63		267.69	0.000139	1.32	448.51	195.78	0.18
KinmoutDS	8636	Sept 25 2021	68.8	261.35	265.17		265.2	0.000089	0.71	126.25	86.36	0.13

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	8636	July 13 2024	53.2	261.35	264.92		264.94	0.000074	0.61	105.8	76.23	0.12
KinmoutDS	8636	April 21 2019	228	261.35	266.92		266.98	0.000141	1.21	338.66	187.89	0.18
KinmoutDS	8636	Nov 2 2013	77	261.35	265.29		265.32	0.000095	0.75	136.93	89.15	0.14
KinmoutDS	8636	April 16 2014	175	261.35	266.43		266.48	0.000138	1.11	265.97	169.39	0.17
KinmoutDS	8636	May 8 2017	142	261.35	266.09		266.13	0.00013	1.02	219.03	147.4	0.16
KinmoutDS	8636	April 21 2013	216	261.35	266.82		266.87	0.000141	1.19	322.27	185.33	0.18
KinmoutDS	8595	Timmins_Uncalibr	454.35	261.49	268.59		268.65	0.000093	1.3	712.62	257.04	0.16
KinmoutDS	8595	Timmins_Calibrat	115.6	261.49	265.8		265.83	0.00008	0.82	244.67	187.61	0.14
KinmoutDS	8595	TimminsCC_Calibr	145.1	261.49	266.13		266.16	0.000085	0.9	291.14	199.92	0.14
KinmoutDS	8595	2y	109.2	261.49	265.73		265.75	0.000079	0.81	233.99	184.11	0.14
KinmoutDS	8595	5y	145.6	261.49	266.13		266.16	0.000085	0.9	291.88	200.02	0.14
KinmoutDS	8595	10y	170.2	261.49	266.39		266.42	0.000087	0.95	330.5	211.47	0.15
KinmoutDS	8595	25y	202.5	261.49	266.7		266.74	0.000089	1	378.91	216.17	0.15
KinmoutDS	8595	50y	228.3	261.49	266.94		266.97	0.000089	1.04	416.09	218.3	0.15
KinmoutDS	8595	100y	256.1	261.49	267.17		267.21	0.00009	1.08	453.96	224.49	0.16
KinmoutDS	8595	200y	286.7	261.49	267.42		267.47	0.000091	1.12	496.69	236.41	0.16
KinmoutDS	8595	350y	313.8	261.49	267.64		267.68	0.000092	1.16	535.1	244.28	0.16
KinmoutDS	8595	Sept 25 2021	68.8	261.49	265.17		265.19	0.000069	0.67	158.62	147.57	0.13
KinmoutDS	8595	July 13 2024	53.2	261.49	264.92		264.94	0.000061	0.6	126.24	127.19	0.12
KinmoutDS	8595	April 21 2019	228	261.49	266.93		266.97	0.000089	1.04	415.66	218.27	0.15
KinmoutDS	8595	Nov 2 2013	77	261.49	265.29		265.32	0.000072	0.71	174.95	153.18	0.13
KinmoutDS	8595	April 16 2014	175	261.49	266.44		266.47	0.000087	0.96	338.13	212.22	0.15
KinmoutDS	8595	May 8 2017	142	261.49	266.09		266.13	0.000084	0.89	286.24	197.99	0.14
KinmoutDS	8595	April 21 2013	216	261.49	266.83		266.86	0.000089	1.03	398.48	217.3	0.15
KinmoutDS	8552	Timmins_Uncalibr	454.35	261.55	268.56		268.64	0.000136	1.54	662.68	351.26	0.2
KinmoutDS	8552	Timmins_Calibrat	115.6	261.55	265.79		265.82	0.000107	0.93	210.61	295.01	0.16
KinmoutDS	8552	TimminsCC_Calibr	145.1	261.55	266.11		266.15	0.000116	1.03	257.42	300.93	0.17
KinmoutDS	8552	2y	109.2	261.55	265.71		265.75	0.000105	0.91	199.74	293.85	0.16
KinmoutDS	8552	5y	145.6	261.55	266.11		266.16	0.000116	1.03	258.16	301.01	0.17
KinmoutDS	8552	10y	170.2	261.55	266.37		266.42	0.00012	1.09	296.05	308.47	0.17
KinmoutDS	8552	25y	202.5	261.55	266.68		266.73	0.000126	1.17	343.44	323.78	0.18
KinmoutDS	8552	50y	228.3	261.55	266.91		266.97	0.00013	1.23	380.97	341.65	0.18
KinmoutDS	8552	100y	256.1	261.55	267.14		267.2	0.000132	1.28	420.12	344.79	0.18
KinmoutDS	8552	200y	286.7	261.55	267.39		267.46	0.000132	1.33	462.65	346.39	0.19
KinmoutDS	8552	350y	313.8	261.55	267.6		267.67	0.000133	1.36	498.94	347.39	0.19
KinmoutDS	8552	Sept 25 2021	68.8	261.55	265.17		265.19	0.000081	0.71	133.35	227.79	0.13
KinmoutDS	8552	July 13 2024	53.2	261.55	264.92		264.93	0.000067	0.61	113.04	182.32	0.12
KinmoutDS	8552	April 21 2019	228	261.55	266.9		266.97	0.00013	1.23	380.53	341.62	0.18
KinmoutDS	8552	Nov 2 2013	77	261.55	265.29		265.31	0.000087	0.76	144.88	243.74	0.14
KinmoutDS	8552	April 16 2014	175	261.55	266.42		266.47	0.000121	1.1	303.45	310.72	0.17
KinmoutDS	8552	May 8 2017	142	261.55	266.08		266.12	0.000115	1.02	252.5	300.43	0.17
KinmoutDS	8552	April 21 2013	216	261.55	266.8		266.86	0.000127	1.2	363.01	331.98	0.18
KinmoutDS	8514	Timmins_Uncalibr	454.35	261.16	268.53		268.63	0.000158	1.68	554.58	146.34	0.21

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	8514	Timmins_Calibrat	115.6	261.16	265.78		265.82	0.000109	0.95	193.32	111.98	0.16
KinmoutDS	8514	TimminsCC_Calibr	145.1	261.16	266.1		266.15	0.00012	1.06	229.37	112.97	0.17
KinmoutDS	8514	2y	109.2	261.16	265.7		265.74	0.000106	0.93	184.93	111.75	0.16
KinmoutDS	8514	5y	145.6	261.16	266.1		266.15	0.000121	1.06	229.94	112.99	0.17
KinmoutDS	8514	10y	170.2	261.16	266.36		266.41	0.000127	1.14	259.4	123.15	0.18
KinmoutDS	8514	25y	202.5	261.16	266.66		266.73	0.000136	1.23	297.68	127.9	0.19
KinmoutDS	8514	50y	228.3	261.16	266.89		266.96	0.00014	1.29	327.5	130.51	0.19
KinmoutDS	8514	100y	256.1	261.16	267.12		267.2	0.000144	1.36	358.1	134.13	0.2
KinmoutDS	8514	200y	286.7	261.16	267.37		267.45	0.000146	1.41	391.65	135.99	0.2
KinmoutDS	8514	350y	313.8	261.16	267.58		267.67	0.000148	1.46	420.51	137.86	0.2
KinmoutDS	8514	Sept 25 2021	68.8	261.16	265.16		265.19	0.000081	0.72	129.36	91.39	0.13
KinmoutDS	8514	July 13 2024	53.2	261.16	264.91		264.93	0.000068	0.62	107.77	82.57	0.12
KinmoutDS	8514	April 21 2019	228	261.16	266.89		266.96	0.00014	1.29	327.15	130.47	0.19
KinmoutDS	8514	Nov 2 2013	77	261.16	265.28		265.31	0.000087	0.77	140.7	97.08	0.14
KinmoutDS	8514	April 16 2014	175	261.16	266.4		266.46	0.000131	1.16	265.24	124.61	0.18
KinmoutDS	8514	May 8 2017	142	261.16	266.07		266.11	0.000119	1.05	225.59	112.83	0.17
KinmoutDS	8514	April 21 2013	216	261.16	266.78		266.85	0.000138	1.27	313.37	129.1	0.19
KinmoutDS	8476	Timmins_Uncalibr	454.35	260.75	268.53		268.62	0.000157	1.57	584.88	147.97	0.2
KinmoutDS	8476	Timmins_Calibrat	115.6	260.75	265.78		265.82	0.000118	0.92	195.44	120.31	0.16
KinmoutDS	8476	TimminsCC_Calibr	145.1	260.75	266.1		266.14	0.000129	1.02	237.51	136.46	0.17
KinmoutDS	8476	2y	109.2	260.75	265.7		265.74	0.000115	0.9	186.78	110.6	0.15
KinmoutDS	8476	5y	145.6	260.75	266.1		266.15	0.000129	1.02	238.2	136.51	0.17
KinmoutDS	8476	10y	170.2	260.75	266.36		266.41	0.000134	1.09	273.11	138.19	0.17
KinmoutDS	8476	25y	202.5	260.75	266.66		266.72	0.000139	1.16	315.58	139.57	0.18
KinmoutDS	8476	50y	228.3	260.75	266.89		266.95	0.000142	1.22	348.03	140.62	0.18
KinmoutDS	8476	100y	256.1	260.75	267.13		267.19	0.000145	1.27	380.76	141.76	0.18
KinmoutDS	8476	200y	286.7	260.75	267.37		267.44	0.000148	1.32	416.21	143.28	0.19
KinmoutDS	8476	350y	313.8	260.75	267.59		267.66	0.000149	1.37	446.59	144.37	0.19
KinmoutDS	8476	Sept 25 2021	68.8	260.75	265.16		265.18	0.000091	0.71	127.57	103.99	0.13
KinmoutDS	8476	July 13 2024	53.2	260.75	264.91		264.93	0.000076	0.61	105.09	76.87	0.12
KinmoutDS	8476	April 21 2019	228	260.75	266.89		266.95	0.000142	1.22	347.66	140.61	0.18
KinmoutDS	8476	Nov 2 2013	77	260.75	265.28		265.31	0.000098	0.76	140.4	108.39	0.14
KinmoutDS	8476	April 16 2014	175	260.75	266.4		266.46	0.000135	1.1	279.78	138.42	0.17
KinmoutDS	8476	May 8 2017	142	260.75	266.06		266.11	0.000128	1.01	232.94	136.12	0.17
KinmoutDS	8476	April 21 2013	216	260.75	266.78		266.84	0.000141	1.19	332.69	140.13	0.18
KinmoutDS	8433	Timmins_Uncalibr	454.35	260.81	268.51		268.61	0.000174	1.66	565.29	151.41	0.21
KinmoutDS	8433	Timmins_Calibrat	115.6	260.81	265.77		265.81	0.000134	0.99	183.5	119.24	0.17
KinmoutDS	8433	TimminsCC_Calibr	145.1	260.81	266.09		266.14	0.000146	1.09	223.35	127.57	0.18
KinmoutDS	8433	2y	109.2	260.81	265.69		265.73	0.000131	0.96	174.68	116.93	0.17
KinmoutDS	8433	5y	145.6	260.81	266.09		266.14	0.000146	1.09	223.99	127.65	0.18
KinmoutDS	8433	10y	170.2	260.81	266.34		266.4	0.000152	1.16	257.09	133.64	0.19
KinmoutDS	8433	25y	202.5	260.81	266.65		266.71	0.000157	1.24	298.36	136.86	0.19
KinmoutDS	8433	50y	228.3	260.81	266.88		266.95	0.00016	1.3	330.12	138.08	0.19
KinmoutDS	8433	100y	256.1	260.81	267.11		267.18	0.000163	1.36	362.26	139.88	0.2

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	8433	200y	286.7	260.81	267.36		267.44	0.000165	1.41	397.2	141.42	0.2
KinmoutDS	8433	350y	313.8	260.81	267.57		267.65	0.000166	1.45	427.15	142.42	0.2
KinmoutDS	8433	Sept 25 2021	68.8	260.81	265.15		265.18	0.000104	0.76	119.67	84.57	0.14
KinmoutDS	8433	July 13 2024	53.2	260.81	264.9		264.92	0.000087	0.66	99.9	71.71	0.13
KinmoutDS	8433	April 21 2019	228	260.81	266.88		266.94	0.00016	1.3	329.75	138.06	0.19
KinmoutDS	8433	Nov 2 2013	77	260.81	265.27		265.3	0.000111	0.81	130.05	89.92	0.15
KinmoutDS	8433	April 16 2014	175	260.81	266.39		266.45	0.000153	1.18	263.52	134.19	0.19
KinmoutDS	8433	May 8 2017	142	260.81	266.05		266.1	0.000145	1.08	219.1	127.03	0.18
KinmoutDS	8433	April 21 2013	216	260.81	266.77		266.84	0.000159	1.27	315.09	137.5	0.19
KinmoutDS	8393	Timmins_Uncalibr	454.35	261.39	268.53		268.59	0.000137	1.46	822.86	244.74	0.19
KinmoutDS	8393	Timmins_Calibrat	115.6	261.39	265.75		265.8	0.000182	1.1	183.67	174.52	0.2
KinmoutDS	8393	TimminsCC_Calibr	145.1	261.39	266.07		266.13	0.000185	1.18	242.52	190.63	0.2
KinmoutDS	8393	2y	109.2	261.39	265.67		265.73	0.000181	1.08	170.73	169.88	0.2
KinmoutDS	8393	5y	145.6	261.39	266.08		266.14	0.000185	1.18	243.48	191.02	0.2
KinmoutDS	8393	10y	170.2	261.39	266.33		266.39	0.000184	1.24	296.04	222.36	0.2
KinmoutDS	8393	25y	202.5	261.39	266.64		266.7	0.000179	1.29	366.79	235.56	0.2
KinmoutDS	8393	50y	228.3	261.39	266.88		266.94	0.000172	1.31	422.41	238.03	0.2
KinmoutDS	8393	100y	256.1	261.39	267.11		267.17	0.000165	1.33	478.51	239.27	0.2
KinmoutDS	8393	200y	286.7	261.39	267.36		267.42	0.000158	1.35	539.01	240.43	0.2
KinmoutDS	8393	350y	313.8	261.39	267.58		267.64	0.000152	1.36	590.54	241.33	0.2
KinmoutDS	8393	Sept 25 2021	68.8	261.39	265.13		265.17	0.000154	0.88	104.43	96.46	0.18
KinmoutDS	8393	July 13 2024	53.2	261.39	264.89		264.92	0.000135	0.77	83.85	76.26	0.16
KinmoutDS	8393	April 21 2019	228	261.39	266.87		266.94	0.000172	1.31	421.78	238.01	0.2
KinmoutDS	8393	Nov 2 2013	77	261.39	265.25		265.29	0.000162	0.92	116.26	104	0.18
KinmoutDS	8393	April 16 2014	175	261.39	266.38		266.44	0.000182	1.24	306.97	223.71	0.2
KinmoutDS	8393	May 8 2017	142	261.39	266.04		266.1	0.000185	1.18	236.11	188.4	0.2
KinmoutDS	8393	April 21 2013	216	261.39	266.76		266.83	0.000176	1.3	396.1	237.13	0.2
KinmoutDS	8357	Timmins_Uncalibr	454.35	261.92	268.52		268.59	0.000155	1.57	785.36	249.07	0.21
KinmoutDS	8357	Timmins_Calibrat	115.6	261.92	265.73		265.79	0.000226	1.21	156.51	142.64	0.23
KinmoutDS	8357	TimminsCC_Calibr	145.1	261.92	266.05		266.12	0.000237	1.33	208.71	184	0.24
KinmoutDS	8357	2y	109.2	261.92	265.65		265.72	0.000224	1.19	146.4	130.91	0.22
KinmoutDS	8357	5y	145.6	261.92	266.05		266.13	0.000237	1.33	209.64	184.29	0.24
KinmoutDS	8357	10y	170.2	261.92	266.31		266.39	0.000229	1.38	260.38	205.39	0.23
KinmoutDS	8357	25y	202.5	261.92	266.62		266.7	0.000217	1.42	327.76	223.07	0.23
KinmoutDS	8357	50y	228.3	261.92	266.85		266.93	0.000206	1.44	381.06	231.08	0.23
KinmoutDS	8357	100y	256.1	261.92	267.09		267.17	0.000197	1.46	436.97	239.75	0.22
KinmoutDS	8357	200y	286.7	261.92	267.34		267.42	0.000186	1.47	497.98	241.08	0.22
KinmoutDS	8357	350y	313.8	261.92	267.56		267.63	0.000178	1.48	549.96	242.39	0.22
KinmoutDS	8357	Sept 25 2021	68.8	261.92	265.12		265.17	0.000195	0.97	92.8	66.2	0.2
KinmoutDS	8357	July 13 2024	53.2	261.92	264.88		264.91	0.000175	0.85	77.58	59.91	0.19
KinmoutDS	8357	April 21 2019	228	261.92	266.85		266.93	0.000206	1.44	380.45	230.78	0.23
KinmoutDS	8357	Nov 2 2013	77	261.92	265.24		265.29	0.000204	1.02	101.71	82.6	0.21
KinmoutDS	8357	April 16 2014	175	261.92	266.36		266.43	0.000227	1.38	270.55	208.1	0.23
KinmoutDS	8357	May 8 2017	142	261.92	266.01		266.09	0.000238	1.33	202.49	182.06	0.24

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	8357	April 21 2013	216	261.92	266.74		266.82	0.000211	1.43	355.78	226.33	0.23
KinmoutDS	8316	Timmins_Uncalibr	454.35	262.51	268.51		268.58	0.000168	1.6	752.75	240.66	0.22
KinmoutDS	8316	Timmins_Calibrat	115.6	262.51	265.72		265.78	0.000264	1.26	156.86	122.15	0.24
KinmoutDS	8316	TimminsCC_Calibr	145.1	262.51	266.04		266.11	0.000262	1.35	200.44	152.63	0.25
KinmoutDS	8316	2y	109.2	262.51	265.64		265.71	0.000264	1.24	147.79	120.39	0.24
KinmoutDS	8316	5y	145.6	262.51	266.04		266.12	0.000262	1.35	201.21	153.19	0.25
KinmoutDS	8316	10y	170.2	262.51	266.3		266.37	0.000253	1.4	244.44	181.79	0.24
KinmoutDS	8316	25y	202.5	262.51	266.61		266.69	0.000242	1.45	306.76	215.12	0.24
KinmoutDS	8316	50y	228.3	262.51	266.85		266.92	0.000229	1.47	359.25	228.29	0.24
KinmoutDS	8316	100y	256.1	262.51	267.08		267.16	0.000218	1.49	413.72	233.36	0.23
KinmoutDS	8316	200y	286.7	262.51	267.34		267.41	0.000205	1.51	473.17	234.8	0.23
KinmoutDS	8316	350y	313.8	262.51	267.55		267.62	0.000195	1.52	523.86	236.21	0.23
KinmoutDS	8316	Sept 25 2021	68.8	262.51	265.11		265.16	0.000255	1.05	88.79	92.6	0.23
KinmoutDS	8316	July 13 2024	53.2	262.51	264.86		264.9	0.000237	0.94	71.51	60	0.22
KinmoutDS	8316	April 21 2019	228	262.51	266.84		266.92	0.000229	1.47	358.63	228.14	0.24
KinmoutDS	8316	Nov 2 2013	77	262.51	265.22		265.28	0.00026	1.1	100.6	102.77	0.23
KinmoutDS	8316	April 16 2014	175	262.51	266.35		266.42	0.000251	1.41	253.53	188.62	0.24
KinmoutDS	8316	May 8 2017	142	262.51	266		266.08	0.000263	1.34	195.34	148.74	0.25
KinmoutDS	8316	April 21 2013	216	262.51	266.73		266.81	0.000235	1.46	334.16	223.94	0.24
KinmoutDS	8277	Timmins_Uncalibr	454.35	261.65	268.47		268.57	0.000182	1.72	640.17	207.78	0.22
KinmoutDS	8277	Timmins_Calibrat	115.6	261.65	265.71		265.77	0.000172	1.12	144.57	84.78	0.2
KinmoutDS	8277	TimminsCC_Calibr	145.1	261.65	266.03		266.1	0.00019	1.25	175.2	109.34	0.21
KinmoutDS	8277	2y	109.2	261.65	265.64		265.7	0.000167	1.09	138.42	82.39	0.19
KinmoutDS	8277	5y	145.6	261.65	266.03		266.11	0.000191	1.26	175.75	109.76	0.21
KinmoutDS	8277	10y	170.2	261.65	266.28		266.36	0.0002	1.34	206.66	142.14	0.22
KinmoutDS	8277	25y	202.5	261.65	266.59		266.68	0.000206	1.43	257.2	188.09	0.22
KinmoutDS	8277	50y	228.3	261.65	266.82		266.91	0.000206	1.49	302.51	200.08	0.22
KinmoutDS	8277	100y	256.1	261.65	267.05		267.15	0.000204	1.53	349.34	201.45	0.22
KinmoutDS	8277	200y	286.7	261.65	267.3		267.4	0.000199	1.56	400.23	202.84	0.22
KinmoutDS	8277	350y	313.8	261.65	267.52		267.61	0.000194	1.59	443.71	203.77	0.22
KinmoutDS	8277	Sept 25 2021	68.8	261.65	265.11		265.14	0.000129	0.85	99.18	67.34	0.16
KinmoutDS	8277	July 13 2024	53.2	261.65	264.87		264.89	0.000108	0.74	83.68	60.79	0.15
KinmoutDS	8277	April 21 2019	228	261.65	266.82		266.91	0.000206	1.49	301.97	200.04	0.22
KinmoutDS	8277	Nov 2 2013	77	261.65	265.23		265.27	0.000139	0.91	107.29	71.06	0.17
KinmoutDS	8277	April 16 2014	175	261.65	266.33		266.41	0.000201	1.36	213.68	150.86	0.22
KinmoutDS	8277	May 8 2017	142	261.65	266		266.07	0.000189	1.24	171.6	106.78	0.21
KinmoutDS	8277	April 21 2013	216	261.65	266.71		266.8	0.000207	1.46	280.72	198.18	0.22
KinmoutDS	8234	Timmins_Uncalibr	454.35	259.6	268.47		268.56	0.000128	1.5	594.16	185.3	0.18
KinmoutDS	8234	Timmins_Calibrat	115.6	259.6	265.73		265.76	0.000059	0.75	163.12	55.05	0.11
KinmoutDS	8234	TimminsCC_Calibr	145.1	259.6	266.05		266.09	0.000074	0.87	186.01	101.26	0.13
KinmoutDS	8234	2y	109.2	259.6	265.66		265.68	0.000056	0.72	159.1	53.03	0.11
KinmoutDS	8234	5y	145.6	259.6	266.05		266.09	0.000074	0.88	186.51	102.52	0.13
KinmoutDS	8234	10y	170.2	259.6	266.3		266.35	0.000085	0.97	216.21	127.36	0.14

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	8234	25y	202.5	259.6	266.6		266.66	0.000096	1.07	259.55	160.54	0.15
KinmoutDS	8234	50y	228.3	259.6	266.83		266.9	0.000103	1.14	297.99	173.92	0.15
KinmoutDS	8234	100y	256.1	259.6	267.06		267.13	0.000109	1.2	338.36	176.1	0.16
KinmoutDS	8234	200y	286.7	259.6	267.31		267.39	0.000113	1.26	382.52	179.54	0.16
KinmoutDS	8234	350y	313.8	259.6	267.52		267.6	0.000116	1.3	420.67	181.13	0.16
KinmoutDS	8234	Sept 25 2021	68.8	259.6	265.12		265.14	0.000034	0.52	134.89	40.68	0.08
KinmoutDS	8234	July 13 2024	53.2	259.6	264.88		264.89	0.000025	0.42	125.64	35.72	0.07
KinmoutDS	8234	April 21 2019	228	259.6	266.83		266.89	0.000103	1.14	297.53	173.87	0.15
KinmoutDS	8234	Nov 2 2013	77	259.6	265.24		265.26	0.000039	0.56	139.76	41.59	0.09
KinmoutDS	8234	April 16 2014	175	259.6	266.35		266.4	0.000086	0.98	222.36	130.83	0.14
KinmoutDS	8234	May 8 2017	142	259.6	266.01		266.05	0.000073	0.86	182.78	93.09	0.12
KinmoutDS	8234	April 21 2013	216	259.6	266.73		266.79	0.0001	1.11	279.43	167.71	0.15
KinmoutDS	8196	Timmins_Uncalibr	454.35	259.32	268.46		268.56	0.000116	1.53	570.19	166.23	0.18
KinmoutDS	8196	Timmins_Calibrat	115.6	259.32	265.73		265.76	0.00005	0.74	163.57	68.07	0.11
KinmoutDS	8196	TimminsCC_Calibr	145.1	259.32	266.04		266.08	0.000063	0.87	191.6	105.31	0.12
KinmoutDS	8196	2y	109.2	259.32	265.66		265.68	0.000047	0.71	158.96	58.31	0.11
KinmoutDS	8196	5y	145.6	259.32	266.05		266.09	0.000063	0.87	192.13	105.89	0.12
KinmoutDS	8196	10y	170.2	259.32	266.3		266.35	0.000072	0.96	222.13	135.19	0.13
KinmoutDS	8196	25y	202.5	259.32	266.6		266.66	0.000082	1.06	267.4	159.33	0.14
KinmoutDS	8196	50y	228.3	259.32	266.83		266.89	0.000088	1.13	304.01	160.42	0.15
KinmoutDS	8196	100y	256.1	259.32	267.06		267.13	0.000093	1.19	341.01	161.34	0.16
KinmoutDS	8196	200y	286.7	259.32	267.31		267.38	0.000098	1.26	381.15	162.22	0.16
KinmoutDS	8196	350y	313.8	259.32	267.52		267.6	0.000101	1.31	415.4	162.92	0.16
KinmoutDS	8196	Sept 25 2021	68.8	259.32	265.12		265.13	0.000029	0.51	135.89	35.03	0.08
KinmoutDS	8196	July 13 2024	53.2	259.32	264.88		264.89	0.00002	0.42	127.47	34.12	0.07
KinmoutDS	8196	April 21 2019	228	259.32	266.83		266.89	0.000088	1.13	303.59	160.41	0.15
KinmoutDS	8196	Nov 2 2013	77	259.32	265.24		265.25	0.000032	0.55	140.08	36.37	0.09
KinmoutDS	8196	April 16 2014	175	259.32	266.35		266.39	0.000073	0.98	228.67	139.2	0.14
KinmoutDS	8196	May 8 2017	142	259.32	266.01		266.05	0.000062	0.86	188.17	101.02	0.12
KinmoutDS	8196	April 21 2013	216	259.32	266.72		266.78	0.000085	1.1	286.7	159.9	0.15
KinmoutDS	8154	Timmins_Uncalibr	454.35	261.49	268.41		268.55	0.000227	1.79	410.13	112.81	0.24
KinmoutDS	8154	Timmins_Calibrat	115.6	261.49	265.7		265.75	0.000172	1.01	123.95	70.84	0.19
KinmoutDS	8154	TimminsCC_Calibr	145.1	261.49	266.01		266.08	0.000191	1.14	150.55	94.97	0.2
KinmoutDS	8154	2y	109.2	261.49	265.63		265.68	0.000167	0.98	119.28	61.3	0.18
KinmoutDS	8154	5y	145.6	261.49	266.02		266.08	0.000191	1.14	151.02	95.05	0.2
KinmoutDS	8154	10y	170.2	261.49	266.26		266.34	0.000199	1.23	175.31	100.31	0.21
KinmoutDS	8154	25y	202.5	261.49	266.56		266.65	0.000208	1.32	206.5	107.5	0.22
KinmoutDS	8154	50y	228.3	261.49	266.79		266.88	0.000211	1.39	231.11	108.34	0.22
KinmoutDS	8154	100y	256.1	261.49	267.02		267.12	0.000215	1.45	255.97	109.1	0.22
KinmoutDS	8154	200y	286.7	261.49	267.27		267.37	0.000216	1.51	283	109.88	0.23
KinmoutDS	8154	350y	313.8	261.49	267.48		267.59	0.000217	1.56	306.08	110.52	0.23
KinmoutDS	8154	Sept 25 2021	68.8	261.49	265.1		265.13	0.00013	0.76	92.11	43	0.16
KinmoutDS	8154	July 13 2024	53.2	261.49	264.86		264.88	0.000111	0.65	81.97	41.17	0.14
KinmoutDS	8154	April 21 2019	228	261.49	266.79		266.88	0.000211	1.38	230.83	108.34	0.22

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	8154	Nov 2 2013	77	261.49	265.22		265.25	0.000139	0.81	97.17	45.1	0.16
KinmoutDS	8154	April 16 2014	175	261.49	266.31		266.39	0.0002	1.24	180.09	101.28	0.21
KinmoutDS	8154	May 8 2017	142	261.49	265.98		266.04	0.000189	1.13	147.45	93.44	0.2
KinmoutDS	8154	April 21 2013	216	261.49	266.68		266.77	0.00021	1.36	219.48	107.97	0.22
KinmoutDS	8107	Timmins_Uncalibr	454.35	262.63	268.31		268.53	0.00036	2.13	263.77	68.34	0.31
KinmoutDS	8107	Timmins_Calibrat	115.6	262.63	265.66		265.74	0.000339	1.23	99.24	49.35	0.26
KinmoutDS	8107	TimminsCC_Calibr	145.1	262.63	265.97		266.06	0.000348	1.36	114.69	52.04	0.27
KinmoutDS	8107	2y	109.2	262.63	265.59		265.66	0.000338	1.2	95.7	48.91	0.26
KinmoutDS	8107	5y	145.6	262.63	265.97		266.07	0.000348	1.36	114.95	52.15	0.27
KinmoutDS	8107	10y	170.2	262.63	266.22		266.32	0.00035	1.45	128.28	58.02	0.28
KinmoutDS	8107	25y	202.5	262.63	266.51		266.63	0.000352	1.55	145.84	62.04	0.28
KinmoutDS	8107	50y	228.3	262.63	266.74		266.87	0.000352	1.63	159.96	63.73	0.28
KinmoutDS	8107	100y	256.1	262.63	266.96		267.1	0.000353	1.7	174.28	64.42	0.29
KinmoutDS	8107	200y	286.7	262.63	267.2		267.36	0.000351	1.77	189.91	65.09	0.29
KinmoutDS	8107	350y	313.8	262.63	267.41		267.57	0.00035	1.83	203.27	65.66	0.29
KinmoutDS	8107	Sept 25 2021	68.8	262.63	265.07		265.12	0.000337	1	70.87	46.34	0.25
KinmoutDS	8107	July 13 2024	53.2	262.63	264.83		264.87	0.000338	0.9	60.03	45.12	0.24
KinmoutDS	8107	April 21 2019	228	262.63	266.73		266.86	0.000352	1.62	159.8	63.72	0.28
KinmoutDS	8107	Nov 2 2013	77	262.63	265.18		265.24	0.000337	1.05	76.22	46.85	0.25
KinmoutDS	8107	April 16 2014	175	262.63	266.26		266.37	0.00035	1.46	131	58.37	0.28
KinmoutDS	8107	May 8 2017	142	262.63	265.94		266.03	0.000347	1.35	113.02	51.31	0.27
KinmoutDS	8107	April 21 2013	216	262.63	266.63		266.76	0.000352	1.59	153.26	63.36	0.28
KinmoutDS	8073	Timmins_Uncalibr	454.35	262.73	268.27		268.51	0.000436	2.29	272.98	81.01	0.34
KinmoutDS	8073	Timmins_Calibrat	115.6	262.73	265.61		265.72	0.00058	1.5	78.63	53.06	0.34
KinmoutDS	8073	TimminsCC_Calibr	145.1	262.73	265.91		266.04	0.00056	1.62	96.27	59.41	0.34
KinmoutDS	8073	2y	109.2	262.73	265.53		265.64	0.000585	1.47	75.02	47.23	0.34
KinmoutDS	8073	5y	145.6	262.73	265.91		266.05	0.00056	1.62	96.55	59.44	0.34
KinmoutDS	8073	10y	170.2	262.73	266.16		266.31	0.000538	1.7	111.29	61.1	0.34
KinmoutDS	8073	25y	202.5	262.73	266.45		266.62	0.000518	1.79	130.92	72.05	0.34
KinmoutDS	8073	50y	228.3	262.73	266.68		266.85	0.000505	1.86	147.73	76.11	0.34
KinmoutDS	8073	100y	256.1	262.73	266.9		267.08	0.000491	1.93	164.96	76.84	0.34
KinmoutDS	8073	200y	286.7	262.73	267.15		267.34	0.000474	1.99	183.83	77.78	0.34
KinmoutDS	8073	350y	313.8	262.73	267.35		267.55	0.000462	2.04	200	78.48	0.34
KinmoutDS	8073	Sept 25 2021	68.8	262.73	265.02		265.1	0.000587	1.26	54.75	36.39	0.33
KinmoutDS	8073	July 13 2024	53.2	262.73	264.79		264.86	0.000579	1.15	46.45	35.16	0.32
KinmoutDS	8073	April 21 2019	228	262.73	266.67		266.85	0.000505	1.86	147.53	76.11	0.34
KinmoutDS	8073	Nov 2 2013	77	262.73	265.13		265.22	0.000596	1.31	58.91	37.33	0.33
KinmoutDS	8073	April 16 2014	175	262.73	266.21		266.35	0.000534	1.71	114.15	61.66	0.34
KinmoutDS	8073	May 8 2017	142	262.73	265.88		266.01	0.000564	1.61	94.34	59.22	0.34
KinmoutDS	8073	April 21 2013	216	262.73	266.57		266.74	0.000514	1.84	139.64	75.78	0.34
KinmoutDS	8033	Timmins_Uncalibr	454.35	262.81	268.26		268.49	0.000434	2.29	300.44	90.4	0.34
KinmoutDS	8033	Timmins_Calibrat	115.6	262.81	265.57		265.69	0.000659	1.58	78.51	60.06	0.36
KinmoutDS	8033	TimminsCC_Calibr	145.1	262.81	265.88		266.02	0.000621	1.7	98.54	69.64	0.36

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	8033	2y	109.2	262.81	265.5		265.62	0.00067	1.56	74.25	57.94	0.36
KinmoutDS	8033	5y	145.6	262.81	265.88		266.02	0.000621	1.7	98.88	69.73	0.36
KinmoutDS	8033	10y	170.2	262.81	266.13		266.28	0.000584	1.77	116.73	73.81	0.36
KinmoutDS	8033	25y	202.5	262.81	266.43		266.59	0.000552	1.85	140.24	84.01	0.35
KinmoutDS	8033	50y	228.3	262.81	266.65		266.83	0.000529	1.91	159.44	85.02	0.35
KinmoutDS	8033	100y	256.1	262.81	266.88		267.07	0.000508	1.96	178.95	85.97	0.35
KinmoutDS	8033	200y	286.7	262.81	267.13		267.32	0.000486	2.01	200.28	86.93	0.34
KinmoutDS	8033	350y	313.8	262.81	267.34		267.53	0.000469	2.06	218.5	87.74	0.34
KinmoutDS	8033	Sept 25 2021	68.8	262.81	264.98		265.08	0.000687	1.34	51.54	36.42	0.35
KinmoutDS	8033	July 13 2024	53.2	262.81	264.75		264.83	0.000714	1.23	43.26	34.81	0.35
KinmoutDS	8033	April 21 2019	228	262.81	266.65		266.83	0.000529	1.91	159.21	85	0.35
KinmoutDS	8033	Nov 2 2013	77	262.81	265.1		265.19	0.000676	1.39	55.75	38.43	0.35
KinmoutDS	8033	April 16 2014	175	262.81	266.18		266.33	0.000577	1.78	120.25	74.65	0.36
KinmoutDS	8033	May 8 2017	142	262.81	265.84		265.98	0.000627	1.69	96.26	69.07	0.36
KinmoutDS	8033	April 21 2013	216	262.81	266.55		266.72	0.000541	1.88	150.27	84.63	0.35
KinmoutDS	7992	Timmins_Uncalibr	454.35	262.83	268.26		268.47	0.000451	2.21	330.32	93.9	0.32
KinmoutDS	7992	Timmins_Calibrat	115.6	262.83	265.54		265.67	0.000703	1.57	87.67	74.87	0.35
KinmoutDS	7992	TimminsCC_Calibr	145.1	262.83	265.85		265.99	0.000658	1.67	112.98	85.98	0.35
KinmoutDS	7992	2y	109.2	262.83	265.47		265.59	0.000716	1.55	82.24	73.77	0.35
KinmoutDS	7992	5y	145.6	262.83	265.86		266	0.000658	1.67	113.41	86	0.35
KinmoutDS	7992	10y	170.2	262.83	266.11		266.25	0.000611	1.73	135.34	87.31	0.34
KinmoutDS	7992	25y	202.5	262.83	266.42		266.57	0.000568	1.79	162.16	88.57	0.34
KinmoutDS	7992	50y	228.3	262.83	266.65		266.8	0.000541	1.84	182.53	89.3	0.33
KinmoutDS	7992	100y	256.1	262.83	266.88		267.04	0.000521	1.89	203.16	89.97	0.33
KinmoutDS	7992	200y	286.7	262.83	267.13		267.29	0.000499	1.94	225.6	90.66	0.33
KinmoutDS	7992	350y	313.8	262.83	267.33		267.51	0.000483	1.98	244.69	91.26	0.32
KinmoutDS	7992	Sept 25 2021	68.8	262.83	264.95		265.05	0.000814	1.35	51.88	39.71	0.36
KinmoutDS	7992	July 13 2024	53.2	262.83	264.72		264.8	0.000849	1.24	43.28	35.52	0.35
KinmoutDS	7992	April 21 2019	228	262.83	266.64		266.8	0.000542	1.84	182.3	89.3	0.33
KinmoutDS	7992	Nov 2 2013	77	262.83	265.07		265.17	0.000792	1.4	56.63	45.42	0.36
KinmoutDS	7992	April 16 2014	175	262.83	266.16		266.3	0.000602	1.73	139.57	87.53	0.34
KinmoutDS	7992	May 8 2017	142	262.83	265.82		265.96	0.000666	1.66	110.1	85.82	0.35
KinmoutDS	7992	April 21 2013	216	262.83	266.54		266.69	0.000554	1.82	172.81	88.98	0.33
KinmoutDS	7953	Timmins_Uncalibr	454.35	262.72	268.23		268.45	0.000398	2.28	323.9	89.48	0.33
KinmoutDS	7953	Timmins_Calibrat	115.6	262.72	265.53		265.64	0.000499	1.49	101.97	70.91	0.32
KinmoutDS	7953	TimminsCC_Calibr	145.1	262.72	265.84		265.96	0.000483	1.6	124.66	75.49	0.33
KinmoutDS	7953	2y	109.2	262.72	265.46		265.56	0.000505	1.46	96.78	70.58	0.32
KinmoutDS	7953	5y	145.6	262.72	265.85		265.97	0.000483	1.6	125.03	75.77	0.33
KinmoutDS	7953	10y	170.2	262.72	266.1		266.23	0.000462	1.67	144.34	77.2	0.32
KinmoutDS	7953	25y	202.5	262.72	266.4		266.54	0.000446	1.76	167.95	80.15	0.32
KinmoutDS	7953	50y	228.3	262.72	266.63		266.78	0.000434	1.83	186.37	81.59	0.32
KinmoutDS	7953	100y	256.1	262.72	266.86		267.02	0.000426	1.89	205.16	82.91	0.32
KinmoutDS	7953	200y	286.7	262.72	267.11		267.27	0.000416	1.96	225.79	84.53	0.32
KinmoutDS	7953	350y	313.8	262.72	267.31		267.49	0.000409	2.01	243.46	85.71	0.32

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	7953	Sept 25 2021	68.8	262.72	264.94		265.02	0.000559	1.27	62.44	58.24	0.32
KinmoutDS	7953	July 13 2024	53.2	262.72	264.7		264.77	0.000586	1.17	50.17	45.39	0.32
KinmoutDS	7953	April 21 2019	228	262.72	266.63		266.78	0.000435	1.82	186.15	81.58	0.32
KinmoutDS	7953	Nov 2 2013	77	262.72	265.05		265.14	0.000546	1.31	69.32	61.01	0.32
KinmoutDS	7953	April 16 2014	175	262.72	266.15		266.28	0.000458	1.68	148.06	77.38	0.32
KinmoutDS	7953	May 8 2017	142	262.72	265.81		265.93	0.000485	1.59	122.18	74.34	0.33
KinmoutDS	7953	April 21 2013	216	262.72	266.52		266.67	0.00044	1.8	177.56	80.94	0.32
KinmoutDS	7915	Timmins_Uncalibr	454.35	262.49	268.13		268.42	0.000518	2.49	235.21	59.38	0.36
KinmoutDS	7915	Timmins_Calibrat	115.6	262.49	265.52		265.62	0.000443	1.4	95.24	48.03	0.29
KinmoutDS	7915	TimminsCC_Calibr	145.1	262.49	265.83		265.94	0.000457	1.54	110.26	49.39	0.3
KinmoutDS	7915	2y	109.2	262.49	265.45		265.54	0.00044	1.36	91.77	47.58	0.29
KinmoutDS	7915	5y	145.6	262.49	265.83		265.95	0.000457	1.54	110.5	49.41	0.3
KinmoutDS	7915	10y	170.2	262.49	266.08		266.21	0.00046	1.64	122.84	50.4	0.31
KinmoutDS	7915	25y	202.5	262.49	266.38		266.53	0.000467	1.76	137.88	51.6	0.31
KinmoutDS	7915	50y	228.3	262.49	266.6		266.76	0.000471	1.85	149.38	52.52	0.32
KinmoutDS	7915	100y	256.1	262.49	266.82		267	0.000478	1.94	161.09	53.47	0.33
KinmoutDS	7915	200y	286.7	262.49	267.06		267.25	0.000481	2.04	173.97	54.5	0.33
KinmoutDS	7915	350y	313.8	262.49	267.26		267.47	0.000485	2.11	184.98	55.35	0.33
KinmoutDS	7915	Sept 25 2021	68.8	262.49	264.93		264.99	0.000422	1.12	68.07	44.14	0.27
KinmoutDS	7915	July 13 2024	53.2	262.49	264.69		264.74	0.000414	1.01	57.76	43.03	0.26
KinmoutDS	7915	April 21 2019	228	262.49	266.59		266.76	0.000471	1.85	149.24	52.51	0.32
KinmoutDS	7915	Nov 2 2013	77	262.49	265.04		265.11	0.000427	1.18	73.16	44.71	0.27
KinmoutDS	7915	April 16 2014	175	262.49	266.13		266.26	0.00046	1.66	125.21	50.59	0.31
KinmoutDS	7915	May 8 2017	142	262.49	265.8		265.91	0.000457	1.53	108.64	49.26	0.3
KinmoutDS	7915	April 21 2013	216	262.49	266.49		266.65	0.00047	1.81	143.88	52.07	0.32
KinmoutDS	7874	Timmins_Uncalibr	454.35	262.23	268.07		268.4	0.000527	2.59	200.15	47.93	0.37
KinmoutDS	7874	Timmins_Calibrat	115.6	262.23	265.51		265.6	0.000362	1.36	91.35	39.78	0.27
KinmoutDS	7874	TimminsCC_Calibr	145.1	262.23	265.81		265.93	0.000392	1.52	103.62	40.51	0.29
KinmoutDS	7874	2y	109.2	262.23	265.44		265.52	0.000355	1.32	88.5	39.6	0.27
KinmoutDS	7874	5y	145.6	262.23	265.82		265.93	0.000392	1.52	103.81	40.52	0.29
KinmoutDS	7874	10y	170.2	262.23	266.06		266.19	0.000408	1.63	113.76	40.99	0.3
KinmoutDS	7874	25y	202.5	262.23	266.35		266.51	0.000425	1.77	125.74	41.42	0.31
KinmoutDS	7874	50y	228.3	262.23	266.57		266.74	0.000437	1.87	134.77	41.74	0.32
KinmoutDS	7874	100y	256.1	262.23	266.79		266.98	0.00045	1.97	143.86	42.05	0.32
KinmoutDS	7874	200y	286.7	262.23	267.02		267.23	0.00046	2.08	153.74	42.36	0.33
KinmoutDS	7874	350y	313.8	262.23	267.22		267.45	0.000469	2.17	162.08	42.69	0.34
KinmoutDS	7874	Sept 25 2021	68.8	262.23	264.92		264.98	0.0003	1.06	68.5	37.78	0.24
KinmoutDS	7874	July 13 2024	53.2	262.23	264.68		264.73	0.000268	0.93	59.73	36.81	0.22
KinmoutDS	7874	April 21 2019	228	262.23	266.57		266.74	0.000437	1.87	134.67	41.73	0.32
KinmoutDS	7874	Nov 2 2013	77	262.23	265.03		265.1	0.000313	1.12	72.83	38.23	0.25
KinmoutDS	7874	April 16 2014	175	262.23	266.11		266.24	0.000411	1.65	115.66	41.06	0.3
KinmoutDS	7874	May 8 2017	142	262.23	265.78		265.89	0.00039	1.5	102.3	40.44	0.29
KinmoutDS	7874	April 21 2013	216	262.23	266.47		266.63	0.000432	1.82	130.46	41.58	0.31

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	7835	Timmins_Uncalibr	454.35	261.96	268.09		268.36	0.000376	2.36	238.22	53.53	0.32
KinmoutDS	7835	Timmins_Calibrat	115.6	261.96	265.51		265.58	0.000214	1.17	111.13	45.75	0.22
KinmoutDS	7835	TimminsCC_Calibr	145.1	261.96	265.82		265.91	0.000239	1.33	125.36	46.73	0.24
KinmoutDS	7835	2y	109.2	261.96	265.44		265.51	0.000208	1.14	107.84	45.42	0.22
KinmoutDS	7835	5y	145.6	261.96	265.83		265.91	0.00024	1.33	125.59	46.74	0.24
KinmoutDS	7835	10y	170.2	261.96	266.07		266.17	0.000255	1.44	137.12	47.28	0.25
KinmoutDS	7835	25y	202.5	261.96	266.36		266.48	0.000274	1.57	151.05	47.93	0.26
KinmoutDS	7835	50y	228.3	261.96	266.58		266.72	0.000286	1.67	161.58	48.43	0.27
KinmoutDS	7835	100y	256.1	261.96	266.8		266.95	0.0003	1.77	172.23	48.93	0.28
KinmoutDS	7835	200y	286.7	261.96	267.04		267.2	0.000312	1.87	183.83	49.48	0.28
KinmoutDS	7835	350y	313.8	261.96	267.23		267.42	0.000322	1.95	193.67	50.15	0.29
KinmoutDS	7835	Sept 25 2021	68.8	261.96	264.92		264.96	0.000163	0.89	85.04	42.93	0.19
KinmoutDS	7835	July 13 2024	53.2	261.96	264.69		264.72	0.00014	0.77	75.01	42.05	0.17
KinmoutDS	7835	April 21 2019	228	261.96	266.58		266.71	0.000286	1.66	161.46	48.43	0.27
KinmoutDS	7835	Nov 2 2013	77	261.96	265.04		265.08	0.000174	0.95	89.97	43.35	0.2
KinmoutDS	7835	April 16 2014	175	261.96	266.12		266.22	0.000258	1.46	139.33	47.39	0.25
KinmoutDS	7835	May 8 2017	142	261.96	265.79		265.87	0.000237	1.31	123.83	46.66	0.24
KinmoutDS	7835	April 21 2013	216	261.96	266.48		266.61	0.000281	1.62	156.55	48.19	0.26
KinmoutDS	7791	Timmins_Uncalibr	454.35	261.68	268.07		268.35	0.000356	2.34	222.85	56.86	0.31
KinmoutDS	7791	Timmins_Calibrat	115.6	261.68	265.51		265.57	0.000174	1.1	108.25	39	0.2
KinmoutDS	7791	TimminsCC_Calibr	145.1	261.68	265.82		265.9	0.0002	1.26	120.37	40.24	0.22
KinmoutDS	7791	2y	109.2	261.68	265.44		265.49	0.000168	1.06	105.45	38.68	0.19
KinmoutDS	7791	5y	145.6	261.68	265.82		265.9	0.000201	1.26	120.56	40.26	0.22
KinmoutDS	7791	10y	170.2	261.68	266.06		266.16	0.000218	1.37	130.51	41.25	0.23
KinmoutDS	7791	25y	202.5	261.68	266.36		266.47	0.000239	1.51	142.69	42.45	0.24
KinmoutDS	7791	50y	228.3	261.68	266.57		266.7	0.000254	1.61	152.02	43.36	0.25
KinmoutDS	7791	100y	256.1	261.68	266.79		266.94	0.000269	1.72	161.54	44.27	0.26
KinmoutDS	7791	200y	286.7	261.68	267.02		267.19	0.000283	1.83	172.03	45.32	0.27
KinmoutDS	7791	350y	313.8	261.68	267.22		267.4	0.000295	1.91	181.02	46.17	0.28
KinmoutDS	7791	Sept 25 2021	68.8	261.68	264.92		264.95	0.000123	0.81	86.19	35.98	0.16
KinmoutDS	7791	July 13 2024	53.2	261.68	264.69		264.71	0.000101	0.69	77.84	34.91	0.14
KinmoutDS	7791	April 21 2019	228	261.68	266.57		266.7	0.000254	1.61	151.91	43.35	0.25
KinmoutDS	7791	Nov 2 2013	77	261.68	265.03		265.07	0.000133	0.86	90.32	36.5	0.17
KinmoutDS	7791	April 16 2014	175	261.68	266.11		266.21	0.000221	1.39	132.43	41.44	0.23
KinmoutDS	7791	May 8 2017	142	261.68	265.78		265.86	0.000198	1.24	119.06	40.11	0.21
KinmoutDS	7791	April 21 2013	216	261.68	266.47		266.59	0.000247	1.57	147.55	42.93	0.25
KinmoutDS	7753	Timmins_Uncalibr	454.35	261.42	268.09		268.32	0.000321	2.18	259.45	70.74	0.28
KinmoutDS	7753	Timmins_Calibrat	115.6	261.42	265.51		265.56	0.000145	1.01	121.65	41.58	0.17
KinmoutDS	7753	TimminsCC_Calibr	145.1	261.42	265.82		265.88	0.00017	1.16	134.61	42.95	0.19
KinmoutDS	7753	2y	109.2	261.42	265.44		265.49	0.000139	0.97	118.66	41.26	0.17
KinmoutDS	7753	5y	145.6	261.42	265.82		265.89	0.000171	1.16	134.81	42.97	0.19
KinmoutDS	7753	10y	170.2	261.42	266.07		266.15	0.000188	1.27	145.47	44.06	0.2
KinmoutDS	7753	25y	202.5	261.42	266.36		266.46	0.000209	1.4	158.53	45.82	0.22
KinmoutDS	7753	50y	228.3	261.42	266.58		266.69	0.000224	1.5	168.71	47.23	0.23

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	7753	100y	256.1	261.42	266.8		266.92	0.000239	1.6	179.19	49.45	0.24
KinmoutDS	7753	200y	286.7	261.42	267.03		267.17	0.000253	1.7	191.29	53.45	0.24
KinmoutDS	7753	350y	313.8	261.42	267.23		267.39	0.000264	1.79	202.33	58.28	0.25
KinmoutDS	7753	Sept 25 2021	68.8	261.42	264.92		264.95	0.000098	0.73	97.91	38.96	0.14
KinmoutDS	7753	July 13 2024	53.2	261.42	264.69		264.7	0.000079	0.62	88.84	37.95	0.12
KinmoutDS	7753	April 21 2019	228	261.42	266.57		266.69	0.000223	1.5	168.59	47.22	0.23
KinmoutDS	7753	Nov 2 2013	77	261.42	265.04		265.07	0.000107	0.78	102.38	39.47	0.15
KinmoutDS	7753	April 16 2014	175	261.42	266.11		266.2	0.000191	1.29	147.52	44.27	0.21
KinmoutDS	7753	May 8 2017	142	261.42	265.78		265.85	0.000168	1.14	133.2	42.8	0.19
KinmoutDS	7753	April 21 2013	216	261.42	266.47		266.58	0.000217	1.45	163.83	46.75	0.22
KinmoutDS	7716	Timmins_Uncalibr	454.35	261.4	268.08		268.31	0.000312	2.16	258.75	71.97	0.28
KinmoutDS	7716	Timmins_Calibrat	115.6	261.4	265.51		265.56	0.00014	1	124.17	42.94	0.17
KinmoutDS	7716	TimminsCC_Calibr	145.1	261.4	265.81		265.88	0.000164	1.14	137.51	44.27	0.19
KinmoutDS	7716	2y	109.2	261.4	265.43		265.48	0.000134	0.96	121.08	42.63	0.17
KinmoutDS	7716	5y	145.6	261.4	265.82		265.88	0.000165	1.14	137.72	44.29	0.19
KinmoutDS	7716	10y	170.2	261.4	266.06		266.14	0.000181	1.25	148.7	45.55	0.2
KinmoutDS	7716	25y	202.5	261.4	266.35		266.45	0.000201	1.38	162.23	47.2	0.21
KinmoutDS	7716	50y	228.3	261.4	266.57		266.68	0.000215	1.48	172.66	48.4	0.22
KinmoutDS	7716	100y	256.1	261.4	266.79		266.91	0.00023	1.58	183.33	49.44	0.23
KinmoutDS	7716	200y	286.7	261.4	267.03		267.16	0.000243	1.68	195.1	50.56	0.24
KinmoutDS	7716	350y	313.8	261.4	267.22		267.37	0.000254	1.76	205.24	52.63	0.25
KinmoutDS	7716	Sept 25 2021	68.8	261.4	264.92		264.94	0.000094	0.72	99.68	40.21	0.14
KinmoutDS	7716	July 13 2024	53.2	261.4	264.68		264.7	0.000075	0.61	90.37	38.92	0.12
KinmoutDS	7716	April 21 2019	228	261.4	266.57		266.68	0.000215	1.48	172.54	48.38	0.22
KinmoutDS	7716	Nov 2 2013	77	261.4	265.03		265.06	0.000103	0.77	104.29	40.79	0.14
KinmoutDS	7716	April 16 2014	175	261.4	266.11		266.19	0.000184	1.27	150.83	45.81	0.2
KinmoutDS	7716	May 8 2017	142	261.4	265.78		265.84	0.000162	1.13	136.07	44.12	0.19
KinmoutDS	7716	April 21 2013	216	261.4	266.47		266.57	0.000209	1.43	167.66	47.87	0.22
KinmoutDS	7675	Timmins_Uncalibr	454.35	261.54	268.06		268.29	0.000305	2.21	263.19	75.83	0.29
KinmoutDS	7675	Timmins_Calibrat	115.6	261.54	265.5		265.55	0.00014	1.03	122.35	44.1	0.18
KinmoutDS	7675	TimminsCC_Calibr	145.1	261.54	265.8		265.87	0.000164	1.18	136	45.66	0.2
KinmoutDS	7675	2y	109.2	261.54	265.43		265.47	0.000134	0.99	119.2	43.73	0.17
KinmoutDS	7675	5y	145.6	261.54	265.81		265.88	0.000164	1.18	136.22	45.68	0.2
KinmoutDS	7675	10y	170.2	261.54	266.05		266.13	0.00018	1.29	147.48	46.91	0.21
KinmoutDS	7675	25y	202.5	261.54	266.34		266.44	0.000199	1.42	161.29	48.3	0.22
KinmoutDS	7675	50y	228.3	261.54	266.56		266.67	0.000213	1.52	171.88	49.21	0.23
KinmoutDS	7675	100y	256.1	261.54	266.77		266.9	0.000227	1.62	182.64	50.02	0.24
KinmoutDS	7675	200y	286.7	261.54	267.01		267.15	0.00024	1.72	194.46	50.9	0.25
KinmoutDS	7675	350y	313.8	261.54	267.2		267.36	0.00025	1.81	204.54	52.32	0.26
KinmoutDS	7675	Sept 25 2021	68.8	261.54	264.91		264.94	0.000095	0.75	97.43	41.1	0.14
KinmoutDS	7675	July 13 2024	53.2	261.54	264.68		264.7	0.000076	0.63	87.96	39.93	0.13
KinmoutDS	7675	April 21 2019	228	261.54	266.55		266.67	0.000213	1.52	171.75	49.2	0.23
KinmoutDS	7675	Nov 2 2013	77	261.54	265.03		265.06	0.000104	0.8	102.12	41.68	0.15
KinmoutDS	7675	April 16 2014	175	261.54	266.1		266.18	0.000183	1.31	149.65	47.14	0.21

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	7675	May 8 2017	142	261.54	265.77		265.84	0.000162	1.17	134.52	45.49	0.19
KinmoutDS	7675	April 21 2013	216	261.54	266.45		266.56	0.000207	1.48	166.81	48.82	0.23
KinmoutDS	7635	Timmins_Uncalibr	454.35	261.65	268.02		268.28	0.000326	2.29	253.39	74.18	0.3
KinmoutDS	7635	Timmins_Calibrat	115.6	261.65	265.49		265.54	0.00015	1.07	118.35	43.21	0.19
KinmoutDS	7635	TimminsCC_Calibr	145.1	261.65	265.79		265.86	0.000175	1.22	131.56	44.24	0.21
KinmoutDS	7635	2y	109.2	261.65	265.42		265.47	0.000144	1.03	115.28	42.99	0.18
KinmoutDS	7635	5y	145.6	261.65	265.79		265.87	0.000176	1.22	131.77	44.26	0.21
KinmoutDS	7635	10y	170.2	261.65	266.04		266.12	0.000192	1.34	142.58	45.09	0.22
KinmoutDS	7635	25y	202.5	261.65	266.32		266.43	0.000213	1.47	155.71	46.16	0.23
KinmoutDS	7635	50y	228.3	261.65	266.54		266.66	0.000227	1.57	165.75	47	0.24
KinmoutDS	7635	100y	256.1	261.65	266.75		266.89	0.000242	1.68	175.95	47.87	0.25
KinmoutDS	7635	200y	286.7	261.65	266.99		267.14	0.000256	1.78	187.2	49.01	0.26
KinmoutDS	7635	350y	313.8	261.65	267.18		267.35	0.000267	1.87	196.83	50	0.27
KinmoutDS	7635	Sept 25 2021	68.8	261.65	264.91		264.94	0.000103	0.78	93.88	40.73	0.15
KinmoutDS	7635	July 13 2024	53.2	261.65	264.67		264.7	0.000083	0.66	84.55	39.51	0.13
KinmoutDS	7635	April 21 2019	228	261.65	266.54		266.66	0.000227	1.57	165.63	46.99	0.24
KinmoutDS	7635	Nov 2 2013	77	261.65	265.02		265.05	0.000112	0.83	98.49	41.32	0.16
KinmoutDS	7635	April 16 2014	175	261.65	266.08		266.17	0.000195	1.36	144.65	45.26	0.22
KinmoutDS	7635	May 8 2017	142	261.65	265.76		265.83	0.000173	1.21	130.14	44.13	0.2
KinmoutDS	7635	April 21 2013	216	261.65	266.44		266.55	0.000221	1.53	160.94	46.6	0.24
KinmoutDS	7593	Timmins_Uncalibr	454.35	261.74	267.99		268.26	0.000355	2.38	255.81	76.2	0.32
KinmoutDS	7593	Timmins_Calibrat	115.6	261.74	265.47		265.54	0.000176	1.13	111.29	43.36	0.2
KinmoutDS	7593	TimminsCC_Calibr	145.1	261.74	265.77		265.85	0.000204	1.3	124.57	45.38	0.22
KinmoutDS	7593	2y	109.2	261.74	265.4		265.46	0.000169	1.1	108.26	42.78	0.2
KinmoutDS	7593	5y	145.6	261.74	265.78		265.86	0.000204	1.3	124.79	45.41	0.22
KinmoutDS	7593	10y	170.2	261.74	266.02		266.11	0.000222	1.42	135.82	46.72	0.23
KinmoutDS	7593	25y	202.5	261.74	266.3		266.42	0.000244	1.56	149.35	48.04	0.25
KinmoutDS	7593	50y	228.3	261.74	266.51		266.65	0.000259	1.66	159.72	49.05	0.26
KinmoutDS	7593	100y	256.1	261.74	266.73		266.88	0.000275	1.77	170.29	51.13	0.27
KinmoutDS	7593	200y	286.7	261.74	266.96		267.13	0.000289	1.87	182.9	58.11	0.28
KinmoutDS	7593	350y	313.8	261.74	267.15		267.34	0.0003	1.96	194.74	63.7	0.28
KinmoutDS	7593	Sept 25 2021	68.8	261.74	264.9		264.93	0.000122	0.83	87.75	38.52	0.16
KinmoutDS	7593	July 13 2024	53.2	261.74	264.67		264.69	0.0001	0.71	79.04	37.07	0.15
KinmoutDS	7593	April 21 2019	228	261.74	266.51		266.65	0.000259	1.66	159.59	49.04	0.26
KinmoutDS	7593	Nov 2 2013	77	261.74	265.01		265.05	0.000133	0.89	92.09	39.35	0.17
KinmoutDS	7593	April 16 2014	175	261.74	266.06		266.16	0.000225	1.44	137.95	46.92	0.24
KinmoutDS	7593	May 8 2017	142	261.74	265.74		265.82	0.000201	1.28	123.12	45.21	0.22
KinmoutDS	7593	April 21 2013	216	261.74	266.41		266.54	0.000252	1.61	154.74	48.57	0.25
KinmoutDS	7552	Timmins_Uncalibr	454.35	261.83	267.99		268.24	0.000385	2.36	256.44	68.3	0.32
KinmoutDS	7552	Timmins_Calibrat	115.6	261.83	265.46		265.53	0.000206	1.16	112.49	46.74	0.21
KinmoutDS	7552	TimminsCC_Calibr	145.1	261.83	265.76		265.85	0.000235	1.32	126.64	47.99	0.23
KinmoutDS	7552	2y	109.2	261.83	265.39		265.45	0.000199	1.13	109.22	46.38	0.21
KinmoutDS	7552	5y	145.6	261.83	265.77		265.85	0.000235	1.32	126.86	48.01	0.23

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	7552	10y	170.2	261.83	266		266.1	0.000253	1.44	138.46	48.9	0.24
KinmoutDS	7552	25y	202.5	261.83	266.29		266.41	0.000275	1.57	152.6	50.19	0.25
KinmoutDS	7552	50y	228.3	261.83	266.5		266.64	0.00029	1.67	163.43	51.17	0.26
KinmoutDS	7552	100y	256.1	261.83	266.72		266.87	0.000306	1.78	174.58	54.82	0.27
KinmoutDS	7552	200y	286.7	261.83	266.95		267.12	0.000319	1.88	188.21	61.31	0.28
KinmoutDS	7552	350y	313.8	261.83	267.14		267.33	0.000332	1.97	200.41	64.57	0.29
KinmoutDS	7552	Sept 25 2021	68.8	261.83	264.89		264.93	0.000149	0.86	86.58	43.44	0.17
KinmoutDS	7552	July 13 2024	53.2	261.83	264.66		264.69	0.000124	0.74	76.79	41.96	0.16
KinmoutDS	7552	April 21 2019	228	261.83	266.5		266.64	0.00029	1.67	163.31	51.16	0.26
KinmoutDS	7552	Nov 2 2013	77	261.83	265		265.04	0.00016	0.92	91.44	44.14	0.18
KinmoutDS	7552	April 16 2014	175	261.83	266.05		266.15	0.000256	1.46	140.69	49.1	0.24
KinmoutDS	7552	May 8 2017	142	261.83	265.73		265.81	0.000232	1.31	125.1	47.87	0.23
KinmoutDS	7552	April 21 2013	216	261.83	266.4		266.53	0.000283	1.63	158.24	50.72	0.26
KinmoutDS	7514	Timmins_Uncalibr	454.35	261.91	267.94		268.23	0.000438	2.47	246.71	64.78	0.34
KinmoutDS	7514	Timmins_Calibrat	115.6	261.91	265.45		265.52	0.000236	1.22	108.51	46.54	0.22
KinmoutDS	7514	TimminsCC_Calibr	145.1	261.91	265.74		265.84	0.000269	1.38	122.44	47.72	0.24
KinmoutDS	7514	2y	109.2	261.91	265.38		265.45	0.000229	1.18	105.27	46.28	0.22
KinmoutDS	7514	5y	145.6	261.91	265.75		265.84	0.000269	1.38	122.66	47.75	0.24
KinmoutDS	7514	10y	170.2	261.91	265.98		266.09	0.000289	1.5	134.12	48.87	0.25
KinmoutDS	7514	25y	202.5	261.91	266.27		266.4	0.000314	1.64	148.11	50.35	0.27
KinmoutDS	7514	50y	228.3	261.91	266.48		266.63	0.000331	1.75	158.94	52.7	0.28
KinmoutDS	7514	100y	256.1	261.91	266.69		266.85	0.000349	1.86	170.28	54.75	0.29
KinmoutDS	7514	200y	286.7	261.91	266.92		267.1	0.000365	1.97	183.15	58.65	0.3
KinmoutDS	7514	350y	313.8	261.91	267.11		267.31	0.000377	2.06	194.63	60.21	0.3
KinmoutDS	7514	Sept 25 2021	68.8	261.91	264.88		264.92	0.000173	0.9	82.93	42.48	0.18
KinmoutDS	7514	July 13 2024	53.2	261.91	264.65		264.68	0.000144	0.78	73.54	40.11	0.17
KinmoutDS	7514	April 21 2019	228	261.91	266.48		266.62	0.000331	1.75	158.81	52.66	0.28
KinmoutDS	7514	Nov 2 2013	77	261.91	264.99		265.03	0.000186	0.97	87.67	43.6	0.19
KinmoutDS	7514	April 16 2014	175	261.91	266.03		266.14	0.000293	1.52	136.33	49.08	0.26
KinmoutDS	7514	May 8 2017	142	261.91	265.71		265.8	0.000266	1.37	120.92	47.58	0.24
KinmoutDS	7514	April 21 2013	216	261.91	266.38		266.52	0.000323	1.7	153.73	51.27	0.27
KinmoutDS	7473	Timmins_Uncalibr	454.35	262	267.93		268.21	0.00047	2.46	249.58	77.77	0.34
KinmoutDS	7473	Timmins_Calibrat	115.6	262	265.44		265.51	0.000262	1.22	110.09	48.39	0.23
KinmoutDS	7473	TimminsCC_Calibr	145.1	262	265.73		265.82	0.000295	1.38	124.56	49.78	0.25
KinmoutDS	7473	2y	109.2	262	265.37		265.44	0.000254	1.18	106.74	48.07	0.22
KinmoutDS	7473	5y	145.6	262	265.74		265.83	0.000295	1.38	124.79	49.8	0.25
KinmoutDS	7473	10y	170.2	262	265.97		266.08	0.000315	1.5	136.73	50.96	0.26
KinmoutDS	7473	25y	202.5	262	266.26		266.38	0.000339	1.63	151.32	52.49	0.27
KinmoutDS	7473	50y	228.3	262	266.47		266.61	0.000355	1.73	162.52	53.47	0.28
KinmoutDS	7473	100y	256.1	262	266.68		266.84	0.000372	1.84	173.89	54.34	0.29
KinmoutDS	7473	200y	286.7	262	266.91		267.08	0.000386	1.94	186.42	55.4	0.3
KinmoutDS	7473	350y	313.8	262	267.1		267.29	0.000398	2.03	197.18	57.44	0.3
KinmoutDS	7473	Sept 25 2021	68.8	262	264.87		264.91	0.000196	0.91	83.72	44.64	0.19
KinmoutDS	7473	July 13 2024	53.2	262	264.64		264.67	0.000166	0.79	73.77	43.35	0.17

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	7473	April 21 2019	228	262	266.46		266.61	0.000355	1.73	162.39	53.46	0.28
KinmoutDS	7473	Nov 2 2013	77	262	264.98		265.03	0.00021	0.97	88.65	45.25	0.2
KinmoutDS	7473	April 16 2014	175	262	266.02		266.13	0.000318	1.52	139.03	51.2	0.26
KinmoutDS	7473	May 8 2017	142	262	265.7		265.79	0.000292	1.36	122.98	49.62	0.24
KinmoutDS	7473	April 21 2013	216	262	266.37		266.5	0.000348	1.69	157.15	53.05	0.27
KinmoutDS	7434	Timmins_Uncalibr	454.35	262.03	267.93		268.18	0.000395	2.42	320.16	147.86	0.33
KinmoutDS	7434	Timmins_Calibrat	115.6	262.03	265.42		265.5	0.000245	1.27	109.61	50.81	0.24
KinmoutDS	7434	TimminsCC_Calibr	145.1	262.03	265.71		265.81	0.000277	1.44	124.86	53.75	0.26
KinmoutDS	7434	2y	109.2	262.03	265.35		265.43	0.000237	1.23	106.14	50.18	0.23
KinmoutDS	7434	5y	145.6	262.03	265.72		265.82	0.000277	1.44	125.11	53.8	0.26
KinmoutDS	7434	10y	170.2	262.03	265.95		266.07	0.000296	1.56	138.56	64.08	0.27
KinmoutDS	7434	25y	202.5	262.03	266.23		266.37	0.000318	1.7	158.11	75.95	0.28
KinmoutDS	7434	50y	228.3	262.03	266.44		266.6	0.000331	1.8	174.73	81.46	0.29
KinmoutDS	7434	100y	256.1	262.03	266.66		266.82	0.000344	1.9	192.27	100.9	0.3
KinmoutDS	7434	200y	286.7	262.03	266.89		267.07	0.000354	1.99	212.43	111.53	0.3
KinmoutDS	7434	350y	313.8	262.03	267.08		267.28	0.00036	2.07	230.44	117.36	0.31
KinmoutDS	7434	Sept 25 2021	68.8	262.03	264.86		264.9	0.000182	0.95	82.45	45.88	0.2
KinmoutDS	7434	July 13 2024	53.2	262.03	264.63		264.67	0.000153	0.82	72.48	42.86	0.18
KinmoutDS	7434	April 21 2019	228	262.03	266.44		266.59	0.000331	1.8	174.53	81.36	0.29
KinmoutDS	7434	Nov 2 2013	77	262.03	264.97		265.02	0.000195	1.02	87.49	46.83	0.21
KinmoutDS	7434	April 16 2014	175	262.03	266		266.12	0.000299	1.58	141.46	65.72	0.27
KinmoutDS	7434	May 8 2017	142	262.03	265.68		265.78	0.000274	1.42	123.18	53.39	0.25
KinmoutDS	7434	April 21 2013	216	262.03	266.34		266.49	0.000326	1.75	166.68	78.82	0.29
KinmoutDS	7394	Timmins_Uncalibr	454.35	262.03	267.86		268.16	0.000497	2.55	272.16	137.67	0.35
KinmoutDS	7394	Timmins_Calibrat	115.6	262.03	265.41		265.49	0.000289	1.29	102.46	44.85	0.24
KinmoutDS	7394	TimminsCC_Calibr	145.1	262.03	265.7		265.8	0.000327	1.46	115.58	45.98	0.26
KinmoutDS	7394	2y	109.2	262.03	265.34		265.42	0.000281	1.25	99.4	44.63	0.24
KinmoutDS	7394	5y	145.6	262.03	265.7		265.81	0.000327	1.46	115.79	46	0.26
KinmoutDS	7394	10y	170.2	262.03	265.93		266.06	0.00035	1.58	126.66	47.41	0.27
KinmoutDS	7394	25y	202.5	262.03	266.21		266.36	0.000377	1.73	140.7	54.65	0.29
KinmoutDS	7394	50y	228.3	262.03	266.42		266.58	0.000399	1.85	152.27	72.47	0.3
KinmoutDS	7394	100y	256.1	262.03	266.62		266.81	0.000417	1.96	164.46	88	0.31
KinmoutDS	7394	200y	286.7	262.03	266.85		267.05	0.000431	2.06	179.12	99.76	0.32
KinmoutDS	7394	350y	313.8	262.03	267.04		267.26	0.000443	2.15	193.51	110.67	0.32
KinmoutDS	7394	Sept 25 2021	68.8	262.03	264.85		264.9	0.000216	0.96	78.18	41.8	0.2
KinmoutDS	7394	July 13 2024	53.2	262.03	264.63		264.66	0.000183	0.83	69.05	40.31	0.18
KinmoutDS	7394	April 21 2019	228	262.03	266.41		266.58	0.000399	1.85	152.13	72.23	0.3
KinmoutDS	7394	Nov 2 2013	77	262.03	264.96		265.01	0.000231	1.03	82.73	42.48	0.21
KinmoutDS	7394	April 16 2014	175	262.03	265.98		266.1	0.000354	1.61	128.78	48.3	0.28
KinmoutDS	7394	May 8 2017	142	262.03	265.66		265.77	0.000324	1.44	114.15	45.85	0.26
KinmoutDS	7394	April 21 2013	216	262.03	266.32		266.47	0.000388	1.79	146.69	60.13	0.29
KinmoutDS	7355	Timmins_Uncalibr	454.35	262.03	267.88		268.13	0.000489	2.34	306.79	230.39	0.33
KinmoutDS	7355	Timmins_Calibrat	115.6	262.03	265.4		265.48	0.000328	1.25	100.22	46.21	0.24

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	7355	TimminsCC_Calibr	145.1	262.03	265.69		265.79	0.000369	1.42	113.34	99.76	0.26
KinmoutDS	7355	2y	109.2	262.03	265.33		265.4	0.000319	1.22	97.25	43.38	0.24
KinmoutDS	7355	5y	145.6	262.03	265.69		265.79	0.000369	1.42	113.56	99.94	0.26
KinmoutDS	7355	10y	170.2	262.03	265.92		266.04	0.000391	1.54	125.49	110.63	0.27
KinmoutDS	7355	25y	202.5	262.03	266.2		266.34	0.000416	1.67	141.78	137.04	0.28
KinmoutDS	7355	50y	228.3	262.03	266.41		266.56	0.000433	1.77	154.78	149.21	0.29
KinmoutDS	7355	100y	256.1	262.03	266.62		266.79	0.00045	1.87	169.02	168.28	0.3
KinmoutDS	7355	200y	286.7	262.03	266.85		267.03	0.00046	1.96	187.92	182.77	0.31
KinmoutDS	7355	350y	313.8	262.03	267.04		267.24	0.000469	2.04	206.7	199.04	0.31
KinmoutDS	7355	Sept 25 2021	68.8	262.03	264.84		264.89	0.00025	0.94	77.06	39.79	0.2
KinmoutDS	7355	July 13 2024	53.2	262.03	264.62		264.65	0.000214	0.81	68.35	38.87	0.18
KinmoutDS	7355	April 21 2019	228	262.03	266.41		266.56	0.000433	1.77	154.63	149.11	0.29
KinmoutDS	7355	Nov 2 2013	77	262.03	264.95		265	0.000267	1	81.35	40.29	0.21
KinmoutDS	7355	April 16 2014	175	262.03	265.97		266.09	0.000394	1.56	127.99	113.23	0.27
KinmoutDS	7355	May 8 2017	142	262.03	265.65		265.75	0.000366	1.4	111.85	98.65	0.26
KinmoutDS	7355	April 21 2013	216	262.03	266.31		266.46	0.000425	1.72	148.6	144.98	0.29
KinmoutDS	7317	Timmins_Uncalibr	454.35	262.02	267.85		268.11	0.000496	2.38	314.5	275.52	0.33
KinmoutDS	7317	Timmins_Calibrat	115.6	262.02	265.38		265.46	0.000338	1.28	96.58	63.64	0.25
KinmoutDS	7317	TimminsCC_Calibr	145.1	262.02	265.67		265.77	0.000379	1.45	109.09	116.69	0.27
KinmoutDS	7317	2y	109.2	262.02	265.31		265.39	0.000328	1.24	93.73	47.72	0.24
KinmoutDS	7317	5y	145.6	262.02	265.67		265.78	0.00038	1.45	109.29	117.12	0.27
KinmoutDS	7317	10y	170.2	262.02	265.9		266.02	0.000403	1.57	120.19	143.43	0.28
KinmoutDS	7317	25y	202.5	262.02	266.17		266.32	0.000433	1.72	135.05	176.5	0.29
KinmoutDS	7317	50y	228.3	262.02	266.38		266.54	0.000451	1.82	147.9	206.58	0.3
KinmoutDS	7317	100y	256.1	262.02	266.59		266.77	0.000468	1.92	162.07	227.48	0.31
KinmoutDS	7317	200y	286.7	262.02	266.81		267.01	0.000481	2.02	178.14	252.41	0.32
KinmoutDS	7317	350y	313.8	262.02	267		267.22	0.0005	2.12	200.63	258.41	0.32
KinmoutDS	7317	Sept 25 2021	68.8	262.02	264.83		264.88	0.000256	0.96	74.33	38.38	0.21
KinmoutDS	7317	July 13 2024	53.2	262.02	264.61		264.65	0.000219	0.83	66.07	36.92	0.19
KinmoutDS	7317	April 21 2019	228	262.02	266.38		266.54	0.000451	1.82	147.74	206.27	0.3
KinmoutDS	7317	Nov 2 2013	77	262.02	264.94		264.99	0.000273	1.02	78.45	39.09	0.22
KinmoutDS	7317	April 16 2014	175	262.02	265.94		266.07	0.000408	1.59	122.44	147.21	0.28
KinmoutDS	7317	May 8 2017	142	262.02	265.63		265.74	0.000376	1.43	107.7	110.96	0.26
KinmoutDS	7317	April 21 2013	216	262.02	266.28		266.44	0.000443	1.77	141.61	189.69	0.3
KinmoutDS	7268	Timmins_Uncalibr	454.35	262.01	267.9		268.06	0.000323	2.05	559.92	337.18	0.28
KinmoutDS	7268	Timmins_Calibrat	115.6	262.01	265.37		265.45	0.000296	1.27	100.24	98.07	0.24
KinmoutDS	7268	TimminsCC_Calibr	145.1	262.01	265.65		265.75	0.000334	1.44	113.79	170.75	0.26
KinmoutDS	7268	2y	109.2	262.01	265.3		265.38	0.000287	1.23	97.31	91.84	0.24
KinmoutDS	7268	5y	145.6	262.01	265.65		265.76	0.000334	1.44	114.04	172.22	0.26
KinmoutDS	7268	10y	170.2	262.01	265.88		266.01	0.000355	1.56	127.75	235.45	0.27
KinmoutDS	7268	25y	202.5	262.01	266.16		266.3	0.00038	1.7	145.56	285.68	0.29
KinmoutDS	7268	50y	228.3	262.01	266.36		266.52	0.000394	1.8	159.65	295.03	0.3
KinmoutDS	7268	100y	256.1	262.01	266.57		266.74	0.000407	1.9	174.27	307	0.3
KinmoutDS	7268	200y	286.7	262.01	266.8		266.99	0.000416	1.99	192.85	327.05	0.31

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	7268	350y	313.8	262.01	266.99		267.19	0.000411	2.04	256.34	331.23	0.31
KinmoutDS	7268	Sept 25 2021	68.8	262.01	264.82		264.86	0.000223	0.95	76.8	41.73	0.2
KinmoutDS	7268	July 13 2024	53.2	262.01	264.6		264.64	0.000189	0.82	67.81	40.76	0.18
KinmoutDS	7268	April 21 2019	228	262.01	266.36		266.52	0.000394	1.8	159.48	294.93	0.3
KinmoutDS	7268	Nov 2 2013	77	262.01	264.92		264.98	0.000238	1.02	81.23	42.16	0.21
KinmoutDS	7268	April 16 2014	175	262.01	265.93		266.05	0.000358	1.58	130.51	244.98	0.28
KinmoutDS	7268	May 8 2017	142	262.01	265.62		265.72	0.000331	1.43	112.15	161.75	0.26
KinmoutDS	7268	April 21 2013	216	262.01	266.27		266.42	0.000387	1.76	153.01	290.07	0.29
KinmoutDS	7231	Timmins_Uncalibr	454.35	262.01	267.91		268.04	0.000279	1.88	633.06	336.24	0.26
KinmoutDS	7231	Timmins_Calibrat	115.6	262.01	265.36		265.44	0.000301	1.27	100.82	97.08	0.24
KinmoutDS	7231	TimminsCC_Calibr	145.1	262.01	265.64		265.74	0.000338	1.43	116.33	149.17	0.26
KinmoutDS	7231	2y	109.2	262.01	265.29		265.36	0.000291	1.23	97.62	91.16	0.24
KinmoutDS	7231	5y	145.6	262.01	265.64		265.75	0.000339	1.43	116.61	149.8	0.26
KinmoutDS	7231	10y	170.2	262.01	265.87		265.99	0.000359	1.55	131.93	176.08	0.27
KinmoutDS	7231	25y	202.5	262.01	266.15		266.28	0.00038	1.68	150.81	221.1	0.28
KinmoutDS	7231	50y	228.3	262.01	266.35		266.5	0.000394	1.78	165.44	262.71	0.29
KinmoutDS	7231	100y	256.1	262.01	266.56		266.73	0.000404	1.87	193.32	292.91	0.3
KinmoutDS	7231	200y	286.7	262.01	266.8		266.96	0.000393	1.91	264.13	309.56	0.3
KinmoutDS	7231	350y	313.8	262.01	267		267.16	0.000374	1.92	327.88	327.88	0.29
KinmoutDS	7231	Sept 25 2021	68.8	262.01	264.81		264.86	0.000223	0.94	77.08	40.16	0.2
KinmoutDS	7231	July 13 2024	53.2	262.01	264.59		264.63	0.000189	0.81	68.49	39.25	0.18
KinmoutDS	7231	April 21 2019	228	262.01	266.35		266.5	0.000393	1.78	165.27	262.15	0.29
KinmoutDS	7231	Nov 2 2013	77	262.01	264.92		264.97	0.00024	1.01	81.37	41.38	0.21
KinmoutDS	7231	April 16 2014	175	262.01	265.92		266.04	0.000362	1.57	134.92	188.39	0.27
KinmoutDS	7231	May 8 2017	142	262.01	265.61		265.71	0.000335	1.42	114.37	145.22	0.26
KinmoutDS	7231	April 21 2013	216	262.01	266.25		266.4	0.000388	1.73	158.55	245.15	0.29
KinmoutDS	7192	Timmins_Uncalibr	454.35	262	267.9		268.03	0.000285	1.89	618.83	326.8	0.26
KinmoutDS	7192	Timmins_Calibrat	115.6	262	265.35		265.42	0.00029	1.24	107.38	116.78	0.24
KinmoutDS	7192	TimminsCC_Calibr	145.1	262	265.63		265.73	0.000331	1.41	123.21	157.96	0.26
KinmoutDS	7192	2y	109.2	262	265.28		265.35	0.000282	1.2	104.2	107.37	0.23
KinmoutDS	7192	5y	145.6	262	265.63		265.73	0.000332	1.41	123.5	159.03	0.26
KinmoutDS	7192	10y	170.2	262	265.86		265.98	0.000351	1.52	138.83	171.41	0.27
KinmoutDS	7192	25y	202.5	262	266.14		266.27	0.000371	1.65	157.54	194.94	0.28
KinmoutDS	7192	50y	228.3	262	266.34		266.49	0.000385	1.75	171.76	214.83	0.29
KinmoutDS	7192	100y	256.1	262	266.55		266.71	0.000397	1.84	195.37	247.89	0.29
KinmoutDS	7192	200y	286.7	262	266.78		266.95	0.000394	1.9	259.25	298.79	0.3
KinmoutDS	7192	350y	313.8	262	266.98		267.15	0.000378	1.92	321.81	319.46	0.29
KinmoutDS	7192	Sept 25 2021	68.8	262	264.8		264.85	0.000218	0.93	82.35	44.77	0.2
KinmoutDS	7192	July 13 2024	53.2	262	264.59		264.62	0.000185	0.8	72.8	43.78	0.18
KinmoutDS	7192	April 21 2019	228	262	266.34		266.48	0.000384	1.75	171.6	214.33	0.29
KinmoutDS	7192	Nov 2 2013	77	262	264.91		264.96	0.000233	0.99	87.07	45.31	0.21
KinmoutDS	7192	April 16 2014	175	262	265.91		266.02	0.000354	1.54	141.81	172.87	0.27
KinmoutDS	7192	May 8 2017	142	262	265.6		265.69	0.000329	1.4	121.27	152.5	0.26
KinmoutDS	7192	April 21 2013	216	262	266.24		266.38	0.000379	1.7	165.07	203.9	0.28

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	7153	Timmins_Uncalibr	454.35	261.96	267.89		268.01	0.000277	1.86	626.94	318.91	0.26
KinmoutDS	7153	Timmins_Calibrat	115.6	261.96	265.33		265.41	0.000289	1.24	107.78	236.52	0.23
KinmoutDS	7153	TimminsCC_Calibr	145.1	261.96	265.62		265.71	0.000323	1.4	125.77	256.19	0.25
KinmoutDS	7153	2y	109.2	261.96	265.27		265.34	0.00028	1.2	103.66	217.67	0.23
KinmoutDS	7153	5y	145.6	261.96	265.62		265.72	0.000324	1.4	126.06	256.68	0.25
KinmoutDS	7153	10y	170.2	261.96	265.85		265.96	0.000342	1.51	141.02	283.35	0.26
KinmoutDS	7153	25y	202.5	261.96	266.12		266.25	0.000365	1.64	159.23	294.76	0.27
KinmoutDS	7153	50y	228.3	261.96	266.33		266.47	0.000379	1.73	173.98	310.42	0.28
KinmoutDS	7153	100y	256.1	261.96	266.53		266.69	0.000401	1.84	197.13	314	0.29
KinmoutDS	7153	200y	286.7	261.96	266.77		266.93	0.000385	1.88	272.45	314.82	0.29
KinmoutDS	7153	350y	313.8	261.96	266.97		267.13	0.000363	1.88	336.59	315.68	0.28
KinmoutDS	7153	Sept 25 2021	68.8	261.96	264.8		264.84	0.00021	0.92	80.93	41.16	0.19
KinmoutDS	7153	July 13 2024	53.2	261.96	264.58		264.61	0.000175	0.78	72.28	39.78	0.17
KinmoutDS	7153	April 21 2019	228	261.96	266.33		266.47	0.000379	1.73	173.8	310.38	0.28
KinmoutDS	7153	Nov 2 2013	77	261.96	264.9		264.95	0.000226	0.98	85.4	45.04	0.2
KinmoutDS	7153	April 16 2014	175	261.96	265.89		266.01	0.000345	1.53	143.91	286.4	0.26
KinmoutDS	7153	May 8 2017	142	261.96	265.59		265.68	0.000321	1.38	123.78	254.3	0.25
KinmoutDS	7153	April 21 2013	216	261.96	266.23		266.37	0.000373	1.69	166.82	305.13	0.28
KinmoutDS	7110	Timmins_Uncalibr	454.35	261.91	267.9		267.99	0.000203	1.66	750.59	314.89	0.23
KinmoutDS	7110	Timmins_Calibrat	115.6	261.91	265.33		265.4	0.000255	1.22	117.29	180.79	0.23
KinmoutDS	7110	TimminsCC_Calibr	145.1	261.91	265.61		265.7	0.000286	1.37	135.49	197.56	0.25
KinmoutDS	7110	2y	109.2	261.91	265.26		265.33	0.000248	1.18	113.05	161.67	0.22
KinmoutDS	7110	5y	145.6	261.91	265.61		265.7	0.000287	1.38	135.78	197.75	0.25
KinmoutDS	7110	10y	170.2	261.91	265.84		265.95	0.000303	1.48	151.58	223.43	0.26
KinmoutDS	7110	25y	202.5	261.91	266.11		266.23	0.000322	1.61	194.06	286.76	0.27
KinmoutDS	7110	50y	228.3	261.91	266.33		266.45	0.000315	1.65	257.71	309.31	0.27
KinmoutDS	7110	100y	256.1	261.91	266.55		266.67	0.0003	1.67	325.58	310.64	0.26
KinmoutDS	7110	200y	286.7	261.91	266.79		266.9	0.000275	1.67	401.88	311.45	0.25
KinmoutDS	7110	350y	313.8	261.91	267		267.1	0.000257	1.66	465.63	312.11	0.25
KinmoutDS	7110	Sept 25 2021	68.8	261.91	264.79		264.83	0.000187	0.91	85.05	59.47	0.19
KinmoutDS	7110	July 13 2024	53.2	261.91	264.58		264.61	0.000155	0.78	75.16	43.47	0.17
KinmoutDS	7110	April 21 2019	228	261.91	266.32		266.45	0.000315	1.65	256.95	309.22	0.27
KinmoutDS	7110	Nov 2 2013	77	261.91	264.89		264.94	0.000202	0.98	90.83	66.21	0.2
KinmoutDS	7110	April 16 2014	175	261.91	265.89		265.99	0.000306	1.5	154.82	229.36	0.26
KinmoutDS	7110	May 8 2017	142	261.91	265.58		265.67	0.000284	1.36	133.48	196.32	0.24
KinmoutDS	7110	April 21 2013	216	261.91	266.23		266.35	0.00032	1.64	226.98	301.76	0.27
KinmoutDS	7072	Timmins_Uncalibr	454.35	261.86	267.84		267.98	0.00028	1.95	610.68	316.91	0.27
KinmoutDS	7072	Timmins_Calibrat	115.6	261.86	265.31		265.39	0.00026	1.25	114.23	129.25	0.23
KinmoutDS	7072	TimminsCC_Calibr	145.1	261.86	265.59		265.69	0.000296	1.42	131.24	144.28	0.25
KinmoutDS	7072	2y	109.2	261.86	265.25		265.32	0.000252	1.21	110.35	126.36	0.23
KinmoutDS	7072	5y	145.6	261.86	265.6		265.69	0.000297	1.42	131.52	144.53	0.25
KinmoutDS	7072	10y	170.2	261.86	265.82		265.93	0.000315	1.53	153.09	180.88	0.26
KinmoutDS	7072	25y	202.5	261.86	266.1		266.22	0.000329	1.64	186.8	193.73	0.27

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	7072	50y	228.3	261.86	266.3		266.43	0.000338	1.72	212.12	209.07	0.28
KinmoutDS	7072	100y	256.1	261.86	266.51		266.65	0.000346	1.81	238.95	213.17	0.28
KinmoutDS	7072	200y	286.7	261.86	266.74		266.89	0.000338	1.85	292.79	239.56	0.28
KinmoutDS	7072	350y	313.8	261.86	266.94		267.09	0.000328	1.88	343.07	257.84	0.28
KinmoutDS	7072	Sept 25 2021	68.8	261.86	264.78		264.82	0.000186	0.93	84.21	63.1	0.19
KinmoutDS	7072	July 13 2024	53.2	261.86	264.57		264.6	0.000152	0.79	74.83	57.14	0.17
KinmoutDS	7072	April 21 2019	228	261.86	266.3		266.43	0.000337	1.72	211.84	208.98	0.28
KinmoutDS	7072	Nov 2 2013	77	261.86	264.88		264.93	0.000202	0.99	89.4	68.36	0.2
KinmoutDS	7072	April 16 2014	175	261.86	265.87		265.98	0.000318	1.55	158.39	183.06	0.26
KinmoutDS	7072	May 8 2017	142	261.86	265.56		265.65	0.000294	1.4	129.33	142.59	0.25
KinmoutDS	7072	April 21 2013	216	261.86	266.21		266.34	0.000333	1.69	200.26	200.87	0.27
KinmoutDS	7031	Timmins_Uncalibr	454.35	261.77	267.84		267.97	0.000264	1.93	596.92	300.23	0.26
KinmoutDS	7031	Timmins_Calibrat	115.6	261.77	265.29		265.38	0.00027	1.3	109.85	106.35	0.24
KinmoutDS	7031	TimminsCC_Calibr	145.1	261.77	265.57		265.67	0.000312	1.48	125.15	139.56	0.26
KinmoutDS	7031	2y	109.2	261.77	265.23		265.31	0.00026	1.26	106.56	102.35	0.23
KinmoutDS	7031	5y	145.6	261.77	265.57		265.68	0.000312	1.49	125.46	140.1	0.26
KinmoutDS	7031	10y	170.2	261.77	265.79		265.92	0.000341	1.62	143.69	177.35	0.27
KinmoutDS	7031	25y	202.5	261.77	266.07		266.21	0.000358	1.75	172.82	211.12	0.28
KinmoutDS	7031	50y	228.3	261.77	266.27		266.42	0.000363	1.82	195.34	224.06	0.29
KinmoutDS	7031	100y	256.1	261.77	266.48		266.63	0.000367	1.89	218.38	235.28	0.29
KinmoutDS	7031	200y	286.7	261.77	266.72		266.87	0.000354	1.93	273.16	246	0.29
KinmoutDS	7031	350y	313.8	261.77	266.92		267.07	0.000338	1.94	326.3	270.14	0.29
KinmoutDS	7031	Sept 25 2021	68.8	261.77	264.77		264.81	0.000189	0.96	83.4	49.37	0.19
KinmoutDS	7031	July 13 2024	53.2	261.77	264.56		264.59	0.000153	0.82	73.46	45.24	0.17
KinmoutDS	7031	April 21 2019	228	261.77	266.27		266.42	0.000363	1.82	195.08	223.84	0.29
KinmoutDS	7031	Nov 2 2013	77	261.77	264.87		264.92	0.000206	1.03	88.44	49.72	0.2
KinmoutDS	7031	April 16 2014	175	261.77	265.84		265.96	0.000343	1.64	148.1	189.06	0.28
KinmoutDS	7031	May 8 2017	142	261.77	265.54		265.64	0.000309	1.47	123.02	134.98	0.26
KinmoutDS	7031	April 21 2013	216	261.77	266.18		266.32	0.000361	1.78	184.83	216.47	0.29
KinmoutDS	6991	Timmins_Uncalibr	454.35	261.67	267.87		267.94	0.000188	1.63	765.68	329.04	0.22
KinmoutDS	6991	Timmins_Calibrat	115.6	261.67	265.28		265.36	0.000291	1.35	104.61	187.1	0.24
KinmoutDS	6991	TimminsCC_Calibr	145.1	261.67	265.54		265.66	0.000344	1.55	122.26	262.98	0.27
KinmoutDS	6991	2y	109.2	261.67	265.21		265.3	0.000279	1.31	101.62	169.96	0.24
KinmoutDS	6991	5y	145.6	261.67	265.55		265.66	0.000344	1.56	122.84	263.33	0.27
KinmoutDS	6991	10y	170.2	261.67	265.78		265.9	0.000359	1.66	154.43	284.09	0.28
KinmoutDS	6991	25y	202.5	261.67	266.06		266.19	0.000357	1.74	197.41	315.06	0.28
KinmoutDS	6991	50y	228.3	261.67	266.27		266.4	0.000348	1.78	243.26	323.06	0.28
KinmoutDS	6991	100y	256.1	261.67	266.48		266.61	0.000324	1.78	313.88	323.95	0.27
KinmoutDS	6991	200y	286.7	261.67	266.73		266.85	0.000288	1.74	395.09	324.95	0.26
KinmoutDS	6991	350y	313.8	261.67	266.94		267.05	0.000261	1.71	463.28	325.8	0.25
KinmoutDS	6991	Sept 25 2021	68.8	261.67	264.76		264.81	0.000198	0.99	81.39	82.63	0.2
KinmoutDS	6991	July 13 2024	53.2	261.67	264.55		264.59	0.000159	0.84	72.55	66	0.17
KinmoutDS	6991	April 21 2019	228	261.67	266.26		266.4	0.000348	1.78	242.47	323.05	0.28
KinmoutDS	6991	Nov 2 2013	77	261.67	264.86		264.91	0.000216	1.06	85.77	87.65	0.21

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	6991	April 16 2014	175	261.67	265.82		265.95	0.000358	1.67	160.97	286.49	0.28
KinmoutDS	6991	May 8 2017	142	261.67	265.51		265.63	0.000341	1.54	118.33	260.32	0.27
KinmoutDS	6991	April 21 2013	216	261.67	266.17		266.3	0.000354	1.77	216.39	322.65	0.28
KinmoutDS	6954	Timmins_Uncalibr	454.35	261.57	267.87		267.93	0.000183	1.58	789.62	328.18	0.21
KinmoutDS	6954	Timmins_Calibrat	115.6	261.57	265.26		265.35	0.000322	1.41	97.1	192.25	0.25
KinmoutDS	6954	TimminsCC_Calibr	145.1	261.57	265.51		265.64	0.00039	1.63	111.09	259.81	0.28
KinmoutDS	6954	2y	109.2	261.57	265.19		265.28	0.000308	1.36	94.33	174.86	0.25
KinmoutDS	6954	5y	145.6	261.57	265.52		265.65	0.000391	1.63	111.67	260.11	0.28
KinmoutDS	6954	10y	170.2	261.57	265.75		265.89	0.000404	1.73	143.37	294.71	0.29
KinmoutDS	6954	25y	202.5	261.57	266.03		266.18	0.000403	1.82	193.21	319.44	0.29
KinmoutDS	6954	50y	228.3	261.57	266.25		266.39	0.00037	1.81	264.64	320.73	0.28
KinmoutDS	6954	100y	256.1	261.57	266.47		266.6	0.000334	1.78	336.99	322.04	0.27
KinmoutDS	6954	200y	286.7	261.57	266.73		266.83	0.00029	1.72	418.97	323.38	0.25
KinmoutDS	6954	350y	313.8	261.57	266.94		267.03	0.00026	1.68	487.38	324.39	0.24
KinmoutDS	6954	Sept 25 2021	68.8	261.57	264.75		264.8	0.000209	1.01	76.76	84.88	0.2
KinmoutDS	6954	July 13 2024	53.2	261.57	264.54		264.58	0.000165	0.85	69.1	82.93	0.17
KinmoutDS	6954	April 21 2019	228	261.57	266.25		266.38	0.000371	1.81	263.82	320.72	0.28
KinmoutDS	6954	Nov 2 2013	77	261.57	264.85		264.91	0.00023	1.08	80.53	85.77	0.21
KinmoutDS	6954	April 16 2014	175	261.57	265.79		265.93	0.000403	1.75	150.23	299.82	0.29
KinmoutDS	6954	May 8 2017	142	261.57	265.49		265.61	0.000378	1.6	108.7	256.73	0.28
KinmoutDS	6954	April 21 2013	216	261.57	266.14		266.29	0.000387	1.82	231.17	320.13	0.29
KinmoutDS	6913	Timmins_Uncalibr	454.35	261.56	267.86		267.92	0.000207	1.56	754.51	344.79	0.21
KinmoutDS	6913	Timmins_Calibrat	115.6	261.56	265.24		265.34	0.000379	1.41	94.34	196.77	0.25
KinmoutDS	6913	TimminsCC_Calibr	145.1	261.56	265.5		265.63	0.000449	1.61	107.01	221.64	0.28
KinmoutDS	6913	2y	109.2	261.56	265.18		265.27	0.000364	1.36	91.5	187.19	0.25
KinmoutDS	6913	5y	145.6	261.56	265.5		265.63	0.00045	1.62	107.36	222.04	0.28
KinmoutDS	6913	10y	170.2	261.56	265.72		265.87	0.000479	1.74	134.16	239.82	0.29
KinmoutDS	6913	25y	202.5	261.56	266		266.16	0.000479	1.83	175.4	288.87	0.3
KinmoutDS	6913	50y	228.3	261.56	266.22		266.37	0.000453	1.85	240.11	299.48	0.29
KinmoutDS	6913	100y	256.1	261.56	266.45		266.58	0.000402	1.8	309.52	300.65	0.28
KinmoutDS	6913	200y	286.7	261.56	266.71		266.82	0.000344	1.73	387.42	301.85	0.26
KinmoutDS	6913	350y	313.8	261.56	266.93		267.02	0.000305	1.68	452.11	302.97	0.25
KinmoutDS	6913	Sept 25 2021	68.8	261.56	264.74		264.79	0.000248	1.01	73.4	64.95	0.2
KinmoutDS	6913	July 13 2024	53.2	261.56	264.54		264.57	0.000196	0.85	66.11	61.75	0.18
KinmoutDS	6913	April 21 2019	228	261.56	266.22		266.37	0.000454	1.85	239.32	299.47	0.29
KinmoutDS	6913	Nov 2 2013	77	261.56	264.84		264.89	0.000274	1.09	77.01	66.24	0.21
KinmoutDS	6913	April 16 2014	175	261.56	265.77		265.92	0.000479	1.75	139.96	255.1	0.29
KinmoutDS	6913	May 8 2017	142	261.56	265.47		265.6	0.000443	1.59	105.59	219.41	0.28
KinmoutDS	6913	April 21 2013	216	261.56	266.12		266.27	0.000467	1.84	209.8	298.16	0.29
KinmoutDS	6874	Timmins_Uncalibr	454.35	261.57	267.87		267.91	0.000159	1.35	820.25	308.96	0.18
KinmoutDS	6874	Timmins_Calibrat	115.6	261.57	265.23		265.32	0.00036	1.35	110.96	250.08	0.25
KinmoutDS	6874	TimminsCC_Calibr	145.1	261.57	265.5		265.6	0.000403	1.51	137.86	262.47	0.26
KinmoutDS	6874	2y	109.2	261.57	265.17		265.25	0.000349	1.31	104.97	243.28	0.24

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	6874	5y	145.6	261.57	265.5		265.61	0.000403	1.51	138.46	262.63	0.26
KinmoutDS	6874	10y	170.2	261.57	265.73		265.84	0.000399	1.57	201.78	281.82	0.27
KinmoutDS	6874	25y	202.5	261.57	266.03		266.12	0.00034	1.53	286.23	282.66	0.25
KinmoutDS	6874	50y	228.3	261.57	266.25		266.34	0.000301	1.49	349.42	283.18	0.24
KinmoutDS	6874	100y	256.1	261.57	266.48		266.55	0.000268	1.46	413.71	283.67	0.22
KinmoutDS	6874	200y	286.7	261.57	266.73		266.8	0.000235	1.42	485.43	284.35	0.21
KinmoutDS	6874	350y	313.8	261.57	266.94		267	0.000213	1.39	545.13	289.44	0.2
KinmoutDS	6874	Sept 25 2021	68.8	261.57	264.73		264.78	0.000245	0.99	78.57	145.05	0.2
KinmoutDS	6874	July 13 2024	53.2	261.57	264.53		264.57	0.000196	0.84	70.31	127.13	0.17
KinmoutDS	6874	April 21 2019	228	261.57	266.25		266.33	0.000301	1.49	348.68	283.17	0.24
KinmoutDS	6874	Nov 2 2013	77	261.57	264.83		264.88	0.000269	1.06	82.64	150.18	0.21
KinmoutDS	6874	April 16 2014	175	261.57	265.78		265.89	0.000389	1.56	215.29	282	0.26
KinmoutDS	6874	May 8 2017	142	261.57	265.47		265.57	0.000401	1.49	134.86	261.59	0.26
KinmoutDS	6874	April 21 2013	216	261.57	266.15		266.24	0.000318	1.51	320.25	282.95	0.24
KinmoutDS	6833	Timmins_Uncalibr	454.35	261.58	267.84		267.9	0.000159	1.56	769.14	310.46	0.21
KinmoutDS	6833	Timmins_Calibrat	115.6	261.58	265.22		265.31	0.000273	1.35	112.37	169.45	0.25
KinmoutDS	6833	TimminsCC_Calibr	145.1	261.58	265.48		265.59	0.000306	1.51	136.45	181.94	0.27
KinmoutDS	6833	2y	109.2	261.58	265.16		265.24	0.000265	1.32	106.71	165.32	0.24
KinmoutDS	6833	5y	145.6	261.58	265.48		265.59	0.000306	1.52	136.87	182.08	0.27
KinmoutDS	6833	10y	170.2	261.58	265.71		265.83	0.000309	1.59	178.62	201.46	0.27
KinmoutDS	6833	25y	202.5	261.58	265.99		266.11	0.000302	1.65	239.94	234.29	0.27
KinmoutDS	6833	50y	228.3	261.58	266.21		266.32	0.000284	1.66	292.52	251.61	0.26
KinmoutDS	6833	100y	256.1	261.58	266.44		266.54	0.000262	1.66	351.93	273.91	0.26
KinmoutDS	6833	200y	286.7	261.58	266.69		266.78	0.00024	1.65	423.5	290.7	0.25
KinmoutDS	6833	350y	313.8	261.58	266.9		266.99	0.000219	1.63	486.28	296.79	0.24
KinmoutDS	6833	Sept 25 2021	68.8	261.58	264.72		264.77	0.000182	0.98	80.56	107.12	0.2
KinmoutDS	6833	July 13 2024	53.2	261.58	264.52		264.56	0.000145	0.83	72.1	95.12	0.17
KinmoutDS	6833	April 21 2019	228	261.58	266.21		266.32	0.000284	1.66	291.87	251.11	0.27
KinmoutDS	6833	Nov 2 2013	77	261.58	264.82		264.87	0.0002	1.05	84.76	118.29	0.21
KinmoutDS	6833	April 16 2014	175	261.58	265.76		265.87	0.000307	1.6	187.86	205.62	0.27
KinmoutDS	6833	May 8 2017	142	261.58	265.45		265.56	0.000304	1.5	133.87	181.06	0.27
KinmoutDS	6833	April 21 2013	216	261.58	266.11		266.22	0.000293	1.66	267.37	242.84	0.27
KinmoutDS	6794	Timmins_Uncalibr	454.35	261.58	267.81		267.9	0.00021	1.68	651.96	284.48	0.23
KinmoutDS	6794	Timmins_Calibrat	115.6	261.58	265.23		265.29	0.000246	1.2	134.35	112.76	0.22
KinmoutDS	6794	TimminsCC_Calibr	145.1	261.58	265.49		265.57	0.000276	1.34	154.05	129.67	0.24
KinmoutDS	6794	2y	109.2	261.58	265.16		265.22	0.00024	1.17	129.69	111.92	0.22
KinmoutDS	6794	5y	145.6	261.58	265.49		265.57	0.000277	1.35	154.38	129.93	0.24
KinmoutDS	6794	10y	170.2	261.58	265.72		265.81	0.00029	1.44	171.6	145.84	0.25
KinmoutDS	6794	25y	202.5	261.58	265.99		266.09	0.000304	1.55	192.83	178.75	0.26
KinmoutDS	6794	50y	228.3	261.58	266.18		266.31	0.000355	1.73	227.29	200.59	0.28
KinmoutDS	6794	100y	256.1	261.58	266.4		266.53	0.000336	1.75	274.87	228.73	0.27
KinmoutDS	6794	200y	286.7	261.58	266.66		266.77	0.000306	1.74	335.24	246.57	0.26
KinmoutDS	6794	350y	313.8	261.58	266.87		266.98	0.000284	1.73	389.32	260.36	0.26
KinmoutDS	6794	Sept 25 2021	68.8	261.58	264.72		264.76	0.000184	0.92	97.38	105.62	0.19

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	6794	July 13 2024	53.2	261.58	264.52		264.55	0.000154	0.79	83.03	102.27	0.17
KinmoutDS	6794	April 21 2019	228	261.58	266.18		266.31	0.000356	1.73	226.78	200.41	0.28
KinmoutDS	6794	Nov 2 2013	77	261.58	264.82		264.86	0.000198	0.97	104.42	108.77	0.19
KinmoutDS	6794	April 16 2014	175	261.58	265.76		265.85	0.000291	1.46	175.02	149.53	0.25
KinmoutDS	6794	May 8 2017	142	261.58	265.46		265.54	0.000274	1.33	151.95	126.46	0.24
KinmoutDS	6794	April 21 2013	216	261.58	266.08		266.21	0.000362	1.72	207.9	192.23	0.28
KinmoutDS	6731	Timmins_Uncalibr	454.35	261.59	267.79		267.88	0.000226	1.73	632.66	274.87	0.24
KinmoutDS	6731	Timmins_Calibrat	115.6	261.59	265.18		265.27	0.000313	1.33	101.08	110.33	0.25
KinmoutDS	6731	TimminsCC_Calibr	145.1	261.59	265.43		265.54	0.000367	1.52	116.02	143.87	0.27
KinmoutDS	6731	2y	109.2	261.59	265.12		265.21	0.000301	1.28	97.85	104.77	0.24
KinmoutDS	6731	5y	145.6	261.59	265.44		265.55	0.000368	1.52	116.28	144.45	0.27
KinmoutDS	6731	10y	170.2	261.59	265.65		265.78	0.000393	1.64	130.09	171.77	0.29
KinmoutDS	6731	25y	202.5	261.59	265.92		266.07	0.00042	1.78	151.1	208.92	0.3
KinmoutDS	6731	50y	228.3	261.59	266.11		266.28	0.000444	1.9	193.48	228.24	0.31
KinmoutDS	6731	100y	256.1	261.59	266.34		266.5	0.000411	1.9	247.59	238.56	0.3
KinmoutDS	6731	200y	286.7	261.59	266.61		266.75	0.000363	1.86	312.6	257.35	0.29
KinmoutDS	6731	350y	313.8	261.59	266.82		266.96	0.000335	1.85	369.51	270.5	0.28
KinmoutDS	6731	Sept 25 2021	68.8	261.59	264.7		264.75	0.00021	0.96	78.5	81.52	0.2
KinmoutDS	6731	July 13 2024	53.2	261.59	264.51		264.54	0.000168	0.81	70.46	78.4	0.17
KinmoutDS	6731	April 21 2019	228	261.59	266.11		266.28	0.000444	1.9	192.89	227.89	0.31
KinmoutDS	6731	Nov 2 2013	77	261.59	264.8		264.85	0.000231	1.03	82.52	83.4	0.21
KinmoutDS	6731	April 16 2014	175	261.59	265.7		265.83	0.000396	1.66	132.93	182.58	0.29
KinmoutDS	6731	May 8 2017	142	261.59	265.41		265.52	0.000363	1.5	114.36	141.25	0.27
KinmoutDS	6731	April 21 2013	216	261.59	266.01		266.18	0.000453	1.89	171	220.92	0.31
KinmoutDS	6693	Timmins_Uncalibr	454.35	261.55	267.79		267.87	0.000183	1.65	776.37	394.92	0.22
KinmoutDS	6693	Timmins_Calibrat	115.6	261.55	265.18		265.26	0.000268	1.3	112.97	289.81	0.25
KinmoutDS	6693	TimminsCC_Calibr	145.1	261.55	265.43		265.53	0.000308	1.48	135.07	312.29	0.27
KinmoutDS	6693	2y	109.2	261.55	265.12		265.19	0.000258	1.26	108.29	283.07	0.24
KinmoutDS	6693	5y	145.6	261.55	265.43		265.53	0.000309	1.48	135.48	312.88	0.27
KinmoutDS	6693	10y	170.2	261.55	265.65		265.77	0.000327	1.59	159.04	332.18	0.28
KinmoutDS	6693	25y	202.5	261.55	265.91		266.05	0.000337	1.7	192.07	352.67	0.29
KinmoutDS	6693	50y	228.3	261.55	266.12		266.26	0.000339	1.76	219.3	363	0.29
KinmoutDS	6693	100y	256.1	261.55	266.34		266.48	0.000332	1.81	249.73	377.04	0.29
KinmoutDS	6693	200y	286.7	261.55	266.56		266.73	0.000365	1.97	296.95	388.65	0.3
KinmoutDS	6693	350y	313.8	261.55	266.8		266.94	0.000316	1.9	387.21	389.66	0.29
KinmoutDS	6693	Sept 25 2021	68.8	261.55	264.69		264.74	0.000182	0.95	81.2	230.63	0.2
KinmoutDS	6693	July 13 2024	53.2	261.55	264.5		264.53	0.000146	0.81	71.74	204.07	0.17
KinmoutDS	6693	April 21 2019	228	261.55	266.11		266.25	0.000339	1.76	218.96	362.89	0.29
KinmoutDS	6693	Nov 2 2013	77	261.55	264.79		264.84	0.0002	1.02	86.29	252.03	0.21
KinmoutDS	6693	April 16 2014	175	261.55	265.69		265.81	0.000328	1.6	164.12	335.14	0.28
KinmoutDS	6693	May 8 2017	142	261.55	265.4		265.5	0.000305	1.46	132.54	309.16	0.27
KinmoutDS	6693	April 21 2013	216	261.55	266.02		266.15	0.000341	1.74	206	357.8	0.29
KinmoutDS	6634	Timmins_Uncalibr	454.35	261.05	267.8		267.85	0.000125	1.34	918.18	360.11	0.18

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	6634	Timmins_Calibrat	115.6	261.05	265.18		265.24	0.000204	1.13	121.34	191.62	0.21
KinmoutDS	6634	TimminsCC_Calibr	145.1	261.05	265.43		265.51	0.000239	1.29	157.71	238.34	0.23
KinmoutDS	6634	2y	109.2	261.05	265.12		265.17	0.000196	1.09	116.43	175.58	0.2
KinmoutDS	6634	5y	145.6	261.05	265.43		265.51	0.00024	1.29	158.63	239.46	0.23
KinmoutDS	6634	10y	170.2	261.05	265.65		265.74	0.00024	1.35	213.87	268.04	0.23
KinmoutDS	6634	25y	202.5	261.05	265.93		266.02	0.000232	1.4	288.9	280.03	0.23
KinmoutDS	6634	50y	228.3	261.05	266.14		266.22	0.00022	1.41	348.69	293.02	0.23
KinmoutDS	6634	100y	256.1	261.05	266.37		266.45	0.000205	1.41	417.79	312.23	0.22
KinmoutDS	6634	200y	286.7	261.05	266.62		266.69	0.000187	1.4	498.07	336.8	0.21
KinmoutDS	6634	350y	313.8	261.05	266.84		266.9	0.00017	1.38	574.68	352.03	0.2
KinmoutDS	6634	Sept 25 2021	68.8	261.05	264.69		264.73	0.000133	0.81	89.49	118.7	0.16
KinmoutDS	6634	July 13 2024	53.2	261.05	264.5		264.52	0.000104	0.68	80.6	107.23	0.14
KinmoutDS	6634	April 21 2019	228	261.05	266.14		266.22	0.00022	1.41	347.92	292.87	0.23
KinmoutDS	6634	Nov 2 2013	77	261.05	264.79		264.83	0.000147	0.88	94.5	129.35	0.17
KinmoutDS	6634	April 16 2014	175	261.05	265.7		265.79	0.000242	1.37	225.61	270.39	0.23
KinmoutDS	6634	May 8 2017	142	261.05	265.4		265.48	0.000238	1.28	152.08	230.94	0.23
KinmoutDS	6634	April 21 2013	216	261.05	266.04		266.12	0.000227	1.41	319.4	287.58	0.23
KinmoutDS	6594	Timmins_Uncalibr	454.35	260.63	267.78		267.84	0.000131	1.43	831.69	371	0.19
KinmoutDS	6594	Timmins_Calibrat	115.6	260.63	265.18		265.23	0.000131	0.96	154.55	175.73	0.17
KinmoutDS	6594	TimminsCC_Calibr	145.1	260.63	265.44		265.49	0.000154	1.09	178.65	199.58	0.19
KinmoutDS	6594	2y	109.2	260.63	265.12		265.16	0.000126	0.93	148.99	168.97	0.17
KinmoutDS	6594	5y	145.6	260.63	265.44		265.5	0.000154	1.1	179.08	199.84	0.19
KinmoutDS	6594	10y	170.2	260.63	265.66		265.73	0.000168	1.19	211.77	221.8	0.2
KinmoutDS	6594	25y	202.5	260.63	265.93		266	0.000182	1.3	261.49	254.25	0.21
KinmoutDS	6594	50y	228.3	260.63	266.13		266.21	0.000183	1.35	303.92	262.27	0.21
KinmoutDS	6594	100y	256.1	260.63	266.36		266.44	0.000179	1.38	350.6	273.59	0.21
KinmoutDS	6594	200y	286.7	260.63	266.6		266.68	0.000172	1.41	410.85	316.05	0.21
KinmoutDS	6594	350y	313.8	260.63	266.82		266.9	0.000163	1.41	483.87	345.51	0.21
KinmoutDS	6594	Sept 25 2021	68.8	260.63	264.7		264.72	0.000086	0.69	113.61	78.49	0.14
KinmoutDS	6594	July 13 2024	53.2	260.63	264.5		264.52	0.000067	0.58	100.09	60	0.12
KinmoutDS	6594	April 21 2019	228	260.63	266.13		266.21	0.000183	1.35	303.38	262.23	0.21
KinmoutDS	6594	Nov 2 2013	77	260.63	264.79		264.82	0.000095	0.75	120.82	111.86	0.14
KinmoutDS	6594	April 16 2014	175	260.63	265.7		265.77	0.000169	1.2	219.51	225.26	0.2
KinmoutDS	6594	May 8 2017	142	260.63	265.41		265.46	0.000152	1.08	175.99	196.86	0.19
KinmoutDS	6594	April 21 2013	216	260.63	266.03		266.11	0.000184	1.33	283.24	260.36	0.21
KinmoutDS	6555	Timmins_Uncalibr	454.35	261.02	267.78	264.78	267.83	0.000124	1.29	808.71	241.13	0.17
KinmoutDS	6555	Timmins_Calibrat	115.6	261.02	265.17	263.01	265.22	0.000189	1.05	137.94	225.32	0.19
KinmoutDS	6555	TimminsCC_Calibr	145.1	261.02	265.43	263.22	265.48	0.000179	1.08	250.37	233.19	0.19
KinmoutDS	6555	2y	109.2	261.02	265.11	262.96	265.16	0.000182	1.01	129.84	217.3	0.19
KinmoutDS	6555	5y	145.6	261.02	265.44	263.22	265.49	0.000179	1.08	251.4	233.22	0.19
KinmoutDS	6555	10y	170.2	261.02	265.66	263.38	265.72	0.000175	1.11	304.43	234.24	0.19
KinmoutDS	6555	25y	202.5	261.02	265.94	263.62	265.99	0.000169	1.15	368.84	235.44	0.19
KinmoutDS	6555	50y	228.3	261.02	266.15	263.77	266.2	0.000164	1.18	417.76	236.15	0.19
KinmoutDS	6555	100y	256.1	261.02	266.37	263.9	266.42	0.000157	1.19	470.98	236.79	0.19

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	6555	200y	286.7	261.02	266.61	264.05	266.66	0.000149	1.21	528.68	237.67	0.18
KinmoutDS	6555	350y	313.8	261.02	266.83	264.17	266.88	0.000142	1.21	580.56	238.32	0.18
KinmoutDS	6555	Sept 25 2021	68.8	261.02	264.69	262.6	264.72	0.000124	0.76	97.24	161.03	0.15
KinmoutDS	6555	July 13 2024	53.2	261.02	264.5	262.43	264.52	0.000097	0.63	87.14	133.96	0.13
KinmoutDS	6555	April 21 2019	228	261.02	266.14	263.77	266.19	0.000164	1.18	417.14	236.14	0.19
KinmoutDS	6555	Nov 2 2013	77	261.02	264.78	262.68	264.81	0.000137	0.81	102.5	178.82	0.16
KinmoutDS	6555	April 16 2014	175	261.02	265.71	263.4	265.76	0.000173	1.12	314.92	234.42	0.19
KinmoutDS	6555	May 8 2017	142	261.02	265.4	263.2	265.46	0.000179	1.07	243.9	232.99	0.19
KinmoutDS	6555	April 21 2013	216	261.02	266.04	263.71	266.1	0.000167	1.17	394.07	235.82	0.19
KinmoutDS	6494	Timmins_Uncalibr	454.35	260.9	267.67		267.81	0.000289	2.02	512.82	174.01	0.28
KinmoutDS	6494	Timmins_Calibrat	115.6	260.9	265.11		265.2	0.000312	1.36	114.15	152.15	0.26
KinmoutDS	6494	TimminsCC_Calibr	145.1	260.9	265.35		265.46	0.00036	1.55	134.22	160.64	0.28
KinmoutDS	6494	2y	109.2	260.9	265.05		265.14	0.000302	1.32	109.52	149.3	0.26
KinmoutDS	6494	5y	145.6	260.9	265.35		265.47	0.000361	1.55	134.58	160.71	0.28
KinmoutDS	6494	10y	170.2	260.9	265.55		265.69	0.000404	1.71	156.19	163.63	0.3
KinmoutDS	6494	25y	202.5	260.9	265.82		265.97	0.0004	1.79	200.12	164.99	0.31
KinmoutDS	6494	50y	228.3	260.9	266.03		266.17	0.000391	1.84	234.04	165.57	0.31
KinmoutDS	6494	100y	256.1	260.9	266.25		266.4	0.000375	1.87	271.43	166.49	0.3
KinmoutDS	6494	200y	286.7	260.9	266.5		266.64	0.000356	1.9	312.33	167.67	0.3
KinmoutDS	6494	350y	313.8	260.9	266.72		266.86	0.000336	1.91	349.44	168.69	0.29
KinmoutDS	6494	Sept 25 2021	68.8	260.9	264.65		264.7	0.000213	1	80.99	123.03	0.21
KinmoutDS	6494	July 13 2024	53.2	260.9	264.47		264.51	0.000171	0.85	69.64	114.77	0.19
KinmoutDS	6494	April 21 2019	228	260.9	266.02		266.17	0.000392	1.84	233.6	165.56	0.31
KinmoutDS	6494	Nov 2 2013	77	260.9	264.74		264.8	0.000233	1.07	86.68	126.71	0.22
KinmoutDS	6494	April 16 2014	175	260.9	265.6		265.74	0.000402	1.72	163.37	163.78	0.3
KinmoutDS	6494	May 8 2017	142	260.9	265.32		265.43	0.000357	1.53	131.96	160.14	0.28
KinmoutDS	6494	April 21 2013	216	260.9	265.93		266.07	0.000397	1.82	217.52	165.29	0.31
KinmoutDS	6452	Timmins_Uncalibr	454.35	260.99	267.67		267.79	0.000258	1.91	594.93	217.7	0.26
KinmoutDS	6452	Timmins_Calibrat	115.6	260.99	265.1		265.19	0.00032	1.37	111.47	127.34	0.26
KinmoutDS	6452	TimminsCC_Calibr	145.1	260.99	265.33		265.45	0.000377	1.57	136.53	139.39	0.29
KinmoutDS	6452	2y	109.2	260.99	265.04		265.13	0.000309	1.33	107.3	124.6	0.26
KinmoutDS	6452	5y	145.6	260.99	265.33		265.45	0.000378	1.58	137.1	139.46	0.29
KinmoutDS	6452	10y	170.2	260.99	265.54		265.67	0.000387	1.67	166.55	142.85	0.3
KinmoutDS	6452	25y	202.5	260.99	265.81		265.95	0.000389	1.76	207.29	167.07	0.3
KinmoutDS	6452	50y	228.3	260.99	266.01		266.16	0.000385	1.82	244.33	196.78	0.3
KinmoutDS	6452	100y	256.1	260.99	266.24		266.38	0.000374	1.87	289.81	206.63	0.3
KinmoutDS	6452	200y	286.7	260.99	266.49		266.62	0.000346	1.87	341.36	208.97	0.29
KinmoutDS	6452	350y	313.8	260.99	266.71		266.84	0.000321	1.87	388.29	210.61	0.29
KinmoutDS	6452	Sept 25 2021	68.8	260.99	264.64		264.69	0.00022	1.01	80.37	105.3	0.21
KinmoutDS	6452	July 13 2024	53.2	260.99	264.46		264.5	0.000176	0.86	69.89	95	0.19
KinmoutDS	6452	April 21 2019	228	260.99	266.01		266.15	0.000385	1.82	243.81	196.45	0.3
KinmoutDS	6452	Nov 2 2013	77	260.99	264.73		264.79	0.00024	1.08	85.86	110.67	0.22
KinmoutDS	6452	April 16 2014	175	260.99	265.59		265.72	0.000386	1.68	172.82	143.69	0.3
KinmoutDS	6452	May 8 2017	142	260.99	265.3		265.42	0.000375	1.56	132.92	138.48	0.29

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	6452	April 21 2013	216	260.99	265.91		266.05	0.000386	1.79	225.61	183.15	0.3
KinmoutDS	6410	Timmins_Uncalibr	454.35	261.19	267.68		267.78	0.000228	1.79	762.4	390.36	0.25
KinmoutDS	6410	Timmins_Calibrat	115.6	261.19	265.09		265.17	0.000291	1.31	124.11	246.93	0.25
KinmoutDS	6410	TimminsCC_Calibr	145.1	261.19	265.33		265.43	0.000338	1.49	144.47	297.07	0.28
KinmoutDS	6410	2y	109.2	261.19	265.04		265.11	0.000281	1.27	119.97	241.89	0.25
KinmoutDS	6410	5y	145.6	261.19	265.33		265.43	0.000339	1.49	144.89	297.79	0.28
KinmoutDS	6410	10y	170.2	261.19	265.53		265.65	0.00036	1.61	169.36	336.12	0.29
KinmoutDS	6410	25y	202.5	261.19	265.8		265.93	0.000377	1.73	206.08	353.75	0.3
KinmoutDS	6410	50y	228.3	261.19	266		266.14	0.000372	1.79	235.6	361.51	0.3
KinmoutDS	6410	100y	256.1	261.19	266.22		266.36	0.000361	1.83	268.66	373.32	0.3
KinmoutDS	6410	200y	286.7	261.19	266.47		266.61	0.000345	1.86	305.44	378.71	0.29
KinmoutDS	6410	350y	313.8	261.19	266.66		266.82	0.000366	1.98	372.48	381.1	0.3
KinmoutDS	6410	Sept 25 2021	68.8	261.19	264.64		264.68	0.000203	0.97	92.3	83.24	0.21
KinmoutDS	6410	July 13 2024	53.2	261.19	264.46		264.49	0.000165	0.83	80.22	65.33	0.18
KinmoutDS	6410	April 21 2019	228	261.19	266		266.13	0.000373	1.79	235.22	361.42	0.3
KinmoutDS	6410	Nov 2 2013	77	261.19	264.73		264.78	0.000221	1.04	98.28	133.32	0.22
KinmoutDS	6410	April 16 2014	175	261.19	265.58		265.7	0.000361	1.62	175.23	342.43	0.29
KinmoutDS	6410	May 8 2017	142	261.19	265.3		265.4	0.000335	1.47	141.83	292.16	0.27
KinmoutDS	6410	April 21 2013	216	261.19	265.9		266.04	0.000376	1.76	221.18	357.78	0.3
KinmoutDS	6370	Timmins_Uncalibr	454.35	261.37	267.7		267.76	0.000151	1.47	987.97	405.74	0.2
KinmoutDS	6370	Timmins_Calibrat	115.6	261.37	265.08		265.16	0.000309	1.34	121.9	336.58	0.26
KinmoutDS	6370	TimminsCC_Calibr	145.1	261.37	265.31		265.41	0.000352	1.51	143.51	358.55	0.28
KinmoutDS	6370	2y	109.2	261.37	265.02		265.1	0.000299	1.3	116.84	327.84	0.26
KinmoutDS	6370	5y	145.6	261.37	265.31		265.42	0.000354	1.51	143.86	358.78	0.28
KinmoutDS	6370	10y	170.2	261.37	265.52		265.64	0.000369	1.62	164.2	383.06	0.29
KinmoutDS	6370	25y	202.5	261.37	265.77		265.91	0.000399	1.77	212.34	399.72	0.31
KinmoutDS	6370	50y	228.3	261.37	265.99		266.12	0.000362	1.76	299.42	400.45	0.3
KinmoutDS	6370	100y	256.1	261.37	266.23		266.34	0.000313	1.7	395.2	401.14	0.28
KinmoutDS	6370	200y	286.7	261.37	266.49		266.58	0.000267	1.64	498.86	401.77	0.26
KinmoutDS	6370	350y	313.8	261.37	266.71		266.79	0.000235	1.6	586.41	402.46	0.25
KinmoutDS	6370	Sept 25 2021	68.8	261.37	264.63		264.68	0.000219	1	84.79	99.76	0.21
KinmoutDS	6370	July 13 2024	53.2	261.37	264.45		264.48	0.000177	0.85	72.34	66.54	0.19
KinmoutDS	6370	April 21 2019	228	261.37	265.99		266.12	0.000362	1.76	298.32	400.44	0.3
KinmoutDS	6370	Nov 2 2013	77	261.37	264.71		264.77	0.000238	1.06	91.38	177.86	0.22
KinmoutDS	6370	April 16 2014	175	261.37	265.56		265.68	0.00037	1.63	168.62	387.13	0.29
KinmoutDS	6370	May 8 2017	142	261.37	265.28		265.39	0.000349	1.49	141.05	356.37	0.28
KinmoutDS	6370	April 21 2013	216	261.37	265.89		266.02	0.000382	1.77	257.24	400.13	0.3
KinmoutDS	6329	Timmins_Uncalibr	454.35	261.56	267.69		267.75	0.000157	1.49	946.08	434.06	0.21
KinmoutDS	6329	Timmins_Calibrat	115.6	261.56	265.06		265.15	0.000303	1.31	118.29	281.53	0.26
KinmoutDS	6329	TimminsCC_Calibr	145.1	261.56	265.3		265.4	0.000348	1.48	136.56	293.57	0.28
KinmoutDS	6329	2y	109.2	261.56	265.01		265.09	0.000293	1.27	113.9	274.32	0.25
KinmoutDS	6329	5y	145.6	261.56	265.3		265.4	0.000348	1.48	136.87	293.71	0.28
KinmoutDS	6329	10y	170.2	261.56	265.5		265.62	0.000373	1.61	153.36	305.53	0.29

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	6329	25y	202.5	261.56	265.77		265.89	0.00036	1.67	235.82	311.85	0.29
KinmoutDS	6329	50y	228.3	261.56	265.98		266.1	0.000333	1.67	304.15	325.56	0.28
KinmoutDS	6329	100y	256.1	261.56	266.22		266.33	0.000299	1.65	383.6	342.58	0.27
KinmoutDS	6329	200y	286.7	261.56	266.48		266.57	0.000262	1.61	472.55	349.4	0.26
KinmoutDS	6329	350y	313.8	261.56	266.69		266.78	0.000236	1.59	548.72	355.56	0.25
KinmoutDS	6329	Sept 25 2021	68.8	261.56	264.62		264.67	0.00021	0.97	85.38	124.28	0.21
KinmoutDS	6329	July 13 2024	53.2	261.56	264.44		264.48	0.000169	0.82	74.52	66.56	0.19
KinmoutDS	6329	April 21 2019	228	261.56	265.98		266.1	0.000334	1.67	303.27	325.19	0.28
KinmoutDS	6329	Nov 2 2013	77	261.56	264.71		264.76	0.000229	1.03	90.98	157.44	0.22
KinmoutDS	6329	April 16 2014	175	261.56	265.55		265.67	0.000372	1.62	166.87	306.52	0.29
KinmoutDS	6329	May 8 2017	142	261.56	265.27		265.37	0.000344	1.47	134.54	292.67	0.28
KinmoutDS	6329	April 21 2013	216	261.56	265.88		266	0.000348	1.67	270.84	315.68	0.29
KinmoutDS	6292	Timmins_Uncalibr	454.35	261.73	267.7		267.74	0.000119	1.3	1012.77	381.44	0.18
KinmoutDS	6292	Timmins_Calibrat	115.6	261.73	265.07		265.13	0.000256	1.2	151.77	234.66	0.24
KinmoutDS	6292	TimminsCC_Calibr	145.1	261.73	265.3		265.38	0.000296	1.36	192.18	261.31	0.26
KinmoutDS	6292	2y	109.2	261.73	265.01		265.07	0.00025	1.17	145.6	228.67	0.23
KinmoutDS	6292	5y	145.6	261.73	265.3		265.38	0.000296	1.36	193.23	261.55	0.26
KinmoutDS	6292	10y	170.2	261.73	265.52		265.6	0.000282	1.4	250.04	270.83	0.25
KinmoutDS	6292	25y	202.5	261.73	265.79		265.87	0.000257	1.41	328.64	304.05	0.25
KinmoutDS	6292	50y	228.3	261.73	266.01		266.08	0.000238	1.41	396.96	325.87	0.24
KinmoutDS	6292	100y	256.1	261.73	266.24		266.31	0.000213	1.4	474.82	339.36	0.23
KinmoutDS	6292	200y	286.7	261.73	266.49		266.55	0.000189	1.37	563.22	354.19	0.22
KinmoutDS	6292	350y	313.8	261.73	266.71		266.76	0.000171	1.35	641.22	370.62	0.21
KinmoutDS	6292	Sept 25 2021	68.8	261.73	264.62		264.66	0.000193	0.92	105.69	105.73	0.2
KinmoutDS	6292	July 13 2024	53.2	261.73	264.44		264.47	0.000161	0.8	89.35	88.96	0.18
KinmoutDS	6292	April 21 2019	228	261.73	266		266.07	0.000238	1.41	396.07	325.71	0.24
KinmoutDS	6292	Nov 2 2013	77	261.73	264.7		264.75	0.000207	0.98	114.04	138.05	0.21
KinmoutDS	6292	April 16 2014	175	261.73	265.56		265.64	0.000277	1.4	262.48	276.15	0.25
KinmoutDS	6292	May 8 2017	142	261.73	265.27		265.35	0.000296	1.35	185.33	259.75	0.26
KinmoutDS	6292	April 21 2013	216	261.73	265.9		265.98	0.000247	1.41	363.54	319.89	0.24
KinmoutDS	6250	Timmins_Uncalibr	454.35	261.84	267.67		267.73	0.000153	1.45	858.28	314.4	0.2
KinmoutDS	6250	Timmins_Calibrat	115.6	261.84	265.03		265.12	0.000333	1.34	118.77	253.79	0.27
KinmoutDS	6250	TimminsCC_Calibr	145.1	261.84	265.26		265.36	0.000378	1.51	145.04	272.21	0.29
KinmoutDS	6250	2y	109.2	261.84	264.98		265.06	0.000322	1.3	114.66	245.42	0.26
KinmoutDS	6250	5y	145.6	261.84	265.26		265.37	0.000379	1.51	145.91	272.39	0.29
KinmoutDS	6250	10y	170.2	261.84	265.47		265.58	0.000376	1.58	192.71	280.7	0.29
KinmoutDS	6250	25y	202.5	261.84	265.74		265.85	0.000364	1.64	267.18	290.78	0.29
KinmoutDS	6250	50y	228.3	261.84	265.96		266.06	0.000322	1.62	332.79	293.72	0.28
KinmoutDS	6250	100y	256.1	261.84	266.2		266.29	0.000281	1.58	404.72	300.72	0.26
KinmoutDS	6250	200y	286.7	261.84	266.46		266.54	0.000244	1.54	483.36	304.19	0.25
KinmoutDS	6250	350y	313.8	261.84	266.68		266.75	0.000219	1.51	549.89	306.19	0.24
KinmoutDS	6250	Sept 25 2021	68.8	261.84	264.6		264.65	0.000239	1	86.7	130.14	0.22
KinmoutDS	6250	July 13 2024	53.2	261.84	264.43		264.46	0.000196	0.86	74.7	107.09	0.2
KinmoutDS	6250	April 21 2019	228	261.84	265.96		266.06	0.000323	1.62	331.96	293.67	0.28

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	6250	Nov 2 2013	77	261.84	264.68		264.74	0.000259	1.07	92.73	159.62	0.23
KinmoutDS	6250	April 16 2014	175	261.84	265.5		265.62	0.000402	1.64	199.93	281.72	0.3
KinmoutDS	6250	May 8 2017	142	261.84	265.23		265.34	0.000376	1.5	139.3	270.63	0.29
KinmoutDS	6250	April 21 2013	216	261.84	265.85		265.96	0.000343	1.63	301.1	292.43	0.28
KinmoutDS	6211	Timmins_Uncalibr	454.35	261.92	267.66		267.73	0.000165	1.49	748.4	279.23	0.21
KinmoutDS	6211	Timmins_Calibrat	115.6	261.92	265.02		265.1	0.000327	1.29	116.66	163.72	0.26
KinmoutDS	6211	TimminsCC_Calibr	145.1	261.92	265.25		265.35	0.000362	1.44	148.78	189.82	0.28
KinmoutDS	6211	2y	109.2	261.92	264.97		265.04	0.000318	1.25	111.28	159.14	0.26
KinmoutDS	6211	5y	145.6	261.92	265.26		265.35	0.000363	1.44	149.36	190.83	0.28
KinmoutDS	6211	10y	170.2	261.92	265.45		265.57	0.000397	1.58	183.42	212.23	0.3
KinmoutDS	6211	25y	202.5	261.92	265.73		265.83	0.000357	1.59	242.8	221.39	0.29
KinmoutDS	6211	50y	228.3	261.92	265.95		266.05	0.000321	1.58	293.18	228.41	0.28
KinmoutDS	6211	100y	256.1	261.92	266.19		266.28	0.000285	1.56	350.2	245.05	0.26
KinmoutDS	6211	200y	286.7	261.92	266.45		266.53	0.000259	1.55	416.01	265.21	0.25
KinmoutDS	6211	350y	313.8	261.92	266.66		266.75	0.000235	1.54	474.12	270.77	0.24
KinmoutDS	6211	Sept 25 2021	68.8	261.92	264.59		264.64	0.000242	0.98	84.86	137.69	0.22
KinmoutDS	6211	July 13 2024	53.2	261.92	264.42		264.45	0.000202	0.84	73.27	123.46	0.2
KinmoutDS	6211	April 21 2019	228	261.92	265.95		266.05	0.000322	1.58	292.55	228.26	0.28
KinmoutDS	6211	Nov 2 2013	77	261.92	264.67		264.73	0.00026	1.04	90.56	144.9	0.23
KinmoutDS	6211	April 16 2014	175	261.92	265.49		265.6	0.000392	1.59	191.91	212.64	0.3
KinmoutDS	6211	May 8 2017	142	261.92	265.23		265.32	0.000361	1.43	144.94	186.16	0.28
KinmoutDS	6211	April 21 2013	216	261.92	265.84		265.95	0.000339	1.59	268.72	226.08	0.28
KinmoutDS	6174	Timmins_Uncalibr	454.35	261.99	267.68		267.71	0.000088	1.09	1106.59	367.64	0.16
KinmoutDS	6174	Timmins_Calibrat	115.6	261.99	265.03		265.08	0.00024	1.09	191.53	317.6	0.23
KinmoutDS	6174	TimminsCC_Calibr	145.1	261.99	265.27		265.32	0.000251	1.19	253.07	333.4	0.24
KinmoutDS	6174	2y	109.2	261.99	264.98		265.03	0.000238	1.07	179.54	313.98	0.22
KinmoutDS	6174	5y	145.6	261.99	265.27		265.33	0.000251	1.19	254.13	333.81	0.24
KinmoutDS	6174	10y	170.2	261.99	265.48		265.54	0.000245	1.24	322.75	343.91	0.24
KinmoutDS	6174	25y	202.5	261.99	265.75		265.81	0.000208	1.21	418.62	348.6	0.22
KinmoutDS	6174	50y	228.3	261.99	265.98		266.02	0.00018	1.18	496.87	350.8	0.21
KinmoutDS	6174	100y	256.1	261.99	266.22		266.26	0.000156	1.15	581.3	352.8	0.2
KinmoutDS	6174	200y	286.7	261.99	266.47		266.51	0.000136	1.13	671.86	354.83	0.18
KinmoutDS	6174	350y	313.8	261.99	266.69		266.72	0.000123	1.11	748.57	356.79	0.18
KinmoutDS	6174	Sept 25 2021	68.8	261.99	264.59		264.63	0.000201	0.87	122.09	283.26	0.2
KinmoutDS	6174	July 13 2024	53.2	261.99	264.42		264.44	0.000174	0.76	98.92	259.14	0.18
KinmoutDS	6174	April 21 2019	228	261.99	265.98		266.02	0.000181	1.18	495.89	350.78	0.21
KinmoutDS	6174	Nov 2 2013	77	261.99	264.67		264.71	0.000212	0.92	134.18	290.53	0.21
KinmoutDS	6174	April 16 2014	175	261.99	265.52		265.58	0.00024	1.23	336.71	344.45	0.23
KinmoutDS	6174	May 8 2017	142	261.99	265.24		265.3	0.000253	1.18	246.07	331.35	0.24
KinmoutDS	6174	April 21 2013	216	261.99	265.87		265.92	0.000193	1.2	459.17	349.92	0.21
KinmoutDS	6132	Timmins_Uncalibr	454.35	261.94	267.68		267.71	0.000083	1.04	1059.7	343.73	0.15
KinmoutDS	6132	Timmins_Calibrat	115.6	261.94	265.03		265.07	0.000227	1.05	198.77	303.7	0.23
KinmoutDS	6132	TimminsCC_Calibr	145.1	261.94	265.26		265.31	0.000234	1.13	252.25	323.85	0.23

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	6132	2y	109.2	261.94	264.97		265.01	0.000214	1.01	189.07	300.64	0.22
KinmoutDS	6132	5y	145.6	261.94	265.26		265.32	0.000233	1.13	253.15	324.11	0.23
KinmoutDS	6132	10y	170.2	261.94	265.47		265.53	0.000222	1.15	309.77	336.07	0.23
KinmoutDS	6132	25y	202.5	261.94	265.75		265.8	0.000193	1.14	402.74	337.41	0.22
KinmoutDS	6132	50y	228.3	261.94	265.97		266.02	0.000169	1.12	478.37	338.23	0.2
KinmoutDS	6132	100y	256.1	261.94	266.21		266.25	0.000147	1.1	559.78	339.1	0.19
KinmoutDS	6132	200y	286.7	261.94	266.47		266.51	0.000129	1.07	646.83	339.94	0.18
KinmoutDS	6132	350y	313.8	261.94	266.69		266.72	0.000116	1.06	720.31	340.59	0.17
KinmoutDS	6132	Sept 25 2021	68.8	261.94	264.59		264.62	0.000178	0.82	136.11	275.39	0.19
KinmoutDS	6132	July 13 2024	53.2	261.94	264.41		264.44	0.000155	0.73	112.98	264.8	0.18
KinmoutDS	6132	April 21 2019	228	261.94	265.97		266.01	0.00017	1.12	477.43	338.22	0.2
KinmoutDS	6132	Nov 2 2013	77	261.94	264.67		264.7	0.000188	0.87	147.56	283.13	0.2
KinmoutDS	6132	April 16 2014	175	261.94	265.51		265.56	0.000218	1.16	323.34	336.3	0.23
KinmoutDS	6132	May 8 2017	142	261.94	265.23		265.29	0.000235	1.12	246.2	319.55	0.23
KinmoutDS	6132	April 21 2013	216	261.94	265.87		265.91	0.000181	1.13	441.95	337.83	0.21
KinmoutDS	6100	Timmins_Uncalibr	454.35	261.8	267.68		267.7	0.000068	0.89	1105.98	349.22	0.13
KinmoutDS	6100	Timmins_Calibrat	115.6	261.8	265.03		265.06	0.000196	0.9	226.11	317.3	0.2
KinmoutDS	6100	TimminsCC_Calibr	145.1	261.8	265.26		265.3	0.000196	0.96	277.35	339.87	0.2
KinmoutDS	6100	2y	109.2	261.8	264.98		265	0.000168	0.82	216.58	310.07	0.18
KinmoutDS	6100	5y	145.6	261.8	265.27		265.3	0.000196	0.96	278.22	340.14	0.2
KinmoutDS	6100	10y	170.2	261.8	265.48		265.51	0.00018	0.97	346.23	341.45	0.19
KinmoutDS	6100	25y	202.5	261.8	265.76		265.79	0.000154	0.96	440.55	342.43	0.18
KinmoutDS	6100	50y	228.3	261.8	265.98		266.01	0.000135	0.94	517.08	343.14	0.17
KinmoutDS	6100	100y	256.1	261.8	266.22		266.24	0.000118	0.93	599.46	343.88	0.16
KinmoutDS	6100	200y	286.7	261.8	266.47		266.5	0.000103	0.91	687.53	344.66	0.15
KinmoutDS	6100	350y	313.8	261.8	266.69		266.71	0.000094	0.9	761.92	345.32	0.15
KinmoutDS	6100	Sept 25 2021	68.8	261.8	264.59		264.61	0.000144	0.68	159.33	283.49	0.16
KinmoutDS	6100	July 13 2024	53.2	261.8	264.41		264.43	0.000128	0.6	134.67	266.3	0.15
KinmoutDS	6100	April 21 2019	228	261.8	265.98		266	0.000135	0.94	516.14	343.13	0.17
KinmoutDS	6100	Nov 2 2013	77	261.8	264.67		264.69	0.00015	0.71	171.72	287.55	0.17
KinmoutDS	6100	April 16 2014	175	261.8	265.52		265.55	0.000176	0.97	360.04	341.61	0.19
KinmoutDS	6100	May 8 2017	142	261.8	265.24		265.27	0.000198	0.95	271.57	336.2	0.2
KinmoutDS	6100	April 21 2013	216	261.8	265.87		265.9	0.000144	0.95	480.25	342.8	0.18
KinmoutDS	6072	Timmins_Uncalibr	454.35	261.66	267.68		267.7	0.000063	0.87	1124.05	357.72	0.13
KinmoutDS	6072	Timmins_Calibrat	115.6	261.66	265.03		265.05	0.000147	0.78	237.16	307.89	0.17
KinmoutDS	6072	TimminsCC_Calibr	145.1	261.66	265.26		265.29	0.000179	0.92	276.24	342.07	0.19
KinmoutDS	6072	2y	109.2	261.66	264.98		265	0.000145	0.76	228.98	298.48	0.17
KinmoutDS	6072	5y	145.6	261.66	265.26		265.3	0.000179	0.92	277.06	342.34	0.19
KinmoutDS	6072	10y	170.2	261.66	265.48		265.51	0.000166	0.94	345.51	348.98	0.18
KinmoutDS	6072	25y	202.5	261.66	265.75		265.78	0.000144	0.93	442.08	350.25	0.17
KinmoutDS	6072	50y	228.3	261.66	265.98		266	0.000126	0.92	520.52	351.03	0.17
KinmoutDS	6072	100y	256.1	261.66	266.22		266.24	0.00011	0.9	604.94	351.88	0.16
KinmoutDS	6072	200y	286.7	261.66	266.47		266.5	0.000096	0.89	695.22	352.85	0.15
KinmoutDS	6072	350y	313.8	261.66	266.69		266.71	0.000087	0.88	771.47	353.66	0.14

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	6072	Sept 25 2021	68.8	261.66	264.59		264.6	0.000122	0.62	172.8	263.23	0.15
KinmoutDS	6072	July 13 2024	53.2	261.66	264.41		264.43	0.000109	0.56	147.68	258.05	0.14
KinmoutDS	6072	April 21 2019	228	261.66	265.97		266	0.000126	0.92	519.56	351.02	0.17
KinmoutDS	6072	Nov 2 2013	77	261.66	264.67		264.69	0.000128	0.66	185.02	267.62	0.15
KinmoutDS	6072	April 16 2014	175	261.66	265.52		265.55	0.000163	0.94	359.64	349.17	0.18
KinmoutDS	6072	May 8 2017	142	261.66	265.23		265.27	0.00018	0.92	270.67	339.44	0.19
KinmoutDS	6072	April 21 2013	216	261.66	265.87		265.9	0.000134	0.93	482.78	350.67	0.17
KinmoutDS	6037	Timmins_Uncalibr	454.35	261.55	267.68		267.7	0.000049	0.8	1291.68	405.85	0.11
KinmoutDS	6037	Timmins_Calibrat	115.6	261.55	265.03		265.05	0.000109	0.72	287	355.49	0.15
KinmoutDS	6037	TimminsCC_Calibr	145.1	261.55	265.26		265.29	0.000115	0.79	348.84	382.39	0.16
KinmoutDS	6037	2y	109.2	261.55	264.97		264.99	0.000102	0.69	276.03	337.91	0.15
KinmoutDS	6037	5y	145.6	261.55	265.27		265.29	0.000115	0.79	350.35	382.63	0.16
KinmoutDS	6037	10y	170.2	261.55	265.48		265.5	0.000109	0.81	431.15	384.49	0.16
KinmoutDS	6037	25y	202.5	261.55	265.75		265.78	0.000097	0.82	537.33	385.53	0.15
KinmoutDS	6037	50y	228.3	261.55	265.98		266	0.000087	0.81	623.53	386.39	0.14
KinmoutDS	6037	100y	256.1	261.55	266.22		266.24	0.000078	0.8	716.36	387.57	0.14
KinmoutDS	6037	200y	286.7	261.55	266.47		266.49	0.000069	0.8	815.72	388.79	0.13
KinmoutDS	6037	350y	313.8	261.55	266.69		266.71	0.000064	0.79	899.68	389.63	0.13
KinmoutDS	6037	Sept 25 2021	68.8	261.55	264.59		264.6	0.000087	0.56	206.56	278.37	0.13
KinmoutDS	6037	July 13 2024	53.2	261.55	264.41		264.42	0.000078	0.5	175.78	261.86	0.12
KinmoutDS	6037	April 21 2019	228	261.55	265.97		265.99	0.000087	0.81	622.48	386.38	0.14
KinmoutDS	6037	Nov 2 2013	77	261.55	264.67		264.68	0.000091	0.59	221.58	294.71	0.13
KinmoutDS	6037	April 16 2014	175	261.55	265.52		265.54	0.000107	0.82	446.71	384.72	0.16
KinmoutDS	6037	May 8 2017	142	261.55	265.24		265.26	0.000116	0.79	338.79	380.78	0.16
KinmoutDS	6037	April 21 2013	216	261.55	265.87		265.89	0.000092	0.82	582.06	386	0.15
KinmoutDS	6009	Timmins_Uncalibr	454.35	260.17	267.67		267.69	0.00005	0.87	1024.83	423.49	0.11
KinmoutDS	6009	Timmins_Calibrat	115.6	260.17	265.03		265.05	0.000052	0.6	247.07	317.59	0.11
KinmoutDS	6009	TimminsCC_Calibr	145.1	260.17	265.26		265.28	0.000062	0.69	302.42	347.45	0.12
KinmoutDS	6009	2y	109.2	260.17	264.97		264.99	0.000049	0.58	240.21	301.58	0.1
KinmoutDS	6009	5y	145.6	260.17	265.27		265.29	0.000063	0.69	303.57	347.75	0.12
KinmoutDS	6009	10y	170.2	260.17	265.47		265.5	0.000066	0.73	364.94	360.7	0.12
KinmoutDS	6009	25y	202.5	260.17	265.75		265.77	0.000066	0.77	445.49	374.6	0.12
KinmoutDS	6009	50y	228.3	260.17	265.97		265.99	0.000064	0.79	511.44	389.72	0.12
KinmoutDS	6009	100y	256.1	260.17	266.21		266.23	0.000062	0.8	582.96	415.34	0.12
KinmoutDS	6009	200y	286.7	260.17	266.46		266.49	0.000059	0.81	659.91	417.51	0.12
KinmoutDS	6009	350y	313.8	260.17	266.68		266.7	0.000057	0.82	724.9	418.71	0.12
KinmoutDS	6009	Sept 25 2021	68.8	260.17	264.59		264.6	0.000032	0.43	193.33	206.57	0.08
KinmoutDS	6009	July 13 2024	53.2	260.17	264.41		264.42	0.000024	0.35	174.74	177.24	0.07
KinmoutDS	6009	April 21 2019	228	260.17	265.97		265.99	0.000065	0.79	510.64	389.41	0.12
KinmoutDS	6009	Nov 2 2013	77	260.17	264.67		264.68	0.000036	0.46	203.06	221.67	0.09
KinmoutDS	6009	April 16 2014	175	260.17	265.51		265.54	0.000066	0.74	376.7	362.17	0.12
KinmoutDS	6009	May 8 2017	142	260.17	265.24		265.26	0.000062	0.68	294.77	343.45	0.12
KinmoutDS	6009	April 21 2013	216	260.17	265.86		265.89	0.000065	0.78	479.65	380.7	0.12

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	5968	Timmins_Uncalibr	454.35	260.37	267.65		267.69	0.000087	1.11	819.17	258.37	0.15
KinmoutDS	5968	Timmins_Calibrat	115.6	260.37	265		265.04	0.000121	0.86	162.96	239.4	0.16
KinmoutDS	5968	TimminsCC_Calibr	145.1	260.37	265.23		265.28	0.000149	1	203.69	249.52	0.18
KinmoutDS	5968	2y	109.2	260.37	264.95		264.98	0.000116	0.83	157.97	233.64	0.15
KinmoutDS	5968	5y	145.6	260.37	265.23		265.28	0.000149	1	204.65	249.54	0.18
KinmoutDS	5968	10y	170.2	260.37	265.44		265.49	0.00015	1.05	256.84	250.44	0.18
KinmoutDS	5968	25y	202.5	260.37	265.72		265.77	0.000143	1.08	325.9	251.62	0.18
KinmoutDS	5968	50y	228.3	260.37	265.94		265.99	0.000134	1.08	382.42	252.39	0.17
KinmoutDS	5968	100y	256.1	260.37	266.18		266.23	0.000124	1.08	443.48	253.22	0.17
KinmoutDS	5968	200y	286.7	260.37	266.44		266.48	0.000114	1.08	508.85	254.1	0.16
KinmoutDS	5968	350y	313.8	260.37	266.66		266.7	0.000107	1.08	564.04	254.84	0.16
KinmoutDS	5968	Sept 25 2021	68.8	260.37	264.57		264.59	0.000075	0.61	123.98	154.33	0.12
KinmoutDS	5968	July 13 2024	53.2	260.37	264.4		264.42	0.000056	0.51	111.65	129.43	0.1
KinmoutDS	5968	April 21 2019	228	260.37	265.94		265.99	0.000134	1.08	381.74	252.38	0.17
KinmoutDS	5968	Nov 2 2013	77	260.37	264.66		264.68	0.000085	0.66	130.81	169.64	0.13
KinmoutDS	5968	April 16 2014	175	260.37	265.48		265.53	0.000149	1.05	266.89	250.62	0.18
KinmoutDS	5968	May 8 2017	142	260.37	265.2		265.25	0.000148	0.99	197.18	249.35	0.18
KinmoutDS	5968	April 21 2013	216	260.37	265.83		265.88	0.000139	1.08	355.19	252.02	0.18
KinmoutDS	5934	Timmins_Uncalibr	454.35	261.12	267.65		267.69	0.000101	1.17	795.29	242.13	0.16
KinmoutDS	5934	Timmins_Calibrat	115.6	261.12	264.99		265.03	0.000193	1.01	170.67	224.99	0.2
KinmoutDS	5934	TimminsCC_Calibr	145.1	261.12	265.21		265.27	0.000225	1.15	220.4	229.76	0.22
KinmoutDS	5934	2y	109.2	261.12	264.94		264.98	0.000188	0.98	164.14	223.95	0.2
KinmoutDS	5934	5y	145.6	261.12	265.22		265.27	0.000225	1.15	221.3	229.77	0.22
KinmoutDS	5934	10y	170.2	261.12	265.43		265.49	0.00021	1.17	270.48	230.84	0.21
KinmoutDS	5934	25y	202.5	261.12	265.71		265.76	0.000188	1.18	335.08	232.35	0.21
KinmoutDS	5934	50y	228.3	261.12	265.94		265.98	0.000171	1.17	387.76	233.44	0.2
KinmoutDS	5934	100y	256.1	261.12	266.18		266.22	0.000154	1.16	444.6	234.91	0.19
KinmoutDS	5934	200y	286.7	261.12	266.44		266.48	0.000139	1.15	505.47	236.21	0.18
KinmoutDS	5934	350y	313.8	261.12	266.65		266.7	0.000129	1.15	556.9	237.33	0.18
KinmoutDS	5934	Sept 25 2021	68.8	261.12	264.56		264.59	0.00014	0.76	120.73	169.65	0.17
KinmoutDS	5934	July 13 2024	53.2	261.12	264.39		264.41	0.000115	0.65	104.46	149.94	0.15
KinmoutDS	5934	April 21 2019	228	261.12	265.93		265.98	0.000171	1.17	387.12	233.43	0.2
KinmoutDS	5934	Nov 2 2013	77	261.12	264.64		264.67	0.000151	0.81	129.4	191.95	0.17
KinmoutDS	5934	April 16 2014	175	261.12	265.47		265.53	0.000207	1.17	279.91	231.06	0.21
KinmoutDS	5934	May 8 2017	142	261.12	265.19		265.24	0.000226	1.15	214.24	229.68	0.22
KinmoutDS	5934	April 21 2013	216	261.12	265.83		265.88	0.000179	1.17	362.39	232.92	0.2
KinmoutDS	5890	Timmins_Uncalibr	454.35	260.05	267.63		267.68	0.000098	1.24	768.38	249.2	0.17
KinmoutDS	5890	Timmins_Calibrat	115.6	260.05	264.99		265.03	0.000112	0.88	166.46	195.45	0.16
KinmoutDS	5890	TimminsCC_Calibr	145.1	260.05	265.21		265.26	0.000145	1.05	191.11	213.55	0.19
KinmoutDS	5890	2y	109.2	260.05	264.94		264.97	0.000107	0.85	161.19	190.03	0.16
KinmoutDS	5890	5y	145.6	260.05	265.21		265.27	0.000146	1.05	191.93	213.71	0.19
KinmoutDS	5890	10y	170.2	260.05	265.42		265.48	0.00015	1.11	237.63	225.91	0.19
KinmoutDS	5890	25y	202.5	260.05	265.69		265.75	0.000147	1.16	301.73	236.8	0.19
KinmoutDS	5890	50y	228.3	260.05	265.92		265.98	0.00014	1.17	354.97	237.83	0.19

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	5890	100y	256.1	260.05	266.16		266.22	0.000131	1.18	412.67	238.91	0.18
KinmoutDS	5890	200y	286.7	260.05	266.42		266.47	0.000123	1.19	474.43	239.74	0.18
KinmoutDS	5890	350y	313.8	260.05	266.64		266.69	0.000116	1.19	526.63	240.52	0.18
KinmoutDS	5890	Sept 25 2021	68.8	260.05	264.56		264.58	0.00007	0.63	126.95	169.11	0.12
KinmoutDS	5890	July 13 2024	53.2	260.05	264.39		264.41	0.000053	0.52	113.2	136.12	0.11
KinmoutDS	5890	April 21 2019	228	260.05	265.92		265.97	0.00014	1.17	354.32	237.81	0.19
KinmoutDS	5890	Nov 2 2013	77	260.05	264.64		264.67	0.000079	0.68	134.13	175.93	0.13
KinmoutDS	5890	April 16 2014	175	260.05	265.46		265.52	0.00015	1.12	246.71	229.9	0.19
KinmoutDS	5890	May 8 2017	142	260.05	265.19		265.23	0.000133	1	187.79	212.49	0.18
KinmoutDS	5890	April 21 2013	216	260.05	265.81		265.87	0.000144	1.17	329.29	237.29	0.19
KinmoutDS	5854	Timmins_Uncalibr	454.35	259.07	267.62		267.68	0.000093	1.25	722.25	225.79	0.16
KinmoutDS	5854	Timmins_Calibrat	115.6	259.07	264.99		265.02	0.000068	0.75	177.53	159.9	0.12
KinmoutDS	5854	TimminsCC_Calibr	145.1	259.07	265.21		265.25	0.000089	0.89	208.82	187.95	0.14
KinmoutDS	5854	2y	109.2	259.07	264.94		264.97	0.000064	0.72	173.12	155.28	0.12
KinmoutDS	5854	5y	145.6	259.07	265.22		265.26	0.000089	0.89	209.54	188.43	0.14
KinmoutDS	5854	10y	170.2	259.07	265.43		265.47	0.000097	0.97	250.84	203.42	0.15
KinmoutDS	5854	25y	202.5	259.07	265.7		265.75	0.000103	1.04	306.85	209.02	0.16
KinmoutDS	5854	50y	228.3	259.07	265.92		265.97	0.000104	1.08	353.45	210.19	0.16
KinmoutDS	5854	100y	256.1	259.07	266.16		266.21	0.000103	1.11	404.07	211.2	0.16
KinmoutDS	5854	200y	286.7	259.07	266.42		266.47	0.000101	1.14	458.35	212.3	0.16
KinmoutDS	5854	350y	313.8	259.07	266.63		266.69	0.0001	1.16	504.2	213.68	0.16
KinmoutDS	5854	Sept 25 2021	68.8	259.07	264.57		264.58	0.000037	0.51	144.89	132.3	0.09
KinmoutDS	5854	July 13 2024	53.2	259.07	264.4		264.41	0.000027	0.42	134.67	110.89	0.08
KinmoutDS	5854	April 21 2019	228	259.07	265.92		265.97	0.000104	1.08	352.88	210.18	0.16
KinmoutDS	5854	Nov 2 2013	77	259.07	264.65		264.66	0.000043	0.56	150.52	142.03	0.1
KinmoutDS	5854	April 16 2014	175	259.07	265.46		265.51	0.000099	0.98	258.89	204.05	0.15
KinmoutDS	5854	May 8 2017	142	259.07	265.19		265.23	0.000087	0.88	204.06	186.12	0.14
KinmoutDS	5854	April 21 2013	216	259.07	265.81		265.86	0.000104	1.06	330.96	209.72	0.16
KinmoutDS	5809	Timmins_Uncalibr	454.35	257.91	267.57		267.67	0.000113	1.47	516.75	142.56	0.17
KinmoutDS	5809	Timmins_Calibrat	115.6	257.91	264.99		265.02	0.000042	0.67	184.42	93.1	0.1
KinmoutDS	5809	TimminsCC_Calibr	145.1	257.91	265.22		265.25	0.000056	0.8	207.73	114.28	0.12
KinmoutDS	5809	2y	109.2	257.91	264.94		264.96	0.000039	0.64	181.5	86.63	0.09
KinmoutDS	5809	5y	145.6	257.91	265.22		265.25	0.000057	0.8	208.17	114.6	0.12
KinmoutDS	5809	10y	170.2	257.91	265.43		265.46	0.000066	0.89	233.3	126.63	0.13
KinmoutDS	5809	25y	202.5	257.91	265.69		265.74	0.000077	0.99	267.55	128.05	0.14
KinmoutDS	5809	50y	228.3	257.91	265.91		265.97	0.000083	1.06	295.59	128.66	0.14
KinmoutDS	5809	100y	256.1	257.91	266.15		266.21	0.000089	1.12	325.91	129.47	0.15
KinmoutDS	5809	200y	286.7	257.91	266.4		266.46	0.000094	1.19	358.52	131.14	0.15
KinmoutDS	5809	350y	313.8	257.91	266.61		266.68	0.000098	1.24	386.2	132.01	0.16
KinmoutDS	5809	Sept 25 2021	68.8	257.91	264.57		264.58	0.000021	0.44	162.74	63.92	0.07
KinmoutDS	5809	July 13 2024	53.2	257.91	264.4		264.4	0.000014	0.35	154.95	60.22	0.06
KinmoutDS	5809	April 21 2019	228	257.91	265.91		265.96	0.000083	1.06	295.25	128.66	0.14
KinmoutDS	5809	Nov 2 2013	77	257.91	264.65		264.66	0.000024	0.48	166.57	66.88	0.07
KinmoutDS	5809	April 16 2014	175	257.91	265.46		265.51	0.000068	0.9	238.26	127.45	0.13

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	5809	May 8 2017	142	257.91	265.19		265.22	0.000055	0.78	204.87	112.18	0.11
KinmoutDS	5809	April 21 2013	216	257.91	265.81		265.86	0.00008	1.03	282.12	128.36	0.14
KinmoutDS	5774	Timmins_Uncalibr	454.35	260.09	267.52		267.66	0.000227	1.82	416.5	134.16	0.24
KinmoutDS	5774	Timmins_Calibrat	115.6	260.09	264.96		265.01	0.000141	0.97	125.52	94.04	0.17
KinmoutDS	5774	TimminsCC_Calibr	145.1	260.09	265.18		265.24	0.000178	1.14	145	102.38	0.2
KinmoutDS	5774	2y	109.2	260.09	264.91		264.96	0.000133	0.93	122.7	90	0.17
KinmoutDS	5774	5y	145.6	260.09	265.18		265.25	0.000178	1.14	145.37	102.49	0.2
KinmoutDS	5774	10y	170.2	260.09	265.38		265.46	0.000198	1.25	166.91	111.26	0.21
KinmoutDS	5774	25y	202.5	260.09	265.64		265.73	0.000214	1.36	196.37	112.24	0.22
KinmoutDS	5774	50y	228.3	260.09	265.86		265.96	0.00022	1.43	220.71	112.84	0.22
KinmoutDS	5774	100y	256.1	260.09	266.09		266.2	0.000223	1.49	247.15	113.43	0.23
KinmoutDS	5774	200y	286.7	260.09	266.34		266.45	0.000224	1.55	275.55	114.04	0.23
KinmoutDS	5774	350y	313.8	260.09	266.55		266.67	0.000224	1.6	299.52	114.48	0.23
KinmoutDS	5774	Sept 25 2021	68.8	260.09	264.55		264.57	0.00008	0.67	105.9	67.98	0.13
KinmoutDS	5774	July 13 2024	53.2	260.09	264.39		264.4	0.000058	0.55	99.15	64.43	0.11
KinmoutDS	5774	April 21 2019	228	260.09	265.86		265.95	0.00022	1.43	220.41	112.84	0.22
KinmoutDS	5774	Nov 2 2013	77	260.09	264.63		264.66	0.000091	0.73	109.23	70.98	0.14
KinmoutDS	5774	April 16 2014	175	260.09	265.42		265.5	0.000201	1.27	171.17	111.44	0.21
KinmoutDS	5774	May 8 2017	142	260.09	265.15		265.22	0.000175	1.12	142.5	101.67	0.19
KinmoutDS	5774	April 21 2013	216	260.09	265.76		265.85	0.000218	1.4	208.99	112.57	0.22
KinmoutDS	5731	Timmins_Uncalibr	454.35	262.42	267.4		267.64	0.000516	2.35	303.35	108.18	0.37
KinmoutDS	5731	Timmins_Calibrat	115.6	262.42	264.84		264.99	0.000959	1.73	81.01	65.76	0.43
KinmoutDS	5731	TimminsCC_Calibr	145.1	262.42	265.04		265.21	0.001025	1.93	94	68.82	0.45
KinmoutDS	5731	2y	109.2	262.42	264.8		264.94	0.000945	1.69	77.96	65.15	0.42
KinmoutDS	5731	5y	145.6	262.42	265.04		265.22	0.001025	1.93	94.24	68.96	0.45
KinmoutDS	5731	10y	170.2	262.42	265.24		265.43	0.000987	2.02	108.57	74.92	0.45
KinmoutDS	5731	25y	202.5	262.42	265.5		265.71	0.000902	2.09	128.66	76.71	0.44
KinmoutDS	5731	50y	228.3	262.42	265.72		265.93	0.000828	2.13	145.78	80.99	0.43
KinmoutDS	5731	100y	256.1	262.42	265.96		266.17	0.000762	2.17	165.23	83.59	0.41
KinmoutDS	5731	200y	286.7	262.42	266.21		266.43	0.000693	2.19	186.93	86.94	0.4
KinmoutDS	5731	350y	313.8	262.42	266.42		266.64	0.000654	2.23	205.76	91.85	0.39
KinmoutDS	5731	Sept 25 2021	68.8	262.42	264.47		264.56	0.000837	1.36	56.87	62.35	0.38
KinmoutDS	5731	July 13 2024	53.2	262.42	264.32		264.39	0.000761	1.2	48.3	52.75	0.36
KinmoutDS	5731	April 21 2019	228	262.42	265.72		265.93	0.000829	2.13	145.56	80.79	0.43
KinmoutDS	5731	Nov 2 2013	77	262.42	264.54		264.64	0.000866	1.44	61.4	63.03	0.39
KinmoutDS	5731	April 16 2014	175	262.42	265.28		265.47	0.000977	2.04	111.42	75.14	0.45
KinmoutDS	5731	May 8 2017	142	262.42	265.02		265.19	0.001027	1.91	92.4	67.99	0.45
KinmoutDS	5731	April 21 2013	216	262.42	265.62		265.82	0.000863	2.11	137.48	77.51	0.43
KinmoutDS	5690	Timmins_Uncalibr	454.35	262.85	267.28		267.6	0.000744	2.69	226.55	90.48	0.43
KinmoutDS	5690	Timmins_Calibrat	115.6	262.85	264.74		264.93	0.001671	2.02	65.79	49.95	0.55
KinmoutDS	5690	TimminsCC_Calibr	145.1	262.85	264.92		265.16	0.001752	2.24	74.86	50.93	0.57
KinmoutDS	5690	2y	109.2	262.85	264.7		264.88	0.001659	1.97	63.61	49.73	0.54
KinmoutDS	5690	5y	145.6	262.85	264.92		265.16	0.001751	2.25	75.02	50.95	0.57

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	5690	10y	170.2	262.85	265.12		265.37	0.00162	2.33	85	52.03	0.56
KinmoutDS	5690	25y	202.5	262.85	265.38		265.65	0.001432	2.41	99	53.51	0.54
KinmoutDS	5690	50y	228.3	262.85	265.6		265.88	0.001289	2.44	111.28	59.11	0.52
KinmoutDS	5690	100y	256.1	262.85	265.84		266.13	0.001143	2.46	125.96	62.53	0.5
KinmoutDS	5690	200y	286.7	262.85	266.1		266.39	0.001018	2.48	142.29	63.84	0.48
KinmoutDS	5690	350y	313.8	262.85	266.32		266.61	0.00094	2.51	156.13	65.61	0.46
KinmoutDS	5690	Sept 25 2021	68.8	262.85	264.39		264.51	0.00158	1.62	48.41	48.21	0.51
KinmoutDS	5690	July 13 2024	53.2	262.85	264.24		264.34	0.001536	1.45	41.68	47.53	0.49
KinmoutDS	5690	April 21 2019	228	262.85	265.6		265.88	0.001291	2.44	111.11	59.09	0.52
KinmoutDS	5690	Nov 2 2013	77	262.85	264.45		264.59	0.001601	1.7	51.7	48.54	0.51
KinmoutDS	5690	April 16 2014	175	262.85	265.15		265.41	0.001596	2.35	86.96	52.24	0.56
KinmoutDS	5690	May 8 2017	142	262.85	264.9		265.13	0.001764	2.23	73.67	50.8	0.57
KinmoutDS	5690	April 21 2013	216	262.85	265.5		265.77	0.001353	2.43	105.19	55.55	0.53
KinmoutDS	5633	Timmins_Uncalibr	454.35	262.97	267.32		267.53	0.000509	2.27	311.76	117.11	0.36
KinmoutDS	5633	Timmins_Calibrat	115.6	262.97	264.26	264.26	264.74	0.006289	3.07	38.56	42.85	1
KinmoutDS	5633	TimminsCC_Calibr	145.1	262.97	264.6	264.42	265	0.003601	2.83	53.46	52.18	0.8
KinmoutDS	5633	2y	109.2	262.97	264.22	264.22	264.69	0.006414	3.01	36.97	42.5	1
KinmoutDS	5633	5y	145.6	262.97	264.6	264.42	265.01	0.003589	2.83	53.66	52.8	0.8
KinmoutDS	5633	10y	170.2	262.97	264.91		265.25	0.002298	2.62	73.7	72.19	0.66
KinmoutDS	5633	25y	202.5	262.97	265.27		265.57	0.00156	2.47	100.98	79.08	0.56
KinmoutDS	5633	50y	228.3	262.97	265.54		265.81	0.00124	2.39	122.43	83.14	0.51
KinmoutDS	5633	100y	256.1	262.97	265.8		266.06	0.001028	2.35	145.08	88.59	0.47
KinmoutDS	5633	200y	286.7	262.97	266.08		266.32	0.00088	2.33	170.31	98.35	0.45
KinmoutDS	5633	350y	313.8	262.97	266.3		266.54	0.000799	2.34	194.38	112.27	0.43
KinmoutDS	5633	Sept 25 2021	68.8	262.97	263.98	263.98	264.32	0.007153	2.61	26.64	40.17	1.01
KinmoutDS	5633	July 13 2024	53.2	262.97	263.87	263.87	264.16	0.007481	2.39	22.39	39.56	1.01
KinmoutDS	5633	April 21 2019	228	262.97	265.53		265.8	0.001244	2.4	122.16	83.1	0.51
KinmoutDS	5633	Nov 2 2013	77	262.97	264.03	264.03	264.4	0.00696	2.7	28.84	40.62	1.01
KinmoutDS	5633	April 16 2014	175	262.97	264.97		265.3	0.002171	2.6	77.45	74.13	0.64
KinmoutDS	5633	May 8 2017	142	262.97	264.55	264.41	264.97	0.003956	2.89	50.97	45.47	0.83
KinmoutDS	5633	April 21 2013	216	262.97	265.42		265.69	0.001368	2.42	112.43	81.27	0.53
KinmoutDS	5590	Timmins_Uncalibr	454.35	261.04	267.4		267.48	0.000188	1.51	544.96	173.11	0.22
KinmoutDS	5590	Timmins_Calibrat	115.6	261.04	264.39		264.48	0.000637	1.39	98.75	74.19	0.35
KinmoutDS	5590	TimminsCC_Calibr	145.1	261.04	264.77		264.86	0.00048	1.38	131.73	105.28	0.31
KinmoutDS	5590	2y	109.2	261.04	264.3		264.4	0.000689	1.39	92.34	72.69	0.36
KinmoutDS	5590	5y	145.6	261.04	264.78		264.86	0.00048	1.39	132.15	106.04	0.31
KinmoutDS	5590	10y	170.2	261.04	265.05		265.14	0.000411	1.4	166.28	129.39	0.29
KinmoutDS	5590	25y	202.5	261.04	265.39		265.48	0.000349	1.41	212.12	142.59	0.28
KinmoutDS	5590	50y	228.3	261.04	265.64		265.73	0.000313	1.42	249.56	156.58	0.27
KinmoutDS	5590	100y	256.1	261.04	265.9		265.98	0.00028	1.42	291.02	162.18	0.26
KinmoutDS	5590	200y	286.7	261.04	266.17		266.26	0.000262	1.45	335.3	167.33	0.25
KinmoutDS	5590	350y	313.8	261.04	266.39		266.48	0.000242	1.46	372.75	168.79	0.24
KinmoutDS	5590	Sept 25 2021	68.8	261.04	263.65		263.77	0.001856	1.59	47.86	63.49	0.53
KinmoutDS	5590	July 13 2024	53.2	261.04	263.32		263.5	0.002319	1.91	28.57	40.96	0.61

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	5590	April 21 2019	228	261.04	265.64		265.72	0.000313	1.42	249.07	156.36	0.27
KinmoutDS	5590	Nov 2 2013	77	261.04	263.8		263.91	0.001372	1.51	57.35	65.95	0.47
KinmoutDS	5590	April 16 2014	175	261.04	265.1		265.19	0.000402	1.4	172.57	131.82	0.29
KinmoutDS	5590	May 8 2017	142	261.04	264.73		264.82	0.000497	1.39	127.33	99.71	0.32
KinmoutDS	5590	April 21 2013	216	261.04	265.52		265.61	0.000329	1.42	231.49	148.52	0.27
KinmoutDS	5551	Timmins_Uncalibr	454.35	260.33	267.4		267.47	0.0001	1.25	547.38	143.74	0.17
KinmoutDS	5551	Timmins_Calibrat	115.6	260.33	264.43		264.46	0.000105	0.77	164.78	74.72	0.15
KinmoutDS	5551	TimminsCC_Calibr	145.1	260.33	264.8		264.84	0.000104	0.84	195.05	97.78	0.16
KinmoutDS	5551	2y	109.2	260.33	264.34		264.37	0.000105	0.76	158.37	73.92	0.15
KinmoutDS	5551	5y	145.6	260.33	264.8		264.84	0.000104	0.85	195.45	98.18	0.16
KinmoutDS	5551	10y	170.2	260.33	265.08		265.12	0.000105	0.9	226.32	120.65	0.16
KinmoutDS	5551	25y	202.5	260.33	265.41		265.46	0.000105	0.96	268.94	135.14	0.16
KinmoutDS	5551	50y	228.3	260.33	265.66		265.71	0.000104	1	302.73	136.38	0.16
KinmoutDS	5551	100y	256.1	260.33	265.92		265.97	0.000102	1.03	338.06	137.93	0.16
KinmoutDS	5551	200y	286.7	260.33	266.19		266.24	0.000101	1.07	375.23	138.99	0.16
KinmoutDS	5551	350y	313.8	260.33	266.41		266.46	0.0001	1.1	405.91	139.81	0.16
KinmoutDS	5551	Sept 25 2021	68.8	260.33	263.71		263.73	0.000111	0.64	112.94	70.73	0.15
KinmoutDS	5551	July 13 2024	53.2	260.33	263.42		263.44	0.000116	0.59	92.65	68.5	0.15
KinmoutDS	5551	April 21 2019	228	260.33	265.66		265.7	0.000104	1	302.31	136.36	0.16
KinmoutDS	5551	Nov 2 2013	77	260.33	263.85		263.87	0.000109	0.67	122.73	71.53	0.15
KinmoutDS	5551	April 16 2014	175	260.33	265.13		265.17	0.000105	0.91	232.15	123.95	0.16
KinmoutDS	5551	May 8 2017	142	260.33	264.76		264.79	0.000105	0.84	191	93.78	0.16
KinmoutDS	5551	April 21 2013	216	260.33	265.54		265.59	0.000104	0.98	286.91	135.75	0.16
KinmoutDS	5512	Timmins_Uncalibr	454.35	259.6	267.42		267.46	0.000046	0.93	702.91	159.08	0.12
KinmoutDS	5512	Timmins_Calibrat	115.6	259.6	264.44		264.45	0.00003	0.5	266.93	104.91	0.09
KinmoutDS	5512	TimminsCC_Calibr	145.1	259.6	264.81		264.83	0.000033	0.56	307.17	111.57	0.09
KinmoutDS	5512	2y	109.2	259.6	264.35		264.36	0.00003	0.48	257.87	104.32	0.08
KinmoutDS	5512	5y	145.6	259.6	264.82		264.83	0.000033	0.56	307.62	112.22	0.09
KinmoutDS	5512	10y	170.2	259.6	265.09		265.11	0.000035	0.6	343.82	137.1	0.09
KinmoutDS	5512	25y	202.5	259.6	265.43		265.45	0.000037	0.65	391.21	149.36	0.1
KinmoutDS	5512	50y	228.3	259.6	265.68		265.7	0.000038	0.69	429.33	153.87	0.1
KinmoutDS	5512	100y	256.1	259.6	265.93		265.96	0.00004	0.72	469.12	154.68	0.1
KinmoutDS	5512	200y	286.7	259.6	266.2		266.23	0.000041	0.76	510.83	155.62	0.11
KinmoutDS	5512	350y	313.8	259.6	266.42		266.45	0.000042	0.79	545.23	156.28	0.11
KinmoutDS	5512	Sept 25 2021	68.8	259.6	263.72		263.73	0.000025	0.39	193.86	98.64	0.07
KinmoutDS	5512	July 13 2024	53.2	259.6	263.43		263.43	0.000022	0.34	165.45	95.69	0.07
KinmoutDS	5512	April 21 2019	228	259.6	265.67		265.69	0.000038	0.69	428.85	153.86	0.1
KinmoutDS	5512	Nov 2 2013	77	259.6	263.86		263.86	0.000026	0.41	207.56	100.02	0.08
KinmoutDS	5512	April 16 2014	175	259.6	265.14		265.16	0.000035	0.61	350.46	139.4	0.1
KinmoutDS	5512	May 8 2017	142	259.6	264.77		264.79	0.000033	0.55	302.49	109.18	0.09
KinmoutDS	5512	April 21 2013	216	259.6	265.56		265.58	0.000038	0.67	411.42	153.52	0.1
KinmoutDS	5471	Timmins_Uncalibr	454.35	258.58	267.41		267.46	0.000048	0.99	614.86	138.94	0.12
KinmoutDS	5471	Timmins_Calibrat	115.6	258.58	264.44		264.45	0.000023	0.47	249.75	72.38	0.08

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	5471	TimminsCC_Calibr	145.1	258.58	264.81		264.83	0.000027	0.54	279.07	84.01	0.08
KinmoutDS	5471	2y	109.2	258.58	264.35		264.36	0.000023	0.46	243.54	70.66	0.07
KinmoutDS	5471	5y	145.6	258.58	264.82		264.83	0.000027	0.54	279.41	84.4	0.08
KinmoutDS	5471	10y	170.2	258.58	265.09		265.11	0.00003	0.59	308.49	117.01	0.09
KinmoutDS	5471	25y	202.5	258.58	265.42		265.44	0.000033	0.65	348.01	121.98	0.09
KinmoutDS	5471	50y	228.3	258.58	265.67		265.7	0.000035	0.7	379.23	130.71	0.1
KinmoutDS	5471	100y	256.1	258.58	265.93		265.96	0.000037	0.74	413.26	132.92	0.1
KinmoutDS	5471	200y	286.7	258.58	266.2		266.23	0.000039	0.78	449.01	134.01	0.1
KinmoutDS	5471	350y	313.8	258.58	266.42		266.45	0.000041	0.82	478.55	134.88	0.11
KinmoutDS	5471	Sept 25 2021	68.8	258.58	263.72		263.72	0.000016	0.35	200.32	66.75	0.06
KinmoutDS	5471	July 13 2024	53.2	258.58	263.43		263.43	0.000013	0.29	181.08	64.72	0.05
KinmoutDS	5471	April 21 2019	228	258.58	265.67		265.69	0.000035	0.7	378.83	130.58	0.1
KinmoutDS	5471	Nov 2 2013	77	258.58	263.86		263.86	0.000018	0.37	209.58	67.6	0.06
KinmoutDS	5471	April 16 2014	175	258.58	265.14		265.16	0.00003	0.6	314.12	118	0.09
KinmoutDS	5471	May 8 2017	142	258.58	264.77		264.78	0.000027	0.53	275.54	82.42	0.08
KinmoutDS	5471	April 21 2013	216	258.58	265.56		265.58	0.000034	0.68	364.37	126.23	0.1
KinmoutDS	5431	Timmins_Uncalibr	454.35	259.42	267.39		267.45	0.000072	1.15	472.11	99.65	0.14
KinmoutDS	5431	Timmins_Calibrat	115.6	259.42	264.43		264.44	0.000038	0.56	208.17	61.86	0.1
KinmoutDS	5431	TimminsCC_Calibr	145.1	259.42	264.8		264.82	0.000043	0.63	234.15	78.18	0.1
KinmoutDS	5431	2y	109.2	259.42	264.34		264.36	0.000037	0.54	202.85	61.55	0.09
KinmoutDS	5431	5y	145.6	259.42	264.81		264.83	0.000043	0.64	234.46	78.23	0.1
KinmoutDS	5431	10y	170.2	259.42	265.08		265.11	0.000046	0.69	256.67	81.9	0.11
KinmoutDS	5431	25y	202.5	259.42	265.41		265.44	0.000051	0.76	284.54	90.05	0.11
KinmoutDS	5431	50y	228.3	259.42	265.66		265.69	0.000054	0.81	307.1	91.99	0.12
KinmoutDS	5431	100y	256.1	259.42	265.92		265.95	0.000056	0.86	330.77	93.15	0.12
KinmoutDS	5431	200y	286.7	259.42	266.18		266.22	0.000059	0.91	355.72	94.14	0.13
KinmoutDS	5431	350y	313.8	259.42	266.4		266.45	0.000061	0.95	376.35	94.94	0.13
KinmoutDS	5431	Sept 25 2021	68.8	259.42	263.71		263.72	0.000029	0.42	164.79	59.76	0.08
KinmoutDS	5431	July 13 2024	53.2	259.42	263.42		263.43	0.000025	0.36	147.47	59.03	0.07
KinmoutDS	5431	April 21 2019	228	259.42	265.66		265.69	0.000054	0.81	306.82	91.98	0.12
KinmoutDS	5431	Nov 2 2013	77	259.42	263.85		263.86	0.000031	0.45	173.02	60.13	0.08
KinmoutDS	5431	April 16 2014	175	259.42	265.13		265.16	0.000047	0.7	260.58	82.2	0.11
KinmoutDS	5431	May 8 2017	142	259.42	264.76		264.78	0.000042	0.63	230.85	77.66	0.1
KinmoutDS	5431	April 21 2013	216	259.42	265.54		265.58	0.000052	0.79	296.51	91.37	0.12
KinmoutDS	5392	Timmins_Uncalibr	454.35	260.3	267.35		267.45	0.000125	1.46	408.68	99.51	0.19
KinmoutDS	5392	Timmins_Calibrat	115.6	260.3	264.41		264.44	0.000085	0.77	152.1	53.15	0.14
KinmoutDS	5392	TimminsCC_Calibr	145.1	260.3	264.78		264.82	0.000091	0.86	173.39	67.59	0.15
KinmoutDS	5392	2y	109.2	260.3	264.33		264.35	0.000083	0.75	147.59	52.42	0.14
KinmoutDS	5392	5y	145.6	260.3	264.79		264.82	0.000091	0.87	173.66	67.9	0.15
KinmoutDS	5392	10y	170.2	260.3	265.06		265.1	0.000096	0.93	194.17	82.46	0.15
KinmoutDS	5392	25y	202.5	260.3	265.39		265.44	0.000102	1.02	222.73	90.38	0.16
KinmoutDS	5392	50y	228.3	260.3	265.63		265.69	0.000105	1.07	245.05	91.6	0.16
KinmoutDS	5392	100y	256.1	260.3	265.88		265.95	0.000108	1.13	268.41	92.61	0.17
KinmoutDS	5392	200y	286.7	260.3	266.15		266.22	0.000111	1.19	293.07	93.87	0.17

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	5392	350y	313.8	260.3	266.37		266.44	0.000113	1.24	313.5	94.85	0.18
KinmoutDS	5392	Sept 25 2021	68.8	260.3	263.7		263.72	0.000071	0.6	115.93	49.94	0.12
KinmoutDS	5392	July 13 2024	53.2	260.3	263.41		263.43	0.000064	0.52	101.61	48.94	0.11
KinmoutDS	5392	April 21 2019	228	260.3	265.63		265.68	0.000105	1.07	244.77	91.59	0.16
KinmoutDS	5392	Nov 2 2013	77	260.3	263.84		263.86	0.000074	0.63	122.76	50.26	0.13
KinmoutDS	5392	April 16 2014	175	260.3	265.11		265.15	0.000098	0.95	198.15	85.35	0.16
KinmoutDS	5392	May 8 2017	142	260.3	264.74		264.78	0.000091	0.86	170.61	64.49	0.15
KinmoutDS	5392	April 21 2013	216	260.3	265.52		265.57	0.000104	1.05	234.59	91.1	0.16
KinmoutDS	5352	Timmins_Uncalibr	454.35	260.82	267.3		267.44	0.000197	1.76	420.02	151.26	0.24
KinmoutDS	5352	Timmins_Calibrat	115.6	260.82	264.38		264.43	0.00019	1.07	113.35	51.51	0.21
KinmoutDS	5352	TimminsCC_Calibr	145.1	260.82	264.74		264.81	0.000195	1.17	135.56	67.14	0.21
KinmoutDS	5352	2y	109.2	260.82	264.29		264.35	0.000189	1.04	109.17	48.35	0.2
KinmoutDS	5352	5y	145.6	260.82	264.75		264.82	0.000195	1.17	135.81	67.28	0.21
KinmoutDS	5352	10y	170.2	260.82	265.02		265.09	0.000199	1.25	156.92	88.67	0.22
KinmoutDS	5352	25y	202.5	260.82	265.34		265.43	0.000203	1.35	187.69	103.29	0.22
KinmoutDS	5352	50y	228.3	260.82	265.58		265.68	0.000203	1.41	213.53	110.19	0.23
KinmoutDS	5352	100y	256.1	260.82	265.83		265.94	0.000203	1.46	242.8	118.06	0.23
KinmoutDS	5352	200y	286.7	260.82	266.1		266.21	0.0002	1.51	274.22	120.32	0.23
KinmoutDS	5352	350y	313.8	260.82	266.32		266.43	0.000199	1.56	300.18	133.35	0.23
KinmoutDS	5352	Sept 25 2021	68.8	260.82	263.68		263.71	0.000183	0.86	81.13	43.65	0.19
KinmoutDS	5352	July 13 2024	53.2	260.82	263.39		263.42	0.000182	0.77	69.01	41.11	0.19
KinmoutDS	5352	April 21 2019	228	260.82	265.58		265.68	0.000203	1.41	213.19	110	0.23
KinmoutDS	5352	Nov 2 2013	77	260.82	263.81		263.85	0.000185	0.9	87.07	44.61	0.2
KinmoutDS	5352	April 16 2014	175	260.82	265.06		265.14	0.000201	1.27	161.08	90.93	0.22
KinmoutDS	5352	May 8 2017	142	260.82	264.7		264.77	0.000195	1.16	132.79	65.5	0.21
KinmoutDS	5352	April 21 2013	216	260.82	265.47		265.56	0.000203	1.38	201.28	106.08	0.23
KinmoutDS	5316	Timmins_Uncalibr	454.35	260.19	267.33		267.42	0.00012	1.45	540.96	184.73	0.19
KinmoutDS	5316	Timmins_Calibrat	115.6	260.19	264.39		264.42	0.000097	0.85	152.96	67.72	0.15
KinmoutDS	5316	TimminsCC_Calibr	145.1	260.19	264.76		264.8	0.000104	0.94	180.32	92.48	0.16
KinmoutDS	5316	2y	109.2	260.19	264.3		264.34	0.000095	0.82	147.29	66.1	0.15
KinmoutDS	5316	5y	145.6	260.19	264.76		264.8	0.000104	0.94	180.68	93.13	0.16
KinmoutDS	5316	10y	170.2	260.19	265.03		265.08	0.000109	1.01	209.59	119.86	0.16
KinmoutDS	5316	25y	202.5	260.19	265.36		265.41	0.000114	1.09	252.93	142.68	0.17
KinmoutDS	5316	50y	228.3	260.19	265.6		265.66	0.000115	1.14	288.13	143.81	0.17
KinmoutDS	5316	100y	256.1	260.19	265.86		265.92	0.000116	1.19	324.82	144.55	0.17
KinmoutDS	5316	200y	286.7	260.19	266.12		266.19	0.000116	1.23	363.38	147.56	0.18
KinmoutDS	5316	350y	313.8	260.19	266.34		266.41	0.000117	1.27	395.13	154.52	0.18
KinmoutDS	5316	Sept 25 2021	68.8	260.19	263.68		263.71	0.000081	0.66	109.19	56.54	0.13
KinmoutDS	5316	July 13 2024	53.2	260.19	263.4		263.41	0.000073	0.58	93.5	49.91	0.12
KinmoutDS	5316	April 21 2019	228	260.19	265.6		265.66	0.000115	1.14	287.68	143.8	0.17
KinmoutDS	5316	Nov 2 2013	77	260.19	263.82		263.84	0.000085	0.7	117.05	59.42	0.14
KinmoutDS	5316	April 16 2014	175	260.19	265.08		265.13	0.00011	1.03	215.38	127.19	0.17
KinmoutDS	5316	May 8 2017	142	260.19	264.71		264.76	0.000104	0.93	176.61	83.77	0.16
KinmoutDS	5316	April 21 2013	216	260.19	265.49		265.55	0.000114	1.12	271.64	143.39	0.17

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	5281	Timmins_Uncalibr	454.35	258.72	267.35		267.4	0.000054	1.06	692.86	236.6	0.13
KinmoutDS	5281	Timmins_Calibrat	115.6	258.72	264.4		264.41	0.000027	0.52	230.95	65.23	0.08
KinmoutDS	5281	TimminsCC_Calibr	145.1	258.72	264.77		264.79	0.000031	0.6	258.95	96.08	0.09
KinmoutDS	5281	2y	109.2	258.72	264.32		264.33	0.000026	0.5	225.41	64.92	0.08
KinmoutDS	5281	5y	145.6	258.72	264.78		264.79	0.000032	0.6	259.33	96.84	0.09
KinmoutDS	5281	10y	170.2	258.72	265.05		265.07	0.000035	0.66	293.88	148.21	0.1
KinmoutDS	5281	25y	202.5	258.72	265.37		265.4	0.000039	0.72	343.66	157.65	0.1
KinmoutDS	5281	50y	228.3	258.72	265.62		265.65	0.000041	0.77	382.95	161.44	0.11
KinmoutDS	5281	100y	256.1	258.72	265.88		265.91	0.000043	0.81	425.2	172.5	0.11
KinmoutDS	5281	200y	286.7	258.72	266.14		266.18	0.000045	0.86	471.87	180.28	0.11
KinmoutDS	5281	350y	313.8	258.72	266.36		266.4	0.000047	0.89	511.3	194.53	0.12
KinmoutDS	5281	Sept 25 2021	68.8	258.72	263.69		263.7	0.000018	0.38	185.74	62.57	0.07
KinmoutDS	5281	July 13 2024	53.2	258.72	263.4		263.41	0.000015	0.32	167.89	60.78	0.06
KinmoutDS	5281	April 21 2019	228	258.72	265.62		265.65	0.000041	0.77	382.46	161.39	0.11
KinmoutDS	5281	Nov 2 2013	77	258.72	263.83		263.84	0.00002	0.41	194.29	63.14	0.07
KinmoutDS	5281	April 16 2014	175	258.72	265.1		265.12	0.000036	0.67	300.88	149.2	0.1
KinmoutDS	5281	May 8 2017	142	258.72	264.73		264.75	0.000031	0.59	255.01	91.56	0.09
KinmoutDS	5281	April 21 2013	216	258.72	265.51		265.53	0.00004	0.75	364.48	159.69	0.1
KinmoutDS	5210	Timmins_Uncalibr	454.35	259.1	267.33		267.4	0.000083	1.28	757.93	295.72	0.16
KinmoutDS	5210	Timmins_Calibrat	115.6	259.1	264.38		264.41	0.000057	0.72	174.81	79.63	0.12
KinmoutDS	5210	TimminsCC_Calibr	145.1	259.1	264.75		264.79	0.000065	0.82	207.27	100.94	0.13
KinmoutDS	5210	2y	109.2	259.1	264.3		264.32	0.000055	0.7	168.2	77.02	0.12
KinmoutDS	5210	5y	145.6	259.1	264.76		264.79	0.000065	0.82	207.65	101.08	0.13
KinmoutDS	5210	10y	170.2	259.1	265.03		265.07	0.000071	0.9	240.26	152.1	0.14
KinmoutDS	5210	25y	202.5	259.1	265.35		265.39	0.000077	0.98	298.76	205.72	0.14
KinmoutDS	5210	50y	228.3	259.1	265.59		265.64	0.00008	1.03	350.21	212.8	0.15
KinmoutDS	5210	100y	256.1	259.1	265.85		265.9	0.000081	1.07	405.64	222.43	0.15
KinmoutDS	5210	200y	286.7	259.1	266.12		266.17	0.000081	1.11	466.46	245.1	0.15
KinmoutDS	5210	350y	313.8	259.1	266.33		266.39	0.000082	1.14	518.07	264.84	0.15
KinmoutDS	5210	Sept 25 2021	68.8	259.1	263.68		263.7	0.00004	0.53	130.31	44.39	0.1
KinmoutDS	5210	July 13 2024	53.2	259.1	263.4		263.41	0.000033	0.45	117.83	42.27	0.09
KinmoutDS	5210	April 21 2019	228	259.1	265.59		265.64	0.00008	1.02	349.55	212.72	0.15
KinmoutDS	5210	Nov 2 2013	77	259.1	263.82		263.83	0.000044	0.57	136.43	47.83	0.1
KinmoutDS	5210	April 16 2014	175	259.1	265.07		265.11	0.000072	0.91	247.59	162.26	0.14
KinmoutDS	5210	May 8 2017	142	259.1	264.71		264.74	0.000064	0.81	203.14	96.94	0.13
KinmoutDS	5210	April 21 2013	216	259.1	265.48		265.53	0.000079	1	325.96	209.72	0.14
KinmoutDS	5170	Timmins_Uncalibr	454.35	259.66	267.31		267.39	0.000113	1.45	705.09	304.31	0.18
KinmoutDS	5170	Timmins_Calibrat	115.6	259.66	264.37		264.41	0.000092	0.87	140.37	51.45	0.15
KinmoutDS	5170	TimminsCC_Calibr	145.1	259.66	264.73		264.78	0.000103	0.99	160.82	68.13	0.16
KinmoutDS	5170	2y	109.2	259.66	264.28		264.32	0.000089	0.85	136.12	50.25	0.15
KinmoutDS	5170	5y	145.6	259.66	264.74		264.78	0.000104	0.99	161.07	69.04	0.16
KinmoutDS	5170	10y	170.2	259.66	265		265.06	0.000112	1.08	184.74	106.33	0.17
KinmoutDS	5170	25y	202.5	259.66	265.32		265.39	0.000121	1.17	229.53	193.95	0.18

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	5170	50y	228.3	259.66	265.57		265.64	0.000123	1.23	279.95	218.57	0.18
KinmoutDS	5170	100y	256.1	259.66	265.82		265.9	0.000124	1.27	337.25	231.22	0.18
KinmoutDS	5170	200y	286.7	259.66	266.09		266.17	0.000122	1.31	400.49	253.41	0.18
KinmoutDS	5170	350y	313.8	259.66	266.31		266.39	0.000121	1.34	454.49	271.06	0.18
KinmoutDS	5170	Sept 25 2021	68.8	259.66	263.67		263.69	0.000069	0.65	106.95	42.94	0.12
KinmoutDS	5170	July 13 2024	53.2	259.66	263.39		263.41	0.000059	0.56	95.16	40.68	0.11
KinmoutDS	5170	April 21 2019	228	259.66	265.56		265.63	0.000123	1.23	279.28	218.08	0.18
KinmoutDS	5170	Nov 2 2013	77	259.66	263.81		263.83	0.000074	0.7	113.04	47.36	0.13
KinmoutDS	5170	April 16 2014	175	259.66	265.05		265.11	0.000114	1.09	189.73	111.68	0.17
KinmoutDS	5170	May 8 2017	142	259.66	264.69		264.74	0.000103	0.98	158.15	61.76	0.16
KinmoutDS	5170	April 21 2013	216	259.66	265.45		265.52	0.000122	1.2	255.71	207.06	0.18
KinmoutDS	5133	Timmins_Uncalibr	454.35	259.2	267.3		267.39	0.000105	1.43	712.34	286.99	0.17
KinmoutDS	5133	Timmins_Calibrat	115.6	259.2	264.37		264.4	0.000071	0.81	144.05	39.47	0.13
KinmoutDS	5133	TimminsCC_Calibr	145.1	259.2	264.73		264.78	0.000083	0.93	161.54	61.6	0.14
KinmoutDS	5133	2y	109.2	259.2	264.28		264.32	0.000068	0.78	140.78	39.09	0.13
KinmoutDS	5133	5y	145.6	259.2	264.74		264.78	0.000084	0.93	161.76	62.23	0.14
KinmoutDS	5133	10y	170.2	259.2	265		265.05	0.000092	1.02	183.74	96.97	0.15
KinmoutDS	5133	25y	202.5	259.2	265.32		265.38	0.000102	1.12	224.11	188.25	0.16
KinmoutDS	5133	50y	228.3	259.2	265.56		265.63	0.000107	1.18	276.62	227.34	0.17
KinmoutDS	5133	100y	256.1	259.2	265.82		265.89	0.000109	1.23	335.69	239.24	0.17
KinmoutDS	5133	200y	286.7	259.2	266.08		266.16	0.000109	1.27	400.39	254.34	0.17
KinmoutDS	5133	350y	313.8	259.2	266.3		266.38	0.000109	1.31	455.58	262.21	0.17
KinmoutDS	5133	Sept 25 2021	68.8	259.2	263.67		263.69	0.000048	0.59	117.62	36.97	0.1
KinmoutDS	5133	July 13 2024	53.2	259.2	263.39		263.4	0.000038	0.5	107.2	36.31	0.09
KinmoutDS	5133	April 21 2019	228	259.2	265.56		265.63	0.000107	1.18	275.92	227.26	0.17
KinmoutDS	5133	Nov 2 2013	77	259.2	263.81		263.83	0.000053	0.63	122.59	37.36	0.11
KinmoutDS	5133	April 16 2014	175	259.2	265.05		265.1	0.000094	1.03	188.32	102.92	0.15
KinmoutDS	5133	May 8 2017	142	259.2	264.69		264.73	0.000082	0.92	159.09	56.57	0.14
KinmoutDS	5133	April 21 2013	216	259.2	265.45		265.52	0.000105	1.15	251.11	220.62	0.17
KinmoutDS	5095	Timmins_Uncalibr	454.35	257.67	267.31		267.38	0.000083	1.32	759.09	256.58	0.16
KinmoutDS	5095	Timmins_Calibrat	115.6	257.67	264.37		264.4	0.000046	0.71	167.87	53.61	0.11
KinmoutDS	5095	TimminsCC_Calibr	145.1	257.67	264.74		264.77	0.000056	0.82	192.02	77	0.12
KinmoutDS	5095	2y	109.2	257.67	264.29		264.31	0.000044	0.68	163.73	45.89	0.1
KinmoutDS	5095	5y	145.6	257.67	264.74		264.77	0.000056	0.82	192.3	77.18	0.12
KinmoutDS	5095	10y	170.2	257.67	265.01		265.05	0.000063	0.9	218.07	127.18	0.13
KinmoutDS	5095	25y	202.5	257.67	265.33		265.38	0.000071	0.99	270.35	191.79	0.14
KinmoutDS	5095	50y	228.3	257.67	265.57		265.62	0.000075	1.05	323.56	235.16	0.14
KinmoutDS	5095	100y	256.1	257.67	265.82		265.88	0.000077	1.1	384.19	241.77	0.15
KinmoutDS	5095	200y	286.7	257.67	266.09		266.15	0.000079	1.15	449.71	250.31	0.15
KinmoutDS	5095	350y	313.8	257.67	266.31		266.37	0.00008	1.18	504.97	252.76	0.15
KinmoutDS	5095	Sept 25 2021	68.8	257.67	263.68		263.69	0.000029	0.5	137.89	38.83	0.08
KinmoutDS	5095	July 13 2024	53.2	257.67	263.39		263.4	0.000022	0.42	127.26	35.99	0.07
KinmoutDS	5095	April 21 2019	228	257.67	265.57		265.62	0.000075	1.05	322.84	235.05	0.14
KinmoutDS	5095	Nov 2 2013	77	257.67	263.81		263.82	0.000032	0.54	143.18	40.32	0.09

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	5095	April 16 2014	175	257.67	265.05		265.1	0.000064	0.92	224.2	140.31	0.13
KinmoutDS	5095	May 8 2017	142	257.67	264.69		264.73	0.000055	0.81	188.86	75.5	0.12
KinmoutDS	5095	April 21 2013	216	257.67	265.46		265.51	0.000073	1.03	297.23	224.16	0.14
KinmoutDS	5048	Timmins_Uncalibr	454.35	258.7	267.31		267.37	0.000084	1.3	762.39	251.37	0.16
KinmoutDS	5048	Timmins_Calibrat	115.6	258.7	264.37		264.39	0.000055	0.73	171.81	64.93	0.12
KinmoutDS	5048	TimminsCC_Calibr	145.1	258.7	264.73		264.77	0.000064	0.83	197.21	78.2	0.13
KinmoutDS	5048	2y	109.2	258.7	264.28		264.31	0.000053	0.71	166.45	62.95	0.11
KinmoutDS	5048	5y	145.6	258.7	264.74		264.77	0.000064	0.84	197.51	78.74	0.13
KinmoutDS	5048	10y	170.2	258.7	265		265.05	0.000071	0.92	225.88	137.03	0.14
KinmoutDS	5048	25y	202.5	258.7	265.32		265.37	0.000077	1	280.55	195.92	0.14
KinmoutDS	5048	50y	228.3	258.7	265.57		265.62	0.000081	1.06	334.99	230.98	0.15
KinmoutDS	5048	100y	256.1	258.7	265.82		265.88	0.000082	1.1	394.58	237.38	0.15
KinmoutDS	5048	200y	286.7	258.7	266.09		266.15	0.000083	1.14	458.97	244.43	0.15
KinmoutDS	5048	350y	313.8	258.7	266.31		266.37	0.000083	1.17	513.14	247.86	0.15
KinmoutDS	5048	Sept 25 2021	68.8	258.7	263.67		263.69	0.000037	0.53	132.14	48.19	0.09
KinmoutDS	5048	July 13 2024	53.2	258.7	263.39		263.4	0.00003	0.45	119.01	44.07	0.08
KinmoutDS	5048	April 21 2019	228	258.7	265.56		265.62	0.000081	1.05	334.28	230.94	0.15
KinmoutDS	5048	Nov 2 2013	77	258.7	263.81		263.82	0.000041	0.57	138.89	51.94	0.1
KinmoutDS	5048	April 16 2014	175	258.7	265.05		265.09	0.000072	0.93	232.42	150.65	0.14
KinmoutDS	5048	May 8 2017	142	258.7	264.69		264.72	0.000063	0.83	194.08	72.54	0.13
KinmoutDS	5048	April 21 2013	216	258.7	265.45		265.5	0.000079	1.03	308.7	229.08	0.15
KinmoutDS	5009	Timmins_Uncalibr	454.35	260.26	267.28		267.37	0.000137	1.54	675.45	228.46	0.2
KinmoutDS	5009	Timmins_Calibrat	115.6	260.26	264.34		264.39	0.000143	1.02	123.22	58.37	0.18
KinmoutDS	5009	TimminsCC_Calibr	145.1	260.26	264.7		264.76	0.000154	1.13	154.75	113.76	0.19
KinmoutDS	5009	2y	109.2	260.26	264.25		264.3	0.00014	0.99	118.75	52.07	0.18
KinmoutDS	5009	5y	145.6	260.26	264.7		264.76	0.000155	1.14	155.16	113.9	0.19
KinmoutDS	5009	10y	170.2	260.26	264.97		265.04	0.000161	1.22	188.94	137.79	0.2
KinmoutDS	5009	25y	202.5	260.26	265.28		265.37	0.000165	1.3	238.89	184.47	0.2
KinmoutDS	5009	50y	228.3	260.26	265.53		265.61	0.000165	1.35	286.12	204.17	0.21
KinmoutDS	5009	100y	256.1	260.26	265.78		265.87	0.000161	1.38	339.37	212.29	0.21
KinmoutDS	5009	200y	286.7	260.26	266.05		266.14	0.000157	1.42	398.09	223.62	0.2
KinmoutDS	5009	350y	313.8	260.26	266.27		266.36	0.000152	1.44	447.73	224.63	0.2
KinmoutDS	5009	Sept 25 2021	68.8	260.26	263.65		263.68	0.000116	0.78	90.06	43.73	0.16
KinmoutDS	5009	July 13 2024	53.2	260.26	263.37		263.4	0.000104	0.68	78.6	38.27	0.15
KinmoutDS	5009	April 21 2019	228	260.26	265.53		265.61	0.000165	1.35	285.49	204.11	0.21
KinmoutDS	5009	Nov 2 2013	77	260.26	263.78		263.82	0.000122	0.83	95.92	45.31	0.16
KinmoutDS	5009	April 16 2014	175	260.26	265.01		265.09	0.000162	1.23	195.28	139.92	0.2
KinmoutDS	5009	May 8 2017	142	260.26	264.66		264.72	0.000154	1.13	150.07	112.08	0.19
KinmoutDS	5009	April 21 2013	216	260.26	265.42		265.5	0.000164	1.32	263.51	193.8	0.2
KinmoutDS	4967	Timmins_Uncalibr	454.35	260.84	267.27		267.36	0.00016	1.61	643.36	209.09	0.21
KinmoutDS	4967	Timmins_Calibrat	115.6	260.84	264.31		264.38	0.000218	1.16	114.27	87.81	0.22
KinmoutDS	4967	TimminsCC_Calibr	145.1	260.84	264.67		264.75	0.000218	1.26	156.24	132.81	0.23
KinmoutDS	4967	2y	109.2	260.84	264.23		264.3	0.000216	1.13	107.53	79.39	0.22

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	4967	5y	145.6	260.84	264.68		264.76	0.000218	1.26	156.71	132.89	0.23
KinmoutDS	4967	10y	170.2	260.84	264.95		265.03	0.000216	1.32	192.97	137.37	0.23
KinmoutDS	4967	25y	202.5	260.84	265.27		265.36	0.000212	1.39	241.28	170.91	0.23
KinmoutDS	4967	50y	228.3	260.84	265.51		265.61	0.000207	1.43	285.91	186.49	0.23
KinmoutDS	4967	100y	256.1	260.84	265.77		265.86	0.000197	1.46	335.13	193.68	0.23
KinmoutDS	4967	200y	286.7	260.84	266.04		266.13	0.000191	1.49	388.88	205.16	0.22
KinmoutDS	4967	350y	313.8	260.84	266.26		266.36	0.000183	1.51	434.58	205.94	0.22
KinmoutDS	4967	Sept 25 2021	68.8	260.84	263.63		263.68	0.0002	0.92	75.95	39.97	0.2
KinmoutDS	4967	July 13 2024	53.2	260.84	263.35		263.39	0.000191	0.82	65.01	37.99	0.19
KinmoutDS	4967	April 21 2019	228	260.84	265.51		265.6	0.000207	1.43	285.32	186.44	0.23
KinmoutDS	4967	Nov 2 2013	77	260.84	263.76		263.81	0.000205	0.97	81.19	40.31	0.21
KinmoutDS	4967	April 16 2014	175	260.84	264.99		265.08	0.000216	1.33	199.31	138.88	0.23
KinmoutDS	4967	May 8 2017	142	260.84	264.63		264.71	0.00022	1.25	150.72	129.81	0.23
KinmoutDS	4967	April 21 2013	216	260.84	265.4		265.49	0.000208	1.41	264.84	183.25	0.23
KinmoutDS	4931	Timmins_Uncalibr	452.5	260.1	267.28		267.35	0.000115	1.42	729.97	232.15	0.18
KinmoutDS	4931	Timmins_Calibrat	115.8	260.1	264.32		264.37	0.000123	0.95	137.93	114.21	0.17
KinmoutDS	4931	TimminsCC_Calibr	145.4	260.1	264.68		264.74	0.00013	1.05	184.06	133.78	0.18
KinmoutDS	4931	2y	109.5	260.1	264.24		264.28	0.000121	0.92	129.37	91.54	0.17
KinmoutDS	4931	5y	145.9	260.1	264.69		264.74	0.00013	1.05	184.54	133.91	0.18
KinmoutDS	4931	10y	170.6	260.1	264.96		265.02	0.000134	1.11	222.99	158.16	0.18
KinmoutDS	4931	25y	203	260.1	265.28		265.34	0.000137	1.19	281.38	198.41	0.19
KinmoutDS	4931	50y	228.8	260.1	265.52		265.59	0.000135	1.23	331.88	209.47	0.19
KinmoutDS	4931	100y	256.7	260.1	265.78		265.85	0.000133	1.26	387.3	226.23	0.19
KinmoutDS	4931	200y	287.4	260.1	266.05		266.12	0.00013	1.3	448.2	227.36	0.19
KinmoutDS	4931	350y	314.5	260.1	266.27		266.34	0.000127	1.32	498.74	228.17	0.19
KinmoutDS	4931	Sept 25 2021	68.8	260.1	263.64		263.67	0.000098	0.72	95.94	44.5	0.14
KinmoutDS	4931	July 13 2024	53.2	260.1	263.36		263.38	0.000083	0.63	84.82	36.58	0.13
KinmoutDS	4931	April 21 2019	228.5	260.1	265.52		265.59	0.000135	1.23	331.22	209.42	0.19
KinmoutDS	4931	Nov 2 2013	77	260.1	263.77		263.8	0.000104	0.77	101.94	46.99	0.15
KinmoutDS	4931	April 16 2014	175	260.1	265		265.06	0.000134	1.12	230.41	163.38	0.18
KinmoutDS	4931	May 8 2017	142	260.1	264.64		264.7	0.00013	1.04	178.53	131.76	0.18
KinmoutDS	4931	April 21 2013	216.5	260.1	265.41		265.48	0.000136	1.21	308	207.55	0.19
KinmoutDS	4893	Timmins_Uncalibr	452.5	259.05	267.29		267.34	0.000066	1.11	848.85	249.74	0.14
KinmoutDS	4893	Timmins_Calibrat	115.8	259.05	264.33		264.36	0.000063	0.74	183.43	145.76	0.12
KinmoutDS	4893	TimminsCC_Calibr	145.4	259.05	264.7		264.73	0.000069	0.82	241.32	171.94	0.13
KinmoutDS	4893	2y	109.5	259.05	264.25		264.27	0.000061	0.72	172.02	130.03	0.12
KinmoutDS	4893	5y	145.9	259.05	264.7		264.73	0.000069	0.82	241.94	172.16	0.13
KinmoutDS	4893	10y	170.6	259.05	264.97		265.01	0.000072	0.87	292.16	198.65	0.13
KinmoutDS	4893	25y	203	259.05	265.29		265.33	0.000074	0.93	361.07	229.12	0.14
KinmoutDS	4893	50y	228.8	259.05	265.54		265.58	0.000073	0.96	418.36	234.28	0.14
KinmoutDS	4893	100y	256.7	259.05	265.8		265.84	0.000073	0.99	479.66	243.17	0.14
KinmoutDS	4893	200y	287.4	259.05	266.07		266.11	0.000071	1.01	545.34	244.31	0.14
KinmoutDS	4893	350y	314.5	259.05	266.29		266.33	0.00007	1.03	599.68	245.37	0.14
KinmoutDS	4893	Sept 25 2021	68.8	259.05	263.64		263.66	0.000044	0.54	127.53	47.21	0.1

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	4893	July 13 2024	53.2	259.05	263.36		263.38	0.000036	0.46	114.96	41.6	0.09
KinmoutDS	4893	April 21 2019	228.5	259.05	265.54		265.58	0.000073	0.96	417.62	234.23	0.14
KinmoutDS	4893	Nov 2 2013	77	259.05	263.78		263.79	0.000048	0.58	133.84	48.63	0.1
KinmoutDS	4893	April 16 2014	175	259.05	265.02		265.05	0.000072	0.88	301.5	203.68	0.13
KinmoutDS	4893	May 8 2017	142	259.05	264.65		264.69	0.000069	0.81	234.19	168.6	0.13
KinmoutDS	4893	April 21 2013	216.5	259.05	265.42		265.46	0.000074	0.95	391.53	232.49	0.14
KinmoutDS	4849	Timmins_Uncalibr	452.5	257.84	267.31		267.33	0.000034	0.85	907.69	265.12	0.1
KinmoutDS	4849	Timmins_Calibrat	115.8	257.84	264.34		264.35	0.000027	0.54	248.56	108.11	0.08
KinmoutDS	4849	TimminsCC_Calibr	145.4	257.84	264.7		264.72	0.000032	0.61	292.58	145.98	0.09
KinmoutDS	4849	2y	109.5	257.84	264.26		264.27	0.000026	0.52	239.82	102.51	0.08
KinmoutDS	4849	5y	145.9	257.84	264.71		264.73	0.000032	0.62	293.11	147.08	0.09
KinmoutDS	4849	10y	170.6	257.84	264.98		265	0.000035	0.67	339.55	191	0.1
KinmoutDS	4849	25y	203	257.84	265.3		265.33	0.000036	0.71	404.57	206.25	0.1
KinmoutDS	4849	50y	228.8	257.84	265.55		265.57	0.000037	0.74	457.97	227.02	0.1
KinmoutDS	4849	100y	256.7	257.84	265.81		265.83	0.000037	0.76	519	246.4	0.1
KinmoutDS	4849	200y	287.4	257.84	266.08		266.1	0.000037	0.78	586.78	255.09	0.1
KinmoutDS	4849	350y	314.5	257.84	266.3		266.32	0.000036	0.8	643.78	257.6	0.1
KinmoutDS	4849	Sept 25 2021	68.8	257.84	263.65		263.66	0.000018	0.39	186.41	77.85	0.06
KinmoutDS	4849	July 13 2024	53.2	257.84	263.37		263.37	0.000014	0.33	165.17	71.36	0.06
KinmoutDS	4849	April 21 2019	228.5	257.84	265.55		265.57	0.000037	0.74	457.25	226.82	0.1
KinmoutDS	4849	Nov 2 2013	77	257.84	263.78		263.79	0.00002	0.42	197.05	83.47	0.07
KinmoutDS	4849	April 16 2014	175	257.84	265.02		265.05	0.000035	0.68	348.52	194.18	0.1
KinmoutDS	4849	May 8 2017	142	257.84	264.66		264.68	0.000031	0.61	286.68	136.63	0.09
KinmoutDS	4849	April 21 2013	216.5	257.84	265.43		265.46	0.000037	0.73	432.29	217.51	0.1
KinmoutDS	4815	Timmins_Uncalibr	452.5	256.87	267.31		267.33	0.000023	0.73	906.68	253.24	0.08
KinmoutDS	4815	Timmins_Calibrat	115.8	256.87	264.34		264.35	0.000015	0.43	295.87	106.81	0.06
KinmoutDS	4815	TimminsCC_Calibr	145.4	256.87	264.71		264.72	0.000018	0.49	342.03	147.16	0.07
KinmoutDS	4815	2y	109.5	256.87	264.26		264.27	0.000014	0.41	287.34	97.6	0.06
KinmoutDS	4815	5y	145.9	256.87	264.71		264.72	0.000018	0.49	342.58	150.19	0.07
KinmoutDS	4815	10y	170.6	256.87	264.98		265	0.00002	0.54	387.3	184.9	0.07
KinmoutDS	4815	25y	203	256.87	265.31		265.32	0.000021	0.58	450.84	209.82	0.08
KinmoutDS	4815	50y	228.8	256.87	265.55		265.57	0.000022	0.6	502.97	212.23	0.08
KinmoutDS	4815	100y	256.7	256.87	265.81		265.83	0.000022	0.62	558.11	215.06	0.08
KinmoutDS	4815	200y	287.4	256.87	266.08		266.1	0.000022	0.64	616.36	217.44	0.08
KinmoutDS	4815	350y	314.5	256.87	266.3		266.32	0.000023	0.66	665.07	224.7	0.08
KinmoutDS	4815	Sept 25 2021	68.8	256.87	263.65		263.66	0.000009	0.3	235.58	78.25	0.05
KinmoutDS	4815	July 13 2024	53.2	256.87	263.37		263.37	0.000007	0.25	214.2	73.39	0.04
KinmoutDS	4815	April 21 2019	228.5	256.87	265.55		265.57	0.000022	0.6	502.31	212.2	0.08
KinmoutDS	4815	Nov 2 2013	77	256.87	263.78		263.79	0.00001	0.33	246.19	82.7	0.05
KinmoutDS	4815	April 16 2014	175	256.87	265.03		265.04	0.00002	0.54	395.92	185.54	0.07
KinmoutDS	4815	May 8 2017	142	256.87	264.67		264.68	0.000018	0.49	335.96	142.6	0.07
KinmoutDS	4815	April 21 2013	216.5	256.87	265.44		265.45	0.000022	0.59	478.62	211.21	0.08
KinmoutDS	4789	Timmins_Uncalibr	452.5	256.16	267.31		267.33	0.000019	0.68	919.24	220.15	0.08

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	4789	Timmins_Calibrat	115.8	256.16	264.34		264.35	0.000012	0.39	321.13	111.88	0.06
KinmoutDS	4789	TimminsCC_Calibr	145.4	256.16	264.71		264.72	0.000014	0.45	370.54	160.29	0.06
KinmoutDS	4789	2y	109.5	256.16	264.26		264.27	0.000011	0.38	312.27	100.87	0.05
KinmoutDS	4789	5y	145.9	256.16	264.71		264.72	0.000014	0.45	371.13	160.55	0.06
KinmoutDS	4789	10y	170.6	256.16	264.98		265	0.000016	0.49	418.97	195.03	0.07
KinmoutDS	4789	25y	203	256.16	265.31		265.32	0.000017	0.53	486.2	212.48	0.07
KinmoutDS	4789	50y	228.8	256.16	265.55		265.57	0.000018	0.55	538.81	213.63	0.07
KinmoutDS	4789	100y	256.7	256.16	265.81		265.83	0.000018	0.57	594.07	214.54	0.07
KinmoutDS	4789	200y	287.4	256.16	266.08		266.1	0.000018	0.59	651.96	215.51	0.07
KinmoutDS	4789	350y	314.5	256.16	266.3		266.32	0.000019	0.61	699.86	216.36	0.07
KinmoutDS	4789	Sept 25 2021	68.8	256.16	263.65		263.65	0.000007	0.27	260.38	79.34	0.04
KinmoutDS	4789	July 13 2024	53.2	256.16	263.37		263.37	0.000005	0.23	238.53	75.46	0.04
KinmoutDS	4789	April 21 2019	228.5	256.16	265.55		265.57	0.000018	0.55	538.13	213.62	0.07
KinmoutDS	4789	Nov 2 2013	77	256.16	263.78		263.79	0.000008	0.29	271.03	80.9	0.04
KinmoutDS	4789	April 16 2014	175	256.16	265.03		265.04	0.000016	0.49	428.16	200.07	0.07
KinmoutDS	4789	May 8 2017	142	256.16	264.67		264.68	0.000014	0.44	363.94	154.3	0.06
KinmoutDS	4789	April 21 2013	216.5	256.16	265.44		265.45	0.000017	0.54	514.25	213.15	0.07
KinmoutDS	4765	Timmins_Uncalibr	452.5	256.93	267.31		267.33	0.000024	0.73	838.36	213.6	0.08
KinmoutDS	4765	Timmins_Calibrat	115.8	256.93	264.34		264.35	0.000022	0.5	249.29	105.8	0.07
KinmoutDS	4765	TimminsCC_Calibr	145.4	256.93	264.7		264.72	0.000025	0.57	301.02	166	0.08
KinmoutDS	4765	2y	109.5	256.93	264.25		264.27	0.000021	0.49	240.88	98.05	0.07
KinmoutDS	4765	5y	145.9	256.93	264.71		264.72	0.000025	0.57	301.62	166.11	0.08
KinmoutDS	4765	10y	170.6	256.93	264.98		264.99	0.000026	0.6	349.62	191.04	0.08
KinmoutDS	4765	25y	203	256.93	265.3		265.32	0.000027	0.63	415.85	207.22	0.08
KinmoutDS	4765	50y	228.8	256.93	265.55		265.57	0.000026	0.65	467.3	208.32	0.09
KinmoutDS	4765	100y	256.7	256.93	265.81		265.83	0.000026	0.66	521.33	209.22	0.08
KinmoutDS	4765	200y	287.4	256.93	266.08		266.1	0.000025	0.67	577.91	210.11	0.08
KinmoutDS	4765	350y	314.5	256.93	266.3		266.32	0.000025	0.68	624.67	210.75	0.08
KinmoutDS	4765	Sept 25 2021	68.8	256.93	263.65		263.65	0.000013	0.36	197.17	57.07	0.06
KinmoutDS	4765	July 13 2024	53.2	256.93	263.37		263.37	0.00001	0.3	181.26	56.02	0.05
KinmoutDS	4765	April 21 2019	228.5	256.93	265.55		265.56	0.000026	0.65	466.64	208.31	0.09
KinmoutDS	4765	Nov 2 2013	77	256.93	263.78		263.79	0.000015	0.39	205.39	65.64	0.06
KinmoutDS	4765	April 16 2014	175	256.93	265.02		265.04	0.000026	0.61	358.76	198.94	0.08
KinmoutDS	4765	May 8 2017	142	256.93	264.66		264.68	0.000025	0.56	294.21	160.59	0.08
KinmoutDS	4765	April 21 2013	216.5	256.93	265.43		265.45	0.000027	0.64	443.29	207.92	0.08
KinmoutDS	4743	Timmins_Uncalibr	452.5	257.95	267.3		267.33	0.00003	0.79	791.52	214.71	0.09
KinmoutDS	4743	Timmins_Calibrat	115.8	257.95	264.33		264.35	0.000037	0.61	209.51	111.66	0.09
KinmoutDS	4743	TimminsCC_Calibr	145.4	257.95	264.7		264.72	0.00004	0.67	260.8	153.65	0.1
KinmoutDS	4743	2y	109.5	257.95	264.25		264.26	0.000036	0.59	200.78	99.34	0.09
KinmoutDS	4743	5y	145.9	257.95	264.7		264.72	0.00004	0.68	261.36	153.73	0.1
KinmoutDS	4743	10y	170.6	257.95	264.97		264.99	0.00004	0.7	305.48	182.7	0.1
KinmoutDS	4743	25y	203	257.95	265.3		265.32	0.00004	0.73	369.13	200.26	0.1
KinmoutDS	4743	50y	228.8	257.95	265.54		265.57	0.000038	0.74	419.84	206.44	0.1
KinmoutDS	4743	100y	256.7	257.95	265.8		265.83	0.000037	0.74	473.7	208.82	0.1

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Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	4743	200y	287.4	257.95	266.07		266.1	0.000035	0.75	530.28	209.86	0.1
KinmoutDS	4743	350y	314.5	257.95	266.3		266.32	0.000034	0.76	577.04	210.56	0.1
KinmoutDS	4743	Sept 25 2021	68.8	257.95	263.64		263.65	0.000025	0.45	156.36	62.47	0.08
KinmoutDS	4743	July 13 2024	53.2	257.95	263.36		263.37	0.00002	0.38	141.55	46.73	0.07
KinmoutDS	4743	April 21 2019	228.5	257.95	265.54		265.56	0.000038	0.74	419.19	206.42	0.1
KinmoutDS	4743	Nov 2 2013	77	257.95	263.78		263.79	0.000028	0.48	164.81	65.72	0.08
KinmoutDS	4743	April 16 2014	175	257.95	265.02		265.04	0.00004	0.71	314.24	191.67	0.1
KinmoutDS	4743	May 8 2017	142	257.95	264.65		264.67	0.00004	0.67	254.34	152.72	0.1
KinmoutDS	4743	April 21 2013	216.5	257.95	265.43		265.45	0.000039	0.73	396.03	205.58	0.1
KinmoutDS	4707	Timmins_Uncalibr	452.5	259.64	267.3		267.33	0.000051	0.91	802.23	230.81	0.12
KinmoutDS	4707	Timmins_Calibrat	115.8	259.64	264.3		264.34	0.000144	0.99	157.49	138.66	0.18
KinmoutDS	4707	TimminsCC_Calibr	145.4	259.64	264.67		264.71	0.000127	1	220.42	198.54	0.17
KinmoutDS	4707	2y	109.5	259.64	264.21		264.26	0.000145	0.97	146.45	127.66	0.18
KinmoutDS	4707	5y	145.9	259.64	264.67		264.72	0.000128	1	221.12	198.72	0.17
KinmoutDS	4707	10y	170.6	259.64	264.95		264.99	0.000111	0.98	277.88	210.85	0.16
KinmoutDS	4707	25y	203	259.64	265.28		265.32	0.000095	0.96	348.75	215.38	0.15
KinmoutDS	4707	50y	228.8	259.64	265.53		265.56	0.000085	0.95	403.1	217.91	0.14
KinmoutDS	4707	100y	256.7	259.64	265.79		265.82	0.000076	0.93	460.62	221.5	0.14
KinmoutDS	4707	200y	287.4	259.64	266.07		266.09	0.000069	0.92	521.19	224.05	0.13
KinmoutDS	4707	350y	314.5	259.64	266.29		266.32	0.000064	0.91	571.46	225.72	0.13
KinmoutDS	4707	Sept 25 2021	68.8	259.64	263.62		263.65	0.000127	0.79	93	52.24	0.16
KinmoutDS	4707	July 13 2024	53.2	259.64	263.34		263.37	0.000114	0.69	79.41	46.44	0.15
KinmoutDS	4707	April 21 2019	228.5	259.64	265.53		265.56	0.000085	0.95	402.4	217.86	0.14
KinmoutDS	4707	Nov 2 2013	77	259.64	263.75		263.78	0.000133	0.84	100.36	70.16	0.17
KinmoutDS	4707	April 16 2014	175	259.64	265		265.04	0.000109	0.98	287.99	213.38	0.16
KinmoutDS	4707	May 8 2017	142	259.64	264.63		264.67	0.000131	1	211.89	196.1	0.17
KinmoutDS	4707	April 21 2013	216.5	259.64	265.42		265.45	0.000089	0.95	377.75	216.51	0.15
KinmoutDS	4671	Timmins_Uncalibr	452.5	260.75	267.28		267.32	0.000075	1.09	618.54	210.73	0.15
KinmoutDS	4671	Timmins_Calibrat	115.8	260.75	264.25		264.33	0.000282	1.29	103.4	65.27	0.25
KinmoutDS	4671	TimminsCC_Calibr	145.4	260.75	264.62		264.7	0.000257	1.34	134.11	104.21	0.24
KinmoutDS	4671	2y	109.5	260.75	264.17		264.25	0.000287	1.28	98.16	61.59	0.25
KinmoutDS	4671	5y	145.9	260.75	264.62		264.71	0.000258	1.34	134.48	105.08	0.24
KinmoutDS	4671	10y	170.6	260.75	264.9		264.98	0.000235	1.36	171.13	151.79	0.24
KinmoutDS	4671	25y	203	260.75	265.24		265.31	0.000197	1.32	223.88	163.11	0.22
KinmoutDS	4671	50y	228.8	260.75	265.49		265.56	0.00017	1.29	267.62	184.17	0.21
KinmoutDS	4671	100y	256.7	260.75	265.76		265.82	0.000144	1.24	318.53	192.47	0.19
KinmoutDS	4671	200y	287.4	260.75	266.04		266.09	0.000122	1.19	372.04	194.13	0.18
KinmoutDS	4671	350y	314.5	260.75	266.26		266.31	0.000109	1.16	416.11	195.44	0.17
KinmoutDS	4671	Sept 25 2021	68.8	260.75	263.58		263.64	0.000281	1.07	68.65	46.4	0.24
KinmoutDS	4671	July 13 2024	53.2	260.75	263.31		263.36	0.000281	0.97	56.3	44.25	0.23
KinmoutDS	4671	April 21 2019	228.5	260.75	265.49		265.55	0.000169	1.28	267.06	183.35	0.21
KinmoutDS	4671	Nov 2 2013	77	260.75	263.71		263.77	0.000282	1.12	74.65	47.15	0.24
KinmoutDS	4671	April 16 2014	175	260.75	264.95		265.03	0.000234	1.37	178.23	153.02	0.24
KinmoutDS	4671	May 8 2017	142	260.75	264.58		264.66	0.000262	1.34	129.77	97.27	0.25

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Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	4671	April 21 2013	216.5	260.75	265.37		265.44	0.000181	1.3	246.78	170.57	0.21
KinmoutDS	4628	Timmins_Uncalibr	452.5	260.14	267.22		267.31	0.000169	1.69	676.17	220.82	0.22
KinmoutDS	4628	Timmins_Calibrat	115.8	260.14	264.24		264.32	0.000247	1.3	108.09	108.12	0.24
KinmoutDS	4628	TimminsCC_Calibr	145.4	260.14	264.59		264.69	0.000252	1.41	152.16	143.07	0.24
KinmoutDS	4628	2y	109.5	260.14	264.16		264.24	0.000244	1.27	99.67	101.41	0.23
KinmoutDS	4628	5y	145.9	260.14	264.6		264.69	0.000253	1.42	152.63	143.59	0.24
KinmoutDS	4628	10y	170.6	260.14	264.86		264.97	0.000252	1.49	195.51	175.1	0.25
KinmoutDS	4628	25y	203	260.14	265.19		265.29	0.000244	1.55	258.87	200.42	0.25
KinmoutDS	4628	50y	228.8	260.14	265.44		265.54	0.00023	1.57	309.58	201.52	0.24
KinmoutDS	4628	100y	256.7	260.14	265.7		265.8	0.000216	1.58	363.01	203.09	0.24
KinmoutDS	4628	200y	287.4	260.14	265.98		266.08	0.000203	1.59	418.94	204.48	0.23
KinmoutDS	4628	350y	314.5	260.14	266.2		266.3	0.000195	1.61	465.07	205.77	0.23
KinmoutDS	4628	Sept 25 2021	68.8	260.14	263.58		263.63	0.000203	1	70.75	37.17	0.21
KinmoutDS	4628	July 13 2024	53.2	260.14	263.31		263.35	0.000182	0.88	61.2	32.08	0.19
KinmoutDS	4628	April 21 2019	228.5	260.14	265.44		265.54	0.000231	1.57	308.97	201.51	0.24
KinmoutDS	4628	Nov 2 2013	77	260.14	263.7		263.76	0.000214	1.07	75.51	37.97	0.21
KinmoutDS	4628	April 16 2014	175	260.14	264.91		265.01	0.000251	1.5	203.82	189.94	0.25
KinmoutDS	4628	May 8 2017	142	260.14	264.55		264.65	0.000253	1.41	146.3	137.67	0.24
KinmoutDS	4628	April 21 2013	216.5	260.14	265.32		265.43	0.000237	1.56	285.97	201	0.24
KinmoutDS	4589	Timmins_Uncalibr	452.5	259.49	267.18		267.3	0.000195	1.83	534.8	164.06	0.23
KinmoutDS	4589	Timmins_Calibrat	115.8	259.49	264.24		264.31	0.000185	1.18	128.16	101.4	0.2
KinmoutDS	4589	TimminsCC_Calibr	145.4	259.49	264.6		264.68	0.000196	1.3	169.51	123.88	0.21
KinmoutDS	4589	2y	109.5	259.49	264.16		264.22	0.000181	1.15	120.41	91.72	0.2
KinmoutDS	4589	5y	145.9	259.49	264.6		264.68	0.000197	1.3	169.91	123.91	0.21
KinmoutDS	4589	10y	170.6	259.49	264.86		264.95	0.000202	1.38	203.29	128.33	0.22
KinmoutDS	4589	25y	203	259.49	265.19		265.28	0.000206	1.46	246.19	137.1	0.22
KinmoutDS	4589	50y	228.8	259.49	265.43		265.53	0.000205	1.52	280.97	141.35	0.23
KinmoutDS	4589	100y	256.7	259.49	265.69		265.8	0.000203	1.56	317.82	142.74	0.23
KinmoutDS	4589	200y	287.4	259.49	265.96		266.07	0.0002	1.61	356.3	143.89	0.23
KinmoutDS	4589	350y	314.5	259.49	266.18		266.29	0.000199	1.65	388.12	145.04	0.23
KinmoutDS	4589	Sept 25 2021	68.8	259.49	263.58		263.62	0.000142	0.9	81.62	49.1	0.17
KinmoutDS	4589	July 13 2024	53.2	259.49	263.31		263.34	0.00012	0.77	69.74	35.64	0.16
KinmoutDS	4589	April 21 2019	228.5	259.49	265.43		265.53	0.000205	1.52	280.55	141.34	0.23
KinmoutDS	4589	Nov 2 2013	77	259.49	263.71		263.75	0.000152	0.95	88.12	54.6	0.18
KinmoutDS	4589	April 16 2014	175	259.49	264.91		265	0.000202	1.39	209.19	130.29	0.22
KinmoutDS	4589	May 8 2017	142	259.49	264.55		264.63	0.000196	1.29	164.34	123.47	0.21
KinmoutDS	4589	April 21 2013	216.5	259.49	265.32		265.42	0.000206	1.49	264.7	140.75	0.22
KinmoutDS	4550	Timmins_Uncalibr	452.5	259.6	267.12		267.29	0.000251	2.06	424.82	137.18	0.27
KinmoutDS	4550	Timmins_Calibrat	115.8	259.6	264.22		264.3	0.000212	1.24	119.49	85.59	0.22
KinmoutDS	4550	TimminsCC_Calibr	145.4	259.6	264.58		264.67	0.000224	1.37	150.89	91.39	0.23
KinmoutDS	4550	2y	109.5	259.6	264.14		264.22	0.000208	1.21	112.67	84.56	0.22
KinmoutDS	4550	5y	145.9	259.6	264.58		264.67	0.000225	1.37	151.17	91.4	0.23
KinmoutDS	4550	10y	170.6	259.6	264.84		264.94	0.000232	1.46	175.38	93.05	0.24

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	4550	25y	203	259.6	265.16		265.27	0.000241	1.57	205.16	96.25	0.24
KinmoutDS	4550	50y	228.8	259.6	265.4		265.52	0.000245	1.64	229.06	100.05	0.25
KinmoutDS	4550	100y	256.7	259.6	265.66		265.79	0.000246	1.71	255.1	103.44	0.25
KinmoutDS	4550	200y	287.4	259.6	265.92		266.06	0.000247	1.77	282.78	106.82	0.25
KinmoutDS	4550	350y	314.5	259.6	266.14		266.28	0.000248	1.83	306.14	109.41	0.26
KinmoutDS	4550	Sept 25 2021	68.8	259.6	263.57		263.61	0.000167	0.95	76	41.88	0.19
KinmoutDS	4550	July 13 2024	53.2	259.6	263.3		263.33	0.000144	0.82	65.86	35.13	0.17
KinmoutDS	4550	April 21 2019	228.5	259.6	265.4		265.52	0.000245	1.64	228.76	100.01	0.25
KinmoutDS	4550	Nov 2 2013	77	259.6	263.69		263.74	0.000178	1.01	81.68	47.65	0.2
KinmoutDS	4550	April 16 2014	175	259.6	264.89		264.99	0.000233	1.48	179.57	93.42	0.24
KinmoutDS	4550	May 8 2017	142	259.6	264.54		264.63	0.000223	1.36	147.17	90.21	0.23
KinmoutDS	4550	April 21 2013	216.5	259.6	265.29		265.41	0.000243	1.61	217.84	98.4	0.25
KinmoutDS	4530	Timmins_Uncalibr	452.5	259.74	267.11		267.28	0.00026	2.07	410.57	132.44	0.27
KinmoutDS	4530	Timmins_Calibrat	115.8	259.74	264.22		264.3	0.00022	1.24	122.35	86.31	0.22
KinmoutDS	4530	TimminsCC_Calibr	145.4	259.74	264.57		264.66	0.00023	1.36	153.43	88.64	0.23
KinmoutDS	4530	2y	109.5	259.74	264.14		264.21	0.000217	1.21	115.67	81.23	0.22
KinmoutDS	4530	5y	145.9	259.74	264.58		264.67	0.000231	1.36	153.71	88.65	0.23
KinmoutDS	4530	10y	170.6	259.74	264.84		264.94	0.000238	1.45	177.17	90.01	0.24
KinmoutDS	4530	25y	203	259.74	265.16		265.27	0.000245	1.55	205.98	92.25	0.24
KinmoutDS	4530	50y	228.8	259.74	265.4		265.52	0.000247	1.62	228.59	93.29	0.25
KinmoutDS	4530	100y	256.7	259.74	265.65		265.78	0.000248	1.69	252.47	94.56	0.25
KinmoutDS	4530	200y	287.4	259.74	265.92		266.05	0.00025	1.76	277.53	96.37	0.25
KinmoutDS	4530	350y	314.5	259.74	266.13		266.27	0.000252	1.82	298.48	97.56	0.26
KinmoutDS	4530	Sept 25 2021	68.8	259.74	263.56		263.61	0.000181	0.96	77.62	56.67	0.19
KinmoutDS	4530	July 13 2024	53.2	259.74	263.29		263.33	0.00016	0.84	65.05	37.66	0.18
KinmoutDS	4530	April 21 2019	228.5	259.74	265.4		265.51	0.000247	1.62	228.31	93.28	0.25
KinmoutDS	4530	Nov 2 2013	77	259.74	263.69		263.74	0.000191	1.02	85.06	60.25	0.2
KinmoutDS	4530	April 16 2014	175	259.74	264.89		264.98	0.000239	1.47	181.22	90.27	0.24
KinmoutDS	4530	May 8 2017	142	259.74	264.53		264.62	0.00023	1.35	149.81	88.48	0.23
KinmoutDS	4530	April 21 2013	216.5	259.74	265.29		265.4	0.000246	1.59	218.05	92.86	0.25
KinmoutDS	4509	Timmins_Uncalibr	452.5	259.88	267.09		267.28	0.000277	2.12	389.49	127.15	0.28
KinmoutDS	4509	Timmins_Calibrat	115.8	259.88	264.21		264.29	0.000242	1.27	118.44	77.07	0.23
KinmoutDS	4509	TimminsCC_Calibr	145.4	259.88	264.56		264.66	0.000252	1.39	146.6	81.18	0.24
KinmoutDS	4509	2y	109.5	259.88	264.13		264.21	0.00024	1.24	112.45	73.72	0.23
KinmoutDS	4509	5y	145.9	259.88	264.57		264.66	0.000252	1.4	146.85	81.2	0.24
KinmoutDS	4509	10y	170.6	259.88	264.83		264.93	0.000258	1.48	168.24	81.92	0.25
KinmoutDS	4509	25y	203	259.88	265.15		265.26	0.000265	1.59	194.2	82.75	0.25
KinmoutDS	4509	50y	228.8	259.88	265.39		265.51	0.000268	1.66	214.36	83.39	0.26
KinmoutDS	4509	100y	256.7	259.88	265.64		265.77	0.000269	1.73	235.57	84.06	0.26
KinmoutDS	4509	200y	287.4	259.88	265.9		266.04	0.00027	1.8	258.53	93.42	0.26
KinmoutDS	4509	350y	314.5	259.88	266.12		266.27	0.000272	1.86	280.06	107.14	0.27
KinmoutDS	4509	Sept 25 2021	68.8	259.88	263.55		263.6	0.000207	1	74.84	55.36	0.21
KinmoutDS	4509	July 13 2024	53.2	259.88	263.29		263.33	0.000186	0.88	61.87	37.2	0.19
KinmoutDS	4509	April 21 2019	228.5	259.88	265.39		265.51	0.000268	1.66	214.12	83.39	0.26

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	4509	Nov 2 2013	77	259.88	263.68		263.74	0.000216	1.06	82.06	58.84	0.21
KinmoutDS	4509	April 16 2014	175	259.88	264.87		264.98	0.000259	1.5	171.91	82.04	0.25
KinmoutDS	4509	May 8 2017	142	259.88	264.52		264.61	0.000251	1.38	143.29	80.97	0.24
KinmoutDS	4509	April 21 2013	216.5	259.88	265.28		265.39	0.000266	1.63	204.98	83.1	0.26
KinmoutDS	4488	Timmins_Uncalibr	452.5	260.02	267.06		267.27	0.000312	2.22	352.81	116.99	0.29
KinmoutDS	4488	Timmins_Calibrat	115.8	260.02	264.2		264.28	0.00027	1.31	110.17	61.7	0.24
KinmoutDS	4488	TimminsCC_Calibr	145.4	260.02	264.55		264.65	0.000281	1.44	132.47	65.44	0.25
KinmoutDS	4488	2y	109.5	260.02	264.12		264.2	0.000267	1.28	105.26	61.26	0.24
KinmoutDS	4488	5y	145.9	260.02	264.55		264.65	0.000282	1.44	132.66	65.46	0.25
KinmoutDS	4488	10y	170.6	260.02	264.81		264.93	0.00029	1.54	149.86	67.23	0.26
KinmoutDS	4488	25y	203	260.02	265.12		265.25	0.0003	1.66	171.11	69.09	0.27
KinmoutDS	4488	50y	228.8	260.02	265.36		265.5	0.000304	1.74	187.81	69.99	0.27
KinmoutDS	4488	100y	256.7	260.02	265.62		265.77	0.000306	1.82	207.52	84.4	0.28
KinmoutDS	4488	200y	287.4	260.02	265.87		266.04	0.000311	1.9	230.29	92.77	0.28
KinmoutDS	4488	350y	314.5	260.02	266.09		266.26	0.000312	1.96	250.84	100.5	0.29
KinmoutDS	4488	Sept 25 2021	68.8	260.02	263.55		263.6	0.000237	1.04	72.59	51.62	0.22
KinmoutDS	4488	July 13 2024	53.2	260.02	263.28		263.32	0.000218	0.92	59.42	44.55	0.21
KinmoutDS	4488	April 21 2019	228.5	260.02	265.36		265.5	0.000304	1.74	187.6	69.98	0.27
KinmoutDS	4488	Nov 2 2013	77	260.02	263.67		263.73	0.000245	1.09	79.16	53.25	0.23
KinmoutDS	4488	April 16 2014	175	260.02	264.86		264.97	0.000292	1.56	152.84	67.52	0.26
KinmoutDS	4488	May 8 2017	142	260.02	264.51		264.61	0.00028	1.43	129.82	65.17	0.25
KinmoutDS	4488	April 21 2013	216.5	260.02	265.25		265.39	0.000302	1.7	180.03	69.57	0.27
KinmoutDS	4468	Timmins_Uncalibr	452.5	260.15	267.03		267.26	0.000343	2.31	327.7	109.91	0.31
KinmoutDS	4468	Timmins_Calibrat	115.8	260.15	264.19		264.28	0.000297	1.35	102.53	51.72	0.26
KinmoutDS	4468	TimminsCC_Calibr	145.4	260.15	264.54		264.64	0.00031	1.49	120.69	52.87	0.27
KinmoutDS	4468	2y	109.5	260.15	264.11		264.2	0.000294	1.32	98.44	51.47	0.25
KinmoutDS	4468	5y	145.9	260.15	264.54		264.65	0.000311	1.49	120.85	52.88	0.27
KinmoutDS	4468	10y	170.6	260.15	264.8		264.92	0.000323	1.6	134.99	58.39	0.28
KinmoutDS	4468	25y	203	260.15	265.1		265.25	0.000336	1.73	154.85	70	0.29
KinmoutDS	4468	50y	228.8	260.15	265.34		265.5	0.00034	1.81	172.63	77.11	0.29
KinmoutDS	4468	100y	256.7	260.15	265.59		265.76	0.000342	1.89	192.5	82.68	0.29
KinmoutDS	4468	200y	287.4	260.15	265.85		266.03	0.000343	1.97	215.13	90.36	0.3
KinmoutDS	4468	350y	314.5	260.15	266.06		266.25	0.000344	2.04	234.65	92.5	0.3
KinmoutDS	4468	Sept 25 2021	68.8	260.15	263.54		263.59	0.000266	1.07	69.59	49.01	0.23
KinmoutDS	4468	July 13 2024	53.2	260.15	263.27		263.32	0.00025	0.95	56.87	43.64	0.22
KinmoutDS	4468	April 21 2019	228.5	260.15	265.34		265.49	0.00034	1.81	172.4	77.08	0.29
KinmoutDS	4468	Nov 2 2013	77	260.15	263.66		263.73	0.000274	1.13	75.76	49.64	0.24
KinmoutDS	4468	April 16 2014	175	260.15	264.84		264.97	0.000325	1.62	137.57	59.38	0.28
KinmoutDS	4468	May 8 2017	142	260.15	264.5		264.6	0.000309	1.47	118.57	52.68	0.27
KinmoutDS	4468	April 21 2013	216.5	260.15	265.23		265.38	0.000338	1.78	164.18	75.27	0.29
KinmoutDS	4450	Timmins_Uncalibr	452.5	260.27	267		267.25	0.000369	2.37	303.86	108.52	0.32
KinmoutDS	4450	Timmins_Calibrat	115.8	260.27	264.18		264.27	0.000318	1.37	95.18	44.08	0.26
KinmoutDS	4450	TimminsCC_Calibr	145.4	260.27	264.52		264.64	0.000332	1.52	111.56	54.66	0.28

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	4450	2y	109.5	260.27	264.1		264.19	0.000315	1.34	91.72	43.79	0.26
KinmoutDS	4450	5y	145.9	260.27	264.53		264.64	0.000333	1.52	111.71	54.82	0.28
KinmoutDS	4450	10y	170.6	260.27	264.78		264.91	0.000347	1.63	126.42	59.82	0.29
KinmoutDS	4450	25y	203	260.27	265.09		265.24	0.000358	1.76	145.33	63.72	0.29
KinmoutDS	4450	50y	228.8	260.27	265.33		265.49	0.000363	1.85	160.9	69.11	0.3
KinmoutDS	4450	100y	256.7	260.27	265.57		265.75	0.000364	1.93	178.65	73.12	0.3
KinmoutDS	4450	200y	287.4	260.27	265.83		266.02	0.000367	2.02	198.26	85.63	0.31
KinmoutDS	4450	350y	314.5	260.27	266.04		266.24	0.00037	2.09	216.34	93.27	0.31
KinmoutDS	4450	Sept 25 2021	68.8	260.27	263.53		263.59	0.000287	1.09	67.33	41.62	0.24
KinmoutDS	4450	July 13 2024	53.2	260.27	263.26		263.31	0.000273	0.97	56.54	38.12	0.23
KinmoutDS	4450	April 21 2019	228.5	260.27	265.32		265.49	0.000363	1.85	160.7	69.02	0.3
KinmoutDS	4450	Nov 2 2013	77	260.27	263.65		263.72	0.000294	1.14	72.56	42.16	0.25
KinmoutDS	4450	April 16 2014	175	260.27	264.83		264.96	0.000348	1.65	129.05	60.39	0.29
KinmoutDS	4450	May 8 2017	142	260.27	264.48		264.6	0.000331	1.5	109.42	52.7	0.27
KinmoutDS	4450	April 21 2013	216.5	260.27	265.22		265.37	0.00036	1.81	153.55	65.72	0.3
KinmoutDS	4428	Timmins_Uncalibr	452.5	260.35	266.97		267.24	0.000419	2.45	282.72	106.77	0.34
KinmoutDS	4428	Timmins_Calibrat	115.8	260.35	264.16		264.26	0.000385	1.45	83.55	35.24	0.29
KinmoutDS	4428	TimminsCC_Calibr	145.4	260.35	264.5		264.63	0.000404	1.6	97.1	52.73	0.3
KinmoutDS	4428	2y	109.5	260.35	264.08		264.18	0.00038	1.41	80.82	35.03	0.28
KinmoutDS	4428	5y	145.9	260.35	264.5		264.63	0.000405	1.61	97.25	52.89	0.3
KinmoutDS	4428	10y	170.6	260.35	264.75		264.9	0.000417	1.72	111.78	59.69	0.31
KinmoutDS	4428	25y	203	260.35	265.06		265.23	0.000426	1.85	130.5	65.7	0.32
KinmoutDS	4428	50y	228.8	260.35	265.3		265.48	0.000428	1.93	145.59	70.84	0.32
KinmoutDS	4428	100y	256.7	260.35	265.54		265.74	0.000426	2.02	162.39	77.9	0.32
KinmoutDS	4428	200y	287.4	260.35	265.8		266.01	0.000429	2.11	181.2	88.76	0.33
KinmoutDS	4428	350y	314.5	260.35	266.01		266.23	0.000428	2.17	198.42	92.91	0.33
KinmoutDS	4428	Sept 25 2021	68.8	260.35	263.52		263.58	0.00034	1.15	61.33	33.9	0.26
KinmoutDS	4428	July 13 2024	53.2	260.35	263.25		263.31	0.000322	1.03	52.48	32.78	0.25
KinmoutDS	4428	April 21 2019	228.5	260.35	265.29		265.48	0.000428	1.93	145.41	70.57	0.32
KinmoutDS	4428	Nov 2 2013	77	260.35	263.64		263.71	0.00035	1.21	65.54	34.19	0.27
KinmoutDS	4428	April 16 2014	175	260.35	264.8		264.95	0.000419	1.74	114.39	60.27	0.31
KinmoutDS	4428	May 8 2017	142	260.35	264.46		264.59	0.000403	1.59	95.14	47.81	0.3
KinmoutDS	4428	April 21 2013	216.5	260.35	265.19		265.36	0.000426	1.89	138.52	67.96	0.32
KinmoutDS	4410	Timmins_Uncalibr	452.5	260.4	266.96		267.24	0.000413	2.46	293.39	111.28	0.34
KinmoutDS	4410	Timmins_Calibrat	115.8	260.4	264.15		264.26	0.000404	1.48	82.41	36.34	0.3
KinmoutDS	4410	TimminsCC_Calibr	145.4	260.4	264.49		264.62	0.000416	1.64	98.39	59.74	0.31
KinmoutDS	4410	2y	109.5	260.4	264.07		264.17	0.000401	1.45	79.6	36.13	0.29
KinmoutDS	4410	5y	145.9	260.4	264.49		264.62	0.000418	1.64	98.55	60.01	0.31
KinmoutDS	4410	10y	170.6	260.4	264.74		264.9	0.000426	1.75	115.09	69.53	0.31
KinmoutDS	4410	25y	203	260.4	265.05		265.22	0.000429	1.87	136	77.05	0.32
KinmoutDS	4410	50y	228.8	260.4	265.29		265.47	0.000427	1.95	152.6	79.68	0.32
KinmoutDS	4410	100y	256.7	260.4	265.54		265.73	0.000423	2.03	170.56	83.03	0.33
KinmoutDS	4410	200y	287.4	260.4	265.79		266	0.000422	2.11	189.84	88.85	0.33
KinmoutDS	4410	350y	314.5	260.4	266		266.23	0.000422	2.18	206.98	94.78	0.33

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	4410	Sept 25 2021	68.8	260.4	263.5		263.58	0.000379	1.19	59.64	34.7	0.27
KinmoutDS	4410	July 13 2024	53.2	260.4	263.24		263.3	0.000372	1.07	50.57	34.05	0.26
KinmoutDS	4410	April 21 2019	228.5	260.4	265.28		265.47	0.000427	1.95	152.4	79.64	0.32
KinmoutDS	4410	Nov 2 2013	77	260.4	263.63		263.71	0.000384	1.24	63.94	35	0.28
KinmoutDS	4410	April 16 2014	175	260.4	264.79		264.94	0.000426	1.77	118.02	70.15	0.32
KinmoutDS	4410	May 8 2017	142	260.4	264.45		264.58	0.000416	1.62	96.1	56.31	0.31
KinmoutDS	4410	April 21 2013	216.5	260.4	265.18		265.36	0.000428	1.91	144.86	78.43	0.32
KinmoutDS	4390	Timmins_Uncalibr	452.5	260.46	266.98		267.21	0.000378	2.33	347.89	115.7	0.32
KinmoutDS	4390	Timmins_Calibrat	115.8	260.46	264.13		264.25	0.000464	1.54	78.08	43.37	0.31
KinmoutDS	4390	TimminsCC_Calibr	145.4	260.46	264.47		264.61	0.000466	1.69	99.63	79.56	0.32
KinmoutDS	4390	2y	109.5	260.46	264.05		264.17	0.000462	1.51	75	37.44	0.31
KinmoutDS	4390	5y	145.9	260.46	264.47		264.62	0.000468	1.69	99.84	79.63	0.32
KinmoutDS	4390	10y	170.6	260.46	264.73		264.89	0.000461	1.78	120.82	82.86	0.32
KinmoutDS	4390	25y	203	260.46	265.04		265.21	0.000453	1.88	147.7	89.6	0.33
KinmoutDS	4390	50y	228.8	260.46	265.28		265.46	0.00044	1.94	169.57	91.72	0.33
KinmoutDS	4390	100y	256.7	260.46	265.54		265.72	0.000426	2	193.12	94.82	0.32
KinmoutDS	4390	200y	287.4	260.46	265.79		265.99	0.000415	2.06	218.4	100.15	0.32
KinmoutDS	4390	350y	314.5	260.46	266.01		266.21	0.000408	2.11	240.3	103.68	0.32
KinmoutDS	4390	Sept 25 2021	68.8	260.46	263.49		263.57	0.00045	1.25	55.65	32.99	0.29
KinmoutDS	4390	July 13 2024	53.2	260.46	263.23		263.29	0.00039	1.12	47.58	27.5	0.27
KinmoutDS	4390	April 21 2019	228.5	260.46	265.28		265.46	0.00044	1.94	169.3	91.7	0.33
KinmoutDS	4390	Nov 2 2013	77	260.46	263.61		263.7	0.000453	1.31	59.74	33.67	0.3
KinmoutDS	4390	April 16 2014	175	260.46	264.77		264.93	0.00046	1.8	124.51	83.48	0.33
KinmoutDS	4390	May 8 2017	142	260.46	264.43		264.57	0.000468	1.68	96.5	76.63	0.32
KinmoutDS	4390	April 21 2013	216.5	260.46	265.17		265.35	0.000445	1.91	159.38	90.85	0.33
KinmoutDS	4370	Timmins_Uncalibr	452.5	260.43	266.92		267.2	0.000462	2.5	286.52	94.74	0.35
KinmoutDS	4370	Timmins_Calibrat	115.8	260.43	264.11		264.24	0.000532	1.6	75.18	45.19	0.33
KinmoutDS	4370	TimminsCC_Calibr	145.4	260.43	264.45		264.6	0.000535	1.74	95	65.83	0.34
KinmoutDS	4370	2y	109.5	260.43	264.03		264.15	0.00053	1.56	71.91	40.21	0.33
KinmoutDS	4370	5y	145.9	260.43	264.45		264.6	0.000537	1.74	95.18	65.86	0.34
KinmoutDS	4370	10y	170.6	260.43	264.71		264.87	0.000526	1.83	112.3	67.71	0.34
KinmoutDS	4370	25y	203	260.43	265.02		265.2	0.000515	1.94	133.64	70.31	0.34
KinmoutDS	4370	50y	228.8	260.43	265.26		265.45	0.000504	2.01	150.66	72.52	0.34
KinmoutDS	4370	100y	256.7	260.43	265.51		265.71	0.000489	2.07	169.02	74.15	0.34
KinmoutDS	4370	200y	287.4	260.43	265.76		265.98	0.000478	2.14	188.27	75.78	0.34
KinmoutDS	4370	350y	314.5	260.43	265.97		266.2	0.000473	2.21	204.47	78.09	0.34
KinmoutDS	4370	Sept 25 2021	68.8	260.43	263.47		263.56	0.00051	1.3	53.18	31.09	0.31
KinmoutDS	4370	July 13 2024	53.2	260.43	263.21		263.28	0.000443	1.17	45.51	27.04	0.29
KinmoutDS	4370	April 21 2019	228.5	260.43	265.25		265.45	0.000504	2.01	150.45	72.5	0.34
KinmoutDS	4370	Nov 2 2013	77	260.43	263.59		263.69	0.000515	1.36	57.01	31.57	0.32
KinmoutDS	4370	April 16 2014	175	260.43	264.75		264.92	0.000525	1.85	115.29	68.02	0.34
KinmoutDS	4370	May 8 2017	142	260.43	264.41		264.56	0.000538	1.72	92.36	65.48	0.34
KinmoutDS	4370	April 21 2013	216.5	260.43	265.15		265.33	0.000508	1.97	142.71	71.62	0.34

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	4350	Timmins_Uncalibr	452.5	260.4	266.94		267.18	0.000401	2.4	308.71	95.82	0.33
KinmoutDS	4350	Timmins_Calibrat	115.8	260.4	264.1		264.22	0.000457	1.55	89.65	64.41	0.32
KinmoutDS	4350	TimminsCC_Calibr	145.4	260.4	264.45		264.58	0.000441	1.66	112.58	67.11	0.32
KinmoutDS	4350	2y	109.5	260.4	264.03		264.14	0.00046	1.53	84.61	63.51	0.32
KinmoutDS	4350	5y	145.9	260.4	264.46		264.59	0.000443	1.67	112.76	67.13	0.32
KinmoutDS	4350	10y	170.6	260.4	264.71		264.86	0.000436	1.75	130.38	69.42	0.32
KinmoutDS	4350	25y	203	260.4	265.03		265.18	0.000429	1.85	152.67	73.12	0.32
KinmoutDS	4350	50y	228.8	260.4	265.27		265.43	0.000421	1.92	170.46	75.12	0.32
KinmoutDS	4350	100y	256.7	260.4	265.52		265.69	0.000411	1.98	189.58	76.8	0.32
KinmoutDS	4350	200y	287.4	260.4	265.78		265.96	0.000404	2.05	209.64	78.71	0.32
KinmoutDS	4350	350y	314.5	260.4	265.99		266.18	0.000401	2.11	226.55	80.39	0.32
KinmoutDS	4350	Sept 25 2021	68.8	260.4	263.46		263.55	0.000464	1.29	56.33	40.89	0.31
KinmoutDS	4350	July 13 2024	53.2	260.4	263.2		263.27	0.000467	1.18	45.93	37.9	0.3
KinmoutDS	4350	April 21 2019	228.5	260.4	265.26		265.43	0.000421	1.92	170.24	75.1	0.32
KinmoutDS	4350	Nov 2 2013	77	260.4	263.59		263.68	0.000465	1.35	61.42	42.69	0.31
KinmoutDS	4350	April 16 2014	175	260.4	264.76		264.9	0.000435	1.77	133.47	70.13	0.32
KinmoutDS	4350	May 8 2017	142	260.4	264.41		264.54	0.000444	1.65	109.86	66.86	0.32
KinmoutDS	4350	April 21 2013	216.5	260.4	265.16		265.32	0.000424	1.89	162.16	74.32	0.32
KinmoutDS	4330	Timmins_Uncalibr	452.5	260.49	266.91		267.17	0.000418	2.43	291.31	84.85	0.34
KinmoutDS	4330	Timmins_Calibrat	115.8	260.49	264.09		264.21	0.000473	1.54	86.16	59.87	0.32
KinmoutDS	4330	TimminsCC_Calibr	145.4	260.49	264.44		264.58	0.00046	1.66	108.18	66.73	0.32
KinmoutDS	4330	2y	109.5	260.49	264.02		264.13	0.000476	1.51	81.56	57.75	0.32
KinmoutDS	4330	5y	145.9	260.49	264.44		264.58	0.000461	1.66	108.35	66.75	0.32
KinmoutDS	4330	10y	170.6	260.49	264.7		264.85	0.000453	1.75	125.75	68.24	0.32
KinmoutDS	4330	25y	203	260.49	265.01		265.17	0.000446	1.85	147.26	70.04	0.32
KinmoutDS	4330	50y	228.8	260.49	265.25		265.42	0.000438	1.92	164.11	71.23	0.33
KinmoutDS	4330	100y	256.7	260.49	265.5		265.68	0.000428	1.99	182.11	72.58	0.33
KinmoutDS	4330	200y	287.4	260.49	265.76		265.95	0.000422	2.06	200.87	73.93	0.33
KinmoutDS	4330	350y	314.5	260.49	265.97		266.17	0.000419	2.13	216.61	75.28	0.33
KinmoutDS	4330	Sept 25 2021	68.8	260.49	263.45		263.54	0.000485	1.27	54.9	33.49	0.3
KinmoutDS	4330	July 13 2024	53.2	260.49	263.19		263.26	0.000463	1.15	46.52	31.22	0.29
KinmoutDS	4330	April 21 2019	228.5	260.49	265.25		265.42	0.000438	1.92	163.91	71.21	0.33
KinmoutDS	4330	Nov 2 2013	77	260.49	263.58		263.67	0.000486	1.33	59.47	40.99	0.31
KinmoutDS	4330	April 16 2014	175	260.49	264.75		264.9	0.000452	1.77	128.78	68.5	0.32
KinmoutDS	4330	May 8 2017	142	260.49	264.4		264.53	0.000463	1.65	105.48	66.4	0.32
KinmoutDS	4330	April 21 2013	216.5	260.49	265.14		265.31	0.000441	1.89	156.28	70.65	0.32
KinmoutDS	4309	Timmins_Uncalibr	452.5	260.58	266.92		267.16	0.000387	2.38	315.81	98.52	0.33
KinmoutDS	4309	Timmins_Calibrat	115.8	260.58	264.09		264.2	0.000423	1.5	87.15	47.68	0.3
KinmoutDS	4309	TimminsCC_Calibr	145.4	260.58	264.43		264.57	0.000424	1.64	106.63	65.63	0.31
KinmoutDS	4309	2y	109.5	260.58	264.01		264.12	0.000423	1.47	83.47	46.59	0.3
KinmoutDS	4309	5y	145.9	260.58	264.44		264.57	0.000425	1.64	106.8	65.73	0.31
KinmoutDS	4309	10y	170.6	260.58	264.69		264.84	0.000428	1.74	125.18	77.05	0.32
KinmoutDS	4309	25y	203	260.58	265		265.17	0.000422	1.85	149.71	79.88	0.32
KinmoutDS	4309	50y	228.8	260.58	265.24		265.41	0.000414	1.91	169.05	81.67	0.32

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	4309	100y	256.7	260.58	265.5		265.67	0.000404	1.97	189.82	83.32	0.32
KinmoutDS	4309	200y	287.4	260.58	265.75		265.94	0.000396	2.04	211.45	84.78	0.32
KinmoutDS	4309	350y	314.5	260.58	265.97		266.16	0.000392	2.1	229.58	85.9	0.32
KinmoutDS	4309	Sept 25 2021	68.8	260.58	263.45		263.52	0.000419	1.23	58.82	42.39	0.29
KinmoutDS	4309	July 13 2024	53.2	260.58	263.19		263.25	0.000417	1.11	48.5	35.69	0.28
KinmoutDS	4309	April 21 2019	228.5	260.58	265.24		265.41	0.000414	1.91	168.82	81.66	0.32
KinmoutDS	4309	Nov 2 2013	77	260.58	263.57		263.65	0.00042	1.28	64.07	42.79	0.29
KinmoutDS	4309	April 16 2014	175	260.58	264.74		264.89	0.000427	1.76	128.61	77.99	0.32
KinmoutDS	4309	May 8 2017	142	260.58	264.39		264.52	0.000424	1.62	104.08	63	0.31
KinmoutDS	4309	April 21 2013	216.5	260.58	265.13		265.3	0.000417	1.88	160.05	80.77	0.32
KinmoutDS	4289	Timmins_Uncalibr	452.5	260.64	266.91		267.15	0.000386	2.38	313.01	96.45	0.33
KinmoutDS	4289	Timmins_Calibrat	115.8	260.64	264.08		264.19	0.000407	1.49	87.85	55.15	0.3
KinmoutDS	4289	TimminsCC_Calibr	145.4	260.64	264.43		264.56	0.000407	1.63	107.49	62.59	0.3
KinmoutDS	4289	2y	109.5	260.64	264		264.11	0.000406	1.46	83.57	54.52	0.3
KinmoutDS	4289	5y	145.9	260.64	264.43		264.56	0.000409	1.63	107.65	62.95	0.3
KinmoutDS	4289	10y	170.6	260.64	264.69		264.83	0.00041	1.73	125.04	72.89	0.31
KinmoutDS	4289	25y	203	260.64	265		265.16	0.000409	1.83	148.97	78.97	0.31
KinmoutDS	4289	50y	228.8	260.64	265.24		265.41	0.000404	1.9	168.06	80.73	0.31
KinmoutDS	4289	100y	256.7	260.64	265.49		265.67	0.000396	1.97	188.57	82.56	0.32
KinmoutDS	4289	200y	287.4	260.64	265.74		265.93	0.00039	2.04	210.01	84.5	0.32
KinmoutDS	4289	350y	314.5	260.64	265.96		266.15	0.000387	2.1	228.09	85.9	0.32
KinmoutDS	4289	Sept 25 2021	68.8	260.64	263.44		263.52	0.000386	1.2	57.95	35.48	0.28
KinmoutDS	4289	July 13 2024	53.2	260.64	263.18		263.24	0.000371	1.08	49.55	30.11	0.26
KinmoutDS	4289	April 21 2019	228.5	260.64	265.23		265.4	0.000404	1.9	167.82	80.7	0.31
KinmoutDS	4289	Nov 2 2013	77	260.64	263.56		263.65	0.000393	1.27	62.49	39.95	0.28
KinmoutDS	4289	April 16 2014	175	260.64	264.73		264.88	0.00041	1.74	128.31	74.9	0.31
KinmoutDS	4289	May 8 2017	142	260.64	264.39		264.51	0.000408	1.61	105.05	58.7	0.3
KinmoutDS	4289	April 21 2013	216.5	260.64	265.13		265.29	0.000405	1.87	159.18	79.82	0.31
KinmoutDS	4270	Timmins_Uncalibr	452.5	260.65	266.9		267.14	0.000383	2.38	308.52	94.82	0.33
KinmoutDS	4270	Timmins_Calibrat	115.8	260.65	264.08		264.18	0.000386	1.47	87.16	51.37	0.29
KinmoutDS	4270	TimminsCC_Calibr	145.4	260.65	264.42		264.55	0.000392	1.61	106.67	61.8	0.3
KinmoutDS	4270	2y	109.5	260.65	264		264.1	0.000384	1.44	83.21	49.67	0.29
KinmoutDS	4270	5y	145.9	260.65	264.42		264.55	0.000393	1.61	106.83	61.86	0.3
KinmoutDS	4270	10y	170.6	260.65	264.68		264.82	0.000398	1.72	124.03	73.75	0.3
KinmoutDS	4270	25y	203	260.65	264.99		265.15	0.000399	1.82	148.21	78.8	0.31
KinmoutDS	4270	50y	228.8	260.65	265.23		265.4	0.000394	1.89	167.21	79.8	0.31
KinmoutDS	4270	100y	256.7	260.65	265.48		265.66	0.000387	1.96	187.38	80.79	0.31
KinmoutDS	4270	200y	287.4	260.65	265.74		265.92	0.000383	2.03	208.3	82.13	0.31
KinmoutDS	4270	350y	314.5	260.65	265.95		266.15	0.000381	2.09	225.82	83.17	0.31
KinmoutDS	4270	Sept 25 2021	68.8	260.65	263.44		263.51	0.000355	1.18	59.3	34.93	0.27
KinmoutDS	4270	July 13 2024	53.2	260.65	263.18		263.23	0.000324	1.04	51.07	29.49	0.25
KinmoutDS	4270	April 21 2019	228.5	260.65	265.23		265.39	0.000394	1.89	166.97	79.79	0.31
KinmoutDS	4270	Nov 2 2013	77	260.65	263.56		263.64	0.000363	1.24	63.78	37.86	0.27
KinmoutDS	4270	April 16 2014	175	260.65	264.72		264.87	0.000398	1.73	127.4	77.26	0.31

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	4270	May 8 2017	142	260.65	264.38		264.51	0.000393	1.6	104.19	60.84	0.3
KinmoutDS	4270	April 21 2013	216.5	260.65	265.12		265.28	0.000396	1.86	158.39	79.43	0.31
KinmoutDS	4250	Timmins_Uncalibr	452.5	260.55	266.88		267.13	0.000389	2.43	304.19	95.7	0.33
KinmoutDS	4250	Timmins_Calibrat	115.8	260.55	264.07		264.18	0.000354	1.45	88.52	45.87	0.28
KinmoutDS	4250	TimminsCC_Calibr	145.4	260.55	264.41		264.54	0.000368	1.6	105.38	57.66	0.29
KinmoutDS	4250	2y	109.5	260.55	263.99		264.09	0.00035	1.41	84.98	45.34	0.28
KinmoutDS	4250	5y	145.9	260.55	264.42		264.54	0.00037	1.6	105.53	57.95	0.29
KinmoutDS	4250	10y	170.6	260.55	264.67		264.81	0.000382	1.71	122.65	74.49	0.3
KinmoutDS	4250	25y	203	260.55	264.98		265.14	0.000388	1.83	146.12	77.76	0.31
KinmoutDS	4250	50y	228.8	260.55	265.22		265.39	0.000387	1.91	164.74	78.73	0.31
KinmoutDS	4250	100y	256.7	260.55	265.47		265.65	0.000384	1.98	184.54	79.86	0.31
KinmoutDS	4250	200y	287.4	260.55	265.72		265.92	0.000382	2.06	205.09	81.02	0.31
KinmoutDS	4250	350y	314.5	260.55	265.93		266.14	0.000382	2.12	222.27	81.92	0.32
KinmoutDS	4250	Sept 25 2021	68.8	260.55	263.43		263.5	0.000311	1.14	61.82	37.52	0.25
KinmoutDS	4250	July 13 2024	53.2	260.55	263.18		263.23	0.000289	1.01	53.02	30.35	0.24
KinmoutDS	4250	April 21 2019	228.5	260.55	265.21		265.39	0.000387	1.91	164.51	78.72	0.31
KinmoutDS	4250	Nov 2 2013	77	260.55	263.56		263.63	0.000322	1.2	66.47	38.49	0.26
KinmoutDS	4250	April 16 2014	175	260.55	264.71		264.86	0.000383	1.73	125.92	74.87	0.3
KinmoutDS	4250	May 8 2017	142	260.55	264.37		264.5	0.000368	1.58	103.15	53.82	0.29
KinmoutDS	4250	April 21 2013	216.5	260.55	265.11		265.27	0.000387	1.87	156.09	78.3	0.31
KinmoutDS	4231	Timmins_Uncalibr	452.5	260.31	266.87		267.13	0.000391	2.44	309.73	100.47	0.33
KinmoutDS	4231	Timmins_Calibrat	115.8	260.31	264.06		264.17	0.000345	1.45	85.29	43.36	0.27
KinmoutDS	4231	TimminsCC_Calibr	145.4	260.31	264.4		264.53	0.000366	1.61	103.61	63.45	0.29
KinmoutDS	4231	2y	109.5	260.31	263.99		264.09	0.000339	1.41	82.05	41.07	0.27
KinmoutDS	4231	5y	145.9	260.31	264.41		264.54	0.000367	1.61	103.77	63.61	0.29
KinmoutDS	4231	10y	170.6	260.31	264.66		264.81	0.000379	1.73	122.18	77.25	0.3
KinmoutDS	4231	25y	203	260.31	264.97		265.13	0.000388	1.85	146.33	79.81	0.3
KinmoutDS	4231	50y	228.8	260.31	265.21		265.38	0.000388	1.93	165.43	81.02	0.31
KinmoutDS	4231	100y	256.7	260.31	265.46		265.64	0.000385	2	185.8	81.89	0.31
KinmoutDS	4231	200y	287.4	260.31	265.71		265.91	0.000384	2.08	206.86	83.04	0.31
KinmoutDS	4231	350y	314.5	260.31	265.92		266.13	0.000385	2.14	224.48	84.03	0.31
KinmoutDS	4231	Sept 25 2021	68.8	260.31	263.43		263.49	0.000284	1.12	62.15	32.01	0.24
KinmoutDS	4231	July 13 2024	53.2	260.31	263.17		263.22	0.000249	0.98	54.36	27.96	0.22
KinmoutDS	4231	April 21 2019	228.5	260.31	265.2		265.38	0.000388	1.93	165.19	81.01	0.31
KinmoutDS	4231	Nov 2 2013	77	260.31	263.55		263.62	0.000301	1.19	66.09	32.61	0.25
KinmoutDS	4231	April 16 2014	175	260.31	264.7		264.85	0.00038	1.74	125.57	77.58	0.3
KinmoutDS	4231	May 8 2017	142	260.31	264.36		264.49	0.000365	1.6	101.13	61.08	0.29
KinmoutDS	4231	April 21 2013	216.5	260.31	265.1		265.27	0.000387	1.89	156.55	80.46	0.31
KinmoutDS	4212	Timmins_Uncalibr	452.5	260.05	266.87		267.11	0.000356	2.37	332.88	107.54	0.31
KinmoutDS	4212	Timmins_Calibrat	115.8	260.05	264.06		264.16	0.000305	1.41	91.75	58.62	0.26
KinmoutDS	4212	TimminsCC_Calibr	145.4	260.05	264.4		264.52	0.000324	1.56	115.24	78.46	0.27
KinmoutDS	4212	2y	109.5	260.05	263.98		264.08	0.000299	1.37	87.36	54.62	0.26
KinmoutDS	4212	5y	145.9	260.05	264.41		264.53	0.000325	1.57	115.44	78.55	0.27

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	4212	10y	170.6	260.05	264.66		264.8	0.000335	1.67	136.14	81.79	0.28
KinmoutDS	4212	25y	203	260.05	264.97		265.12	0.000344	1.79	161.56	82.92	0.29
KinmoutDS	4212	50y	228.8	260.05	265.21		265.37	0.000345	1.86	181.43	83.88	0.29
KinmoutDS	4212	100y	256.7	260.05	265.46		265.63	0.000345	1.94	202.56	84.76	0.3
KinmoutDS	4212	200y	287.4	260.05	265.71		265.9	0.000345	2.01	224.38	85.7	0.3
KinmoutDS	4212	350y	314.5	260.05	265.93		266.12	0.000346	2.08	242.58	86.63	0.3
KinmoutDS	4212	Sept 25 2021	68.8	260.05	263.43		263.49	0.000244	1.08	64.71	33.47	0.22
KinmoutDS	4212	July 13 2024	53.2	260.05	263.17		263.22	0.000212	0.94	56.98	27.33	0.21
KinmoutDS	4212	April 21 2019	228.5	260.05	265.21		265.37	0.000346	1.86	181.19	83.87	0.29
KinmoutDS	4212	Nov 2 2013	77	260.05	263.55		263.62	0.000258	1.14	68.86	34.78	0.23
KinmoutDS	4212	April 16 2014	175	260.05	264.71		264.84	0.000336	1.69	139.74	81.92	0.28
KinmoutDS	4212	May 8 2017	142	260.05	264.36		264.48	0.000323	1.55	112.13	76.15	0.27
KinmoutDS	4212	April 21 2013	216.5	260.05	265.1		265.25	0.000344	1.83	172.21	83.45	0.29
KinmoutDS	4191	Timmins_Uncalibr	452.5	259.77	266.88		267.1	0.000331	2.33	343.59	116.61	0.3
KinmoutDS	4191	Timmins_Calibrat	115.8	259.77	264.06		264.15	0.000265	1.36	95.64	58.49	0.24
KinmoutDS	4191	TimminsCC_Calibr	145.4	259.77	264.4		264.52	0.000287	1.52	119.51	81.51	0.26
KinmoutDS	4191	2y	109.5	259.77	263.98		264.07	0.000259	1.33	91.3	54.23	0.24
KinmoutDS	4191	5y	145.9	259.77	264.4		264.52	0.000288	1.52	119.71	81.57	0.26
KinmoutDS	4191	10y	170.6	259.77	264.66		264.79	0.0003	1.63	141.06	84.47	0.27
KinmoutDS	4191	25y	203	259.77	264.97		265.11	0.000311	1.75	167.33	85.71	0.28
KinmoutDS	4191	50y	228.8	259.77	265.21		265.36	0.000315	1.83	187.84	86.36	0.28
KinmoutDS	4191	100y	256.7	259.77	265.46		265.62	0.000316	1.9	209.57	87.06	0.28
KinmoutDS	4191	200y	287.4	259.77	265.71		265.89	0.000318	1.98	231.98	87.97	0.29
KinmoutDS	4191	350y	314.5	259.77	265.92		266.11	0.00032	2.04	250.66	88.79	0.29
KinmoutDS	4191	Sept 25 2021	68.8	259.77	263.43		263.48	0.000204	1.03	69.3	34.74	0.21
KinmoutDS	4191	July 13 2024	53.2	259.77	263.17		263.21	0.000172	0.89	60.63	30.82	0.19
KinmoutDS	4191	April 21 2019	228.5	259.77	265.2		265.36	0.000315	1.83	187.58	86.35	0.28
KinmoutDS	4191	Nov 2 2013	77	259.77	263.55		263.61	0.000217	1.1	73.55	35.16	0.22
KinmoutDS	4191	April 16 2014	175	259.77	264.7		264.83	0.000302	1.65	144.78	84.67	0.27
KinmoutDS	4191	May 8 2017	142	259.77	264.36		264.47	0.000286	1.51	116.27	80.17	0.26
KinmoutDS	4191	April 21 2013	216.5	259.77	265.1		265.25	0.000313	1.79	178.33	86.06	0.28
KinmoutDS	4170	Timmins_Uncalibr	452.5	259.48	266.88		267.09	0.000314	2.28	354.5	123.54	0.29
KinmoutDS	4170	Timmins_Calibrat	115.8	259.48	264.06		264.15	0.000232	1.31	101.98	63.89	0.23
KinmoutDS	4170	TimminsCC_Calibr	145.4	259.48	264.4		264.51	0.000255	1.46	126.81	80.15	0.24
KinmoutDS	4170	2y	109.5	259.48	263.98		264.06	0.000226	1.27	97.14	60.99	0.22
KinmoutDS	4170	5y	145.9	259.48	264.4		264.51	0.000256	1.47	127.01	80.17	0.24
KinmoutDS	4170	10y	170.6	259.48	264.66		264.78	0.00027	1.58	147.67	81.44	0.25
KinmoutDS	4170	25y	203	259.48	264.97		265.1	0.000284	1.7	172.96	82.76	0.26
KinmoutDS	4170	50y	228.8	259.48	265.21		265.35	0.00029	1.78	192.78	83.71	0.27
KinmoutDS	4170	100y	256.7	259.48	265.46		265.61	0.000293	1.85	213.87	84.9	0.27
KinmoutDS	4170	200y	287.4	259.48	265.71		265.88	0.000297	1.93	235.98	89.79	0.28
KinmoutDS	4170	350y	314.5	259.48	265.92		266.1	0.000301	2	255.52	93.98	0.28
KinmoutDS	4170	Sept 25 2021	68.8	259.48	263.43		263.48	0.000171	0.98	72.31	35.61	0.19
KinmoutDS	4170	July 13 2024	53.2	259.48	263.17		263.21	0.000142	0.84	63.79	29.55	0.17

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	4170	April 21 2019	228.5	259.48	265.2		265.35	0.00029	1.78	192.53	83.7	0.27
KinmoutDS	4170	Nov 2 2013	77	259.48	263.55		263.6	0.000184	1.04	76.84	38.22	0.2
KinmoutDS	4170	April 16 2014	175	259.48	264.7		264.83	0.000272	1.59	151.25	81.59	0.25
KinmoutDS	4170	May 8 2017	142	259.48	264.36		264.47	0.000254	1.45	123.62	78.99	0.24
KinmoutDS	4170	April 21 2013	216.5	259.48	265.1		265.24	0.000287	1.74	183.58	83.27	0.27
KinmoutDS	4150	Timmins_Uncalibr	452.5	259.22	266.87		267.09	0.000301	2.29	365.03	141.39	0.29
KinmoutDS	4150	Timmins_Calibrat	115.8	259.22	264.06		264.14	0.0002	1.26	102.75	58.82	0.22
KinmoutDS	4150	TimminsCC_Calibr	145.4	259.22	264.4		264.5	0.000225	1.43	126.49	74.21	0.23
KinmoutDS	4150	2y	109.5	259.22	263.98		264.06	0.000193	1.22	98.53	50.93	0.21
KinmoutDS	4150	5y	145.9	259.22	264.4		264.5	0.000226	1.43	126.68	74.22	0.23
KinmoutDS	4150	10y	170.6	259.22	264.66		264.77	0.000242	1.54	145.77	75.95	0.24
KinmoutDS	4150	25y	203	259.22	264.96		265.1	0.000259	1.67	169.35	77.76	0.25
KinmoutDS	4150	50y	228.8	259.22	265.2		265.35	0.000268	1.76	187.91	79.21	0.26
KinmoutDS	4150	100y	256.7	259.22	265.45		265.61	0.000275	1.85	208.18	87.49	0.27
KinmoutDS	4150	200y	287.4	259.22	265.7		265.87	0.000282	1.94	232.25	97.78	0.27
KinmoutDS	4150	350y	314.5	259.22	265.91		266.09	0.000287	2.01	253.65	106.44	0.28
KinmoutDS	4150	Sept 25 2021	68.8	259.22	263.43		263.47	0.000141	0.93	76.8	35.49	0.17
KinmoutDS	4150	July 13 2024	53.2	259.22	263.17		263.2	0.000115	0.79	68.26	32.05	0.16
KinmoutDS	4150	April 21 2019	228.5	259.22	265.2		265.34	0.000268	1.76	187.68	79.19	0.26
KinmoutDS	4150	Nov 2 2013	77	259.22	263.55		263.6	0.000153	0.99	81.14	35.91	0.18
KinmoutDS	4150	April 16 2014	175	259.22	264.7		264.82	0.000244	1.56	149.1	76.25	0.24
KinmoutDS	4150	May 8 2017	142	259.22	264.36		264.46	0.000223	1.41	123.52	73.97	0.23
KinmoutDS	4150	April 21 2013	216.5	259.22	265.09		265.23	0.000263	1.72	179.28	78.54	0.26
KinmoutDS	4130	Timmins_Uncalibr	452.5	259.31	266.86		267.08	0.000305	2.28	372.33	146.68	0.29
KinmoutDS	4130	Timmins_Calibrat	115.8	259.31	264.06		264.14	0.000205	1.26	107.65	63.78	0.22
KinmoutDS	4130	TimminsCC_Calibr	145.4	259.31	264.4		264.5	0.000228	1.42	129.82	65.93	0.23
KinmoutDS	4130	2y	109.5	259.31	263.98		264.05	0.000198	1.22	102.83	61.23	0.21
KinmoutDS	4130	5y	145.9	259.31	264.4		264.5	0.000229	1.42	129.99	65.94	0.23
KinmoutDS	4130	10y	170.6	259.31	264.65		264.77	0.000246	1.53	146.86	66.94	0.24
KinmoutDS	4130	25y	203	259.31	264.96		265.09	0.000264	1.67	167.49	67.91	0.25
KinmoutDS	4130	50y	228.8	259.31	265.2		265.34	0.000275	1.76	183.89	72.8	0.26
KinmoutDS	4130	100y	256.7	259.31	265.44		265.6	0.000283	1.85	202.93	84	0.27
KinmoutDS	4130	200y	287.4	259.31	265.7		265.87	0.000291	1.94	227.4	107.73	0.27
KinmoutDS	4130	350y	314.5	259.31	265.91		266.09	0.000296	2.01	250.91	116.54	0.28
KinmoutDS	4130	Sept 25 2021	68.8	259.31	263.42		263.47	0.000145	0.93	76.93	35.44	0.17
KinmoutDS	4130	July 13 2024	53.2	259.31	263.17		263.2	0.000119	0.79	68.32	31.18	0.16
KinmoutDS	4130	April 21 2019	228.5	259.31	265.19		265.34	0.000275	1.76	183.68	72.75	0.26
KinmoutDS	4130	Nov 2 2013	77	259.31	263.55		263.6	0.000157	0.99	81.31	37.81	0.18
KinmoutDS	4130	April 16 2014	175	259.31	264.7		264.81	0.000248	1.55	149.79	67.08	0.24
KinmoutDS	4130	May 8 2017	142	259.31	264.36		264.45	0.000226	1.4	127.18	65.77	0.23
KinmoutDS	4130	April 21 2013	216.5	259.31	265.09		265.23	0.000269	1.72	176.13	69.26	0.26
KinmoutDS	4109	Timmins_Uncalibr	452.5	259.42	266.85		267.07	0.000304	2.29	363.04	146.41	0.29
KinmoutDS	4109	Timmins_Calibrat	115.8	259.42	264.05		264.13	0.000195	1.24	105.77	50.83	0.21

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	4109	TimminsCC_Calibr	145.4	259.42	264.39		264.49	0.00022	1.4	123.55	53.46	0.23
KinmoutDS	4109	2y	109.5	259.42	263.98		264.05	0.000189	1.2	101.94	48.66	0.21
KinmoutDS	4109	5y	145.9	259.42	264.4		264.49	0.000221	1.4	123.69	53.59	0.23
KinmoutDS	4109	10y	170.6	259.42	264.65		264.76	0.000239	1.52	137.46	54.92	0.24
KinmoutDS	4109	25y	203	259.42	264.95		265.09	0.00026	1.66	155.02	59.88	0.25
KinmoutDS	4109	50y	228.8	259.42	265.19		265.34	0.000272	1.76	170.46	74.18	0.26
KinmoutDS	4109	100y	256.7	259.42	265.43		265.6	0.000281	1.85	191.03	94.44	0.27
KinmoutDS	4109	200y	287.4	259.42	265.69		265.86	0.000289	1.94	216.44	109.98	0.27
KinmoutDS	4109	350y	314.5	259.42	265.9		266.08	0.000295	2.02	240.65	118.07	0.28
KinmoutDS	4109	Sept 25 2021	68.8	259.42	263.42		263.46	0.000139	0.91	78.25	37.49	0.17
KinmoutDS	4109	July 13 2024	53.2	259.42	263.17		263.2	0.000114	0.78	69.41	33.14	0.15
KinmoutDS	4109	April 21 2019	228.5	259.42	265.19		265.33	0.000272	1.76	170.25	73.98	0.26
KinmoutDS	4109	Nov 2 2013	77	259.42	263.54		263.59	0.000151	0.98	83.05	40.51	0.18
KinmoutDS	4109	April 16 2014	175	259.42	264.69		264.81	0.000242	1.54	139.87	56.01	0.24
KinmoutDS	4109	May 8 2017	142	259.42	264.35		264.45	0.000218	1.38	121.44	52.99	0.23
KinmoutDS	4109	April 21 2013	216.5	259.42	265.08		265.22	0.000266	1.72	162.88	66.45	0.26
KinmoutDS	4089	Timmins_Uncalibr	452.5	259.54	266.82		267.06	0.000328	2.38	331.07	148.13	0.31
KinmoutDS	4089	Timmins_Calibrat	115.8	259.54	264.05		264.13	0.000201	1.26	101.12	41.19	0.22
KinmoutDS	4089	TimminsCC_Calibr	145.4	259.54	264.39		264.49	0.000228	1.43	115.38	43.64	0.23
KinmoutDS	4089	2y	109.5	259.54	263.97		264.05	0.000195	1.22	97.98	40.85	0.21
KinmoutDS	4089	5y	145.9	259.54	264.39		264.49	0.000229	1.43	115.49	43.68	0.23
KinmoutDS	4089	10y	170.6	259.54	264.64		264.76	0.000248	1.56	126.86	46.54	0.25
KinmoutDS	4089	25y	203	259.54	264.94		265.08	0.000271	1.7	141.06	47.67	0.26
KinmoutDS	4089	50y	228.8	259.54	265.17		265.33	0.000285	1.81	152.56	53.74	0.27
KinmoutDS	4089	100y	256.7	259.54	265.41		265.59	0.000297	1.91	167.69	68.51	0.28
KinmoutDS	4089	200y	287.4	259.54	265.66		265.85	0.000308	2.02	187.36	94.42	0.29
KinmoutDS	4089	350y	314.5	259.54	265.87		266.07	0.000317	2.1	209.61	117.2	0.29
KinmoutDS	4089	Sept 25 2021	68.8	259.54	263.42		263.46	0.000144	0.93	76.75	35.87	0.18
KinmoutDS	4089	July 13 2024	53.2	259.54	263.16		263.19	0.000119	0.79	68.2	31.06	0.16
KinmoutDS	4089	April 21 2019	228.5	259.54	265.17		265.33	0.000285	1.81	152.41	53.7	0.27
KinmoutDS	4089	Nov 2 2013	77	259.54	263.54		263.59	0.000156	1	81.13	36.8	0.19
KinmoutDS	4089	April 16 2014	175	259.54	264.68		264.8	0.000252	1.58	128.86	46.73	0.25
KinmoutDS	4089	May 8 2017	142	259.54	264.35		264.44	0.000225	1.41	113.66	43.04	0.23
KinmoutDS	4089	April 21 2013	216.5	259.54	265.06		265.21	0.000278	1.76	147.07	49.46	0.27
KinmoutDS	4069	Timmins_Uncalibr	452.5	259.65	266.75		267.05	0.000408	2.55	302.35	156.39	0.33
KinmoutDS	4069	Timmins_Calibrat	115.8	259.65	264.04		264.12	0.000232	1.3	90.46	29.76	0.23
KinmoutDS	4069	TimminsCC_Calibr	145.4	259.65	264.37		264.48	0.000267	1.48	100.57	31.01	0.25
KinmoutDS	4069	2y	109.5	259.65	263.96		264.04	0.000224	1.26	88.23	29.53	0.22
KinmoutDS	4069	5y	145.9	259.65	264.37		264.48	0.000268	1.48	100.64	31.02	0.25
KinmoutDS	4069	10y	170.6	259.65	264.62		264.75	0.000295	1.62	108.38	32	0.26
KinmoutDS	4069	25y	203	259.65	264.91		265.07	0.000328	1.8	118.17	36.18	0.28
KinmoutDS	4069	50y	228.8	259.65	265.13		265.32	0.000349	1.92	127.08	43.1	0.29
KinmoutDS	4069	100y	256.7	259.65	265.37		265.58	0.000367	2.04	138.21	53.82	0.3
KinmoutDS	4069	200y	287.4	259.65	265.61		265.84	0.000386	2.16	155.32	92.15	0.31

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	4069	350y	314.5	259.65	265.81		266.06	0.000399	2.25	176.34	118.73	0.32
KinmoutDS	4069	Sept 25 2021	68.8	259.65	263.41		263.46	0.000161	0.95	72.71	26.92	0.18
KinmoutDS	4069	July 13 2024	53.2	259.65	263.16		263.19	0.00013	0.81	66.01	26.11	0.16
KinmoutDS	4069	April 21 2019	228.5	259.65	265.13		265.32	0.000349	1.92	126.96	43.02	0.29
KinmoutDS	4069	Nov 2 2013	77	259.65	263.53		263.59	0.000176	1.02	75.98	27.56	0.19
KinmoutDS	4069	April 16 2014	175	259.65	264.66		264.8	0.000299	1.65	109.72	32.17	0.26
KinmoutDS	4069	May 8 2017	142	259.65	264.33		264.44	0.000264	1.46	99.36	30.85	0.24
KinmoutDS	4069	April 21 2013	216.5	259.65	265.03		265.21	0.000339	1.86	122.75	39.8	0.28
KinmoutDS	4049	Timmins_Uncalibr	452.5	259.77	266.75		267.04	0.000412	2.5	318.66	166.02	0.32
KinmoutDS	4049	Timmins_Calibrat	115.8	259.77	264.03		264.12	0.000233	1.3	90.23	29.49	0.23
KinmoutDS	4049	TimminsCC_Calibr	145.4	259.77	264.36		264.47	0.000271	1.48	100.28	30.88	0.25
KinmoutDS	4049	2y	109.5	259.77	263.96		264.04	0.000223	1.26	88.03	29.13	0.22
KinmoutDS	4049	5y	145.9	259.77	264.37		264.48	0.000272	1.49	100.35	30.89	0.25
KinmoutDS	4049	10y	170.6	259.77	264.61		264.74	0.000303	1.63	108.02	31.83	0.26
KinmoutDS	4049	25y	203	259.77	264.9		265.07	0.000341	1.8	117.91	36.94	0.28
KinmoutDS	4049	50y	228.8	259.77	265.13		265.31	0.000366	1.92	127.11	48.05	0.29
KinmoutDS	4049	100y	256.7	259.77	265.36		265.57	0.000387	2.03	140.49	68.41	0.3
KinmoutDS	4049	200y	287.4	259.77	265.6		265.83	0.000404	2.15	161.85	107.93	0.31
KinmoutDS	4049	350y	314.5	259.77	265.81		266.05	0.000413	2.23	185.64	125.06	0.32
KinmoutDS	4049	Sept 25 2021	68.8	259.77	263.41		263.46	0.000156	0.95	72.81	26.45	0.18
KinmoutDS	4049	July 13 2024	53.2	259.77	263.16		263.19	0.000126	0.8	66.2	25.9	0.16
KinmoutDS	4049	April 21 2019	228.5	259.77	265.12		265.31	0.000365	1.92	126.98	47.87	0.29
KinmoutDS	4049	Nov 2 2013	77	259.77	263.53		263.58	0.000171	1.02	76.02	27.12	0.19
KinmoutDS	4049	April 16 2014	175	259.77	264.65		264.79	0.000308	1.65	109.36	32.07	0.26
KinmoutDS	4049	May 8 2017	142	259.77	264.32		264.43	0.000268	1.46	99.08	30.74	0.24
KinmoutDS	4049	April 21 2013	216.5	259.77	265.02		265.2	0.000354	1.86	122.53	40.82	0.29
KinmoutDS	4029	Timmins_Uncalibr	452.5	259.88	266.75		267.03	0.000399	2.47	331.47	170.34	0.32
KinmoutDS	4029	Timmins_Calibrat	115.8	259.88	264.03		264.11	0.000242	1.3	90.35	32.19	0.23
KinmoutDS	4029	TimminsCC_Calibr	145.4	259.88	264.36		264.47	0.000283	1.48	101.44	34.68	0.25
KinmoutDS	4029	2y	109.5	259.88	263.95		264.03	0.000233	1.26	87.95	31.75	0.22
KinmoutDS	4029	5y	145.9	259.88	264.36		264.47	0.000284	1.49	101.52	34.7	0.25
KinmoutDS	4029	10y	170.6	259.88	264.6		264.74	0.000311	1.63	110.34	36.94	0.26
KinmoutDS	4029	25y	203	259.88	264.9		265.06	0.000342	1.79	121.35	38.24	0.28
KinmoutDS	4029	50y	228.8	259.88	265.12		265.31	0.000363	1.91	130.26	42.31	0.29
KinmoutDS	4029	100y	256.7	259.88	265.36		265.56	0.00038	2.02	142.3	67.52	0.3
KinmoutDS	4029	200y	287.4	259.88	265.6		265.83	0.000399	2.14	163.86	111.18	0.31
KinmoutDS	4029	350y	314.5	259.88	265.8		266.04	0.000407	2.23	189.14	135.87	0.32
KinmoutDS	4029	Sept 25 2021	68.8	259.88	263.41		263.45	0.000163	0.95	72.32	26.13	0.18
KinmoutDS	4029	July 13 2024	53.2	259.88	263.15		263.19	0.000131	0.81	65.74	25.86	0.16
KinmoutDS	4029	April 21 2019	228.5	259.88	265.12		265.3	0.000362	1.91	130.15	42.24	0.29
KinmoutDS	4029	Nov 2 2013	77	259.88	263.53		263.58	0.000178	1.02	75.44	26.26	0.19
KinmoutDS	4029	April 16 2014	175	259.88	264.65		264.78	0.000315	1.65	111.9	37.11	0.27
KinmoutDS	4029	May 8 2017	142	259.88	264.32		264.43	0.000279	1.47	100.09	34.42	0.25
KinmoutDS	4029	April 21 2013	216.5	259.88	265.02		265.19	0.000353	1.85	126.01	39.49	0.29

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	4009	Timmins_Uncalibr	452.5	259.85	266.75		267.02	0.000383	2.43	351	183.55	0.32
KinmoutDS	4009	Timmins_Calibrat	115.8	259.85	264.02		264.11	0.000244	1.29	90.58	31.95	0.23
KinmoutDS	4009	TimminsCC_Calibr	145.4	259.85	264.35		264.46	0.000278	1.47	101.99	37.57	0.25
KinmoutDS	4009	2y	109.5	259.85	263.95		264.03	0.000236	1.25	88.21	31.13	0.22
KinmoutDS	4009	5y	145.9	259.85	264.36		264.47	0.000279	1.48	102.08	37.59	0.25
KinmoutDS	4009	10y	170.6	259.85	264.6		264.73	0.000305	1.61	111.58	39.93	0.26
KinmoutDS	4009	25y	203	259.85	264.89		265.05	0.000336	1.78	123.48	41.3	0.28
KinmoutDS	4009	50y	228.8	259.85	265.12		265.3	0.000356	1.89	133.31	48.74	0.29
KinmoutDS	4009	100y	256.7	259.85	265.35		265.55	0.000373	2.01	146.3	68.15	0.3
KinmoutDS	4009	200y	287.4	259.85	265.59		265.82	0.000393	2.13	169.13	115.35	0.31
KinmoutDS	4009	350y	314.5	259.85	265.79		266.03	0.000403	2.22	196.2	149.36	0.31
KinmoutDS	4009	Sept 25 2021	68.8	259.85	263.4		263.45	0.000164	0.95	72.77	26.57	0.18
KinmoutDS	4009	July 13 2024	53.2	259.85	263.15		263.18	0.00013	0.8	66.13	26.1	0.16
KinmoutDS	4009	April 21 2019	228.5	259.85	265.11		265.29	0.000356	1.89	133.18	48.5	0.29
KinmoutDS	4009	Nov 2 2013	77	259.85	263.52		263.57	0.000181	1.01	75.95	26.8	0.19
KinmoutDS	4009	April 16 2014	175	259.85	264.64		264.78	0.00031	1.63	113.26	40.18	0.26
KinmoutDS	4009	May 8 2017	142	259.85	264.31		264.42	0.000275	1.45	100.54	37.02	0.25
KinmoutDS	4009	April 21 2013	216.5	259.85	265.01		265.18	0.000346	1.84	128.54	43.89	0.28
KinmoutDS	3989	Timmins_Uncalibr	452.5	259.73	266.76		267	0.00033	2.33	387.6	197.49	0.3
KinmoutDS	3989	Timmins_Calibrat	115.8	259.73	264.02		264.1	0.000215	1.26	96.36	39.46	0.22
KinmoutDS	3989	TimminsCC_Calibr	145.4	259.73	264.35		264.46	0.000245	1.43	109.76	42.58	0.24
KinmoutDS	3989	2y	109.5	259.73	263.95		264.02	0.000208	1.22	93.41	38.8	0.22
KinmoutDS	3989	5y	145.9	259.73	264.36		264.46	0.000246	1.43	109.86	42.61	0.24
KinmoutDS	3989	10y	170.6	259.73	264.6		264.72	0.000268	1.56	120.64	44.99	0.25
KinmoutDS	3989	25y	203	259.73	264.89		265.04	0.000294	1.72	134.18	47.77	0.27
KinmoutDS	3989	50y	228.8	259.73	265.12		265.29	0.000311	1.83	145.88	57.97	0.28
KinmoutDS	3989	100y	256.7	259.73	265.36		265.54	0.000326	1.94	162.35	85.98	0.29
KinmoutDS	3989	200y	287.4	259.73	265.6		265.8	0.000341	2.05	189.2	130.18	0.3
KinmoutDS	3989	350y	314.5	259.73	265.8		266.02	0.000347	2.13	218.53	158.12	0.3
KinmoutDS	3989	Sept 25 2021	68.8	259.73	263.4		263.44	0.000153	0.92	75.1	30.17	0.18
KinmoutDS	3989	July 13 2024	53.2	259.73	263.15		263.18	0.000127	0.79	67.66	28.77	0.16
KinmoutDS	3989	April 21 2019	228.5	259.73	265.12		265.28	0.000311	1.83	145.73	57.77	0.28
KinmoutDS	3989	Nov 2 2013	77	259.73	263.52		263.57	0.000165	0.99	78.73	30.83	0.19
KinmoutDS	3989	April 16 2014	175	259.73	264.64		264.77	0.000272	1.59	122.54	45.25	0.26
KinmoutDS	3989	May 8 2017	142	259.73	264.31		264.41	0.000242	1.41	108.12	41.17	0.24
KinmoutDS	3989	April 21 2013	216.5	259.73	265.02		265.17	0.000303	1.78	140.23	51.86	0.27
KinmoutDS	3970	Timmins_Uncalibr	452.5	258.04	266.82		266.97	0.000182	1.86	462.03	213.29	0.23
KinmoutDS	3970	Timmins_Calibrat	115.8	258.04	264.05		264.09	0.000085	0.9	132.26	41.94	0.14
KinmoutDS	3970	TimminsCC_Calibr	145.4	258.04	264.38		264.44	0.000103	1.04	148.1	50.48	0.16
KinmoutDS	3970	2y	109.5	258.04	263.97		264.01	0.000081	0.87	129.08	41.37	0.14
KinmoutDS	3970	5y	145.9	258.04	264.39		264.44	0.000103	1.05	148.22	50.5	0.16
KinmoutDS	3970	10y	170.6	258.04	264.64		264.7	0.000117	1.16	161.06	51.87	0.17
KinmoutDS	3970	25y	203	258.04	264.94		265.02	0.000133	1.29	177.02	56.42	0.18

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3970	50y	228.8	258.04	265.17		265.26	0.000145	1.38	190.77	64.7	0.19
KinmoutDS	3970	100y	256.7	258.04	265.41		265.51	0.000155	1.47	211.04	119.56	0.2
KinmoutDS	3970	200y	287.4	258.04	265.65		265.77	0.000166	1.56	246.14	158	0.21
KinmoutDS	3970	350y	314.5	258.04	265.86		265.99	0.000172	1.63	280.87	174.63	0.21
KinmoutDS	3970	Sept 25 2021	68.8	258.04	263.42		263.44	0.000052	0.63	108.71	32.72	0.11
KinmoutDS	3970	July 13 2024	53.2	258.04	263.16		263.17	0.000039	0.53	100.74	29.98	0.09
KinmoutDS	3970	April 21 2019	228.5	258.04	265.16		265.26	0.000144	1.38	190.59	64.51	0.19
KinmoutDS	3970	Nov 2 2013	77	258.04	263.54		263.56	0.000059	0.69	112.76	34.35	0.11
KinmoutDS	3970	April 16 2014	175	258.04	264.68		264.75	0.000119	1.17	163.29	52.1	0.17
KinmoutDS	3970	May 8 2017	142	258.04	264.34		264.4	0.000101	1.03	146.11	49.5	0.16
KinmoutDS	3970	April 21 2013	216.5	258.04	265.06		265.15	0.000139	1.33	184.2	59.97	0.19
KinmoutDS	3942	Timmins_Uncalibr	452.5	253.49	266.9		266.93	0.000026	0.87	792.75	248.99	0.09
KinmoutDS	3942	Timmins_Calibrat	115.8	253.49	264.07		264.08	0.000006	0.34	357.02	71.93	0.04
KinmoutDS	3942	TimminsCC_Calibr	145.4	253.49	264.42		264.42	0.000008	0.4	383.38	79.7	0.05
KinmoutDS	3942	2y	109.5	253.49	263.99		264	0.000006	0.32	351.42	71.45	0.04
KinmoutDS	3942	5y	145.9	253.49	264.42		264.43	0.000008	0.4	383.59	79.72	0.05
KinmoutDS	3942	10y	170.6	253.49	264.68		264.69	0.00001	0.45	404.25	81	0.05
KinmoutDS	3942	25y	203	253.49	264.98		265	0.000012	0.52	429.86	87.31	0.06
KinmoutDS	3942	50y	228.8	253.49	265.22		265.24	0.000014	0.56	451.88	102.29	0.06
KinmoutDS	3942	100y	256.7	253.49	265.47		265.49	0.000016	0.61	484.88	176.94	0.07
KinmoutDS	3942	200y	287.4	253.49	265.72		265.74	0.000018	0.66	532.47	199.47	0.07
KinmoutDS	3942	350y	314.5	253.49	265.93		265.96	0.000019	0.7	575.51	205.72	0.08
KinmoutDS	3942	Sept 25 2021	68.8	253.49	263.43		263.43	0.000003	0.22	313.23	63.02	0.03
KinmoutDS	3942	July 13 2024	53.2	253.49	263.17		263.17	0.000002	0.18	297.17	60.82	0.02
KinmoutDS	3942	April 21 2019	228.5	253.49	265.22		265.23	0.000014	0.56	451.6	101.8	0.06
KinmoutDS	3942	Nov 2 2013	77	253.49	263.55		263.55	0.000004	0.24	321.08	65.74	0.03
KinmoutDS	3942	April 16 2014	175	253.49	264.72		264.73	0.00001	0.46	407.83	81.18	0.05
KinmoutDS	3942	May 8 2017	142	253.49	264.38		264.38	0.000008	0.4	380.15	79.47	0.05
KinmoutDS	3942	April 21 2013	216.5	253.49	265.11		265.13	0.000013	0.54	441.23	92.66	0.06
KinmoutDS	3917	Timmins_Uncalibr	452.5	256.29	266.88		266.93	0.000049	1.07	712.85	255.46	0.12
KinmoutDS	3917	Timmins_Calibrat	115.8	256.29	264.06		264.07	0.000018	0.48	261.52	78.25	0.07
KinmoutDS	3917	TimminsCC_Calibr	145.4	256.29	264.41		264.42	0.000022	0.56	290.12	85.04	0.08
KinmoutDS	3917	2y	109.5	256.29	263.99		264	0.000017	0.46	255.53	75.64	0.07
KinmoutDS	3917	5y	145.9	256.29	264.41		264.43	0.000022	0.56	290.35	85.06	0.08
KinmoutDS	3917	10y	170.6	256.29	264.67		264.68	0.000026	0.62	312.38	88.68	0.08
KinmoutDS	3917	25y	203	256.29	264.97		265	0.00003	0.7	341.09	97.73	0.09
KinmoutDS	3917	50y	228.8	256.29	265.21		265.23	0.000033	0.75	365.81	116.12	0.1
KinmoutDS	3917	100y	256.7	256.29	265.45		265.48	0.000036	0.8	399.41	170.72	0.1
KinmoutDS	3917	200y	287.4	256.29	265.7		265.74	0.000039	0.86	447.3	204.27	0.11
KinmoutDS	3917	350y	314.5	256.29	265.91		265.95	0.000042	0.9	491.13	210.57	0.11
KinmoutDS	3917	Sept 25 2021	68.8	256.29	263.42		263.43	0.00001	0.33	216.25	67.61	0.05
KinmoutDS	3917	July 13 2024	53.2	256.29	263.17		263.17	0.000007	0.27	199.47	62.52	0.04
KinmoutDS	3917	April 21 2019	228.5	256.29	265.2		265.23	0.000033	0.75	365.5	115.91	0.1
KinmoutDS	3917	Nov 2 2013	77	256.29	263.55		263.55	0.000012	0.36	224.57	68.41	0.05

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3917	April 16 2014	175	256.29	264.71		264.73	0.000026	0.63	316.29	89.62	0.08
KinmoutDS	3917	May 8 2017	142	256.29	264.37		264.38	0.000022	0.55	286.7	84.76	0.08
KinmoutDS	3917	April 21 2013	216.5	256.29	265.1		265.12	0.000032	0.72	353.83	103.98	0.09
KinmoutDS	3896	Timmins_Uncalibr	452.5	259	266.82		266.92	0.000136	1.58	542.64	239.83	0.2
KinmoutDS	3896	Timmins_Calibrat	115.8	259	264.04		264.07	0.000079	0.83	150.51	52.62	0.14
KinmoutDS	3896	TimminsCC_Calibr	145.4	259	264.37		264.42	0.000091	0.94	168.79	56.5	0.15
KinmoutDS	3896	2y	109.5	259	263.96		263.99	0.000076	0.8	146.52	52.09	0.13
KinmoutDS	3896	5y	145.9	259	264.38		264.42	0.000092	0.95	168.93	56.56	0.15
KinmoutDS	3896	10y	170.6	259	264.63		264.68	0.000102	1.04	183.94	64.69	0.16
KinmoutDS	3896	25y	203	259	264.93		264.99	0.000113	1.14	204.92	79.71	0.17
KinmoutDS	3896	50y	228.8	259	265.16		265.23	0.00012	1.22	225.15	99.39	0.18
KinmoutDS	3896	100y	256.7	259	265.4		265.48	0.000126	1.29	253.82	152.84	0.18
KinmoutDS	3896	200y	287.4	259	265.65		265.73	0.000131	1.36	294.27	173.9	0.19
KinmoutDS	3896	350y	314.5	259	265.85		265.95	0.000135	1.41	333.62	201.16	0.19
KinmoutDS	3896	Sept 25 2021	68.8	259	263.41		263.43	0.000053	0.6	118.81	48.57	0.11
KinmoutDS	3896	July 13 2024	53.2	259	263.16		263.17	0.000043	0.51	106.64	46.85	0.1
KinmoutDS	3896	April 21 2019	228.5	259	265.15		265.23	0.00012	1.22	224.89	99.09	0.18
KinmoutDS	3896	Nov 2 2013	77	259	263.53		263.55	0.000058	0.64	124.7	49.25	0.12
KinmoutDS	3896	April 16 2014	175	259	264.67		264.72	0.000103	1.05	186.73	65.52	0.16
KinmoutDS	3896	May 8 2017	142	259	264.34		264.38	0.00009	0.93	166.57	55.7	0.15
KinmoutDS	3896	April 21 2013	216.5	259	265.05		265.12	0.000117	1.18	215.09	87.47	0.17
KinmoutDS	3876	Timmins_Uncalibr	452.5	259.73	266.75		266.91	0.000232	1.92	429.55	206.65	0.26
KinmoutDS	3876	Timmins_Calibrat	115.8	259.73	264.01		264.07	0.000166	1.06	111.35	42.46	0.19
KinmoutDS	3876	TimminsCC_Calibr	145.4	259.73	264.34		264.41	0.000185	1.2	125.72	44.49	0.21
KinmoutDS	3876	2y	109.5	259.73	263.94		263.99	0.000161	1.03	108.2	41.66	0.19
KinmoutDS	3876	5y	145.9	259.73	264.34		264.42	0.000185	1.2	125.82	44.5	0.21
KinmoutDS	3876	10y	170.6	259.73	264.59		264.67	0.0002	1.31	137.02	48.32	0.22
KinmoutDS	3876	25y	203	259.73	264.88		264.98	0.000217	1.43	152.06	56.72	0.23
KinmoutDS	3876	50y	228.8	259.73	265.1		265.22	0.000227	1.52	165.98	72.84	0.24
KinmoutDS	3876	100y	256.7	259.73	265.34		265.47	0.000235	1.61	189.32	122.49	0.25
KinmoutDS	3876	200y	287.4	259.73	265.58		265.72	0.00024	1.68	223.01	151.19	0.25
KinmoutDS	3876	350y	314.5	259.73	265.79		265.94	0.000242	1.74	255.51	165.25	0.25
KinmoutDS	3876	Sept 25 2021	68.8	259.73	263.39		263.43	0.000125	0.79	86.94	36.71	0.16
KinmoutDS	3876	July 13 2024	53.2	259.73	263.14		263.17	0.000106	0.68	77.88	35.59	0.15
KinmoutDS	3876	April 21 2019	228.5	259.73	265.1		265.22	0.000227	1.52	165.79	72.41	0.24
KinmoutDS	3876	Nov 2 2013	77	259.73	263.51		263.55	0.000134	0.84	91.37	38.17	0.17
KinmoutDS	3876	April 16 2014	175	259.73	264.63		264.72	0.000202	1.32	139.06	49.16	0.22
KinmoutDS	3876	May 8 2017	142	259.73	264.3		264.37	0.000183	1.18	124	44.21	0.21
KinmoutDS	3876	April 21 2013	216.5	259.73	265		265.11	0.000222	1.48	159.12	60.62	0.24
KinmoutDS	3857	Timmins_Uncalibr	452.5	260.07	266.71		266.91	0.000297	2.13	406	192.41	0.29
KinmoutDS	3857	Timmins_Calibrat	115.8	260.07	263.98		264.06	0.000248	1.24	99.94	43.26	0.24
KinmoutDS	3857	TimminsCC_Calibr	145.4	260.07	264.31		264.41	0.000269	1.39	115.11	49.43	0.25
KinmoutDS	3857	2y	109.5	260.07	263.91		263.98	0.000243	1.2	96.77	42.65	0.23

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3857	5y	145.9	260.07	264.31		264.41	0.00027	1.39	115.21	49.47	0.25
KinmoutDS	3857	10y	170.6	260.07	264.55		264.67	0.000286	1.5	127.64	53.67	0.26
KinmoutDS	3857	25y	203	260.07	264.84		264.98	0.000305	1.64	144.99	65.78	0.27
KinmoutDS	3857	50y	228.8	260.07	265.07		265.21	0.000313	1.73	161.7	86.44	0.28
KinmoutDS	3857	100y	256.7	260.07	265.3		265.46	0.000319	1.81	185.63	110.35	0.28
KinmoutDS	3857	200y	287.4	260.07	265.54		265.72	0.000321	1.89	215.04	136.26	0.29
KinmoutDS	3857	350y	314.5	260.07	265.75		265.93	0.000323	1.95	245.02	157.35	0.29
KinmoutDS	3857	Sept 25 2021	68.8	260.07	263.38		263.42	0.0002	0.94	74.81	39.28	0.2
KinmoutDS	3857	July 13 2024	53.2	260.07	263.13		263.16	0.000178	0.82	65.39	36.89	0.19
KinmoutDS	3857	April 21 2019	228.5	260.07	265.06		265.21	0.000313	1.73	161.47	86.04	0.28
KinmoutDS	3857	Nov 2 2013	77	260.07	263.49		263.54	0.00021	1	79.46	40.27	0.21
KinmoutDS	3857	April 16 2014	175	260.07	264.59		264.71	0.000289	1.52	129.88	55.92	0.26
KinmoutDS	3857	May 8 2017	142	260.07	264.27		264.37	0.000268	1.37	113.22	48.67	0.25
KinmoutDS	3857	April 21 2013	216.5	260.07	264.96		265.1	0.000309	1.68	153.41	74.85	0.28
KinmoutDS	3836	Timmins_Uncalibr	452.5	260.46	266.58		266.89	0.000513	2.66	310.75	156.69	0.37
KinmoutDS	3836	Timmins_Calibrat	115.8	260.46	263.92		264.05	0.000482	1.6	77.74	41.07	0.32
KinmoutDS	3836	TimminsCC_Calibr	145.4	260.46	264.24		264.39	0.000506	1.77	91.18	43.65	0.34
KinmoutDS	3836	2y	109.5	260.46	263.85		263.97	0.000476	1.56	74.83	40.38	0.32
KinmoutDS	3836	5y	145.9	260.46	264.24		264.4	0.000508	1.78	91.26	43.66	0.34
KinmoutDS	3836	10y	170.6	260.46	264.47		264.65	0.000528	1.91	101.59	45.16	0.35
KinmoutDS	3836	25y	203	260.46	264.75		264.96	0.000554	2.07	115.08	51.43	0.36
KinmoutDS	3836	50y	228.8	260.46	264.96		265.2	0.000565	2.18	126.72	61.1	0.37
KinmoutDS	3836	100y	256.7	260.46	265.19		265.44	0.000572	2.29	142.86	77.92	0.37
KinmoutDS	3836	200y	287.4	260.46	265.42		265.7	0.000573	2.38	162.61	93.58	0.38
KinmoutDS	3836	350y	314.5	260.46	265.62		265.91	0.000577	2.47	183.35	120.45	0.38
KinmoutDS	3836	Sept 25 2021	68.8	260.46	263.33		263.41	0.000418	1.25	56.04	31.98	0.29
KinmoutDS	3836	July 13 2024	53.2	260.46	263.09		263.16	0.000384	1.11	48.52	30.61	0.27
KinmoutDS	3836	April 21 2019	228.5	260.46	264.96		265.19	0.000565	2.18	126.57	60.58	0.37
KinmoutDS	3836	Nov 2 2013	77	260.46	263.45		263.53	0.000433	1.32	59.69	32.72	0.29
KinmoutDS	3836	April 16 2014	175	260.46	264.51		264.7	0.000531	1.93	103.4	45.39	0.35
KinmoutDS	3836	May 8 2017	142	260.46	264.2		264.35	0.000505	1.76	89.55	43.4	0.33
KinmoutDS	3836	April 21 2013	216.5	260.46	264.86		265.09	0.000559	2.13	121.09	52.36	0.36
KinmoutDS	3814	Timmins_Uncalibr	452.5	260.8	266.25	264.95	266.84	0.001106	3.64	218.89	113.08	0.54
KinmoutDS	3814	Timmins_Calibrat	115.8	260.8	263.76		264.02	0.001202	2.28	56.59	39.22	0.5
KinmoutDS	3814	TimminsCC_Calibr	145.4	260.8	264.06		264.36	0.001203	2.48	68.73	41.86	0.51
KinmoutDS	3814	2y	109.5	260.8	263.69		263.94	0.001199	2.22	54.03	38.25	0.49
KinmoutDS	3814	5y	145.9	260.8	264.06		264.37	0.001211	2.49	68.75	41.86	0.51
KinmoutDS	3814	10y	170.6	260.8	264.27		264.62	0.001225	2.65	77.92	43.04	0.52
KinmoutDS	3814	25y	203	260.8	264.53		264.92	0.00125	2.84	89.17	44.64	0.53
KinmoutDS	3814	50y	228.8	260.8	264.73		265.16	0.001259	2.98	98.38	47.87	0.54
KinmoutDS	3814	100y	256.7	260.8	264.94		265.41	0.001254	3.11	108.81	51.22	0.54
KinmoutDS	3814	200y	287.4	260.8	265.16		265.66	0.00125	3.24	120.15	54.66	0.55
KinmoutDS	3814	350y	314.5	260.8	265.33		265.87	0.001262	3.36	130.5	62.62	0.56
KinmoutDS	3814	Sept 25 2021	68.8	260.8	263.22		263.39	0.001148	1.83	38.12	30.11	0.46

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3814	July 13 2024	53.2	260.8	263		263.13	0.001126	1.64	32.37	23.82	0.45
KinmoutDS	3814	April 21 2019	228.5	260.8	264.73		265.16	0.001259	2.98	98.27	47.85	0.54
KinmoutDS	3814	Nov 2 2013	77	260.8	263.32		263.51	0.001165	1.92	41.27	30.62	0.47
KinmoutDS	3814	April 16 2014	175	260.8	264.31		264.66	0.001227	2.68	79.53	43.25	0.52
KinmoutDS	3814	May 8 2017	142	260.8	264.02		264.32	0.00121	2.46	67.2	41.66	0.51
KinmoutDS	3814	April 21 2013	216.5	260.8	264.64		265.05	0.001254	2.92	94.04	46.77	0.54
KinmoutDS	3795	Timmins_Uncalibr	452.5	261	265.85	265.31	266.78	0.002073	4.55	151.57	77.43	0.72
KinmoutDS	3795	Timmins_Calibrat	115.8	261	263.23	263.23	263.93	0.005589	3.73	31.64	25.57	1
KinmoutDS	3795	TimminsCC_Calibr	145.4	261	263.47	263.47	264.27	0.005218	3.99	38.18	29.67	0.99
KinmoutDS	3795	2y	109.5	261	263.17	263.17	263.86	0.005727	3.67	30.23	24.38	1
KinmoutDS	3795	5y	145.9	261	263.49	263.49	264.28	0.005008	3.95	38.87	29.8	0.97
KinmoutDS	3795	10y	170.6	261	263.68	263.68	264.53	0.004695	4.11	44.79	31.33	0.96
KinmoutDS	3795	25y	203	261	264.01	263.91	264.84	0.003815	4.11	55.94	37.7	0.88
KinmoutDS	3795	50y	228.8	261	264.27	264.08	265.09	0.003223	4.08	66.34	40.6	0.83
KinmoutDS	3795	100y	256.7	261	264.53	264.24	265.34	0.002832	4.09	77.38	44.26	0.79
KinmoutDS	3795	200y	287.4	261	264.76	264.44	265.59	0.002646	4.17	87.94	48.05	0.77
KinmoutDS	3795	350y	314.5	261	264.96	264.6	265.8	0.002486	4.22	97.73	49.33	0.76
KinmoutDS	3795	Sept 25 2021	68.8	261	262.79	262.79	263.31	0.006463	3.19	21.58	21.43	1.01
KinmoutDS	3795	July 13 2024	53.2	261	262.55	262.54	263.06	0.006356	3.14	16.92	16.91	1
KinmoutDS	3795	April 21 2019	228.5	261	264.27	264.08	265.08	0.003228	4.08	66.22	40.56	0.83
KinmoutDS	3795	Nov 2 2013	77	261	262.87	262.87	263.43	0.006298	3.3	23.33	21.92	1.01
KinmoutDS	3795	April 16 2014	175	261	263.71	263.71	264.57	0.004669	4.14	45.75	31.6	0.96
KinmoutDS	3795	May 8 2017	142	261	263.45	263.45	264.23	0.005112	3.93	37.78	29.32	0.98
KinmoutDS	3795	April 21 2013	216.5	261	264.18	264.01	264.98	0.003327	4.04	62.49	39.39	0.84
KinmoutDS	3775	Timmins_Uncalibr	452.5	260.9	266		266.66	0.001403	3.97	167.53	58.94	0.6
KinmoutDS	3775	Timmins_Calibrat	115.8	260.9	263.11	263.11	263.78	0.004945	3.64	33.96	32.89	0.95
KinmoutDS	3775	TimminsCC_Calibr	145.4	260.9	263.35	263.35	264.09	0.004612	3.87	42.34	37.51	0.94
KinmoutDS	3775	2y	109.5	260.9	263.05	263.05	263.71	0.00508	3.59	32.08	31.72	0.96
KinmoutDS	3775	5y	145.9	260.9	263.37	263.36	264.1	0.004479	3.84	43	37.8	0.93
KinmoutDS	3775	10y	170.6	260.9	263.74	263.57	264.36	0.002993	3.58	58.59	42.67	0.78
KinmoutDS	3775	25y	203	260.9	264.15	263.79	264.7	0.002187	3.44	76.34	44.42	0.69
KinmoutDS	3775	50y	228.8	260.9	264.41	263.92	264.95	0.001923	3.44	88	45.36	0.66
KinmoutDS	3775	100y	256.7	260.9	264.67	264.09	265.21	0.001734	3.46	99.9	46.42	0.63
KinmoutDS	3775	200y	287.4	260.9	264.91	264.24	265.46	0.001638	3.54	111.13	47.38	0.62
KinmoutDS	3775	350y	314.5	260.9	265.11	264.36	265.68	0.001574	3.61	120.68	48.19	0.62
KinmoutDS	3775	Sept 25 2021	68.8	260.9	262.64	262.64	263.16	0.006234	3.2	21.52	20.98	1
KinmoutDS	3775	July 13 2024	53.2	260.9	262.44	262.44	262.91	0.006366	3.03	17.55	18.6	1
KinmoutDS	3775	April 21 2019	228.5	260.9	264.41	263.92	264.95	0.001925	3.44	87.86	45.35	0.66
KinmoutDS	3775	Nov 2 2013	77	260.9	262.72	262.72	263.28	0.006264	3.33	23.15	21.62	1.01
KinmoutDS	3775	April 16 2014	175	260.9	263.82	263.61	264.41	0.002749	3.51	61.93	42.92	0.75
KinmoutDS	3775	May 8 2017	142	260.9	263.33	263.33	264.06	0.004622	3.84	41.46	37.15	0.94
KinmoutDS	3775	April 21 2013	216.5	260.9	264.31	263.86	264.84	0.001984	3.41	83.33	44.95	0.66
KinmoutDS	3756	Timmins_Uncalibr	452.5	260.75	265.05	265.05	266.54	0.003609	5.58	102.56	41.7	0.94

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3756	Timmins_Calibrat	115.8	260.75	262.89	262.89	263.62	0.005619	3.79	30.7	22.45	1
KinmoutDS	3756	TimminsCC_Calibr	145.4	260.75	263.13	263.13	263.98	0.005306	4.08	36.19	23.28	1
KinmoutDS	3756	2y	109.5	260.75	262.84	262.84	263.54	0.005629	3.71	29.62	22.2	1
KinmoutDS	3756	5y	145.9	260.75	263.14	263.14	263.98	0.005301	4.08	36.28	23.3	1
KinmoutDS	3756	10y	170.6	260.75	263.33	263.33	264.26	0.005021	4.27	40.92	24.3	0.99
KinmoutDS	3756	25y	203	260.75	263.57	263.57	264.6	0.004765	4.5	47.03	28.13	0.99
KinmoutDS	3756	50y	228.8	260.75	263.78	263.78	264.85	0.004385	4.6	53.49	33.27	0.96
KinmoutDS	3756	100y	256.7	260.75	263.97	263.97	265.1	0.004225	4.75	59.88	35.56	0.96
KinmoutDS	3756	200y	287.4	260.75	264.18	264.18	265.35	0.003959	4.86	67.86	37.79	0.94
KinmoutDS	3756	350y	314.5	260.75	264.34	264.34	265.57	0.00387	4.99	73.93	38.58	0.94
KinmoutDS	3756	Sept 25 2021	68.8	260.75	262.45	262.45	262.98	0.006252	3.22	21.37	20.52	1
KinmoutDS	3756	July 13 2024	53.2	260.75	262.25	262.25	262.73	0.006454	3.05	17.45	18.52	1
KinmoutDS	3756	April 21 2019	228.5	260.75	263.78	263.78	264.84	0.004386	4.6	53.42	33.24	0.96
KinmoutDS	3756	Nov 2 2013	77	260.75	262.54	262.54	263.1	0.006212	3.34	23.05	20.86	1.01
KinmoutDS	3756	April 16 2014	175	260.75	263.35	263.35	264.31	0.005093	4.34	41.43	24.4	1
KinmoutDS	3756	May 8 2017	142	260.75	263.1	263.1	263.94	0.005348	4.05	35.55	23.19	1
KinmoutDS	3756	April 21 2013	216.5	260.75	263.68	263.68	264.73	0.004593	4.57	50.12	30.57	0.98
KinmoutDS	3736	Timmins_Uncalibr	452.5	260.58	264.83	264.83	266.35	0.003679	5.6	98.87	39.81	0.95
KinmoutDS	3736	Timmins_Calibrat	115.8	260.58	262.69	262.69	263.41	0.00562	3.77	30.86	22.04	1
KinmoutDS	3736	TimminsCC_Calibr	145.4	260.58	262.93	262.93	263.77	0.005345	4.06	36.1	22.96	1
KinmoutDS	3736	2y	109.5	260.58	262.64	262.64	263.34	0.005724	3.7	29.65	21.98	1.01
KinmoutDS	3736	5y	145.9	260.58	262.93	262.93	263.77	0.005341	4.07	36.19	22.97	1
KinmoutDS	3736	10y	170.6	260.58	263.12	263.12	264.04	0.005133	4.27	40.49	23.49	1
KinmoutDS	3736	25y	203	260.58	263.35	263.35	264.38	0.004875	4.51	46.19	25.71	1
KinmoutDS	3736	50y	228.8	260.58	263.57	263.57	264.63	0.004407	4.58	52.36	33.68	0.96
KinmoutDS	3736	100y	256.7	260.58	263.76	263.76	264.88	0.004219	4.73	58.82	34.74	0.95
KinmoutDS	3736	200y	287.4	260.58	263.96	263.96	265.14	0.004023	4.86	65.94	35.81	0.94
KinmoutDS	3736	350y	314.5	260.58	264.11	264.11	265.36	0.003975	5.01	71.37	36.43	0.95
KinmoutDS	3736	Sept 25 2021	68.8	260.58	262.24	262.24	262.78	0.006348	3.24	21.24	20.34	1.01
KinmoutDS	3736	July 13 2024	53.2	260.58	262.05	262.05	262.53	0.006507	3.04	17.5	18.78	1.01
KinmoutDS	3736	April 21 2019	228.5	260.58	263.54	263.54	264.63	0.004569	4.63	51.47	31.16	0.98
KinmoutDS	3736	Nov 2 2013	77	260.58	262.34	262.34	262.9	0.006109	3.32	23.22	20.87	1
KinmoutDS	3736	April 16 2014	175	260.58	263.15	263.15	264.09	0.00509	4.31	41.27	23.61	1
KinmoutDS	3736	May 8 2017	142	260.58	262.9	262.9	263.73	0.005377	4.03	35.5	22.89	1
KinmoutDS	3736	April 21 2013	216.5	260.58	263.46	263.46	264.51	0.004691	4.57	48.98	27.04	0.98
KinmoutDS	3717	Timmins_Uncalibr	452.5	260.44	264.45	264.45	265.98	0.00412	5.62	90.11	31.49	0.98
KinmoutDS	3717	Timmins_Calibrat	115.8	260.44	262.46	262.46	263.15	0.00552	3.67	32.4	25.87	0.99
KinmoutDS	3717	TimminsCC_Calibr	145.4	260.44	262.69	262.69	263.47	0.005296	3.94	38.35	26.74	0.99
KinmoutDS	3717	2y	109.5	260.44	262.42	262.42	263.07	0.005545	3.6	31.15	25.69	0.99
KinmoutDS	3717	5y	145.9	260.44	262.7	262.7	263.48	0.005291	3.95	38.46	26.75	0.99
KinmoutDS	3717	10y	170.6	260.44	262.88	262.88	263.73	0.005099	4.13	43.36	27.43	0.98
KinmoutDS	3717	25y	203	260.44	263.09	263.09	264.04	0.004953	4.37	49.3	28.17	0.98
KinmoutDS	3717	50y	228.8	260.44	263.25	263.25	264.28	0.004836	4.55	53.86	28.65	0.98
KinmoutDS	3717	100y	256.7	260.44	263.42	263.42	264.52	0.00471	4.72	58.72	29.15	0.98

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3717	200y	287.4	260.44	263.59	263.59	264.78	0.004595	4.89	63.92	29.68	0.98
KinmoutDS	3717	350y	314.5	260.44	263.75	263.75	264.99	0.004462	5.02	68.64	30.17	0.98
KinmoutDS	3717	Sept 25 2021	68.8	260.44	262.01	262.01	262.54	0.006343	3.2	21.51	21.01	1.01
KinmoutDS	3717	July 13 2024	53.2	260.44	261.83	261.83	262.29	0.006552	3	17.71	19.51	1.01
KinmoutDS	3717	April 21 2019	228.5	260.44	263.25	263.25	264.28	0.004836	4.54	53.81	28.64	0.98
KinmoutDS	3717	Nov 2 2013	77	260.44	262.1	262.1	262.66	0.006173	3.29	23.39	21.6	1.01
KinmoutDS	3717	April 16 2014	175	260.44	262.91	262.91	263.78	0.005059	4.16	44.24	27.55	0.98
KinmoutDS	3717	May 8 2017	142	260.44	262.67	262.67	263.44	0.005321	3.91	37.68	26.64	0.99
KinmoutDS	3717	April 21 2013	216.5	260.44	263.17	263.17	264.17	0.004889	4.47	51.7	28.42	0.98
KinmoutDS	3695	Timmins_Uncalibr	452.5	260.27	263.98	263.98	265.33	0.00422	5.43	102.08	42.15	0.99
KinmoutDS	3695	Timmins_Calibrat	115.8	260.27	262.23	262.23	262.83	0.005311	3.5	36.67	33.38	0.97
KinmoutDS	3695	TimminsCC_Calibr	145.4	260.27	262.43	262.43	263.12	0.005147	3.76	43.51	34.18	0.97
KinmoutDS	3695	2y	109.5	260.27	262.18	262.18	262.76	0.005355	3.44	35.12	33.19	0.97
KinmoutDS	3695	5y	145.9	260.27	262.43	262.43	263.12	0.005145	3.77	43.62	34.19	0.97
KinmoutDS	3695	10y	170.6	260.27	262.59	262.59	263.35	0.005041	3.97	48.87	34.82	0.98
KinmoutDS	3695	25y	203	260.27	262.78	262.78	263.62	0.004816	4.19	55.91	35.7	0.97
KinmoutDS	3695	50y	228.8	260.27	262.92	262.92	263.83	0.004781	4.37	60.86	36.37	0.98
KinmoutDS	3695	100y	256.7	260.27	263.09	263.09	264.05	0.00455	4.5	67.03	37.2	0.97
KinmoutDS	3695	200y	287.4	260.27	263.24	263.24	264.27	0.004507	4.68	72.65	37.97	0.98
KinmoutDS	3695	350y	314.5	260.27	263.38	263.38	264.46	0.004416	4.81	77.85	38.67	0.98
KinmoutDS	3695	Sept 25 2021	68.8	260.27	261.82	261.82	262.29	0.005778	3.03	23.71	30.7	0.96
KinmoutDS	3695	July 13 2024	53.2	260.27	261.62	261.62	262.06	0.006627	2.96	18	20.54	1.01
KinmoutDS	3695	April 21 2019	228.5	260.27	262.92	262.92	263.83	0.00478	4.37	60.8	36.36	0.98
KinmoutDS	3695	Nov 2 2013	77	260.27	261.91	261.91	262.4	0.005604	3.12	26.26	31.3	0.96
KinmoutDS	3695	April 16 2014	175	260.27	262.61	262.61	263.39	0.005022	4.01	49.79	34.93	0.98
KinmoutDS	3695	May 8 2017	142	260.27	262.41	262.41	263.09	0.005179	3.74	42.72	34.09	0.97
KinmoutDS	3695	April 21 2013	216.5	260.27	262.86	262.86	263.73	0.004787	4.28	58.56	36.05	0.98
KinmoutDS	3677	Timmins_Uncalibr	452.5	260.14	263.56	263.56	264.84	0.004313	5.33	109.67	45.62	1
KinmoutDS	3677	Timmins_Calibrat	115.8	260.14	261.92	261.92	262.49	0.005095	3.43	39.24	39.34	0.98
KinmoutDS	3677	TimminsCC_Calibr	145.4	260.14	262.12	262.12	262.76	0.004929	3.68	47.03	40.39	0.98
KinmoutDS	3677	2y	109.5	260.14	261.88	261.88	262.43	0.005105	3.37	37.59	39.11	0.98
KinmoutDS	3677	5y	145.9	260.14	262.12	262.12	262.77	0.004925	3.68	47.16	40.4	0.98
KinmoutDS	3677	10y	170.6	260.14	262.27	262.27	262.98	0.004802	3.86	53.33	41.11	0.97
KinmoutDS	3677	25y	203	260.14	262.45	262.45	263.23	0.004701	4.08	60.83	41.88	0.98
KinmoutDS	3677	50y	228.8	260.14	262.59	262.59	263.43	0.00463	4.24	66.52	42.39	0.98
KinmoutDS	3677	100y	256.7	260.14	262.72	262.72	263.62	0.004629	4.42	72.11	43	0.99
KinmoutDS	3677	200y	287.4	260.14	262.88	262.88	263.83	0.004497	4.57	78.82	43.7	0.98
KinmoutDS	3677	350y	314.5	260.14	262.99	262.99	264.01	0.004542	4.74	83.66	44.2	0.99
KinmoutDS	3677	Sept 25 2021	68.8	260.14	261.53	261.53	261.98	0.005931	3.02	24.98	30.97	0.98
KinmoutDS	3677	July 13 2024	53.2	260.14	261.4	261.4	261.78	0.005936	2.74	20.85	30.45	0.96
KinmoutDS	3677	April 21 2019	228.5	260.14	262.59	262.59	263.42	0.00463	4.24	66.45	42.38	0.98
KinmoutDS	3677	Nov 2 2013	77	260.14	261.64	261.64	262.08	0.005238	3.02	28.33	34.32	0.96
KinmoutDS	3677	April 16 2014	175	260.14	262.29	262.29	263.01	0.004874	3.92	54.03	41.18	0.98
KinmoutDS	3677	May 8 2017	142	260.14	262.1	262.1	262.73	0.004955	3.65	46.13	40.27	0.98

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Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3677	April 21 2013	216.5	260.14	262.52	262.52	263.34	0.004671	4.17	63.79	42.17	0.98
KinmoutDS	3657	Timmins_Uncalibr	452.5	259.97	263.52	263.3	264.7	0.00323	5.02	109.88	40.95	0.88
KinmoutDS	3657	Timmins_Calibrat	115.8	259.97	261.55	261.53	262.13	0.005083	3.43	36.09	33.14	0.95
KinmoutDS	3657	TimminsCC_Calibr	145.4	259.97	261.75	261.73	262.43	0.004925	3.71	42.83	34.04	0.96
KinmoutDS	3657	2y	109.5	259.97	261.5	261.48	262.07	0.005138	3.37	34.56	32.9	0.95
KinmoutDS	3657	5y	145.9	259.97	261.75	261.73	262.43	0.004925	3.72	42.93	34.05	0.96
KinmoutDS	3657	10y	170.6	259.97	261.9	261.89	262.66	0.0049	3.94	47.98	34.7	0.97
KinmoutDS	3657	25y	203	259.97	262.09	262.08	262.94	0.004721	4.16	54.89	35.59	0.97
KinmoutDS	3657	50y	228.8	259.97	262.23	262.23	263.15	0.004709	4.36	59.74	36.22	0.98
KinmoutDS	3657	100y	256.7	259.97	262.39	262.39	263.37	0.004557	4.51	65.51	36.96	0.98
KinmoutDS	3657	200y	287.4	259.97	262.55	262.55	263.6	0.004408	4.66	71.75	37.74	0.97
KinmoutDS	3657	350y	314.5	259.97	262.69	262.69	263.79	0.004349	4.8	76.78	38.35	0.98
KinmoutDS	3657	Sept 25 2021	68.8	259.97	261.17	261.13	261.59	0.005554	2.88	24.41	27.72	0.94
KinmoutDS	3657	July 13 2024	53.2	259.97	261.02	260.99	261.38	0.005947	2.66	20.3	26.68	0.95
KinmoutDS	3657	April 21 2019	228.5	259.97	262.23	262.23	263.15	0.004712	4.35	59.67	36.21	0.98
KinmoutDS	3657	Nov 2 2013	77	259.97	261.25	261.21	261.69	0.005399	2.98	26.55	29.11	0.94
KinmoutDS	3657	April 16 2014	175	259.97	261.93	261.92	262.7	0.004819	3.96	49.13	34.85	0.97
KinmoutDS	3657	May 8 2017	142	259.97	261.73	261.71	262.4	0.004924	3.68	42.12	33.94	0.96
KinmoutDS	3657	April 21 2013	216.5	259.97	262.16	262.16	263.05	0.004755	4.28	57.28	35.9	0.98
KinmoutDS	3633	Timmins_Uncalibr	452.5	259.74	263.65		264.55	0.002432	4.39	118.91	36.69	0.75
KinmoutDS	3633	Timmins_Calibrat	115.8	259.74	261.63		261.98	0.002632	2.7	48.03	33.13	0.69
KinmoutDS	3633	TimminsCC_Calibr	145.4	259.74	261.85		262.26	0.002749	2.94	55.41	34.22	0.72
KinmoutDS	3633	2y	109.5	259.74	261.58		261.91	0.002606	2.64	46.38	32.91	0.68
KinmoutDS	3633	5y	145.9	259.74	261.85		262.26	0.00275	2.95	55.53	34.23	0.72
KinmoutDS	3633	10y	170.6	259.74	262.01		262.48	0.002778	3.14	61.19	34.39	0.73
KinmoutDS	3633	25y	203	259.74	262.21		262.75	0.002818	3.36	68.11	34.59	0.74
KinmoutDS	3633	50y	228.8	259.74	262.36		262.96	0.002848	3.53	73.31	34.75	0.75
KinmoutDS	3633	100y	256.7	259.74	262.52		263.17	0.002882	3.7	78.67	34.91	0.76
KinmoutDS	3633	200y	287.4	259.74	262.69		263.4	0.002847	3.85	84.85	35.1	0.77
KinmoutDS	3633	350y	314.5	259.74	262.83		263.59	0.002856	3.99	89.71	35.26	0.78
KinmoutDS	3633	Sept 25 2021	68.8	259.74	261.22		261.45	0.002365	2.18	34.88	31.36	0.63
KinmoutDS	3633	July 13 2024	53.2	259.74	261.05		261.24	0.002311	1.97	29.68	31.13	0.61
KinmoutDS	3633	April 21 2019	228.5	259.74	262.36		262.95	0.002848	3.53	73.25	34.75	0.75
KinmoutDS	3633	Nov 2 2013	77	259.74	261.3		261.55	0.00241	2.28	37.42	31.68	0.64
KinmoutDS	3633	April 16 2014	175	259.74	262.04		262.52	0.002783	3.17	62.16	34.42	0.73
KinmoutDS	3633	May 8 2017	142	259.74	261.82		262.23	0.002744	2.92	54.61	34.2	0.71
KinmoutDS	3633	April 21 2013	216.5	259.74	262.29		262.86	0.002834	3.45	70.87	34.67	0.75
KinmoutDS	3615	Timmins_Uncalibr	452.5	259.58	263.55		264.5	0.002608	4.47	116.69	38.39	0.77
KinmoutDS	3615	Timmins_Calibrat	115.8	259.58	261.3	261.3	261.89	0.005755	3.46	36.27	32.56	1
KinmoutDS	3615	TimminsCC_Calibr	145.4	259.58	261.5	261.5	262.17	0.00553	3.69	43.02	33.63	1
KinmoutDS	3615	2y	109.5	259.58	261.25	261.25	261.82	0.005804	3.4	34.8	32.29	0.99
KinmoutDS	3615	5y	145.9	259.58	261.5	261.5	262.17	0.005528	3.7	43.13	33.65	1
KinmoutDS	3615	10y	170.6	259.58	261.65	261.65	262.39	0.005469	3.89	48.18	34.34	1.01

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3615	25y	203	259.58	261.83	261.83	262.66	0.005341	4.12	54.41	34.68	1.01
KinmoutDS	3615	50y	228.8	259.58	261.97	261.97	262.86	0.005246	4.29	59.19	34.9	1.01
KinmoutDS	3615	100y	256.7	259.58	262.12	262.12	263.07	0.005127	4.45	64.31	35.12	1.01
KinmoutDS	3615	200y	287.4	259.58	262.26	262.26	263.3	0.005093	4.63	69.41	35.36	1.01
KinmoutDS	3615	350y	314.5	259.58	262.39	262.39	263.49	0.005019	4.77	74.02	35.61	1.01
KinmoutDS	3615	Sept 25 2021	68.8	259.58	260.93	260.93	261.36	0.006269	2.96	24.6	30.37	0.99
KinmoutDS	3615	July 13 2024	53.2	259.58	260.78	260.78	261.16	0.006547	2.73	20.29	29.48	0.99
KinmoutDS	3615	April 21 2019	228.5	259.58	261.97	261.97	262.86	0.005246	4.29	59.14	34.89	1.01
KinmoutDS	3615	Nov 2 2013	77	259.58	261	261	261.46	0.006152	3.06	26.76	30.78	0.99
KinmoutDS	3615	April 16 2014	175	259.58	261.68	261.68	262.43	0.005454	3.92	49.03	34.39	1.01
KinmoutDS	3615	May 8 2017	142	259.58	261.48	261.48	262.14	0.005562	3.67	42.24	33.51	1
KinmoutDS	3615	April 21 2013	216.5	259.58	261.9	261.9	262.77	0.005294	4.21	56.91	34.79	1.01
KinmoutDS	3596	Timmins_Uncalibr	452.5	259.4	263.71		264.37	0.001554	3.75	152.75	61.99	0.61
KinmoutDS	3596	Timmins_Calibrat	115.8	259.4	261.06	260.97	261.56	0.00472	3.21	39.01	32.63	0.91
KinmoutDS	3596	TimminsCC_Calibr	145.4	259.4	261.26	261.17	261.84	0.004692	3.47	45.52	33.61	0.92
KinmoutDS	3596	2y	109.5	259.4	261.01	260.93	261.5	0.004738	3.15	37.53	32.4	0.91
KinmoutDS	3596	5y	145.9	259.4	261.26	261.17	261.85	0.004691	3.47	45.63	33.63	0.92
KinmoutDS	3596	10y	170.6	259.4	261.41	261.33	262.06	0.004713	3.67	50.62	34.36	0.94
KinmoutDS	3596	25y	203	259.4	261.57	261.53	262.32	0.004885	3.93	56.42	35.47	0.97
KinmoutDS	3596	50y	228.8	259.4	261.65	261.64	262.52	0.005308	4.22	59.36	35.75	1.02
KinmoutDS	3596	100y	256.7	259.4	261.8	261.8	262.73	0.005134	4.37	64.86	37.61	1.01
KinmoutDS	3596	200y	287.4	259.4	261.94	261.94	262.94	0.005091	4.55	70.18	38.14	1.01
KinmoutDS	3596	350y	314.5	259.4	262.08	262.07	263.13	0.004929	4.65	75.42	38.65	1.01
KinmoutDS	3596	Sept 25 2021	68.8	259.4	260.69	260.61	261.05	0.004932	2.7	27.2	30.75	0.89
KinmoutDS	3596	July 13 2024	53.2	259.4	260.54		260.85	0.004986	2.47	22.87	30.02	0.87
KinmoutDS	3596	April 21 2019	228.5	259.4	261.65	261.64	262.52	0.005309	4.22	59.31	35.74	1.02
KinmoutDS	3596	Nov 2 2013	77	259.4	260.76	260.68	261.14	0.004854	2.8	29.46	31.12	0.89
KinmoutDS	3596	April 16 2014	175	259.4	261.44	261.36	262.1	0.004668	3.69	51.66	34.52	0.94
KinmoutDS	3596	May 8 2017	142	259.4	261.23	261.15	261.81	0.004704	3.44	44.77	33.5	0.92
KinmoutDS	3596	April 21 2013	216.5	259.4	261.61	261.59	262.43	0.005151	4.09	57.84	35.61	1
KinmoutDS	3576	Timmins_Uncalibr	452.5	259.22	263.74		264.32	0.001281	3.51	155.98	51.46	0.56
KinmoutDS	3576	Timmins_Calibrat	115.8	259.22	260.87	260.87	261.45	0.005671	3.39	35.03	31.95	0.99
KinmoutDS	3576	TimminsCC_Calibr	145.4	259.22	261.08	261.08	261.73	0.005441	3.62	41.67	34.14	0.99
KinmoutDS	3576	2y	109.5	259.22	260.83	260.83	261.39	0.00575	3.34	33.55	31.64	0.99
KinmoutDS	3576	5y	145.9	259.22	261.08	261.08	261.74	0.005437	3.62	41.78	34.17	0.99
KinmoutDS	3576	10y	170.6	259.22	261.23	261.23	261.95	0.005335	3.8	47	35.26	0.99
KinmoutDS	3576	25y	203	259.22	261.43	261.43	262.21	0.005096	3.97	54.23	37.49	0.99
KinmoutDS	3576	50y	228.8	259.22	261.56	261.56	262.4	0.005038	4.13	59.18	38.48	0.99
KinmoutDS	3576	100y	256.7	259.22	261.69	261.69	262.6	0.004976	4.3	64.35	39.03	0.99
KinmoutDS	3576	200y	287.4	259.22	261.84	261.84	262.81	0.004851	4.44	70.23	39.8	0.99
KinmoutDS	3576	350y	314.5	259.22	262.06	261.96	263	0.004153	4.38	78.98	40.73	0.93
KinmoutDS	3576	Sept 25 2021	68.8	259.22	260.5	260.5	260.93	0.00644	2.93	23.61	28.15	1
KinmoutDS	3576	July 13 2024	53.2	259.22	260.35	260.35	260.73	0.006922	2.72	19.54	26.62	1.01
KinmoutDS	3576	April 21 2019	228.5	259.22	261.56	261.56	262.4	0.005039	4.13	59.12	38.47	0.99

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Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3576	Nov 2 2013	77	259.22	260.57	260.57	261.03	0.006194	3.01	25.75	28.84	0.99
KinmoutDS	3576	April 16 2014	175	259.22	261.26	261.26	261.99	0.00524	3.81	48.18	36.06	0.99
KinmoutDS	3576	May 8 2017	142	259.22	261.05	261.05	261.7	0.005485	3.6	40.86	33.91	0.99
KinmoutDS	3576	April 21 2013	216.5	259.22	261.49	261.49	262.31	0.005093	4.06	56.75	38.04	0.99
KinmoutDS	3554	Timmins_Uncalibr	452.5	259.02	263.83		264.25	0.000803	3.03	188.33	54.7	0.46
KinmoutDS	3554	Timmins_Calibrat	115.8	259.02	260.51	260.51	261.06	0.005821	3.34	37.23	35.45	0.99
KinmoutDS	3554	TimminsCC_Calibr	145.4	259.02	260.69	260.69	261.32	0.005727	3.59	43.75	36.55	1
KinmoutDS	3554	2y	109.5	259.02	260.46	260.46	261	0.005894	3.28	35.69	35.2	0.99
KinmoutDS	3554	5y	145.9	259.02	260.69	260.69	261.33	0.005726	3.6	43.85	36.57	1
KinmoutDS	3554	10y	170.6	259.02	260.84	260.84	261.53	0.005508	3.77	49.29	38.2	1
KinmoutDS	3554	25y	203	259.02	261.02	261.02	261.79	0.005212	3.97	56.35	39.51	0.99
KinmoutDS	3554	50y	228.8	259.02	261.14	261.14	261.98	0.005147	4.14	61.32	40.3	1
KinmoutDS	3554	100y	256.7	259.02	261.3	261.28	262.17	0.0048	4.24	67.89	41.65	0.98
KinmoutDS	3554	200y	287.4	259.02	261.92		262.51	0.002299	3.53	94.58	44.97	0.71
KinmoutDS	3554	350y	314.5	259.02	262.29		262.81	0.001697	3.33	111.78	46.27	0.62
KinmoutDS	3554	Sept 25 2021	68.8	259.02	260.16	260.16	260.57	0.006416	2.85	25.34	33.23	0.99
KinmoutDS	3554	July 13 2024	53.2	259.02	260.03	260.03	260.38	0.006767	2.62	21.01	32.51	0.99
KinmoutDS	3554	April 21 2019	228.5	259.02	261.14	261.14	261.97	0.005147	4.14	61.27	40.29	1
KinmoutDS	3554	Nov 2 2013	77	259.02	260.23	260.23	260.66	0.006194	2.94	27.62	33.71	0.98
KinmoutDS	3554	April 16 2014	175	259.02	260.86	260.86	261.57	0.005479	3.81	50.21	38.38	1
KinmoutDS	3554	May 8 2017	142	259.02	260.67	260.67	261.29	0.005716	3.56	43.07	36.44	1
KinmoutDS	3554	April 21 2013	216.5	259.02	261.09	261.09	261.89	0.00516	4.06	59.04	39.93	0.99
KinmoutDS	3536	Timmins_Uncalibr	452.5	258.74	263.93		264.19	0.000439	2.47	254.18	72.85	0.35
KinmoutDS	3536	Timmins_Calibrat	115.8	258.74	259.88	259.88	260.4	0.006268	3.3	38.9	39.49	1.02
KinmoutDS	3536	TimminsCC_Calibr	145.4	258.74	260.06	260.06	260.66	0.005917	3.55	45.93	40.34	1.01
KinmoutDS	3536	2y	109.5	258.74	259.84	259.84	260.35	0.006346	3.24	37.37	39.28	1.02
KinmoutDS	3536	5y	145.9	258.74	260.06	260.06	260.66	0.005911	3.55	46.04	40.35	1.01
KinmoutDS	3536	10y	170.6	258.74	260.18	260.18	260.86	0.005896	3.78	51.04	41.21	1.03
KinmoutDS	3536	25y	203	258.74	260.79		261.23	0.002414	3.08	77.25	44.94	0.7
KinmoutDS	3536	50y	228.8	258.74	261.21		261.59	0.001567	2.83	96.98	47.54	0.58
KinmoutDS	3536	100y	256.7	258.74	261.65		261.97	0.00111	2.65	117.71	48.46	0.5
KinmoutDS	3536	200y	287.4	258.74	262.1		262.4	0.000834	2.54	140.22	50.96	0.45
KinmoutDS	3536	350y	314.5	258.74	262.44		262.72	0.000713	2.51	157.75	53.69	0.42
KinmoutDS	3536	Sept 25 2021	68.8	258.74	259.57	259.57	259.94	0.007019	2.78	26.91	37.41	1.02
KinmoutDS	3536	July 13 2024	53.2	258.74	259.45	259.45	259.77	0.007424	2.56	22.49	36.99	1.02
KinmoutDS	3536	April 21 2019	228.5	258.74	261.21		261.58	0.001575	2.83	96.71	47.51	0.58
KinmoutDS	3536	Nov 2 2013	77	258.74	259.62	259.62	260.03	0.006962	2.9	28.96	37.59	1.02
KinmoutDS	3536	April 16 2014	175	258.74	260.22	260.22	260.9	0.005726	3.78	52.43	41.73	1.02
KinmoutDS	3536	May 8 2017	142	258.74	260.04	260.04	260.63	0.005945	3.52	45.16	40.25	1.01
KinmoutDS	3536	April 21 2013	216.5	258.74	261.02		261.42	0.00189	2.93	87.65	46.37	0.63
KinmoutDS	3514	Timmins_Uncalibr	452.5	258.07	263.98		264.16	0.000244	1.99	304.49	75.81	0.26
KinmoutDS	3514	Timmins_Calibrat	115.8	258.07	259.57		259.83	0.002246	2.32	52.44	39.66	0.63
KinmoutDS	3514	TimminsCC_Calibr	145.4	258.07	259.99		260.23	0.001444	2.21	69.97	42.42	0.53

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3514	2y	109.5	258.07	259.5		259.77	0.002355	2.3	49.87	39.32	0.64
KinmoutDS	3514	5y	145.9	258.07	260.07		260.29	0.001269	2.12	73.08	42.7	0.5
KinmoutDS	3514	10y	170.6	258.07	260.45		260.65	0.000925	2.05	89.77	45.84	0.44
KinmoutDS	3514	25y	203	258.07	260.94		261.13	0.000663	1.99	113.82	51.69	0.39
KinmoutDS	3514	50y	228.8	258.07	261.33		261.51	0.000533	1.95	134.27	53.72	0.35
KinmoutDS	3514	100y	256.7	258.07	261.74		261.91	0.000438	1.92	156.61	55.92	0.33
KinmoutDS	3514	200y	287.4	258.07	262.17		262.35	0.000367	1.9	182.07	59.9	0.3
KinmoutDS	3514	350y	314.5	258.07	262.51		262.68	0.000332	1.91	202.4	62.58	0.29
KinmoutDS	3514	Sept 25 2021	68.8	258.07	258.89	258.89	259.25	0.007079	2.71	26.47	37.17	1.01
KinmoutDS	3514	July 13 2024	53.2	258.07	258.78	258.78	259.08	0.007447	2.49	22.23	36.83	1.01
KinmoutDS	3514	April 21 2019	228.5	258.07	261.32		261.51	0.000534	1.95	134	53.7	0.35
KinmoutDS	3514	Nov 2 2013	77	258.07	259.01	258.95	259.34	0.005434	2.61	30.82	37.53	0.91
KinmoutDS	3514	April 16 2014	175	258.07	260.4		260.63	0.00104	2.15	87.81	45.47	0.46
KinmoutDS	3514	May 8 2017	142	258.07	259.94		260.18	0.001536	2.23	67.58	42.21	0.54
KinmoutDS	3514	April 21 2013	216.5	258.07	261.14		261.33	0.000588	1.96	124.5	52.82	0.37
KinmoutDS	3495	Timmins_Uncalibr	452.5	257.68	264.03		264.13	0.000131	1.56	369.27	85.41	0.2
KinmoutDS	3495	Timmins_Calibrat	115.8	257.68	259.66		259.77	0.000586	1.5	81.86	49.61	0.34
KinmoutDS	3495	TimminsCC_Calibr	145.4	257.68	260.07		260.18	0.000462	1.52	102.69	52.2	0.32
KinmoutDS	3495	2y	109.5	257.68	259.59		259.7	0.000593	1.48	78.61	49.32	0.34
KinmoutDS	3495	5y	145.9	257.68	260.14		260.24	0.000421	1.47	106.2	52.99	0.3
KinmoutDS	3495	10y	170.6	257.68	260.51		260.61	0.000344	1.47	126.56	55.92	0.28
KinmoutDS	3495	25y	203	257.68	261		261.1	0.000273	1.46	155.31	60.8	0.26
KinmoutDS	3495	50y	228.8	257.68	261.38		261.48	0.000233	1.45	179.02	62.72	0.24
KinmoutDS	3495	100y	256.7	257.68	261.79		261.88	0.000202	1.44	204.9	64.84	0.23
KinmoutDS	3495	200y	287.4	257.68	262.23		262.32	0.000176	1.44	233.77	67.32	0.22
KinmoutDS	3495	350y	314.5	257.68	262.56		262.65	0.000163	1.46	256.36	69.07	0.21
KinmoutDS	3495	Sept 25 2021	68.8	257.68	259.02		259.12	0.000872	1.4	51.77	45.51	0.39
KinmoutDS	3495	July 13 2024	53.2	257.68	258.8		258.89	0.001001	1.33	41.96	43.83	0.41
KinmoutDS	3495	April 21 2019	228.5	257.68	261.38		261.47	0.000234	1.45	178.71	62.69	0.24
KinmoutDS	3495	Nov 2 2013	77	257.68	259.14		259.24	0.000812	1.43	56.94	46.22	0.38
KinmoutDS	3495	April 16 2014	175	257.68	260.47		260.58	0.00038	1.53	124.54	55.72	0.29
KinmoutDS	3495	May 8 2017	142	257.68	260.02		260.12	0.00048	1.52	99.84	51.68	0.32
KinmoutDS	3495	April 21 2013	216.5	257.68	261.2		261.3	0.000251	1.45	167.71	61.69	0.25
KinmoutDS	3475	Timmins_Uncalibr	452.5	257.68	264.02		264.13	0.000134	1.57	409.77	97.76	0.2
KinmoutDS	3475	Timmins_Calibrat	115.8	257.68	259.65		259.75	0.000559	1.46	89.95	54.6	0.34
KinmoutDS	3475	TimminsCC_Calibr	145.4	257.68	260.06		260.17	0.000452	1.49	112.95	57.37	0.31
KinmoutDS	3475	2y	109.5	257.68	259.59		259.68	0.000564	1.43	86.39	54.24	0.34
KinmoutDS	3475	5y	145.9	257.68	260.13		260.23	0.000414	1.46	116.84	58.8	0.3
KinmoutDS	3475	10y	170.6	257.68	260.5		260.6	0.000342	1.46	139.31	61.46	0.28
KinmoutDS	3475	25y	203	257.68	260.99		261.09	0.000273	1.45	169.97	64.1	0.26
KinmoutDS	3475	50y	228.8	257.68	261.38		261.47	0.000236	1.45	194.99	66.68	0.24
KinmoutDS	3475	100y	256.7	257.68	261.78		261.88	0.000205	1.45	222.55	69.59	0.23
KinmoutDS	3475	200y	287.4	257.68	262.22		262.31	0.00018	1.46	253.82	74.96	0.22
KinmoutDS	3475	350y	314.5	257.68	262.55		262.65	0.000168	1.47	279.18	78.51	0.21

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3475	Sept 25 2021	68.8	257.68	259.01		259.1	0.000787	1.32	56.61	49.52	0.37
KinmoutDS	3475	July 13 2024	53.2	257.68	258.79		258.87	0.000892	1.24	45.94	47.07	0.38
KinmoutDS	3475	April 21 2019	228.5	257.68	261.37		261.47	0.000236	1.45	194.65	66.65	0.24
KinmoutDS	3475	Nov 2 2013	77	257.68	259.13		259.22	0.000738	1.36	62.29	50.39	0.37
KinmoutDS	3475	April 16 2014	175	257.68	260.47		260.57	0.000377	1.52	137.04	61.3	0.29
KinmoutDS	3475	May 8 2017	142	257.68	260.01		260.11	0.000468	1.5	109.82	56.93	0.32
KinmoutDS	3475	April 21 2013	216.5	257.68	261.19		261.29	0.000252	1.45	183.02	65.15	0.25
KinmoutDS	3455	Timmins_Uncalibr	452.5	257.68	264.02		264.13	0.000128	1.54	415.96	97.18	0.2
KinmoutDS	3455	Timmins_Calibrat	115.8	257.68	259.65		259.74	0.000498	1.39	94.04	54.94	0.32
KinmoutDS	3455	TimminsCC_Calibr	145.4	257.68	260.06		260.16	0.000405	1.43	117.44	57.98	0.3
KinmoutDS	3455	2y	109.5	257.68	259.58		259.67	0.000499	1.36	90.47	54.23	0.32
KinmoutDS	3455	5y	145.9	257.68	260.13		260.22	0.00037	1.39	121.39	58.41	0.28
KinmoutDS	3455	10y	170.6	257.68	260.5		260.59	0.000309	1.4	143.69	60.65	0.27
KinmoutDS	3455	25y	203	257.68	260.99		261.08	0.000252	1.4	174.11	63.9	0.25
KinmoutDS	3455	50y	228.8	257.68	261.37		261.47	0.000218	1.4	199.02	65.86	0.23
KinmoutDS	3455	100y	256.7	257.68	261.78		261.87	0.000191	1.41	226.24	68.49	0.22
KinmoutDS	3455	200y	287.4	257.68	262.22		262.31	0.000169	1.42	256.7	71.26	0.21
KinmoutDS	3455	350y	314.5	257.68	262.55		262.64	0.000158	1.44	281.12	79.01	0.21
KinmoutDS	3455	Sept 25 2021	68.8	257.68	259.01		259.08	0.000677	1.24	60.28	50.19	0.35
KinmoutDS	3455	July 13 2024	53.2	257.68	258.78		258.85	0.000758	1.16	49.28	48.35	0.36
KinmoutDS	3455	April 21 2019	228.5	257.68	261.37		261.46	0.000219	1.4	198.69	65.83	0.23
KinmoutDS	3455	Nov 2 2013	77	257.68	259.12		259.2	0.00064	1.28	66.08	51.23	0.34
KinmoutDS	3455	April 16 2014	175	257.68	260.46		260.56	0.000341	1.45	141.44	60.5	0.28
KinmoutDS	3455	May 8 2017	142	257.68	260		260.1	0.000419	1.43	114.26	57.67	0.3
KinmoutDS	3455	April 21 2013	216.5	257.68	261.19		261.29	0.000233	1.4	187.15	64.92	0.24
KinmoutDS	3436	Timmins_Uncalibr	452.5	257.68	264		264.12	0.000145	1.62	378.74	93.63	0.21
KinmoutDS	3436	Timmins_Calibrat	115.8	257.68	259.61		259.73	0.000634	1.51	81.5	49.57	0.35
KinmoutDS	3436	TimminsCC_Calibr	145.4	257.68	260.03		260.15	0.000501	1.53	102.53	51.67	0.33
KinmoutDS	3436	2y	109.5	257.68	259.55		259.66	0.000641	1.48	78.27	49.29	0.35
KinmoutDS	3436	5y	145.9	257.68	260.1		260.21	0.000454	1.49	106.17	52.15	0.31
KinmoutDS	3436	10y	170.6	257.68	260.48		260.59	0.000373	1.49	126.12	54.18	0.29
KinmoutDS	3436	25y	203	257.68	260.97		261.08	0.000298	1.49	153.31	56.15	0.27
KinmoutDS	3436	50y	228.8	257.68	261.35		261.46	0.000257	1.49	175.2	57.79	0.25
KinmoutDS	3436	100y	256.7	257.68	261.76		261.87	0.000223	1.49	199.29	60.82	0.24
KinmoutDS	3436	200y	287.4	257.68	262.19		262.3	0.000198	1.51	227.02	68.56	0.23
KinmoutDS	3436	350y	314.5	257.68	262.52		262.64	0.000183	1.52	250.02	70.5	0.22
KinmoutDS	3436	Sept 25 2021	68.8	257.68	258.97		259.06	0.000962	1.39	50.78	45.18	0.41
KinmoutDS	3436	July 13 2024	53.2	257.68	258.74		258.83	0.00114	1.33	40.69	43.83	0.43
KinmoutDS	3436	April 21 2019	228.5	257.68	261.35		261.46	0.000257	1.49	174.91	57.76	0.25
KinmoutDS	3436	Nov 2 2013	77	257.68	259.08		259.18	0.000884	1.42	56.06	45.92	0.4
KinmoutDS	3436	April 16 2014	175	257.68	260.44		260.56	0.000413	1.55	123.98	53.94	0.3
KinmoutDS	3436	May 8 2017	142	257.68	259.97		260.09	0.00052	1.54	99.66	51.29	0.33
KinmoutDS	3436	April 21 2013	216.5	257.68	261.17		261.28	0.000275	1.49	164.78	56.88	0.26

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3416	Timmins_Uncalibr	452.5	257.68	263.99		264.12	0.00015	1.63	361.68	92.95	0.21
KinmoutDS	3416	Timmins_Calibrat	115.8	257.68	259.59		259.71	0.000752	1.57	75.79	47.26	0.38
KinmoutDS	3416	TimminsCC_Calibr	145.4	257.68	260.01		260.14	0.000568	1.58	96.1	48.78	0.34
KinmoutDS	3416	2y	109.5	257.68	259.52		259.64	0.000765	1.55	72.71	46.98	0.38
KinmoutDS	3416	5y	145.9	257.68	260.08		260.2	0.000511	1.53	99.62	49.09	0.33
KinmoutDS	3416	10y	170.6	257.68	260.46		260.58	0.000411	1.53	118.5	50.59	0.3
KinmoutDS	3416	25y	203	257.68	260.96		261.07	0.000322	1.52	143.82	52.02	0.27
KinmoutDS	3416	50y	228.8	257.68	261.34		261.46	0.000275	1.51	164.48	54.66	0.26
KinmoutDS	3416	100y	256.7	257.68	261.75		261.86	0.000237	1.51	187.07	56.44	0.24
KinmoutDS	3416	200y	287.4	257.68	262.19		262.3	0.000206	1.52	212.3	58.75	0.23
KinmoutDS	3416	350y	314.5	257.68	262.52		262.63	0.000193	1.54	233.53	72.34	0.23
KinmoutDS	3416	Sept 25 2021	68.8	257.68	258.92		259.04	0.00131	1.52	45.45	43.31	0.47
KinmoutDS	3416	July 13 2024	53.2	257.68	258.68		258.8	0.001757	1.51	35.31	41.57	0.52
KinmoutDS	3416	April 21 2019	228.5	257.68	261.34		261.45	0.000275	1.51	164.2	54.64	0.26
KinmoutDS	3416	Nov 2 2013	77	257.68	259.04		259.16	0.001162	1.53	50.73	44.23	0.45
KinmoutDS	3416	April 16 2014	175	257.68	260.42		260.55	0.000456	1.59	116.41	50.45	0.32
KinmoutDS	3416	May 8 2017	142	257.68	259.95		260.08	0.000592	1.59	93.35	48.59	0.35
KinmoutDS	3416	April 21 2013	216.5	257.68	261.16		261.27	0.000295	1.51	154.58	53.62	0.27
KinmoutDS	3395	Timmins_Uncalibr	452.5	257.47	264		264.11	0.000139	1.57	380.23	96.33	0.2
KinmoutDS	3395	Timmins_Calibrat	115.8	257.47	259.58		259.7	0.000663	1.5	77.94	46.36	0.36
KinmoutDS	3395	TimminsCC_Calibr	145.4	257.47	260.01		260.12	0.000508	1.51	98.35	49.85	0.33
KinmoutDS	3395	2y	109.5	257.47	259.52		259.63	0.000673	1.47	74.9	45.9	0.36
KinmoutDS	3395	5y	145.9	257.47	260.08		260.19	0.000458	1.47	101.98	50.35	0.31
KinmoutDS	3395	10y	170.6	257.47	260.46		260.57	0.000371	1.46	121.42	51.9	0.29
KinmoutDS	3395	25y	203	257.47	260.95		261.06	0.000294	1.46	147.63	53.79	0.26
KinmoutDS	3395	50y	228.8	257.47	261.34		261.45	0.000252	1.46	168.7	55.21	0.25
KinmoutDS	3395	100y	256.7	257.47	261.75		261.86	0.000218	1.46	191.5	56.83	0.24
KinmoutDS	3395	200y	287.4	257.47	262.19		262.29	0.000191	1.47	217.6	67.2	0.22
KinmoutDS	3395	350y	314.5	257.47	262.52		262.63	0.000179	1.49	242.22	85.73	0.22
KinmoutDS	3395	Sept 25 2021	68.8	257.47	258.91		259.01	0.001125	1.44	47.94	42.86	0.43
KinmoutDS	3395	July 13 2024	53.2	257.47	258.66		258.76	0.001411	1.41	37.63	40.83	0.47
KinmoutDS	3395	April 21 2019	228.5	257.47	261.34		261.44	0.000252	1.46	168.42	55.19	0.25
KinmoutDS	3395	Nov 2 2013	77	257.47	259.03		259.14	0.001012	1.45	53.24	43.38	0.42
KinmoutDS	3395	April 16 2014	175	257.47	260.42		260.54	0.000412	1.53	119.27	51.71	0.3
KinmoutDS	3395	May 8 2017	142	257.47	259.95		260.07	0.000529	1.52	95.54	49.39	0.33
KinmoutDS	3395	April 21 2013	216.5	257.47	261.16		261.27	0.00027	1.46	158.67	54.5	0.25
KinmoutDS	3375	Timmins_Uncalibr	452.5	257.23	264		264.11	0.000125	1.52	385.71	98.36	0.19
KinmoutDS	3375	Timmins_Calibrat	115.8	257.23	259.58		259.68	0.000501	1.37	85.65	48.12	0.32
KinmoutDS	3375	TimminsCC_Calibr	145.4	257.23	260.01		260.11	0.0004	1.4	106.52	49.81	0.29
KinmoutDS	3375	2y	109.5	257.23	259.52		259.61	0.000504	1.35	82.47	47.87	0.32
KinmoutDS	3375	5y	145.9	257.23	260.08		260.18	0.000364	1.36	110.14	50.08	0.28
KinmoutDS	3375	10y	170.6	257.23	260.46		260.56	0.000303	1.37	129.44	51.41	0.26
KinmoutDS	3375	25y	203	257.23	260.96		261.05	0.000246	1.38	155.31	53.03	0.24
KinmoutDS	3375	50y	228.8	257.23	261.34		261.44	0.000214	1.38	176.06	54.28	0.23

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3375	100y	256.7	257.23	261.75		261.85	0.000188	1.39	198.44	55.69	0.22
KinmoutDS	3375	200y	287.4	257.23	262.19		262.29	0.000167	1.4	224.05	66.17	0.21
KinmoutDS	3375	350y	314.5	257.23	262.52		262.62	0.000157	1.43	248.33	79.17	0.21
KinmoutDS	3375	Sept 25 2021	68.8	257.23	258.9		258.99	0.000751	1.28	54.05	44.29	0.37
KinmoutDS	3375	July 13 2024	53.2	257.23	258.66		258.73	0.000906	1.23	43.25	42.79	0.39
KinmoutDS	3375	April 21 2019	228.5	257.23	261.34		261.44	0.000215	1.38	175.78	54.26	0.23
KinmoutDS	3375	Nov 2 2013	77	257.23	259.03		259.11	0.000698	1.3	59.61	45.49	0.36
KinmoutDS	3375	April 16 2014	175	257.23	260.42		260.52	0.000335	1.43	127.32	51.27	0.28
KinmoutDS	3375	May 8 2017	142	257.23	259.95		260.05	0.000415	1.4	103.7	49.59	0.3
KinmoutDS	3375	April 21 2013	216.5	257.23	261.16		261.26	0.000228	1.38	166.19	53.69	0.24
KinmoutDS	3355	Timmins_Uncalibr	452.5	256.99	264		264.1	0.000115	1.47	401.96	97.2	0.19
KinmoutDS	3355	Timmins_Calibrat	115.8	256.99	259.58		259.67	0.00042	1.29	94.19	51.52	0.29
KinmoutDS	3355	TimminsCC_Calibr	145.4	256.99	260.01		260.1	0.000342	1.32	116.49	52.79	0.27
KinmoutDS	3355	2y	109.5	256.99	259.52		259.6	0.000421	1.26	90.77	51.31	0.29
KinmoutDS	3355	5y	145.9	256.99	260.08		260.17	0.000311	1.29	120.33	53	0.26
KinmoutDS	3355	10y	170.6	256.99	260.46		260.55	0.000262	1.3	140.71	53.99	0.25
KinmoutDS	3355	25y	203	256.99	260.96		261.05	0.000216	1.31	167.78	55.15	0.23
KinmoutDS	3355	50y	228.8	256.99	261.35		261.43	0.000189	1.32	189.28	55.92	0.22
KinmoutDS	3355	100y	256.7	256.99	261.75		261.84	0.000168	1.33	212.25	56.82	0.21
KinmoutDS	3355	200y	287.4	256.99	262.19		262.28	0.000149	1.34	239.59	70.98	0.2
KinmoutDS	3355	350y	314.5	256.99	262.52		262.62	0.000141	1.37	264.53	81.26	0.2
KinmoutDS	3355	Sept 25 2021	68.8	256.99	258.9		258.97	0.000613	1.17	60.04	47.79	0.33
KinmoutDS	3355	July 13 2024	53.2	256.99	258.65		258.71	0.000728	1.13	48.19	46.52	0.35
KinmoutDS	3355	April 21 2019	228.5	256.99	261.34		261.43	0.000189	1.32	189	55.91	0.22
KinmoutDS	3355	Nov 2 2013	77	256.99	259.02		259.1	0.000567	1.2	66.05	48.72	0.32
KinmoutDS	3355	April 16 2014	175	256.99	260.42		260.51	0.00029	1.35	138.49	53.88	0.26
KinmoutDS	3355	May 8 2017	142	256.99	259.95		260.04	0.000354	1.32	113.49	52.62	0.28
KinmoutDS	3355	April 21 2013	216.5	256.99	261.16		261.25	0.000201	1.32	179.08	55.56	0.22
KinmoutDS	3336	Timmins_Uncalibr	452.5	256.78	264.01		264.1	0.0001	1.4	429.75	93.51	0.17
KinmoutDS	3336	Timmins_Calibrat	115.8	256.78	259.59		259.65	0.000293	1.15	109.7	56.45	0.25
KinmoutDS	3336	TimminsCC_Calibr	145.4	256.78	260.02		260.09	0.000251	1.2	134.1	57.57	0.24
KinmoutDS	3336	2y	109.5	256.78	259.52		259.58	0.000291	1.12	105.94	56.27	0.25
KinmoutDS	3336	5y	145.9	256.78	260.09		260.16	0.00023	1.17	138.27	57.75	0.23
KinmoutDS	3336	10y	170.6	256.78	260.47		260.54	0.000201	1.19	160.46	58.79	0.22
KinmoutDS	3336	25y	203	256.78	260.97		261.04	0.000171	1.22	189.97	60.24	0.21
KinmoutDS	3336	50y	228.8	256.78	261.35		261.43	0.000152	1.23	213.47	61.19	0.2
KinmoutDS	3336	100y	256.7	256.78	261.76		261.84	0.000137	1.25	238.63	62.35	0.19
KinmoutDS	3336	200y	287.4	256.78	262.2		262.28	0.000124	1.27	268.37	76.17	0.18
KinmoutDS	3336	350y	314.5	256.78	262.53		262.61	0.000121	1.3	295.47	87.58	0.18
KinmoutDS	3336	Sept 25 2021	68.8	256.78	258.9		258.96	0.000369	1.01	72.04	53.3	0.26
KinmoutDS	3336	July 13 2024	53.2	256.78	258.65		258.7	0.000409	0.94	58.79	52.03	0.27
KinmoutDS	3336	April 21 2019	228.5	256.78	261.35		261.42	0.000153	1.23	213.16	61.18	0.2
KinmoutDS	3336	Nov 2 2013	77	256.78	259.03		259.08	0.000353	1.04	78.74	53.92	0.26
KinmoutDS	3336	April 16 2014	175	256.78	260.43		260.5	0.000221	1.24	158.06	58.67	0.23

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3336	May 8 2017	142	256.78	259.96		260.03	0.000258	1.2	130.83	57.42	0.24
KinmoutDS	3336	April 21 2013	216.5	256.78	261.17		261.24	0.00016	1.22	202.31	60.72	0.2
KinmoutDS	3315	Timmins_Uncalibr	452.5	256.59	264.01		264.09	0.000092	1.34	445.97	92.96	0.17
KinmoutDS	3315	Timmins_Calibrat	115.8	256.59	259.59		259.65	0.000233	1.05	125.09	58.98	0.22
KinmoutDS	3315	TimminsCC_Calibr	145.4	256.59	260.02		260.08	0.000206	1.1	150.59	60.07	0.21
KinmoutDS	3315	2y	109.5	256.59	259.52		259.58	0.00023	1.02	121.15	58.82	0.22
KinmoutDS	3315	5y	145.9	256.59	260.09		260.15	0.00019	1.08	154.93	60.28	0.21
KinmoutDS	3315	10y	170.6	256.59	260.47		260.53	0.000169	1.1	178.11	61.33	0.2
KinmoutDS	3315	25y	203	256.59	260.97		261.03	0.000146	1.13	208.84	62.55	0.19
KinmoutDS	3315	50y	228.8	256.59	261.36		261.42	0.000132	1.15	233.21	63.4	0.18
KinmoutDS	3315	100y	256.7	256.59	261.76		261.83	0.000121	1.17	259.3	65.63	0.18
KinmoutDS	3315	200y	287.4	256.59	262.2		262.27	0.00011	1.19	289.74	73.43	0.17
KinmoutDS	3315	350y	314.5	256.59	262.53		262.6	0.000105	1.21	315.19	81.16	0.17
KinmoutDS	3315	Sept 25 2021	68.8	256.59	258.91		258.95	0.000273	0.9	85.14	57.5	0.23
KinmoutDS	3315	July 13 2024	53.2	256.59	258.65		258.69	0.000291	0.83	70.67	56.98	0.23
KinmoutDS	3315	April 21 2019	228.5	256.59	261.35		261.42	0.000133	1.15	232.9	63.39	0.18
KinmoutDS	3315	Nov 2 2013	77	256.59	259.03		259.07	0.000266	0.93	92.36	57.76	0.23
KinmoutDS	3315	April 16 2014	175	256.59	260.43		260.5	0.000186	1.15	175.63	61.22	0.21
KinmoutDS	3315	May 8 2017	142	256.59	259.96		260.02	0.000211	1.1	147.17	59.91	0.22
KinmoutDS	3315	April 21 2013	216.5	256.59	261.17		261.24	0.000139	1.14	221.65	62.98	0.19
KinmoutDS	3295	Timmins_Uncalibr	452.5	256.58	264.01		264.09	0.000091	1.35	447.32	95.38	0.17
KinmoutDS	3295	Timmins_Calibrat	115.8	256.58	259.58		259.64	0.000239	1.07	121.41	59.65	0.23
KinmoutDS	3295	TimminsCC_Calibr	145.4	256.58	260.01		260.07	0.00021	1.13	147.2	60.57	0.22
KinmoutDS	3295	2y	109.5	256.58	259.52		259.57	0.000236	1.05	117.43	59.51	0.22
KinmoutDS	3295	5y	145.9	256.58	260.09		260.14	0.000193	1.1	151.61	60.74	0.21
KinmoutDS	3295	10y	170.6	256.58	260.47		260.53	0.000171	1.13	174.97	61.58	0.2
KinmoutDS	3295	25y	203	256.58	260.96		261.03	0.000147	1.15	205.89	62.83	0.19
KinmoutDS	3295	50y	228.8	256.58	261.35		261.42	0.000132	1.17	230.43	63.74	0.19
KinmoutDS	3295	100y	256.7	256.58	261.76		261.83	0.00012	1.19	257.92	71.02	0.18
KinmoutDS	3295	200y	287.4	256.58	262.2		262.27	0.000109	1.2	290.02	75	0.17
KinmoutDS	3295	350y	314.5	256.58	262.53		262.6	0.000104	1.23	315.42	78.27	0.17
KinmoutDS	3295	Sept 25 2021	68.8	256.58	258.9		258.94	0.000281	0.92	81.52	56.03	0.23
KinmoutDS	3295	July 13 2024	53.2	256.58	258.64		258.68	0.000298	0.85	67.51	54.9	0.23
KinmoutDS	3295	April 21 2019	228.5	256.58	261.35		261.41	0.000133	1.17	230.11	63.73	0.19
KinmoutDS	3295	Nov 2 2013	77	256.58	259.02		259.07	0.000273	0.95	88.58	56.65	0.23
KinmoutDS	3295	April 16 2014	175	256.58	260.43		260.49	0.000188	1.17	172.43	61.49	0.21
KinmoutDS	3295	May 8 2017	142	256.58	259.96		260.02	0.000215	1.13	143.74	60.43	0.22
KinmoutDS	3295	April 21 2013	216.5	256.58	261.17		261.23	0.000139	1.16	218.78	63.31	0.19
KinmoutDS	3275	Timmins_Uncalibr	452.5	256.57	264		264.09	0.000095	1.38	440.76	96.93	0.17
KinmoutDS	3275	Timmins_Calibrat	115.8	256.57	259.58		259.63	0.000249	1.09	116.76	55.68	0.23
KinmoutDS	3275	TimminsCC_Calibr	145.4	256.57	260		260.07	0.00022	1.15	140.88	56.75	0.22
KinmoutDS	3275	2y	109.5	256.57	259.51		259.57	0.000246	1.07	113.06	55.52	0.23
KinmoutDS	3275	5y	145.9	256.57	260.08		260.14	0.000203	1.12	145.04	56.93	0.21

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3275	10y	170.6	256.57	260.46		260.52	0.00018	1.15	166.95	57.82	0.21
KinmoutDS	3275	25y	203	256.57	260.96		261.02	0.000156	1.18	196.34	61.63	0.2
KinmoutDS	3275	50y	228.8	256.57	261.34		261.41	0.00014	1.2	221.12	66.06	0.19
KinmoutDS	3275	100y	256.7	256.57	261.75		261.82	0.000127	1.22	249.19	71.33	0.18
KinmoutDS	3275	200y	287.4	256.57	262.19		262.27	0.000116	1.23	281.56	78.6	0.18
KinmoutDS	3275	350y	314.5	256.57	262.52		262.6	0.00011	1.26	308.37	82.55	0.18
KinmoutDS	3275	Sept 25 2021	68.8	256.57	258.89		258.93	0.00029	0.94	79.13	53.97	0.23
KinmoutDS	3275	July 13 2024	53.2	256.57	258.64		258.67	0.000308	0.86	65.59	53.12	0.24
KinmoutDS	3275	April 21 2019	228.5	256.57	261.34		261.41	0.000141	1.2	220.79	66.02	0.19
KinmoutDS	3275	Nov 2 2013	77	256.57	259.01		259.06	0.000283	0.97	85.91	54.3	0.23
KinmoutDS	3275	April 16 2014	175	256.57	260.42		260.49	0.000198	1.2	164.54	57.72	0.22
KinmoutDS	3275	May 8 2017	142	256.57	259.95		260.01	0.000226	1.15	137.64	56.61	0.22
KinmoutDS	3275	April 21 2013	216.5	256.57	261.16		261.23	0.000147	1.19	209.15	64.14	0.19
KinmoutDS	3255	Timmins_Uncalibr	452.5	256.56	264		264.09	0.000094	1.38	460.25	95.88	0.17
KinmoutDS	3255	Timmins_Calibrat	115.8	256.56	259.57		259.63	0.000258	1.12	114.87	60.32	0.24
KinmoutDS	3255	TimminsCC_Calibr	145.4	256.56	260		260.07	0.000226	1.18	142.11	65.56	0.23
KinmoutDS	3255	2y	109.5	256.56	259.5		259.56	0.000255	1.09	110.89	59.79	0.23
KinmoutDS	3255	5y	145.9	256.56	260.07		260.14	0.000208	1.15	146.96	65.84	0.22
KinmoutDS	3255	10y	170.6	256.56	260.46		260.52	0.000182	1.17	172.65	69.73	0.21
KinmoutDS	3255	25y	203	256.56	260.95		261.02	0.000156	1.19	208.76	75.03	0.2
KinmoutDS	3255	50y	228.8	256.56	261.34		261.41	0.000139	1.2	238.31	76.65	0.19
KinmoutDS	3255	100y	256.7	256.56	261.75		261.82	0.000125	1.22	269.97	78.06	0.18
KinmoutDS	3255	200y	287.4	256.56	262.19		262.26	0.000113	1.23	304.65	79.65	0.18
KinmoutDS	3255	350y	314.5	256.56	262.52		262.6	0.000107	1.25	331.28	80.65	0.17
KinmoutDS	3255	Sept 25 2021	68.8	256.56	258.88		258.93	0.0003	0.96	77.57	52.23	0.24
KinmoutDS	3255	July 13 2024	53.2	256.56	258.63		258.67	0.000318	0.88	64.47	51.5	0.24
KinmoutDS	3255	April 21 2019	228.5	256.56	261.34		261.41	0.00014	1.2	237.92	76.64	0.19
KinmoutDS	3255	Nov 2 2013	77	256.56	259.01		259.06	0.000292	0.99	84.14	52.58	0.24
KinmoutDS	3255	April 16 2014	175	256.56	260.41		260.48	0.000201	1.22	169.72	68.42	0.22
KinmoutDS	3255	May 8 2017	142	256.56	259.94		260.01	0.000232	1.18	138.35	65.17	0.23
KinmoutDS	3255	April 21 2013	216.5	256.56	261.16		261.23	0.000147	1.2	224.26	76.12	0.19
KinmoutDS	3235	Timmins_Uncalibr	452.5	256.55	263.98		264.08	0.000112	1.47	405.12	100.26	0.18
KinmoutDS	3235	Timmins_Calibrat	115.8	256.55	259.56		259.62	0.000291	1.16	107.26	51.36	0.24
KinmoutDS	3235	TimminsCC_Calibr	145.4	256.55	259.99		260.06	0.000256	1.22	129.53	52.26	0.24
KinmoutDS	3235	2y	109.5	256.55	259.49		259.55	0.000287	1.13	103.88	51.22	0.24
KinmoutDS	3235	5y	145.9	256.55	260.06		260.13	0.000235	1.19	133.42	52.41	0.23
KinmoutDS	3235	10y	170.6	256.55	260.44		260.52	0.000208	1.22	153.64	53.19	0.22
KinmoutDS	3235	25y	203	256.55	260.94		261.02	0.00018	1.25	180.36	54.27	0.21
KinmoutDS	3235	50y	228.8	256.55	261.33		261.41	0.000163	1.27	201.6	55.27	0.2
KinmoutDS	3235	100y	256.7	256.55	261.74		261.82	0.000148	1.29	224.34	56.31	0.19
KinmoutDS	3235	200y	287.4	256.55	262.18		262.26	0.000135	1.31	249.43	59.88	0.19
KinmoutDS	3235	350y	314.5	256.55	262.51		262.59	0.000129	1.34	271.05	70.31	0.19
KinmoutDS	3235	Sept 25 2021	68.8	256.55	258.87		258.92	0.000342	1	72.77	49.11	0.25
KinmoutDS	3235	July 13 2024	53.2	256.55	258.62		258.66	0.000364	0.92	60.48	48.2	0.25

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3235	April 21 2019	228.5	256.55	261.32		261.4	0.000163	1.27	201.33	55.26	0.2
KinmoutDS	3235	Nov 2 2013	77	256.55	259		259.05	0.000333	1.03	78.94	49.54	0.25
KinmoutDS	3235	April 16 2014	175	256.55	260.4		260.48	0.00023	1.27	151.33	53.1	0.23
KinmoutDS	3235	May 8 2017	142	256.55	259.93		260	0.000263	1.22	126.53	52.14	0.24
KinmoutDS	3235	April 21 2013	216.5	256.55	261.15		261.22	0.00017	1.26	191.51	54.85	0.2
KinmoutDS	3215	Timmins_Uncalibr	452.5	256.54	263.97		264.08	0.00012	1.54	408.58	102.84	0.19
KinmoutDS	3215	Timmins_Calibrat	115.8	256.54	259.54		259.62	0.000312	1.21	104.27	50.72	0.25
KinmoutDS	3215	TimminsCC_Calibr	145.4	256.54	259.97		260.05	0.000275	1.28	126.25	51.61	0.25
KinmoutDS	3215	2y	109.5	256.54	259.48		259.55	0.000308	1.18	100.95	50.58	0.25
KinmoutDS	3215	5y	145.9	256.54	260.05		260.13	0.000253	1.25	130.14	51.77	0.24
KinmoutDS	3215	10y	170.6	256.54	260.43		260.51	0.000224	1.28	150.12	52.63	0.23
KinmoutDS	3215	25y	203	256.54	260.93		261.01	0.000194	1.31	176.66	54.01	0.22
KinmoutDS	3215	50y	228.8	256.54	261.32		261.4	0.000175	1.33	197.82	55.13	0.21
KinmoutDS	3215	100y	256.7	256.54	261.73		261.81	0.00016	1.35	220.56	56.34	0.2
KinmoutDS	3215	200y	287.4	256.54	262.16		262.25	0.000146	1.37	246.23	65.5	0.2
KinmoutDS	3215	350y	314.5	256.54	262.49		262.59	0.00014	1.41	269.18	71.87	0.2
KinmoutDS	3215	Sept 25 2021	68.8	256.54	258.86		258.91	0.000365	1.04	69.97	49.38	0.26
KinmoutDS	3215	July 13 2024	53.2	256.54	258.61		258.65	0.000387	0.96	57.59	48.29	0.26
KinmoutDS	3215	April 21 2019	228.5	256.54	261.31		261.4	0.000176	1.33	197.55	55.11	0.21
KinmoutDS	3215	Nov 2 2013	77	256.54	258.98		259.04	0.000356	1.08	76.16	49.63	0.26
KinmoutDS	3215	April 16 2014	175	256.54	260.39		260.47	0.000247	1.33	147.79	52.51	0.24
KinmoutDS	3215	May 8 2017	142	256.54	259.92		260	0.000282	1.28	123.29	51.49	0.25
KinmoutDS	3215	April 21 2013	216.5	256.54	261.13		261.22	0.000184	1.32	187.77	54.6	0.21
KinmoutDS	3196	Timmins_Uncalibr	452.5	256.53	263.97		264.08	0.00012	1.56	429.01	105.59	0.19
KinmoutDS	3196	Timmins_Calibrat	115.8	256.53	259.54		259.61	0.00031	1.24	105.07	51.49	0.26
KinmoutDS	3196	TimminsCC_Calibr	145.4	256.53	259.97		260.05	0.000275	1.3	127.52	52.91	0.25
KinmoutDS	3196	2y	109.5	256.53	259.47		259.54	0.000306	1.21	101.71	51.28	0.25
KinmoutDS	3196	5y	145.9	256.53	260.04		260.12	0.000253	1.27	131.53	53.16	0.24
KinmoutDS	3196	10y	170.6	256.53	260.42		260.51	0.000225	1.3	152.16	54.42	0.23
KinmoutDS	3196	25y	203	256.53	260.92		261.01	0.000195	1.34	179.67	56.03	0.22
KinmoutDS	3196	50y	228.8	256.53	261.31		261.4	0.000176	1.36	201.65	57.16	0.21
KinmoutDS	3196	100y	256.7	256.53	261.72		261.81	0.000161	1.38	227.17	67.73	0.21
KinmoutDS	3196	200y	287.4	256.53	262.16		262.25	0.000146	1.4	258.33	73.88	0.2
KinmoutDS	3196	350y	314.5	256.53	262.49		262.59	0.00014	1.43	283.7	79.74	0.2
KinmoutDS	3196	Sept 25 2021	68.8	256.53	258.85		258.91	0.000356	1.05	70.61	48.99	0.26
KinmoutDS	3196	July 13 2024	53.2	256.53	258.6		258.65	0.000373	0.97	58.4	47.92	0.26
KinmoutDS	3196	April 21 2019	228.5	256.53	261.31		261.39	0.000177	1.36	201.36	57.15	0.21
KinmoutDS	3196	Nov 2 2013	77	256.53	258.98		259.03	0.000348	1.09	76.77	49.48	0.26
KinmoutDS	3196	April 16 2014	175	256.53	260.38		260.47	0.000248	1.36	149.7	54.27	0.24
KinmoutDS	3196	May 8 2017	142	256.53	259.91		259.99	0.000282	1.3	124.47	52.72	0.25
KinmoutDS	3196	April 21 2013	216.5	256.53	261.13		261.21	0.000185	1.35	191.2	56.64	0.22
KinmoutDS	3175	Timmins_Uncalibr	452.5	256.52	263.97		264.08	0.000122	1.56	445.14	106.4	0.19
KinmoutDS	3175	Timmins_Calibrat	115.8	256.52	259.52		259.6	0.000336	1.28	100.8	50.19	0.27

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3175	TimminsCC_Calibr	145.4	256.52	259.95		260.04	0.000298	1.35	122.8	52.01	0.26
KinmoutDS	3175	2y	109.5	256.52	259.46		259.53	0.000331	1.25	97.55	49.89	0.26
KinmoutDS	3175	5y	145.9	256.52	260.03		260.11	0.000273	1.31	126.8	52.36	0.25
KinmoutDS	3175	10y	170.6	256.52	260.41		260.5	0.000242	1.34	147.2	53.9	0.24
KinmoutDS	3175	25y	203	256.52	260.91		261	0.000209	1.37	177.96	65.69	0.23
KinmoutDS	3175	50y	228.8	256.52	261.3		261.4	0.000188	1.39	204.43	70.88	0.22
KinmoutDS	3175	100y	256.7	256.52	261.71		261.81	0.000169	1.41	234.83	76.83	0.21
KinmoutDS	3175	200y	287.4	256.52	262.15		262.25	0.000152	1.42	269.63	81.1	0.2
KinmoutDS	3175	350y	314.5	256.52	262.49		262.58	0.000145	1.44	297.14	85.36	0.2
KinmoutDS	3175	Sept 25 2021	68.8	256.52	258.84		258.9	0.000384	1.09	67.74	46.26	0.27
KinmoutDS	3175	July 13 2024	53.2	256.52	258.59		258.64	0.000401	1	56.27	44.87	0.27
KinmoutDS	3175	April 21 2019	228.5	256.52	261.3		261.39	0.000188	1.39	204.07	70.8	0.22
KinmoutDS	3175	Nov 2 2013	77	256.52	258.96		259.03	0.000376	1.13	73.56	47.02	0.27
KinmoutDS	3175	April 16 2014	175	256.52	260.37		260.46	0.000268	1.4	144.72	53.71	0.25
KinmoutDS	3175	May 8 2017	142	256.52	259.9		259.98	0.000305	1.34	119.8	51.77	0.26
KinmoutDS	3175	April 21 2013	216.5	256.52	261.12		261.21	0.000197	1.38	191.66	67.87	0.22
KinmoutDS	3155	Timmins_Uncalibr	452.5	256.51	263.96		264.07	0.000132	1.62	440.14	104.94	0.2
KinmoutDS	3155	Timmins_Calibrat	115.8	256.51	259.51		259.6	0.000366	1.34	96.49	48.45	0.28
KinmoutDS	3155	TimminsCC_Calibr	145.4	256.51	259.94		260.04	0.000324	1.41	119.69	58.41	0.27
KinmoutDS	3155	2y	109.5	256.51	259.44		259.53	0.000359	1.31	93.39	48.06	0.27
KinmoutDS	3155	5y	145.9	256.51	260.02		260.11	0.000297	1.37	124.26	59.22	0.26
KinmoutDS	3155	10y	170.6	256.51	260.4		260.5	0.000262	1.4	147.78	62.87	0.25
KinmoutDS	3155	25y	203	256.51	260.9		261	0.000224	1.43	180.58	68.15	0.23
KinmoutDS	3155	50y	228.8	256.51	261.29		261.39	0.000201	1.44	207.79	71.02	0.23
KinmoutDS	3155	100y	256.7	256.51	261.7		261.8	0.000181	1.46	237.68	74.63	0.22
KinmoutDS	3155	200y	287.4	256.51	262.15		262.24	0.000163	1.47	271.49	79.01	0.21
KinmoutDS	3155	350y	314.5	256.51	262.48		262.58	0.000155	1.5	298.29	82.24	0.21
KinmoutDS	3155	Sept 25 2021	68.8	256.51	258.83		258.89	0.000412	1.14	64.87	44.23	0.28
KinmoutDS	3155	July 13 2024	53.2	256.51	258.57		258.63	0.000425	1.04	53.96	42.79	0.28
KinmoutDS	3155	April 21 2019	228.5	256.51	261.29		261.39	0.000201	1.44	207.43	70.98	0.23
KinmoutDS	3155	Nov 2 2013	77	256.51	258.95		259.02	0.000405	1.18	70.42	44.94	0.28
KinmoutDS	3155	April 16 2014	175	256.51	260.35		260.46	0.00029	1.46	144.81	62.45	0.26
KinmoutDS	3155	May 8 2017	142	256.51	259.88		259.98	0.000333	1.41	116.32	57.81	0.27
KinmoutDS	3155	April 21 2013	216.5	256.51	261.11		261.21	0.000211	1.43	194.78	69.75	0.23
KinmoutDS	3133	Timmins_Uncalibr	452.5	256.49	263.95		264.07	0.000137	1.68	422.19	92.15	0.2
KinmoutDS	3133	Timmins_Calibrat	115.8	256.49	259.5		259.59	0.000362	1.36	102.82	54.41	0.28
KinmoutDS	3133	TimminsCC_Calibr	145.4	256.49	259.93		260.03	0.000321	1.43	127.1	57.99	0.27
KinmoutDS	3133	2y	109.5	256.49	259.44		259.52	0.000355	1.32	99.34	53.88	0.28
KinmoutDS	3133	5y	145.9	256.49	260.01		260.1	0.000294	1.39	131.67	58.72	0.26
KinmoutDS	3133	10y	170.6	256.49	260.4		260.49	0.00026	1.42	154.96	62.26	0.25
KinmoutDS	3133	25y	203	256.49	260.9		260.99	0.000223	1.45	186.79	64.73	0.24
KinmoutDS	3133	50y	228.8	256.49	261.29		261.39	0.000201	1.47	212.65	67.78	0.23
KinmoutDS	3133	100y	256.7	256.49	261.7		261.8	0.000182	1.48	241.43	71.19	0.22
KinmoutDS	3133	200y	287.4	256.49	262.14		262.24	0.000164	1.5	273.27	73.07	0.21

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3133	350y	314.5	256.49	262.47		262.58	0.000157	1.53	297.8	74.77	0.21
KinmoutDS	3133	Sept 25 2021	68.8	256.49	258.81		258.88	0.000409	1.16	67.32	49.43	0.28
KinmoutDS	3133	July 13 2024	53.2	256.49	258.56		258.62	0.000422	1.06	55.25	45.62	0.28
KinmoutDS	3133	April 21 2019	228.5	256.49	261.28		261.38	0.000201	1.47	212.31	67.75	0.23
KinmoutDS	3133	Nov 2 2013	77	256.49	258.94		259.01	0.000402	1.2	73.57	50.32	0.28
KinmoutDS	3133	April 16 2014	175	256.49	260.35		260.45	0.000288	1.48	151.97	62.03	0.26
KinmoutDS	3133	May 8 2017	142	256.49	259.87		259.97	0.000329	1.43	123.74	57.56	0.27
KinmoutDS	3133	April 21 2013	216.5	256.49	261.1		261.2	0.000211	1.46	200.27	66.27	0.23
KinmoutDS	3115	Timmins_Uncalibr	452.5	256.48	263.95		264.06	0.000128	1.62	459	89.45	0.2
KinmoutDS	3115	Timmins_Calibrat	115.8	256.48	259.49		259.58	0.000363	1.36	106.74	60.11	0.28
KinmoutDS	3115	TimminsCC_Calibr	145.4	256.48	259.93		260.02	0.000321	1.43	134.17	67.03	0.27
KinmoutDS	3115	2y	109.5	256.48	259.43		259.51	0.000357	1.33	102.91	59.27	0.28
KinmoutDS	3115	5y	145.9	256.48	260		260.1	0.000294	1.39	139.62	70.64	0.26
KinmoutDS	3115	10y	170.6	256.48	260.39		260.48	0.000255	1.41	167.46	72.61	0.25
KinmoutDS	3115	25y	203	256.48	260.9		260.99	0.000216	1.43	204.78	75.4	0.23
KinmoutDS	3115	50y	228.8	256.48	261.29		261.38	0.000193	1.44	234.76	78.35	0.22
KinmoutDS	3115	100y	256.7	256.48	261.7		261.79	0.000173	1.45	267.63	80.53	0.21
KinmoutDS	3115	200y	287.4	256.48	262.14		262.23	0.000156	1.46	303.56	82.11	0.21
KinmoutDS	3115	350y	314.5	256.48	262.48		262.57	0.000148	1.48	331.15	83.62	0.2
KinmoutDS	3115	Sept 25 2021	68.8	256.48	258.81		258.87	0.000412	1.17	68.25	52.02	0.28
KinmoutDS	3115	July 13 2024	53.2	256.48	258.55		258.61	0.000424	1.07	55.71	48.1	0.28
KinmoutDS	3115	April 21 2019	228.5	256.48	261.28		261.38	0.000193	1.44	234.36	78.27	0.22
KinmoutDS	3115	Nov 2 2013	77	256.48	258.93		259	0.000405	1.21	74.88	53.64	0.28
KinmoutDS	3115	April 16 2014	175	256.48	260.34		260.44	0.000284	1.47	163.94	72.39	0.26
KinmoutDS	3115	May 8 2017	142	256.48	259.87		259.96	0.000329	1.43	130.29	65.82	0.27
KinmoutDS	3115	April 21 2013	216.5	256.48	261.1		261.19	0.000203	1.43	220.47	76.45	0.23
KinmoutDS	3095	Timmins_Uncalibr	452.5	256.47	263.91		264.05	0.000166	1.81	364.13	112.31	0.22
KinmoutDS	3095	Timmins_Calibrat	115.8	256.47	259.47		259.57	0.000413	1.43	92.1	50.01	0.29
KinmoutDS	3095	TimminsCC_Calibr	145.4	256.47	259.9		260.01	0.000371	1.51	112.09	60.6	0.28
KinmoutDS	3095	2y	109.5	256.47	259.41		259.5	0.000404	1.39	89.3	48.24	0.29
KinmoutDS	3095	5y	145.9	256.47	259.98		260.09	0.00034	1.47	115.91	61.71	0.27
KinmoutDS	3095	10y	170.6	256.47	260.37		260.48	0.000304	1.51	135.12	66.58	0.26
KinmoutDS	3095	25y	203	256.47	260.87		260.98	0.000264	1.55	161.34	71.95	0.25
KinmoutDS	3095	50y	228.8	256.47	261.26		261.37	0.000239	1.57	182.5	75.49	0.24
KinmoutDS	3095	100y	256.7	256.47	261.67		261.79	0.000217	1.59	205.34	80.07	0.24
KinmoutDS	3095	200y	287.4	256.47	262.11		262.23	0.000199	1.62	231.9	90.36	0.23
KinmoutDS	3095	350y	314.5	256.47	262.44		262.56	0.000191	1.65	253.75	93.82	0.23
KinmoutDS	3095	Sept 25 2021	68.8	256.47	258.79		258.86	0.00045	1.2	62.75	41.96	0.29
KinmoutDS	3095	July 13 2024	53.2	256.47	258.54		258.6	0.000455	1.09	52.39	41.02	0.28
KinmoutDS	3095	April 21 2019	228.5	256.47	261.25		261.37	0.000239	1.57	182.22	75.44	0.24
KinmoutDS	3095	Nov 2 2013	77	256.47	258.92		258.99	0.000445	1.25	68	42.32	0.29
KinmoutDS	3095	April 16 2014	175	256.47	260.32		260.44	0.000337	1.58	132.55	66.11	0.28
KinmoutDS	3095	May 8 2017	142	256.47	259.85		259.96	0.00038	1.51	109.33	59.93	0.29
KinmoutDS	3095	April 21 2013	216.5	256.47	261.08		261.19	0.00025	1.56	172.43	73.79	0.25

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3075	Timmins_Uncalibr	452.5	256.45	263.91		264.05	0.000167	1.82	367.67	79.79	0.22
KinmoutDS	3075	Timmins_Calibrat	115.8	256.45	259.47		259.56	0.000401	1.43	94.25	45.09	0.29
KinmoutDS	3075	TimminsCC_Calibr	145.4	256.45	259.9		260.01	0.000364	1.52	114.33	47.94	0.28
KinmoutDS	3075	2y	109.5	256.45	259.4		259.5	0.000392	1.39	91.45	44.65	0.28
KinmoutDS	3075	5y	145.9	256.45	259.98		260.08	0.000334	1.48	118.21	48.36	0.27
KinmoutDS	3075	10y	170.6	256.45	260.36		260.47	0.000301	1.52	137.4	52.36	0.26
KinmoutDS	3075	25y	203	256.45	260.86		260.98	0.000262	1.56	164.39	54.92	0.25
KinmoutDS	3075	50y	228.8	256.45	261.25		261.37	0.000238	1.58	186.22	56.72	0.24
KinmoutDS	3075	100y	256.7	256.45	261.66		261.78	0.000217	1.6	209.8	58.16	0.24
KinmoutDS	3075	200y	287.4	256.45	262.1		262.22	0.000198	1.62	236.48	63.78	0.23
KinmoutDS	3075	350y	314.5	256.45	262.44		262.56	0.000191	1.66	258.49	68.4	0.23
KinmoutDS	3075	Sept 25 2021	68.8	256.45	258.78		258.85	0.000427	1.2	64.6	42.41	0.28
KinmoutDS	3075	July 13 2024	53.2	256.45	258.53		258.59	0.000426	1.08	54.11	41.64	0.28
KinmoutDS	3075	April 21 2019	228.5	256.45	261.25		261.36	0.000238	1.58	185.93	56.7	0.24
KinmoutDS	3075	Nov 2 2013	77	256.45	258.91		258.98	0.000425	1.25	69.91	42.75	0.28
KinmoutDS	3075	April 16 2014	175	256.45	260.31		260.43	0.000333	1.58	134.77	51.03	0.28
KinmoutDS	3075	May 8 2017	142	256.45	259.84		259.95	0.000373	1.51	111.53	47.63	0.28
KinmoutDS	3075	April 21 2013	216.5	256.45	261.07		261.18	0.000249	1.57	175.8	55.97	0.25
KinmoutDS	3056	Timmins_Uncalibr	452.5	256.44	263.91		264.05	0.000168	1.8	383.19	86.84	0.22
KinmoutDS	3056	Timmins_Calibrat	115.8	256.44	259.46		259.56	0.000406	1.43	93.88	44.38	0.29
KinmoutDS	3056	TimminsCC_Calibr	145.4	256.44	259.89		260	0.000372	1.52	114.49	50.88	0.28
KinmoutDS	3056	2y	109.5	256.44	259.4		259.49	0.000396	1.38	91.14	44.05	0.28
KinmoutDS	3056	5y	145.9	256.44	259.97		260.07	0.000341	1.48	118.66	51.61	0.27
KinmoutDS	3056	10y	170.6	256.44	260.36		260.46	0.000305	1.51	139.05	53.83	0.26
KinmoutDS	3056	25y	203	256.44	260.86		260.97	0.000266	1.55	166.65	55.9	0.25
KinmoutDS	3056	50y	228.8	256.44	261.25		261.36	0.000241	1.57	188.76	57.02	0.24
KinmoutDS	3056	100y	256.7	256.44	261.66		261.78	0.00022	1.59	212.42	58.27	0.23
KinmoutDS	3056	200y	287.4	256.44	262.1		262.22	0.000201	1.62	240.55	68.42	0.23
KinmoutDS	3056	350y	314.5	256.44	262.43		262.56	0.000194	1.65	263.58	70.43	0.22
KinmoutDS	3056	Sept 25 2021	68.8	256.44	258.78		258.85	0.000425	1.18	64.68	41.47	0.28
KinmoutDS	3056	July 13 2024	53.2	256.44	258.53		258.58	0.00042	1.07	54.46	40.56	0.27
KinmoutDS	3056	April 21 2019	228.5	256.44	261.25		261.36	0.000242	1.57	188.47	57.01	0.24
KinmoutDS	3056	Nov 2 2013	77	256.44	258.9		258.98	0.000425	1.24	69.87	41.92	0.28
KinmoutDS	3056	April 16 2014	175	256.44	260.3		260.42	0.000339	1.58	136.28	53.55	0.27
KinmoutDS	3056	May 8 2017	142	256.44	259.83		259.94	0.000381	1.51	111.52	50.23	0.28
KinmoutDS	3056	April 21 2013	216.5	256.44	261.07		261.18	0.000252	1.56	178.25	56.53	0.24
KinmoutDS	3036	Timmins_Uncalibr	452.5	256.43	263.89		264.04	0.000181	1.87	359.07	80.93	0.23
KinmoutDS	3036	Timmins_Calibrat	115.8	256.43	259.45		259.55	0.000412	1.45	92.24	45.13	0.29
KinmoutDS	3036	TimminsCC_Calibr	145.4	256.43	259.88		259.99	0.000377	1.53	112.05	46.51	0.28
KinmoutDS	3036	2y	109.5	256.43	259.38		259.48	0.000401	1.4	89.47	44.35	0.28
KinmoutDS	3036	5y	145.9	256.43	259.96		260.07	0.000345	1.5	115.88	46.73	0.27
KinmoutDS	3036	10y	170.6	256.43	260.35		260.46	0.000313	1.54	134.14	47.99	0.26
KinmoutDS	3036	25y	203	256.43	260.85		260.96	0.000276	1.58	158.58	49.33	0.25

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3036	50y	228.8	256.43	261.24		261.36	0.000253	1.61	178.1	50.7	0.25
KinmoutDS	3036	100y	256.7	256.43	261.65		261.77	0.000232	1.64	199.16	52.11	0.24
KinmoutDS	3036	200y	287.4	256.43	262.09		262.21	0.000214	1.67	224.58	62.77	0.23
KinmoutDS	3036	350y	314.5	256.43	262.42		262.55	0.000207	1.71	246.51	68.61	0.23
KinmoutDS	3036	Sept 25 2021	68.8	256.43	258.77		258.84	0.000422	1.19	63.66	40.53	0.28
KinmoutDS	3036	July 13 2024	53.2	256.43	258.52		258.58	0.000412	1.07	53.74	39.34	0.27
KinmoutDS	3036	April 21 2019	228.5	256.43	261.23		261.35	0.000253	1.61	177.85	50.68	0.25
KinmoutDS	3036	Nov 2 2013	77	256.43	258.89		258.97	0.000424	1.25	68.72	40.99	0.28
KinmoutDS	3036	April 16 2014	175	256.43	260.29		260.42	0.000347	1.6	131.62	47.82	0.28
KinmoutDS	3036	May 8 2017	142	256.43	259.82		259.93	0.000385	1.53	109.33	46.36	0.28
KinmoutDS	3036	April 21 2013	216.5	256.43	261.05		261.17	0.000263	1.6	168.8	50.05	0.25
KinmoutDS	3016	Timmins_Uncalibr	452.5	256.41	263.87		264.04	0.000201	1.95	356.82	81.5	0.23
KinmoutDS	3016	Timmins_Calibrat	115.8	256.41	259.42		259.54	0.000468	1.53	86.43	41.19	0.3
KinmoutDS	3016	TimminsCC_Calibr	145.4	256.41	259.85		259.98	0.000433	1.63	104.79	44.08	0.3
KinmoutDS	3016	2y	109.5	256.41	259.36		259.47	0.000454	1.48	83.95	40.76	0.3
KinmoutDS	3016	5y	145.9	256.41	259.94		260.06	0.000396	1.59	108.49	44.5	0.29
KinmoutDS	3016	10y	170.6	256.41	260.32		260.45	0.000359	1.64	126.01	46.38	0.28
KinmoutDS	3016	25y	203	256.41	260.82		260.96	0.000318	1.68	150.06	49.76	0.27
KinmoutDS	3016	50y	228.8	256.41	261.21		261.35	0.000291	1.71	170.19	52.96	0.26
KinmoutDS	3016	100y	256.7	256.41	261.63		261.77	0.000267	1.74	192.5	55.55	0.25
KinmoutDS	3016	200y	287.4	256.41	262.07		262.21	0.000245	1.77	219.05	67.83	0.25
KinmoutDS	3016	350y	314.5	256.41	262.4		262.54	0.000235	1.8	242.25	72.54	0.24
KinmoutDS	3016	Sept 25 2021	68.8	256.41	258.75		258.83	0.000469	1.25	60.06	37.48	0.29
KinmoutDS	3016	July 13 2024	53.2	256.41	258.5		258.57	0.00045	1.12	50.94	36.63	0.28
KinmoutDS	3016	April 21 2019	228.5	256.41	261.21		261.35	0.000292	1.71	169.92	52.92	0.26
KinmoutDS	3016	Nov 2 2013	77	256.41	258.87		258.96	0.000474	1.31	64.69	37.94	0.29
KinmoutDS	3016	April 16 2014	175	256.41	260.27		260.41	0.0004	1.71	123.47	46.1	0.29
KinmoutDS	3016	May 8 2017	142	256.41	259.79		259.92	0.000442	1.63	102.2	43.78	0.3
KinmoutDS	3016	April 21 2013	216.5	256.41	261.03		261.17	0.000304	1.7	160.51	51.63	0.26
KinmoutDS	2996	Timmins_Uncalibr	452.5	256.41	263.85		264.03	0.000225	2.05	355.23	82.6	0.25
KinmoutDS	2996	Timmins_Calibrat	115.8	256.41	259.4		259.53	0.000531	1.62	84.91	43.97	0.32
KinmoutDS	2996	TimminsCC_Calibr	145.4	256.41	259.83		259.97	0.000488	1.72	104.73	47.6	0.32
KinmoutDS	2996	2y	109.5	256.41	259.34		259.46	0.000514	1.57	82.32	43.38	0.31
KinmoutDS	2996	5y	145.9	256.41	259.92		260.05	0.000445	1.68	108.83	47.96	0.3
KinmoutDS	2996	10y	170.6	256.41	260.3		260.44	0.0004	1.72	127.73	49.6	0.29
KinmoutDS	2996	25y	203	256.41	260.81		260.95	0.000351	1.76	153.32	51.9	0.28
KinmoutDS	2996	50y	228.8	256.41	261.2		261.34	0.000319	1.78	174.02	53.62	0.27
KinmoutDS	2996	100y	256.7	256.41	261.61		261.76	0.000292	1.81	196.52	56.11	0.26
KinmoutDS	2996	200y	287.4	256.41	262.05		262.2	0.000269	1.84	222.45	60.98	0.26
KinmoutDS	2996	350y	314.5	256.41	262.38		262.54	0.000258	1.88	243.01	63.61	0.25
KinmoutDS	2996	Sept 25 2021	68.8	256.41	258.73		258.82	0.000525	1.33	57.91	37.37	0.3
KinmoutDS	2996	July 13 2024	53.2	256.41	258.49		258.56	0.0005	1.18	49.02	35.68	0.29
KinmoutDS	2996	April 21 2019	228.5	256.41	261.19		261.34	0.00032	1.78	173.75	53.59	0.27
KinmoutDS	2996	Nov 2 2013	77	256.41	258.85		258.95	0.000533	1.39	62.52	38.31	0.31

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2996	April 16 2014	175	256.41	260.25		260.4	0.000447	1.8	124.89	49.33	0.31
KinmoutDS	2996	May 8 2017	142	256.41	259.77		259.91	0.000499	1.72	101.91	47.35	0.32
KinmoutDS	2996	April 21 2013	216.5	256.41	261.01		261.16	0.000333	1.77	164.15	52.79	0.28
KinmoutDS	2975	Timmins_Uncalibr	452.5	256.38	263.81		264.02	0.000267	2.26	341.76	83.89	0.27
KinmoutDS	2975	Timmins_Calibrat	115.8	256.38	259.35		259.51	0.000656	1.82	76.2	39.32	0.36
KinmoutDS	2975	TimminsCC_Calibr	145.4	256.38	259.78		259.96	0.000605	1.94	93.58	42.38	0.35
KinmoutDS	2975	2y	109.5	256.38	259.29		259.45	0.000634	1.77	73.98	38.98	0.35
KinmoutDS	2975	5y	145.9	256.38	259.87		260.04	0.00055	1.88	97.38	43.24	0.34
KinmoutDS	2975	10y	170.6	256.38	260.26		260.43	0.000496	1.93	114.66	45.81	0.33
KinmoutDS	2975	25y	203	256.38	260.76		260.94	0.000435	1.98	139.33	51.12	0.31
KinmoutDS	2975	50y	228.8	256.38	261.15		261.33	0.000393	2	159.9	53.16	0.3
KinmoutDS	2975	100y	256.7	256.38	261.57		261.75	0.000356	2.02	182.28	55.19	0.29
KinmoutDS	2975	200y	287.4	256.38	262.01		262.19	0.000324	2.04	207.31	57.72	0.28
KinmoutDS	2975	350y	314.5	256.38	262.34		262.53	0.000312	2.09	226.8	62.88	0.28
KinmoutDS	2975	Sept 25 2021	68.8	256.38	258.69		258.8	0.000638	1.48	52.2	34.51	0.34
KinmoutDS	2975	July 13 2024	53.2	256.38	258.46		258.54	0.0006	1.32	44.13	32.98	0.32
KinmoutDS	2975	April 21 2019	228.5	256.38	261.15		261.33	0.000393	2	159.62	53.13	0.3
KinmoutDS	2975	Nov 2 2013	77	256.38	258.81		258.93	0.00065	1.56	56.36	35.13	0.34
KinmoutDS	2975	April 16 2014	175	256.38	260.19		260.38	0.000557	2.02	111.8	45.41	0.35
KinmoutDS	2975	May 8 2017	142	256.38	259.72		259.9	0.000619	1.93	91.06	42.03	0.36
KinmoutDS	2975	April 21 2013	216.5	256.38	260.97		261.15	0.000412	1.99	150.07	52.24	0.31
KinmoutDS	2955	Timmins_Uncalibr	452.5	256.37	263.79		264.02	0.000328	2.37	322.84	71.48	0.28
KinmoutDS	2955	Timmins_Calibrat	115.8	256.37	259.32		259.5	0.000846	1.96	73.68	38.38	0.39
KinmoutDS	2955	TimminsCC_Calibr	145.4	256.37	259.74		259.94	0.000774	2.07	90.83	41.63	0.38
KinmoutDS	2955	2y	109.5	256.37	259.26		259.43	0.000817	1.9	71.58	38.05	0.38
KinmoutDS	2955	5y	145.9	256.37	259.84		260.02	0.000699	2.01	94.7	42.12	0.36
KinmoutDS	2955	10y	170.6	256.37	260.22		260.42	0.000628	2.06	111.66	45.62	0.35
KinmoutDS	2955	25y	203	256.37	260.73		260.93	0.000544	2.1	136.05	49.71	0.33
KinmoutDS	2955	50y	228.8	256.37	261.13		261.32	0.000489	2.12	156.2	51.88	0.32
KinmoutDS	2955	100y	256.7	256.37	261.54		261.74	0.000441	2.13	178.12	53.56	0.31
KinmoutDS	2955	200y	287.4	256.37	261.99		262.19	0.000399	2.15	202.51	59.2	0.3
KinmoutDS	2955	350y	314.5	256.37	262.32		262.52	0.000386	2.2	222.76	64.25	0.3
KinmoutDS	2955	Sept 25 2021	68.8	256.37	258.66		258.79	0.000837	1.61	49.87	34.52	0.37
KinmoutDS	2955	July 13 2024	53.2	256.37	258.43		258.53	0.00079	1.44	41.86	33.63	0.35
KinmoutDS	2955	April 21 2019	228.5	256.37	261.12		261.32	0.00049	2.12	155.93	51.86	0.32
KinmoutDS	2955	Nov 2 2013	77	256.37	258.78		258.92	0.00085	1.69	53.98	35	0.37
KinmoutDS	2955	April 16 2014	175	256.37	260.16		260.37	0.000708	2.16	108.65	44.95	0.37
KinmoutDS	2955	May 8 2017	142	256.37	259.68		259.88	0.000793	2.07	88.33	41.21	0.38
KinmoutDS	2955	April 21 2013	216.5	256.37	260.94		261.14	0.000514	2.11	146.56	50.88	0.33
KinmoutDS	2935	Timmins_Uncalibr	452.5	256.35	263.74		264.01	0.000367	2.61	309.21	71.13	0.31
KinmoutDS	2935	Timmins_Calibrat	115.8	256.35	259.25		259.47	0.000978	2.18	68.04	36.81	0.43
KinmoutDS	2935	TimminsCC_Calibr	145.4	256.35	259.68		259.92	0.000887	2.3	84.54	39.89	0.42
KinmoutDS	2935	2y	109.5	256.35	259.2		259.41	0.000939	2.11	66.18	36.39	0.42

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2935	5y	145.9	256.35	259.78		260	0.000795	2.23	88.5	40.49	0.4
KinmoutDS	2935	10y	170.6	256.35	260.17		260.4	0.000708	2.27	104.8	42.87	0.39
KinmoutDS	2935	25y	203	256.35	260.68		260.91	0.00061	2.31	127.28	44.94	0.37
KinmoutDS	2935	50y	228.8	256.35	261.08		261.31	0.000552	2.34	145.43	47.7	0.35
KinmoutDS	2935	100y	256.7	256.35	261.49		261.73	0.000501	2.36	165.92	50.98	0.34
KinmoutDS	2935	200y	287.4	256.35	261.94		262.17	0.000454	2.38	189.29	55.05	0.33
KinmoutDS	2935	350y	314.5	256.35	262.26		262.51	0.000437	2.43	208.86	64.01	0.33
KinmoutDS	2935	Sept 25 2021	68.8	256.35	258.62		258.77	0.000944	1.78	46.19	31.4	0.4
KinmoutDS	2935	July 13 2024	53.2	256.35	258.39		258.51	0.000876	1.58	39.18	30.25	0.38
KinmoutDS	2935	April 21 2019	228.5	256.35	261.07		261.31	0.000553	2.34	145.18	47.66	0.35
KinmoutDS	2935	Nov 2 2013	77	256.35	258.73		258.9	0.00097	1.87	49.77	32.43	0.41
KinmoutDS	2935	April 16 2014	175	256.35	260.1		260.35	0.000806	2.39	101.62	42.43	0.41
KinmoutDS	2935	May 8 2017	142	256.35	259.62		259.86	0.000911	2.3	82.11	39.52	0.43
KinmoutDS	2935	April 21 2013	216.5	256.35	260.89		261.12	0.000576	2.32	136.76	45.83	0.36
KinmoutDS	2916	Timmins_Uncalibr	452.5	256.34	263.74		263.99	0.00037	2.61	323.1	71.51	0.31
KinmoutDS	2916	Timmins_Calibrat	115.8	256.34	259.19		259.45	0.001178	2.37	62.3	35.49	0.47
KinmoutDS	2916	TimminsCC_Calibr	145.4	256.34	259.62		259.9	0.001061	2.49	78.92	43.2	0.46
KinmoutDS	2916	2y	109.5	256.34	259.14		259.39	0.001126	2.29	60.65	35.02	0.46
KinmoutDS	2916	5y	145.9	256.34	259.72		259.98	0.000938	2.4	83.68	45.14	0.43
KinmoutDS	2916	10y	170.6	256.34	260.13		260.38	0.000806	2.41	102.64	48.32	0.41
KinmoutDS	2916	25y	203	256.34	260.65		260.9	0.000675	2.42	129.16	53.48	0.38
KinmoutDS	2916	50y	228.8	256.34	261.06		261.3	0.000592	2.41	151.51	56.23	0.36
KinmoutDS	2916	100y	256.7	256.34	261.48		261.72	0.000525	2.41	176.03	59.75	0.35
KinmoutDS	2916	200y	287.4	256.34	261.93		262.16	0.000465	2.41	203.46	61.71	0.33
KinmoutDS	2916	350y	314.5	256.34	262.27		262.5	0.000439	2.44	224.41	63.4	0.33
KinmoutDS	2916	Sept 25 2021	68.8	256.34	258.56		258.75	0.001134	1.94	41.91	30.49	0.44
KinmoutDS	2916	July 13 2024	53.2	256.34	258.35		258.49	0.001034	1.71	35.45	29.11	0.41
KinmoutDS	2916	April 21 2019	228.5	256.34	261.05		261.29	0.000593	2.41	151.21	56.17	0.36
KinmoutDS	2916	Nov 2 2013	77	256.34	258.67		258.87	0.001168	2.04	45.27	31.18	0.45
KinmoutDS	2916	April 16 2014	175	256.34	260.04		260.33	0.000931	2.55	98.52	47.75	0.44
KinmoutDS	2916	May 8 2017	142	256.34	259.55		259.84	0.001092	2.49	76.28	41.62	0.46
KinmoutDS	2916	April 21 2013	216.5	256.34	260.86		261.11	0.000629	2.42	140.81	55.09	0.37
KinmoutDS	2894	Timmins_Uncalibr	452.5	256.31	263.72		263.98	0.000382	2.7	327.05	95.67	0.32
KinmoutDS	2894	Timmins_Calibrat	115.8	256.31	259.14		259.42	0.001262	2.49	61.57	36.09	0.49
KinmoutDS	2894	TimminsCC_Calibr	145.4	256.31	259.58		259.88	0.001096	2.58	78.06	38.52	0.47
KinmoutDS	2894	2y	109.5	256.31	259.09		259.36	0.001204	2.4	59.98	35.86	0.48
KinmoutDS	2894	5y	145.9	256.31	259.69		259.96	0.000963	2.48	82.4	39.18	0.45
KinmoutDS	2894	10y	170.6	256.31	260.09		260.37	0.000836	2.5	98.88	42.11	0.42
KinmoutDS	2894	25y	203	256.31	260.62		260.88	0.000703	2.51	121.54	44.62	0.4
KinmoutDS	2894	50y	228.8	256.31	261.02		261.29	0.000624	2.52	139.99	46.75	0.38
KinmoutDS	2894	100y	256.7	256.31	261.44		261.7	0.000562	2.54	160.15	49.84	0.37
KinmoutDS	2894	200y	287.4	256.31	261.88		262.15	0.000512	2.57	186.09	65.05	0.36
KinmoutDS	2894	350y	314.5	256.31	262.22		262.49	0.000485	2.6	208.58	69.94	0.35
KinmoutDS	2894	Sept 25 2021	68.8	256.31	258.51		258.72	0.001267	2.07	39.94	32.91	0.47

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2894	July 13 2024	53.2	256.31	258.3		258.47	0.001152	1.83	33.17	31.39	0.44
KinmoutDS	2894	April 21 2019	228.5	256.31	261.02		261.28	0.000625	2.52	139.74	46.71	0.38
KinmoutDS	2894	Nov 2 2013	77	256.31	258.61		258.84	0.001308	2.18	43.38	33.43	0.48
KinmoutDS	2894	April 16 2014	175	256.31	260		260.31	0.000969	2.65	95.11	41.62	0.45
KinmoutDS	2894	May 8 2017	142	256.31	259.51		259.81	0.001136	2.59	75.53	38.16	0.48
KinmoutDS	2894	April 21 2013	216.5	256.31	260.83		261.1	0.000659	2.52	131.16	45.66	0.39
KinmoutDS	2876	Timmins_Uncalibr	452.5	256.36	263.66		263.97	0.000383	2.84	284.83	99.64	0.34
KinmoutDS	2876	Timmins_Calibrat	115.8	256.36	259.12		259.4	0.00116	2.48	63.75	57.5	0.5
KinmoutDS	2876	TimminsCC_Calibr	145.4	256.36	259.56		259.86	0.000998	2.57	80.53	61.73	0.48
KinmoutDS	2876	2y	109.5	256.36	259.07		259.34	0.001107	2.4	62.17	57	0.49
KinmoutDS	2876	5y	145.9	256.36	259.68		259.94	0.000873	2.46	84.96	62.86	0.45
KinmoutDS	2876	10y	170.6	256.36	260.08		260.35	0.000756	2.49	101.17	67.06	0.43
KinmoutDS	2876	25y	203	256.36	260.6		260.87	0.000641	2.51	123.69	72.37	0.4
KinmoutDS	2876	50y	228.8	256.36	261.01		261.27	0.000568	2.52	142.31	76.13	0.38
KinmoutDS	2876	100y	256.7	256.36	261.43		261.69	0.000509	2.54	162.3	79.58	0.37
KinmoutDS	2876	200y	287.4	256.36	261.87		262.14	0.000459	2.56	184.33	83.08	0.36
KinmoutDS	2876	350y	314.5	256.36	262.21		262.48	0.000438	2.6	201.36	88.02	0.35
KinmoutDS	2876	Sept 25 2021	68.8	256.36	258.49		258.7	0.001204	2.09	41.2	46.75	0.48
KinmoutDS	2876	July 13 2024	53.2	256.36	258.27		258.45	0.001118	1.86	33.9	40.58	0.46
KinmoutDS	2876	April 21 2019	228.5	256.36	261		261.27	0.000569	2.52	142.05	76.08	0.38
KinmoutDS	2876	Nov 2 2013	77	256.36	258.59		258.82	0.001235	2.19	44.84	48.66	0.5
KinmoutDS	2876	April 16 2014	175	256.36	259.99		260.29	0.000877	2.63	97.43	66.05	0.46
KinmoutDS	2876	May 8 2017	142	256.36	259.5		259.79	0.001036	2.57	77.96	61.05	0.48
KinmoutDS	2876	April 21 2013	216.5	256.36	260.82		261.08	0.0006	2.52	133.41	74.36	0.39
KinmoutDS	2855	Timmins_Uncalibr	452.5	256.41	263.67		263.96	0.000374	2.7	305.57	123.85	0.33
KinmoutDS	2855	Timmins_Calibrat	115.8	256.41	259.09		259.37	0.001264	2.45	60.13	44.99	0.5
KinmoutDS	2855	TimminsCC_Calibr	145.4	256.41	259.54		259.83	0.00106	2.51	77.41	48.99	0.47
KinmoutDS	2855	2y	109.5	256.41	259.05		259.31	0.001205	2.36	58.58	44.59	0.49
KinmoutDS	2855	5y	145.9	256.41	259.66		259.92	0.000921	2.4	82.08	49.9	0.44
KinmoutDS	2855	10y	170.6	256.41	260.07		260.33	0.000786	2.42	98.92	56.56	0.42
KinmoutDS	2855	25y	203	256.41	260.6		260.85	0.000653	2.43	122.56	63.83	0.39
KinmoutDS	2855	50y	228.8	256.41	261		261.26	0.000574	2.43	141.88	70.41	0.37
KinmoutDS	2855	100y	256.7	256.41	261.43		261.68	0.000512	2.44	162.66	77.39	0.36
KinmoutDS	2855	200y	287.4	256.41	261.87		262.13	0.000463	2.46	186.45	86.48	0.34
KinmoutDS	2855	350y	314.5	256.41	262.21		262.46	0.000438	2.5	205.31	91.09	0.34
KinmoutDS	2855	Sept 25 2021	68.8	256.41	258.46		258.67	0.00135	2.07	37.62	33.21	0.49
KinmoutDS	2855	July 13 2024	53.2	256.41	258.25		258.42	0.001247	1.83	30.99	28.09	0.46
KinmoutDS	2855	April 21 2019	228.5	256.41	261		261.25	0.000575	2.43	141.62	70.32	0.37
KinmoutDS	2855	Nov 2 2013	77	256.41	258.56		258.79	0.001384	2.17	41.05	34.92	0.5
KinmoutDS	2855	April 16 2014	175	256.41	259.97		260.27	0.000915	2.56	94.95	54.28	0.45
KinmoutDS	2855	May 8 2017	142	256.41	259.47		259.77	0.001105	2.52	74.74	48.42	0.48
KinmoutDS	2855	April 21 2013	216.5	256.41	260.81		261.07	0.000609	2.43	132.66	66.94	0.38
KinmoutDS	2836	Timmins_Uncalibr	452.5	256.46	263.68		263.94	0.000335	2.57	296.03	100.76	0.31

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2836	Timmins_Calibrat	115.8	256.46	259.08		259.34	0.001146	2.32	62.08	37.39	0.48
KinmoutDS	2836	TimminsCC_Calibr	145.4	256.46	259.54		259.8	0.000949	2.37	79.61	39.31	0.45
KinmoutDS	2836	2y	109.5	256.46	259.04		259.28	0.001094	2.24	60.51	37.21	0.47
KinmoutDS	2836	5y	145.9	256.46	259.66		259.9	0.000823	2.27	84.3	40.1	0.42
KinmoutDS	2836	10y	170.6	256.46	260.07		260.31	0.0007	2.29	101.74	44.14	0.4
KinmoutDS	2836	25y	203	256.46	260.6		260.83	0.000578	2.29	125.74	46.52	0.37
KinmoutDS	2836	50y	228.8	256.46	261.01		261.24	0.000508	2.29	145.06	48.01	0.35
KinmoutDS	2836	100y	256.7	256.46	261.43		261.66	0.000454	2.31	165.73	50.68	0.34
KinmoutDS	2836	200y	287.4	256.46	261.88		262.11	0.000408	2.33	189.04	53.44	0.33
KinmoutDS	2836	350y	314.5	256.46	262.21		262.45	0.000388	2.37	207.19	55.53	0.32
KinmoutDS	2836	Sept 25 2021	68.8	256.46	258.44		258.64	0.001279	1.98	38.87	34.81	0.48
KinmoutDS	2836	July 13 2024	53.2	256.46	258.23		258.39	0.001205	1.76	32.25	28.86	0.46
KinmoutDS	2836	April 21 2019	228.5	256.46	261		261.24	0.000509	2.3	144.8	47.99	0.35
KinmoutDS	2836	Nov 2 2013	77	256.46	258.55		258.76	0.001296	2.07	42.53	35.26	0.49
KinmoutDS	2836	April 16 2014	175	256.46	259.98		260.24	0.000819	2.42	97.56	43.51	0.43
KinmoutDS	2836	May 8 2017	142	256.46	259.47		259.74	0.00099	2.38	76.93	38.96	0.46
KinmoutDS	2836	April 21 2013	216.5	256.46	260.82		261.05	0.000538	2.29	135.86	47.3	0.36
KinmoutDS	2816	Timmins_Uncalibr	452.5	256.51	263.67		263.94	0.000304	2.5	292.55	106.38	0.3
KinmoutDS	2816	Timmins_Calibrat	115.8	256.51	259.06		259.32	0.001079	2.26	59.07	37.01	0.48
KinmoutDS	2816	TimminsCC_Calibr	145.4	256.51	259.53		259.78	0.000881	2.31	76.91	40.11	0.44
KinmoutDS	2816	2y	109.5	256.51	259.02		259.26	0.001028	2.18	57.57	36.72	0.46
KinmoutDS	2816	5y	145.9	256.51	259.65		259.88	0.000759	2.2	81.8	40.69	0.42
KinmoutDS	2816	10y	170.6	256.51	260.06		260.29	0.000637	2.21	99.14	42.66	0.39
KinmoutDS	2816	25y	203	256.51	260.59		260.82	0.000525	2.22	122.45	45.23	0.36
KinmoutDS	2816	50y	228.8	256.51	261		261.23	0.000461	2.22	141.39	47.28	0.35
KinmoutDS	2816	100y	256.7	256.51	261.43		261.65	0.000411	2.24	161.8	49.24	0.33
KinmoutDS	2816	200y	287.4	256.51	261.87		262.1	0.000369	2.25	184.38	51.61	0.32
KinmoutDS	2816	350y	314.5	256.51	262.21		262.44	0.000352	2.29	201.87	53.62	0.31
KinmoutDS	2816	Sept 25 2021	68.8	256.51	258.42		258.61	0.001202	1.91	37.45	28.35	0.48
KinmoutDS	2816	July 13 2024	53.2	256.51	258.22		258.36	0.001125	1.7	32.01	25.03	0.45
KinmoutDS	2816	April 21 2019	228.5	256.51	261		261.22	0.000462	2.22	141.13	47.25	0.35
KinmoutDS	2816	Nov 2 2013	77	256.51	258.53		258.73	0.001225	2.01	40.47	30.38	0.49
KinmoutDS	2816	April 16 2014	175	256.51	259.97		260.23	0.000748	2.35	95.01	42.23	0.42
KinmoutDS	2816	May 8 2017	142	256.51	259.46		259.72	0.000922	2.32	74.13	39.76	0.45
KinmoutDS	2816	April 21 2013	216.5	256.51	260.81		261.04	0.000489	2.22	132.33	46.31	0.35
KinmoutDS	2796	Timmins_Uncalibr	452.5	256.51	263.68		263.92	0.000271	2.35	289.57	112.38	0.29
KinmoutDS	2796	Timmins_Calibrat	115.8	256.51	259.06		259.29	0.000992	2.11	61.31	35.93	0.45
KinmoutDS	2796	TimminsCC_Calibr	145.4	256.51	259.53		259.76	0.000798	2.15	78.58	38.14	0.42
KinmoutDS	2796	2y	109.5	256.51	259.02		259.23	0.000948	2.04	59.83	35.72	0.44
KinmoutDS	2796	5y	145.9	256.51	259.65		259.86	0.000687	2.06	83.23	38.65	0.39
KinmoutDS	2796	10y	170.6	256.51	260.07		260.27	0.000576	2.07	99.72	40.63	0.37
KinmoutDS	2796	25y	203	256.51	260.6		260.8	0.000475	2.08	122.09	43.58	0.34
KinmoutDS	2796	50y	228.8	256.51	261.01		261.21	0.000418	2.09	140.43	46.04	0.33
KinmoutDS	2796	100y	256.7	256.51	261.43		261.64	0.000373	2.11	160.45	48.7	0.31

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2796	200y	287.4	256.51	261.88		262.09	0.000336	2.13	183.12	57.42	0.3
KinmoutDS	2796	350y	314.5	256.51	262.21		262.43	0.000319	2.16	201.4	65.46	0.3
KinmoutDS	2796	Sept 25 2021	68.8	256.51	258.41		258.58	0.001188	1.83	39.41	30.31	0.47
KinmoutDS	2796	July 13 2024	53.2	256.51	258.2		258.34	0.001164	1.64	33.27	28.5	0.45
KinmoutDS	2796	April 21 2019	228.5	256.51	261		261.21	0.000419	2.09	140.18	46.01	0.33
KinmoutDS	2796	Nov 2 2013	77	256.51	258.52		258.7	0.001187	1.91	42.66	31.39	0.47
KinmoutDS	2796	April 16 2014	175	256.51	259.97		260.2	0.000675	2.19	95.81	40.1	0.4
KinmoutDS	2796	May 8 2017	142	256.51	259.46		259.69	0.000836	2.16	75.92	37.86	0.43
KinmoutDS	2796	April 21 2013	216.5	256.51	260.82		261.02	0.000443	2.08	131.64	44.84	0.33
KinmoutDS	2776	Timmins_Uncalibr	452.5	256.46	263.68		263.92	0.00026	2.26	295.02	120.21	0.28
KinmoutDS	2776	Timmins_Calibrat	115.8	256.46	259.05		259.26	0.001023	2.07	58.55	33.33	0.45
KinmoutDS	2776	TimminsCC_Calibr	145.4	256.46	259.52		259.74	0.000812	2.11	75.34	37.06	0.42
KinmoutDS	2776	2y	109.5	256.46	259.01		259.21	0.000976	2	57.22	32.96	0.44
KinmoutDS	2776	5y	145.9	256.46	259.64		259.84	0.000696	2.01	79.95	37.67	0.39
KinmoutDS	2776	10y	170.6	256.46	260.06		260.26	0.000579	2.02	96.3	40.9	0.36
KinmoutDS	2776	25y	203	256.46	260.59		260.79	0.000473	2.03	119.34	45.28	0.34
KinmoutDS	2776	50y	228.8	256.46	261		261.2	0.000412	2.03	138.61	49.8	0.32
KinmoutDS	2776	100y	256.7	256.46	261.43		261.63	0.000364	2.04	159.6	53.98	0.31
KinmoutDS	2776	200y	287.4	256.46	261.88		262.08	0.000324	2.05	182.82	67.17	0.29
KinmoutDS	2776	350y	314.5	256.46	262.21		262.42	0.000309	2.09	201.24	76.77	0.29
KinmoutDS	2776	Sept 25 2021	68.8	256.46	258.39		258.55	0.00126	1.79	38.49	27.66	0.47
KinmoutDS	2776	July 13 2024	53.2	256.46	258.18		258.31	0.00126	1.62	32.81	26.27	0.46
KinmoutDS	2776	April 21 2019	228.5	256.46	261		261.2	0.000413	2.03	138.34	49.75	0.32
KinmoutDS	2776	Nov 2 2013	77	256.46	258.5		258.67	0.00125	1.87	41.46	28.61	0.48
KinmoutDS	2776	April 16 2014	175	256.46	259.96		260.19	0.000681	2.14	92.32	39.95	0.39
KinmoutDS	2776	May 8 2017	142	256.46	259.45		259.67	0.000852	2.12	72.73	36.72	0.43
KinmoutDS	2776	April 21 2013	216.5	256.46	260.81		261.01	0.000439	2.03	129.36	46.95	0.33
KinmoutDS	2755	Timmins_Uncalibr	452.5	256.42	263.7		263.9	0.000239	2.12	302.47	124.52	0.26
KinmoutDS	2755	Timmins_Calibrat	115.8	256.42	259.05		259.24	0.000949	1.93	63.17	37.2	0.43
KinmoutDS	2755	TimminsCC_Calibr	145.4	256.42	259.52		259.71	0.000737	1.95	81.38	39.27	0.39
KinmoutDS	2755	2y	109.5	256.42	259.01		259.18	0.000908	1.86	61.65	37	0.42
KinmoutDS	2755	5y	145.9	256.42	259.65		259.82	0.000631	1.86	86.27	39.77	0.36
KinmoutDS	2755	10y	170.6	256.42	260.07		260.24	0.000521	1.86	103.39	41.6	0.34
KinmoutDS	2755	25y	203	256.42	260.6		260.78	0.000425	1.87	126.76	45.36	0.31
KinmoutDS	2755	50y	228.8	256.42	261.02		261.19	0.000371	1.88	145.85	49.6	0.3
KinmoutDS	2755	100y	256.7	256.42	261.44		261.61	0.00033	1.89	166.28	56.49	0.29
KinmoutDS	2755	200y	287.4	256.42	261.89		262.06	0.000295	1.91	188.81	70.36	0.28
KinmoutDS	2755	350y	314.5	256.42	262.22		262.41	0.000282	1.95	207.53	79.08	0.27
KinmoutDS	2755	Sept 25 2021	68.8	256.42	258.37		258.52	0.001246	1.71	40.46	30.8	0.46
KinmoutDS	2755	July 13 2024	53.2	256.42	258.16		258.28	0.001287	1.56	34.07	28.94	0.46
KinmoutDS	2755	April 21 2019	228.5	256.42	261.01		261.18	0.000372	1.88	145.59	49.54	0.3
KinmoutDS	2755	Nov 2 2013	77	256.42	258.48		258.64	0.001223	1.77	43.8	31.05	0.46
KinmoutDS	2755	April 16 2014	175	256.42	259.97		260.16	0.000612	1.98	99.35	41.13	0.36
KinmoutDS	2755	May 8 2017	142	256.42	259.45		259.65	0.000775	1.96	78.6	38.98	0.4

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2755	April 21 2013	216.5	256.42	260.82		260.99	0.000395	1.88	136.73	46.47	0.31
KinmoutDS	2736	Timmins_Uncalibr	452.5	256.38	263.71		263.89	0.000232	2.01	315.19	117.68	0.25
KinmoutDS	2736	Timmins_Calibrat	115.8	256.38	259.03		259.21	0.001037	1.89	68.23	41.32	0.43
KinmoutDS	2736	TimminsCC_Calibr	145.4	256.38	259.52		259.69	0.000767	1.88	88.78	43.33	0.38
KinmoutDS	2736	2y	109.5	256.38	258.99		259.16	0.000997	1.83	66.54	41.16	0.42
KinmoutDS	2736	5y	145.9	256.38	259.65		259.8	0.000651	1.79	94.24	43.85	0.36
KinmoutDS	2736	10y	170.6	256.38	260.07		260.23	0.000526	1.78	113.2	45.42	0.33
KinmoutDS	2736	25y	203	256.38	260.61		260.76	0.000423	1.79	138.44	48.52	0.3
KinmoutDS	2736	50y	228.8	256.38	261.02		261.18	0.000367	1.79	158.88	50.26	0.29
KinmoutDS	2736	100y	256.7	256.38	261.45		261.6	0.000324	1.8	180.64	55.88	0.27
KinmoutDS	2736	200y	287.4	256.38	261.9		262.05	0.00029	1.82	204.94	72.73	0.26
KinmoutDS	2736	350y	314.5	256.38	262.23		262.39	0.000275	1.85	224.11	88.1	0.26
KinmoutDS	2736	Sept 25 2021	68.8	256.38	258.33		258.49	0.001659	1.78	39.96	39.29	0.51
KinmoutDS	2736	July 13 2024	53.2	256.38	258.11		258.25	0.001726	1.67	32.05	33.4	0.52
KinmoutDS	2736	April 21 2019	228.5	256.38	261.02		261.17	0.000367	1.79	158.6	50.24	0.29
KinmoutDS	2736	Nov 2 2013	77	256.38	258.45		258.61	0.001554	1.83	44.4	39.62	0.5
KinmoutDS	2736	April 16 2014	175	256.38	259.97		260.15	0.000621	1.9	108.75	45.08	0.36
KinmoutDS	2736	May 8 2017	142	256.38	259.45		259.63	0.00081	1.9	85.66	43.02	0.39
KinmoutDS	2736	April 21 2013	216.5	256.38	260.83		260.98	0.000391	1.79	149.14	49.53	0.29
KinmoutDS	2715	Timmins_Uncalibr	452.5	256.32	263.71		263.88	0.000208	1.95	328.91	114.95	0.24
KinmoutDS	2715	Timmins_Calibrat	115.8	256.32	259.02		259.19	0.000917	1.83	71.35	43.17	0.41
KinmoutDS	2715	TimminsCC_Calibr	145.4	256.32	259.51		259.68	0.000677	1.82	93.14	45.46	0.37
KinmoutDS	2715	2y	109.5	256.32	258.98		259.14	0.00088	1.76	69.6	42.94	0.4
KinmoutDS	2715	5y	145.9	256.32	259.64		259.79	0.000575	1.73	98.94	46.01	0.34
KinmoutDS	2715	10y	170.6	256.32	260.07		260.21	0.000466	1.72	119.08	48.35	0.32
KinmoutDS	2715	25y	203	256.32	260.61		260.75	0.000375	1.72	146.16	51.94	0.29
KinmoutDS	2715	50y	228.8	256.32	261.02		261.16	0.000325	1.73	168.07	53.73	0.28
KinmoutDS	2715	100y	256.7	256.32	261.45		261.59	0.000287	1.73	191.35	55.37	0.26
KinmoutDS	2715	200y	287.4	256.32	261.9		262.04	0.000256	1.75	216.79	59.34	0.25
KinmoutDS	2715	350y	314.5	256.32	262.24		262.38	0.000243	1.78	236.3	69.11	0.25
KinmoutDS	2715	Sept 25 2021	68.8	256.32	258.31		258.46	0.001474	1.72	42.02	37.84	0.49
KinmoutDS	2715	July 13 2024	53.2	256.32	258.08		258.21	0.001716	1.63	33.62	35.54	0.51
KinmoutDS	2715	April 21 2019	228.5	256.32	261.02		261.16	0.000326	1.73	167.77	53.71	0.28
KinmoutDS	2715	Nov 2 2013	77	256.32	258.42		258.58	0.001381	1.77	46.45	39.48	0.48
KinmoutDS	2715	April 16 2014	175	256.32	259.97		260.13	0.00055	1.83	114.31	47.84	0.34
KinmoutDS	2715	May 8 2017	142	256.32	259.44		259.61	0.000716	1.83	89.83	45.16	0.38
KinmoutDS	2715	April 21 2013	216.5	256.32	260.83		260.97	0.000347	1.72	157.63	52.87	0.28
KinmoutDS	2695	Timmins_Uncalibr	452.5	256.4	263.71		263.88	0.000184	1.92	328.21	114.29	0.24
KinmoutDS	2695	Timmins_Calibrat	115.8	256.4	259.01		259.17	0.000733	1.75	71.82	42.37	0.39
KinmoutDS	2695	TimminsCC_Calibr	145.4	256.4	259.51		259.66	0.000556	1.75	93.68	45.62	0.35
KinmoutDS	2695	2y	109.5	256.4	258.97		259.12	0.0007	1.68	70.14	41.39	0.38
KinmoutDS	2695	5y	145.9	256.4	259.64		259.77	0.000473	1.67	99.56	46.15	0.33
KinmoutDS	2695	10y	170.6	256.4	260.06		260.2	0.000388	1.67	119.77	48.08	0.3

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2695	25y	203	256.4	260.61		260.74	0.000316	1.67	146.33	50.08	0.28
KinmoutDS	2695	50y	228.8	256.4	261.02		261.16	0.000277	1.68	167.4	51.54	0.27
KinmoutDS	2695	100y	256.7	256.4	261.45		261.58	0.000247	1.69	189.75	53.36	0.26
KinmoutDS	2695	200y	287.4	256.4	261.9		262.04	0.000223	1.71	215.05	61.82	0.25
KinmoutDS	2695	350y	314.5	256.4	262.23		262.38	0.000212	1.75	234.68	72.44	0.24
KinmoutDS	2695	Sept 25 2021	68.8	256.4	258.29		258.43	0.00109	1.61	43.9	36.29	0.44
KinmoutDS	2695	July 13 2024	53.2	256.4	258.06		258.18	0.001197	1.51	35.72	34.16	0.46
KinmoutDS	2695	April 21 2019	228.5	256.4	261.01		261.15	0.000277	1.68	167.11	51.52	0.27
KinmoutDS	2695	Nov 2 2013	77	256.4	258.41		258.55	0.001037	1.66	48.16	37.17	0.44
KinmoutDS	2695	April 16 2014	175	256.4	259.96		260.12	0.000458	1.77	114.98	47.69	0.33
KinmoutDS	2695	May 8 2017	142	256.4	259.43		259.59	0.000586	1.76	90.34	45.27	0.36
KinmoutDS	2695	April 21 2013	216.5	256.4	260.82		260.96	0.000294	1.67	157.39	50.84	0.27
KinmoutDS	2675	Timmins_Uncalibr	452.5	255.71	263.71		263.88	0.000174	1.89	314.07	119.4	0.23
KinmoutDS	2675	Timmins_Calibrat	115.8	255.71	259.01		259.15	0.000594	1.62	72.46	35.98	0.35
KinmoutDS	2675	TimminsCC_Calibr	145.4	255.71	259.51		259.65	0.000473	1.66	90.96	39.79	0.32
KinmoutDS	2675	2y	109.5	255.71	258.97		259.1	0.000565	1.56	71.02	35.79	0.34
KinmoutDS	2675	5y	145.9	255.71	259.63		259.76	0.000407	1.58	96.09	40.51	0.3
KinmoutDS	2675	10y	170.6	255.71	260.06		260.19	0.000343	1.6	113.96	43.08	0.28
KinmoutDS	2675	25y	203	255.71	260.6		260.73	0.000287	1.62	138.16	46.32	0.27
KinmoutDS	2675	50y	228.8	255.71	261.02		261.15	0.000254	1.64	157.85	48.68	0.26
KinmoutDS	2675	100y	256.7	255.71	261.44		261.58	0.000229	1.66	179.07	50.8	0.25
KinmoutDS	2675	200y	287.4	255.71	261.89		262.03	0.000209	1.68	202.73	58.45	0.24
KinmoutDS	2675	350y	314.5	255.71	262.23		262.37	0.000199	1.72	222.03	67.49	0.24
KinmoutDS	2675	Sept 25 2021	68.8	255.71	258.29		258.4	0.000785	1.44	47.83	32.29	0.38
KinmoutDS	2675	July 13 2024	53.2	255.71	258.06		258.15	0.000766	1.31	40.53	30.88	0.37
KinmoutDS	2675	April 21 2019	228.5	255.71	261.01		261.14	0.000255	1.64	157.58	48.66	0.26
KinmoutDS	2675	Nov 2 2013	77	255.71	258.41		258.52	0.000774	1.49	51.62	32.97	0.38
KinmoutDS	2675	April 16 2014	175	255.71	259.96		260.11	0.000402	1.7	109.68	42.46	0.31
KinmoutDS	2675	May 8 2017	142	255.71	259.43		259.57	0.000495	1.66	88.07	39.14	0.33
KinmoutDS	2675	April 21 2013	216.5	255.71	260.82		260.95	0.000269	1.63	148.42	47.72	0.26
KinmoutDS	2655	Timmins_Uncalibr	452.5	255	263.73		263.86	0.000135	1.7	375.21	124.53	0.2
KinmoutDS	2655	Timmins_Calibrat	115.8	255	259.03		259.13	0.000359	1.37	90.42	41.79	0.28
KinmoutDS	2655	TimminsCC_Calibr	145.4	255	259.53		259.63	0.000306	1.42	111.4	43.4	0.26
KinmoutDS	2655	2y	109.5	255	258.99		259.08	0.00034	1.32	88.69	41.66	0.27
KinmoutDS	2655	5y	145.9	255	259.65		259.75	0.000267	1.37	116.91	43.91	0.25
KinmoutDS	2655	10y	170.6	255	260.08		260.18	0.000235	1.4	136.16	46.24	0.24
KinmoutDS	2655	25y	203	255	260.62		260.72	0.000204	1.43	162.03	49.66	0.23
KinmoutDS	2655	50y	228.8	255	261.03		261.14	0.000186	1.46	183.18	52.54	0.22
KinmoutDS	2655	100y	256.7	255	261.46		261.57	0.000171	1.48	206.27	57.18	0.21
KinmoutDS	2655	200y	287.4	255	261.91		262.02	0.000157	1.51	234.55	68.49	0.21
KinmoutDS	2655	350y	314.5	255	262.25		262.36	0.000152	1.55	257.51	75.32	0.21
KinmoutDS	2655	Sept 25 2021	68.8	255	258.31		258.38	0.000407	1.17	61.06	38.72	0.28
KinmoutDS	2655	July 13 2024	53.2	255	258.08		258.13	0.000392	1.04	52.17	37.46	0.27
KinmoutDS	2655	April 21 2019	228.5	255	261.03		261.13	0.000186	1.46	182.88	52.5	0.22

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2655	Nov 2 2013	77	255	258.43		258.5	0.000411	1.22	65.65	39.53	0.29
KinmoutDS	2655	April 16 2014	175	255	259.98		260.09	0.000272	1.48	131.67	45.7	0.26
KinmoutDS	2655	May 8 2017	142	255	259.45		259.55	0.000317	1.43	108.25	43.15	0.27
KinmoutDS	2655	April 21 2013	216.5	255	260.84		260.94	0.000194	1.44	173.04	51.14	0.22
KinmoutDS	2635	Timmins_Uncalibr	452.5	255.24	263.69		263.86	0.00017	1.89	303.43	111.88	0.23
KinmoutDS	2635	Timmins_Calibrat	115.8	255.24	259		259.12	0.000458	1.54	76.57	35.44	0.32
KinmoutDS	2635	TimminsCC_Calibr	145.4	255.24	259.49		259.62	0.000388	1.59	94.6	37.6	0.3
KinmoutDS	2635	2y	109.5	255.24	258.96		259.07	0.000432	1.48	75.19	35.27	0.31
KinmoutDS	2635	5y	145.9	255.24	259.62		259.74	0.000337	1.53	99.51	38.16	0.28
KinmoutDS	2635	10y	170.6	255.24	260.05		260.17	0.000295	1.55	116.38	40.97	0.27
KinmoutDS	2635	25y	203	255.24	260.59		260.71	0.000255	1.58	139.51	47.52	0.25
KinmoutDS	2635	50y	228.8	255.24	261		261.13	0.00023	1.61	158.4	51.77	0.25
KinmoutDS	2635	100y	256.7	255.24	261.43		261.56	0.00021	1.63	178.63	56.77	0.24
KinmoutDS	2635	200y	287.4	255.24	261.88		262.02	0.000194	1.66	201.03	62.18	0.23
KinmoutDS	2635	350y	314.5	255.24	262.22		262.36	0.000187	1.7	218.5	66.77	0.23
KinmoutDS	2635	Sept 25 2021	68.8	255.24	258.28		258.37	0.000506	1.32	52.26	32.08	0.33
KinmoutDS	2635	July 13 2024	53.2	255.24	258.05		258.12	0.000472	1.18	45.07	30.87	0.31
KinmoutDS	2635	April 21 2019	228.5	255.24	261		261.12	0.00023	1.61	158.14	51.72	0.25
KinmoutDS	2635	Nov 2 2013	77	255.24	258.39		258.49	0.000516	1.38	55.99	32.66	0.33
KinmoutDS	2635	April 16 2014	175	255.24	259.94		260.08	0.000344	1.65	112.21	40.34	0.29
KinmoutDS	2635	May 8 2017	142	255.24	259.42		259.55	0.000403	1.6	91.84	37.33	0.31
KinmoutDS	2635	April 21 2013	216.5	255.24	260.81		260.93	0.000241	1.6	149.4	50.05	0.25
KinmoutDS	2616	Timmins_Uncalibr	452.5	255.48	263.66		263.85	0.000216	2	276.11	98.16	0.25
KinmoutDS	2616	Timmins_Calibrat	115.8	255.48	258.93		259.1	0.000795	1.84	62.96	29.43	0.4
KinmoutDS	2616	TimminsCC_Calibr	145.4	255.48	259.43		259.6	0.000664	1.86	78.36	32.33	0.37
KinmoutDS	2616	2y	109.5	255.48	258.89		259.05	0.000745	1.77	61.99	29.23	0.39
KinmoutDS	2616	5y	145.9	255.48	259.56		259.72	0.00057	1.77	82.89	33.15	0.35
KinmoutDS	2616	10y	170.6	255.48	260		260.16	0.000485	1.77	97.81	35.43	0.33
KinmoutDS	2616	25y	203	255.48	260.55		260.7	0.000395	1.77	119.23	40.59	0.3
KinmoutDS	2616	50y	228.8	255.48	260.96		261.12	0.000342	1.77	136.56	42.06	0.29
KinmoutDS	2616	100y	256.7	255.48	261.39		261.55	0.000301	1.78	154.85	43.1	0.27
KinmoutDS	2616	200y	287.4	255.48	261.85		262.01	0.000268	1.8	175.14	46.02	0.26
KinmoutDS	2616	350y	314.5	255.48	262.18		262.35	0.000254	1.83	190.93	52.87	0.26
KinmoutDS	2616	Sept 25 2021	68.8	255.48	258.22		258.35	0.000785	1.58	43.67	25.43	0.38
KinmoutDS	2616	July 13 2024	53.2	255.48	258.01		258.11	0.000679	1.39	38.34	24.26	0.35
KinmoutDS	2616	April 21 2019	228.5	255.48	260.96		261.12	0.000342	1.77	136.32	42.05	0.29
KinmoutDS	2616	Nov 2 2013	77	255.48	258.33		258.47	0.000826	1.66	46.48	26.05	0.4
KinmoutDS	2616	April 16 2014	175	255.48	259.89		260.07	0.000578	1.89	93.88	35.07	0.36
KinmoutDS	2616	May 8 2017	142	255.48	259.35		259.53	0.000693	1.88	75.93	31.89	0.38
KinmoutDS	2616	April 21 2013	216.5	255.48	260.77		260.92	0.000365	1.77	128.31	41.52	0.29
KinmoutDS	2585	Timmins_Uncalibr	452.5	255.86	263.63		263.84	0.00023	2.05	233.44	67.74	0.26
KinmoutDS	2585	Timmins_Calibrat	115.8	255.86	258.87		259.07	0.001029	1.97	58.83	30.07	0.45
KinmoutDS	2585	TimminsCC_Calibr	145.4	255.86	259.39		259.58	0.000799	1.94	74.92	32.47	0.41

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2585	2y	109.5	255.86	258.84		259.03	0.00096	1.89	57.96	29.9	0.43
KinmoutDS	2585	5y	145.9	255.86	259.53		259.71	0.000671	1.83	79.73	33.11	0.38
KinmoutDS	2585	10y	170.6	255.86	259.97		260.14	0.000543	1.81	94.64	34.17	0.34
KinmoutDS	2585	25y	203	255.86	260.53		260.69	0.000423	1.79	113.61	34.5	0.31
KinmoutDS	2585	50y	228.8	255.86	260.95		261.11	0.000361	1.79	128.84	41.32	0.3
KinmoutDS	2585	100y	256.7	255.86	261.38		261.54	0.000316	1.8	145.03	43.45	0.28
KinmoutDS	2585	200y	287.4	255.86	261.83		262	0.00028	1.82	162.11	45.24	0.27
KinmoutDS	2585	350y	314.5	255.86	262.17		262.34	0.000265	1.85	174.74	49.25	0.27
KinmoutDS	2585	Sept 25 2021	68.8	255.86	258.16		258.32	0.00116	1.77	38.93	25.69	0.46
KinmoutDS	2585	July 13 2024	53.2	255.86	257.95		258.08	0.001051	1.58	33.73	24.57	0.43
KinmoutDS	2585	April 21 2019	228.5	255.86	260.94		261.11	0.000362	1.79	128.63	41.29	0.3
KinmoutDS	2585	Nov 2 2013	77	255.86	258.27		258.44	0.001194	1.85	41.71	26.32	0.47
KinmoutDS	2585	April 16 2014	175	255.86	259.86		260.05	0.000655	1.93	90.65	34.07	0.38
KinmoutDS	2585	May 8 2017	142	255.86	259.31		259.51	0.000843	1.96	72.39	32.12	0.42
KinmoutDS	2585	April 21 2013	216.5	255.86	260.75		260.91	0.000388	1.79	121.43	39.84	0.3
KinmoutDS	2566	Timmins_Uncalibr	452.5	256.05	263.63		263.84	0.000235	2.04	241.1	53.24	0.26
KinmoutDS	2566	Timmins_Calibrat	115.8	256.05	258.82		259.05	0.00132	2.11	54.77	30.43	0.5
KinmoutDS	2566	TimminsCC_Calibr	145.4	256.05	259.35		259.56	0.000943	2.02	71.84	33.19	0.44
KinmoutDS	2566	2y	109.5	256.05	258.79		259	0.001228	2.03	54.02	30.3	0.48
KinmoutDS	2566	5y	145.9	256.05	259.51		259.69	0.000775	1.9	77	33.89	0.4
KinmoutDS	2566	10y	170.6	256.05	259.96		260.13	0.000598	1.85	92.48	34.7	0.36
KinmoutDS	2566	25y	203	256.05	260.51		260.68	0.000459	1.82	111.91	35.02	0.32
KinmoutDS	2566	50y	228.8	256.05	260.94		261.1	0.000387	1.81	126.77	35.6	0.3
KinmoutDS	2566	100y	256.7	256.05	261.37		261.54	0.000335	1.82	142.48	36.78	0.29
KinmoutDS	2566	200y	287.4	256.05	261.82		261.99	0.000295	1.83	159.45	37.82	0.27
KinmoutDS	2566	350y	314.5	256.05	262.16		262.34	0.000278	1.86	172.49	39.87	0.27
KinmoutDS	2566	Sept 25 2021	68.8	256.05	258.08		258.29	0.001763	2.01	34.18	25.5	0.56
KinmoutDS	2566	July 13 2024	53.2	256.05	257.88		258.05	0.001671	1.82	29.19	24.34	0.53
KinmoutDS	2566	April 21 2019	228.5	256.05	260.93		261.1	0.000388	1.81	126.57	35.57	0.3
KinmoutDS	2566	Nov 2 2013	77	256.05	258.19		258.41	0.001772	2.09	36.9	26.17	0.56
KinmoutDS	2566	April 16 2014	175	256.05	259.83		260.03	0.000732	1.99	88.22	34.63	0.4
KinmoutDS	2566	May 8 2017	142	256.05	259.27		259.49	0.001007	2.05	69.15	32.81	0.45
KinmoutDS	2566	April 21 2013	216.5	256.05	260.74		260.91	0.000418	1.81	119.75	35.12	0.31
KinmoutDS	2546	Timmins_Uncalibr	452.5	256.27	263.64		263.82	0.000198	1.93	264.94	58.24	0.24
KinmoutDS	2546	Timmins_Calibrat	115.8	256.27	258.82		259.01	0.001104	1.93	59.89	33.39	0.46
KinmoutDS	2546	TimminsCC_Calibr	145.4	256.27	259.36		259.53	0.000765	1.85	78.69	35.76	0.4
KinmoutDS	2546	2y	109.5	256.27	258.79		258.97	0.001029	1.85	59.06	33.26	0.44
KinmoutDS	2546	5y	145.9	256.27	259.51		259.67	0.000615	1.73	84.22	36.21	0.36
KinmoutDS	2546	10y	170.6	256.27	259.96		260.11	0.000471	1.7	100.81	37.53	0.32
KinmoutDS	2546	25y	203	256.27	260.52		260.67	0.000364	1.69	122.1	38.75	0.29
KinmoutDS	2546	50y	228.8	256.27	260.95		261.09	0.000311	1.69	138.66	39.47	0.28
KinmoutDS	2546	100y	256.7	256.27	261.38		261.52	0.000273	1.7	155.92	40.32	0.26
KinmoutDS	2546	200y	287.4	256.27	261.83		261.98	0.000242	1.72	174.63	42.02	0.25
KinmoutDS	2546	350y	314.5	256.27	262.17		262.32	0.00023	1.75	189.02	43.68	0.25

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2546	Sept 25 2021	68.8	256.27	258.06		258.25	0.001754	1.91	36.03	29.14	0.55
KinmoutDS	2546	July 13 2024	53.2	256.27	257.85		258.01	0.001794	1.77	30.13	27.92	0.54
KinmoutDS	2546	April 21 2019	228.5	256.27	260.94		261.08	0.000312	1.69	138.43	39.46	0.28
KinmoutDS	2546	Nov 2 2013	77	256.27	258.17		258.37	0.00171	1.96	39.26	29.91	0.55
KinmoutDS	2546	April 16 2014	175	256.27	259.84		260.01	0.000575	1.83	96.25	37.26	0.36
KinmoutDS	2546	May 8 2017	142	256.27	259.28		259.46	0.000824	1.87	75.76	35.53	0.41
KinmoutDS	2546	April 21 2013	216.5	256.27	260.75		260.89	0.000334	1.69	130.82	39.14	0.28
KinmoutDS	2525	Timmins_Uncalibr	452.5	256.48	263.65		263.81	0.000173	1.83	300.8	81.14	0.23
KinmoutDS	2525	Timmins_Calibrat	115.8	256.48	258.82		258.98	0.00093	1.79	65.17	37.48	0.42
KinmoutDS	2525	TimminsCC_Calibr	145.4	256.48	259.36		259.51	0.000619	1.72	86.2	39.32	0.36
KinmoutDS	2525	2y	109.5	256.48	258.79		258.94	0.000869	1.72	64.24	37.38	0.41
KinmoutDS	2525	5y	145.9	256.48	259.52		259.65	0.000502	1.62	92.29	39.64	0.33
KinmoutDS	2525	10y	170.6	256.48	259.97		260.1	0.000392	1.6	110.36	40.5	0.3
KinmoutDS	2525	25y	203	256.48	260.53		260.65	0.000308	1.59	133.25	41.43	0.27
KinmoutDS	2525	50y	228.8	256.48	260.95		261.08	0.000266	1.6	151.08	43.05	0.26
KinmoutDS	2525	100y	256.7	256.48	261.38		261.51	0.000235	1.61	170.18	45.15	0.25
KinmoutDS	2525	200y	287.4	256.48	261.84		261.97	0.00021	1.63	191.26	47.08	0.24
KinmoutDS	2525	350y	314.5	256.48	262.18		262.31	0.0002	1.66	207.36	48.59	0.23
KinmoutDS	2525	Sept 25 2021	68.8	256.48	258.04		258.2	0.001732	1.82	37.72	32.4	0.54
KinmoutDS	2525	July 13 2024	53.2	256.48	257.82		257.97	0.001918	1.72	30.89	31.28	0.55
KinmoutDS	2525	April 21 2019	228.5	256.48	260.94		261.07	0.000267	1.6	150.84	43.02	0.26
KinmoutDS	2525	Nov 2 2013	77	256.48	258.15		258.32	0.001636	1.86	41.42	33.1	0.53
KinmoutDS	2525	April 16 2014	175	256.48	259.85		259.99	0.000476	1.71	105.45	40.29	0.33
KinmoutDS	2525	May 8 2017	142	256.48	259.28		259.43	0.000667	1.74	82.96	39.16	0.37
KinmoutDS	2525	April 21 2013	216.5	256.48	260.75		260.88	0.000284	1.6	142.59	42.05	0.26
KinmoutDS	2505	Timmins_Uncalibr	452.5	256.67	263.66		263.8	0.000142	1.7	349.05	86.5	0.21
KinmoutDS	2505	Timmins_Calibrat	115.8	256.67	258.83		258.95	0.000635	1.58	75.48	40.74	0.36
KinmoutDS	2505	TimminsCC_Calibr	145.4	256.67	259.37		259.49	0.000441	1.55	98.25	42.83	0.31
KinmoutDS	2505	2y	109.5	256.67	258.8		258.92	0.000594	1.51	74.42	40.66	0.35
KinmoutDS	2505	5y	145.9	256.67	259.53		259.63	0.000364	1.46	104.85	43.39	0.29
KinmoutDS	2505	10y	170.6	256.67	259.98		260.08	0.000294	1.46	124.8	45.15	0.26
KinmoutDS	2505	25y	203	256.67	260.54		260.64	0.000239	1.46	150.68	47.58	0.24
KinmoutDS	2505	50y	228.8	256.67	260.96		261.07	0.00021	1.47	171.33	50.12	0.23
KinmoutDS	2505	100y	256.7	256.67	261.39		261.5	0.000187	1.49	193.91	53.99	0.22
KinmoutDS	2505	200y	287.4	256.67	261.85		261.96	0.000169	1.51	219.49	58.44	0.22
KinmoutDS	2505	350y	314.5	256.67	262.19		262.3	0.000162	1.54	239.67	61.05	0.21
KinmoutDS	2505	Sept 25 2021	68.8	256.67	258.04		258.16	0.001245	1.57	44.15	38.41	0.46
KinmoutDS	2505	July 13 2024	53.2	256.67	257.81		257.93	0.001483	1.5	35.62	37.75	0.49
KinmoutDS	2505	April 21 2019	228.5	256.67	260.95		261.06	0.00021	1.47	171.04	50.08	0.23
KinmoutDS	2505	Nov 2 2013	77	256.67	258.15		258.28	0.00114	1.6	48.64	38.75	0.45
KinmoutDS	2505	April 16 2014	175	256.67	259.86		259.98	0.000354	1.56	119.39	44.68	0.29
KinmoutDS	2505	May 8 2017	142	256.67	259.29		259.41	0.000471	1.56	94.74	42.52	0.32
KinmoutDS	2505	April 21 2013	216.5	256.67	260.76		260.87	0.000222	1.47	161.47	48.67	0.24

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2485	Timmins_Uncalibr	452.5	256.79	263.67		263.8	0.00013	1.65	383.45	102.57	0.2
KinmoutDS	2485	Timmins_Calibrat	115.8	256.79	258.83		258.94	0.000536	1.48	85.04	45.14	0.33
KinmoutDS	2485	TimminsCC_Calibr	145.4	256.79	259.37		259.48	0.000378	1.46	110.09	46.23	0.29
KinmoutDS	2485	2y	109.5	256.79	258.8		258.9	0.000501	1.42	83.87	45.09	0.32
KinmoutDS	2485	5y	145.9	256.79	259.53		259.62	0.000313	1.38	117.21	46.54	0.27
KinmoutDS	2485	10y	170.6	256.79	259.98		260.07	0.000256	1.38	138.42	47.46	0.25
KinmoutDS	2485	25y	203	256.79	260.54		260.63	0.00021	1.4	165.45	49.18	0.23
KinmoutDS	2485	50y	228.8	256.79	260.96		261.06	0.000187	1.41	186.8	51.81	0.22
KinmoutDS	2485	100y	256.7	256.79	261.4		261.5	0.000168	1.43	209.92	54.79	0.21
KinmoutDS	2485	200y	287.4	256.79	261.85		261.96	0.000153	1.46	235.68	57.9	0.21
KinmoutDS	2485	350y	314.5	256.79	262.19		262.3	0.000148	1.49	257.64	69.79	0.21
KinmoutDS	2485	Sept 25 2021	68.8	256.79	258.02		258.13	0.001026	1.47	49.54	43.02	0.42
KinmoutDS	2485	July 13 2024	53.2	256.79	257.8		257.89	0.001226	1.4	39.79	42.13	0.45
KinmoutDS	2485	April 21 2019	228.5	256.79	260.96		261.06	0.000187	1.41	186.5	51.78	0.22
KinmoutDS	2485	Nov 2 2013	77	256.79	258.14		258.26	0.000944	1.5	54.66	43.48	0.41
KinmoutDS	2485	April 16 2014	175	256.79	259.86		259.97	0.000307	1.48	132.73	47.2	0.27
KinmoutDS	2485	May 8 2017	142	256.79	259.29		259.4	0.000402	1.48	106.29	46.07	0.3
KinmoutDS	2485	April 21 2013	216.5	256.79	260.76		260.86	0.000197	1.41	176.6	50.33	0.23
KinmoutDS	2465	Timmins_Uncalibr	452.5	256.53	263.68		263.79	0.000115	1.56	451.77	123.32	0.19
KinmoutDS	2465	Timmins_Calibrat	115.8	256.53	258.83		258.92	0.00044	1.36	105.53	54.65	0.3
KinmoutDS	2465	TimminsCC_Calibr	145.4	256.53	259.38		259.47	0.000314	1.35	136.02	56.17	0.27
KinmoutDS	2465	2y	109.5	256.53	258.81		258.89	0.000411	1.31	104.08	54.57	0.29
KinmoutDS	2465	5y	145.9	256.53	259.54		259.61	0.000261	1.28	144.64	56.59	0.24
KinmoutDS	2465	10y	170.6	256.53	259.99		260.06	0.000215	1.28	170.53	57.95	0.23
KinmoutDS	2465	25y	203	256.53	260.55		260.63	0.000177	1.29	203.45	59.61	0.21
KinmoutDS	2465	50y	228.8	256.53	260.97		261.05	0.000157	1.31	229.2	61.63	0.2
KinmoutDS	2465	100y	256.7	256.53	261.41		261.49	0.000142	1.33	256.48	63.98	0.2
KinmoutDS	2465	200y	287.4	256.53	261.86		261.95	0.00013	1.35	286.83	68.17	0.19
KinmoutDS	2465	350y	314.5	256.53	262.2		262.29	0.000125	1.39	310.23	70.29	0.19
KinmoutDS	2465	Sept 25 2021	68.8	256.53	258.02		258.11	0.000828	1.34	62.15	52.41	0.38
KinmoutDS	2465	July 13 2024	53.2	256.53	257.79		257.87	0.00099	1.28	49.95	51.74	0.4
KinmoutDS	2465	April 21 2019	228.5	256.53	260.97		261.05	0.000158	1.31	228.84	61.61	0.2
KinmoutDS	2465	Nov 2 2013	77	256.53	258.14		258.23	0.000762	1.37	68.49	52.76	0.37
KinmoutDS	2465	April 16 2014	175	256.53	259.87		259.95	0.000256	1.36	163.64	57.57	0.25
KinmoutDS	2465	May 8 2017	142	256.53	259.3		259.39	0.000334	1.36	131.39	55.93	0.27
KinmoutDS	2465	April 21 2013	216.5	256.53	260.77		260.85	0.000166	1.3	216.96	60.69	0.21
KinmoutDS	2445	Timmins_Uncalibr	452.5	256.14	263.7		263.78	0.000083	1.33	572.94	115.2	0.16
KinmoutDS	2445	Timmins_Calibrat	115.8	256.14	258.84		258.9	0.000308	1.18	138.58	75.65	0.26
KinmoutDS	2445	TimminsCC_Calibr	145.4	256.14	259.4		259.45	0.00022	1.16	180.78	76.96	0.22
KinmoutDS	2445	2y	109.5	256.14	258.82		258.87	0.000288	1.13	136.48	75.57	0.25
KinmoutDS	2445	5y	145.9	256.14	259.55		259.6	0.000184	1.1	192.5	77.31	0.21
KinmoutDS	2445	10y	170.6	256.14	260		260.05	0.000152	1.1	227.82	78.57	0.19
KinmoutDS	2445	25y	203	256.14	260.56		260.61	0.000125	1.11	272.42	80.26	0.18
KinmoutDS	2445	50y	228.8	256.14	260.99		261.04	0.000111	1.12	306.9	81.67	0.17

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2445	100y	256.7	256.14	261.42		261.48	0.000102	1.15	343.94	87.88	0.17
KinmoutDS	2445	200y	287.4	256.14	261.88		261.94	0.000093	1.16	384.87	90.55	0.16
KinmoutDS	2445	350y	314.5	256.14	262.22		262.28	0.00009	1.19	415.91	92.38	0.16
KinmoutDS	2445	Sept 25 2021	68.8	256.14	258.03		258.09	0.000548	1.15	78.72	68.46	0.31
KinmoutDS	2445	July 13 2024	53.2	256.14	257.79		257.84	0.000631	1.09	63.01	63.83	0.33
KinmoutDS	2445	April 21 2019	228.5	256.14	260.98		261.03	0.000112	1.12	306.42	81.65	0.17
KinmoutDS	2445	Nov 2 2013	77	256.14	258.15		258.21	0.000511	1.18	87.25	70.72	0.31
KinmoutDS	2445	April 16 2014	175	256.14	259.88		259.94	0.00018	1.17	218.62	78.23	0.21
KinmoutDS	2445	May 8 2017	142	256.14	259.31		259.37	0.000234	1.17	174.43	76.75	0.23
KinmoutDS	2445	April 21 2013	216.5	256.14	260.79		260.84	0.000118	1.11	290.58	81.02	0.18
KinmoutDS	2425	Timmins_Uncalibr	452.5	255.75	263.71		263.77	0.000072	1.27	607.76	120.17	0.15
KinmoutDS	2425	Timmins_Calibrat	115.8	255.75	258.85		258.89	0.000228	1.06	157.63	78.33	0.22
KinmoutDS	2425	TimminsCC_Calibr	145.4	255.75	259.4		259.45	0.000172	1.06	201.53	80.41	0.2
KinmoutDS	2425	2y	109.5	255.75	258.82		258.86	0.000213	1.02	155.43	78.19	0.21
KinmoutDS	2425	5y	145.9	255.75	259.55		259.59	0.000145	1.01	213.75	80.83	0.18
KinmoutDS	2425	10y	170.6	255.75	260.01		260.05	0.000122	1.02	250.83	82.85	0.17
KinmoutDS	2425	25y	203	255.75	260.57		260.61	0.000103	1.03	297.93	84.74	0.16
KinmoutDS	2425	50y	228.8	255.75	260.99		261.04	0.000093	1.05	334.29	86	0.16
KinmoutDS	2425	100y	256.7	255.75	261.43		261.47	0.000085	1.06	372.05	87.3	0.15
KinmoutDS	2425	200y	287.4	255.75	261.89		261.93	0.000078	1.08	412.35	88.59	0.15
KinmoutDS	2425	350y	314.5	255.75	262.23		262.27	0.000076	1.11	442.59	89.78	0.15
KinmoutDS	2425	Sept 25 2021	68.8	255.75	258.03		258.07	0.000359	1	95.54	72.06	0.26
KinmoutDS	2425	July 13 2024	53.2	255.75	257.79		257.83	0.00039	0.93	78.48	70.69	0.26
KinmoutDS	2425	April 21 2019	228.5	255.75	260.99		261.03	0.000093	1.05	333.8	85.99	0.16
KinmoutDS	2425	Nov 2 2013	77	255.75	258.15		258.2	0.000344	1.03	104.44	73.29	0.26
KinmoutDS	2425	April 16 2014	175	255.75	259.89		259.94	0.000144	1.08	241.17	82.3	0.19
KinmoutDS	2425	May 8 2017	142	255.75	259.32		259.36	0.000181	1.07	194.9	80.14	0.2
KinmoutDS	2425	April 21 2013	216.5	255.75	260.79		260.84	0.000097	1.04	317.1	85.41	0.16
KinmoutDS	2405	Timmins_Uncalibr	452.5	255.35	263.7		263.77	0.000073	1.29	601.69	122.81	0.15
KinmoutDS	2405	Timmins_Calibrat	115.8	255.35	258.84		258.89	0.000201	1.04	155.6	71.03	0.21
KinmoutDS	2405	TimminsCC_Calibr	145.4	255.35	259.39		259.44	0.000162	1.07	196.34	78.17	0.2
KinmoutDS	2405	2y	109.5	255.35	258.82		258.86	0.000187	1	153.63	70.98	0.2
KinmoutDS	2405	5y	145.9	255.35	259.55		259.59	0.000138	1.02	208.29	78.75	0.18
KinmoutDS	2405	10y	170.6	255.35	260		260.04	0.000118	1.03	244.37	80.3	0.17
KinmoutDS	2405	25y	203	255.35	260.56		260.61	0.000101	1.05	290.1	82.69	0.16
KinmoutDS	2405	50y	228.8	255.35	260.99		261.03	0.000092	1.06	325.69	84.35	0.16
KinmoutDS	2405	100y	256.7	255.35	261.42		261.47	0.000084	1.08	362.77	85.87	0.15
KinmoutDS	2405	200y	287.4	255.35	261.88		261.93	0.000078	1.1	402.58	87.83	0.15
KinmoutDS	2405	350y	314.5	255.35	262.22		262.27	0.000076	1.13	432.62	90.21	0.15
KinmoutDS	2405	Sept 25 2021	68.8	255.35	258.02		258.06	0.000284	0.95	98.27	68.89	0.23
KinmoutDS	2405	July 13 2024	53.2	255.35	257.79		257.82	0.000291	0.87	81.95	67.76	0.23
KinmoutDS	2405	April 21 2019	228.5	255.35	260.98		261.03	0.000092	1.06	325.2	84.33	0.16
KinmoutDS	2405	Nov 2 2013	77	255.35	258.15		258.19	0.000278	0.99	106.75	69.27	0.23
KinmoutDS	2405	April 16 2014	175	255.35	259.88		259.93	0.000139	1.09	234.94	79.9	0.19

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2405	May 8 2017	142	255.35	259.31		259.36	0.000167	1.07	190.09	76.47	0.2
KinmoutDS	2405	April 21 2013	216.5	255.35	260.79		260.83	0.000096	1.06	308.83	83.61	0.16
KinmoutDS	2386	Timmins_Uncalibr	452.5	254.96	263.68		263.77	0.000088	1.43	536.31	127.29	0.17
KinmoutDS	2386	Timmins_Calibrat	115.8	254.96	258.83		258.88	0.000215	1.12	132.95	62.2	0.22
KinmoutDS	2386	TimminsCC_Calibr	145.4	254.96	259.38		259.44	0.000175	1.14	167.54	63.24	0.2
KinmoutDS	2386	2y	109.5	254.96	258.8		258.85	0.000199	1.07	131.33	62.15	0.21
KinmoutDS	2386	5y	145.9	254.96	259.53		259.59	0.00015	1.09	177.28	64.29	0.19
KinmoutDS	2386	10y	170.6	254.96	259.98		260.04	0.000133	1.12	208.19	69.48	0.18
KinmoutDS	2386	25y	203	254.96	260.54		260.6	0.000116	1.15	247.64	71.21	0.17
KinmoutDS	2386	50y	228.8	254.96	260.97		261.03	0.000106	1.17	278.24	72.6	0.17
KinmoutDS	2386	100y	256.7	254.96	261.4		261.47	0.000099	1.19	310.11	73.84	0.17
KinmoutDS	2386	200y	287.4	254.96	261.86		261.93	0.000092	1.22	344.29	75.65	0.16
KinmoutDS	2386	350y	314.5	254.96	262.2		262.27	0.00009	1.25	370.67	82.05	0.16
KinmoutDS	2386	Sept 25 2021	68.8	254.96	258.01		258.06	0.000277	1	82.82	60.72	0.23
KinmoutDS	2386	July 13 2024	53.2	254.96	257.78		257.81	0.000265	0.89	69	57.03	0.22
KinmoutDS	2386	April 21 2019	228.5	254.96	260.96		261.02	0.000107	1.17	277.83	72.59	0.17
KinmoutDS	2386	Nov 2 2013	77	254.96	258.13		258.18	0.000277	1.04	90.2	60.95	0.24
KinmoutDS	2386	April 16 2014	175	254.96	259.86		259.93	0.000157	1.19	199.86	69.12	0.2
KinmoutDS	2386	May 8 2017	142	254.96	259.29		259.36	0.000183	1.15	162.32	63.04	0.21
KinmoutDS	2386	April 21 2013	216.5	254.96	260.77		260.83	0.000111	1.16	263.75	71.98	0.17
KinmoutDS	2365	Timmins_Uncalibr	452.5	254.69	263.67		263.76	0.000088	1.43	520.11	119.88	0.17
KinmoutDS	2365	Timmins_Calibrat	115.8	254.69	258.82		258.88	0.000201	1.11	125.28	54.38	0.21
KinmoutDS	2365	TimminsCC_Calibr	145.4	254.69	259.37		259.43	0.000169	1.15	155.54	55.54	0.2
KinmoutDS	2365	2y	109.5	254.69	258.8		258.85	0.000186	1.06	123.89	54.32	0.2
KinmoutDS	2365	5y	145.9	254.69	259.53		259.58	0.000146	1.1	164.14	56.08	0.19
KinmoutDS	2365	10y	170.6	254.69	259.98		260.04	0.000131	1.13	190.11	59.17	0.18
KinmoutDS	2365	25y	203	254.69	260.54		260.6	0.000117	1.17	224.36	62.77	0.18
KinmoutDS	2365	50y	228.8	254.69	260.96		261.03	0.000109	1.19	251.42	64.65	0.17
KinmoutDS	2365	100y	256.7	254.69	261.4		261.47	0.000102	1.22	282.44	77.16	0.17
KinmoutDS	2365	200y	287.4	254.69	261.85		261.92	0.000098	1.27	320.31	88.34	0.17
KinmoutDS	2365	350y	314.5	254.69	262.19		262.27	0.000095	1.3	351.32	98.64	0.17
KinmoutDS	2365	Sept 25 2021	68.8	254.69	258.01		258.05	0.000238	0.96	81.66	52.72	0.22
KinmoutDS	2365	July 13 2024	53.2	254.69	257.77		257.81	0.000221	0.85	69.36	52.05	0.21
KinmoutDS	2365	April 21 2019	228.5	254.69	260.96		261.02	0.000109	1.19	251.05	64.63	0.17
KinmoutDS	2365	Nov 2 2013	77	254.69	258.13		258.18	0.000242	1	88.05	53.01	0.22
KinmoutDS	2365	April 16 2014	175	254.69	259.86		259.92	0.000154	1.2	183.02	58.39	0.2
KinmoutDS	2365	May 8 2017	142	254.69	259.29		259.35	0.000176	1.15	150.96	55.36	0.2
KinmoutDS	2365	April 21 2013	216.5	254.69	260.76		260.83	0.000113	1.18	238.57	63.76	0.17
KinmoutDS	2346	Timmins_Uncalibr	452.5	254.7	263.68		263.76	0.000079	1.36	547.24	126.44	0.16
KinmoutDS	2346	Timmins_Calibrat	115.8	254.7	258.82		258.87	0.000188	1.07	131.12	55.58	0.21
KinmoutDS	2346	TimminsCC_Calibr	145.4	254.7	259.37		259.43	0.000158	1.11	162.31	57.5	0.19
KinmoutDS	2346	2y	109.5	254.7	258.8		258.84	0.000174	1.02	129.69	55.49	0.2
KinmoutDS	2346	5y	145.9	254.7	259.53		259.58	0.000136	1.06	171.21	57.97	0.18

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2346	10y	170.6	254.7	259.98		260.03	0.000122	1.09	197.77	59.82	0.18
KinmoutDS	2346	25y	203	254.7	260.54		260.6	0.000109	1.12	232.53	63.46	0.17
KinmoutDS	2346	50y	228.8	254.7	260.96		261.02	0.000101	1.15	260.2	70.91	0.17
KinmoutDS	2346	100y	256.7	254.7	261.4		261.46	0.000094	1.18	293.32	82.3	0.16
KinmoutDS	2346	200y	287.4	254.7	261.86		261.92	0.000089	1.2	333.07	91.44	0.16
KinmoutDS	2346	350y	314.5	254.7	262.19		262.26	0.000087	1.24	366.19	105.15	0.16
KinmoutDS	2346	Sept 25 2021	68.8	254.7	258.01		258.05	0.000223	0.93	87.01	52.59	0.21
KinmoutDS	2346	July 13 2024	53.2	254.7	257.77		257.8	0.000208	0.82	74.75	51.8	0.2
KinmoutDS	2346	April 21 2019	228.5	254.7	260.96		261.02	0.000101	1.15	259.79	70.74	0.17
KinmoutDS	2346	Nov 2 2013	77	254.7	258.13		258.17	0.000227	0.97	93.41	53.08	0.21
KinmoutDS	2346	April 16 2014	175	254.7	259.86		259.92	0.000143	1.15	190.61	59.09	0.19
KinmoutDS	2346	May 8 2017	142	254.7	259.29		259.35	0.000165	1.11	157.56	57.22	0.2
KinmoutDS	2346	April 21 2013	216.5	254.7	260.76		260.82	0.000104	1.14	246.9	64.4	0.17
KinmoutDS	2326	Timmins_Uncalibr	452.5	254.71	263.69		263.75	0.000065	1.24	660.43	146.21	0.14
KinmoutDS	2326	Timmins_Calibrat	115.8	254.71	258.82		258.87	0.000175	1.03	150.74	71.95	0.2
KinmoutDS	2326	TimminsCC_Calibr	145.4	254.71	259.37		259.42	0.000143	1.05	191.35	75.07	0.18
KinmoutDS	2326	2y	109.5	254.71	258.8		258.84	0.000162	0.99	148.89	71.84	0.19
KinmoutDS	2326	5y	145.9	254.71	259.53		259.57	0.000122	1	203.03	76.13	0.17
KinmoutDS	2326	10y	170.6	254.71	259.98		260.03	0.000107	1.02	238.07	78.19	0.16
KinmoutDS	2326	25y	203	254.71	260.54		260.59	0.000094	1.05	282.88	83.69	0.16
KinmoutDS	2326	50y	228.8	254.71	260.97		261.02	0.000086	1.06	320.06	90.42	0.15
KinmoutDS	2326	100y	256.7	254.71	261.41		261.46	0.00008	1.08	361.22	98.79	0.15
KinmoutDS	2326	200y	287.4	254.71	261.86		261.91	0.000074	1.1	407.97	106	0.15
KinmoutDS	2326	350y	314.5	254.71	262.2		262.26	0.000073	1.13	448.84	134.26	0.15
KinmoutDS	2326	Sept 25 2021	68.8	254.71	258		258.04	0.000214	0.91	94.49	62.13	0.21
KinmoutDS	2326	July 13 2024	53.2	254.71	257.77		257.8	0.000201	0.81	80.14	59.87	0.2
KinmoutDS	2326	April 21 2019	228.5	254.71	260.96		261.01	0.000086	1.06	319.54	90.33	0.15
KinmoutDS	2326	Nov 2 2013	77	254.71	258.12		258.17	0.000216	0.95	102.13	65.66	0.21
KinmoutDS	2326	April 16 2014	175	254.71	259.86		259.91	0.000126	1.09	228.69	77.73	0.18
KinmoutDS	2326	May 8 2017	142	254.71	259.29		259.34	0.000149	1.06	185.14	74.48	0.19
KinmoutDS	2326	April 21 2013	216.5	254.71	260.77		260.82	0.00009	1.06	302.2	87.55	0.16
KinmoutDS	2305	Timmins_Uncalibr	452.5	254.71	263.67		263.75	0.000076	1.34	552.87	127.65	0.16
KinmoutDS	2305	Timmins_Calibrat	115.8	254.71	258.81		258.87	0.00019	1.08	127.59	53.49	0.21
KinmoutDS	2305	TimminsCC_Calibr	145.4	254.71	259.36		259.42	0.000159	1.11	157.53	54.94	0.19
KinmoutDS	2305	2y	109.5	254.71	258.79		258.84	0.000175	1.03	126.27	53.43	0.2
KinmoutDS	2305	5y	145.9	254.71	259.52		259.57	0.000136	1.06	166.09	55.38	0.18
KinmoutDS	2305	10y	170.6	254.71	259.97		260.02	0.000122	1.09	191.47	56.88	0.18
KinmoutDS	2305	25y	203	254.71	260.53		260.59	0.000109	1.12	224.11	60.29	0.17
KinmoutDS	2305	50y	228.8	254.71	260.96		261.02	0.000101	1.15	251.43	70.08	0.17
KinmoutDS	2305	100y	256.7	254.71	261.39		261.45	0.000094	1.17	286.13	87.06	0.16
KinmoutDS	2305	200y	287.4	254.71	261.85		261.91	0.000088	1.2	330.05	108.99	0.16
KinmoutDS	2305	350y	314.5	254.71	262.19		262.25	0.000085	1.23	369.2	118.87	0.16
KinmoutDS	2305	Sept 25 2021	68.8	254.71	257.99		258.04	0.000228	0.93	84.9	50.86	0.21
KinmoutDS	2305	July 13 2024	53.2	254.71	257.76		257.79	0.000213	0.83	73.12	49.89	0.2

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2305	April 21 2019	228.5	254.71	260.95		261.01	0.000101	1.15	251.03	69.83	0.17
KinmoutDS	2305	Nov 2 2013	77	254.71	258.12		258.16	0.000231	0.98	91.08	51.41	0.22
KinmoutDS	2305	April 16 2014	175	254.71	259.85		259.91	0.000143	1.15	184.57	56.48	0.19
KinmoutDS	2305	May 8 2017	142	254.71	259.28		259.34	0.000165	1.11	152.97	54.71	0.2
KinmoutDS	2305	April 21 2013	216.5	254.71	260.76		260.81	0.000104	1.14	238.01	64.22	0.17
KinmoutDS	2285	Timmins_Uncalibr	452.5	254.72	263.67		263.75	0.000081	1.38	546.01	124.82	0.16
KinmoutDS	2285	Timmins_Calibrat	115.8	254.72	258.8		258.86	0.000201	1.11	121.34	50.81	0.21
KinmoutDS	2285	TimminsCC_Calibr	145.4	254.72	259.35		259.42	0.000169	1.14	150.64	54.21	0.2
KinmoutDS	2285	2y	109.5	254.72	258.78		258.83	0.000185	1.06	120.12	50.74	0.2
KinmoutDS	2285	5y	145.9	254.72	259.51		259.57	0.000145	1.09	159.15	54.63	0.19
KinmoutDS	2285	10y	170.6	254.72	259.96		260.02	0.000129	1.12	184.16	55.97	0.18
KinmoutDS	2285	25y	203	254.72	260.52		260.59	0.000115	1.16	216.12	58.38	0.17
KinmoutDS	2285	50y	228.8	254.72	260.95		261.01	0.000107	1.18	244.03	74.91	0.17
KinmoutDS	2285	100y	256.7	254.72	261.38		261.45	0.000101	1.21	279.13	89.79	0.17
KinmoutDS	2285	200y	287.4	254.72	261.84		261.91	0.000093	1.23	324.63	106.36	0.16
KinmoutDS	2285	350y	314.5	254.72	262.18		262.25	0.000091	1.27	363.65	120.22	0.16
KinmoutDS	2285	Sept 25 2021	68.8	254.72	257.99		258.03	0.000238	0.95	80.97	48.22	0.22
KinmoutDS	2285	July 13 2024	53.2	254.72	257.75		257.79	0.000221	0.84	69.84	47.35	0.21
KinmoutDS	2285	April 21 2019	228.5	254.72	260.94		261.01	0.000107	1.18	243.6	74.85	0.17
KinmoutDS	2285	Nov 2 2013	77	254.72	258.11		258.16	0.000242	1	86.8	48.62	0.22
KinmoutDS	2285	April 16 2014	175	254.72	259.84		259.91	0.000152	1.19	177.31	55.61	0.19
KinmoutDS	2285	May 8 2017	142	254.72	259.27		259.33	0.000176	1.15	146.14	53.98	0.2
KinmoutDS	2285	April 21 2013	216.5	254.72	260.75		260.81	0.000111	1.17	229.72	65.79	0.17
KinmoutDS	2266	Timmins_Uncalibr	452.5	254.71	263.65		263.74	0.000089	1.44	527.87	125.67	0.17
KinmoutDS	2266	Timmins_Calibrat	115.8	254.71	258.79		258.86	0.00022	1.15	113.97	46.87	0.22
KinmoutDS	2266	TimminsCC_Calibr	145.4	254.71	259.34		259.41	0.000185	1.2	140.37	49.05	0.21
KinmoutDS	2266	2y	109.5	254.71	258.77		258.83	0.000202	1.1	112.89	46.8	0.21
KinmoutDS	2266	5y	145.9	254.71	259.5		259.56	0.000159	1.14	148.15	49.86	0.2
KinmoutDS	2266	10y	170.6	254.71	259.95		260.02	0.000143	1.18	171.48	53.26	0.19
KinmoutDS	2266	25y	203	254.71	260.51		260.58	0.000128	1.21	202.6	62.72	0.18
KinmoutDS	2266	50y	228.8	254.71	260.94		261.01	0.000118	1.24	230.13	67.9	0.18
KinmoutDS	2266	100y	256.7	254.71	261.37		261.45	0.00011	1.27	261.76	80.11	0.18
KinmoutDS	2266	200y	287.4	254.71	261.83		261.91	0.000103	1.3	305.15	112.29	0.17
KinmoutDS	2266	350y	314.5	254.71	262.16		262.25	0.000102	1.34	344.78	120.35	0.17
KinmoutDS	2266	Sept 25 2021	68.8	254.71	257.98		258.03	0.000256	0.99	76.81	44.64	0.23
KinmoutDS	2266	July 13 2024	53.2	254.71	257.75		257.78	0.000236	0.87	66.55	44.03	0.21
KinmoutDS	2266	April 21 2019	228.5	254.71	260.93		261	0.000118	1.24	229.74	67.82	0.18
KinmoutDS	2266	Nov 2 2013	77	254.71	258.1		258.15	0.000261	1.04	82.17	44.95	0.23
KinmoutDS	2266	April 16 2014	175	254.71	259.83		259.9	0.000168	1.25	164.9	52.55	0.2
KinmoutDS	2266	May 8 2017	142	254.71	259.26		259.33	0.000193	1.2	136.31	48.69	0.21
KinmoutDS	2266	April 21 2013	216.5	254.71	260.74		260.81	0.000123	1.23	216.96	65.05	0.18
KinmoutDS	2246	Timmins_Uncalibr	452.5	254.72	263.65		263.74	0.000092	1.47	523.95	129.15	0.17
KinmoutDS	2246	Timmins_Calibrat	115.8	254.72	258.78		258.85	0.000228	1.18	109.68	44.37	0.23

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2246	TimminsCC_Calibr	145.4	254.72	259.33		259.41	0.000193	1.22	134.55	45.97	0.21
KinmoutDS	2246	2y	109.5	254.72	258.76		258.82	0.00021	1.12	108.68	44.32	0.22
KinmoutDS	2246	5y	145.9	254.72	259.49		259.56	0.000166	1.17	141.86	46.56	0.2
KinmoutDS	2246	10y	170.6	254.72	259.94		260.02	0.00015	1.2	163.43	49.27	0.19
KinmoutDS	2246	25y	203	254.72	260.5		260.58	0.000134	1.25	193.21	55.76	0.19
KinmoutDS	2246	50y	228.8	254.72	260.93		261.01	0.000125	1.28	219.44	71.21	0.18
KinmoutDS	2246	100y	256.7	254.72	261.36		261.44	0.000118	1.32	254.06	91.24	0.18
KinmoutDS	2246	200y	287.4	254.72	261.82		261.9	0.000109	1.34	300.28	111.2	0.18
KinmoutDS	2246	350y	314.5	254.72	262.16		262.24	0.000106	1.37	339.78	120.82	0.18
KinmoutDS	2246	Sept 25 2021	68.8	254.72	257.97		258.02	0.000263	1	74.24	42.76	0.23
KinmoutDS	2246	July 13 2024	53.2	254.72	257.74		257.78	0.000241	0.88	64.46	42.15	0.22
KinmoutDS	2246	April 21 2019	228.5	254.72	260.92		261	0.000125	1.28	219.03	71	0.18
KinmoutDS	2246	Nov 2 2013	77	254.72	258.09		258.15	0.000269	1.06	79.35	43.05	0.23
KinmoutDS	2246	April 16 2014	175	254.72	259.82		259.9	0.000176	1.28	157.31	48.33	0.21
KinmoutDS	2246	May 8 2017	142	254.72	259.25		259.33	0.000201	1.23	130.73	45.68	0.22
KinmoutDS	2246	April 21 2013	216.5	254.72	260.73		260.81	0.000129	1.26	206.2	62.17	0.19
KinmoutDS	2226	Timmins_Uncalibr	452.5	254.72	263.63		263.74	0.000104	1.55	488.82	142.65	0.18
KinmoutDS	2226	Timmins_Calibrat	115.8	254.72	258.77		258.85	0.000249	1.22	101.25	40.62	0.24
KinmoutDS	2226	TimminsCC_Calibr	145.4	254.72	259.32		259.4	0.000211	1.27	124.14	43.56	0.22
KinmoutDS	2226	2y	109.5	254.72	258.75		258.82	0.000229	1.16	100.39	40.56	0.23
KinmoutDS	2226	5y	145.9	254.72	259.48		259.56	0.000181	1.21	130.99	48.8	0.21
KinmoutDS	2226	10y	170.6	254.72	259.93		260.01	0.000163	1.25	152	62.14	0.2
KinmoutDS	2226	25y	203	254.72	260.49		260.58	0.000146	1.29	180.74	73.24	0.2
KinmoutDS	2226	50y	228.8	254.72	260.92		261	0.000135	1.32	204	89.11	0.19
KinmoutDS	2226	100y	256.7	254.72	261.35		261.44	0.000127	1.35	228.73	107.16	0.19
KinmoutDS	2226	200y	287.4	254.72	261.8		261.9	0.000124	1.41	255.31	116.96	0.19
KinmoutDS	2226	350y	314.5	254.72	262.14		262.24	0.000119	1.44	295.41	119.01	0.19
KinmoutDS	2226	Sept 25 2021	68.8	254.72	257.96		258.02	0.000286	1.04	69.16	38.71	0.24
KinmoutDS	2226	July 13 2024	53.2	254.72	257.73		257.77	0.000261	0.91	60.36	38.21	0.22
KinmoutDS	2226	April 21 2019	228.5	254.72	260.91		261	0.000136	1.32	203.68	88.9	0.19
KinmoutDS	2226	Nov 2 2013	77	254.72	258.08		258.14	0.000293	1.09	73.76	38.96	0.24
KinmoutDS	2226	April 16 2014	175	254.72	259.81		259.89	0.000192	1.33	145.86	58.56	0.22
KinmoutDS	2226	May 8 2017	142	254.72	259.24		259.32	0.00022	1.27	120.6	42.28	0.23
KinmoutDS	2226	April 21 2013	216.5	254.72	260.72		260.8	0.00014	1.31	192.91	81.6	0.19
KinmoutDS	2206	Timmins_Uncalibr	452.5	254.7	263.62		263.74	0.000105	1.57	481.43	140.48	0.18
KinmoutDS	2206	Timmins_Calibrat	115.8	254.7	258.77		258.84	0.000246	1.22	100.6	43.45	0.24
KinmoutDS	2206	TimminsCC_Calibr	145.4	254.7	259.32		259.4	0.000209	1.27	124.39	52.6	0.22
KinmoutDS	2206	2y	109.5	254.7	258.74		258.81	0.000226	1.17	99.78	43.01	0.23
KinmoutDS	2206	5y	145.9	254.7	259.48		259.55	0.000179	1.22	131.57	54.14	0.21
KinmoutDS	2206	10y	170.6	254.7	259.93		260.01	0.000162	1.25	152.48	59.44	0.2
KinmoutDS	2206	25y	203	254.7	260.49		260.57	0.000145	1.29	180.04	69.75	0.2
KinmoutDS	2206	50y	228.8	254.7	260.91		261	0.000135	1.32	201.65	77.06	0.19
KinmoutDS	2206	100y	256.7	254.7	261.35		261.44	0.000126	1.36	224.29	93.63	0.19
KinmoutDS	2206	200y	287.4	254.7	261.8		261.89	0.00012	1.4	248.73	118.08	0.19

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2206	350y	314.5	254.7	262.14		262.24	0.000119	1.44	288.7	119.04	0.19
KinmoutDS	2206	Sept 25 2021	68.8	254.7	257.95		258.01	0.000278	1.04	68.65	38.47	0.24
KinmoutDS	2206	July 13 2024	53.2	254.7	257.73		257.77	0.000252	0.91	59.94	37.97	0.22
KinmoutDS	2206	April 21 2019	228.5	254.7	260.91		260.99	0.000135	1.32	201.35	76.94	0.19
KinmoutDS	2206	Nov 2 2013	77	254.7	258.07		258.13	0.000287	1.1	73.22	38.71	0.25
KinmoutDS	2206	April 16 2014	175	254.7	259.8		259.89	0.00019	1.33	146.45	57.6	0.22
KinmoutDS	2206	May 8 2017	142	254.7	259.23		259.32	0.000218	1.28	120.67	51.76	0.23
KinmoutDS	2206	April 21 2013	216.5	254.7	260.71		260.8	0.000139	1.31	191.4	73.89	0.19
KinmoutDS	2186	Timmins_Uncalibr	452.5	254.69	263.62		263.73	0.000104	1.56	491.39	141.19	0.18
KinmoutDS	2186	Timmins_Calibrat	115.8	254.69	258.76		258.84	0.000252	1.24	98.92	40.32	0.24
KinmoutDS	2186	TimminsCC_Calibr	145.4	254.69	259.31		259.39	0.000215	1.29	121.94	49.99	0.23
KinmoutDS	2186	2y	109.5	254.69	258.74		258.81	0.000231	1.18	98.12	40.25	0.23
KinmoutDS	2186	5y	145.9	254.69	259.47		259.55	0.000184	1.23	129.09	52.81	0.21
KinmoutDS	2186	10y	170.6	254.69	259.93		260	0.000165	1.26	149.71	59.81	0.2
KinmoutDS	2186	25y	203	254.69	260.49		260.57	0.000148	1.3	176.1	68.27	0.2
KinmoutDS	2186	50y	228.8	254.69	260.91		261	0.000138	1.34	196.81	75.64	0.19
KinmoutDS	2186	100y	256.7	254.69	261.34		261.44	0.000129	1.37	218.68	98.13	0.19
KinmoutDS	2186	200y	287.4	254.69	261.8		261.89	0.000123	1.41	243.59	120.37	0.19
KinmoutDS	2186	350y	314.5	254.69	262.13		262.24	0.000121	1.45	284.5	129.59	0.19
KinmoutDS	2186	Sept 25 2021	68.8	254.69	257.95		258	0.000287	1.05	67.25	37.94	0.24
KinmoutDS	2186	July 13 2024	53.2	254.69	257.72		257.76	0.000259	0.93	58.69	37.44	0.23
KinmoutDS	2186	April 21 2019	228.5	254.69	260.9		260.99	0.000138	1.34	196.52	75.53	0.19
KinmoutDS	2186	Nov 2 2013	77	254.69	258.07		258.13	0.000295	1.11	71.74	38.24	0.25
KinmoutDS	2186	April 16 2014	175	254.69	259.8		259.89	0.000195	1.34	143.78	58.18	0.22
KinmoutDS	2186	May 8 2017	142	254.69	259.23		259.31	0.000223	1.29	118.34	47.18	0.23
KinmoutDS	2186	April 21 2013	216.5	254.69	260.71		260.8	0.000142	1.32	186.97	71.91	0.2
KinmoutDS	2167	Timmins_Uncalibr	452.5	254.67	263.62		263.73	0.000101	1.53	530.14	168.62	0.18
KinmoutDS	2167	Timmins_Calibrat	115.8	254.67	258.75		258.83	0.000257	1.24	97.41	77.13	0.24
KinmoutDS	2167	TimminsCC_Calibr	145.4	254.67	259.31		259.39	0.000218	1.29	119.78	82.66	0.23
KinmoutDS	2167	2y	109.5	254.67	258.73		258.8	0.000235	1.18	96.67	76.95	0.23
KinmoutDS	2167	5y	145.9	254.67	259.47		259.54	0.000186	1.23	126.76	84.86	0.21
KinmoutDS	2167	10y	170.6	254.67	259.92		260	0.000168	1.27	146.98	99.62	0.21
KinmoutDS	2167	25y	203	254.67	260.48		260.57	0.00015	1.31	173.12	104.34	0.2
KinmoutDS	2167	50y	228.8	254.67	260.91		260.99	0.00014	1.34	193.96	109.56	0.19
KinmoutDS	2167	100y	256.7	254.67	261.34		261.43	0.000131	1.37	216.91	136.57	0.19
KinmoutDS	2167	200y	287.4	254.67	261.79		261.89	0.000124	1.41	243.41	145.89	0.19
KinmoutDS	2167	350y	314.5	254.67	262.13		262.23	0.000121	1.45	292.23	146.94	0.19
KinmoutDS	2167	Sept 25 2021	68.8	254.67	257.94		258	0.000294	1.06	66.68	51.48	0.25
KinmoutDS	2167	July 13 2024	53.2	254.67	257.71		257.76	0.000266	0.93	58.37	47.43	0.23
KinmoutDS	2167	April 21 2019	228.5	254.67	260.9		260.99	0.00014	1.34	193.67	109.24	0.19
KinmoutDS	2167	Nov 2 2013	77	254.67	258.06		258.12	0.000303	1.11	71.04	53.86	0.25
KinmoutDS	2167	April 16 2014	175	254.67	259.79		259.88	0.000198	1.34	141.12	96.95	0.22
KinmoutDS	2167	May 8 2017	142	254.67	259.22		259.31	0.000227	1.29	116.25	81.51	0.23
KinmoutDS	2167	April 21 2013	216.5	254.67	260.71		260.79	0.000144	1.32	184	106.53	0.2

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2136	Timmins_Uncalibr	452.5	254.65	263.63		263.72	0.000093	1.47	555.91	142.59	0.17
KinmoutDS	2136	Timmins_Calibrat	115.8	254.65	258.75		258.82	0.000257	1.23	102.46	56.97	0.24
KinmoutDS	2136	TimminsCC_Calibr	145.4	254.65	259.3		259.38	0.000215	1.28	126.5	67.95	0.23
KinmoutDS	2136	2y	109.5	254.65	258.73		258.8	0.000235	1.17	101.67	56.87	0.23
KinmoutDS	2136	5y	145.9	254.65	259.46		259.54	0.000185	1.22	133.79	72.91	0.21
KinmoutDS	2136	10y	170.6	254.65	259.92		260	0.000165	1.26	155.2	84.83	0.2
KinmoutDS	2136	25y	203	254.65	260.48		260.56	0.000148	1.3	183.14	97.8	0.2
KinmoutDS	2136	50y	228.8	254.65	260.9		260.99	0.000137	1.33	207.77	118.26	0.19
KinmoutDS	2136	100y	256.7	254.65	261.34		261.43	0.00013	1.37	236.81	134.19	0.19
KinmoutDS	2136	200y	287.4	254.65	261.8		261.89	0.000118	1.38	298.67	135.61	0.18
KinmoutDS	2136	350y	314.5	254.65	262.14		262.23	0.000112	1.4	344.91	136.74	0.18
KinmoutDS	2136	Sept 25 2021	68.8	254.65	257.93		257.99	0.000302	1.06	68.75	52.2	0.24
KinmoutDS	2136	July 13 2024	53.2	254.65	257.71		257.75	0.000276	0.93	59.84	47.7	0.23
KinmoutDS	2136	April 21 2019	228.5	254.65	260.9		260.98	0.000137	1.33	207.42	118.14	0.19
KinmoutDS	2136	Nov 2 2013	77	254.65	258.05		258.11	0.000309	1.11	73.49	53.19	0.25
KinmoutDS	2136	April 16 2014	175	254.65	259.79		259.88	0.000195	1.33	148.97	80.79	0.22
KinmoutDS	2136	May 8 2017	142	254.65	259.22		259.3	0.000224	1.28	122.79	66.03	0.23
KinmoutDS	2136	April 21 2013	216.5	254.65	260.7		260.79	0.000142	1.32	195.86	111.89	0.19
KinmoutDS	2117	Timmins_Uncalibr	452.5	254.63	263.65		263.71	0.00007	1.28	661.64	146.18	0.15
KinmoutDS	2117	Timmins_Calibrat	115.8	254.63	258.75		258.81	0.000221	1.15	133.18	65.23	0.22
KinmoutDS	2117	TimminsCC_Calibr	145.4	254.63	259.31		259.37	0.000179	1.17	170.31	73.61	0.21
KinmoutDS	2117	2y	109.5	254.63	258.73		258.79	0.000203	1.1	131.95	65.18	0.21
KinmoutDS	2117	5y	145.9	254.63	259.47		259.53	0.000152	1.11	181.31	77.99	0.19
KinmoutDS	2117	10y	170.6	254.63	259.93		259.99	0.000133	1.13	212.54	88.37	0.18
KinmoutDS	2117	25y	203	254.63	260.49		260.55	0.000117	1.16	251.98	120.02	0.17
KinmoutDS	2117	50y	228.8	254.63	260.92		260.98	0.000107	1.18	282.74	133.67	0.17
KinmoutDS	2117	100y	256.7	254.63	261.35		261.42	0.000101	1.21	336.62	135.75	0.17
KinmoutDS	2117	200y	287.4	254.63	261.81		261.88	0.00009	1.21	399.33	136.97	0.16
KinmoutDS	2117	350y	314.5	254.63	262.15		262.22	0.000085	1.22	446.09	138.03	0.16
KinmoutDS	2117	Sept 25 2021	68.8	254.63	257.93		257.98	0.000279	1.02	81.22	61.15	0.24
KinmoutDS	2117	July 13 2024	53.2	254.63	257.7		257.74	0.00026	0.91	67.45	60.13	0.22
KinmoutDS	2117	April 21 2019	228.5	254.63	260.91		260.97	0.000108	1.18	282.31	133.63	0.17
KinmoutDS	2117	Nov 2 2013	77	254.63	258.05		258.1	0.000282	1.07	88.5	61.64	0.24
KinmoutDS	2117	April 16 2014	175	254.63	259.8		259.87	0.000158	1.2	203.64	83.85	0.2
KinmoutDS	2117	May 8 2017	142	254.63	259.23		259.29	0.000187	1.18	164.6	69.13	0.21
KinmoutDS	2117	April 21 2013	216.5	254.63	260.72		260.78	0.000111	1.17	268.13	125.69	0.17
KinmoutDS	2096	Timmins_Uncalibr	452.5	254.61	263.64		263.71	0.000074	1.32	632.98	147.35	0.15
KinmoutDS	2096	Timmins_Calibrat	115.8	254.61	258.73		258.81	0.000259	1.24	101.37	41.63	0.24
KinmoutDS	2096	TimminsCC_Calibr	145.4	254.61	259.28		259.37	0.000218	1.29	124.97	43.47	0.23
KinmoutDS	2096	2y	109.5	254.61	258.71		258.78	0.000237	1.18	100.68	41.59	0.23
KinmoutDS	2096	5y	145.9	254.61	259.45		259.52	0.000186	1.23	132.18	44.21	0.21
KinmoutDS	2096	10y	170.6	254.61	259.9		259.98	0.000168	1.27	153.17	83.61	0.21
KinmoutDS	2096	25y	203	254.61	260.46		260.55	0.000149	1.31	184.96	132.18	0.2

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2096	50y	228.8	254.61	260.89		260.98	0.000133	1.31	241	137.45	0.19
KinmoutDS	2096	100y	256.7	254.61	261.34		261.41	0.000116	1.3	302.33	139.15	0.18
KinmoutDS	2096	200y	287.4	254.61	261.8		261.87	0.000101	1.28	367.16	140.57	0.17
KinmoutDS	2096	350y	314.5	254.61	262.14		262.21	0.000094	1.28	415.48	141.8	0.17
KinmoutDS	2096	Sept 25 2021	68.8	254.61	257.92		257.97	0.000302	1.06	68.54	39.26	0.24
KinmoutDS	2096	July 13 2024	53.2	254.61	257.69		257.74	0.000274	0.93	59.85	38.6	0.23
KinmoutDS	2096	April 21 2019	228.5	254.61	260.89		260.97	0.000133	1.31	240.18	137.43	0.19
KinmoutDS	2096	Nov 2 2013	77	254.61	258.03		258.1	0.00031	1.12	73.13	39.6	0.25
KinmoutDS	2096	April 16 2014	175	254.61	259.77		259.86	0.000199	1.35	146.76	63.11	0.22
KinmoutDS	2096	May 8 2017	142	254.61	259.2		259.28	0.000228	1.29	121.31	43.14	0.23
KinmoutDS	2096	April 21 2013	216.5	254.61	260.69		260.77	0.000141	1.32	213.1	136.35	0.19
KinmoutDS	2075	Timmins_Uncalibr	452.5	254.6	263.64		263.71	0.000069	1.28	659.7	149.08	0.15
KinmoutDS	2075	Timmins_Calibrat	115.8	254.6	258.72		258.8	0.000259	1.25	99.63	51.05	0.24
KinmoutDS	2075	TimminsCC_Calibr	145.4	254.6	259.28		259.36	0.000218	1.29	123.11	65.55	0.23
KinmoutDS	2075	2y	109.5	254.6	258.71		258.78	0.000236	1.19	98.97	50.43	0.23
KinmoutDS	2075	5y	145.9	254.6	259.44		259.52	0.000186	1.24	130.44	70.31	0.21
KinmoutDS	2075	10y	170.6	254.6	259.9		259.98	0.000168	1.27	152.48	101.72	0.21
KinmoutDS	2075	25y	203	254.6	260.46		260.54	0.000149	1.31	201.52	129.19	0.2
KinmoutDS	2075	50y	228.8	254.6	260.89		260.97	0.000128	1.29	258.36	133.84	0.19
KinmoutDS	2075	100y	256.7	254.6	261.34		261.41	0.00011	1.27	320.78	142.79	0.18
KinmoutDS	2075	200y	287.4	254.6	261.8		261.87	0.000095	1.25	388	145.66	0.17
KinmoutDS	2075	350y	314.5	254.6	262.14		262.21	0.000088	1.25	438	146.31	0.16
KinmoutDS	2075	Sept 25 2021	68.8	254.6	257.91		257.97	0.000298	1.06	67.65	37.81	0.24
KinmoutDS	2075	July 13 2024	53.2	254.6	257.69		257.73	0.000268	0.93	59.29	37.28	0.23
KinmoutDS	2075	April 21 2019	228.5	254.6	260.89		260.97	0.000128	1.29	257.56	133.59	0.19
KinmoutDS	2075	Nov 2 2013	77	254.6	258.03		258.09	0.000307	1.12	72.05	38.13	0.25
KinmoutDS	2075	April 16 2014	175	254.6	259.76		259.86	0.000199	1.35	145.68	88.9	0.22
KinmoutDS	2075	May 8 2017	142	254.6	259.19		259.28	0.000228	1.3	119.43	63.37	0.23
KinmoutDS	2075	April 21 2013	216.5	254.6	260.69		260.77	0.000138	1.3	231.33	130.99	0.19
KinmoutDS	2056	Timmins_Uncalibr	452.5	254.58	263.64		263.7	0.000071	1.29	634.07	140.26	0.15
KinmoutDS	2056	Timmins_Calibrat	115.8	254.58	258.72		258.79	0.00026	1.24	101.83	42.66	0.24
KinmoutDS	2056	TimminsCC_Calibr	145.4	254.58	259.28		259.36	0.000218	1.28	126.32	75.3	0.23
KinmoutDS	2056	2y	109.5	254.58	258.7		258.77	0.000237	1.18	101.17	42.61	0.23
KinmoutDS	2056	5y	145.9	254.58	259.44		259.52	0.000186	1.22	134.06	79.65	0.21
KinmoutDS	2056	10y	170.6	254.58	259.9		259.97	0.000166	1.26	156.82	104.13	0.2
KinmoutDS	2056	25y	203	254.58	260.46		260.54	0.000149	1.3	205.66	125.39	0.2
KinmoutDS	2056	50y	228.8	254.58	260.89		260.97	0.000128	1.28	260.74	127.93	0.19
KinmoutDS	2056	100y	256.7	254.58	261.34		261.41	0.00011	1.26	318.36	131.06	0.17
KinmoutDS	2056	200y	287.4	254.58	261.8		261.87	0.000096	1.24	379.73	133.65	0.16
KinmoutDS	2056	350y	314.5	254.58	262.14		262.21	0.000089	1.25	426.02	137.16	0.16
KinmoutDS	2056	Sept 25 2021	68.8	254.58	257.9		257.96	0.000308	1.06	68.23	39.76	0.25
KinmoutDS	2056	July 13 2024	53.2	254.58	257.68		257.73	0.00028	0.93	59.51	38.6	0.23
KinmoutDS	2056	April 21 2019	228.5	254.58	260.89		260.96	0.000128	1.28	259.98	127.91	0.19
KinmoutDS	2056	Nov 2 2013	77	254.58	258.02		258.08	0.000315	1.12	72.88	40.23	0.25

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2056	April 16 2014	175	254.58	259.76		259.85	0.000197	1.34	149.89	90.3	0.22
KinmoutDS	2056	May 8 2017	142	254.58	259.19		259.27	0.000227	1.29	122.46	68.5	0.23
KinmoutDS	2056	April 21 2013	216.5	254.58	260.69		260.77	0.000137	1.29	234.62	126.92	0.19
KinmoutDS	2036	Timmins_Uncalibr	452.5	254.56	263.64		263.7	0.000077	1.31	599.21	133.68	0.15
KinmoutDS	2036	Timmins_Calibrat	115.8	254.56	258.71		258.79	0.000267	1.23	98.54	40.13	0.24
KinmoutDS	2036	TimminsCC_Calibr	145.4	254.56	259.27		259.35	0.000225	1.28	121.54	54.39	0.22
KinmoutDS	2036	2y	109.5	254.56	258.7		258.77	0.000243	1.17	97.94	40.09	0.23
KinmoutDS	2036	5y	145.9	254.56	259.44		259.51	0.000192	1.22	128.76	67.94	0.21
KinmoutDS	2036	10y	170.6	254.56	259.89		259.97	0.000172	1.25	150.5	96.37	0.2
KinmoutDS	2036	25y	203	254.56	260.45		260.54	0.000152	1.29	197.26	116.24	0.19
KinmoutDS	2036	50y	228.8	254.56	260.89		260.97	0.000132	1.28	248.05	118.21	0.18
KinmoutDS	2036	100y	256.7	254.56	261.33		261.41	0.000115	1.26	300.97	120.42	0.17
KinmoutDS	2036	200y	287.4	254.56	261.8		261.86	0.000101	1.25	357.33	122.83	0.17
KinmoutDS	2036	350y	314.5	254.56	262.14		262.21	0.000095	1.26	401.02	130.5	0.16
KinmoutDS	2036	Sept 25 2021	68.8	254.56	257.9		257.95	0.000308	1.04	67.08	37	0.24
KinmoutDS	2036	July 13 2024	53.2	254.56	257.68		257.72	0.000278	0.91	58.97	36.31	0.22
KinmoutDS	2036	April 21 2019	228.5	254.56	260.88		260.96	0.000132	1.28	247.35	118.18	0.18
KinmoutDS	2036	Nov 2 2013	77	254.56	258.01		258.08	0.000318	1.1	71.4	37.53	0.25
KinmoutDS	2036	April 16 2014	175	254.56	259.76		259.85	0.000205	1.33	143.77	89.06	0.22
KinmoutDS	2036	May 8 2017	142	254.56	259.19		259.27	0.000234	1.28	117.93	50.34	0.23
KinmoutDS	2036	April 21 2013	216.5	254.56	260.68		260.76	0.000141	1.28	223.99	117.23	0.19
KinmoutDS	2017	Timmins_Uncalibr	452.5	254.67	263.63		263.7	0.000079	1.35	566.75	124.59	0.16
KinmoutDS	2017	Timmins_Calibrat	115.8	254.67	258.71		258.78	0.000267	1.25	97.86	52.41	0.24
KinmoutDS	2017	TimminsCC_Calibr	145.4	254.67	259.27		259.35	0.000222	1.29	121.85	69.09	0.23
KinmoutDS	2017	2y	109.5	254.67	258.69		258.76	0.000243	1.18	97.28	52.06	0.23
KinmoutDS	2017	5y	145.9	254.67	259.43		259.51	0.000189	1.23	129.78	75.12	0.21
KinmoutDS	2017	10y	170.6	254.67	259.89		259.97	0.000167	1.26	153.37	102.38	0.2
KinmoutDS	2017	25y	203	254.67	260.45		260.53	0.000148	1.29	196.6	105.78	0.2
KinmoutDS	2017	50y	228.8	254.67	260.88		260.96	0.000129	1.29	242.72	107.18	0.19
KinmoutDS	2017	100y	256.7	254.67	261.33		261.4	0.000114	1.28	290.49	108.52	0.18
KinmoutDS	2017	200y	287.4	254.67	261.79		261.86	0.000102	1.28	341.95	119.41	0.17
KinmoutDS	2017	350y	314.5	254.67	262.13		262.2	0.000096	1.29	383.05	120.8	0.17
KinmoutDS	2017	Sept 25 2021	68.8	254.67	257.89		257.95	0.000316	1.07	65.8	37.74	0.25
KinmoutDS	2017	July 13 2024	53.2	254.67	257.67		257.71	0.000286	0.94	57.58	36.72	0.23
KinmoutDS	2017	April 21 2019	228.5	254.67	260.88		260.96	0.00013	1.29	242.09	107.16	0.19
KinmoutDS	2017	Nov 2 2013	77	254.67	258.01		258.07	0.000324	1.13	70.19	38.28	0.25
KinmoutDS	2017	April 16 2014	175	254.67	259.75		259.84	0.0002	1.34	146.14	99.47	0.22
KinmoutDS	2017	May 8 2017	142	254.67	259.18		259.26	0.000232	1.29	117.96	67.08	0.23
KinmoutDS	2017	April 21 2013	216.5	254.67	260.68		260.76	0.000138	1.29	220.9	106.65	0.19
KinmoutDS	1995	Timmins_Uncalibr	452.5	254.9	263.62		263.7	0.000085	1.38	545.23	116.76	0.16
KinmoutDS	1995	Timmins_Calibrat	115.8	254.9	258.68		258.78	0.000336	1.34	88.68	49.28	0.27
KinmoutDS	1995	TimminsCC_Calibr	145.4	254.9	259.25		259.34	0.000268	1.37	112.98	69.43	0.25
KinmoutDS	1995	2y	109.5	254.9	258.67		258.76	0.000305	1.28	88.19	48.94	0.26

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1995	5y	145.9	254.9	259.42		259.5	0.000225	1.3	120.84	76.11	0.23
KinmoutDS	1995	10y	170.6	254.9	259.88		259.96	0.000195	1.32	152.9	86.77	0.22
KinmoutDS	1995	25y	203	254.9	260.45		260.53	0.000158	1.31	203.71	89.67	0.2
KinmoutDS	1995	50y	228.8	254.9	260.88		260.96	0.000137	1.3	242.87	90.99	0.19
KinmoutDS	1995	100y	256.7	254.9	261.32		261.4	0.000121	1.3	283.84	95.8	0.18
KinmoutDS	1995	200y	287.4	254.9	261.79		261.86	0.000108	1.3	334.32	112.34	0.17
KinmoutDS	1995	350y	314.5	254.9	262.13		262.2	0.000102	1.31	372.85	113.56	0.17
KinmoutDS	1995	Sept 25 2021	68.8	254.9	257.87		257.94	0.000427	1.18	58.56	34.47	0.28
KinmoutDS	1995	July 13 2024	53.2	254.9	257.65		257.71	0.000391	1.04	51.17	33.43	0.27
KinmoutDS	1995	April 21 2019	228.5	254.9	260.88		260.95	0.000138	1.3	242.33	90.97	0.19
KinmoutDS	1995	Nov 2 2013	77	254.9	257.98		258.06	0.000436	1.24	62.53	34.92	0.29
KinmoutDS	1995	April 16 2014	175	254.9	259.74		259.84	0.000236	1.42	140.94	84.79	0.24
KinmoutDS	1995	May 8 2017	142	254.9	259.16		259.26	0.000282	1.38	109.07	66.82	0.25
KinmoutDS	1995	April 21 2013	216.5	254.9	260.68		260.76	0.000146	1.3	224.35	90.34	0.2
KinmoutDS	1969	Timmins_Uncalibr	452.5	255.14	263.62		263.7	0.00009	1.4	526.01	114.42	0.16
KinmoutDS	1969	Timmins_Calibrat	115.8	255.14	258.67		258.77	0.00039	1.39	84.24	45.21	0.28
KinmoutDS	1969	TimminsCC_Calibr	145.4	255.14	259.24		259.33	0.000299	1.4	112.57	69.95	0.26
KinmoutDS	1969	2y	109.5	255.14	258.66		258.75	0.000354	1.32	83.85	44.59	0.27
KinmoutDS	1969	5y	145.9	255.14	259.41		259.5	0.000245	1.31	124.94	72.23	0.24
KinmoutDS	1969	10y	170.6	255.14	259.87		259.96	0.000201	1.3	158.76	73.96	0.22
KinmoutDS	1969	25y	203	255.14	260.45		260.53	0.000163	1.29	201.71	75.86	0.2
KinmoutDS	1969	50y	228.8	255.14	260.88		260.96	0.000142	1.29	234.89	77.51	0.19
KinmoutDS	1969	100y	256.7	255.14	261.32		261.4	0.000127	1.3	272.74	96.5	0.18
KinmoutDS	1969	200y	287.4	255.14	261.78		261.86	0.000113	1.3	320.58	109.18	0.18
KinmoutDS	1969	350y	314.5	255.14	262.12		262.2	0.000107	1.31	358.02	110.71	0.17
KinmoutDS	1969	Sept 25 2021	68.8	255.14	257.85		257.93	0.000494	1.23	55.86	33.34	0.3
KinmoutDS	1969	July 13 2024	53.2	255.14	257.63		257.7	0.000455	1.09	48.74	32.74	0.29
KinmoutDS	1969	April 21 2019	228.5	255.14	260.87		260.95	0.000143	1.29	234.43	77.48	0.19
KinmoutDS	1969	Nov 2 2013	77	255.14	257.96		258.05	0.000501	1.29	59.66	33.68	0.31
KinmoutDS	1969	April 16 2014	175	255.14	259.73		259.83	0.000246	1.4	148.39	73.53	0.24
KinmoutDS	1969	May 8 2017	142	255.14	259.15		259.25	0.000318	1.41	106.46	67.42	0.26
KinmoutDS	1969	April 21 2013	216.5	255.14	260.68		260.75	0.000151	1.29	219.18	76.64	0.2
KinmoutDS	1949	Timmins_Uncalibr	452.5	255.34	263.61		263.69	0.000089	1.41	557.15	135.45	0.17
KinmoutDS	1949	Timmins_Calibrat	115.8	255.34	258.66		258.76	0.000373	1.37	86.88	41.78	0.28
KinmoutDS	1949	TimminsCC_Calibr	145.4	255.34	259.23		259.33	0.000283	1.38	115.15	60.4	0.25
KinmoutDS	1949	2y	109.5	255.34	258.65		258.74	0.000338	1.3	86.46	41.09	0.27
KinmoutDS	1949	5y	145.9	255.34	259.41		259.49	0.000232	1.3	125.87	62.15	0.23
KinmoutDS	1949	10y	170.6	255.34	259.87		259.95	0.000194	1.29	155.69	66.97	0.22
KinmoutDS	1949	25y	203	255.34	260.44		260.52	0.000159	1.3	195.12	70.35	0.2
KinmoutDS	1949	50y	228.8	255.34	260.87		260.95	0.000141	1.3	225.87	71.87	0.19
KinmoutDS	1949	100y	256.7	255.34	261.31		261.39	0.000127	1.31	262.48	104.66	0.19
KinmoutDS	1949	200y	287.4	255.34	261.78		261.85	0.000114	1.32	317.57	126.64	0.18
KinmoutDS	1949	350y	314.5	255.34	262.12		262.2	0.000107	1.33	360.91	127.41	0.18
KinmoutDS	1949	Sept 25 2021	68.8	255.34	257.84		257.92	0.000542	1.25	55.35	36.46	0.32

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1949	July 13 2024	53.2	255.34	257.62		257.69	0.000531	1.12	47.59	35.42	0.31
KinmoutDS	1949	April 21 2019	228.5	255.34	260.87		260.95	0.000141	1.3	225.45	71.85	0.19
KinmoutDS	1949	Nov 2 2013	77	255.34	257.95		258.04	0.000537	1.3	59.56	36.92	0.32
KinmoutDS	1949	April 16 2014	175	255.34	259.73		259.82	0.000235	1.39	146.36	65.51	0.24
KinmoutDS	1949	May 8 2017	142	255.34	259.14		259.24	0.000301	1.39	109.86	59.32	0.26
KinmoutDS	1949	April 21 2013	216.5	255.34	260.67		260.75	0.000149	1.3	211.31	71.21	0.2
KinmoutDS	1929	Timmins_Uncalibr	452.5	255.52	263.61		263.69	0.000088	1.39	597.24	144.96	0.16
KinmoutDS	1929	Timmins_Calibrat	115.8	255.52	258.66		258.75	0.000385	1.37	88.57	50.26	0.29
KinmoutDS	1929	TimminsCC_Calibr	145.4	255.52	259.23		259.32	0.000284	1.36	119.3	56.81	0.25
KinmoutDS	1929	2y	109.5	255.52	258.65		258.73	0.000349	1.3	88.09	50.09	0.27
KinmoutDS	1929	5y	145.9	255.52	259.4		259.49	0.000233	1.28	129.43	58.7	0.23
KinmoutDS	1929	10y	170.6	255.52	259.87		259.95	0.000195	1.29	157.33	61.82	0.22
KinmoutDS	1929	25y	203	255.52	260.44		260.52	0.000163	1.3	194.08	75.58	0.2
KinmoutDS	1929	50y	228.8	255.52	260.87		260.95	0.000144	1.31	229.7	86.87	0.2
KinmoutDS	1929	100y	256.7	255.52	261.31		261.39	0.000129	1.31	272.64	115.11	0.19
KinmoutDS	1929	200y	287.4	255.52	261.77		261.85	0.000116	1.32	333.77	141.27	0.18
KinmoutDS	1929	350y	314.5	255.52	262.11		262.19	0.000108	1.33	382.2	142.05	0.18
KinmoutDS	1929	Sept 25 2021	68.8	255.52	257.82		257.91	0.000591	1.27	54.24	36.33	0.33
KinmoutDS	1929	July 13 2024	53.2	255.52	257.61		257.67	0.000576	1.14	46.5	35.43	0.32
KinmoutDS	1929	April 21 2019	228.5	255.52	260.86		260.94	0.000145	1.31	229.18	86.77	0.2
KinmoutDS	1929	Nov 2 2013	77	255.52	257.94		258.03	0.000586	1.32	58.44	36.9	0.33
KinmoutDS	1929	April 16 2014	175	255.52	259.72		259.82	0.000237	1.38	148.65	61.09	0.24
KinmoutDS	1929	May 8 2017	142	255.52	259.14		259.23	0.000302	1.37	114.3	55.68	0.26
KinmoutDS	1929	April 21 2013	216.5	255.52	260.67		260.75	0.000153	1.3	212.4	83.39	0.2
KinmoutDS	1908	Timmins_Uncalibr	452.5	255.71	263.61		263.69	0.000081	1.34	650.42	161.52	0.16
KinmoutDS	1908	Timmins_Calibrat	115.8	255.71	258.65		258.74	0.000352	1.31	100.32	51.77	0.27
KinmoutDS	1908	TimminsCC_Calibr	145.4	255.71	259.23		259.31	0.00026	1.3	131.5	55.87	0.24
KinmoutDS	1908	2y	109.5	255.71	258.65		258.72	0.000319	1.24	99.83	51.64	0.26
KinmoutDS	1908	5y	145.9	255.71	259.41		259.48	0.000214	1.23	141.39	56.83	0.22
KinmoutDS	1908	10y	170.6	255.71	259.87		259.94	0.00018	1.24	168.23	59.28	0.21
KinmoutDS	1908	25y	203	255.71	260.44		260.51	0.000152	1.25	202.98	65.85	0.2
KinmoutDS	1908	50y	228.8	255.71	260.87		260.95	0.000136	1.27	237.57	95.59	0.19
KinmoutDS	1908	100y	256.7	255.71	261.31		261.39	0.000122	1.28	286.27	127.99	0.18
KinmoutDS	1908	200y	287.4	255.71	261.77		261.85	0.000109	1.28	355.23	158.46	0.18
KinmoutDS	1908	350y	314.5	255.71	262.11		262.19	0.000102	1.29	409.61	159.34	0.17
KinmoutDS	1908	Sept 25 2021	68.8	255.71	257.82		257.89	0.000568	1.23	59.76	45.35	0.32
KinmoutDS	1908	July 13 2024	53.2	255.71	257.6		257.66	0.000568	1.12	50.15	42.16	0.31
KinmoutDS	1908	April 21 2019	228.5	255.71	260.86		260.94	0.000136	1.27	237.01	95.22	0.19
KinmoutDS	1908	Nov 2 2013	77	255.71	257.93		258.01	0.000552	1.28	65.04	46	0.32
KinmoutDS	1908	April 16 2014	175	255.71	259.73		259.81	0.000218	1.32	159.9	58.65	0.23
KinmoutDS	1908	May 8 2017	142	255.71	259.14		259.23	0.000276	1.31	126.55	55.46	0.25
KinmoutDS	1908	April 21 2013	216.5	255.71	260.67		260.74	0.000143	1.26	219.69	80.53	0.19
KinmoutDS	1888	Timmins_Uncalibr	452.5	255.74	263.61		263.69	0.00008	1.33	645.66	167.22	0.16

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1888	Timmins_Calibrat	115.8	255.74	258.65		258.73	0.000348	1.29	95.01	44.76	0.27
KinmoutDS	1888	TimminsCC_Calibr	145.4	255.74	259.22		259.31	0.000259	1.29	121.25	46.46	0.24
KinmoutDS	1888	2y	109.5	255.74	258.64		258.71	0.000315	1.23	94.61	44.74	0.26
KinmoutDS	1888	5y	145.9	255.74	259.4		259.47	0.000213	1.22	129.49	47.08	0.22
KinmoutDS	1888	10y	170.6	255.74	259.86		259.94	0.000182	1.24	151.54	48.65	0.21
KinmoutDS	1888	25y	203	255.74	260.43		260.51	0.000154	1.26	180.76	56.23	0.2
KinmoutDS	1888	50y	228.8	255.74	260.86		260.94	0.000139	1.28	215.79	102.36	0.19
KinmoutDS	1888	100y	256.7	255.74	261.31		261.38	0.000124	1.28	267.49	138.8	0.18
KinmoutDS	1888	200y	287.4	255.74	261.77		261.85	0.00011	1.28	339.1	164.93	0.18
KinmoutDS	1888	350y	314.5	255.74	262.11		262.19	0.000102	1.29	395.77	165.46	0.17
KinmoutDS	1888	Sept 25 2021	68.8	255.74	257.8		257.88	0.000567	1.22	58.4	41.68	0.32
KinmoutDS	1888	July 13 2024	53.2	255.74	257.59		257.65	0.000581	1.11	49.4	40.98	0.32
KinmoutDS	1888	April 21 2019	228.5	255.74	260.86		260.94	0.000139	1.28	215.19	102.21	0.19
KinmoutDS	1888	Nov 2 2013	77	255.74	257.92		258	0.00055	1.26	63.26	42.05	0.32
KinmoutDS	1888	April 16 2014	175	255.74	259.72		259.81	0.00022	1.32	144.68	48.1	0.23
KinmoutDS	1888	May 8 2017	142	255.74	259.14		259.22	0.000275	1.3	117.13	46.14	0.25
KinmoutDS	1888	April 21 2013	216.5	255.74	260.66		260.74	0.000146	1.27	196.32	84.52	0.2
KinmoutDS	1868	Timmins_Uncalibr	452.5	255.61	263.63		263.68	0.000062	1.18	1022.82	411.07	0.14
KinmoutDS	1868	Timmins_Calibrat	115.8	255.61	258.64		258.72	0.000333	1.27	99.08	46.42	0.27
KinmoutDS	1868	TimminsCC_Calibr	145.4	255.61	259.22		259.3	0.000247	1.27	126.39	48.19	0.24
KinmoutDS	1868	2y	109.5	255.61	258.64		258.71	0.000302	1.21	98.69	46.4	0.25
KinmoutDS	1868	5y	145.9	255.61	259.4		259.47	0.000204	1.2	134.96	48.77	0.22
KinmoutDS	1868	10y	170.6	255.61	259.86		259.93	0.000173	1.21	159.14	57.47	0.21
KinmoutDS	1868	25y	203	255.61	260.43		260.51	0.000145	1.23	193.64	68.07	0.19
KinmoutDS	1868	50y	228.8	255.61	260.86		260.94	0.00013	1.24	232.38	106.65	0.19
KinmoutDS	1868	100y	256.7	255.61	261.31		261.38	0.000116	1.25	276.42	159.81	0.18
KinmoutDS	1868	200y	287.4	255.61	261.77		261.84	0.000103	1.25	367.29	229.33	0.17
KinmoutDS	1868	350y	314.5	255.61	262.11		262.18	0.000095	1.25	453.28	274.29	0.17
KinmoutDS	1868	Sept 25 2021	68.8	255.61	257.8		257.87	0.00055	1.21	60.67	44.03	0.32
KinmoutDS	1868	July 13 2024	53.2	255.61	257.58		257.64	0.000566	1.1	51.11	43.48	0.31
KinmoutDS	1868	April 21 2019	228.5	255.61	260.86		260.93	0.00013	1.24	231.81	106.42	0.19
KinmoutDS	1868	Nov 2 2013	77	255.61	257.91		257.99	0.000532	1.25	65.84	44.36	0.32
KinmoutDS	1868	April 16 2014	175	255.61	259.72		259.8	0.000209	1.3	151.21	53.27	0.23
KinmoutDS	1868	May 8 2017	142	255.61	259.13		259.21	0.000262	1.28	122.1	47.89	0.24
KinmoutDS	1868	April 21 2013	216.5	255.61	260.66		260.73	0.000137	1.24	212.83	98.95	0.19
KinmoutDS	1847	Timmins_Uncalibr	452.5	255.51	263.63		263.68	0.000055	1.12	1094.14	421.22	0.13
KinmoutDS	1847	Timmins_Calibrat	115.8	255.51	258.65		258.71	0.000243	1.15	115.11	51.48	0.23
KinmoutDS	1847	TimminsCC_Calibr	145.4	255.51	259.23		259.29	0.00019	1.16	145.46	53.71	0.21
KinmoutDS	1847	2y	109.5	255.51	258.64		258.7	0.00022	1.09	114.65	51.45	0.22
KinmoutDS	1847	5y	145.9	255.51	259.4		259.46	0.000158	1.1	155.05	55.64	0.19
KinmoutDS	1847	10y	170.6	255.51	259.87		259.93	0.000138	1.12	182.37	65.54	0.19
KinmoutDS	1847	25y	203	255.51	260.44		260.5	0.000119	1.15	222.95	83.35	0.18
KinmoutDS	1847	50y	228.8	255.51	260.87		260.93	0.000107	1.16	266.74	115.68	0.17
KinmoutDS	1847	100y	256.7	255.51	261.31		261.38	0.000097	1.17	316.29	174.48	0.16

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1847	200y	287.4	255.51	261.77		261.84	0.000088	1.18	415.63	247.07	0.16
KinmoutDS	1847	350y	314.5	255.51	262.12		262.18	0.000081	1.18	506.38	299.71	0.15
KinmoutDS	1847	Sept 25 2021	68.8	255.51	257.8		257.85	0.000348	1.05	72.64	48.29	0.26
KinmoutDS	1847	July 13 2024	53.2	255.51	257.58		257.62	0.000336	0.94	62.13	47.56	0.25
KinmoutDS	1847	April 21 2019	228.5	255.51	260.86		260.93	0.000107	1.16	266.11	115.42	0.17
KinmoutDS	1847	Nov 2 2013	77	255.51	257.92		257.97	0.000347	1.09	78.33	48.73	0.26
KinmoutDS	1847	April 16 2014	175	255.51	259.72		259.79	0.000165	1.2	173.34	60.8	0.2
KinmoutDS	1847	May 8 2017	142	255.51	259.14		259.2	0.0002	1.17	140.68	53.26	0.22
KinmoutDS	1847	April 21 2013	216.5	255.51	260.67		260.73	0.000113	1.16	245.02	106.49	0.17
KinmoutDS	1818	Timmins_Uncalibr	452.5	255.17	263.63		263.67	0.000053	1.11	1121.68	428.96	0.13
KinmoutDS	1818	Timmins_Calibrat	115.8	255.17	258.65		258.71	0.000203	1.1	113.72	44.76	0.21
KinmoutDS	1818	TimminsCC_Calibr	145.4	255.17	259.22		259.29	0.00017	1.14	141.87	52.74	0.2
KinmoutDS	1818	2y	109.5	255.17	258.64		258.69	0.000183	1.04	113.33	44.71	0.2
KinmoutDS	1818	5y	145.9	255.17	259.4		259.46	0.000143	1.08	151.44	56.43	0.18
KinmoutDS	1818	10y	170.6	255.17	259.86		259.92	0.000127	1.1	179.45	66.46	0.18
KinmoutDS	1818	25y	203	255.17	260.43		260.5	0.000112	1.13	222.85	90.84	0.17
KinmoutDS	1818	50y	228.8	255.17	260.87		260.93	0.000102	1.15	268.62	122.04	0.16
KinmoutDS	1818	100y	256.7	255.17	261.31		261.37	0.000093	1.16	326.09	191.87	0.16
KinmoutDS	1818	200y	287.4	255.17	261.77		261.83	0.000083	1.16	430.25	255.32	0.15
KinmoutDS	1818	350y	314.5	255.17	262.12		262.18	0.000077	1.16	524.83	302.64	0.15
KinmoutDS	1818	Sept 25 2021	68.8	255.17	257.8		257.84	0.000225	0.94	77.07	41.74	0.21
KinmoutDS	1818	July 13 2024	53.2	255.17	257.58		257.61	0.000194	0.82	68.03	40.97	0.19
KinmoutDS	1818	April 21 2019	228.5	255.17	260.86		260.92	0.000102	1.15	267.97	121.88	0.17
KinmoutDS	1818	Nov 2 2013	77	255.17	257.91		257.96	0.000234	1	81.97	42.14	0.22
KinmoutDS	1818	April 16 2014	175	255.17	259.72		259.79	0.000152	1.18	170.48	61.36	0.19
KinmoutDS	1818	May 8 2017	142	255.17	259.13		259.2	0.000178	1.14	137.19	52.08	0.2
KinmoutDS	1818	April 21 2013	216.5	255.17	260.66		260.73	0.000107	1.14	246.11	111.06	0.17
KinmoutDS	1797	Timmins_Uncalibr	452.5	254.82	263.63		263.67	0.000048	1.08	1121.3	423.37	0.12
KinmoutDS	1797	Timmins_Calibrat	115.8	254.82	258.65		258.7	0.000147	0.99	122	43.87	0.18
KinmoutDS	1797	TimminsCC_Calibr	145.4	254.82	259.23		259.28	0.000128	1.04	148.09	46.89	0.17
KinmoutDS	1797	2y	109.5	254.82	258.64		258.69	0.000132	0.94	121.61	43.83	0.17
KinmoutDS	1797	5y	145.9	254.82	259.4		259.45	0.00011	0.99	156.71	50.33	0.16
KinmoutDS	1797	10y	170.6	254.82	259.86		259.92	0.000101	1.03	180.79	53.95	0.16
KinmoutDS	1797	25y	203	254.82	260.44		260.49	0.000093	1.07	221.09	96.61	0.16
KinmoutDS	1797	50y	228.8	254.82	260.87		260.93	0.000086	1.09	267.16	126.99	0.15
KinmoutDS	1797	100y	256.7	254.82	261.31		261.37	0.00008	1.11	324.42	193.1	0.15
KinmoutDS	1797	200y	287.4	254.82	261.77		261.83	0.000073	1.12	429.08	256.13	0.14
KinmoutDS	1797	350y	314.5	254.82	262.12		262.17	0.000068	1.12	525.16	305.6	0.14
KinmoutDS	1797	Sept 25 2021	68.8	254.82	257.8		257.84	0.000155	0.82	85.91	41.36	0.18
KinmoutDS	1797	July 13 2024	53.2	254.82	257.58		257.61	0.000132	0.71	76.89	40.81	0.16
KinmoutDS	1797	April 21 2019	228.5	254.82	260.86		260.92	0.000086	1.09	266.5	126.55	0.15
KinmoutDS	1797	Nov 2 2013	77	254.82	257.92		257.96	0.000163	0.87	90.77	41.66	0.18
KinmoutDS	1797	April 16 2014	175	254.82	259.72		259.78	0.00012	1.09	173.22	52.92	0.17
KinmoutDS	1797	May 8 2017	142	254.82	259.14		259.19	0.000133	1.04	143.94	46.33	0.18

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1797	April 21 2013	216.5	254.82	260.66		260.72	0.000089	1.08	244.74	117.75	0.15
KinmoutDS	1777	Timmins_Uncalibr	452.5	254.72	263.63		263.67	0.000049	1.11	1114.69	424.31	0.12
KinmoutDS	1777	Timmins_Calibrat	115.8	254.72	258.65		258.7	0.00014	0.99	117.59	39.32	0.18
KinmoutDS	1777	TimminsCC_Calibr	145.4	254.72	259.22		259.28	0.000125	1.05	140.66	40.81	0.17
KinmoutDS	1777	2y	109.5	254.72	258.64		258.68	0.000126	0.94	117.25	39.29	0.17
KinmoutDS	1777	5y	145.9	254.72	259.4		259.45	0.000108	1.01	147.9	41.24	0.16
KinmoutDS	1777	10y	170.6	254.72	259.86		259.91	0.000101	1.05	167.34	44.41	0.16
KinmoutDS	1777	25y	203	254.72	260.43		260.49	0.000094	1.1	206.49	101.93	0.16
KinmoutDS	1777	50y	228.8	254.72	260.86		260.92	0.000087	1.12	252.69	134.83	0.16
KinmoutDS	1777	100y	256.7	254.72	261.3		261.37	0.000081	1.14	309.65	192.94	0.15
KinmoutDS	1777	200y	287.4	254.72	261.77		261.83	0.000075	1.15	414.29	270.34	0.15
KinmoutDS	1777	350y	314.5	254.72	262.11		262.17	0.00007	1.15	514.25	316.06	0.14
KinmoutDS	1777	Sept 25 2021	68.8	254.72	257.8		257.83	0.000141	0.81	85	37.67	0.17
KinmoutDS	1777	July 13 2024	53.2	254.72	257.58		257.6	0.000117	0.69	76.79	37.31	0.15
KinmoutDS	1777	April 21 2019	228.5	254.72	260.86		260.92	0.000087	1.12	252	134.37	0.16
KinmoutDS	1777	Nov 2 2013	77	254.72	257.92		257.95	0.000151	0.86	89.41	37.89	0.18
KinmoutDS	1777	April 16 2014	175	254.72	259.72		259.78	0.000119	1.12	161.19	42.23	0.17
KinmoutDS	1777	May 8 2017	142	254.72	259.13		259.19	0.00013	1.05	137.03	40.57	0.18
KinmoutDS	1777	April 21 2013	216.5	254.72	260.66		260.72	0.00009	1.11	229.59	121.94	0.16
KinmoutDS	1757	Timmins_Uncalibr	452.5	254.85	263.63		263.67	0.000055	1.09	1128.29	416.79	0.12
KinmoutDS	1757	Timmins_Calibrat	115.8	254.85	258.64		258.69	0.000191	1.06	112.45	40.95	0.2
KinmoutDS	1757	TimminsCC_Calibr	145.4	254.85	259.21		259.27	0.000168	1.11	139.32	54.87	0.19
KinmoutDS	1757	2y	109.5	254.85	258.63		258.68	0.000172	1.01	112.14	40.93	0.19
KinmoutDS	1757	5y	145.9	254.85	259.39		259.45	0.000143	1.05	149.26	56.88	0.18
KinmoutDS	1757	10y	170.6	254.85	259.85		259.91	0.000129	1.09	178.44	75.54	0.17
KinmoutDS	1757	25y	203	254.85	260.43		260.49	0.000114	1.11	234.22	112.32	0.16
KinmoutDS	1757	50y	228.8	254.85	260.86		260.92	0.000103	1.12	284.05	148.05	0.16
KinmoutDS	1757	100y	256.7	254.85	261.3		261.36	0.000094	1.13	340.16	181.97	0.15
KinmoutDS	1757	200y	287.4	254.85	261.77		261.83	0.000086	1.14	439.36	256.99	0.15
KinmoutDS	1757	350y	314.5	254.85	262.11		262.17	0.000081	1.15	536.22	309.75	0.15
KinmoutDS	1757	Sept 25 2021	68.8	254.85	257.79		257.83	0.000197	0.88	78.76	38.64	0.19
KinmoutDS	1757	July 13 2024	53.2	254.85	257.57		257.6	0.000165	0.76	70.54	37.1	0.17
KinmoutDS	1757	April 21 2019	228.5	254.85	260.85		260.92	0.000103	1.12	283.34	147.56	0.16
KinmoutDS	1757	Nov 2 2013	77	254.85	257.9		257.95	0.000208	0.94	83.26	38.96	0.2
KinmoutDS	1757	April 16 2014	175	254.85	259.71		259.78	0.000154	1.16	168.39	66.43	0.19
KinmoutDS	1757	May 8 2017	142	254.85	259.12		259.19	0.000175	1.11	134.46	53.59	0.19
KinmoutDS	1757	April 21 2013	216.5	254.85	260.66		260.72	0.000108	1.12	260.08	128.78	0.16
KinmoutDS	1737	Timmins_Uncalibr	452.5	254.96	263.62		263.67	0.000053	1.13	1111.53	414.27	0.13
KinmoutDS	1737	Timmins_Calibrat	115.8	254.96	258.62		258.69	0.000199	1.12	105.56	39.34	0.21
KinmoutDS	1737	TimminsCC_Calibr	145.4	254.96	259.2		259.27	0.000172	1.16	128.77	40.97	0.2
KinmoutDS	1737	2y	109.5	254.96	258.62		258.68	0.000179	1.06	105.31	39.32	0.2
KinmoutDS	1737	5y	145.9	254.96	259.38		259.44	0.000145	1.11	136.45	46.99	0.19
KinmoutDS	1737	10y	170.6	254.96	259.84		259.91	0.000131	1.14	162.14	76.31	0.18

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1737	25y	203	254.96	260.42		260.49	0.000115	1.16	218.05	112.47	0.17
KinmoutDS	1737	50y	228.8	254.96	260.85		260.92	0.000104	1.17	268.4	141.99	0.17
KinmoutDS	1737	100y	256.7	254.96	261.3		261.36	0.000093	1.18	324.06	183.93	0.16
KinmoutDS	1737	200y	287.4	254.96	261.76		261.83	0.000083	1.17	424.1	251.12	0.15
KinmoutDS	1737	350y	314.5	254.96	262.1		262.17	0.00008	1.2	521.38	320.74	0.15
KinmoutDS	1737	Sept 25 2021	68.8	254.96	257.78		257.82	0.000211	0.94	73.58	36.06	0.21
KinmoutDS	1737	July 13 2024	53.2	254.96	257.56		257.6	0.000178	0.81	65.92	35.26	0.19
KinmoutDS	1737	April 21 2019	228.5	254.96	260.85		260.91	0.000104	1.17	267.66	141.48	0.17
KinmoutDS	1737	Nov 2 2013	77	254.96	257.89		257.94	0.000222	1	77.76	36.47	0.21
KinmoutDS	1737	April 16 2014	175	254.96	259.7		259.77	0.000157	1.21	152.62	56.16	0.2
KinmoutDS	1737	May 8 2017	142	254.96	259.11		259.18	0.000179	1.17	125.1	40.76	0.2
KinmoutDS	1737	April 21 2013	216.5	254.96	260.65		260.71	0.000108	1.17	243.64	125.36	0.17
KinmoutDS	1716	Timmins_Uncalibr	452.5	255.09	263.62		263.67	0.000056	1.14	1105.01	408.75	0.13
KinmoutDS	1716	Timmins_Calibrat	115.8	255.09	258.61		258.68	0.000239	1.18	99.55	39.18	0.23
KinmoutDS	1716	TimminsCC_Calibr	145.4	255.09	259.19		259.27	0.0002	1.22	124.98	49.44	0.22
KinmoutDS	1716	2y	109.5	255.09	258.61		258.67	0.000215	1.12	99.35	39.17	0.22
KinmoutDS	1716	5y	145.9	255.09	259.37		259.44	0.000167	1.16	134.62	56.27	0.2
KinmoutDS	1716	10y	170.6	255.09	259.84		259.91	0.000147	1.18	165.3	74.36	0.19
KinmoutDS	1716	25y	203	255.09	260.41		260.48	0.000127	1.2	218.23	116.46	0.18
KinmoutDS	1716	50y	228.8	255.09	260.85		260.92	0.000113	1.2	268.15	136.11	0.17
KinmoutDS	1716	100y	256.7	255.09	261.29		261.36	0.000101	1.21	321.98	171.15	0.17
KinmoutDS	1716	200y	287.4	255.09	261.76		261.82	0.000089	1.2	420.76	253.93	0.16
KinmoutDS	1716	350y	314.5	255.09	262.1		262.17	0.000086	1.22	518.83	323.58	0.16
KinmoutDS	1716	Sept 25 2021	68.8	255.09	257.77		257.82	0.000268	1.01	67.99	35.53	0.23
KinmoutDS	1716	July 13 2024	53.2	255.09	257.55		257.59	0.000231	0.88	60.53	34.65	0.21
KinmoutDS	1716	April 21 2019	228.5	255.09	260.84		260.91	0.000113	1.2	267.44	135.84	0.17
KinmoutDS	1716	Nov 2 2013	77	255.09	257.88		257.94	0.00028	1.07	72.08	36.01	0.24
KinmoutDS	1716	April 16 2014	175	255.09	259.69		259.77	0.000177	1.26	154.69	69.82	0.21
KinmoutDS	1716	May 8 2017	142	255.09	259.1		259.18	0.00021	1.23	120.57	48.3	0.22
KinmoutDS	1716	April 21 2013	216.5	255.09	260.64		260.71	0.000119	1.2	243.91	128.38	0.18
KinmoutDS	1696	Timmins_Uncalibr	452.5	255.2	263.62		263.67	0.00006	1.17	1050.93	390.25	0.14
KinmoutDS	1696	Timmins_Calibrat	115.8	255.2	258.6		258.68	0.000283	1.23	95.42	47.58	0.25
KinmoutDS	1696	TimminsCC_Calibr	145.4	255.2	259.18		259.26	0.000221	1.25	126.21	57.93	0.23
KinmoutDS	1696	2y	109.5	255.2	258.6		258.67	0.000254	1.17	95.24	47.49	0.23
KinmoutDS	1696	5y	145.9	255.2	259.37		259.44	0.000183	1.18	137.25	62.2	0.21
KinmoutDS	1696	10y	170.6	255.2	259.83		259.9	0.000157	1.19	168.69	72.92	0.2
KinmoutDS	1696	25y	203	255.2	260.41		260.48	0.000135	1.21	216.57	106.09	0.19
KinmoutDS	1696	50y	228.8	255.2	260.84		260.91	0.00012	1.22	260.96	121.58	0.18
KinmoutDS	1696	100y	256.7	255.2	261.29		261.36	0.000107	1.22	308.3	149.51	0.17
KinmoutDS	1696	200y	287.4	255.2	261.75		261.82	0.000095	1.22	396.14	237.61	0.16
KinmoutDS	1696	350y	314.5	255.2	262.09		262.16	0.000093	1.25	491.52	313.22	0.16
KinmoutDS	1696	Sept 25 2021	68.8	255.2	257.75		257.81	0.000323	1.08	63.75	33.83	0.25
KinmoutDS	1696	July 13 2024	53.2	255.2	257.54		257.59	0.000277	0.94	56.71	33.12	0.23
KinmoutDS	1696	April 21 2019	228.5	255.2	260.84		260.91	0.00012	1.22	260.35	121.44	0.18

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1696	Nov 2 2013	77	255.2	257.87		257.93	0.000339	1.14	67.61	34.26	0.26
KinmoutDS	1696	April 16 2014	175	255.2	259.68		259.77	0.000191	1.28	158.08	69.36	0.21
KinmoutDS	1696	May 8 2017	142	255.2	259.09		259.17	0.000233	1.26	121.01	56.33	0.23
KinmoutDS	1696	April 21 2013	216.5	255.2	260.64		260.71	0.000127	1.22	239.68	116.36	0.18
KinmoutDS	1676	Timmins_Uncalibr	452.5	255.34	263.61		263.66	0.000065	1.2	989.85	366.63	0.14
KinmoutDS	1676	Timmins_Calibrat	115.8	255.34	258.6		258.67	0.000286	1.23	107.84	58.14	0.25
KinmoutDS	1676	TimminsCC_Calibr	145.4	255.34	259.18		259.26	0.000219	1.22	144.15	63.77	0.22
KinmoutDS	1676	2y	109.5	255.34	258.59		258.66	0.000257	1.16	107.63	58.09	0.23
KinmoutDS	1676	5y	145.9	255.34	259.37		259.43	0.00018	1.15	155.94	64.58	0.2
KinmoutDS	1676	10y	170.6	255.34	259.83		259.9	0.000153	1.16	186.57	66.7	0.19
KinmoutDS	1676	25y	203	255.34	260.41		260.48	0.000132	1.19	227.14	90.87	0.18
KinmoutDS	1676	50y	228.8	255.34	260.84		260.91	0.000119	1.2	263.3	101.99	0.18
KinmoutDS	1676	100y	256.7	255.34	261.29		261.36	0.000108	1.22	301.87	129.73	0.17
KinmoutDS	1676	200y	287.4	255.34	261.74		261.82	0.000105	1.27	376.7	212.54	0.17
KinmoutDS	1676	350y	314.5	255.34	262.09		262.16	0.000098	1.27	466.3	291.88	0.17
KinmoutDS	1676	Sept 25 2021	68.8	255.34	257.74		257.8	0.000383	1.12	64.07	44.52	0.27
KinmoutDS	1676	July 13 2024	53.2	255.34	257.53		257.58	0.00034	0.98	55.07	41.01	0.25
KinmoutDS	1676	April 21 2019	228.5	255.34	260.84		260.9	0.00012	1.2	262.79	101.91	0.18
KinmoutDS	1676	Nov 2 2013	77	255.34	257.86		257.92	0.000396	1.17	69.22	45.89	0.28
KinmoutDS	1676	April 16 2014	175	255.34	259.68		259.76	0.000186	1.25	176.71	65.96	0.21
KinmoutDS	1676	May 8 2017	142	255.34	259.09		259.17	0.000233	1.24	138.34	63.22	0.23
KinmoutDS	1676	April 21 2013	216.5	255.34	260.64		260.71	0.000126	1.2	245.9	98.27	0.18
KinmoutDS	1656	Timmins_Uncalibr	452.5	255.46	263.6		263.66	0.000072	1.26	887.13	338.72	0.15
KinmoutDS	1656	Timmins_Calibrat	115.8	255.46	258.58		258.66	0.000338	1.29	90.7	45.79	0.27
KinmoutDS	1656	TimminsCC_Calibr	145.4	255.46	259.17		259.25	0.000253	1.29	121.8	59.93	0.24
KinmoutDS	1656	2y	109.5	255.46	258.58		258.65	0.000303	1.22	90.63	45.72	0.25
KinmoutDS	1656	5y	145.9	255.46	259.35		259.43	0.000206	1.22	133.02	60.63	0.22
KinmoutDS	1656	10y	170.6	255.46	259.82		259.89	0.000174	1.22	161.83	70	0.2
KinmoutDS	1656	25y	203	255.46	260.4		260.47	0.000146	1.24	198.68	79.29	0.19
KinmoutDS	1656	50y	228.8	255.46	260.83		260.91	0.000131	1.25	227.48	89.48	0.19
KinmoutDS	1656	100y	256.7	255.46	261.27		261.35	0.000122	1.28	260.66	113.43	0.18
KinmoutDS	1656	200y	287.4	255.46	261.73		261.82	0.000114	1.31	324.92	187.5	0.18
KinmoutDS	1656	350y	314.5	255.46	262.08		262.16	0.000107	1.32	405.8	266.99	0.17
KinmoutDS	1656	Sept 25 2021	68.8	255.46	257.72		257.8	0.000471	1.18	58.18	35.63	0.3
KinmoutDS	1656	July 13 2024	53.2	255.46	257.52		257.57	0.000429	1.05	50.85	35.01	0.28
KinmoutDS	1656	April 21 2019	228.5	255.46	260.83		260.9	0.000132	1.25	227.07	89.29	0.19
KinmoutDS	1656	Nov 2 2013	77	255.46	257.84		257.92	0.000482	1.24	62.23	36.2	0.3
KinmoutDS	1656	April 16 2014	175	255.46	259.67		259.75	0.000213	1.32	152.41	68.34	0.22
KinmoutDS	1656	May 8 2017	142	255.46	259.07		259.16	0.000268	1.3	116.4	56.88	0.24
KinmoutDS	1656	April 21 2013	216.5	255.46	260.63		260.7	0.000138	1.25	213.72	83.2	0.19
KinmoutDS	1633	Timmins_Uncalibr	452.5	255.6	263.59		263.66	0.000073	1.29	846.97	326.99	0.15
KinmoutDS	1633	Timmins_Calibrat	115.8	255.6	258.57		258.66	0.000333	1.29	94.29	43.45	0.27
KinmoutDS	1633	TimminsCC_Calibr	145.4	255.6	259.16		259.24	0.000248	1.29	121.39	54.36	0.24

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1633	2y	109.5	255.6	258.57		258.65	0.000298	1.22	94.26	43.44	0.25
KinmoutDS	1633	5y	145.9	255.6	259.35		259.42	0.000203	1.22	130.37	56.05	0.22
KinmoutDS	1633	10y	170.6	255.6	259.81		259.89	0.000173	1.23	153.27	60.46	0.21
KinmoutDS	1633	25y	203	255.6	260.39		260.47	0.000149	1.26	184.02	80.37	0.2
KinmoutDS	1633	50y	228.8	255.6	260.82		260.9	0.000134	1.28	212.15	91.75	0.19
KinmoutDS	1633	100y	256.7	255.6	261.27		261.35	0.000122	1.3	242.17	114.88	0.18
KinmoutDS	1633	200y	287.4	255.6	261.73		261.81	0.000113	1.32	310.09	197.01	0.18
KinmoutDS	1633	350y	314.5	255.6	262.07		262.16	0.000106	1.33	386.7	250.13	0.18
KinmoutDS	1633	Sept 25 2021	68.8	255.6	257.71		257.78	0.000536	1.21	58.37	40.6	0.31
KinmoutDS	1633	July 13 2024	53.2	255.6	257.5		257.56	0.000527	1.09	49.96	40.17	0.3
KinmoutDS	1633	April 21 2019	228.5	255.6	260.82		260.9	0.000134	1.28	211.75	91.65	0.19
KinmoutDS	1633	Nov 2 2013	77	255.6	257.82		257.9	0.000526	1.26	63	40.85	0.32
KinmoutDS	1633	April 16 2014	175	255.6	259.66		259.75	0.000211	1.32	145.75	59.22	0.23
KinmoutDS	1633	May 8 2017	142	255.6	259.07		259.15	0.000264	1.3	117.01	53.25	0.25
KinmoutDS	1633	April 21 2013	216.5	255.6	260.62		260.7	0.000141	1.27	198.6	88.06	0.19
KinmoutDS	1606	Timmins_Uncalibr	452.5	255.63	263.59		263.66	0.000078	1.32	837.64	308.37	0.16
KinmoutDS	1606	Timmins_Calibrat	115.8	255.63	258.55		258.64	0.000417	1.4	87.66	41.62	0.3
KinmoutDS	1606	TimminsCC_Calibr	145.4	255.63	259.14		259.24	0.000301	1.39	113.07	44.27	0.26
KinmoutDS	1606	2y	109.5	255.63	258.55		258.64	0.000372	1.32	87.74	41.63	0.28
KinmoutDS	1606	5y	145.9	255.63	259.33		259.41	0.000244	1.31	121.59	45.5	0.24
KinmoutDS	1606	10y	170.6	255.63	259.8		259.88	0.000208	1.33	145.37	61.05	0.23
KinmoutDS	1606	25y	203	255.63	260.38		260.46	0.000171	1.33	188.12	83.13	0.21
KinmoutDS	1606	50y	228.8	255.63	260.81		260.9	0.00015	1.34	222.86	89.03	0.2
KinmoutDS	1606	100y	256.7	255.63	261.26		261.35	0.000134	1.34	260.55	124.97	0.19
KinmoutDS	1606	200y	287.4	255.63	261.72		261.81	0.000122	1.36	328.4	177.29	0.19
KinmoutDS	1606	350y	314.5	255.63	262.07		262.15	0.000114	1.37	399.24	237.37	0.18
KinmoutDS	1606	Sept 25 2021	68.8	255.63	257.67		257.77	0.000752	1.36	52.36	39.29	0.37
KinmoutDS	1606	July 13 2024	53.2	255.63	257.47		257.54	0.000768	1.24	44.32	38.66	0.36
KinmoutDS	1606	April 21 2019	228.5	255.63	260.81		260.89	0.000151	1.34	222.38	88.95	0.2
KinmoutDS	1606	Nov 2 2013	77	255.63	257.79		257.89	0.000724	1.41	56.84	39.57	0.37
KinmoutDS	1606	April 16 2014	175	255.63	259.64		259.74	0.000252	1.42	136.52	52.94	0.25
KinmoutDS	1606	May 8 2017	142	255.63	259.05		259.14	0.00032	1.4	108.98	43.75	0.27
KinmoutDS	1606	April 21 2013	216.5	255.63	260.61		260.69	0.00016	1.33	206.37	86.37	0.2
KinmoutDS	1587	Timmins_Uncalibr	452.5	255.51	263.58		263.66	0.000085	1.36	749.84	278.14	0.16
KinmoutDS	1587	Timmins_Calibrat	115.8	255.51	258.54		258.64	0.000426	1.4	87.04	40.2	0.3
KinmoutDS	1587	TimminsCC_Calibr	145.4	255.51	259.13		259.23	0.000307	1.38	111.53	43.73	0.26
KinmoutDS	1587	2y	109.5	255.51	258.54		258.63	0.000379	1.32	87.16	40.21	0.28
KinmoutDS	1587	5y	145.9	255.51	259.33		259.41	0.000249	1.3	120.38	52.03	0.24
KinmoutDS	1587	10y	170.6	255.51	259.79		259.88	0.000209	1.31	145.63	69.11	0.22
KinmoutDS	1587	25y	203	255.51	260.37		260.46	0.000173	1.32	184.75	80.05	0.21
KinmoutDS	1587	50y	228.8	255.51	260.81		260.9	0.000153	1.33	215.38	85.76	0.2
KinmoutDS	1587	100y	256.7	255.51	261.26		261.34	0.000138	1.34	247.7	126.68	0.19
KinmoutDS	1587	200y	287.4	255.51	261.72		261.81	0.000125	1.35	309.18	154.71	0.19
KinmoutDS	1587	350y	314.5	255.51	262.07		262.15	0.000116	1.36	370.27	196.25	0.18

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1587	Sept 25 2021	68.8	255.51	257.66		257.75	0.000729	1.36	52.57	38.33	0.36
KinmoutDS	1587	July 13 2024	53.2	255.51	257.45		257.53	0.000724	1.23	44.72	37.79	0.35
KinmoutDS	1587	April 21 2019	228.5	255.51	260.81		260.89	0.000154	1.33	214.96	85.42	0.2
KinmoutDS	1587	Nov 2 2013	77	255.51	257.77		257.87	0.000708	1.4	56.96	38.52	0.36
KinmoutDS	1587	April 16 2014	175	255.51	259.64		259.74	0.000257	1.41	136.33	60.26	0.25
KinmoutDS	1587	May 8 2017	142	255.51	259.04		259.14	0.000327	1.4	107.58	41.78	0.27
KinmoutDS	1587	April 21 2013	216.5	255.51	260.61		260.69	0.000162	1.33	200.88	82.31	0.2
KinmoutDS	1567	Timmins_Uncalibr	452.5	255.34	263.57		263.65	0.000092	1.43	618.96	269.9	0.17
KinmoutDS	1567	Timmins_Calibrat	115.8	255.34	258.52		258.63	0.000453	1.46	82.77	39.59	0.31
KinmoutDS	1567	TimminsCC_Calibr	145.4	255.34	259.12		259.22	0.000325	1.44	108.61	45.9	0.27
KinmoutDS	1567	2y	109.5	255.34	258.52		258.62	0.000402	1.38	82.98	39.63	0.29
KinmoutDS	1567	5y	145.9	255.34	259.31		259.4	0.000262	1.35	117.71	49.34	0.25
KinmoutDS	1567	10y	170.6	255.34	259.78		259.87	0.00022	1.36	144.97	66.35	0.23
KinmoutDS	1567	25y	203	255.34	260.36		260.46	0.000181	1.37	188.53	85.7	0.21
KinmoutDS	1567	50y	228.8	255.34	260.8		260.89	0.00016	1.37	231.15	108.23	0.21
KinmoutDS	1567	100y	256.7	255.34	261.25		261.34	0.00014	1.37	283.95	127.29	0.2
KinmoutDS	1567	200y	287.4	255.34	261.72		261.8	0.000122	1.36	344.75	147.9	0.19
KinmoutDS	1567	350y	314.5	255.34	262.07		262.15	0.000114	1.37	390.05	188.79	0.18
KinmoutDS	1567	Sept 25 2021	68.8	255.34	257.64		257.74	0.000746	1.41	50.24	35.18	0.37
KinmoutDS	1567	July 13 2024	53.2	255.34	257.43		257.51	0.000719	1.26	43.16	34.68	0.35
KinmoutDS	1567	April 21 2019	228.5	255.34	260.8		260.89	0.00016	1.37	230.5	108.08	0.21
KinmoutDS	1567	Nov 2 2013	77	255.34	257.75		257.86	0.000735	1.46	54.23	35.47	0.37
KinmoutDS	1567	April 16 2014	175	255.34	259.62		259.73	0.000271	1.47	134.59	63.57	0.25
KinmoutDS	1567	May 8 2017	142	255.34	259.02		259.13	0.000347	1.46	104.3	45.42	0.28
KinmoutDS	1567	April 21 2013	216.5	255.34	260.6		260.69	0.000168	1.37	209.8	95.93	0.21
KinmoutDS	1547	Timmins_Uncalibr	452.5	255.2	263.56		263.65	0.000101	1.5	544.57	257.98	0.18
KinmoutDS	1547	Timmins_Calibrat	115.8	255.2	258.51		258.62	0.00045	1.48	82.4	37.59	0.31
KinmoutDS	1547	TimminsCC_Calibr	145.4	255.2	259.11		259.22	0.000329	1.47	107.12	48.03	0.27
KinmoutDS	1547	2y	109.5	255.2	258.51		258.61	0.000399	1.39	82.65	37.63	0.29
KinmoutDS	1547	5y	145.9	255.2	259.3		259.4	0.000266	1.38	117.64	57.19	0.25
KinmoutDS	1547	10y	170.6	255.2	259.78		259.87	0.000222	1.38	147.52	66.33	0.23
KinmoutDS	1547	25y	203	255.2	260.36		260.45	0.000183	1.39	190.03	79.73	0.22
KinmoutDS	1547	50y	228.8	255.2	260.8		260.89	0.000161	1.39	228.41	98.99	0.21
KinmoutDS	1547	100y	256.7	255.2	261.25		261.34	0.000145	1.4	274.95	133.54	0.2
KinmoutDS	1547	200y	287.4	255.2	261.71		261.8	0.000128	1.4	327.56	192.01	0.19
KinmoutDS	1547	350y	314.5	255.2	262.06		262.15	0.000121	1.41	366.99	219	0.19
KinmoutDS	1547	Sept 25 2021	68.8	255.2	257.62		257.72	0.000745	1.42	50.24	35.06	0.37
KinmoutDS	1547	July 13 2024	53.2	255.2	257.42		257.5	0.000713	1.27	43.23	34.56	0.35
KinmoutDS	1547	April 21 2019	228.5	255.2	260.79		260.88	0.000161	1.39	227.85	98.75	0.21
KinmoutDS	1547	Nov 2 2013	77	255.2	257.73		257.84	0.000736	1.47	54.22	35.34	0.37
KinmoutDS	1547	April 16 2014	175	255.2	259.62		259.72	0.000275	1.49	136.98	65.39	0.26
KinmoutDS	1547	May 8 2017	142	255.2	259.01		259.12	0.00035	1.48	102.82	42.85	0.28
KinmoutDS	1547	April 21 2013	216.5	255.2	260.59		260.68	0.000171	1.39	209.73	87.51	0.21

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1526	Timmins_Uncalibr	452.5	255.04	263.55		263.65	0.000102	1.53	529.92	245.27	0.18
KinmoutDS	1526	Timmins_Calibrat	115.8	255.04	258.5		258.61	0.000422	1.48	80.77	36.17	0.3
KinmoutDS	1526	TimminsCC_Calibr	145.4	255.04	259.1		259.21	0.000316	1.48	105.89	49.27	0.27
KinmoutDS	1526	2y	109.5	255.04	258.51		258.6	0.000373	1.39	81.06	36.23	0.28
KinmoutDS	1526	5y	145.9	255.04	259.3		259.39	0.000256	1.39	116.12	55.86	0.25
KinmoutDS	1526	10y	170.6	255.04	259.77		259.86	0.000217	1.4	143.92	60.1	0.23
KinmoutDS	1526	25y	203	255.04	260.35		260.45	0.000182	1.41	186.58	94.18	0.22
KinmoutDS	1526	50y	228.8	255.04	260.79		260.89	0.000159	1.41	229.22	124.69	0.21
KinmoutDS	1526	100y	256.7	255.04	261.24		261.33	0.000141	1.41	276.22	149.01	0.2
KinmoutDS	1526	200y	287.4	255.04	261.71		261.8	0.000126	1.41	325.98	174.26	0.19
KinmoutDS	1526	350y	314.5	255.04	262.05		262.14	0.000119	1.43	363.38	207.31	0.19
KinmoutDS	1526	Sept 25 2021	68.8	255.04	257.61		257.7	0.000685	1.39	49.95	33.4	0.36
KinmoutDS	1526	July 13 2024	53.2	255.04	257.41		257.48	0.00065	1.24	43.31	32.92	0.34
KinmoutDS	1526	April 21 2019	228.5	255.04	260.79		260.88	0.000159	1.41	228.6	124.22	0.21
KinmoutDS	1526	Nov 2 2013	77	255.04	257.72		257.83	0.000677	1.45	53.74	33.68	0.36
KinmoutDS	1526	April 16 2014	175	255.04	259.61		259.72	0.000267	1.51	134.27	59.45	0.26
KinmoutDS	1526	May 8 2017	142	255.04	259		259.12	0.000335	1.49	101.4	44.45	0.28
KinmoutDS	1526	April 21 2013	216.5	255.04	260.58		260.68	0.000169	1.41	208.58	106.63	0.21
KinmoutDS	1506	Timmins_Uncalibr	452.5	254.89	263.55		263.64	0.000112	1.49	548.67	224.05	0.17
KinmoutDS	1506	Timmins_Calibrat	115.8	254.89	258.49		258.6	0.000467	1.46	81.33	35.02	0.29
KinmoutDS	1506	TimminsCC_Calibr	145.4	254.89	259.09		259.2	0.000355	1.47	103.46	44.68	0.27
KinmoutDS	1506	2y	109.5	254.89	258.5		258.59	0.000413	1.37	81.64	35.04	0.28
KinmoutDS	1506	5y	145.9	254.89	259.29		259.39	0.00029	1.38	113.15	53.37	0.24
KinmoutDS	1506	10y	170.6	254.89	259.76		259.86	0.000247	1.4	140.95	64.88	0.23
KinmoutDS	1506	25y	203	254.89	260.35		260.44	0.000206	1.4	190.28	141.88	0.21
KinmoutDS	1506	50y	228.8	254.89	260.79		260.88	0.000179	1.4	234.94	168.45	0.2
KinmoutDS	1506	100y	256.7	254.89	261.24		261.33	0.000157	1.39	282.5	192.9	0.19
KinmoutDS	1506	200y	287.4	254.89	261.71		261.8	0.000141	1.39	333.02	215.06	0.19
KinmoutDS	1506	350y	314.5	254.89	262.05		262.14	0.000133	1.4	372.83	217	0.18
KinmoutDS	1506	Sept 25 2021	68.8	254.89	257.6		257.69	0.000734	1.36	50.92	33	0.34
KinmoutDS	1506	July 13 2024	53.2	254.89	257.4		257.47	0.000686	1.2	44.38	32.55	0.32
KinmoutDS	1506	April 21 2019	228.5	254.89	260.78		260.88	0.000179	1.4	234.32	168.16	0.2
KinmoutDS	1506	Nov 2 2013	77	254.89	257.71		257.81	0.000732	1.42	54.66	33.23	0.35
KinmoutDS	1506	April 16 2014	175	254.89	259.6		259.71	0.000304	1.5	130.78	60.92	0.25
KinmoutDS	1506	May 8 2017	142	254.89	259		259.11	0.000376	1.48	99.58	38.07	0.27
KinmoutDS	1506	April 21 2013	216.5	254.89	260.58		260.68	0.000191	1.4	213.59	160.67	0.21
KinmoutDS	1486	Timmins_Uncalibr	452.5	254.87	263.55		263.64	0.000099	1.51	555.59	236.31	0.18
KinmoutDS	1486	Timmins_Calibrat	115.8	254.87	258.48		258.59	0.000419	1.48	81.98	39.07	0.3
KinmoutDS	1486	TimminsCC_Calibr	145.4	254.87	259.08		259.19	0.000313	1.48	110.65	54.55	0.27
KinmoutDS	1486	2y	109.5	254.87	258.49		258.59	0.000369	1.4	82.4	39.5	0.28
KinmoutDS	1486	5y	145.9	254.87	259.28		259.38	0.000253	1.39	121.92	57.97	0.24
KinmoutDS	1486	10y	170.6	254.87	259.76		259.86	0.000214	1.4	152.66	81.21	0.23
KinmoutDS	1486	25y	203	254.87	260.35		260.44	0.000177	1.4	208.46	185.09	0.21
KinmoutDS	1486	50y	228.8	254.87	260.79		260.88	0.000153	1.39	253.93	191.56	0.2

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1486	100y	256.7	254.87	261.24		261.33	0.000135	1.38	301.32	203.59	0.19
KinmoutDS	1486	200y	287.4	254.87	261.71		261.79	0.00012	1.38	351.57	216.94	0.19
KinmoutDS	1486	350y	314.5	254.87	262.05		262.14	0.000114	1.4	389.13	228.32	0.18
KinmoutDS	1486	Sept 25 2021	68.8	254.87	257.58		257.68	0.00067	1.39	50.21	33.82	0.36
KinmoutDS	1486	July 13 2024	53.2	254.87	257.38		257.46	0.000625	1.23	43.58	33.24	0.34
KinmoutDS	1486	April 21 2019	228.5	254.87	260.78		260.87	0.000154	1.39	253.3	191.48	0.2
KinmoutDS	1486	Nov 2 2013	77	254.87	257.69		257.8	0.000667	1.45	54.04	34.14	0.36
KinmoutDS	1486	April 16 2014	175	254.87	259.59		259.71	0.000265	1.51	140.62	64.04	0.25
KinmoutDS	1486	May 8 2017	142	254.87	258.99		259.1	0.000334	1.5	105.47	53.08	0.28
KinmoutDS	1486	April 21 2013	216.5	254.87	260.58		260.67	0.000164	1.39	232.39	187.73	0.21
KinmoutDS	1468	Timmins_Uncalibr	452.5	254.95	263.55		263.64	0.000099	1.51	527.25	255.1	0.18
KinmoutDS	1468	Timmins_Calibrat	115.8	254.95	258.47		258.58	0.000415	1.46	84.46	38.87	0.3
KinmoutDS	1468	TimminsCC_Calibr	145.4	254.95	259.08		259.19	0.000305	1.45	109.37	42.67	0.27
KinmoutDS	1468	2y	109.5	254.95	258.48		258.58	0.000365	1.37	84.91	38.93	0.28
KinmoutDS	1468	5y	145.9	254.95	259.28		259.38	0.000247	1.36	118.25	47.68	0.24
KinmoutDS	1468	10y	170.6	254.95	259.76		259.85	0.000209	1.37	149.5	81.56	0.23
KinmoutDS	1468	25y	203	254.95	260.34		260.43	0.000172	1.37	201.57	213.02	0.21
KinmoutDS	1468	50y	228.8	254.95	260.79		260.87	0.00015	1.37	242.8	220.47	0.2
KinmoutDS	1468	100y	256.7	254.95	261.24		261.32	0.000133	1.37	285.22	225.26	0.19
KinmoutDS	1468	200y	287.4	254.95	261.71		261.79	0.000119	1.37	329.47	226.86	0.18
KinmoutDS	1468	350y	314.5	254.95	262.05		262.13	0.000113	1.39	362.23	228.19	0.18
KinmoutDS	1468	Sept 25 2021	68.8	254.95	257.56		257.66	0.000721	1.4	50.42	36.09	0.36
KinmoutDS	1468	July 13 2024	53.2	254.95	257.36		257.44	0.000692	1.25	43.34	35.14	0.35
KinmoutDS	1468	April 21 2019	228.5	254.95	260.78		260.87	0.00015	1.37	242.23	220.38	0.2
KinmoutDS	1468	Nov 2 2013	77	254.95	257.68		257.78	0.000707	1.46	54.55	36.54	0.36
KinmoutDS	1468	April 16 2014	175	254.95	259.59		259.7	0.000259	1.48	136.61	71.96	0.25
KinmoutDS	1468	May 8 2017	142	254.95	258.99		259.09	0.000325	1.46	105.29	42.12	0.27
KinmoutDS	1468	April 21 2013	216.5	254.95	260.58		260.67	0.00016	1.37	223.33	216.98	0.21
KinmoutDS	1447	Timmins_Uncalibr	452.5	255.05	263.57		263.63	0.000069	1.26	608.66	241.94	0.15
KinmoutDS	1447	Timmins_Calibrat	115.8	255.05	258.5		258.56	0.00027	1.17	129.35	64.37	0.24
KinmoutDS	1447	TimminsCC_Calibr	145.4	255.05	259.11		259.17	0.000191	1.15	169.61	67.87	0.21
KinmoutDS	1447	2y	109.5	255.05	258.51		258.56	0.000238	1.1	129.91	64.4	0.23
KinmoutDS	1447	5y	145.9	255.05	259.31		259.36	0.000154	1.07	183.51	73.16	0.19
KinmoutDS	1447	10y	170.6	255.05	259.78		259.83	0.000129	1.08	220.18	79.48	0.18
KinmoutDS	1447	25y	203	255.05	260.37		260.42	0.000107	1.08	268.51	161.29	0.17
KinmoutDS	1447	50y	228.8	255.05	260.81		260.86	0.000096	1.09	306.94	170.94	0.16
KinmoutDS	1447	100y	256.7	255.05	261.26		261.31	0.000087	1.1	347.44	180.85	0.16
KinmoutDS	1447	200y	287.4	255.05	261.73		261.78	0.000079	1.12	391.47	191.32	0.15
KinmoutDS	1447	350y	314.5	255.05	262.07		262.12	0.000077	1.14	425.13	195.73	0.15
KinmoutDS	1447	Sept 25 2021	68.8	255.05	257.57		257.64	0.000548	1.21	71.1	61.21	0.32
KinmoutDS	1447	July 13 2024	53.2	255.05	257.37		257.42	0.000564	1.11	58.63	60.14	0.31
KinmoutDS	1447	April 21 2019	228.5	255.05	260.81		260.85	0.000096	1.09	306.41	170.84	0.16
KinmoutDS	1447	Nov 2 2013	77	255.05	257.69		257.76	0.00052	1.24	78.33	61.89	0.31
KinmoutDS	1447	April 16 2014	175	255.05	259.62		259.68	0.000159	1.16	207.59	78.1	0.2

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1447	May 8 2017	142	255.05	259.02		259.07	0.000204	1.16	163.15	66.62	0.22
KinmoutDS	1447	April 21 2013	216.5	255.05	260.6		260.65	0.000101	1.09	288.69	166.6	0.16
KinmoutDS	1427	Timmins_Uncalibr	452.5	255.14	263.55		263.62	0.000076	1.32	518.21	161.8	0.15
KinmoutDS	1427	Timmins_Calibrat	115.8	255.14	258.49		258.55	0.000272	1.17	118.92	70.47	0.24
KinmoutDS	1427	TimminsCC_Calibr	145.4	255.14	259.1		259.16	0.000194	1.15	154.56	81.02	0.21
KinmoutDS	1427	2y	109.5	255.14	258.5		258.55	0.00024	1.1	119.47	70.58	0.23
KinmoutDS	1427	5y	145.9	255.14	259.3		259.35	0.000157	1.08	166.4	83.2	0.19
KinmoutDS	1427	10y	170.6	255.14	259.78		259.83	0.000133	1.09	195.47	87.4	0.18
KinmoutDS	1427	25y	203	255.14	260.36		260.42	0.000113	1.11	233.95	97.47	0.17
KinmoutDS	1427	50y	228.8	255.14	260.8		260.86	0.000101	1.12	264.49	104.53	0.17
KinmoutDS	1427	100y	256.7	255.14	261.25		261.31	0.000093	1.14	296.08	107.15	0.16
KinmoutDS	1427	200y	287.4	255.14	261.71		261.77	0.000086	1.16	331.06	118.14	0.16
KinmoutDS	1427	350y	314.5	255.14	262.06		262.12	0.000084	1.19	358.71	122.03	0.16
KinmoutDS	1427	Sept 25 2021	68.8	255.14	257.56		257.63	0.000535	1.18	67.38	59.25	0.31
KinmoutDS	1427	July 13 2024	53.2	255.14	257.36		257.41	0.000545	1.08	56.25	57.1	0.31
KinmoutDS	1427	April 21 2019	228.5	255.14	260.79		260.85	0.000102	1.12	264.07	104.5	0.17
KinmoutDS	1427	Nov 2 2013	77	255.14	257.68		257.75	0.000511	1.21	73.8	61.94	0.31
KinmoutDS	1427	April 16 2014	175	255.14	259.61		259.68	0.000163	1.17	185.49	85.72	0.2
KinmoutDS	1427	May 8 2017	142	255.14	259.01		259.07	0.000207	1.16	148.88	79.9	0.22
KinmoutDS	1427	April 21 2013	216.5	255.14	260.59		260.65	0.000106	1.12	250.05	103.45	0.17
KinmoutDS	1416	Timmins_Uncalibr	452.5	255.19	263.52		263.62	0.000101	1.47	409.2	131.84	0.17
KinmoutDS	1416	Timmins_Calibrat	115.8	255.19	258.46		258.55	0.000393	1.32	87.58	39.76	0.28
KinmoutDS	1416	TimminsCC_Calibr	145.4	255.19	259.07		259.16	0.000282	1.3	112.57	41.38	0.25
KinmoutDS	1416	2y	109.5	255.19	258.47		258.55	0.000345	1.24	88.12	39.8	0.27
KinmoutDS	1416	5y	145.9	255.19	259.28		259.35	0.000225	1.21	121.01	41.85	0.22
KinmoutDS	1416	10y	170.6	255.19	259.75		259.83	0.000187	1.22	141.27	44.36	0.21
KinmoutDS	1416	25y	203	255.19	260.33		260.41	0.000157	1.24	168.72	49.72	0.2
KinmoutDS	1416	50y	228.8	255.19	260.77		260.85	0.00014	1.26	191.23	52.62	0.19
KinmoutDS	1416	100y	256.7	255.19	261.22		261.3	0.000128	1.28	215.33	57.96	0.18
KinmoutDS	1416	200y	287.4	255.19	261.68		261.77	0.000118	1.3	243.95	82.59	0.18
KinmoutDS	1416	350y	314.5	255.19	262.03		262.12	0.000114	1.34	267.45	88.52	0.18
KinmoutDS	1416	Sept 25 2021	68.8	255.19	257.53		257.62	0.000722	1.33	51.92	37.17	0.36
KinmoutDS	1416	July 13 2024	53.2	255.19	257.33		257.4	0.000696	1.19	44.62	36.55	0.34
KinmoutDS	1416	April 21 2019	228.5	255.19	260.77		260.85	0.000141	1.26	190.91	52.59	0.19
KinmoutDS	1416	Nov 2 2013	77	255.19	257.64		257.74	0.000704	1.37	56.21	37.52	0.36
KinmoutDS	1416	April 16 2014	175	255.19	259.58		259.67	0.000232	1.32	134.07	42.87	0.23
KinmoutDS	1416	May 8 2017	142	255.19	258.98		259.06	0.000301	1.31	108.56	41.13	0.26
KinmoutDS	1416	April 21 2013	216.5	255.19	260.57		260.65	0.000148	1.25	180.47	51.32	0.19
KinmoutDS	1405	Timmins_Uncalibr	452.5	255.23	263.5		263.62	0.000119	1.53	395.18	123.27	0.19
KinmoutDS	1405	Timmins_Calibrat	115.8	255.23	258.42		258.54	0.000524	1.49	77.48	35.9	0.32
KinmoutDS	1405	TimminsCC_Calibr	145.4	255.23	259.05		259.15	0.000391	1.44	100.91	39.52	0.29
KinmoutDS	1405	2y	109.5	255.23	258.44		258.54	0.000457	1.4	78.13	35.98	0.3
KinmoutDS	1405	5y	145.9	255.23	259.25		259.35	0.000311	1.34	109.23	40.26	0.26

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1405	10y	170.6	255.23	259.73		259.82	0.000252	1.33	128.56	40.7	0.24
KinmoutDS	1405	25y	203	255.23	260.32		260.41	0.000204	1.33	152.95	43.37	0.22
KinmoutDS	1405	50y	228.8	255.23	260.76		260.85	0.000179	1.34	172.46	45.09	0.21
KinmoutDS	1405	100y	256.7	255.23	261.21		261.3	0.00016	1.36	193.04	46.87	0.2
KinmoutDS	1405	200y	287.4	255.23	261.67		261.77	0.000146	1.38	216.92	58.72	0.2
KinmoutDS	1405	350y	314.5	255.23	262.01		262.11	0.00014	1.41	239.96	74.69	0.19
KinmoutDS	1405	Sept 25 2021	68.8	255.23	257.49		257.61	0.00094	1.51	45.61	32.71	0.41
KinmoutDS	1405	July 13 2024	53.2	255.23	257.3		257.39	0.000888	1.35	39.41	32.09	0.39
KinmoutDS	1405	April 21 2019	228.5	255.23	260.75		260.84	0.000179	1.34	172.19	45.07	0.21
KinmoutDS	1405	Nov 2 2013	77	255.23	257.6		257.73	0.000926	1.56	49.27	33.06	0.41
KinmoutDS	1405	April 16 2014	175	255.23	259.56		259.67	0.000317	1.44	121.67	40.53	0.26
KinmoutDS	1405	May 8 2017	142	255.23	258.95		259.06	0.000417	1.46	97.03	38.99	0.3
KinmoutDS	1405	April 21 2013	216.5	255.23	260.55		260.64	0.00019	1.34	163.19	44.37	0.21
KinmoutDS	1386	Timmins_Uncalibr	452.5	255.32	263.51		263.61	0.000108	1.5	397.37	112.2	0.18
KinmoutDS	1386	Timmins_Calibrat	115.8	255.32	258.43		258.52	0.000447	1.38	84.21	39.92	0.3
KinmoutDS	1386	TimminsCC_Calibr	145.4	255.32	259.05		259.14	0.000308	1.34	109.77	42.11	0.26
KinmoutDS	1386	2y	109.5	255.32	258.44		258.53	0.000389	1.29	84.92	39.97	0.28
KinmoutDS	1386	5y	145.9	255.32	259.26		259.34	0.000244	1.25	118.57	42.68	0.23
KinmoutDS	1386	10y	170.6	255.32	259.73		259.81	0.000202	1.25	139.28	44.17	0.22
KinmoutDS	1386	25y	203	255.32	260.32		260.4	0.000167	1.27	165.95	46.73	0.2
KinmoutDS	1386	50y	228.8	255.32	260.76		260.84	0.000149	1.28	187.02	48.96	0.19
KinmoutDS	1386	100y	256.7	255.32	261.21		261.3	0.000136	1.3	209.42	50.97	0.19
KinmoutDS	1386	200y	287.4	255.32	261.67		261.76	0.000125	1.33	235.03	59.88	0.18
KinmoutDS	1386	350y	314.5	255.32	262.01		262.11	0.000121	1.36	256.1	64.86	0.18
KinmoutDS	1386	Sept 25 2021	68.8	255.32	257.48		257.59	0.000947	1.44	47.85	37.13	0.4
KinmoutDS	1386	July 13 2024	53.2	255.32	257.29		257.37	0.000948	1.31	40.7	36.56	0.4
KinmoutDS	1386	April 21 2019	228.5	255.32	260.76		260.84	0.00015	1.28	186.72	48.93	0.19
KinmoutDS	1386	Nov 2 2013	77	255.32	257.6		257.71	0.000908	1.48	52.07	37.45	0.4
KinmoutDS	1386	April 16 2014	175	255.32	259.57		259.66	0.000252	1.35	131.86	43.63	0.24
KinmoutDS	1386	May 8 2017	142	255.32	258.95		259.04	0.000332	1.35	105.62	41.8	0.27
KinmoutDS	1386	April 21 2013	216.5	255.32	260.55		260.64	0.000157	1.27	176.97	48.07	0.2
KinmoutDS	1365	Timmins_Uncalibr	452.5	255.41	263.51		263.61	0.000089	1.41	451.19	109.1	0.17
KinmoutDS	1365	Timmins_Calibrat	115.8	255.41	258.43		258.51	0.000361	1.27	99.78	50.22	0.27
KinmoutDS	1365	TimminsCC_Calibr	145.4	255.41	259.05		259.13	0.000243	1.23	132.06	53.02	0.23
KinmoutDS	1365	2y	109.5	255.41	258.45		258.52	0.000314	1.19	100.65	50.28	0.26
KinmoutDS	1365	5y	145.9	255.41	259.26		259.33	0.000192	1.15	143.17	54	0.21
KinmoutDS	1365	10y	170.6	255.41	259.74		259.81	0.000159	1.15	169.63	56.51	0.2
KinmoutDS	1365	25y	203	255.41	260.33		260.39	0.000133	1.17	203.72	59.42	0.18
KinmoutDS	1365	50y	228.8	255.41	260.77		260.84	0.000119	1.18	230.32	61.19	0.18
KinmoutDS	1365	100y	256.7	255.41	261.22		261.29	0.000108	1.2	258.21	62.99	0.17
KinmoutDS	1365	200y	287.4	255.41	261.68		261.76	0.000099	1.22	287.93	64.86	0.17
KinmoutDS	1365	350y	314.5	255.41	262.02		262.1	0.000097	1.26	310.47	67.18	0.17
KinmoutDS	1365	Sept 25 2021	68.8	255.41	257.47		257.56	0.000898	1.37	53.11	47.06	0.4
KinmoutDS	1365	July 13 2024	53.2	255.41	257.27		257.35	0.000973	1.27	43.85	46.31	0.4

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1365	April 21 2019	228.5	255.41	260.76		260.83	0.000119	1.18	229.95	61.17	0.18
KinmoutDS	1365	Nov 2 2013	77	255.41	257.59		257.68	0.00083	1.39	58.59	47.5	0.39
KinmoutDS	1365	April 16 2014	175	255.41	259.57		259.65	0.000198	1.25	160.17	55.75	0.22
KinmoutDS	1365	May 8 2017	142	255.41	258.96		259.03	0.000261	1.25	126.86	52.6	0.24
KinmoutDS	1365	April 21 2013	216.5	255.41	260.56		260.63	0.000125	1.18	217.7	60.38	0.18
KinmoutDS	1346	Timmins_Uncalibr	452.5	255.53	263.52		263.6	0.000078	1.31	492.64	105.49	0.16
KinmoutDS	1346	Timmins_Calibrat	115.8	255.53	258.43		258.5	0.000354	1.23	104.57	55.58	0.27
KinmoutDS	1346	TimminsCC_Calibr	145.4	255.53	259.06		259.12	0.00023	1.18	141.14	60.44	0.23
KinmoutDS	1346	2y	109.5	255.53	258.44		258.51	0.000308	1.15	105.55	55.66	0.25
KinmoutDS	1346	5y	145.9	255.53	259.26		259.32	0.00018	1.1	154.03	63.14	0.2
KinmoutDS	1346	10y	170.6	255.53	259.74		259.8	0.000147	1.09	185.32	66.48	0.19
KinmoutDS	1346	25y	203	255.53	260.33		260.39	0.00012	1.1	225.14	69.06	0.18
KinmoutDS	1346	50y	228.8	255.53	260.77		260.83	0.000106	1.11	256.11	71.08	0.17
KinmoutDS	1346	100y	256.7	255.53	261.22		261.28	0.000096	1.12	288.55	73.04	0.16
KinmoutDS	1346	200y	287.4	255.53	261.69		261.75	0.000088	1.14	323.21	78.55	0.16
KinmoutDS	1346	350y	314.5	255.53	262.03		262.09	0.000086	1.17	351.26	85.75	0.16
KinmoutDS	1346	Sept 25 2021	68.8	255.53	257.45		257.55	0.000997	1.38	53.26	49.33	0.41
KinmoutDS	1346	July 13 2024	53.2	255.53	257.25		257.33	0.001123	1.31	43.32	48.54	0.42
KinmoutDS	1346	April 21 2019	228.5	255.53	260.77		260.83	0.000106	1.11	255.68	71.06	0.17
KinmoutDS	1346	Nov 2 2013	77	255.53	257.57		257.67	0.000907	1.4	59.16	49.91	0.4
KinmoutDS	1346	April 16 2014	175	255.53	259.58		259.64	0.000184	1.18	174.18	65.77	0.21
KinmoutDS	1346	May 8 2017	142	255.53	258.96		259.03	0.000248	1.2	135.18	59.86	0.23
KinmoutDS	1346	April 21 2013	216.5	255.53	260.57		260.62	0.000112	1.1	241.42	70.2	0.17
KinmoutDS	1326	Timmins_Uncalibr	452.5	255.65	263.54		263.59	0.000059	1.15	583.51	109.69	0.14
KinmoutDS	1326	Timmins_Calibrat	115.8	255.65	258.43		258.49	0.000274	1.09	130.87	70.32	0.24
KinmoutDS	1326	TimminsCC_Calibr	145.4	255.65	259.06		259.11	0.000176	1.04	176.25	73.61	0.2
KinmoutDS	1326	2y	109.5	255.65	258.45		258.5	0.000239	1.02	132.06	70.41	0.22
KinmoutDS	1326	5y	145.9	255.65	259.27		259.31	0.000138	0.97	191.63	74.8	0.18
KinmoutDS	1326	10y	170.6	255.65	259.75		259.79	0.000112	0.96	228.27	77.63	0.17
KinmoutDS	1326	25y	203	255.65	260.34		260.38	0.000092	0.97	274.93	80.87	0.15
KinmoutDS	1326	50y	228.8	255.65	260.78		260.83	0.000082	0.98	311.72	85.24	0.15
KinmoutDS	1326	100y	256.7	255.65	261.23		261.28	0.000074	0.99	351.1	92.56	0.14
KinmoutDS	1326	200y	287.4	255.65	261.7		261.74	0.000068	1.01	395.24	97.36	0.14
KinmoutDS	1326	350y	314.5	255.65	262.04		262.09	0.000065	1.03	428.91	99.22	0.14
KinmoutDS	1326	Sept 25 2021	68.8	255.65	257.44		257.52	0.000858	1.27	63.64	65.76	0.38
KinmoutDS	1326	July 13 2024	53.2	255.65	257.23		257.31	0.001054	1.23	49.89	64.83	0.41
KinmoutDS	1326	April 21 2019	228.5	255.65	260.78		260.82	0.000082	0.98	311.2	85.2	0.15
KinmoutDS	1326	Nov 2 2013	77	255.65	257.57		257.64	0.000749	1.27	71.76	66.25	0.36
KinmoutDS	1326	April 16 2014	175	255.65	259.58		259.63	0.000141	1.04	215.36	76.76	0.18
KinmoutDS	1326	May 8 2017	142	255.65	258.97		259.02	0.000191	1.06	168.99	73.07	0.21
KinmoutDS	1326	April 21 2013	216.5	255.65	260.58		260.62	0.000086	0.97	294.15	83.47	0.15
KinmoutDS	1306	Timmins_Uncalibr	452.5	255.75	263.55		263.59	0.000045	1	690.49	124.08	0.12
KinmoutDS	1306	Timmins_Calibrat	115.8	255.75	258.44		258.48	0.000218	0.97	158.11	86.61	0.21

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1306	TimminsCC_Calibr	145.4	255.75	259.07		259.11	0.000137	0.91	213.99	90.17	0.18
KinmoutDS	1306	2y	109.5	255.75	258.45		258.49	0.000189	0.91	159.54	86.71	0.2
KinmoutDS	1306	5y	145.9	255.75	259.28		259.31	0.000107	0.85	232.74	91.28	0.16
KinmoutDS	1306	10y	170.6	255.75	259.76		259.79	0.000087	0.84	277.25	93.88	0.15
KinmoutDS	1306	25y	203	255.75	260.35		260.38	0.000071	0.85	333.55	96.92	0.14
KinmoutDS	1306	50y	228.8	255.75	260.79		260.82	0.000063	0.85	377.04	99.57	0.13
KinmoutDS	1306	100y	256.7	255.75	261.24		261.27	0.000057	0.87	422.74	104.1	0.12
KinmoutDS	1306	200y	287.4	255.75	261.71		261.74	0.000052	0.88	472.59	110.92	0.12
KinmoutDS	1306	350y	314.5	255.75	262.05		262.08	0.00005	0.9	511.3	114.25	0.12
KinmoutDS	1306	Sept 25 2021	68.8	255.75	257.44		257.5	0.000749	1.17	74.05	81.17	0.35
KinmoutDS	1306	July 13 2024	53.2	255.75	257.22		257.28	0.000983	1.16	56.53	80.13	0.39
KinmoutDS	1306	April 21 2019	228.5	255.75	260.78		260.81	0.000063	0.85	376.43	99.53	0.13
KinmoutDS	1306	Nov 2 2013	77	255.75	257.56		257.62	0.000639	1.16	84.35	82	0.33
KinmoutDS	1306	April 16 2014	175	255.75	259.59		259.63	0.000109	0.91	261.71	92.91	0.16
KinmoutDS	1306	May 8 2017	142	255.75	258.97		259.01	0.000149	0.93	205.08	89.71	0.18
KinmoutDS	1306	April 21 2013	216.5	255.75	260.58		260.61	0.000066	0.85	356.42	98.41	0.13
KinmoutDS	1286	Timmins_Uncalibr	452.5	255.86	263.55		263.58	0.000037	0.91	763.1	133.11	0.11
KinmoutDS	1286	Timmins_Calibrat	115.8	255.86	258.44		258.47	0.000182	0.88	177.22	96.93	0.19
KinmoutDS	1286	TimminsCC_Calibr	145.4	255.86	259.07		259.1	0.000114	0.83	239.9	101.22	0.16
KinmoutDS	1286	2y	109.5	255.86	258.46		258.49	0.000158	0.82	178.81	97.02	0.18
KinmoutDS	1286	5y	145.9	255.86	259.28		259.3	0.000089	0.77	260.95	102.45	0.14
KinmoutDS	1286	10y	170.6	255.86	259.76		259.78	0.000072	0.76	310.78	104.44	0.13
KinmoutDS	1286	25y	203	255.86	260.35		260.37	0.000058	0.77	373.07	106.54	0.12
KinmoutDS	1286	50y	228.8	255.86	260.79		260.82	0.000051	0.77	420.54	107.87	0.12
KinmoutDS	1286	100y	256.7	255.86	261.24		261.27	0.000046	0.78	469.58	110.76	0.11
KinmoutDS	1286	200y	287.4	255.86	261.71		261.74	0.000043	0.8	524.85	123.75	0.11
KinmoutDS	1286	350y	314.5	255.86	262.05		262.08	0.000041	0.82	567.85	126.72	0.11
KinmoutDS	1286	Sept 25 2021	68.8	255.86	257.43		257.48	0.00066	1.08	82.15	91.91	0.33
KinmoutDS	1286	July 13 2024	53.2	255.86	257.21		257.26	0.00091	1.09	61.7	90.97	0.37
KinmoutDS	1286	April 21 2019	228.5	255.86	260.79		260.81	0.000051	0.77	419.88	107.85	0.12
KinmoutDS	1286	Nov 2 2013	77	255.86	257.56		257.61	0.000553	1.06	94	92.43	0.31
KinmoutDS	1286	April 16 2014	175	255.86	259.59		259.62	0.00009	0.83	293.48	103.88	0.15
KinmoutDS	1286	May 8 2017	142	255.86	258.97		259	0.000124	0.84	229.9	100.61	0.17
KinmoutDS	1286	April 21 2013	216.5	255.86	260.58		260.61	0.000054	0.77	398.12	107.26	0.12
KinmoutDS	1266	Timmins_Uncalibr	452.5	255.84	263.55		263.58	0.000032	0.84	828.79	141.54	0.1
KinmoutDS	1266	Timmins_Calibrat	115.8	255.84	258.44		258.47	0.000155	0.81	193.97	106.4	0.18
KinmoutDS	1266	TimminsCC_Calibr	145.4	255.84	259.07		259.1	0.000097	0.76	262.74	111.06	0.15
KinmoutDS	1266	2y	109.5	255.84	258.46		258.48	0.000135	0.76	195.71	106.48	0.17
KinmoutDS	1266	5y	145.9	255.84	259.28		259.3	0.000075	0.71	285.79	111.96	0.13
KinmoutDS	1266	10y	170.6	255.84	259.76		259.78	0.000061	0.7	340.11	113.66	0.12
KinmoutDS	1266	25y	203	255.84	260.35		260.37	0.000049	0.71	407.88	116.19	0.11
KinmoutDS	1266	50y	228.8	255.84	260.79		260.82	0.000044	0.71	460.6	123.04	0.11
KinmoutDS	1266	100y	256.7	255.84	261.25		261.27	0.000039	0.72	517.12	128.11	0.1
KinmoutDS	1266	200y	287.4	255.84	261.71		261.73	0.000036	0.73	577.6	130.89	0.1

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1266	350y	314.5	255.84	262.06		262.08	0.000035	0.75	623.01	134	0.1
KinmoutDS	1266	Sept 25 2021	68.8	255.84	257.42		257.47	0.000591	1.01	88.62	100.98	0.31
KinmoutDS	1266	July 13 2024	53.2	255.84	257.19		257.24	0.000854	1.03	65.51	100.13	0.36
KinmoutDS	1266	April 21 2019	228.5	255.84	260.79		260.81	0.000044	0.71	459.85	123.01	0.11
KinmoutDS	1266	Nov 2 2013	77	255.84	257.55		257.6	0.000488	0.99	101.86	101.47	0.29
KinmoutDS	1266	April 16 2014	175	255.84	259.6		259.62	0.000076	0.76	321.29	113.1	0.14
KinmoutDS	1266	May 8 2017	142	255.84	258.97		259	0.000105	0.78	251.76	110.44	0.15
KinmoutDS	1266	April 21 2013	216.5	255.84	260.59		260.61	0.000046	0.71	435.25	117.9	0.11
KinmoutDS	1246	Timmins_Uncalibr	452.5	255.82	263.56		263.58	0.000029	0.81	816.31	138.86	0.1
KinmoutDS	1246	Timmins_Calibrat	115.8	255.82	258.44		258.46	0.000143	0.78	194.95	105.25	0.17
KinmoutDS	1246	TimminsCC_Calibr	145.4	255.82	259.07		259.1	0.000089	0.73	263.05	109.27	0.14
KinmoutDS	1246	2y	109.5	255.82	258.45		258.48	0.000124	0.73	196.69	105.35	0.16
KinmoutDS	1246	5y	145.9	255.82	259.28		259.3	0.00007	0.68	285.73	110.12	0.13
KinmoutDS	1246	10y	170.6	255.82	259.76		259.78	0.000056	0.68	339.14	111.57	0.12
KinmoutDS	1246	25y	203	255.82	260.35		260.37	0.000046	0.68	405.48	113.29	0.11
KinmoutDS	1246	50y	228.8	255.82	260.79		260.81	0.00004	0.68	455.97	114.59	0.1
KinmoutDS	1246	100y	256.7	255.82	261.25		261.27	0.000037	0.7	509.63	126.23	0.1
KinmoutDS	1246	200y	287.4	255.82	261.71		261.73	0.000033	0.71	569.66	130.56	0.1
KinmoutDS	1246	350y	314.5	255.82	262.06		262.08	0.000032	0.72	614.69	131.73	0.1
KinmoutDS	1246	Sept 25 2021	68.8	255.82	257.41		257.46	0.00056	0.97	89.14	101.41	0.3
KinmoutDS	1246	July 13 2024	53.2	255.82	257.18		257.22	0.000838	1.01	65.36	100.67	0.36
KinmoutDS	1246	April 21 2019	228.5	255.82	260.79		260.81	0.00004	0.68	455.28	114.58	0.1
KinmoutDS	1246	Nov 2 2013	77	255.82	257.55		257.59	0.000458	0.95	102.67	101.82	0.28
KinmoutDS	1246	April 16 2014	175	255.82	259.6		259.62	0.00007	0.73	320.65	111.13	0.13
KinmoutDS	1246	May 8 2017	142	255.82	258.97		259	0.000097	0.74	252.22	108.79	0.15
KinmoutDS	1246	April 21 2013	216.5	255.82	260.59		260.61	0.000043	0.68	432.13	114.06	0.11
KinmoutDS	1225	Timmins_Uncalibr	452.5	255.79	263.55		263.58	0.00003	0.82	764.75	129.5	0.1
KinmoutDS	1225	Timmins_Calibrat	115.8	255.79	258.43		258.46	0.000143	0.78	181.8	96.15	0.17
KinmoutDS	1225	TimminsCC_Calibr	145.4	255.79	259.07		259.09	0.00009	0.74	243.91	99.83	0.14
KinmoutDS	1225	2y	109.5	255.79	258.45		258.48	0.000124	0.73	183.45	96.22	0.16
KinmoutDS	1225	5y	145.9	255.79	259.28		259.3	0.00007	0.68	264.77	101.39	0.13
KinmoutDS	1225	10y	170.6	255.79	259.76		259.78	0.000057	0.68	314.1	103.32	0.12
KinmoutDS	1225	25y	203	255.79	260.35		260.37	0.000047	0.68	375.82	105.84	0.11
KinmoutDS	1225	50y	228.8	255.79	260.79		260.81	0.000041	0.69	423.42	109.74	0.1
KinmoutDS	1225	100y	256.7	255.79	261.24		261.26	0.000037	0.7	475.43	119.04	0.1
KinmoutDS	1225	200y	287.4	255.79	261.71		261.73	0.000034	0.71	531.72	122.34	0.1
KinmoutDS	1225	350y	314.5	255.79	262.05		262.08	0.000033	0.73	574.22	124.65	0.1
KinmoutDS	1225	Sept 25 2021	68.8	255.79	257.4		257.44	0.000554	0.96	84.23	92.82	0.3
KinmoutDS	1225	July 13 2024	53.2	255.79	257.16		257.21	0.000837	0.99	61.94	92.24	0.36
KinmoutDS	1225	April 21 2019	228.5	255.79	260.79		260.81	0.000041	0.69	422.76	109.63	0.1
KinmoutDS	1225	Nov 2 2013	77	255.79	257.53		257.58	0.000453	0.94	96.8	93.14	0.28
KinmoutDS	1225	April 16 2014	175	255.79	259.59		259.62	0.000071	0.74	296.95	102.69	0.13
KinmoutDS	1225	May 8 2017	142	255.79	258.97		259	0.000098	0.75	234.02	99.07	0.15
KinmoutDS	1225	April 21 2013	216.5	255.79	260.58		260.6	0.000044	0.69	400.81	107.26	0.11

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1205	Timmins_Uncalibr	452.5	255.77	263.55		263.58	0.000033	0.85	740.7	143.96	0.1
KinmoutDS	1205	Timmins_Calibrat	115.8	255.77	258.43		258.46	0.000153	0.8	160.99	82.24	0.18
KinmoutDS	1205	TimminsCC_Calibr	145.4	255.77	259.06		259.09	0.000098	0.77	213.98	84.33	0.15
KinmoutDS	1205	2y	109.5	255.77	258.44		258.47	0.000133	0.75	162.48	82.29	0.17
KinmoutDS	1205	5y	145.9	255.77	259.27		259.3	0.000077	0.72	231.66	85.69	0.13
KinmoutDS	1205	10y	170.6	255.77	259.75		259.78	0.000063	0.72	273.96	90.09	0.12
KinmoutDS	1205	25y	203	255.77	260.34		260.37	0.000052	0.72	328.38	95.89	0.12
KinmoutDS	1205	50y	228.8	255.77	260.79		260.81	0.000046	0.73	374.88	115.23	0.11
KinmoutDS	1205	100y	256.7	255.77	261.24		261.26	0.000042	0.74	430.03	126.52	0.11
KinmoutDS	1205	200y	287.4	255.77	261.7		261.73	0.000038	0.75	490.34	130.85	0.1
KinmoutDS	1205	350y	314.5	255.77	262.05		262.08	0.000036	0.76	535.55	132.51	0.1
KinmoutDS	1205	Sept 25 2021	68.8	255.77	257.38		257.43	0.000569	0.98	76.66	79.76	0.31
KinmoutDS	1205	July 13 2024	53.2	255.77	257.14		257.19	0.00085	1	57.17	79.33	0.36
KinmoutDS	1205	April 21 2019	228.5	255.77	260.78		260.81	0.000046	0.73	374.17	115.16	0.11
KinmoutDS	1205	Nov 2 2013	77	255.77	257.52		257.57	0.000468	0.96	87.57	79.99	0.28
KinmoutDS	1205	April 16 2014	175	255.77	259.59		259.61	0.000078	0.77	259	88.43	0.14
KinmoutDS	1205	May 8 2017	142	255.77	258.96		258.99	0.000106	0.78	205.59	83.96	0.15
KinmoutDS	1205	April 21 2013	216.5	255.77	260.58		260.6	0.000049	0.73	351.81	105.57	0.11
KinmoutDS	1186	Timmins_Uncalibr	452.5	255.78	263.54		263.58	0.000037	0.89	731.22	157.54	0.11
KinmoutDS	1186	Timmins_Calibrat	115.8	255.78	258.41		258.45	0.000186	0.88	133.01	65.92	0.19
KinmoutDS	1186	TimminsCC_Calibr	145.4	255.78	259.05		259.09	0.000121	0.84	178.41	73.56	0.16
KinmoutDS	1186	2y	109.5	255.78	258.43		258.47	0.000162	0.82	134.3	65.97	0.18
KinmoutDS	1186	5y	145.9	255.78	259.26		259.29	0.000095	0.78	194.06	75.48	0.15
KinmoutDS	1186	10y	170.6	255.78	259.75		259.78	0.000078	0.78	231.5	79.37	0.14
KinmoutDS	1186	25y	203	255.78	260.34		260.37	0.000063	0.78	282.11	89.14	0.13
KinmoutDS	1186	50y	228.8	255.78	260.78		260.81	0.000056	0.79	325.7	118.27	0.12
KinmoutDS	1186	100y	256.7	255.78	261.23		261.26	0.00005	0.79	386.71	140.37	0.12
KinmoutDS	1186	200y	287.4	255.78	261.7		261.73	0.000045	0.8	453.06	143.33	0.11
KinmoutDS	1186	350y	314.5	255.78	262.04		262.07	0.000042	0.81	502.6	145.28	0.11
KinmoutDS	1186	Sept 25 2021	68.8	255.78	257.36		257.42	0.000662	1.05	65.43	62.91	0.33
KinmoutDS	1186	July 13 2024	53.2	255.78	257.11		257.17	0.00097	1.07	49.81	62.27	0.38
KinmoutDS	1186	April 21 2019	228.5	255.78	260.77		260.8	0.000056	0.79	324.98	117.61	0.12
KinmoutDS	1186	Nov 2 2013	77	255.78	257.5		257.56	0.00055	1.04	74.16	63.26	0.31
KinmoutDS	1186	April 16 2014	175	255.78	259.58		259.61	0.000097	0.84	218.21	78.13	0.15
KinmoutDS	1186	May 8 2017	142	255.78	258.95		258.99	0.000131	0.85	171.07	73.17	0.17
KinmoutDS	1186	April 21 2013	216.5	255.78	260.57		260.6	0.000059	0.79	303.59	95.62	0.12
KinmoutDS	1164	Timmins_Uncalibr	452.5	255.88	263.54		263.58	0.000037	0.89	758.85	162.48	0.11
KinmoutDS	1164	Timmins_Calibrat	115.8	255.88	258.41		258.45	0.000202	0.9	128.98	66.77	0.2
KinmoutDS	1164	TimminsCC_Calibr	145.4	255.88	259.05		259.09	0.00013	0.86	174.99	74.78	0.17
KinmoutDS	1164	2y	109.5	255.88	258.43		258.46	0.000175	0.85	130.35	67.02	0.19
KinmoutDS	1164	5y	145.9	255.88	259.26		259.29	0.000102	0.8	190.95	76.51	0.15
KinmoutDS	1164	10y	170.6	255.88	259.74		259.77	0.000082	0.79	229.62	85.18	0.14
KinmoutDS	1164	25y	203	255.88	260.33		260.37	0.000067	0.8	282.15	95.57	0.13

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1164	50y	228.8	255.88	260.78		260.81	0.000058	0.8	331.05	121.58	0.12
KinmoutDS	1164	100y	256.7	255.88	261.23		261.26	0.000052	0.8	394.91	152.35	0.12
KinmoutDS	1164	200y	287.4	255.88	261.7		261.73	0.000046	0.81	466.73	154.25	0.11
KinmoutDS	1164	350y	314.5	255.88	262.04		262.07	0.000044	0.82	519.96	155.65	0.11
KinmoutDS	1164	Sept 25 2021	68.8	255.88	257.34		257.4	0.000708	1.09	63	59.96	0.34
KinmoutDS	1164	July 13 2024	53.2	255.88	257.09		257.15	0.001059	1.12	47.61	59.44	0.4
KinmoutDS	1164	April 21 2019	228.5	255.88	260.77		260.8	0.000058	0.8	330.31	120.97	0.12
KinmoutDS	1164	Nov 2 2013	77	255.88	257.48		257.54	0.000587	1.08	71.49	60.28	0.32
KinmoutDS	1164	April 16 2014	175	255.88	259.57		259.61	0.000103	0.86	215.53	81.41	0.15
KinmoutDS	1164	May 8 2017	142	255.88	258.95		258.99	0.000141	0.87	167.51	74.11	0.17
KinmoutDS	1164	April 21 2013	216.5	255.88	260.57		260.6	0.000062	0.8	306.7	111.92	0.12
KinmoutDS	1145	Timmins_Uncalibr	452.5	255.82	263.54		263.58	0.000036	0.87	799.28	171.41	0.1
KinmoutDS	1145	Timmins_Calibrat	115.8	255.82	258.4		258.45	0.000205	0.91	129.46	69.45	0.2
KinmoutDS	1145	TimminsCC_Calibr	145.4	255.82	259.05		259.08	0.000131	0.86	175.63	74.46	0.17
KinmoutDS	1145	2y	109.5	255.82	258.42		258.46	0.000177	0.85	130.93	69.57	0.19
KinmoutDS	1145	5y	145.9	255.82	259.26		259.29	0.000102	0.8	191.52	75.89	0.15
KinmoutDS	1145	10y	170.6	255.82	259.74		259.77	0.000082	0.8	230.79	87.2	0.14
KinmoutDS	1145	25y	203	255.82	260.33		260.36	0.000066	0.8	286.58	107.03	0.13
KinmoutDS	1145	50y	228.8	255.82	260.78		260.81	0.000058	0.8	342.9	147.27	0.12
KinmoutDS	1145	100y	256.7	255.82	261.23		261.26	0.000051	0.8	413.79	161.66	0.12
KinmoutDS	1145	200y	287.4	255.82	261.7		261.73	0.000045	0.8	490.02	163.91	0.11
KinmoutDS	1145	350y	314.5	255.82	262.04		262.07	0.000042	0.81	546.62	165.32	0.11
KinmoutDS	1145	Sept 25 2021	68.8	255.82	257.33		257.39	0.000733	1.11	61.95	59.12	0.35
KinmoutDS	1145	July 13 2024	53.2	255.82	257.06		257.13	0.001124	1.15	46.31	58.09	0.41
KinmoutDS	1145	April 21 2019	228.5	255.82	260.77		260.8	0.000058	0.8	342	147.06	0.12
KinmoutDS	1145	Nov 2 2013	77	255.82	257.47		257.53	0.000603	1.09	70.49	59.48	0.32
KinmoutDS	1145	April 16 2014	175	255.82	259.57		259.61	0.000103	0.86	216.12	85.38	0.15
KinmoutDS	1145	May 8 2017	142	255.82	258.95		258.98	0.000142	0.88	168.16	73.8	0.18
KinmoutDS	1145	April 21 2013	216.5	255.82	260.57		260.6	0.000061	0.8	314.01	127.11	0.13
KinmoutDS	1124	Timmins_Uncalibr	452.5	255.71	263.54		263.58	0.000037	0.88	830.95	178.82	0.11
KinmoutDS	1124	Timmins_Calibrat	115.8	255.71	258.4		258.44	0.000223	0.94	125.85	66.21	0.21
KinmoutDS	1124	TimminsCC_Calibr	145.4	255.71	259.04		259.08	0.000142	0.89	169.99	70.2	0.18
KinmoutDS	1124	2y	109.5	255.71	258.42		258.46	0.000192	0.88	127.32	66.32	0.2
KinmoutDS	1124	5y	145.9	255.71	259.25		259.29	0.00011	0.83	185.11	73.45	0.16
KinmoutDS	1124	10y	170.6	255.71	259.74		259.77	0.000089	0.82	222.45	82.86	0.14
KinmoutDS	1124	25y	203	255.71	260.33		260.36	0.000071	0.82	282.91	130.39	0.13
KinmoutDS	1124	50y	228.8	255.71	260.77		260.81	0.000061	0.82	350.43	163.79	0.13
KinmoutDS	1124	100y	256.7	255.71	261.23		261.26	0.000053	0.82	426.29	170.13	0.12
KinmoutDS	1124	200y	287.4	255.71	261.7		261.73	0.000047	0.82	506.72	172.64	0.11
KinmoutDS	1124	350y	314.5	255.71	262.04		262.07	0.000044	0.82	566.32	173.7	0.11
KinmoutDS	1124	Sept 25 2021	68.8	255.71	257.3		257.37	0.000859	1.19	57.88	56.22	0.37
KinmoutDS	1124	July 13 2024	53.2	255.71	257.02		257.1	0.001318	1.25	42.5	52.79	0.45
KinmoutDS	1124	April 21 2019	228.5	255.71	260.77		260.8	0.000061	0.82	349.43	163.62	0.13
KinmoutDS	1124	Nov 2 2013	77	255.71	257.45		257.52	0.000697	1.16	66.26	56.83	0.34

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1124	April 16 2014	175	255.71	259.56		259.61	0.000112	0.89	208.8	76.86	0.16
KinmoutDS	1124	May 8 2017	142	255.71	258.94		258.98	0.000154	0.91	162.91	69.82	0.18
KinmoutDS	1124	April 21 2013	216.5	255.71	260.56		260.6	0.000066	0.82	316.58	158.28	0.13
KinmoutDS	1105	Timmins_Uncalibr	452.5	255.61	263.54		263.57	0.00004	0.92	833.47	182.8	0.11
KinmoutDS	1105	Timmins_Calibrat	115.8	255.61	258.38		258.44	0.000248	1.01	116.33	59.73	0.22
KinmoutDS	1105	TimminsCC_Calibr	145.4	255.61	259.03		259.08	0.00016	0.96	155.65	62.15	0.19
KinmoutDS	1105	2y	109.5	255.61	258.41		258.45	0.000214	0.94	117.75	59.8	0.21
KinmoutDS	1105	5y	145.9	255.61	259.24		259.28	0.000124	0.89	169.12	64.31	0.17
KinmoutDS	1105	10y	170.6	255.61	259.73		259.77	0.0001	0.89	201.49	82.6	0.15
KinmoutDS	1105	25y	203	255.61	260.32		260.36	0.00008	0.88	272.32	146.57	0.14
KinmoutDS	1105	50y	228.8	255.61	260.77		260.8	0.000069	0.88	343.24	169.05	0.13
KinmoutDS	1105	100y	256.7	255.61	261.22		261.26	0.000059	0.87	420.72	172.55	0.13
KinmoutDS	1105	200y	287.4	255.61	261.69		261.73	0.000052	0.86	502.48	175.14	0.12
KinmoutDS	1105	350y	314.5	255.61	262.04		262.07	0.000048	0.87	563.04	176.52	0.12
KinmoutDS	1105	Sept 25 2021	68.8	255.61	257.27		257.35	0.000951	1.26	54.4	52	0.39
KinmoutDS	1105	July 13 2024	53.2	255.61	256.98		257.07	0.001445	1.33	39.9	48.32	0.47
KinmoutDS	1105	April 21 2019	228.5	255.61	260.76		260.8	0.000069	0.88	342.2	169.02	0.13
KinmoutDS	1105	Nov 2 2013	77	255.61	257.43		257.5	0.000772	1.23	62.39	52.8	0.36
KinmoutDS	1105	April 16 2014	175	255.61	259.56		259.6	0.000126	0.96	189.36	65.57	0.17
KinmoutDS	1105	May 8 2017	142	255.61	258.93		258.98	0.000173	0.97	149.36	61.74	0.19
KinmoutDS	1105	April 21 2013	216.5	255.61	260.56		260.6	0.000074	0.88	308.16	158.93	0.14
KinmoutDS	1085	Timmins_Uncalibr	452.5	255.52	263.54		263.57	0.000042	0.95	857.27	190.38	0.11
KinmoutDS	1085	Timmins_Calibrat	115.8	255.52	258.37		258.43	0.000287	1.08	106.76	51.64	0.24
KinmoutDS	1085	TimminsCC_Calibr	145.4	255.52	259.02		259.07	0.000188	1.03	141.78	56.26	0.2
KinmoutDS	1085	2y	109.5	255.52	258.4		258.45	0.000247	1.01	108.1	51.71	0.22
KinmoutDS	1085	5y	145.9	255.52	259.23		259.28	0.000146	0.95	154.05	57.38	0.18
KinmoutDS	1085	10y	170.6	255.52	259.72		259.77	0.000118	0.95	184.36	70.6	0.17
KinmoutDS	1085	25y	203	255.52	260.31		260.36	0.000093	0.94	264.65	173.92	0.15
KinmoutDS	1085	50y	228.8	255.52	260.76		260.8	0.000078	0.93	343.71	178.8	0.14
KinmoutDS	1085	100y	256.7	255.52	261.22		261.26	0.000066	0.91	425.72	181.61	0.13
KinmoutDS	1085	200y	287.4	255.52	261.69		261.72	0.000057	0.9	511.75	183.68	0.12
KinmoutDS	1085	350y	314.5	255.52	262.03		262.07	0.000053	0.9	575.29	184.75	0.12
KinmoutDS	1085	Sept 25 2021	68.8	255.52	257.24		257.33	0.001072	1.37	50.16	46.47	0.42
KinmoutDS	1085	July 13 2024	53.2	255.52	256.93		257.04	0.001687	1.46	36.47	43.33	0.51
KinmoutDS	1085	April 21 2019	228.5	255.52	260.76		260.8	0.000078	0.93	342.6	178.76	0.14
KinmoutDS	1085	Nov 2 2013	77	255.52	257.39		257.48	0.000893	1.34	57.58	48.24	0.39
KinmoutDS	1085	April 16 2014	175	255.52	259.54		259.6	0.000148	1.03	172.59	64.23	0.19
KinmoutDS	1085	May 8 2017	142	255.52	258.92		258.97	0.000204	1.05	136.06	55.71	0.21
KinmoutDS	1085	April 21 2013	216.5	255.52	260.55		260.59	0.000084	0.93	306.18	176.71	0.15
KinmoutDS	1065	Timmins_Uncalibr	452.5	255.41	263.54		263.57	0.000042	0.95	924.62	199.48	0.11
KinmoutDS	1065	Timmins_Calibrat	115.8	255.41	258.36		258.42	0.000321	1.15	101.4	50.92	0.26
KinmoutDS	1065	TimminsCC_Calibr	145.4	255.41	259.01		259.07	0.000205	1.09	138.88	72.95	0.21
KinmoutDS	1065	2y	109.5	255.41	258.38		258.44	0.000275	1.07	102.82	51.01	0.24

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1065	5y	145.9	255.41	259.23		259.28	0.000158	1	155.57	79.59	0.19
KinmoutDS	1065	10y	170.6	255.41	259.71		259.76	0.000125	0.99	204.36	132.28	0.17
KinmoutDS	1065	25y	203	255.41	260.31		260.36	0.000095	0.96	300.9	172.29	0.15
KinmoutDS	1065	50y	228.8	255.41	260.76		260.8	0.000079	0.94	382.34	190.53	0.14
KinmoutDS	1065	100y	256.7	255.41	261.22		261.25	0.000066	0.92	469.71	192.5	0.13
KinmoutDS	1065	200y	287.4	255.41	261.69		261.72	0.000056	0.91	560.78	194	0.13
KinmoutDS	1065	350y	314.5	255.41	262.03		262.07	0.000052	0.91	627.91	194.98	0.12
KinmoutDS	1065	Sept 25 2021	68.8	255.41	257.2		257.31	0.001219	1.48	46.53	42.35	0.45
KinmoutDS	1065	July 13 2024	53.2	255.41	256.87		257	0.002	1.6	33.25	39.02	0.55
KinmoutDS	1065	April 21 2019	228.5	255.41	260.75		260.8	0.000079	0.94	381.16	190.5	0.14
KinmoutDS	1065	Nov 2 2013	77	255.41	257.36		257.46	0.001004	1.44	53.52	43.85	0.42
KinmoutDS	1065	April 16 2014	175	255.41	259.54		259.6	0.000159	1.08	183.44	103.35	0.19
KinmoutDS	1065	May 8 2017	142	255.41	258.91		258.97	0.000223	1.11	131.54	69.96	0.22
KinmoutDS	1065	April 21 2013	216.5	255.41	260.55		260.59	0.000086	0.95	342.84	182.59	0.15
KinmoutDS	1044	Timmins_Uncalibr	452.5	255.29	263.54		263.57	0.000042	0.96	964.77	222.39	0.11
KinmoutDS	1044	Timmins_Calibrat	115.8	255.29	258.34		258.41	0.00036	1.22	95.38	47.96	0.27
KinmoutDS	1044	TimminsCC_Calibr	145.4	255.29	259		259.06	0.000229	1.15	136.99	82.13	0.22
KinmoutDS	1044	2y	109.5	255.29	258.37		258.43	0.000307	1.14	96.83	48.07	0.25
KinmoutDS	1044	5y	145.9	255.29	259.22		259.27	0.000175	1.06	157.49	103	0.2
KinmoutDS	1044	10y	170.6	255.29	259.71		259.76	0.000134	1.03	220.26	157.25	0.18
KinmoutDS	1044	25y	203	255.29	260.31		260.35	0.0001	0.99	325.06	183.66	0.16
KinmoutDS	1044	50y	228.8	255.29	260.76		260.8	0.000081	0.96	410.96	193.92	0.15
KinmoutDS	1044	100y	256.7	255.29	261.21		261.25	0.000068	0.94	500.18	201.38	0.14
KinmoutDS	1044	200y	287.4	255.29	261.69		261.72	0.000058	0.92	593.18	207.08	0.13
KinmoutDS	1044	350y	314.5	255.29	262.03		262.07	0.000053	0.92	661.76	209.42	0.12
KinmoutDS	1044	Sept 25 2021	68.8	255.29	257.16		257.28	0.001242	1.55	44.26	37.83	0.46
KinmoutDS	1044	July 13 2024	53.2	255.29	256.81		256.96	0.002033	1.68	31.75	35.15	0.56
KinmoutDS	1044	April 21 2019	228.5	255.29	260.75		260.79	0.000082	0.96	409.76	193.88	0.15
KinmoutDS	1044	Nov 2 2013	77	255.29	257.32		257.44	0.001043	1.52	50.66	39.27	0.43
KinmoutDS	1044	April 16 2014	175	255.29	259.53		259.59	0.000174	1.13	193.63	136.46	0.2
KinmoutDS	1044	May 8 2017	142	255.29	258.89		258.96	0.000249	1.17	128.73	76.53	0.23
KinmoutDS	1044	April 21 2013	216.5	255.29	260.55		260.59	0.00009	0.98	370.05	192.11	0.15
KinmoutDS	1025	Timmins_Uncalibr	452.5	255.17	263.54		263.57	0.000042	0.96	1016.83	260.31	0.11
KinmoutDS	1025	Timmins_Calibrat	115.8	255.17	258.32		258.41	0.000392	1.29	90.14	47.44	0.28
KinmoutDS	1025	TimminsCC_Calibr	145.4	255.17	258.99		259.06	0.000245	1.2	141.85	97.92	0.23
KinmoutDS	1025	2y	109.5	255.17	258.35		258.43	0.000333	1.2	91.8	53.59	0.26
KinmoutDS	1025	5y	145.9	255.17	259.21		259.27	0.000185	1.1	165.03	108.96	0.21
KinmoutDS	1025	10y	170.6	255.17	259.7		259.76	0.000139	1.06	238.94	183.9	0.18
KinmoutDS	1025	25y	203	255.17	260.31		260.35	0.000101	1.01	354.12	195.41	0.16
KinmoutDS	1025	50y	228.8	255.17	260.76		260.8	0.000082	0.97	443.48	208.84	0.15
KinmoutDS	1025	100y	256.7	255.17	261.21		261.25	0.000067	0.94	536.34	217.35	0.14
KinmoutDS	1025	200y	287.4	255.17	261.69		261.72	0.000057	0.92	632.81	240.82	0.13
KinmoutDS	1025	350y	314.5	255.17	262.03		262.06	0.000053	0.92	703.81	245.06	0.12
KinmoutDS	1025	Sept 25 2021	68.8	255.17	257.12		257.26	0.001323	1.63	42.31	35.35	0.47

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1025	July 13 2024	53.2	255.17	256.75		256.92	0.002238	1.78	29.91	32.49	0.59
KinmoutDS	1025	April 21 2019	228.5	255.17	260.75		260.79	0.000082	0.97	442.23	208.8	0.15
KinmoutDS	1025	Nov 2 2013	77	255.17	257.29		257.42	0.00111	1.59	48.45	36.71	0.44
KinmoutDS	1025	April 16 2014	175	255.17	259.52		259.59	0.000182	1.17	206.81	167.65	0.21
KinmoutDS	1025	May 8 2017	142	255.17	258.88		258.96	0.000269	1.23	131.86	93.02	0.24
KinmoutDS	1025	April 21 2013	216.5	255.17	260.55		260.59	0.00009	0.99	400.89	202.61	0.15
KinmoutDS	1006	Timmins_Uncalibr	452.5	255.05	263.54		263.57	0.000041	0.94	1074.74	247.62	0.11
KinmoutDS	1006	Timmins_Calibrat	115.8	255.05	258.31		258.4	0.000428	1.34	87.18	57.02	0.3
KinmoutDS	1006	TimminsCC_Calibr	145.4	255.05	258.98		259.05	0.000263	1.25	145.67	123.28	0.24
KinmoutDS	1006	2y	109.5	255.05	258.34		258.42	0.000363	1.25	89.25	60.19	0.27
KinmoutDS	1006	5y	145.9	255.05	259.2		259.27	0.000194	1.13	176.79	159.67	0.21
KinmoutDS	1006	10y	170.6	255.05	259.7		259.75	0.000143	1.07	266.59	203.69	0.18
KinmoutDS	1006	25y	203	255.05	260.31		260.35	0.000099	1	386.1	209.39	0.16
KinmoutDS	1006	50y	228.8	255.05	260.76		260.8	0.00008	0.96	476.41	214.26	0.14
KinmoutDS	1006	100y	256.7	255.05	261.22		261.25	0.000066	0.93	569.9	221.03	0.13
KinmoutDS	1006	200y	287.4	255.05	261.69		261.72	0.000056	0.91	669.15	230.49	0.13
KinmoutDS	1006	350y	314.5	255.05	262.03		262.06	0.000052	0.91	743.27	234.53	0.12
KinmoutDS	1006	Sept 25 2021	68.8	255.05	257.08		257.23	0.001395	1.69	40.76	33.41	0.49
KinmoutDS	1006	July 13 2024	53.2	255.05	256.68		256.87	0.002473	1.91	27.81	29.11	0.63
KinmoutDS	1006	April 21 2019	228.5	255.05	260.75		260.79	0.00008	0.96	475.16	214.19	0.14
KinmoutDS	1006	Nov 2 2013	77	255.05	257.26		257.4	0.001146	1.65	46.69	34.11	0.45
KinmoutDS	1006	April 16 2014	175	255.05	259.52		259.58	0.00019	1.19	230.83	197.65	0.21
KinmoutDS	1006	May 8 2017	142	255.05	258.87		258.95	0.000289	1.27	133.06	113.83	0.25
KinmoutDS	1006	April 21 2013	216.5	255.05	260.55		260.59	0.000088	0.98	433.73	211.7	0.15
KinmoutDS	986	Timmins_Uncalibr	452.5	254.94	263.54		263.57	0.000036	0.89	1206.62	286.36	0.1
KinmoutDS	986	Timmins_Calibrat	115.8	254.94	258.3		258.39	0.000409	1.36	93.46	93.04	0.29
KinmoutDS	986	TimminsCC_Calibr	145.4	254.94	258.97		259.05	0.000241	1.22	183.62	169.9	0.23
KinmoutDS	986	2y	109.5	254.94	258.33		258.41	0.000346	1.26	97.03	99.48	0.27
KinmoutDS	986	5y	145.9	254.94	259.2		259.26	0.000177	1.1	224.46	192.45	0.2
KinmoutDS	986	10y	170.6	254.94	259.7		259.75	0.000125	1.02	324.96	220.64	0.17
KinmoutDS	986	25y	203	254.94	260.31		260.35	0.000087	0.95	455.1	238.84	0.15
KinmoutDS	986	50y	228.8	254.94	260.76		260.79	0.00007	0.91	553.93	246.84	0.13
KinmoutDS	986	100y	256.7	254.94	261.22		261.25	0.000058	0.88	656.61	262.01	0.12
KinmoutDS	986	200y	287.4	254.94	261.69		261.72	0.000049	0.86	766.28	269.91	0.12
KinmoutDS	986	350y	314.5	254.94	262.04		262.06	0.000045	0.86	847.32	273.67	0.11
KinmoutDS	986	Sept 25 2021	68.8	254.94	257.05		257.2	0.001389	1.7	40.37	32.46	0.49
KinmoutDS	986	July 13 2024	53.2	254.94	256.63		256.82	0.002267	1.93	27.5	26.47	0.61
KinmoutDS	986	April 21 2019	228.5	254.94	260.76		260.79	0.00007	0.91	552.55	246.72	0.13
KinmoutDS	986	Nov 2 2013	77	254.94	257.23		257.37	0.001145	1.66	46.33	33.4	0.45
KinmoutDS	986	April 16 2014	175	254.94	259.52		259.58	0.000167	1.14	286.91	209.57	0.2
KinmoutDS	986	May 8 2017	142	254.94	258.87		258.94	0.000267	1.25	166.09	158.22	0.24
KinmoutDS	986	April 21 2013	216.5	254.94	260.55		260.58	0.000077	0.92	507.24	243.21	0.14
KinmoutDS	964	Timmins_Uncalibr	452.5	254.81	263.55		263.56	0.000028	0.78	1439.09	336.29	0.09

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	964	Timmins_Calibrat	115.8	254.81	258.3		258.38	0.000347	1.28	132.86	126.62	0.27
KinmoutDS	964	TimminsCC_Calibr	145.4	254.81	258.98		259.04	0.000199	1.13	235.85	193.88	0.21
KinmoutDS	964	2y	109.5	254.81	258.34		258.4	0.000292	1.18	137.48	129.23	0.25
KinmoutDS	964	5y	145.9	254.81	259.21		259.25	0.000147	1.01	283.16	239.65	0.18
KinmoutDS	964	10y	170.6	254.81	259.71		259.74	0.000104	0.94	404.13	273.17	0.16
KinmoutDS	964	25y	203	254.81	260.32		260.34	0.00007	0.85	559.73	284.69	0.13
KinmoutDS	964	50y	228.8	254.81	260.77		260.79	0.000056	0.81	677.53	293.57	0.12
KinmoutDS	964	100y	256.7	254.81	261.22		261.24	0.000046	0.78	798.6	303.18	0.11
KinmoutDS	964	200y	287.4	254.81	261.69		261.71	0.000039	0.76	925.61	313.35	0.1
KinmoutDS	964	350y	314.5	254.81	262.04		262.06	0.000035	0.76	1019.97	319.25	0.1
KinmoutDS	964	Sept 25 2021	68.8	254.81	257.02		257.17	0.001407	1.71	40.31	32.54	0.49
KinmoutDS	964	July 13 2024	53.2	254.81	256.57		256.77	0.002218	1.97	27.05	24.92	0.6
KinmoutDS	964	April 21 2019	228.5	254.81	260.76		260.78	0.000056	0.81	675.89	293.5	0.12
KinmoutDS	964	Nov 2 2013	77	254.81	257.21		257.35	0.001123	1.66	46.51	34.95	0.45
KinmoutDS	964	April 16 2014	175	254.81	259.53		259.57	0.000138	1.04	358.04	267.36	0.18
KinmoutDS	964	May 8 2017	142	254.81	258.87		258.93	0.000221	1.16	216.88	184.34	0.22
KinmoutDS	964	April 21 2013	216.5	254.81	260.55		260.58	0.000062	0.83	621.89	289.09	0.13
KinmoutDS	946	Timmins_Uncalibr	452.5	254.73	263.55		263.56	0.000016	0.62	1832.45	371.9	0.07
KinmoutDS	946	Timmins_Calibrat	115.8	254.73	258.31		258.36	0.00023	1.1	191.1	257.19	0.22
KinmoutDS	946	TimminsCC_Calibr	145.4	254.73	259		259.03	0.000109	0.89	371.47	319.65	0.16
KinmoutDS	946	2y	109.5	254.73	258.35		258.39	0.000192	1.02	199.63	261.62	0.21
KinmoutDS	946	5y	145.9	254.73	259.22		259.24	0.00008	0.8	440.45	343.03	0.14
KinmoutDS	946	10y	170.6	254.73	259.72		259.74	0.000054	0.72	598.19	350.68	0.12
KinmoutDS	946	25y	203	254.73	260.32		260.34	0.000037	0.65	790.71	354.2	0.1
KinmoutDS	946	50y	228.8	254.73	260.77		260.78	0.00003	0.63	934.68	356.44	0.09
KinmoutDS	946	100y	256.7	254.73	261.23		261.24	0.000025	0.61	1081	358.93	0.08
KinmoutDS	946	200y	287.4	254.73	261.7		261.71	0.000021	0.59	1232.53	362.84	0.08
KinmoutDS	946	350y	314.5	254.73	262.05		262.05	0.00002	0.59	1343.94	365.07	0.08
KinmoutDS	946	Sept 25 2021	68.8	254.73	257.01		257.14	0.001231	1.59	43.31	38.22	0.47
KinmoutDS	946	July 13 2024	53.2	254.73	256.55		256.73	0.001926	1.89	28.21	24.89	0.57
KinmoutDS	946	April 21 2019	228.5	254.73	260.77		260.78	0.00003	0.63	932.7	356.41	0.09
KinmoutDS	946	Nov 2 2013	77	254.73	257.2		257.32	0.000937	1.53	50.85	38.93	0.42
KinmoutDS	946	April 16 2014	175	254.73	259.54		259.56	0.000072	0.81	540.96	349.22	0.13
KinmoutDS	946	May 8 2017	142	254.73	258.89		258.92	0.000123	0.93	341.12	307.09	0.17
KinmoutDS	946	April 21 2013	216.5	254.73	260.56		260.57	0.000033	0.64	866.87	355.21	0.09
KinmoutDS	924	Timmins_Uncalibr	452.5	254.9	263.55		263.56	0.000017	0.63	1763.15	369.68	0.07
KinmoutDS	924	Timmins_Calibrat	115.8	254.9	258.29		258.36	0.000285	1.2	160.1	251.95	0.25
KinmoutDS	924	TimminsCC_Calibr	145.4	254.9	258.99		259.02	0.000131	0.96	344.41	327.84	0.17
KinmoutDS	924	2y	109.5	254.9	258.33		258.39	0.000237	1.11	169.05	262.3	0.22
KinmoutDS	924	5y	145.9	254.9	259.22		259.24	0.000091	0.84	412.29	339	0.15
KinmoutDS	924	10y	170.6	254.9	259.72		259.73	0.00006	0.75	565.41	347.7	0.12
KinmoutDS	924	25y	203	254.9	260.32		260.33	0.000041	0.68	752.46	350.94	0.1
KinmoutDS	924	50y	228.8	254.9	260.77		260.78	0.000032	0.65	892.3	353.09	0.09
KinmoutDS	924	100y	256.7	254.9	261.23		261.24	0.000027	0.62	1034.34	354.92	0.09

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	924	200y	287.4	254.9	261.7		261.71	0.000023	0.61	1181.37	358.07	0.08
KinmoutDS	924	350y	314.5	254.9	262.04		262.05	0.000021	0.61	1289.4	360.24	0.08
KinmoutDS	924	Sept 25 2021	68.8	254.9	256.97		257.11	0.001351	1.65	41.65	34.39	0.48
KinmoutDS	924	July 13 2024	53.2	254.9	256.48		256.68	0.002272	1.97	27	25.31	0.61
KinmoutDS	924	April 21 2019	228.5	254.9	260.77		260.78	0.000033	0.65	890.37	353.06	0.09
KinmoutDS	924	Nov 2 2013	77	254.9	257.17		257.3	0.001031	1.58	48.69	35.7	0.43
KinmoutDS	924	April 16 2014	175	254.9	259.54		259.56	0.000082	0.85	509.59	346.41	0.14
KinmoutDS	924	May 8 2017	142	254.9	258.88		258.92	0.00015	1.01	312.96	323.09	0.19
KinmoutDS	924	April 21 2013	216.5	254.9	260.56		260.57	0.000036	0.66	826.43	352.24	0.1
KinmoutDS	906	Timmins_Uncalibr	452.5	255.03	263.55		263.56	0.000016	0.61	1771.73	368.05	0.07
KinmoutDS	906	Timmins_Calibrat	115.8	255.03	258.3		258.35	0.000203	1.02	217.88	248.44	0.21
KinmoutDS	906	TimminsCC_Calibr	145.4	255.03	258.99		259.02	0.000102	0.85	381.3	303.72	0.15
KinmoutDS	906	2y	109.5	255.03	258.34		258.38	0.000169	0.94	226.05	250.01	0.19
KinmoutDS	906	5y	145.9	255.03	259.22		259.24	0.000078	0.78	446.67	334.21	0.14
KinmoutDS	906	10y	170.6	255.03	259.72		259.73	0.000053	0.7	596.96	343.34	0.11
KinmoutDS	906	25y	203	255.03	260.32		260.33	0.000036	0.64	780.71	349.67	0.1
KinmoutDS	906	50y	228.8	255.03	260.77		260.78	0.000029	0.61	917.9	353.47	0.09
KinmoutDS	906	100y	256.7	255.03	261.23		261.24	0.000025	0.6	1057.26	357.68	0.08
KinmoutDS	906	200y	287.4	255.03	261.7		261.71	0.000021	0.58	1201.56	360.51	0.08
KinmoutDS	906	350y	314.5	255.03	262.04		262.05	0.00002	0.59	1307.54	361.88	0.08
KinmoutDS	906	Sept 25 2021	68.8	255.03	256.96		257.09	0.001164	1.61	46.01	57.07	0.45
KinmoutDS	906	July 13 2024	53.2	255.03	256.45		256.64	0.002203	1.94	27.47	25.83	0.6
KinmoutDS	906	April 21 2019	228.5	255.03	260.77		260.78	0.000029	0.62	916.02	353.39	0.09
KinmoutDS	906	Nov 2 2013	77	255.03	257.17		257.28	0.000883	1.52	56.46	67.74	0.4
KinmoutDS	906	April 16 2014	175	255.03	259.54		259.56	0.000071	0.79	542.13	341.64	0.13
KinmoutDS	906	May 8 2017	142	255.03	258.88		258.91	0.000114	0.88	353.48	289.87	0.16
KinmoutDS	906	April 21 2013	216.5	255.03	260.56		260.57	0.000032	0.63	853.3	351.54	0.09
KinmoutDS	885	Timmins_Uncalibr	452.5	254.64	263.55		263.56	0.000016	0.62	1700.8	360.95	0.07
KinmoutDS	885	Timmins_Calibrat	115.8	254.64	258.31		258.34	0.000148	0.91	236.26	232.41	0.18
KinmoutDS	885	TimminsCC_Calibr	145.4	254.64	258.99		259.01	0.000094	0.84	385.82	318.04	0.15
KinmoutDS	885	2y	109.5	254.64	258.34		258.37	0.000125	0.84	243	239.39	0.17
KinmoutDS	885	5y	145.9	254.64	259.22		259.24	0.000068	0.75	447.54	327.33	0.13
KinmoutDS	885	10y	170.6	254.64	259.72		259.73	0.000049	0.69	588.45	339.41	0.11
KinmoutDS	885	25y	203	254.64	260.32		260.33	0.000035	0.64	761.48	342.35	0.1
KinmoutDS	885	50y	228.8	254.64	260.77		260.78	0.000028	0.61	890.96	343.97	0.09
KinmoutDS	885	100y	256.7	254.64	261.23		261.24	0.000024	0.6	1022.72	345.77	0.08
KinmoutDS	885	200y	287.4	254.64	261.7		261.71	0.000021	0.59	1159.31	347.56	0.08
KinmoutDS	885	350y	314.5	254.64	262.04		262.05	0.00002	0.59	1259.77	349.81	0.08
KinmoutDS	885	Sept 25 2021	68.8	254.64	256.94		257.06	0.000972	1.55	55.69	128.04	0.43
KinmoutDS	885	July 13 2024	53.2	254.64	256.39		256.59	0.002281	1.98	26.87	25.01	0.61
KinmoutDS	885	April 21 2019	228.5	254.64	260.77		260.78	0.000028	0.61	889.18	343.94	0.09
KinmoutDS	885	Nov 2 2013	77	254.64	257.17		257.26	0.000674	1.4	77.29	149.9	0.37
KinmoutDS	885	April 16 2014	175	254.64	259.54		259.55	0.000064	0.77	536.88	338.62	0.13
KinmoutDS	885	May 8 2017	142	254.64	258.88		258.91	0.0001	0.85	357.97	302.97	0.15

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	885	April 21 2013	216.5	254.64	260.56		260.57	0.000031	0.62	829.96	343.14	0.09
KinmoutDS	865	Timmins_Uncalibr	452.5	254.26	263.55		263.56	0.000021	0.71	1389.86	335.02	0.08
KinmoutDS	865	Timmins_Calibrat	115.8	254.26	258.3		258.33	0.00017	0.99	197.54	207.03	0.19
KinmoutDS	865	TimminsCC_Calibr	145.4	254.26	258.98		259.01	0.000108	0.92	316.75	291.63	0.16
KinmoutDS	865	2y	109.5	254.26	258.33		258.37	0.000143	0.91	202.84	208.31	0.18
KinmoutDS	865	5y	145.9	254.26	259.21		259.24	0.000079	0.82	368.12	299.7	0.14
KinmoutDS	865	10y	170.6	254.26	259.71		259.73	0.000057	0.76	481.46	303.34	0.12
KinmoutDS	865	25y	203	254.26	260.32		260.33	0.000042	0.71	619.74	306.49	0.11
KinmoutDS	865	50y	228.8	254.26	260.77		260.78	0.000035	0.69	723.83	310.88	0.1
KinmoutDS	865	100y	256.7	254.26	261.22		261.24	0.00003	0.68	830.8	314.71	0.09
KinmoutDS	865	200y	287.4	254.26	261.69		261.71	0.000026	0.67	942.51	319.12	0.09
KinmoutDS	865	350y	314.5	254.26	262.04		262.05	0.000025	0.67	1025.14	324.45	0.09
KinmoutDS	865	Sept 25 2021	68.8	254.26	256.92		257.04	0.001079	1.53	53.94	140.25	0.43
KinmoutDS	865	July 13 2024	53.2	254.26	256.35		256.54	0.002053	1.94	27.44	24.23	0.58
KinmoutDS	865	April 21 2019	228.5	254.26	260.76		260.77	0.000035	0.69	722.39	310.83	0.1
KinmoutDS	865	Nov 2 2013	77	254.26	257.15		257.24	0.000708	1.38	73.51	145.94	0.36
KinmoutDS	865	April 16 2014	175	254.26	259.53		259.55	0.000075	0.84	440.02	302.32	0.14
KinmoutDS	865	May 8 2017	142	254.26	258.87		258.91	0.000119	0.94	293.82	278.1	0.17
KinmoutDS	865	April 21 2013	216.5	254.26	260.55		260.57	0.000038	0.7	674.61	309.48	0.1
KinmoutDS	846	Timmins_Uncalibr	452.5	253.91	263.54		263.56	0.00002	0.71	1297.62	317.77	0.08
KinmoutDS	846	Timmins_Calibrat	115.8	253.91	258.3		258.33	0.00015	0.94	210.51	209.51	0.18
KinmoutDS	846	TimminsCC_Calibr	145.4	253.91	258.98		259.01	0.000096	0.88	326.13	279.4	0.15
KinmoutDS	846	2y	109.5	253.91	258.33		258.36	0.000127	0.87	215.84	213.51	0.17
KinmoutDS	846	5y	145.9	253.91	259.21		259.23	0.00007	0.78	373.91	284.46	0.13
KinmoutDS	846	10y	170.6	253.91	259.71		259.73	0.000051	0.73	478.25	288.47	0.11
KinmoutDS	846	25y	203	253.91	260.32		260.33	0.000038	0.69	605.1	291.59	0.1
KinmoutDS	846	50y	228.8	253.91	260.77		260.78	0.000032	0.67	699.89	293.98	0.09
KinmoutDS	846	100y	256.7	253.91	261.22		261.23	0.000028	0.66	796.25	296.65	0.09
KinmoutDS	846	200y	287.4	253.91	261.69		261.71	0.000025	0.65	896.03	302.77	0.08
KinmoutDS	846	350y	314.5	253.91	262.04		262.05	0.000023	0.66	969.34	304.77	0.08
KinmoutDS	846	Sept 25 2021	68.8	253.91	256.91		257.02	0.000956	1.49	57.37	157.18	0.41
KinmoutDS	846	July 13 2024	53.2	253.91	256.33		256.5	0.001699	1.85	28.75	23.45	0.53
KinmoutDS	846	April 21 2019	228.5	253.91	260.76		260.77	0.000032	0.67	698.59	293.94	0.09
KinmoutDS	846	Nov 2 2013	77	253.91	257.15		257.23	0.000614	1.33	81.12	160.25	0.34
KinmoutDS	846	April 16 2014	175	253.91	259.53		259.55	0.000067	0.81	440.17	287.66	0.13
KinmoutDS	846	May 8 2017	142	253.91	258.87		258.9	0.000102	0.88	304.41	273.6	0.15
KinmoutDS	846	April 21 2013	216.5	253.91	260.55		260.57	0.000035	0.68	655.24	292.83	0.1
KinmoutDS	826	Timmins_Uncalibr	452.5	253.5	263.54		263.56	0.000021	0.71	1242.84	289.56	0.08
KinmoutDS	826	Timmins_Calibrat	115.8	253.5	258.3		258.33	0.000118	0.85	245.29	224.6	0.16
KinmoutDS	826	TimminsCC_Calibr	145.4	253.5	258.99		259.01	0.000075	0.78	364.67	254.79	0.13
KinmoutDS	826	2y	109.5	253.5	258.34		258.36	0.0001	0.78	251.06	227.79	0.15
KinmoutDS	826	5y	145.9	253.5	259.21		259.23	0.000057	0.71	405.76	256.06	0.12
KinmoutDS	826	10y	170.6	253.5	259.71		259.73	0.000044	0.68	495.32	259.17	0.1

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	826	25y	203	253.5	260.32		260.33	0.000035	0.66	604.29	262.98	0.1
KinmoutDS	826	50y	228.8	253.5	260.77		260.78	0.00003	0.65	687.98	278.82	0.09
KinmoutDS	826	100y	256.7	253.5	261.22		261.23	0.000027	0.65	778.55	284.33	0.09
KinmoutDS	826	200y	287.4	253.5	261.69		261.71	0.000024	0.65	872.77	285.56	0.08
KinmoutDS	826	350y	314.5	253.5	262.04		262.05	0.000023	0.66	941.81	286.35	0.08
KinmoutDS	826	Sept 25 2021	68.8	253.5	256.9		257	0.000775	1.42	62.56	175.99	0.37
KinmoutDS	826	July 13 2024	53.2	253.5	256.32		256.46	0.001244	1.69	31.4	22.95	0.46
KinmoutDS	826	April 21 2019	228.5	253.5	260.76		260.77	0.00003	0.65	686.78	278.71	0.09
KinmoutDS	826	Nov 2 2013	77	253.5	257.14		257.21	0.000511	1.26	92.06	181.54	0.31
KinmoutDS	826	April 16 2014	175	253.5	259.53		259.55	0.000056	0.74	462.69	258.2	0.12
KinmoutDS	826	May 8 2017	142	253.5	258.88		258.9	0.000083	0.8	345.33	254.25	0.14
KinmoutDS	826	April 21 2013	216.5	253.5	260.56		260.57	0.000032	0.65	647.7	267.74	0.09
KinmoutDS	806	Timmins_Uncalibr	452.5	253.11	263.55		263.56	0.000018	0.67	1304.63	291.32	0.07
KinmoutDS	806	Timmins_Calibrat	115.8	253.11	258.3		258.32	0.000087	0.74	306.63	252.21	0.14
KinmoutDS	806	TimminsCC_Calibr	145.4	253.11	258.99		259	0.000053	0.67	427.62	256.61	0.11
KinmoutDS	806	2y	109.5	253.11	258.34		258.36	0.000074	0.69	313.19	252.37	0.13
KinmoutDS	806	5y	145.9	253.11	259.22		259.23	0.000041	0.61	468.01	258.13	0.1
KinmoutDS	806	10y	170.6	253.11	259.72		259.72	0.000033	0.6	556.26	260.2	0.09
KinmoutDS	806	25y	203	253.11	260.32		260.33	0.000028	0.59	663.72	262.61	0.08
KinmoutDS	806	50y	228.8	253.11	260.77		260.78	0.000025	0.59	749.23	284.56	0.08
KinmoutDS	806	100y	256.7	253.11	261.22		261.23	0.000022	0.59	840.41	285.81	0.08
KinmoutDS	806	200y	287.4	253.11	261.69		261.7	0.00002	0.6	934.6	286.84	0.08
KinmoutDS	806	350y	314.5	253.11	262.04		262.05	0.00002	0.61	1003.63	288.17	0.08
KinmoutDS	806	Sept 25 2021	68.8	253.11	256.89		256.98	0.000626	1.35	70.59	210.88	0.34
KinmoutDS	806	July 13 2024	53.2	253.11	256.31		256.43	0.000948	1.57	33.94	22.49	0.41
KinmoutDS	806	April 21 2019	228.5	253.11	260.76		260.77	0.000025	0.59	748	284.48	0.08
KinmoutDS	806	Nov 2 2013	77	253.11	257.14		257.2	0.0004	1.18	109.51	215.09	0.27
KinmoutDS	806	April 16 2014	175	253.11	259.53		259.55	0.000042	0.65	524.17	259.44	0.1
KinmoutDS	806	May 8 2017	142	253.11	258.88		258.9	0.000058	0.68	408.59	255.39	0.12
KinmoutDS	806	April 21 2013	216.5	253.11	260.56		260.57	0.000026	0.59	707.5	275.39	0.08
KinmoutDS	787	Timmins_Uncalibr	452.5	252.73	263.54		263.56	0.000022	0.75	1194.91	290.21	0.08
KinmoutDS	787	Timmins_Calibrat	115.8	252.73	258.29		258.32	0.00011	0.85	246.43	222.3	0.16
KinmoutDS	787	TimminsCC_Calibr	145.4	252.73	258.98		259	0.00007	0.78	350.01	233.41	0.13
KinmoutDS	787	2y	109.5	252.73	258.33		258.35	0.000093	0.79	252.19	222.89	0.14
KinmoutDS	787	5y	145.9	252.73	259.21		259.23	0.000055	0.71	385.85	238.18	0.11
KinmoutDS	787	10y	170.6	252.73	259.71		259.72	0.000046	0.71	466.68	253.99	0.11
KinmoutDS	787	25y	203	252.73	260.31		260.33	0.000037	0.69	569.62	257.4	0.1
KinmoutDS	787	50y	228.8	252.73	260.76		260.78	0.000032	0.69	653.12	283.45	0.09
KinmoutDS	787	100y	256.7	252.73	261.22		261.23	0.000029	0.68	742.14	285.56	0.09
KinmoutDS	787	200y	287.4	252.73	261.69		261.7	0.000026	0.68	834.06	286.9	0.09
KinmoutDS	787	350y	314.5	252.73	262.04		262.05	0.000025	0.69	901.38	287.63	0.08
KinmoutDS	787	Sept 25 2021	68.8	252.73	256.88		256.96	0.000602	1.32	61.95	165.22	0.33
KinmoutDS	787	July 13 2024	53.2	252.73	256.31		256.41	0.000681	1.45	36.78	21.11	0.35
KinmoutDS	787	April 21 2019	228.5	252.73	260.76		260.77	0.000032	0.69	651.91	283.44	0.09

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	787	Nov 2 2013	77	252.73	257.12		257.19	0.000426	1.21	87.85	180.23	0.28
KinmoutDS	787	April 16 2014	175	252.73	259.53		259.54	0.000057	0.77	436.18	248.08	0.12
KinmoutDS	787	May 8 2017	142	252.73	258.87		258.89	0.000076	0.8	333.41	231.45	0.13
KinmoutDS	787	April 21 2013	216.5	252.73	260.55		260.56	0.000034	0.69	612.17	278.47	0.1
KinmoutDS	766	Timmins_Uncalibr	452.5	252.91	263.54		263.55	0.000027	0.82	1059.42	293.85	0.09
KinmoutDS	766	Timmins_Calibrat	115.8	252.91	258.29		258.32	0.000114	0.88	220.36	223.41	0.16
KinmoutDS	766	TimminsCC_Calibr	145.4	252.91	258.97		259	0.000078	0.83	306.35	233.85	0.14
KinmoutDS	766	2y	109.5	252.91	258.33		258.35	0.000096	0.82	225.17	224.28	0.15
KinmoutDS	766	5y	145.9	252.91	259.2		259.23	0.000061	0.77	336.18	238.03	0.12
KinmoutDS	766	10y	170.6	252.91	259.7		259.72	0.000053	0.77	404.9	253.54	0.12
KinmoutDS	766	25y	203	252.91	260.31		260.33	0.000043	0.76	496.97	273.74	0.11
KinmoutDS	766	50y	228.8	252.91	260.76		260.78	0.000038	0.75	573.19	285.94	0.1
KinmoutDS	766	100y	256.7	252.91	261.21		261.23	0.000034	0.75	653.12	287.04	0.1
KinmoutDS	766	200y	287.4	252.91	261.69		261.7	0.000031	0.75	735.64	288.26	0.09
KinmoutDS	766	350y	314.5	252.91	262.03		262.05	0.00003	0.76	796.07	289.56	0.09
KinmoutDS	766	Sept 25 2021	68.8	252.91	256.87		256.95	0.000524	1.27	63.27	185.42	0.31
KinmoutDS	766	July 13 2024	53.2	252.91	256.3		256.4	0.000648	1.39	38.22	22.68	0.34
KinmoutDS	766	April 21 2019	228.5	252.91	260.75		260.77	0.000039	0.75	572.11	285.93	0.1
KinmoutDS	766	Nov 2 2013	77	252.91	257.11		257.18	0.000379	1.18	88.15	192.95	0.27
KinmoutDS	766	April 16 2014	175	252.91	259.52		259.54	0.000066	0.84	378.56	249.77	0.13
KinmoutDS	766	May 8 2017	142	252.91	258.87		258.89	0.000084	0.84	292.56	232.59	0.14
KinmoutDS	766	April 21 2013	216.5	252.91	260.55		260.56	0.000041	0.75	536.65	280.29	0.1
KinmoutDS	747	Timmins_Uncalibr	452.5	253.44	263.53		263.55	0.000031	0.89	904.94	285.54	0.1
KinmoutDS	747	Timmins_Calibrat	115.8	253.44	258.28		258.31	0.000115	0.87	210.27	219.47	0.16
KinmoutDS	747	TimminsCC_Calibr	145.4	253.44	258.97		259	0.000078	0.82	284.27	233.18	0.14
KinmoutDS	747	2y	109.5	253.44	258.32		258.35	0.000097	0.81	214.56	220.14	0.15
KinmoutDS	747	5y	145.9	253.44	259.2		259.22	0.000062	0.76	309.31	235.89	0.12
KinmoutDS	747	10y	170.6	253.44	259.7		259.72	0.000053	0.76	363.8	242.41	0.12
KinmoutDS	747	25y	203	253.44	260.3		260.32	0.000045	0.77	433.08	250.28	0.11
KinmoutDS	747	50y	228.8	253.44	260.75		260.77	0.000041	0.78	489	274.18	0.11
KinmoutDS	747	100y	256.7	253.44	261.21		261.23	0.000038	0.78	557.05	283	0.1
KinmoutDS	747	200y	287.4	253.44	261.68		261.7	0.000035	0.79	627.71	283.46	0.1
KinmoutDS	747	350y	314.5	253.44	262.03		262.05	0.000034	0.81	679.44	283.84	0.1
KinmoutDS	747	Sept 25 2021	68.8	253.44	256.86		256.94	0.000487	1.24	63.64	182.32	0.3
KinmoutDS	747	July 13 2024	53.2	253.44	256.29		256.38	0.000706	1.38	38.65	25.41	0.36
KinmoutDS	747	April 21 2019	228.5	253.44	260.75		260.77	0.000041	0.78	488.12	273.45	0.11
KinmoutDS	747	Nov 2 2013	77	253.44	257.11		257.17	0.000362	1.16	86.79	188.86	0.27
KinmoutDS	747	April 16 2014	175	253.44	259.52		259.54	0.000065	0.82	343.58	240.06	0.13
KinmoutDS	747	May 8 2017	142	253.44	258.86		258.89	0.000084	0.84	272.57	231.19	0.14
KinmoutDS	747	April 21 2013	216.5	253.44	260.54		260.56	0.000043	0.77	461.67	255.94	0.11
KinmoutDS	728	Timmins_Uncalibr	452.5	253.86	263.52		263.55	0.000033	0.93	731.67	215.02	0.1
KinmoutDS	728	Timmins_Calibrat	115.8	253.86	258.28		258.31	0.000084	0.77	186.08	77.85	0.14
KinmoutDS	728	TimminsCC_Calibr	145.4	253.86	258.97		259	0.000065	0.77	240.31	80.79	0.13

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	728	2y	109.5	253.86	258.32		258.35	0.000072	0.71	189.19	77.97	0.13
KinmoutDS	728	5y	145.9	253.86	259.2		259.22	0.000053	0.72	259.03	81.66	0.11
KinmoutDS	728	10y	170.6	253.86	259.7		259.72	0.000047	0.74	300.06	94.55	0.11
KinmoutDS	728	25y	203	253.86	260.3		260.32	0.000042	0.76	350.72	115.45	0.11
KinmoutDS	728	50y	228.8	253.86	260.75		260.77	0.00004	0.78	390.23	127.92	0.1
KinmoutDS	728	100y	256.7	253.86	261.2		261.23	0.000038	0.8	442.22	163.42	0.1
KinmoutDS	728	200y	287.4	253.86	261.67		261.7	0.000035	0.81	501.03	180.37	0.1
KinmoutDS	728	350y	314.5	253.86	262.02		262.05	0.000035	0.83	544.07	192.12	0.1
KinmoutDS	728	Sept 25 2021	68.8	253.86	256.88		256.92	0.000242	0.9	80.62	71.15	0.22
KinmoutDS	728	July 13 2024	53.2	253.86	256.31		256.36	0.000396	1	52.99	36.88	0.27
KinmoutDS	728	April 21 2019	228.5	253.86	260.74		260.77	0.00004	0.78	389.67	127.14	0.11
KinmoutDS	728	Nov 2 2013	77	253.86	257.12		257.16	0.000204	0.87	98.23	73.56	0.2
KinmoutDS	728	April 16 2014	175	253.86	259.51		259.54	0.000058	0.79	284.78	87.02	0.12
KinmoutDS	728	May 8 2017	142	253.86	258.86		258.89	0.000069	0.77	231.63	80.18	0.13
KinmoutDS	728	April 21 2013	216.5	253.86	260.54		260.56	0.000041	0.77	371.36	121.11	0.11
KinmoutDS	712	Timmins_Uncalibr	452.5	253.94	263.51		263.55	0.000041	1.04	683.05	121.08	0.11
KinmoutDS	712	Timmins_Calibrat	115.8	253.94	258.27		258.31	0.000098	0.85	165.84	71.48	0.15
KinmoutDS	712	TimminsCC_Calibr	145.4	253.94	258.96		258.99	0.000076	0.85	216.43	75.59	0.14
KinmoutDS	712	2y	109.5	253.94	258.32		258.35	0.000083	0.79	168.79	71.81	0.14
KinmoutDS	712	5y	145.9	253.94	259.19		259.22	0.000062	0.8	234.08	76.69	0.12
KinmoutDS	712	10y	170.6	253.94	259.69		259.72	0.000056	0.82	272.59	78.36	0.12
KinmoutDS	712	25y	203	253.94	260.29		260.32	0.000051	0.84	320.54	81.31	0.12
KinmoutDS	712	50y	228.8	253.94	260.74		260.77	0.000049	0.87	358.08	93.63	0.12
KinmoutDS	712	100y	256.7	253.94	261.19		261.23	0.000047	0.9	405.7	118.29	0.12
KinmoutDS	712	200y	287.4	253.94	261.66		261.7	0.000044	0.92	461.6	119.04	0.11
KinmoutDS	712	350y	314.5	253.94	262.01		262.04	0.000043	0.94	502.66	119.45	0.11
KinmoutDS	712	Sept 25 2021	68.8	253.94	256.87		256.92	0.000252	0.95	74.98	54.53	0.22
KinmoutDS	712	July 13 2024	53.2	253.94	256.3		256.35	0.000358	1.02	52.24	32.94	0.26
KinmoutDS	712	April 21 2019	228.5	253.94	260.73		260.77	0.000049	0.87	357.5	93.04	0.12
KinmoutDS	712	Nov 2 2013	77	253.94	257.11		257.16	0.000212	0.93	88.6	59.7	0.21
KinmoutDS	712	April 16 2014	175	253.94	259.5		259.54	0.000069	0.88	258.14	77.77	0.13
KinmoutDS	712	May 8 2017	142	253.94	258.85		258.89	0.000081	0.86	208.29	75.07	0.14
KinmoutDS	712	April 21 2013	216.5	253.94	260.53		260.56	0.000049	0.86	340.02	83.43	0.12
KinmoutDS	697	Timmins_Uncalibr	452.5	253.25	263.5		263.55	0.000047	1.12	650.32	116.62	0.12
KinmoutDS	697	Timmins_Calibrat	115.8	253.25	258.27		258.31	0.00011	0.92	149.99	67.48	0.16
KinmoutDS	697	TimminsCC_Calibr	145.4	253.25	258.95		258.99	0.000087	0.93	198.29	72.73	0.15
KinmoutDS	697	2y	109.5	253.25	258.31		258.34	0.000094	0.86	152.85	67.9	0.15
KinmoutDS	697	5y	145.9	253.25	259.18		259.22	0.000071	0.87	215.39	74.02	0.13
KinmoutDS	697	10y	170.6	253.25	259.68		259.72	0.000065	0.89	252.98	77.36	0.13
KinmoutDS	697	25y	203	253.25	260.28		260.32	0.000059	0.92	300.5	80.45	0.13
KinmoutDS	697	50y	228.8	253.25	260.73		260.77	0.000056	0.94	337.45	91.04	0.12
KinmoutDS	697	100y	256.7	253.25	261.18		261.23	0.000055	0.99	383.17	113.69	0.13
KinmoutDS	697	200y	287.4	253.25	261.65		261.7	0.000051	1	436.93	114.33	0.12
KinmoutDS	697	350y	314.5	253.25	262		262.04	0.00005	1.02	476.43	115.02	0.12

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	697	Sept 25 2021	68.8	253.25	256.87		256.91	0.000212	0.96	72.05	37.62	0.21
KinmoutDS	697	July 13 2024	53.2	253.25	256.3		256.35	0.000239	0.97	54.8	26.81	0.22
KinmoutDS	697	April 21 2019	228.5	253.25	260.72		260.76	0.000056	0.94	336.89	90.3	0.12
KinmoutDS	697	Nov 2 2013	77	253.25	257.11		257.15	0.000192	0.97	81.67	43.14	0.2
KinmoutDS	697	April 16 2014	175	253.25	259.49		259.54	0.000079	0.96	238.64	76.21	0.14
KinmoutDS	697	May 8 2017	142	253.25	258.84		258.88	0.000092	0.94	190.44	72.14	0.15
KinmoutDS	697	April 21 2013	216.5	253.25	260.52		260.56	0.000057	0.93	319.73	81.67	0.13
KinmoutDS	676	Timmins_Uncalibr	452.5	252.41	263.5		263.55	0.000043	1.1	639.56	106.48	0.12
KinmoutDS	676	Timmins_Calibrat	115.8	252.41	258.27		258.3	0.00007	0.8	172.87	66.74	0.13
KinmoutDS	676	TimminsCC_Calibr	145.4	252.41	258.96		258.99	0.000061	0.82	219.4	68.89	0.12
KinmoutDS	676	2y	109.5	252.41	258.31		258.34	0.00006	0.74	175.65	66.89	0.12
KinmoutDS	676	5y	145.9	252.41	259.19		259.22	0.000051	0.78	235.47	69.54	0.11
KinmoutDS	676	10y	170.6	252.41	259.68		259.71	0.000048	0.81	270.34	71.01	0.11
KinmoutDS	676	25y	203	252.41	260.29		260.32	0.000046	0.85	314.68	76.98	0.11
KinmoutDS	676	50y	228.8	252.41	260.73		260.77	0.000045	0.88	350.62	88.14	0.11
KinmoutDS	676	100y	256.7	252.41	261.18		261.22	0.000046	0.93	395.5	104.31	0.11
KinmoutDS	676	200y	287.4	252.41	261.66		261.7	0.000044	0.95	444.75	104.84	0.11
KinmoutDS	676	350y	314.5	252.41	262		262.04	0.000043	0.98	480.89	105.23	0.11
KinmoutDS	676	Sept 25 2021	68.8	252.41	256.87		256.9	0.000117	0.77	90.93	48.65	0.15
KinmoutDS	676	July 13 2024	53.2	252.41	256.31		256.34	0.000089	0.73	73.19	25.07	0.14
KinmoutDS	676	April 21 2019	228.5	252.41	260.73		260.76	0.000045	0.88	350.08	87.79	0.11
KinmoutDS	676	Nov 2 2013	77	252.41	257.11		257.14	0.000108	0.78	103	51.82	0.15
KinmoutDS	676	April 16 2014	175	252.41	259.5		259.53	0.000058	0.87	257.19	70.48	0.12
KinmoutDS	676	May 8 2017	142	252.41	258.85		258.88	0.000063	0.83	211.97	68.6	0.12
KinmoutDS	676	April 21 2013	216.5	252.41	260.52		260.56	0.000045	0.87	333.24	79.55	0.11
KinmoutDS	657	Timmins_Uncalibr	452.5	252.75	263.49		263.55	0.000048	1.13	606.95	126.1	0.12
KinmoutDS	657	Timmins_Calibrat	115.8	252.75	258.27		258.3	0.000084	0.83	156.97	57.94	0.14
KinmoutDS	657	TimminsCC_Calibr	145.4	252.75	258.95		258.99	0.000071	0.86	197.39	60.01	0.13
KinmoutDS	657	2y	109.5	252.75	258.31		258.34	0.000072	0.78	159.43	58.06	0.13
KinmoutDS	657	5y	145.9	252.75	259.18		259.21	0.00006	0.82	211.42	60.52	0.12
KinmoutDS	657	10y	170.6	252.75	259.68		259.71	0.000056	0.85	241.68	61.6	0.12
KinmoutDS	657	25y	203	252.75	260.28		260.32	0.000055	0.9	280.82	74.71	0.12
KinmoutDS	657	50y	228.8	252.75	260.72		260.77	0.000054	0.94	319.86	88.89	0.12
KinmoutDS	657	100y	256.7	252.75	261.18		261.22	0.000051	0.96	360.43	89.39	0.12
KinmoutDS	657	200y	287.4	252.75	261.65		261.69	0.000048	0.98	402.57	89.78	0.12
KinmoutDS	657	350y	314.5	252.75	261.99		262.04	0.000048	1.01	433.53	91.11	0.12
KinmoutDS	657	Sept 25 2021	68.8	252.75	256.87		256.9	0.000135	0.82	84.97	38.62	0.17
KinmoutDS	657	July 13 2024	53.2	252.75	256.3		256.34	0.000113	0.78	68.25	25.51	0.15
KinmoutDS	657	April 21 2019	228.5	252.75	260.72		260.76	0.000054	0.94	319.32	88.88	0.12
KinmoutDS	657	Nov 2 2013	77	252.75	257.11		257.14	0.000126	0.83	94.91	46.1	0.16
KinmoutDS	657	April 16 2014	175	252.75	259.49		259.53	0.000068	0.91	230.23	61.19	0.13
KinmoutDS	657	May 8 2017	142	252.75	258.84		258.88	0.000075	0.87	190.91	59.72	0.13
KinmoutDS	657	April 21 2013	216.5	252.75	260.51		260.55	0.000055	0.93	301.09	88.69	0.12

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	637	Timmins_Uncalibr	452.5	253.18	263.49		263.55	0.000051	1.13	621.67	134.2	0.12
KinmoutDS	637	Timmins_Calibrat	115.8	253.18	258.25		258.3	0.000111	0.92	132.68	48.99	0.16
KinmoutDS	637	TimminsCC_Calibr	145.4	253.18	258.94		258.98	0.000095	0.94	168.65	53.82	0.15
KinmoutDS	637	2y	109.5	253.18	258.3		258.34	0.000095	0.86	134.85	50.52	0.15
KinmoutDS	637	5y	145.9	253.18	259.17		259.21	0.000079	0.89	181.39	56.71	0.14
KinmoutDS	637	10y	170.6	253.18	259.67		259.71	0.000074	0.92	212.81	73.19	0.14
KinmoutDS	637	25y	203	253.18	260.27		260.31	0.000069	0.96	263.93	89.5	0.13
KinmoutDS	637	50y	228.8	253.18	260.72		260.76	0.000063	0.97	304.22	89.6	0.13
KinmoutDS	637	100y	256.7	253.18	261.18		261.22	0.000059	0.98	345.07	89.69	0.13
KinmoutDS	637	200y	287.4	253.18	261.65		261.69	0.000055	1	387.39	90.27	0.12
KinmoutDS	637	350y	314.5	253.18	261.99		262.04	0.000054	1.03	421.02	118.98	0.12
KinmoutDS	637	Sept 25 2021	68.8	253.18	256.85		256.9	0.000198	0.92	75.23	36.61	0.2
KinmoutDS	637	July 13 2024	53.2	253.18	256.29		256.33	0.000179	0.9	58.92	25.39	0.19
KinmoutDS	637	April 21 2019	228.5	253.18	260.71		260.76	0.000063	0.97	303.67	89.59	0.13
KinmoutDS	637	Nov 2 2013	77	253.18	257.1		257.14	0.000178	0.92	84.13	37.59	0.19
KinmoutDS	637	April 16 2014	175	253.18	259.48		259.53	0.00009	0.99	199.88	62.95	0.15
KinmoutDS	637	May 8 2017	142	253.18	258.83		258.88	0.000099	0.95	162.83	53.51	0.15
KinmoutDS	637	April 21 2013	216.5	253.18	260.51		260.55	0.000066	0.96	285.25	89.55	0.13
KinmoutDS	616	Timmins_Uncalibr	452.5	253.61	263.49		263.54	0.000047	1.09	661.87	140.6	0.12
KinmoutDS	616	Timmins_Calibrat	115.8	253.61	258.25		258.29	0.000132	0.95	125.88	44.33	0.17
KinmoutDS	616	TimminsCC_Calibr	145.4	253.61	258.93		258.98	0.00011	0.97	157.45	51.98	0.16
KinmoutDS	616	2y	109.5	253.61	258.29		258.33	0.000113	0.89	127.86	44.47	0.16
KinmoutDS	616	5y	145.9	253.61	259.17		259.21	0.000089	0.91	170.47	64.8	0.15
KinmoutDS	616	10y	170.6	253.61	259.66		259.71	0.000081	0.94	212.3	95.19	0.14
KinmoutDS	616	25y	203	253.61	260.27		260.31	0.00007	0.95	269.99	95.65	0.14
KinmoutDS	616	50y	228.8	253.61	260.72		260.76	0.000063	0.96	313.17	96.1	0.13
KinmoutDS	616	100y	256.7	253.61	261.18		261.22	0.000058	0.97	357.19	97.28	0.13
KinmoutDS	616	200y	287.4	253.61	261.65		261.69	0.000054	0.98	405.27	115.75	0.12
KinmoutDS	616	350y	314.5	253.61	261.99		262.04	0.000052	1	450.61	140.6	0.12
KinmoutDS	616	Sept 25 2021	68.8	253.61	256.84		256.89	0.0003	1.02	67.35	36.27	0.24
KinmoutDS	616	July 13 2024	53.2	253.61	256.27		256.33	0.000297	1.05	50.84	26.1	0.24
KinmoutDS	616	April 21 2019	228.5	253.61	260.71		260.76	0.000063	0.96	312.58	96.09	0.13
KinmoutDS	616	Nov 2 2013	77	253.61	257.08		257.13	0.000255	1.01	76.56	39.5	0.22
KinmoutDS	616	April 16 2014	175	253.61	259.48		259.53	0.000099	1.01	194.6	89.47	0.16
KinmoutDS	616	May 8 2017	142	253.61	258.83		258.87	0.000114	0.98	152.02	48.49	0.16
KinmoutDS	616	April 21 2013	216.5	253.61	260.51		260.55	0.000066	0.96	292.83	95.88	0.13
KinmoutDS	587	Timmins_Uncalibr	452.5	254.22	263.5		263.54	0.000044	1.01	707.42	128	0.12
KinmoutDS	587	Timmins_Calibrat	115.8	254.22	258.23		258.29	0.000198	1.07	119.89	62.54	0.21
KinmoutDS	587	TimminsCC_Calibr	145.4	254.22	258.93		258.98	0.000146	1.02	177.86	102.35	0.18
KinmoutDS	587	2y	109.5	254.22	258.28		258.33	0.000169	0.99	122.88	63.4	0.19
KinmoutDS	587	5y	145.9	254.22	259.17		259.21	0.000111	0.93	202.44	102.79	0.16
KinmoutDS	587	10y	170.6	254.22	259.67		259.7	0.000089	0.91	254.07	103.69	0.15
KinmoutDS	587	25y	203	254.22	260.27		260.31	0.000071	0.9	317.27	104.67	0.13
KinmoutDS	587	50y	228.8	254.22	260.72		260.76	0.000063	0.9	364.91	108.45	0.13

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	587	100y	256.7	254.22	261.18		261.22	0.000056	0.9	415.63	112.45	0.12
KinmoutDS	587	200y	287.4	254.22	261.65		261.69	0.000051	0.91	471.01	128	0.12
KinmoutDS	587	350y	314.5	254.22	262		262.03	0.000049	0.93	515.12	128	0.12
KinmoutDS	587	Sept 25 2021	68.8	254.22	256.79		256.88	0.000629	1.3	52.87	34.84	0.34
KinmoutDS	587	July 13 2024	53.2	254.22	256.2		256.31	0.000803	1.45	36.57	24.42	0.38
KinmoutDS	587	April 21 2019	228.5	254.22	260.72		260.75	0.000063	0.9	364.24	108.33	0.13
KinmoutDS	587	Nov 2 2013	77	254.22	257.04		257.12	0.000487	1.25	61.73	35.66	0.3
KinmoutDS	587	April 16 2014	175	254.22	259.48		259.52	0.000113	1	234.35	103.35	0.16
KinmoutDS	587	May 8 2017	142	254.22	258.82		258.87	0.00016	1.05	166.48	102.15	0.19
KinmoutDS	587	April 21 2013	216.5	254.22	260.51		260.55	0.000066	0.9	342.34	105.15	0.13
KinmoutDS	567	Timmins_Uncalibr	452.5	254.58	263.51		263.53	0.000024	0.75	1162.09	240.2	0.09
KinmoutDS	567	Timmins_Calibrat	115.8	254.58	258.24		258.28	0.000177	0.92	160.24	82.49	0.19
KinmoutDS	567	TimminsCC_Calibr	145.4	254.58	258.94		258.97	0.000111	0.87	224.51	112.81	0.16
KinmoutDS	567	2y	109.5	254.58	258.29		258.32	0.000148	0.85	164.08	82.67	0.18
KinmoutDS	567	5y	145.9	254.58	259.17		259.2	0.000087	0.81	254.12	144.32	0.14
KinmoutDS	567	10y	170.6	254.58	259.67		259.7	0.000073	0.81	339.65	182.61	0.13
KinmoutDS	567	25y	203	254.58	260.28		260.3	0.000053	0.76	451.57	185.51	0.12
KinmoutDS	567	50y	228.8	254.58	260.73		260.75	0.000044	0.74	536.44	190.29	0.11
KinmoutDS	567	100y	256.7	254.58	261.19		261.21	0.000037	0.73	624.91	199.16	0.1
KinmoutDS	567	200y	287.4	254.58	261.66		261.68	0.000033	0.72	722.03	218.83	0.1
KinmoutDS	567	350y	314.5	254.58	262.01		262.03	0.000031	0.73	800.45	237.35	0.09
KinmoutDS	567	Sept 25 2021	68.8	254.58	256.7		256.85	0.001886	1.71	40.77	69.59	0.55
KinmoutDS	567	July 13 2024	53.2	254.58	255.96		256.26	0.003942	2.43	21.92	22.61	0.79
KinmoutDS	567	April 21 2019	228.5	254.58	260.73		260.75	0.000044	0.74	535.26	190.25	0.11
KinmoutDS	567	Nov 2 2013	77	254.58	257.01		257.11	0.000935	1.4	62.99	73.86	0.4
KinmoutDS	567	April 16 2014	175	254.58	259.48		259.52	0.000096	0.9	304.9	181.75	0.15
KinmoutDS	567	May 8 2017	142	254.58	258.83		258.86	0.000121	0.88	212.61	104.13	0.16
KinmoutDS	567	April 21 2013	216.5	254.58	260.52		260.54	0.000047	0.75	496.3	187.58	0.11
KinmoutDS	539	Timmins_Uncalibr	488	253.76	263.46	258.05	263.52	0.000063	1.23	794.51	255.52	0.14
KinmoutDS	539	Timmins_Calibrat	117	253.76	258.2	255.83	258.26	0.000226	1.14	102.88	67.63	0.22
KinmoutDS	539	TimminsCC_Calibr	147	253.76	258.89	256.09	258.96	0.000167	1.14	132.91	134.43	0.2
KinmoutDS	539	2y	118.6	253.76	258.24	255.85	258.3	0.000221	1.14	104.49	70.32	0.22
KinmoutDS	539	5y	158.1	253.76	259.12	256.18	259.19	0.000155	1.15	143.31	158.5	0.19
KinmoutDS	539	10y	184.8	253.76	259.62	256.39	259.68	0.000137	1.18	165.58	179.21	0.18
KinmoutDS	539	25y	219.8	253.76	260.21	256.8	260.29	0.000123	1.21	192.46	195.56	0.18
KinmoutDS	539	50y	247.9	253.76	260.66	256.98	260.73	0.000115	1.25	212.48	204.2	0.17
KinmoutDS	539	100y	278	253.76	261.1	257.14	261.19	0.000113	1.31	249.4	213.44	0.18
KinmoutDS	539	200y	311.3	253.76	261.58	257.3	261.66	0.000099	1.29	353.22	218.32	0.17
KinmoutDS	539	350y	340.7	253.76	261.93	257.44	262.01	0.00009	1.28	430.63	222.87	0.16
KinmoutDS	539	Sept 25 2021	68.8	253.76	256.7	255.28	256.79	0.000651	1.37	50.06	30.39	0.34
KinmoutDS	539	July 13 2024	53.2	253.76	256	255.06	256.12	0.000882	1.56	34.15	21.53	0.39
KinmoutDS	539	April 21 2019	247.5	253.76	260.65	256.97	260.73	0.000115	1.25	212.21	204.16	0.17
KinmoutDS	539	Nov 2 2013	77	253.76	257	255.39	257.08	0.000505	1.29	59.56	32.81	0.31
KinmoutDS	539	April 16 2014	175	253.76	259.44	256.31	259.5	0.000143	1.17	157.48	174.08	0.19

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	539	May 8 2017	142	253.76	258.78	256.05	258.85	0.000174	1.14	128	122.6	0.2
KinmoutDS	539	April 21 2013	234.5	253.76	260.45	256.9	260.52	0.000118	1.23	203.06	201.18	0.18
KinmoutDS	528	Hillside Drive	Bridge									
KinmoutDS	508	Timmins_Uncalibr	488	251.29	263.48		263.5	0.00002	0.79	887.98	249.32	0.08
KinmoutDS	508	Timmins_Calibrat	117	251.29	258.22		258.24	0.000034	0.61	194.05	86.54	0.09
KinmoutDS	508	TimminsCC_Calibr	147	251.29	258.91		258.93	0.000033	0.66	225.1	136.92	0.09
KinmoutDS	508	2y	118.6	251.29	258.26		258.28	0.000034	0.62	195.85	89.32	0.09
KinmoutDS	508	5y	158.1	251.29	259.14		259.16	0.000033	0.68	235.49	163.75	0.09
KinmoutDS	508	10y	184.8	251.29	259.63		259.65	0.000034	0.73	257.37	179.2	0.1
KinmoutDS	508	25y	219.8	251.29	260.2		260.23	0.000035	0.79	283.19	197.75	0.1
KinmoutDS	508	50y	247.9	251.29	260.62		260.66	0.000036	0.83	302.23	202.73	0.1
KinmoutDS	508	100y	278	251.29	261.05		261.09	0.00004	0.91	328.62	208.18	0.11
KinmoutDS	508	200y	311.3	251.29	261.52		261.56	0.000036	0.9	429.01	216.94	0.1
KinmoutDS	508	350y	340.7	251.29	261.89		261.93	0.000032	0.88	511.18	223.31	0.1
KinmoutDS	508	Sept 25 2021	68.8	251.29	256.73		256.75	0.000045	0.54	127.21	47.93	0.1
KinmoutDS	508	July 13 2024	53.2	251.29	256.05		256.06	0.000049	0.53	100.58	35.5	0.1
KinmoutDS	508	April 21 2019	247.5	251.29	260.62		260.65	0.000036	0.83	301.97	202.67	0.1
KinmoutDS	508	Nov 2 2013	77	251.29	257.03		257.04	0.000042	0.55	140.37	49	0.1
KinmoutDS	508	April 16 2014	175	251.29	259.45		259.48	0.000034	0.71	249.54	167.94	0.09
KinmoutDS	508	May 8 2017	142	251.29	258.8		258.82	0.000034	0.66	220.2	129.67	0.09
KinmoutDS	508	April 21 2013	234.5	251.29	260.42		260.46	0.000036	0.81	293.3	200.4	0.1
KinmoutDS	487	Timmins_Uncalibr	488	251.29	263.47		263.5	0.00002	0.75	740.03	106.44	0.08
KinmoutDS	487	Timmins_Calibrat	117	251.29	258.22		258.23	0.000027	0.5	239.6	66.12	0.08
KinmoutDS	487	TimminsCC_Calibr	147	251.29	258.91		258.93	0.000025	0.53	288.48	84.84	0.08
KinmoutDS	487	2y	118.6	251.29	258.26		258.27	0.000027	0.5	242.25	66.22	0.08
KinmoutDS	487	5y	158.1	251.29	259.14		259.16	0.000024	0.54	308.67	89.07	0.08
KinmoutDS	487	10y	184.8	251.29	259.63		259.65	0.000023	0.57	353.27	93.2	0.08
KinmoutDS	487	25y	219.8	251.29	260.21		260.22	0.000022	0.6	407.83	96.55	0.08
KinmoutDS	487	50y	247.9	251.29	260.63		260.65	0.000021	0.61	449.18	98.06	0.08
KinmoutDS	487	100y	278	251.29	261.06		261.08	0.000021	0.63	491.2	99.45	0.08
KinmoutDS	487	200y	311.3	251.29	261.53		261.55	0.00002	0.65	538.39	101.27	0.08
KinmoutDS	487	350y	340.7	251.29	261.9		261.92	0.00002	0.67	576.15	102.15	0.08
KinmoutDS	487	Sept 25 2021	68.8	251.29	256.73		256.74	0.000045	0.48	144.75	59.84	0.1
KinmoutDS	487	July 13 2024	53.2	251.29	256.05		256.06	0.000054	0.49	108.18	47.08	0.1
KinmoutDS	487	April 21 2019	247.5	251.29	260.62		260.64	0.000021	0.61	448.61	98.04	0.08
KinmoutDS	487	Nov 2 2013	77	251.29	257.03		257.04	0.000039	0.48	162.75	62.22	0.09
KinmoutDS	487	April 16 2014	175	251.29	259.46		259.47	0.000023	0.56	337.1	92.1	0.08
KinmoutDS	487	May 8 2017	142	251.29	258.8		258.82	0.000025	0.53	279.71	76.09	0.08
KinmoutDS	487	April 21 2013	234.5	251.29	260.43		260.45	0.000022	0.61	429.7	97.52	0.08
KinmoutDS	448	Timmins_Uncalibr	488	251.29	263.47		263.49	0.000016	0.69	837.29	136	0.07
KinmoutDS	448	Timmins_Calibrat	117	251.29	258.22		258.23	0.000028	0.52	232.79	66.47	0.08
KinmoutDS	448	TimminsCC_Calibr	147	251.29	258.91		258.93	0.000025	0.54	293.19	100.17	0.08

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	448	2y	118.6	251.29	258.26		258.27	0.000028	0.52	235.46	67.26	0.08
KinmoutDS	448	5y	158.1	251.29	259.14		259.16	0.000024	0.55	317.15	105.08	0.08
KinmoutDS	448	10y	184.8	251.29	259.63		259.65	0.000022	0.56	369.79	110.38	0.08
KinmoutDS	448	25y	219.8	251.29	260.21		260.22	0.000021	0.58	434.58	114.75	0.08
KinmoutDS	448	50y	247.9	251.29	260.63		260.65	0.00002	0.59	484	117.72	0.07
KinmoutDS	448	100y	278	251.29	261.06		261.07	0.000019	0.61	534.69	120	0.07
KinmoutDS	448	200y	311.3	251.29	261.53		261.54	0.000018	0.62	591.5	121.6	0.07
KinmoutDS	448	350y	340.7	251.29	261.9		261.92	0.000017	0.63	636.92	122.92	0.07
KinmoutDS	448	Sept 25 2021	68.8	251.29	256.73		256.74	0.000045	0.48	142.21	56.48	0.1
KinmoutDS	448	July 13 2024	53.2	251.29	256.04		256.06	0.000054	0.5	107.02	45.53	0.1
KinmoutDS	448	April 21 2019	247.5	251.29	260.62		260.64	0.00002	0.59	483.31	117.68	0.07
KinmoutDS	448	Nov 2 2013	77	251.29	257.02		257.04	0.000039	0.49	159.05	57.89	0.09
KinmoutDS	448	April 16 2014	175	251.29	259.46		259.47	0.000023	0.56	350.61	108.86	0.08
KinmoutDS	448	May 8 2017	142	251.29	258.8		258.82	0.000025	0.54	282.42	97.13	0.08
KinmoutDS	448	April 21 2013	234.5	251.29	260.43		260.45	0.00002	0.59	460.65	116.44	0.08
KinmoutDS	407	Timmins_Uncalibr	488	251.29	263.48		263.49	0.00001	0.53	1008.81	170.02	0.05
KinmoutDS	407	Timmins_Calibrat	117	251.29	258.21		258.23	0.000034	0.6	201.14	56.52	0.09
KinmoutDS	407	TimminsCC_Calibr	147	251.29	258.91		258.92	0.00003	0.61	274.5	140.55	0.09
KinmoutDS	407	2y	118.6	251.29	258.25		258.27	0.000034	0.6	203.62	67.01	0.09
KinmoutDS	407	5y	158.1	251.29	259.14		259.16	0.000027	0.61	307.86	146.73	0.08
KinmoutDS	407	10y	184.8	251.29	259.63		259.64	0.000023	0.59	382.43	154.76	0.08
KinmoutDS	407	25y	219.8	251.29	260.21		260.22	0.000018	0.56	472.76	158.12	0.07
KinmoutDS	407	50y	247.9	251.29	260.63		260.65	0.000016	0.55	540.56	160.06	0.07
KinmoutDS	407	100y	278	251.29	261.06		261.07	0.000014	0.54	609.13	161.36	0.06
KinmoutDS	407	200y	311.3	251.29	261.53		261.54	0.000013	0.53	685.41	162.79	0.06
KinmoutDS	407	350y	340.7	251.29	261.9		261.91	0.000012	0.53	746.18	164.03	0.06
KinmoutDS	407	Sept 25 2021	68.8	251.29	256.73		256.74	0.000047	0.53	128.74	44.53	0.1
KinmoutDS	407	July 13 2024	53.2	251.29	256.04		256.05	0.00005	0.53	101.07	36.78	0.1
KinmoutDS	407	April 21 2019	247.5	251.29	260.63		260.64	0.000016	0.55	539.63	160.05	0.07
KinmoutDS	407	Nov 2 2013	77	251.29	257.02		257.03	0.000043	0.54	142.24	47.02	0.1
KinmoutDS	407	April 16 2014	175	251.29	259.45		259.47	0.000024	0.6	355.34	153.54	0.08
KinmoutDS	407	May 8 2017	142	251.29	258.8		258.81	0.000031	0.62	259.38	133.9	0.09
KinmoutDS	407	April 21 2013	234.5	251.29	260.43		260.45	0.000017	0.56	508.65	159.44	0.07
KinmoutDS	367	Timmins_Uncalibr	488	251.29	263.48		263.49	0.000011	0.58	989.48	175.73	0.06
KinmoutDS	367	Timmins_Calibrat	117	251.29	258.2		258.23	0.00004	0.7	186	64.96	0.1
KinmoutDS	367	TimminsCC_Calibr	147	251.29	258.9		258.92	0.000038	0.74	243.36	112.86	0.1
KinmoutDS	367	2y	118.6	251.29	258.24		258.27	0.00004	0.7	188.58	65	0.1
KinmoutDS	367	5y	158.1	251.29	259.13		259.15	0.000036	0.74	270.79	123.24	0.1
KinmoutDS	367	10y	184.8	251.29	259.62		259.64	0.000032	0.74	337.26	152.7	0.09
KinmoutDS	367	25y	219.8	251.29	260.2		260.22	0.000026	0.7	430.42	163	0.08
KinmoutDS	367	50y	247.9	251.29	260.63		260.64	0.000022	0.67	500.7	165.65	0.08
KinmoutDS	367	100y	278	251.29	261.05		261.07	0.000019	0.65	572.15	168.16	0.07
KinmoutDS	367	200y	311.3	251.29	261.53		261.54	0.000016	0.62	651.94	170.1	0.07
KinmoutDS	367	350y	340.7	251.29	261.9		261.91	0.000015	0.6	715.54	171.36	0.06

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	367	Sept 25 2021	68.8	251.29	256.72		256.74	0.000045	0.59	117.2	33.35	0.1
KinmoutDS	367	July 13 2024	53.2	251.29	256.04		256.05	0.000046	0.55	96.12	29.19	0.1
KinmoutDS	367	April 21 2019	247.5	251.29	260.62		260.64	0.000022	0.67	499.74	165.63	0.08
KinmoutDS	367	Nov 2 2013	77	251.29	257.01		257.03	0.000043	0.61	127.24	35.15	0.1
KinmoutDS	367	April 16 2014	175	251.29	259.44		259.47	0.000034	0.74	311.94	138.29	0.09
KinmoutDS	367	May 8 2017	142	251.29	258.79		258.81	0.000039	0.74	231.33	108.14	0.1
KinmoutDS	367	April 21 2013	234.5	251.29	260.43		260.44	0.000024	0.69	467.59	164.44	0.08
KinmoutDS	327	Timmins_Uncalibr	488	251.29	263.48		263.49	0.00001	0.55	1020.83	201.98	0.06
KinmoutDS	327	Timmins_Calibrat	117	251.29	258.2		258.23	0.000038	0.65	185.86	50.72	0.1
KinmoutDS	327	TimminsCC_Calibr	147	251.29	258.9		258.92	0.000036	0.7	237.88	115.27	0.1
KinmoutDS	327	2y	118.6	251.29	258.24		258.27	0.000038	0.66	187.88	50.94	0.1
KinmoutDS	327	5y	158.1	251.29	259.13		259.15	0.000034	0.7	267.49	137.52	0.09
KinmoutDS	327	10y	184.8	251.29	259.62		259.64	0.000029	0.68	337.21	146.35	0.09
KinmoutDS	327	25y	219.8	251.29	260.2		260.22	0.000023	0.65	425.13	156.41	0.08
KinmoutDS	327	50y	247.9	251.29	260.63		260.64	0.00002	0.62	493.72	164.15	0.07
KinmoutDS	327	100y	278	251.29	261.05		261.07	0.000017	0.6	565.48	171.25	0.07
KinmoutDS	327	200y	311.3	251.29	261.53		261.54	0.000015	0.58	647.96	178.44	0.06
KinmoutDS	327	350y	340.7	251.29	261.9		261.91	0.000013	0.57	715.26	183.12	0.06
KinmoutDS	327	Sept 25 2021	68.8	251.29	256.72		256.74	0.000046	0.56	122.07	37.3	0.1
KinmoutDS	327	July 13 2024	53.2	251.29	256.03		256.05	0.000048	0.54	98.19	32.51	0.1
KinmoutDS	327	April 21 2019	247.5	251.29	260.62		260.64	0.00002	0.63	492.76	164.08	0.07
KinmoutDS	327	Nov 2 2013	77	251.29	257.01		257.03	0.000043	0.58	133.23	38.65	0.1
KinmoutDS	327	April 16 2014	175	251.29	259.44		259.47	0.000031	0.69	311.68	143.03	0.09
KinmoutDS	327	May 8 2017	142	251.29	258.79		258.81	0.000037	0.69	226.18	99.01	0.1
KinmoutDS	327	April 21 2013	234.5	251.29	260.43		260.44	0.000021	0.64	461.1	161.2	0.08
KinmoutDS	287	Timmins_Uncalibr	488	251.29	263.47		263.49	0.000011	0.58	917.26	170.16	0.06
KinmoutDS	287	Timmins_Calibrat	117	251.29	258.2		258.22	0.00004	0.69	178.47	55.54	0.1
KinmoutDS	287	TimminsCC_Calibr	147	251.29	258.89		258.92	0.000037	0.72	237.24	125.54	0.1
KinmoutDS	287	2y	118.6	251.29	258.24		258.26	0.00004	0.69	180.71	56.84	0.1
KinmoutDS	287	5y	158.1	251.29	259.13		259.15	0.000034	0.71	267.04	128.79	0.09
KinmoutDS	287	10y	184.8	251.29	259.62		259.64	0.000029	0.69	331.97	134.62	0.09
KinmoutDS	287	25y	219.8	251.29	260.2		260.22	0.000023	0.66	411.57	140.02	0.08
KinmoutDS	287	50y	247.9	251.29	260.63		260.64	0.00002	0.64	472.05	143.74	0.08
KinmoutDS	287	100y	278	251.29	261.05		261.07	0.000018	0.62	534.62	148.75	0.07
KinmoutDS	287	200y	311.3	251.29	261.52		261.54	0.000015	0.6	605.73	152.27	0.07
KinmoutDS	287	350y	340.7	251.29	261.9		261.91	0.000014	0.59	663.11	155.61	0.06
KinmoutDS	287	Sept 25 2021	68.8	251.29	256.72		256.73	0.000045	0.58	118.91	34.66	0.1
KinmoutDS	287	July 13 2024	53.2	251.29	256.03		256.05	0.000047	0.55	96.79	30.43	0.1
KinmoutDS	287	April 21 2019	247.5	251.29	260.62		260.64	0.00002	0.64	471.21	143.67	0.08
KinmoutDS	287	Nov 2 2013	77	251.29	257.01		257.03	0.000043	0.6	129.32	36.2	0.1
KinmoutDS	287	April 16 2014	175	251.29	259.44		259.46	0.000031	0.7	308.39	132.65	0.09
KinmoutDS	287	May 8 2017	142	251.29	258.78		258.81	0.000038	0.72	223.95	116.35	0.1
KinmoutDS	287	April 21 2013	234.5	251.29	260.42		260.44	0.000022	0.65	443.47	141.71	0.08

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	248	Timmins_Uncalibr	488	251.29	263.47		263.49	0.000012	0.6	876.82	163.28	0.06
KinmoutDS	248	Timmins_Calibrat	117	251.29	258.2		258.22	0.000039	0.67	188.44	74.9	0.1
KinmoutDS	248	TimminsCC_Calibr	147	251.29	258.89		258.92	0.000033	0.68	253.94	109.96	0.09
KinmoutDS	248	2y	118.6	251.29	258.24		258.26	0.000038	0.67	191.48	76.71	0.1
KinmoutDS	248	5y	158.1	251.29	259.13		259.15	0.00003	0.67	279.9	112.1	0.09
KinmoutDS	248	10y	184.8	251.29	259.62		259.64	0.000025	0.65	335.83	115.22	0.08
KinmoutDS	248	25y	219.8	251.29	260.2		260.22	0.000021	0.63	404.02	122.68	0.08
KinmoutDS	248	50y	247.9	251.29	260.63		260.64	0.000019	0.61	457.88	129.3	0.07
KinmoutDS	248	100y	278	251.29	261.05		261.07	0.000017	0.6	514.18	134.15	0.07
KinmoutDS	248	200y	311.3	251.29	261.52		261.54	0.000015	0.59	579.07	140.78	0.07
KinmoutDS	248	350y	340.7	251.29	261.9		261.91	0.000014	0.59	632.28	145.5	0.06
KinmoutDS	248	Sept 25 2021	68.8	251.29	256.71		256.73	0.000046	0.58	118.02	34.25	0.1
KinmoutDS	248	July 13 2024	53.2	251.29	256.03		256.05	0.000047	0.55	96.36	29.88	0.1
KinmoutDS	248	April 21 2019	247.5	251.29	260.62		260.64	0.000019	0.61	457.13	129.24	0.07
KinmoutDS	248	Nov 2 2013	77	251.29	257.01		257.03	0.000045	0.6	128.41	36.28	0.1
KinmoutDS	248	April 16 2014	175	251.29	259.44		259.46	0.000027	0.65	315.63	114.28	0.08
KinmoutDS	248	May 8 2017	142	251.29	258.78		258.81	0.000034	0.68	241.87	109.15	0.09
KinmoutDS	248	April 21 2013	234.5	251.29	260.42		260.44	0.00002	0.62	432.27	126.51	0.07
KinmoutDS	207	Timmins_Uncalibr	488	251.29	263.47		263.49	0.000013	0.64	918.47	160.06	0.07
KinmoutDS	207	Timmins_Calibrat	117	251.29	258.2		258.22	0.000033	0.61	205.76	81.73	0.09
KinmoutDS	207	TimminsCC_Calibr	147	251.29	258.9		258.91	0.000028	0.61	264.83	87.87	0.08
KinmoutDS	207	2y	118.6	251.29	258.24		258.26	0.000033	0.61	209.04	82.27	0.09
KinmoutDS	207	5y	158.1	251.29	259.13		259.15	0.000026	0.6	285.86	101.99	0.08
KinmoutDS	207	10y	184.8	251.29	259.62		259.64	0.000023	0.6	346.74	131.52	0.08
KinmoutDS	207	25y	219.8	251.29	260.2		260.21	0.00002	0.6	424.76	137.83	0.07
KinmoutDS	207	50y	247.9	251.29	260.62		260.64	0.000019	0.6	484.14	140.99	0.07
KinmoutDS	207	100y	278	251.29	261.05		261.07	0.000017	0.6	545.08	144.94	0.07
KinmoutDS	207	200y	311.3	251.29	261.52		261.54	0.000016	0.6	614.34	149.41	0.07
KinmoutDS	207	350y	340.7	251.29	261.89		261.91	0.000015	0.61	670.53	152.68	0.07
KinmoutDS	207	Sept 25 2021	68.8	251.29	256.71		256.73	0.000045	0.54	126.63	42.52	0.1
KinmoutDS	207	July 13 2024	53.2	251.29	256.03		256.04	0.00005	0.53	100.05	35.53	0.1
KinmoutDS	207	April 21 2019	247.5	251.29	260.62		260.63	0.000019	0.6	483.32	140.94	0.07
KinmoutDS	207	Nov 2 2013	77	251.29	257.01		257.02	0.000042	0.56	139.46	45.41	0.1
KinmoutDS	207	April 16 2014	175	251.29	259.44		259.46	0.000024	0.6	323.84	128.88	0.08
KinmoutDS	207	May 8 2017	142	251.29	258.79		258.8	0.000029	0.61	255.22	87.13	0.09
KinmoutDS	207	April 21 2013	234.5	251.29	260.42		260.44	0.000019	0.6	456.09	139.56	0.07
KinmoutDS	167	Timmins_Uncalibr	488	251.29	263.46		263.49	0.000023	0.84	862.5	165.2	0.09
KinmoutDS	167	Timmins_Calibrat	117	251.29	258.2		258.22	0.000034	0.61	197.31	51.84	0.09
KinmoutDS	167	TimminsCC_Calibr	147	251.29	258.89		258.91	0.000032	0.65	234.77	69.5	0.09
KinmoutDS	167	2y	118.6	251.29	258.24		258.26	0.000034	0.62	199.39	51.96	0.09
KinmoutDS	167	5y	158.1	251.29	259.12		259.14	0.000032	0.67	252.95	86.74	0.09
KinmoutDS	167	10y	184.8	251.29	259.61		259.63	0.000031	0.7	303.28	123.41	0.09
KinmoutDS	167	25y	219.8	251.29	260.19		260.21	0.00003	0.73	376.44	129.84	0.09
KinmoutDS	167	50y	247.9	251.29	260.61		260.64	0.000029	0.74	432.69	134.4	0.09

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	167	100y	278	251.29	261.04		261.07	0.000027	0.76	490.93	138.5	0.09
KinmoutDS	167	200y	311.3	251.29	261.51		261.54	0.000026	0.77	557.19	142.81	0.09
KinmoutDS	167	350y	340.7	251.29	261.88		261.91	0.000025	0.78	611.04	147.12	0.09
KinmoutDS	167	Sept 25 2021	68.8	251.29	256.71		256.73	0.000046	0.55	125.29	42.6	0.1
KinmoutDS	167	July 13 2024	53.2	251.29	256.03		256.04	0.000049	0.54	99.32	34.5	0.1
KinmoutDS	167	April 21 2019	247.5	251.29	260.61		260.63	0.000029	0.74	431.9	134.33	0.09
KinmoutDS	167	Nov 2 2013	77	251.29	257.01		257.02	0.000042	0.56	138.08	46.11	0.1
KinmoutDS	167	April 16 2014	175	251.29	259.44		259.46	0.000032	0.69	282.36	107.08	0.09
KinmoutDS	167	May 8 2017	142	251.29	258.78		258.8	0.000032	0.65	227.98	54.54	0.09
KinmoutDS	167	April 21 2013	234.5	251.29	260.41		260.44	0.000029	0.74	406.05	132.21	0.09
KinmoutDS	128	Timmins_Uncalibr	488	251.29	263.44		263.48	0.000044	1.13	760.59	140.63	0.11
KinmoutDS	128	Timmins_Calibrat	117	251.29	258.19		258.22	0.000049	0.75	165.37	68.51	0.1
KinmoutDS	128	TimminsCC_Calibr	147	251.29	258.88		258.91	0.000048	0.81	220.76	91.62	0.11
KinmoutDS	128	2y	118.6	251.29	258.23		258.26	0.000049	0.76	168.15	71.19	0.11
KinmoutDS	128	5y	158.1	251.29	259.11		259.14	0.000048	0.83	242.39	94.87	0.11
KinmoutDS	128	10y	184.8	251.29	259.6		259.63	0.000048	0.87	291.81	107.54	0.11
KinmoutDS	128	25y	219.8	251.29	260.17		260.21	0.000047	0.91	354.79	110.28	0.11
KinmoutDS	128	50y	247.9	251.29	260.6		260.64	0.000046	0.94	402	111.84	0.11
KinmoutDS	128	100y	278	251.29	261.02		261.06	0.000045	0.97	450.01	113.7	0.11
KinmoutDS	128	200y	311.3	251.29	261.49		261.53	0.000044	0.99	504.07	116.31	0.11
KinmoutDS	128	350y	340.7	251.29	261.86		261.91	0.000044	1.02	547.91	121.86	0.11
KinmoutDS	128	Sept 25 2021	68.8	251.29	256.71		256.73	0.000045	0.61	112.15	27.84	0.1
KinmoutDS	128	July 13 2024	53.2	251.29	256.02		256.04	0.000045	0.57	93.78	26.17	0.1
KinmoutDS	128	April 21 2019	247.5	251.29	260.59		260.63	0.000046	0.94	401.35	111.82	0.11
KinmoutDS	128	Nov 2 2013	77	251.29	257		257.02	0.000046	0.64	120.4	28.47	0.1
KinmoutDS	128	April 16 2014	175	251.29	259.42		259.46	0.000048	0.86	273.12	104.63	0.11
KinmoutDS	128	May 8 2017	142	251.29	258.77		258.8	0.000049	0.8	210.87	89.17	0.11
KinmoutDS	128	April 21 2013	234.5	251.29	260.4		260.44	0.000046	0.93	379.76	111.11	0.11
KinmoutDS	87	Timmins_Uncalibr	488	251.29	263.44		263.48	0.000032	1	746.35	130.88	0.1
KinmoutDS	87	Timmins_Calibrat	117	251.29	258.19		258.21	0.000045	0.75	162.8	50.16	0.1
KinmoutDS	87	TimminsCC_Calibr	147	251.29	258.87		258.91	0.000045	0.81	216.15	94.57	0.1
KinmoutDS	87	2y	118.6	251.29	258.23		258.25	0.000045	0.75	164.85	52.83	0.1
KinmoutDS	87	5y	158.1	251.29	259.11		259.14	0.000044	0.82	238.62	98.85	0.1
KinmoutDS	87	10y	184.8	251.29	259.6		259.63	0.000043	0.85	289.08	105.31	0.1
KinmoutDS	87	25y	219.8	251.29	260.17		260.21	0.00004	0.87	350.69	107.67	0.1
KinmoutDS	87	50y	247.9	251.29	260.6		260.63	0.000039	0.89	396.88	109.15	0.1
KinmoutDS	87	100y	278	251.29	261.03		261.06	0.000037	0.9	443.93	111.47	0.1
KinmoutDS	87	200y	311.3	251.29	261.5		261.53	0.000036	0.92	497.5	117.82	0.1
KinmoutDS	87	350y	340.7	251.29	261.87		261.9	0.000035	0.94	542.52	124.51	0.1
KinmoutDS	87	Sept 25 2021	68.8	251.29	256.7		256.72	0.000045	0.61	113	29.25	0.1
KinmoutDS	87	July 13 2024	53.2	251.29	256.02		256.04	0.000045	0.57	94.07	26.73	0.1
KinmoutDS	87	April 21 2019	247.5	251.29	260.59		260.63	0.000039	0.89	396.24	109.13	0.1
KinmoutDS	87	Nov 2 2013	77	251.29	257		257.02	0.000045	0.63	121.7	30.09	0.1
KinmoutDS	87	April 16 2014	175	251.29	259.42		259.45	0.000043	0.84	270.7	104.41	0.1

HEC-RAS Cross-Section Results Summary

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	87	May 8 2017	142	251.29	258.76		258.8	0.000045	0.8	205.96	91.7	0.1
KinmoutDS	87	April 21 2013	234.5	251.29	260.4		260.43	0.000039	0.88	375.12	108.46	0.1
KinmoutDS	48	Timmins_Uncalibr	488	251.29	263.43	255.67	263.48	0.000045	1.17	722.5	119.2	0.11
KinmoutDS	48	Timmins_Calibrat	117	251.29	258.18	253.3	258.21	0.000045	0.76	180.64	71.77	0.1
KinmoutDS	48	TimminsCC_Calibr	147	251.29	258.87	253.59	258.9	0.000045	0.82	234.54	86.01	0.1
KinmoutDS	48	2y	118.6	251.29	258.22	253.33	258.25	0.000045	0.76	183.52	72.68	0.1
KinmoutDS	48	5y	158.1	251.29	259.1	253.68	259.14	0.000045	0.84	255.11	92.23	0.1
KinmoutDS	48	10y	184.8	251.29	259.59	253.88	259.63	0.000045	0.88	300.96	95.68	0.11
KinmoutDS	48	25y	219.8	251.29	260.17	254.13	260.2	0.000045	0.93	357	99.29	0.11
KinmoutDS	48	50y	247.9	251.29	260.59	254.32	260.63	0.000045	0.96	399.66	102.02	0.11
KinmoutDS	48	100y	278	251.29	261.02	254.52	261.06	0.000045	0.99	443.8	105.76	0.11
KinmoutDS	48	200y	311.3	251.29	261.48	254.72	261.53	0.000045	1.03	494.57	114.79	0.11
KinmoutDS	48	350y	340.7	251.29	261.86	254.89	261.9	0.000045	1.06	537.59	116.47	0.11
KinmoutDS	48	Sept 25 2021	68.8	251.29	256.7	252.81	256.72	0.000045	0.62	111.02	27.41	0.1
KinmoutDS	48	July 13 2024	53.2	251.29	256.02	252.57	256.04	0.000045	0.57	93.2	25.46	0.1
KinmoutDS	48	April 21 2019	247.5	251.29	260.59	254.32	260.62	0.000045	0.96	399.06	101.98	0.11
KinmoutDS	48	Nov 2 2013	77	251.29	257	252.9	257.02	0.000045	0.65	119.2	28.34	0.1
KinmoutDS	48	April 16 2014	175	251.29	259.42	253.81	259.45	0.000045	0.86	284.35	94.53	0.1
KinmoutDS	48	May 8 2017	142	251.29	258.76	253.56	258.79	0.000045	0.81	225.3	83	0.1
KinmoutDS	48	April 21 2013	234.5	251.29	260.39	254.23	260.43	0.000045	0.94	379.49	100.63	0.11

HEC-RAS Bridge Results Summary

Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Crit W.S.	Frctn Loss	C & E Loss	Top Width	Q Left	Q Channel	Q Right	Vel Chnl
			(m)	(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m/s)
Kinmouth	10214	Timmins_Uncalibr	269.25	269.09		0.01	0	159.61	12.57	410.17	31.61	1.9
Kinmouth	10214	Timmins_Calibrat	266.12	266.06		0.01	0	53.21	1.57	111.33	2.7	1.11
Kinmouth	10214	TimminsCC_Calibr	266.48	266.4		0.01	0	54.08	2.34	138.9	3.86	1.23
Kinmouth	10214	2y	266.03	265.97		0.01	0	52.94	1.43	105.31	2.46	1.09
Kinmouth	10214	5y	266.48	266.41		0.01	0	54.09	2.35	139.37	3.88	1.23
Kinmouth	10214	10y	266.76	266.68		0.01	0	54.8	3.05	162.27	4.89	1.31
Kinmouth	10214	25y	267.1	267.01		0.01	0	55.59	4	192.21	6.28	1.41
Kinmouth	10214	50y	267.36	267.25		0.01	0	56.08	4.8	216.03	7.46	1.48
Kinmouth	10214	100y	267.62	267.5		0.01	0	69.46	5.67	241.61	8.82	1.56
Kinmouth	10214	200y	267.9	267.77		0.01	0	80.93	6.67	269.34	10.69	1.63
Kinmouth	10214	350y	268.14	268.01		0.01	0	102.44	7.6	293.49	12.71	1.68
Kinmouth	10214	Sept 25 2021	265.42	265.38		0.01	0	50.04	0.54	67.09	1.17	0.91
Kinmouth	10214	July 13 2024	265.13	265.1		0.01	0	48.21	0.3	52.14	0.76	0.83
Kinmouth	10214	April 21 2019	267.36	267.25		0.01	0	56.07	4.8	215.76	7.45	1.48
Kinmouth	10214	Nov 2 2013	265.56	265.51		0.01	0	51.14	0.7	74.93	1.37	0.95
Kinmouth	10214	April 16 2014	266.82	266.73		0.01	0	54.93	3.19	166.72	5.09	1.33
Kinmouth	10214	May 8 2017	266.44	266.37		0.01	0	54.02	2.25	136.02	3.73	1.22
Kinmouth	10214	April 21 2013	267.24	267.14		0.01	0	55.81	4.43	204.68	6.89	1.45
Kinmouth	10170	Timmins_Uncalibr	269.24	269.07	265.74	0	0.06	211.18	9.35	416.31	28.69	1.85
Kinmouth	10170	Timmins_Calibrat	266.1	266.04	264.32	0	0.01	47.96	0.68	113.79	1.13	1.08
Kinmouth	10170	TimminsCC_Calibr	266.46	266.39	264.48	0	0.01	51.04	1.06	142.42	1.63	1.2
Kinmouth	10170	2y	266.02	265.96	264.28	0	0.01	47.7	0.61	107.56	1.03	1.05
Kinmouth	10170	5y	266.47	266.4	264.48	0	0.01	51.14	1.06	142.9	1.63	1.2
Kinmouth	10170	10y	266.75	266.67	264.61	0	0.01	59.97	1.43	166.68	2.1	1.28
Kinmouth	10170	25y	267.09	266.99	264.75	0	0.01	80.54	1.92	197.85	2.74	1.39
Kinmouth	10170	50y	267.34	267.24	264.87	0	0.01	93.47	2.31	222.69	3.3	1.46
Kinmouth	10170	100y	267.6	267.49	264.99	0	0.01	104.08	2.87	249.32	3.91	1.54
Kinmouth	10170	200y	267.88	267.76	265.12	0	0.02	112.34	3.61	278.47	4.62	1.61
Kinmouth	10170	350y	268.13	267.99	265.22	0	0.02	123.36	4.38	304.13	5.29	1.67
Kinmouth	10170	Sept 25 2021	265.4	265.37	264.04	0	0	45.74	0.23	68.12	0.44	0.87
Kinmouth	10170	July 13 2024	265.12	265.09	263.82	0	0	44.79	0.12	52.82	0.26	0.78
Kinmouth	10170	April 21 2019	267.34	267.24	264.87	0	0.01	93.37	2.3	222.41	3.29	1.46
Kinmouth	10170	Nov 2 2013	265.54	265.5	264.09	0	0.01	46.2	0.3	76.15	0.55	0.91
Kinmouth	10170	April 16 2014	266.8	266.72	264.63	0	0.01	62.22	1.5	171.31	2.19	1.3
Kinmouth	10170	May 8 2017	266.43	266.36	264.46	0	0.01	50.4	1.01	139.42	1.57	1.18
Kinmouth	10170	April 21 2013	267.22	267.12	264.81	0	0.01	86.52	2.12	210.86	3.02	1.43
Kinmouth	10146	Timmins_Uncalibr	269.17	268.8	266.02	0.01	0.08	139.08	6.7	408.47	39.18	2.87
Kinmouth	10146	Timmins_Calibrat	266.09	266.01	264.44	0	0.01	41.87	0.94	113.09	1.57	1.28
Kinmouth	10146	TimminsCC_Calibr	266.45	266.35	264.62	0	0.01	43	1.48	141.32	2.3	1.42
Kinmouth	10146	2y	266.01	265.93	264.41	0	0.01	41.6	0.84	106.94	1.42	1.25
Kinmouth	10146	5y	266.46	266.36	264.62	0	0.01	43.02	1.49	141.79	2.31	1.42
Kinmouth	10146	10y	266.74	266.62	264.76	0	0.01	43.81	2.05	165.14	3.01	1.52
Kinmouth	10146	25y	267.08	266.94	264.93	0	0.01	44.27	3.01	195.49	4	1.64
Kinmouth	10146	50y	267.33	267.18	265.06	0	0.01	44.62	3.85	219.59	4.85	1.72
Kinmouth	10146	100y	267.59	267.43	265.19	0	0.02	44.96	4.81	245.45	5.84	1.81
Kinmouth	10146	200y	267.86	267.68	265.33	0	0.01	18.95	4.09	273.58	9.03	1.93
Kinmouth	10146	350y	268.1	267.89	265.45	0.01	0.01	6.26	4.88	297.72	11.2	2.09
Kinmouth	10146	Sept 25 2021	265.4	265.34	264.13	0	0.01	39.67	0.31	67.9	0.59	1.03
Kinmouth	10146	July 13 2024	265.11	265.07	264.01	0	0.01	38.73	0.16	52.7	0.34	0.93
Kinmouth	10146	April 21 2019	267.33	267.18	265.05	0	0.01	44.62	3.84	219.31	4.84	1.72
Kinmouth	10146	Nov 2 2013	265.54	265.48	264.18	0	0.01	40.12	0.4	75.86	0.74	1.08
Kinmouth	10146	April 16 2014	266.79	266.67	264.79	0	0.01	43.88	2.19	169.66	3.15	1.54
Kinmouth	10146	May 8 2017	266.42	266.32	264.6	0	0.01	42.89	1.42	138.36	2.22	1.41
Kinmouth	10146	April 21 2013	267.21	267.07	265	0	0.01	44.48	3.44	208.13	4.43	1.69

HEC-RAS Bridge Results Summary

Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Crit W.S.	Frctn Loss	C & E Loss	Top Width	Q Left	Q Channel	Q Right	Vel Chnl
			(m)	(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m/s)
KinmoutD	10146	CTimmins_Uncalibr	269.08	268.87	265.75	0	0.04	151.12	11.4	338.23	104.72	2.29
KinmoutD	10146	CTimmins_Calibrat	266.08	266.02	264.23	0	0.01	44.74	1.68	104.48	9.44	1.12
KinmoutD	10146	CTimminsCC_Calibr	266.44	266.36	264.41	0	0.01	46.99	2.69	129.22	13.19	1.24
KinmoutD	10146	C2y	266	265.94	264.18	0	0.01	44.33	1.49	99.08	8.63	1.09
KinmoutD	10146	C5y	266.45	266.37	264.41	0	0.01	47.01	2.71	129.64	13.25	1.24
KinmoutD	10146	C10y	266.72	266.63	264.55	0	0.01	48.14	3.78	149.57	16.85	1.32
KinmoutD	10146	C25y	267.06	266.95	264.71	0	0.01	50.01	5.3	175.28	21.91	1.42
KinmoutD	10146	C50y	267.31	267.2	264.83	0	0.01	50.34	6.9	195.27	26.14	1.49
KinmoutD	10146	C100y	267.57	267.44	264.95	0	0.02	50.67	8.72	216.48	30.9	1.56
KinmoutD	10146	C200y	267.85	267.69	265.09	0	0.03	23.97	6.93	236.58	43.19	1.62
KinmoutD	10146	C350y	268.09	267.89	265.21	0	0.04	11.69	8	250.26	55.55	1.69
KinmoutD	10146	CSept 25 2021	265.39	265.35	263.59	0	0	39.49	0.68	64.1	4.01	0.89
KinmoutD	10146	CJuly 13 2024	265.1	265.07	263.4	0	0	38.72	0.42	50.28	2.5	0.8
KinmoutD	10146	CApril 21 2019	267.31	267.19	264.83	0	0.01	50.34	6.88	195.03	26.09	1.49
KinmoutD	10146	CNov 2 2013	265.53	265.48	263.7	0	0.01	39.92	0.84	71.29	4.88	0.94
KinmoutD	10146	CApril 16 2014	266.78	266.68	264.57	0	0.01	48.42	3.99	153.42	17.59	1.34
KinmoutD	10146	CMay 8 2017	266.4	266.32	264.39	0	0.01	46.81	2.57	126.66	12.77	1.23
KinmoutD	10146	CApril 21 2013	267.19	267.08	264.77	0	0.01	50.18	6.12	185.8	24.09	1.46
KinmoutD	10123	Timmins_Uncalibr	269.03	268.91		0.01	0	230.97	15.34	372.84	66.18	1.71
KinmoutD	10123	Timmins_Calibrat	266.07	266.02		0.01	0	50.77	1.26	107.29	7.06	0.99
KinmoutD	10123	TimminsCC_Calibr	266.43	266.37		0.01	0	53.02	1.98	133.45	9.67	1.09
KinmoutD	10123	2y	265.99	265.94		0.01	0	50.36	1.12	101.6	6.48	0.96
KinmoutD	10123	5y	266.43	266.37		0.01	0	53.05	2	133.89	9.72	1.1
KinmoutD	10123	10y	266.71	266.64		0.01	0	54.15	2.75	155.25	12.21	1.17
KinmoutD	10123	25y	267.04	266.96		0.01	0	84.28	3.79	183.06	15.65	1.27
KinmoutD	10123	50y	267.3	267.21		0.01	0	97.12	4.81	205	18.49	1.33
KinmoutD	10123	100y	267.55	267.45		0.01	0	109.06	5.97	228.47	21.67	1.4
KinmoutD	10123	200y	267.82	267.71		0.01	0.01	129.18	7.32	254.08	25.29	1.47
KinmoutD	10123	350y	268.05	267.93		0.01	0.01	137.85	8.53	276.68	28.59	1.52
KinmoutD	10123	Sept 25 2021	265.38	265.35		0.01	0	45.5	0.53	65.14	3.13	0.78
KinmoutD	10123	July 13 2024	265.1	265.07		0.01	0	44.72	0.34	50.88	1.99	0.7
KinmoutD	10123	April 21 2019	267.29	267.21		0.01	0	97.01	4.8	204.75	18.46	1.33
KinmoutD	10123	Nov 2 2013	265.52	265.49		0.01	0	45.95	0.65	72.59	3.77	0.82
KinmoutD	10123	April 16 2014	266.76	266.69		0.01	0	54.8	2.89	159.4	12.71	1.19
KinmoutD	10123	May 8 2017	266.39	266.33		0.01	0	52.85	1.89	130.72	9.38	1.08
KinmoutD	10123	April 21 2013	267.18	267.09		0.01	0	90.12	4.31	194.57	17.11	1.3
KinmoutD	10093	Timmins_Uncalibr	269.02	268.9		0.01	0.01	192.08	55.52	347.81	51.01	1.67
KinmoutD	10093	Timmins_Calibrat	266.07	266.01		0.01	0	90.71	4.2	106.25	5.15	1.04
KinmoutD	10093	TimminsCC_Calibr	266.42	266.36		0.01	0	109.77	6.98	130.42	7.7	1.14
KinmoutD	10093	2y	265.98	265.93		0.01	0	83.72	3.83	100.75	4.62	1.02
KinmoutD	10093	5y	266.43	266.36		0.01	0	109.87	7.04	130.81	7.75	1.14
KinmoutD	10093	10y	266.7	266.63		0.01	0	117.87	10.22	149.95	10.03	1.2
KinmoutD	10093	25y	267.04	266.96		0.01	0	126.58	14.79	174.59	13.12	1.28
KinmoutD	10093	50y	267.29	267.2		0.01	0	130.69	18.72	193.87	15.71	1.33
KinmoutD	10093	100y	267.54	267.45		0.01	0	141	23.09	214.4	18.61	1.39
KinmoutD	10093	200y	267.81	267.71		0.01	0.01	145.36	28.14	236.68	21.88	1.44
KinmoutD	10093	350y	268.03	267.93		0.01	0.01	153.22	32.66	256.3	24.84	1.49
KinmoutD	10093	Sept 25 2021	265.38	265.34		0.01	0	62.29	0.95	66.09	1.76	0.85
KinmoutD	10093	July 13 2024	265.09	265.06		0.01	0	53.51	0.44	51.7	1.06	0.77
KinmoutD	10093	April 21 2019	267.28	267.2		0.01	0	130.66	18.67	193.64	15.68	1.33
KinmoutD	10093	Nov 2 2013	265.51	265.47		0.01	0	66.86	1.36	73.43	2.21	0.89
KinmoutD	10093	April 16 2014	266.76	266.69		0.01	0	120.55	10.87	153.64	10.49	1.21
KinmoutD	10093	May 8 2017	266.38	266.32		0.01	0	108.47	6.6	127.97	7.42	1.13
KinmoutD	10093	April 21 2013	267.17	267.09		0.01	0	128.98	16.81	184.74	14.45	1.31

HEC-RAS Bridge Results Summary

Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Crit W.S.	Frctn Loss	C & E Loss	Top Width	Q Left	Q Channel	Q Right	Vel Chnl
			(m)	(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m/s)
KinmoutD	567	Timmins_Uncalibr	263.53	263.51		0	0.01	240.2	134.21	263.92	54.37	0.75
KinmoutD	567	Timmins_Calibrat	258.28	258.24		0.01	0.01	82.49	15.15	99.85	0.79	0.92
KinmoutD	567	TimminsCC_Calibr	258.97	258.94		0	0.01	112.81	21.67	122.06	1.67	0.87
KinmoutD	567	2y	258.32	258.29		0.01	0.01	82.67	14.53	94.19	0.77	0.85
KinmoutD	567	5y	259.2	259.17		0	0.01	144.32	21.24	122.46	2.2	0.81
KinmoutD	567	10y	259.7	259.67		0	0.01	182.61	23.68	141.61	5.31	0.81
KinmoutD	567	25y	260.3	260.28		0	0.02	185.51	38.39	154.91	9.69	0.76
KinmoutD	567	50y	260.75	260.73		0	0.02	190.29	49.8	166.09	12.92	0.74
KinmoutD	567	100y	261.21	261.19		0	0.02	199.16	61.9	178.89	15.91	0.73
KinmoutD	567	200y	261.68	261.66		0	0.02	218.83	74.91	193.14	19.35	0.72
KinmoutD	567	350y	262.03	262.01		0	0.02	237.35	85.28	205.43	23.8	0.73
KinmoutD	567	Sept 25 2021	256.85	256.7		0.03	0.03	69.59	0.03	68.77		1.71
KinmoutD	567	July 13 2024	256.26	255.96		0.05	0.09	22.61		53.2		2.43
KinmoutD	567	April 21 2019	260.75	260.73		0	0.02	190.25	49.65	165.98	12.87	0.74
KinmoutD	567	Nov 2 2013	257.11	257.01		0.02	0.01	73.86	2.56	74.41	0.04	1.4
KinmoutD	567	April 16 2014	259.52	259.48		0	0.01	181.75	20.9	149.7	4.4	0.9
KinmoutD	567	May 8 2017	258.86	258.83		0	0.01	104.13	20.98	119.61	1.41	0.88
KinmoutD	567	April 21 2013	260.54	260.52		0	0.02	187.58	44.38	160.68	11.44	0.75
KinmoutD	539	Timmins_Uncalibr	263.52	263.46	258.05	0	0.01	255.52	52.77	363.42	71.82	1.23
KinmoutD	539	Timmins_Calibrat	258.26	258.2	255.83	0	0	67.63	0.05	116.91	0.03	1.14
KinmoutD	539	TimminsCC_Calibr	258.96	258.89	256.09	0	0	134.43	0.67	145.96	0.36	1.14
KinmoutD	539	2y	258.3	258.24	255.85	0	0	70.32	0.06	118.49	0.05	1.14
KinmoutD	539	5y	259.19	259.12	256.18	0	0	158.5	1.1	156.48	0.51	1.15
KinmoutD	539	10y	259.68	259.62	256.39	0	0	179.21	2.24	181.67	0.89	1.18
KinmoutD	539	25y	260.29	260.21	256.8	0	0.01	195.56	3.94	214.44	1.42	1.21
KinmoutD	539	50y	260.73	260.66	256.98	0	0.02	204.2	5.38	240.64	1.87	1.25
KinmoutD	539	100y	261.19	261.1	257.14	0	0.03	213.44	2.99	273.88	1.13	1.31
KinmoutD	539	200y	261.66	261.58	257.3	0	0.03	218.32	9.83	292.37	9.1	1.29
KinmoutD	539	350y	262.01	261.93	257.44	0	0.02	222.87	16.43	306.36	17.91	1.28
KinmoutD	539	Sept 25 2021	256.79	256.7	255.28	0	0	30.39		68.8		1.37
KinmoutD	539	July 13 2024	256.12	256	255.06	0.01	0	21.53		53.2		1.56
KinmoutD	539	April 21 2019	260.73	260.65	256.97	0	0.02	204.16	5.36	240.27	1.87	1.25
KinmoutD	539	Nov 2 2013	257.08	257	255.39	0	0	32.81		77		1.29
KinmoutD	539	April 16 2014	259.5	259.44	256.31	0	0	174.08	1.8	172.45	0.75	1.17
KinmoutD	539	May 8 2017	258.85	258.78	256.05	0	0	122.6	0.5	141.2	0.3	1.14
KinmoutD	539	April 21 2013	260.52	260.45	256.9	0	0.02	201.18	4.68	228.16	1.66	1.23
KinmoutD	528	Hil Timmins_Uncalibr	263.51	263.47	258.04	0	0.01	255.98	103.69	224.31	160	1.12
KinmoutD	528	Hil Timmins_Calibrat	258.26	258.2	255.84	0	0.02	39.12	0.05	116.92	0.03	1.14
KinmoutD	528	Hil TimminsCC_Calibr	258.95	258.89	256.1	0	0.02	42.8	0.61	146.26	0.13	1.15
KinmoutD	528	Hil 2y	258.3	258.24	255.85	0	0.02	39.42	0.06	118.51	0.03	1.14
KinmoutD	528	Hil 5y	259.19	259.12	256.19	0	0.02	42.8	0.95	156.99	0.16	1.15
KinmoutD	528	Hil 10y	259.68	259.6	256.4	0	0.02		1.55	182.99	0.27	1.24
KinmoutD	528	Hil 25y	260.27	260.16	256.82	0	0.03		1.84	217.64	0.32	1.48
KinmoutD	528	Hil 50y	260.71	260.57	256.98	0	0.04		2.08	245.47	0.36	1.67
KinmoutD	528	Hil 100y	261.16	260.98	257.14	0	0.05	139.16	2.33	275.27	0.4	1.87
KinmoutD	528	Hil 200y	261.63	261.45	257.3	0	0.06	169.48	12.21	286.31	12.78	1.95
KinmoutD	528	Hil 350y	261.99	261.84	257.44	0	0.04	179.09	28.57	274.72	37.41	1.87
KinmoutD	528	Hil Sept 25 2021	256.79	256.69	255.29	0	0.04	30.24		68.8		1.38
KinmoutD	528	Hil July 13 2024	256.12	255.99	255.07	0	0.06	21.51		53.2		1.56
KinmoutD	528	Hil April 21 2019	260.71	260.57	256.98	0	0.04		2.07	245.07	0.36	1.67
KinmoutD	528	Hil Nov 2 2013	257.08	256.99	255.39	0	0.03	32.79		77		1.3
KinmoutD	528	Hil April 16 2014	259.5	259.43	256.33	0	0.02		1.47	173.28	0.25	1.18
KinmoutD	528	Hil May 8 2017	258.84	258.78	256.06	0	0.02	42.8	0.47	141.42	0.11	1.14
KinmoutD	528	Hil April 21 2013	260.51	260.38	256.91	0	0.04		1.97	232.2	0.34	1.58

HEC-RAS Bridge Results Summary

Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Crit W.S.	Frctn Loss	C & E Loss	Top Width	Q Left	Q Channel	Q Right	Vel Chnl
			(m)	(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m/s)
KinmoutD	528 Hil	Timmins_Uncalibr	263.5	263.48	255.84	0	0	249.32	97.9	188.76	201.34	0.64
KinmoutD	528 Hil	Timmins_Calibrat	258.24	258.22	253.32	0	0	42.8		116.23	0.77	0.62
KinmoutD	528 Hil	TimminsCC_Calibr	258.93	258.91	253.6	0	0	42.8		145.72	1.28	0.68
KinmoutD	528 Hil	2y	258.28	258.26	253.33	0	0	42.8		117.8	0.8	0.62
KinmoutD	528 Hil	5y	259.16	259.14	253.69	0	0	42.8		156.63	1.47	0.7
KinmoutD	528 Hil	10y	259.66	259.62	253.89	0	0			182.63	2.17	0.77
KinmoutD	528 Hil	25y	260.24	260.19	254.15	0	0.01			217.22	2.58	0.92
KinmoutD	528 Hil	50y	260.67	260.61	254.33	0	0.01			244.99	2.91	1.04
KinmoutD	528 Hil	100y	261.1	261.03	254.53	0	0.01	114.3	0.12	274.47	3.41	1.16
KinmoutD	528 Hil	200y	261.57	261.5	254.75	0	0.01	145.67	11.38	280.36	19.56	1.19
KinmoutD	528 Hil	350y	261.94	261.88	254.97	0	0.01	170.31	27.76	267.39	45.55	1.13
KinmoutD	528 Hil	Sept 25 2021	256.75	256.73	252.82	0	0	42.8		68.79	0.01	0.54
KinmoutD	528 Hil	July 13 2024	256.06	256.05	252.58	0	0	35.51		53.2		0.53
KinmoutD	528 Hil	April 21 2019	260.66	260.61	254.34	0	0.01			244.6	2.9	1.04
KinmoutD	528 Hil	Nov 2 2013	257.04	257.03	252.91	0	0	42.8		76.91	0.09	0.55
KinmoutD	528 Hil	April 16 2014	259.48	259.45	253.82	0	0			172.95	2.05	0.73
KinmoutD	528 Hil	May 8 2017	258.82	258.8	253.56	0	0	42.8		140.8	1.2	0.67
KinmoutD	528 Hil	April 21 2013	260.47	260.42	254.25	0	0.01			231.75	2.75	0.98
KinmoutD	508	Timmins_Uncalibr	263.5	263.48		0	0	249.32	49.48	317.59	120.93	0.79
KinmoutD	508	Timmins_Calibrat	258.24	258.22		0	0	86.54	0.29	115.19	1.53	0.61
KinmoutD	508	TimminsCC_Calibr	258.93	258.91		0	0	136.92	0.53	143.66	2.81	0.66
KinmoutD	508	2y	258.28	258.26		0	0	89.32	0.3	116.71	1.59	0.62
KinmoutD	508	5y	259.16	259.14		0	0	163.75	0.62	154.17	3.31	0.68
KinmoutD	508	10y	259.65	259.63		0	0.01	179.2	0.85	179.42	4.53	0.73
KinmoutD	508	25y	260.23	260.2		0	0.01	197.75	1.16	212.44	6.2	0.79
KinmoutD	508	50y	260.66	260.62		0	0.01	202.73	1.42	238.88	7.6	0.83
KinmoutD	508	100y	261.09	261.05		0	0.01	208.18	0.6	275.95	1.45	0.91
KinmoutD	508	200y	261.56	261.52		0	0.01	216.94	5.49	291.52	14.3	0.9
KinmoutD	508	350y	261.93	261.89		0	0.01	223.31	11.94	298.94	29.82	0.88
KinmoutD	508	Sept 25 2021	256.75	256.73		0	0	47.93	0	68.79	0.01	0.54
KinmoutD	508	July 13 2024	256.06	256.05		0	0	35.5		53.2		0.53
KinmoutD	508	April 21 2019	260.65	260.62		0	0.01	202.67	1.42	238.51	7.58	0.83
KinmoutD	508	Nov 2 2013	257.04	257.03		0	0	49	0.03	76.84	0.13	0.55
KinmoutD	508	April 16 2014	259.48	259.45		0	0	167.94	0.76	170.16	4.07	0.71
KinmoutD	508	May 8 2017	258.82	258.8		0	0	129.67	0.49	138.93	2.59	0.66
KinmoutD	508	April 21 2013	260.46	260.42		0	0.01	200.4	1.29	226.28	6.93	0.81
KinmoutD	487	Timmins_Uncalibr	263.5	263.47		0	0	106.44	65.19	403.6	19.22	0.75
KinmoutD	487	Timmins_Calibrat	258.23	258.22		0	0	66.12	0.46	115.92	0.62	0.5
KinmoutD	487	TimminsCC_Calibr	258.93	258.91		0	0	84.84	1.11	144.97	0.92	0.53
KinmoutD	487	2y	258.27	258.26		0	0	66.22	0.49	117.46	0.65	0.5
KinmoutD	487	5y	259.16	259.14		0	0	89.07	1.54	155.14	1.42	0.54
KinmoutD	487	10y	259.65	259.63		0	0	93.2	3.98	178.11	2.71	0.57
KinmoutD	487	25y	260.22	260.21		0	0	96.55	9.01	206.24	4.54	0.6
KinmoutD	487	50y	260.65	260.63		0	0	98.06	13.79	228.05	6.07	0.61
KinmoutD	487	100y	261.08	261.06		0	0	99.45	19.37	250.91	7.72	0.63
KinmoutD	487	200y	261.55	261.53		0	0	101.27	26.23	275.45	9.62	0.65
KinmoutD	487	350y	261.92	261.9		0	0	102.15	32.39	297.07	11.24	0.67
KinmoutD	487	Sept 25 2021	256.74	256.73		0	0	59.84	0	68.8	0	0.48
KinmoutD	487	July 13 2024	256.06	256.05		0	0	47.08		53.2		0.49
KinmoutD	487	April 21 2019	260.64	260.62		0	0	98.04	13.71	227.74	6.04	0.61
KinmoutD	487	Nov 2 2013	257.04	257.03		0	0	62.22	0.01	76.95	0.04	0.48
KinmoutD	487	April 16 2014	259.47	259.46		0	0	92.1	2.92	169.86	2.22	0.56
KinmoutD	487	May 8 2017	258.82	258.8		0	0	76.09	0.98	139.94	1.08	0.53
KinmoutD	487	April 21 2013	260.45	260.43		0	0	97.52	11.44	217.72	5.34	0.61

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16852	100y	Burnt_S01_+Man	251.2	274.14	277.87		277.94	0.000266	1.19	226.98	70.72	0.2
KinmoutDS	16852	100y	Burnt_S02_-Man	251.2	274.14	277.37		277.46	0.000156	1.39	193.1	64.38	0.25
KinmoutDS	16852	100y	Burnt_S03_+Cont	251.2	274.14	277.69		277.77	0.0002	1.26	214.68	69.12	0.21
KinmoutDS	16852	100y	Burnt_S04_-Cont	251.2	274.14	277.54		277.63	0.000232	1.31	204.47	66.82	0.23
KinmoutDS	16852	100y	BurntRiver_RevisedBathy_2025	251.2	274.14	277.62		277.7	0.000215	1.28	209.71	68.17	0.22
KinmoutDS	16833	100y	Burnt_S01_+Man	251.2	274.14	277.87		277.93	0.000227	1.11	242.31	79.29	0.18
KinmoutDS	16833	100y	Burnt_S02_-Man	251.2	274.14	277.37		277.46	0.000133	1.28	206.9	68.61	0.23
KinmoutDS	16833	100y	Burnt_S03_+Cont	251.2	274.14	277.69		277.76	0.000171	1.16	228.86	69.31	0.2
KinmoutDS	16833	100y	Burnt_S04_-Cont	251.2	274.14	277.55		277.62	0.000197	1.22	218.75	68.99	0.21
KinmoutDS	16833	100y	BurntRiver_RevisedBathy_2025	251.2	274.14	277.62		277.69	0.000183	1.19	223.97	69.16	0.2
KinmoutDS	16812	100y	Burnt_S01_+Man	251.2	274.14	277.88		277.92	0.000154	0.92	289.31	88.39	0.15
KinmoutDS	16812	100y	Burnt_S02_-Man	251.2	274.14	277.39		277.45	0.00009	1.07	246.54	86.81	0.19
KinmoutDS	16812	100y	Burnt_S03_+Cont	251.2	274.14	277.7		277.75	0.000116	0.97	273.78	87.86	0.16
KinmoutDS	16812	100y	Burnt_S04_-Cont	251.2	274.14	277.56		277.61	0.000133	1.01	261.61	87.41	0.17
KinmoutDS	16812	100y	BurntRiver_RevisedBathy_2025	251.2	274.14	277.63		277.68	0.000124	0.99	267.89	87.66	0.17
KinmoutDS	16792	100y	Burnt_S01_+Man	251.2	273.49	277.88		277.92	0.000139	0.92	337.15	108.45	0.15
KinmoutDS	16792	100y	Burnt_S02_-Man	251.2	273.49	277.39		277.44	0.000081	1.07	285.3	105.5	0.19
KinmoutDS	16792	100y	Burnt_S03_+Cont	251.2	273.49	277.7		277.74	0.000105	0.97	318.25	106.77	0.16
KinmoutDS	16792	100y	Burnt_S04_-Cont	251.2	273.49	277.56		277.61	0.00012	1.01	303.55	106.08	0.17
KinmoutDS	16792	100y	BurntRiver_RevisedBathy_2025	251.2	273.49	277.63		277.68	0.000112	0.99	311.14	106.38	0.17
KinmoutDS	16774	100y	Burnt_S01_+Man	251.2	272.93	277.89		277.91	0.000072	0.71	421.96	124.28	0.11
KinmoutDS	16774	100y	Burnt_S02_-Man	251.2	272.93	277.4		277.44	0.00004	0.8	363.15	119.55	0.13
KinmoutDS	16774	100y	Burnt_S03_+Cont	251.2	272.93	277.71		277.74	0.000053	0.74	400.1	123.34	0.12
KinmoutDS	16774	100y	Burnt_S04_-Cont	251.2	272.93	277.58		277.61	0.00006	0.77	383.99	121.56	0.12
KinmoutDS	16774	100y	BurntRiver_RevisedBathy_2025	251.2	272.93	277.65		277.67	0.000056	0.75	392.27	122.77	0.12
KinmoutDS	16753	100y	Burnt_S01_+Man	251.2	272.21	277.89		277.91	0.000028	0.49	555.44	134.98	0.07
KinmoutDS	16753	100y	Burnt_S02_-Man	251.2	272.21	277.42		277.43	0.000015	0.55	492.23	130.59	0.08
KinmoutDS	16753	100y	Burnt_S03_+Cont	251.2	272.21	277.72		277.73	0.000021	0.51	531.74	132.69	0.07
KinmoutDS	16753	100y	Burnt_S04_-Cont	251.2	272.21	277.59		277.6	0.000023	0.53	515	131.8	0.08
KinmoutDS	16753	100y	BurntRiver_RevisedBathy_2025	251.2	272.21	277.65		277.67	0.000022	0.52	523.62	132.25	0.08
KinmoutDS	16733	100y	Burnt_S01_+Man	251.2	272.13	277.89		277.9	0.000025	0.47	610.15	148.29	0.07
KinmoutDS	16733	100y	Burnt_S02_-Man	251.2	272.13	277.42		277.43	0.000013	0.52	540.84	141.91	0.08
KinmoutDS	16733	100y	Burnt_S03_+Cont	251.2	272.13	277.72		277.73	0.000018	0.49	584.04	146.48	0.07
KinmoutDS	16733	100y	Burnt_S04_-Cont	251.2	272.13	277.59		277.6	0.00002	0.5	565.68	144.75	0.07
KinmoutDS	16733	100y	BurntRiver_RevisedBathy_2025	251.2	272.13	277.66		277.67	0.000019	0.49	575.12	145.68	0.07
KinmoutDS	16713	100y	Burnt_S01_+Man	251.2	272.35	277.89		277.9	0.000028	0.49	626.64	165.3	0.07
KinmoutDS	16713	100y	Burnt_S02_-Man	251.2	272.35	277.42		277.43	0.000015	0.55	549.98	156.19	0.08
KinmoutDS	16713	100y	Burnt_S03_+Cont	251.2	272.35	277.72		277.73	0.000021	0.51	597.61	161.98	0.07
KinmoutDS	16713	100y	Burnt_S04_-Cont	251.2	272.35	277.59		277.6	0.000023	0.52	577.37	159.3	0.08
KinmoutDS	16713	100y	BurntRiver_RevisedBathy_2025	251.2	272.35	277.65		277.67	0.000022	0.52	587.77	160.48	0.08
KinmoutDS	16692	100y	Burnt_S01_+Man	251.2	272.55	277.89		277.9	0.000037	0.54	597.22	174.78	0.08
KinmoutDS	16692	100y	Burnt_S02_-Man	251.2	272.55	277.41		277.43	0.000019	0.61	516.04	165.31	0.09
KinmoutDS	16692	100y	Burnt_S03_+Cont	251.2	272.55	277.71		277.73	0.000027	0.57	566.62	171.11	0.08
KinmoutDS	16692	100y	Burnt_S04_-Cont	251.2	272.55	277.59		277.6	0.00003	0.58	545.19	168.34	0.09
KinmoutDS	16692	100y	BurntRiver_RevisedBathy_2025	251.2	272.55	277.65		277.67	0.000028	0.57	556.19	170.17	0.09
KinmoutDS	16672	100y	Burnt_S01_+Man	251.2	272.67	277.88		277.9	0.000052	0.63	527.12	177.51	0.09
KinmoutDS	16672	100y	Burnt_S02_-Man	251.2	272.67	277.4		277.43	0.000028	0.72	446.49	163.27	0.11
KinmoutDS	16672	100y	Burnt_S03_+Cont	251.2	272.67	277.7		277.72	0.000039	0.66	496.19	169.33	0.1
KinmoutDS	16672	100y	Burnt_S04_-Cont	251.2	272.67	277.58		277.6	0.000043	0.69	475.23	165.01	0.11
KinmoutDS	16672	100y	BurntRiver_RevisedBathy_2025	251.2	272.67	277.64		277.66	0.000041	0.67	486.01	165.54	0.1
KinmoutDS	16652	100y	Burnt_S01_+Man	251.2	272.81	277.87		277.9	0.000086	0.79	430.07	171.42	0.12
KinmoutDS	16652	100y	Burnt_S02_-Man	251.2	272.81	277.39		277.43	0.000048	0.91	353.73	149.11	0.15
KinmoutDS	16652	100y	Burnt_S03_+Cont	251.2	272.81	277.69		277.72	0.000064	0.83	400	161.09	0.13
KinmoutDS	16652	100y	Burnt_S04_-Cont	251.2	272.81	277.56		277.6	0.000071	0.86	380.42	151.98	0.14
KinmoutDS	16652	100y	BurntRiver_RevisedBathy_2025	251.2	272.81	277.63		277.66	0.000067	0.84	390.37	153.49	0.13
KinmoutDS	16632	100y	Burnt_S01_+Man	251.2	272.93	277.85		277.89	0.000144	0.99	325.37	166.24	0.15
KinmoutDS	16632	100y	Burnt_S02_-Man	251.2	272.93	277.36		277.42	0.00008	1.14	263.05	102.36	0.19
KinmoutDS	16632	100y	Burnt_S03_+Cont	251.2	272.93	277.67		277.72	0.000107	1.04	298.33	133.7	0.17
KinmoutDS	16632	100y	Burnt_S04_-Cont	251.2	272.93	277.54		277.6	0.00012	1.08	282.4	117.56	0.17
KinmoutDS	16632	100y	BurntRiver_RevisedBathy_2025	251.2	272.93	277.6		277.66	0.000113	1.06	290.4	125.9	0.17

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16611	100y	Burnt_S01_+Man	251.2	273.05	277.83		277.89	0.00022	1.14	290.81	155.94	0.18
KinmoutDS	16611	100y	Burnt_S02_-Man	251.2	273.05	277.33		277.42	0.000129	1.34	224.99	112.16	0.23
KinmoutDS	16611	100y	Burnt_S03_+Cont	251.2	273.05	277.64		277.71	0.000167	1.21	263.14	138.85	0.2
KinmoutDS	16611	100y	Burnt_S04_-Cont	251.2	273.05	277.52		277.59	0.000189	1.26	246.42	123.81	0.21
KinmoutDS	16611	100y	BurntRiver_RevisedBathy_2025	251.2	273.05	277.58		277.65	0.000177	1.23	254.78	131.01	0.2
KinmoutDS	16590	100y	Burnt_S01_+Man	251.2	273.19	277.81		277.88	0.000278	1.22	268.56	154.33	0.2
KinmoutDS	16590	100y	Burnt_S02_-Man	251.2	273.19	277.31		277.41	0.000171	1.45	200.41	113.15	0.25
KinmoutDS	16590	100y	Burnt_S03_+Cont	251.2	273.19	277.62		277.71	0.000216	1.3	240.21	146.55	0.21
KinmoutDS	16590	100y	Burnt_S04_-Cont	251.2	273.19	277.5		277.59	0.000247	1.36	222.32	126.98	0.23
KinmoutDS	16590	100y	BurntRiver_RevisedBathy_2025	251.2	273.19	277.56		277.65	0.000231	1.33	231.25	141.96	0.22
KinmoutDS	16570	100y	Burnt_S01_+Man	251.2	273.28	277.79		277.88	0.000344	1.32	237.69	142.2	0.22
KinmoutDS	16570	100y	Burnt_S02_-Man	251.2	273.28	277.28		277.41	0.000197	1.57	177.13	92.82	0.28
KinmoutDS	16570	100y	Burnt_S03_+Cont	251.2	273.28	277.6		277.7	0.000261	1.41	211.52	130.98	0.24
KinmoutDS	16570	100y	Burnt_S04_-Cont	251.2	273.28	277.47		277.58	0.000293	1.47	196.14	109.51	0.25
KinmoutDS	16570	100y	BurntRiver_RevisedBathy_2025	251.2	273.28	277.54		277.64	0.000276	1.44	203.78	119.9	0.24
KinmoutDS	16552	100y	Burnt_S01_+Man	251.2	273.38	277.78		277.87	0.000369	1.34	231.73	134.77	0.22
KinmoutDS	16552	100y	Burnt_S02_-Man	251.2	273.38	277.28		277.4	0.000211	1.59	173.69	93.03	0.28
KinmoutDS	16552	100y	Burnt_S03_+Cont	251.2	273.38	277.59		277.69	0.00028	1.43	206.74	124.17	0.24
KinmoutDS	16552	100y	Burnt_S04_-Cont	251.2	273.38	277.46		277.58	0.000314	1.49	192.15	103.48	0.25
KinmoutDS	16552	100y	BurntRiver_RevisedBathy_2025	251.2	273.38	277.53		277.64	0.000295	1.46	199.32	112.63	0.25
KinmoutDS	16532	100y	Burnt_S01_+Man	251.2	273.45	277.78		277.86	0.000323	1.35	232.29	104.48	0.22
KinmoutDS	16532	100y	Burnt_S02_-Man	251.2	273.45	277.27		277.4	0.000198	1.6	182.3	95.33	0.28
KinmoutDS	16532	100y	Burnt_S03_+Cont	251.2	273.45	277.59		277.69	0.000249	1.44	213.23	98.62	0.24
KinmoutDS	16532	100y	Burnt_S04_-Cont	251.2	273.45	277.46		277.57	0.000286	1.5	200.44	98.02	0.25
KinmoutDS	16532	100y	BurntRiver_RevisedBathy_2025	251.2	273.45	277.53		277.63	0.000266	1.47	207.06	98.4	0.25
KinmoutDS	16512	100y	Burnt_S01_+Man	251.2	273.42	277.75		277.85	0.0004	1.47	202.13	100.38	0.24
KinmoutDS	16512	100y	Burnt_S02_-Man	251.2	273.42	277.24		277.39	0.00024	1.72	156.97	76.08	0.3
KinmoutDS	16512	100y	Burnt_S03_+Cont	251.2	273.42	277.56		277.68	0.000307	1.56	183.94	90.67	0.26
KinmoutDS	16512	100y	Burnt_S04_-Cont	251.2	273.42	277.43		277.56	0.00035	1.62	172.51	86.06	0.28
KinmoutDS	16512	100y	BurntRiver_RevisedBathy_2025	251.2	273.42	277.5		277.62	0.000327	1.59	178.36	88.53	0.27
KinmoutDS	16492	100y	Burnt_S01_+Man	251.2	273.39	277.73		277.84	0.000394	1.54	194.52	90.26	0.25
KinmoutDS	16492	100y	Burnt_S02_-Man	251.2	273.39	277.22		277.39	0.000233	1.8	151.61	75.18	0.31
KinmoutDS	16492	100y	Burnt_S03_+Cont	251.2	273.39	277.54		277.67	0.000301	1.63	177.74	87.95	0.27
KinmoutDS	16492	100y	Burnt_S04_-Cont	251.2	273.39	277.41		277.55	0.000341	1.7	166.58	83.98	0.29
KinmoutDS	16492	100y	BurntRiver_RevisedBathy_2025	251.2	273.39	277.48		277.62	0.00032	1.66	172.29	86.89	0.28
KinmoutDS	16471	100y	Burnt_S01_+Man	251.2	273.35	277.71		277.83	0.000455	1.6	199.26	90.02	0.26
KinmoutDS	16471	100y	Burnt_S02_-Man	251.2	273.35	277.2		277.38	0.000274	1.88	155.31	82.75	0.33
KinmoutDS	16471	100y	Burnt_S03_+Cont	251.2	273.35	277.52		277.66	0.000349	1.69	182.64	87.07	0.28
KinmoutDS	16471	100y	Burnt_S04_-Cont	251.2	273.35	277.39		277.54	0.000399	1.76	171.25	85.94	0.3
KinmoutDS	16471	100y	BurntRiver_RevisedBathy_2025	251.2	273.35	277.46		277.61	0.000372	1.73	177.15	86.48	0.29
KinmoutDS	16451	100y	Burnt_S01_+Man	251.2	273.3	277.7		277.82	0.000482	1.6	216.02	88.86	0.26
KinmoutDS	16451	100y	Burnt_S02_-Man	251.2	273.3	277.2		277.37	0.000292	1.88	172.15	84.88	0.33
KinmoutDS	16451	100y	Burnt_S03_+Cont	251.2	273.3	277.52		277.65	0.00037	1.69	199.58	87.76	0.28
KinmoutDS	16451	100y	Burnt_S04_-Cont	251.2	273.3	277.39		277.54	0.000423	1.77	188.14	86.95	0.3
KinmoutDS	16451	100y	BurntRiver_RevisedBathy_2025	251.2	273.3	277.45		277.6	0.000395	1.73	194.08	87.37	0.29
KinmoutDS	16433	100y	Burnt_S01_+Man	251.2	273.27	277.69		277.81	0.000503	1.61	209.95	91.33	0.26
KinmoutDS	16433	100y	Burnt_S02_-Man	251.2	273.27	277.19		277.37	0.000303	1.89	165.36	85.3	0.33
KinmoutDS	16433	100y	Burnt_S03_+Cont	251.2	273.27	277.51		277.65	0.000386	1.7	193.18	90.19	0.28
KinmoutDS	16433	100y	Burnt_S04_-Cont	251.2	273.27	277.37		277.53	0.000442	1.78	181.31	89.35	0.3
KinmoutDS	16433	100y	BurntRiver_RevisedBathy_2025	251.2	273.27	277.44		277.59	0.000411	1.74	187.47	89.86	0.29
KinmoutDS	16411	100y	Burnt_S01_+Man	251.2	273.23	277.66		277.8	0.000567	1.71	211.39	102.17	0.28
KinmoutDS	16411	100y	Burnt_S02_-Man	251.2	273.23	277.15		277.36	0.000355	2.05	161.23	93.6	0.36
KinmoutDS	16411	100y	Burnt_S03_+Cont	251.2	273.23	277.48		277.63	0.00044	1.82	192.51	99.32	0.3
KinmoutDS	16411	100y	Burnt_S04_-Cont	251.2	273.23	277.34		277.52	0.00051	1.91	179.15	97.26	0.32
KinmoutDS	16411	100y	BurntRiver_RevisedBathy_2025	251.2	273.23	277.41		277.58	0.000472	1.86	186.03	97.91	0.31
KinmoutDS	16391	100y	Burnt_S01_+Man	251.2	273.2	277.64		277.79	0.00059	1.8	215.63	108.73	0.29
KinmoutDS	16391	100y	Burnt_S02_-Man	251.2	273.2	277.12		277.35	0.00038	2.19	159.91	104.65	0.38
KinmoutDS	16391	100y	Burnt_S03_+Cont	251.2	273.2	277.45		277.62	0.000462	1.93	195.06	107.62	0.32
KinmoutDS	16391	100y	Burnt_S04_-Cont	251.2	273.2	277.31		277.5	0.00054	2.04	180.13	106.21	0.34

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16391	100y	BurntRiver_RevisedBathy_2025	251.2	273.2	277.38		277.56	0.000498	1.98	187.84	107.09	0.33
KinmoutDS	16372	100y	Burnt_S01_+Man	251.2	273.15	277.63		277.77	0.0007	1.79	221.34	117.92	0.29
KinmoutDS	16372	100y	Burnt_S02_-Man	251.2	273.15	277.11		277.34	0.000458	2.19	160.93	114.11	0.38
KinmoutDS	16372	100y	Burnt_S03_+Cont	251.2	273.15	277.44		277.61	0.000551	1.92	199.2	116.85	0.32
KinmoutDS	16372	100y	Burnt_S04_-Cont	251.2	273.15	277.3		277.49	0.000648	2.03	182.77	116	0.34
KinmoutDS	16372	100y	BurntRiver_RevisedBathy_2025	251.2	273.15	277.37		277.55	0.000595	1.97	191.3	116.43	0.33
KinmoutDS	16353	100y	Burnt_S01_+Man	251.2	273.12	277.58		277.76	0.000685	1.95	205.97	121.62	0.31
KinmoutDS	16353	100y	Burnt_S02_-Man	251.2	273.12	277.05		277.33	0.000451	2.39	142.58	113.43	0.41
KinmoutDS	16353	100y	Burnt_S03_+Cont	251.2	273.12	277.39		277.6	0.000541	2.1	182.62	119.62	0.35
KinmoutDS	16353	100y	Burnt_S04_-Cont	251.2	273.12	277.25		277.48	0.000635	2.22	165.56	117.97	0.37
KinmoutDS	16353	100y	BurntRiver_RevisedBathy_2025	251.2	273.12	277.32		277.54	0.000585	2.16	174.37	118.94	0.36
KinmoutDS	16332	100y	Burnt_S01_+Man	251.2	273.07	277.57		277.74	0.000599	1.94	217.14	124.93	0.31
KinmoutDS	16332	100y	Burnt_S02_-Man	251.2	273.07	277.05		277.31	0.000386	2.36	154.11	112.07	0.4
KinmoutDS	16332	100y	Burnt_S03_+Cont	251.2	273.07	277.38		277.58	0.000472	2.08	193.42	122.67	0.34
KinmoutDS	16332	100y	Burnt_S04_-Cont	251.2	273.07	277.24		277.47	0.000548	2.19	176.55	118.49	0.37
KinmoutDS	16332	100y	BurntRiver_RevisedBathy_2025	251.2	273.07	277.32		277.52	0.000505	2.13	185.26	120.99	0.35
KinmoutDS	16312	100y	Burnt_S01_+Man	251.2	273	277.56		277.73	0.000675	1.95	209.66	122.92	0.31
KinmoutDS	16312	100y	Burnt_S02_-Man	251.2	273	277.03		277.3	0.000434	2.37	146.92	114.33	0.41
KinmoutDS	16312	100y	Burnt_S03_+Cont	251.2	273	277.37		277.57	0.00053	2.1	186.49	122.21	0.34
KinmoutDS	16312	100y	Burnt_S04_-Cont	251.2	273	277.22		277.45	0.000618	2.21	169.27	119.19	0.37
KinmoutDS	16312	100y	BurntRiver_RevisedBathy_2025	251.2	273	277.3		277.51	0.000569	2.15	178.15	121.11	0.36
KinmoutDS	16291	100y	Burnt_S01_+Man	251.2	272.89	277.55		277.71	0.000613	1.94	215.69	127.09	0.31
KinmoutDS	16291	100y	Burnt_S02_-Man	251.2	272.89	277.03		277.29	0.000399	2.37	150.11	125.26	0.41
KinmoutDS	16291	100y	Burnt_S03_+Cont	251.2	272.89	277.36		277.56	0.00048	2.08	192.09	126.57	0.34
KinmoutDS	16291	100y	Burnt_S04_-Cont	251.2	272.89	277.21		277.44	0.000566	2.2	173.8	126.01	0.37
KinmoutDS	16291	100y	BurntRiver_RevisedBathy_2025	251.2	272.89	277.29		277.5	0.000519	2.13	183.32	126.31	0.36
KinmoutDS	16269	100y	Burnt_S01_+Man	251.2	272.76	277.55		277.7	0.000534	1.83	233.6	135.65	0.29
KinmoutDS	16269	100y	Burnt_S02_-Man	251.2	272.76	277.04		277.27	0.000334	2.21	166.55	130.8	0.38
KinmoutDS	16269	100y	Burnt_S03_+Cont	251.2	272.76	277.36		277.54	0.000415	1.96	208.82	134.35	0.32
KinmoutDS	16269	100y	Burnt_S04_-Cont	251.2	272.76	277.23		277.42	0.000482	2.06	190.81	133.46	0.34
KinmoutDS	16269	100y	BurntRiver_RevisedBathy_2025	251.2	272.76	277.3		277.48	0.000446	2.01	200.13	133.91	0.33
KinmoutDS	16252	100y	Burnt_S01_+Man	251.2	272.65	277.54		277.69	0.000571	1.78	216.26	128.29	0.28
KinmoutDS	16252	100y	Burnt_S02_-Man	251.2	272.65	277.05		277.27	0.00035	2.12	153.48	124.61	0.36
KinmoutDS	16252	100y	Burnt_S03_+Cont	251.2	272.65	277.36		277.53	0.000441	1.9	193.1	127.72	0.31
KinmoutDS	16252	100y	Burnt_S04_-Cont	251.2	272.65	277.22		277.42	0.00051	1.99	176.12	127.28	0.33
KinmoutDS	16252	100y	BurntRiver_RevisedBathy_2025	251.2	272.65	277.29		277.47	0.000473	1.94	184.9	127.51	0.32
KinmoutDS	16232	100y	Burnt_S01_+Man	251.2	272.52	277.52		277.67	0.000532	1.8	205.08	126.58	0.29
KinmoutDS	16232	100y	Burnt_S02_-Man	251.2	272.52	277.03		277.26	0.000322	2.14	145.05	120.11	0.36
KinmoutDS	16232	100y	Burnt_S03_+Cont	251.2	272.52	277.34		277.52	0.000408	1.92	182.78	122.92	0.31
KinmoutDS	16232	100y	Burnt_S04_-Cont	251.2	272.52	277.21		277.41	0.00047	2.01	166.43	121.77	0.33
KinmoutDS	16232	100y	BurntRiver_RevisedBathy_2025	251.2	272.52	277.28		277.46	0.000437	1.96	174.87	122.21	0.32
KinmoutDS	16211	100y	Burnt_S01_+Man	251.2	272.38	277.53		277.66	0.000421	1.65	237.85	134.26	0.26
KinmoutDS	16211	100y	Burnt_S02_-Man	251.2	272.38	277.06		277.24	0.000251	1.95	177.06	119.01	0.33
KinmoutDS	16211	100y	Burnt_S03_+Cont	251.2	272.38	277.35		277.5	0.000322	1.75	214.19	130.42	0.28
KinmoutDS	16211	100y	Burnt_S04_-Cont	251.2	272.38	277.23		277.39	0.000366	1.83	198.57	126.59	0.3
KinmoutDS	16211	100y	BurntRiver_RevisedBathy_2025	251.2	272.38	277.29		277.45	0.000343	1.79	206.57	129.22	0.29
KinmoutDS	16192	100y	Burnt_S01_+Man	251.2	272.23	277.53		277.65	0.000404	1.58	235.22	133.17	0.25
KinmoutDS	16192	100y	Burnt_S02_-Man	251.2	272.23	277.06		277.23	0.000234	1.85	176.64	107.55	0.31
KinmoutDS	16192	100y	Burnt_S03_+Cont	251.2	272.23	277.35		277.49	0.000308	1.68	211.94	131.09	0.27
KinmoutDS	16192	100y	Burnt_S04_-Cont	251.2	272.23	277.24		277.38	0.000347	1.74	196.86	127.2	0.29
KinmoutDS	16192	100y	BurntRiver_RevisedBathy_2025	251.2	272.23	277.3		277.44	0.000326	1.71	204.55	130.25	0.28
KinmoutDS	16171	100y	Burnt_S01_+Man	251.2	272.08	277.53		277.63	0.00032	1.47	253.88	126	0.23
KinmoutDS	16171	100y	Burnt_S02_-Man	251.2	272.08	277.08		277.22	0.000181	1.7	198.87	117.86	0.28
KinmoutDS	16171	100y	Burnt_S03_+Cont	251.2	272.08	277.36		277.47	0.000242	1.55	232.3	121.55	0.25
KinmoutDS	16171	100y	Burnt_S04_-Cont	251.2	272.08	277.25		277.37	0.000269	1.61	219.21	120.04	0.26
KinmoutDS	16171	100y	BurntRiver_RevisedBathy_2025	251.2	272.08	277.31		277.42	0.000255	1.58	225.9	121.35	0.25
KinmoutDS	16151	100y	Burnt_S01_+Man	251.2	271.95	277.53		277.62	0.00028	1.4	260.35	118.11	0.21
KinmoutDS	16151	100y	Burnt_S02_-Man	251.2	271.95	277.09		277.21	0.000154	1.6	208.31	114.3	0.26
KinmoutDS	16151	100y	Burnt_S03_+Cont	251.2	271.95	277.36		277.46	0.000209	1.47	239.94	116.81	0.23

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	16151	100y	Burnt_S04_-Cont	251.2	271.95	277.26		277.36	0.000231	1.52	227.88	116.01	0.24
KinmoutDS	16151	100y	BurntRiver_RevisedBathy_2025	251.2	271.95	277.31		277.41	0.00022	1.49	234.03	116.42	0.24
KinmoutDS	16131	100y	Burnt_S01_+Man	251.2	271.81	277.54		277.62	0.000245	1.31	279.44	112.6	0.2
KinmoutDS	16131	100y	Burnt_S02_-Man	251.2	271.81	277.1		277.2	0.000133	1.5	230.14	110.9	0.24
KinmoutDS	16131	100y	Burnt_S03_+Cont	251.2	271.81	277.36		277.45	0.000183	1.38	259.97	112.06	0.22
KinmoutDS	16131	100y	Burnt_S04_-Cont	251.2	271.81	277.27		277.36	0.000201	1.42	248.95	111.63	0.23
KinmoutDS	16131	100y	BurntRiver_RevisedBathy_2025	251.2	271.81	277.32		277.41	0.000191	1.4	254.58	111.85	0.22
KinmoutDS	16113	100y	Burnt_S01_+Man	251.2	271.68	277.53		277.61	0.000245	1.32	272.24	109.47	0.2
KinmoutDS	16113	100y	Burnt_S02_-Man	251.2	271.68	277.09		277.2	0.000132	1.5	224.61	107.44	0.24
KinmoutDS	16113	100y	Burnt_S03_+Cont	251.2	271.68	277.36		277.45	0.000182	1.39	253.45	108.67	0.22
KinmoutDS	16113	100y	Burnt_S04_-Cont	251.2	271.68	277.26		277.35	0.000199	1.43	242.75	108.31	0.23
KinmoutDS	16113	100y	BurntRiver_RevisedBathy_2025	251.2	271.68	277.31		277.4	0.00019	1.41	248.21	108.49	0.22
KinmoutDS	16092	100y	Burnt_S01_+Man	251.2	271.61	277.52		277.6	0.000258	1.34	266.97	111.13	0.21
KinmoutDS	16092	100y	Burnt_S02_-Man	251.2	271.61	277.08		277.19	0.00014	1.53	218.82	108.54	0.25
KinmoutDS	16092	100y	Burnt_S03_+Cont	251.2	271.61	277.35		277.44	0.000192	1.41	247.98	109.87	0.22
KinmoutDS	16092	100y	Burnt_S04_-Cont	251.2	271.61	277.25		277.35	0.000211	1.46	237.12	109.45	0.23
KinmoutDS	16092	100y	BurntRiver_RevisedBathy_2025	251.2	271.61	277.3		277.4	0.000201	1.43	242.67	109.66	0.23
KinmoutDS	16071	100y	Burnt_S01_+Man	251.2	271.62	277.5		277.6	0.000301	1.41	247.77	107.09	0.22
KinmoutDS	16071	100y	Burnt_S02_-Man	251.2	271.62	277.06		277.19	0.000164	1.61	201.17	104.29	0.26
KinmoutDS	16071	100y	Burnt_S03_+Cont	251.2	271.62	277.33		277.44	0.000225	1.48	229.38	106.05	0.23
KinmoutDS	16071	100y	Burnt_S04_-Cont	251.2	271.62	277.23		277.35	0.000246	1.53	218.9	105.17	0.24
KinmoutDS	16071	100y	BurntRiver_RevisedBathy_2025	251.2	271.62	277.28		277.39	0.000235	1.5	224.24	105.77	0.24
KinmoutDS	16051	100y	Burnt_S01_+Man	251.2	271.64	277.5		277.59	0.000311	1.42	253.59	119.64	0.22
KinmoutDS	16051	100y	Burnt_S02_-Man	251.2	271.64	277.06		277.19	0.000168	1.62	204.56	108.33	0.26
KinmoutDS	16051	100y	Burnt_S03_+Cont	251.2	271.64	277.33		277.43	0.00023	1.49	233.85	111.76	0.23
KinmoutDS	16051	100y	Burnt_S04_-Cont	251.2	271.64	277.23		277.34	0.000253	1.54	222.79	109.11	0.24
KinmoutDS	16051	100y	BurntRiver_RevisedBathy_2025	251.2	271.64	277.28		277.39	0.000241	1.51	228.41	110.91	0.24
KinmoutDS	16012	100y	Burnt_S01_+Man	251.2	271.68	277.49		277.58	0.000362	1.39	267.85	123.73	0.21
KinmoutDS	16012	100y	Burnt_S02_-Man	251.2	271.68	277.05		277.18	0.000197	1.6	216.02	114.63	0.26
KinmoutDS	16012	100y	Burnt_S03_+Cont	251.2	271.68	277.32		277.42	0.000271	1.47	247.12	122.72	0.23
KinmoutDS	16012	100y	Burnt_S04_-Cont	251.2	271.68	277.22		277.33	0.000296	1.51	235.2	119.22	0.24
KinmoutDS	16012	100y	BurntRiver_RevisedBathy_2025	251.2	271.68	277.27		277.38	0.000282	1.49	241.28	120.62	0.23
KinmoutDS	15972	100y	Burnt_S01_+Man	251.2	271.73	277.47		277.56	0.000334	1.41	282.29	132.26	0.21
KinmoutDS	15972	100y	Burnt_S02_-Man	251.2	271.73	277.05		277.17	0.000182	1.62	226.56	127.53	0.26
KinmoutDS	15972	100y	Burnt_S03_+Cont	251.2	271.73	277.31		277.41	0.00025	1.49	260.58	131.12	0.23
KinmoutDS	15972	100y	Burnt_S04_-Cont	251.2	271.73	277.21		277.32	0.000276	1.54	247.31	130.27	0.24
KinmoutDS	15972	100y	BurntRiver_RevisedBathy_2025	251.2	271.73	277.26		277.36	0.000262	1.51	254.05	130.7	0.24
KinmoutDS	15930	100y	Burnt_S01_+Man	251.2	271.76	277.45		277.55	0.000357	1.45	281.76	130.78	0.22
KinmoutDS	15930	100y	Burnt_S02_-Man	251.2	271.76	277.03		277.16	0.000193	1.66	227.53	124.68	0.27
KinmoutDS	15930	100y	Burnt_S03_+Cont	251.2	271.76	277.29		277.4	0.000267	1.53	260.7	129.7	0.24
KinmoutDS	15930	100y	Burnt_S04_-Cont	251.2	271.76	277.19		277.3	0.000295	1.58	247.38	128.94	0.25
KinmoutDS	15930	100y	BurntRiver_RevisedBathy_2025	251.2	271.76	277.24		277.35	0.00028	1.56	254.15	129.34	0.24
KinmoutDS	15892	100y	Burnt_S01_+Man	251.2	271.79	277.43		277.53	0.00035	1.54	269.53	121.92	0.23
KinmoutDS	15892	100y	Burnt_S02_-Man	251.2	271.79	277.01		277.15	0.000189	1.77	219.16	118.74	0.28
KinmoutDS	15892	100y	Burnt_S03_+Cont	251.2	271.79	277.27		277.39	0.000259	1.62	250.22	120.24	0.25
KinmoutDS	15892	100y	Burnt_S04_-Cont	251.2	271.79	277.16		277.29	0.000286	1.68	237.81	119.63	0.26
KinmoutDS	15892	100y	BurntRiver_RevisedBathy_2025	251.2	271.79	277.22		277.34	0.000272	1.65	244.12	119.91	0.25
KinmoutDS	15853	100y	Burnt_S01_+Man	251.2	271.84	277.39		277.52	0.000408	1.65	251.2	118.55	0.25
KinmoutDS	15853	100y	Burnt_S02_-Man	251.2	271.84	276.98		277.14	0.000215	1.87	204.99	108	0.3
KinmoutDS	15853	100y	Burnt_S03_+Cont	251.2	271.84	277.24		277.37	0.000298	1.72	233.17	111.72	0.26
KinmoutDS	15853	100y	Burnt_S04_-Cont	251.2	271.84	277.13		277.28	0.000329	1.78	221.63	109.64	0.28
KinmoutDS	15853	100y	BurntRiver_RevisedBathy_2025	251.2	271.84	277.19		277.33	0.000313	1.75	227.47	110.38	0.27
KinmoutDS	15810	100y	Burnt_S01_+Man	251.2	271.87	277.37		277.5	0.000424	1.69	250.73	111.07	0.25
KinmoutDS	15810	100y	Burnt_S02_-Man	251.2	271.87	276.97		277.14	0.000221	1.91	206.56	104.58	0.3
KinmoutDS	15810	100y	Burnt_S03_+Cont	251.2	271.87	277.22		277.36	0.000312	1.77	233.72	110.2	0.27
KinmoutDS	15810	100y	Burnt_S04_-Cont	251.2	271.87	277.11		277.27	0.000346	1.84	222.07	109.6	0.28
KinmoutDS	15810	100y	BurntRiver_RevisedBathy_2025	251.2	271.87	277.17		277.31	0.000328	1.8	227.99	109.9	0.28
KinmoutDS	15773	100y	Burnt_S01_+Man	251.2	271.92	277.35		277.48	0.000421	1.73	256.41	122.55	0.26
KinmoutDS	15773	100y	Burnt_S02_-Man	251.2	271.92	276.95		277.13	0.000222	1.97	207.51	116.97	0.31

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	15773	100y	Burnt_S03_+Cont	251.2	271.92	277.2		277.35	0.00031	1.82	237.97	121.79	0.28
KinmoutDS	15773	100y	Burnt_S04_-Cont	251.2	271.92	277.09		277.25	0.000344	1.89	224.86	121.22	0.29
KinmoutDS	15773	100y	BurntRiver_RevisedBathy_2025	251.2	271.92	277.15		277.3	0.000326	1.85	231.53	121.52	0.28
KinmoutDS	15731	100y	Burnt_S01_+Man	251.2	271.96	277.33		277.47	0.000486	1.78	252.78	133.24	0.26
KinmoutDS	15731	100y	Burnt_S02_-Man	251.2	271.96	276.92		277.12	0.000262	2.04	199.38	127.44	0.32
KinmoutDS	15731	100y	Burnt_S03_+Cont	251.2	271.96	277.18		277.33	0.00036	1.87	232.93	132.85	0.28
KinmoutDS	15731	100y	Burnt_S04_-Cont	251.2	271.96	277.07		277.24	0.000403	1.95	218.2	132.55	0.3
KinmoutDS	15731	100y	BurntRiver_RevisedBathy_2025	251.2	271.96	277.12		277.29	0.00038	1.91	225.71	132.69	0.29
KinmoutDS	15692	100y	Burnt_S01_+Man	251.2	271.98	277.31		277.45	0.000423	1.77	258.32	130.13	0.26
KinmoutDS	15692	100y	Burnt_S02_-Man	251.2	271.98	276.92		277.1	0.000222	2.02	207.96	126.76	0.31
KinmoutDS	15692	100y	Burnt_S03_+Cont	251.2	271.98	277.17		277.32	0.000309	1.86	239.72	128.75	0.28
KinmoutDS	15692	100y	Burnt_S04_-Cont	251.2	271.98	277.05		277.22	0.000344	1.93	225.54	127.75	0.29
KinmoutDS	15692	100y	BurntRiver_RevisedBathy_2025	251.2	271.98	277.11		277.27	0.000326	1.9	232.75	128.19	0.29
KinmoutDS	15652	100y	Burnt_S01_+Man	251.2	272	277.29		277.43	0.000435	1.8	245.84	123.99	0.27
KinmoutDS	15652	100y	Burnt_S02_-Man	251.2	272	276.9		277.1	0.000226	2.04	198.79	120.7	0.32
KinmoutDS	15652	100y	Burnt_S03_+Cont	251.2	272	277.15		277.31	0.000316	1.89	228.67	123.3	0.28
KinmoutDS	15652	100y	Burnt_S04_-Cont	251.2	272	277.04		277.21	0.000353	1.96	214.88	122.7	0.3
KinmoutDS	15652	100y	BurntRiver_RevisedBathy_2025	251.2	272	277.09		277.26	0.000334	1.92	221.89	123.02	0.29
KinmoutDS	15613	100y	Burnt_S01_+Man	251.2	272.01	277.27		277.41	0.000458	1.84	248.88	122.57	0.27
KinmoutDS	15613	100y	Burnt_S02_-Man	251.2	272.01	276.89		277.09	0.000236	2.08	203.77	113.84	0.32
KinmoutDS	15613	100y	Burnt_S03_+Cont	251.2	272.01	277.13		277.29	0.000333	1.92	232.42	122.02	0.29
KinmoutDS	15613	100y	Burnt_S04_-Cont	251.2	272.01	277.02		277.2	0.000369	1.99	218.75	120.94	0.3
KinmoutDS	15613	100y	BurntRiver_RevisedBathy_2025	251.2	272.01	277.08		277.25	0.000352	1.96	225.59	121.83	0.3
KinmoutDS	15574	100y	Burnt_S01_+Man	251.2	272.03	277.25		277.39	0.000461	1.82	264.61	127.2	0.27
KinmoutDS	15574	100y	Burnt_S02_-Man	251.2	272.03	276.89		277.07	0.00024	2.06	218.49	122.58	0.32
KinmoutDS	15574	100y	Burnt_S03_+Cont	251.2	272.03	277.12		277.28	0.000335	1.9	248.05	126.74	0.29
KinmoutDS	15574	100y	Burnt_S04_-Cont	251.2	272.03	277.01		277.18	0.000375	1.98	233.75	125.93	0.3
KinmoutDS	15574	100y	BurntRiver_RevisedBathy_2025	251.2	272.03	277.07		277.23	0.000354	1.94	241	126.43	0.3
KinmoutDS	15531	100y	Burnt_S01_+Man	251.2	272.04	277.24		277.37	0.000449	1.8	284.85	134.07	0.27
KinmoutDS	15531	100y	Burnt_S02_-Man	251.2	272.04	276.88		277.06	0.000234	2.05	237.23	133.16	0.32
KinmoutDS	15531	100y	Burnt_S03_+Cont	251.2	272.04	277.11		277.26	0.000325	1.88	268.01	133.76	0.29
KinmoutDS	15531	100y	Burnt_S04_-Cont	251.2	272.04	277		277.16	0.000365	1.96	253.02	133.48	0.3
KinmoutDS	15531	100y	BurntRiver_RevisedBathy_2025	251.2	272.04	277.06		277.21	0.000344	1.92	260.64	133.63	0.29
KinmoutDS	15492	100y	Burnt_S01_+Man	251.2	272.06	277.23		277.35	0.000446	1.75	306.91	156.71	0.26
KinmoutDS	15492	100y	Burnt_S02_-Man	251.2	272.06	276.88		277.05	0.000236	2.01	253.03	153.28	0.31
KinmoutDS	15492	100y	Burnt_S03_+Cont	251.2	272.06	277.11		277.24	0.000325	1.83	287.78	155.45	0.28
KinmoutDS	15492	100y	Burnt_S04_-Cont	251.2	272.06	277		277.14	0.000366	1.91	270.83	153.93	0.3
KinmoutDS	15492	100y	BurntRiver_RevisedBathy_2025	251.2	272.06	277.05		277.19	0.000345	1.87	279.38	154.92	0.29
KinmoutDS	15451	100y	Burnt_S01_+Man	251.2	272.07	277.2		277.33	0.000489	1.81	301.33	160.78	0.27
KinmoutDS	15451	100y	Burnt_S02_-Man	251.2	272.07	276.86		277.04	0.000262	2.09	246.4	157.41	0.33
KinmoutDS	15451	100y	Burnt_S03_+Cont	251.2	272.07	277.08		277.22	0.000357	1.9	282.14	159.5	0.29
KinmoutDS	15451	100y	Burnt_S04_-Cont	251.2	272.07	276.97		277.13	0.000406	1.99	264.21	158.35	0.31
KinmoutDS	15451	100y	BurntRiver_RevisedBathy_2025	251.2	272.07	277.03		277.18	0.00038	1.95	273.26	158.99	0.3
KinmoutDS	15412	100y	Burnt_S01_+Man	251.2	272.09	277.19		277.31	0.000475	1.76	329.5	198.78	0.27
KinmoutDS	15412	100y	Burnt_S02_-Man	251.2	272.09	276.85		277.02	0.000258	2.05	264.17	187.26	0.32
KinmoutDS	15412	100y	Burnt_S03_+Cont	251.2	272.09	277.07		277.2	0.000349	1.86	306.51	195.99	0.28
KinmoutDS	15412	100y	Burnt_S04_-Cont	251.2	272.09	276.96		277.11	0.0004	1.96	284.72	192.36	0.3
KinmoutDS	15412	100y	BurntRiver_RevisedBathy_2025	251.2	272.09	277.02		277.16	0.000373	1.91	295.72	194.19	0.29
KinmoutDS	15374	100y	Burnt_S01_+Man	251.2	272.1	277.17		277.29	0.000507	1.79	345.91	202.98	0.27
KinmoutDS	15374	100y	Burnt_S02_-Man	251.2	272.1	276.85		277.01	0.000266	2.05	281.32	198.12	0.32
KinmoutDS	15374	100y	Burnt_S03_+Cont	251.2	272.1	277.06		277.19	0.000369	1.88	323.64	200.06	0.29
KinmoutDS	15374	100y	Burnt_S04_-Cont	251.2	272.1	276.94		277.09	0.000426	1.99	300.66	199.03	0.31
KinmoutDS	15374	100y	BurntRiver_RevisedBathy_2025	251.2	272.1	277		277.14	0.000396	1.93	312.32	199.55	0.3
KinmoutDS	15333	100y	Burnt_S01_+Man	251.2	272.12	277.15		277.26	0.00052	1.77	331.58	192.03	0.27
KinmoutDS	15333	100y	Burnt_S02_-Man	251.2	272.12	276.85		277	0.00026	1.99	275.82	176.59	0.31
KinmoutDS	15333	100y	Burnt_S03_+Cont	251.2	272.12	277.05		277.17	0.000374	1.85	311.94	186.81	0.29
KinmoutDS	15333	100y	Burnt_S04_-Cont	251.2	272.12	276.93		277.08	0.000429	1.95	290.69	181.31	0.3
KinmoutDS	15333	100y	BurntRiver_RevisedBathy_2025	251.2	272.12	276.99		277.13	0.0004	1.9	301.37	183.97	0.29
KinmoutDS	15293	100y	Burnt_S01_+Man	251.2	272.15	277.08		277.24	0.000679	2	256.37	132.96	0.31

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	15293	100y	Burnt_S02_-Man	251.2	272.15	276.77		276.98	0.000349	2.27	215.22	130.59	0.37
KinmoutDS	15293	100y	Burnt_S03_+Cont	251.2	272.15	276.97		277.15	0.000486	2.08	242.68	132.47	0.33
KinmoutDS	15293	100y	Burnt_S04_-Cont	251.2	272.15	276.86		277.05	0.000556	2.18	227.04	131.36	0.35
KinmoutDS	15293	100y	BurntRiver_RevisedBathy_2025	251.2	272.15	276.92		277.1	0.000519	2.13	235.03	132.04	0.34
KinmoutDS	15253	100y	Burnt_S01_+Man	251.2	272.18	277.02		277.21	0.000742	2.11	225.7	128.69	0.33
KinmoutDS	15253	100y	Burnt_S02_-Man	251.2	272.18	276.72		276.96	0.000372	2.36	188.07	121.27	0.38
KinmoutDS	15253	100y	Burnt_S03_+Cont	251.2	272.18	276.92		277.13	0.000528	2.19	213.16	126.57	0.35
KinmoutDS	15253	100y	Burnt_S04_-Cont	251.2	272.18	276.8		277.03	0.000599	2.29	198.28	123.04	0.37
KinmoutDS	15253	100y	BurntRiver_RevisedBathy_2025	251.2	272.18	276.86		277.08	0.000565	2.24	205.61	126.26	0.36
KinmoutDS	15213	100y	Burnt_S01_+Man	251.2	272.2	276.99		277.17	0.000754	2.06	215.59	157.42	0.33
KinmoutDS	15213	100y	Burnt_S02_-Man	251.2	272.2	276.71		276.94	0.000371	2.29	184.35	147.71	0.38
KinmoutDS	15213	100y	Burnt_S03_+Cont	251.2	272.2	276.9		277.1	0.000529	2.13	205.73	155.55	0.34
KinmoutDS	15213	100y	Burnt_S04_-Cont	251.2	272.2	276.78		277	0.000604	2.23	192.46	152.21	0.36
KinmoutDS	15213	100y	BurntRiver_RevisedBathy_2025	251.2	272.2	276.84		277.05	0.000565	2.18	199.16	152.85	0.35
KinmoutDS	15172	100y	Burnt_S01_+Man	251.2	272.24	276.96		277.14	0.000805	2.06	211.72	113.05	0.33
KinmoutDS	15172	100y	Burnt_S02_-Man	251.2	272.24	276.69		276.93	0.000389	2.28	182.57	109.23	0.38
KinmoutDS	15172	100y	Burnt_S03_+Cont	251.2	272.24	276.88		277.08	0.000559	2.12	202.98	112.06	0.35
KinmoutDS	15172	100y	Burnt_S04_-Cont	251.2	272.24	276.76		276.98	0.000641	2.22	189.28	110.03	0.37
KinmoutDS	15172	100y	BurntRiver_RevisedBathy_2025	251.2	272.24	276.82		277.03	0.000598	2.17	196.19	110.85	0.36
KinmoutDS	15130	100y	Burnt_S01_+Man	251.2	272.28	276.89		277.1	0.000889	2.16	177.56	93.69	0.35
KinmoutDS	15130	100y	Burnt_S02_-Man	251.2	272.28	276.65		276.91	0.000419	2.36	155.02	90.96	0.4
KinmoutDS	15130	100y	Burnt_S03_+Cont	251.2	272.28	276.82		277.05	0.000611	2.21	171.18	92.88	0.37
KinmoutDS	15130	100y	Burnt_S04_-Cont	251.2	272.28	276.7		276.95	0.0007	2.32	159.73	91.59	0.39
KinmoutDS	15130	100y	BurntRiver_RevisedBathy_2025	251.2	272.28	276.76		277	0.000652	2.26	165.62	92.27	0.38
KinmoutDS	15093	100y	Burnt_S01_+Man	251.2	272.3	276.84		277.07	0.001046	2.22	160.77	80.29	0.37
KinmoutDS	15093	100y	Burnt_S02_-Man	251.2	272.3	276.61		276.89	0.000481	2.4	143.02	79.32	0.41
KinmoutDS	15093	100y	Burnt_S03_+Cont	251.2	272.3	276.78		277.02	0.000709	2.26	156.28	80.01	0.38
KinmoutDS	15093	100y	Burnt_S04_-Cont	251.2	272.3	276.65		276.92	0.000816	2.37	146.08	79.48	0.4
KinmoutDS	15093	100y	BurntRiver_RevisedBathy_2025	251.2	272.3	276.72		276.97	0.000758	2.31	151.36	79.72	0.39
KinmoutDS	15052	100y	Burnt_S01_+Man	251.2	272.34	276.78		277.03	0.001029	2.25	145.5	67.77	0.38
KinmoutDS	15052	100y	Burnt_S02_-Man	251.2	272.34	276.59		276.87	0.000454	2.4	132.83	65.84	0.42
KinmoutDS	15052	100y	Burnt_S03_+Cont	251.2	272.34	276.74		277	0.000683	2.28	142.97	67.45	0.39
KinmoutDS	15052	100y	Burnt_S04_-Cont	251.2	272.34	276.61		276.89	0.000785	2.39	134.24	66.07	0.41
KinmoutDS	15052	100y	BurntRiver_RevisedBathy_2025	251.2	272.34	276.68		276.94	0.00073	2.33	138.75	66.78	0.4
KinmoutDS	15012	100y	Burnt_S01_+Man	251.2	272.37	276.74		276.98	0.001046	2.23	149.07	89.89	0.38
KinmoutDS	15012	100y	Burnt_S02_-Man	251.2	272.37	276.58		276.85	0.000449	2.36	136.64	83.92	0.41
KinmoutDS	15012	100y	Burnt_S03_+Cont	251.2	272.37	276.72		276.97	0.000683	2.24	147.32	88.24	0.38
KinmoutDS	15012	100y	Burnt_S04_-Cont	251.2	272.37	276.59		276.86	0.000787	2.35	137.28	84.17	0.41
KinmoutDS	15012	100y	BurntRiver_RevisedBathy_2025	251.2	272.37	276.66		276.91	0.00073	2.29	142.46	85.98	0.39
KinmoutDS	14971	100y	Burnt_S01_+Man	251.2	271.81	276.82		276.92	0.000316	1.42	232.81	123.02	0.22
KinmoutDS	14971	100y	Burnt_S02_-Man	251.2	271.81	276.69		276.79	0.000129	1.47	220.09	115.19	0.24
KinmoutDS	14971	100y	Burnt_S03_+Cont	251.2	271.81	276.79		276.89	0.000208	1.43	229.44	119.96	0.23
KinmoutDS	14971	100y	Burnt_S04_-Cont	251.2	271.81	276.71		276.82	0.000222	1.46	222.58	115.6	0.24
KinmoutDS	14971	100y	BurntRiver_RevisedBathy_2025	251.2	271.81	276.75		276.85	0.000215	1.45	226.07	116.26	0.23
KinmoutDS	14930	100y	Burnt_S01_+Man	251.2	272.05	276.82		276.9	0.00029	1.32	303.59	177.31	0.21
KinmoutDS	14930	100y	Burnt_S02_-Man	251.2	272.05	276.7		276.78	0.00012	1.38	285.2	174.89	0.23
KinmoutDS	14930	100y	Burnt_S03_+Cont	251.2	272.05	276.79		276.87	0.000192	1.33	298.64	175.98	0.22
KinmoutDS	14930	100y	Burnt_S04_-Cont	251.2	272.05	276.72		276.8	0.000206	1.36	288.93	175.2	0.22
KinmoutDS	14930	100y	BurntRiver_RevisedBathy_2025	251.2	272.05	276.76		276.84	0.000198	1.35	293.88	175.57	0.22
KinmoutDS	14892	100y	Burnt_S01_+Man	251.2	273.29	276.68		276.87	0.001082	2.1	210.11	178.58	0.4
KinmoutDS	14892	100y	Burnt_S02_-Man	251.2	273.29	276.54		276.76	0.000483	2.26	188.84	177.54	0.44
KinmoutDS	14892	100y	Burnt_S03_+Cont	251.2	273.29	276.64		276.84	0.000733	2.14	204.04	178.3	0.41
KinmoutDS	14892	100y	Burnt_S04_-Cont	251.2	273.29	276.57		276.78	0.000813	2.22	193.84	177.8	0.43
KinmoutDS	14892	100y	BurntRiver_RevisedBathy_2025	251.2	273.29	276.61		276.81	0.000771	2.18	199.05	178.07	0.42
KinmoutDS	14855	100y	Burnt_S01_+Man	251.2	272.89	276.69		276.82	0.000639	1.73	253.43	196.77	0.31
KinmoutDS	14855	100y	Burnt_S02_-Man	251.2	272.89	276.58		276.72	0.000268	1.83	234.47	195.72	0.33
KinmoutDS	14855	100y	Burnt_S03_+Cont	251.2	272.89	276.66		276.79	0.000428	1.76	247.26	196.39	0.31
KinmoutDS	14855	100y	Burnt_S04_-Cont	251.2	272.89	276.61		276.75	0.000455	1.8	239.8	196	0.32
KinmoutDS	14855	100y	BurntRiver_RevisedBathy_2025	251.2	272.89	276.63		276.77	0.000441	1.78	243.53	196.19	0.32

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	14811	100y	Burnt_S01_+Man	251.2	272.48	276.67		276.79	0.000567	1.7	261.89	212.2	0.28
KinmoutDS	14811	100y	Burnt_S02_-Man	251.2	272.48	276.57		276.71	0.000231	1.78	244.37	210.96	0.3
KinmoutDS	14811	100y	Burnt_S03_+Cont	251.2	272.48	276.64		276.77	0.000374	1.72	256.96	211.88	0.29
KinmoutDS	14811	100y	Burnt_S04_-Cont	251.2	272.48	276.59		276.73	0.000396	1.76	248.65	211.21	0.3
KinmoutDS	14811	100y	BurntRiver_RevisedBathy_2025	251.2	272.48	276.62		276.75	0.000385	1.74	252.8	211.51	0.29
KinmoutDS	14770	100y	Burnt_S01_+Man	251.2	273.35	276.5		276.75	0.00173	2.54	214.23	205.51	0.49
KinmoutDS	14770	100y	Burnt_S02_-Man	251.2	273.35	276.39	275.88	276.68	0.000754	2.71	195.65	204.15	0.53
KinmoutDS	14770	100y	Burnt_S03_+Cont	251.2	273.35	276.47	275.88	276.73	0.001162	2.58	209.19	205.22	0.5
KinmoutDS	14770	100y	Burnt_S04_-Cont	251.2	273.35	276.42	275.88	276.7	0.001266	2.66	200.75	204.61	0.52
KinmoutDS	14770	100y	BurntRiver_RevisedBathy_2025	251.2	273.35	276.44	275.88	276.71	0.001213	2.62	204.94	204.91	0.51
KinmoutDS	14731	100y	Burnt_S01_+Man	251.2	273.31	276.04	276.02	276.61	0.00503	3.64	127.71	192.85	0.79
KinmoutDS	14731	100y	Burnt_S02_-Man	251.2	273.31	276.02	276.02	276.61	0.001878	3.69	124.89	191	0.81
KinmoutDS	14731	100y	Burnt_S03_+Cont	251.2	273.31	276	276	276.61	0.003423	3.73	122.72	189.06	0.82
KinmoutDS	14731	100y	Burnt_S04_-Cont	251.2	273.31	276	276	276.61	0.003423	3.73	122.72	189.06	0.82
KinmoutDS	14731	100y	BurntRiver_RevisedBathy_2025	251.2	273.31	276	276	276.61	0.003423	3.73	122.72	189.06	0.82
KinmoutDS	14693	100y	Burnt_S01_+Man	251.2	273.08	275.79	275.79	276.42	0.00508	3.99	91.61	144.38	0.83
KinmoutDS	14693	100y	Burnt_S02_-Man	251.2	273.08	275.79	275.79	276.42	0.001833	3.99	91.61	144.38	0.83
KinmoutDS	14693	100y	Burnt_S03_+Cont	251.2	273.08	275.79	275.79	276.42	0.003242	3.99	91.59	144.37	0.83
KinmoutDS	14693	100y	Burnt_S04_-Cont	251.2	273.08	275.79	275.79	276.42	0.003242	3.99	91.59	144.37	0.83
KinmoutDS	14693	100y	BurntRiver_RevisedBathy_2025	251.2	273.08	275.79	275.79	276.42	0.003242	3.99	91.59	144.37	0.83
KinmoutDS	14655	100y	Burnt_S01_+Man	251.2	271.22	273.85	273.85	274.86	0.007138	4.54	57.89	29.97	0.96
KinmoutDS	14655	100y	Burnt_S02_-Man	251.2	271.22	273.85	273.85	274.86	0.002575	4.54	57.89	29.97	0.96
KinmoutDS	14655	100y	Burnt_S03_+Cont	251.2	271.22	273.85	273.85	274.86	0.004554	4.54	57.89	29.97	0.96
KinmoutDS	14655	100y	Burnt_S04_-Cont	251.2	271.22	273.85	273.85	274.86	0.004554	4.54	57.89	29.97	0.96
KinmoutDS	14655	100y	BurntRiver_RevisedBathy_2025	251.2	271.22	273.85	273.85	274.86	0.004554	4.54	57.89	29.97	0.96
KinmoutDS	14609	100y	Burnt_S01_+Man	251.2	270.36	272.41	272.41	273.17	0.008319	4.12	66.98	47.54	1.01
KinmoutDS	14609	100y	Burnt_S02_-Man	251.2	270.36	272.41	272.41	273.17	0.003003	4.12	66.97	47.54	1.01
KinmoutDS	14609	100y	Burnt_S03_+Cont	251.2	270.36	272.41	272.41	273.17	0.00531	4.12	66.97	47.54	1.01
KinmoutDS	14609	100y	Burnt_S04_-Cont	251.2	270.36	272.41	272.41	273.17	0.00531	4.12	66.97	47.54	1.01
KinmoutDS	14609	100y	BurntRiver_RevisedBathy_2025	251.2	270.36	272.41	272.41	273.17	0.00531	4.12	66.97	47.54	1.01
KinmoutDS	14573	100y	Burnt_S01_+Man	251.2	268.11	270.56	270.56	271.46	0.006874	4.3	62.03	36.96	0.95
KinmoutDS	14573	100y	Burnt_S02_-Man	251.2	268.11	270.56	270.56	271.46	0.002481	4.3	62.02	36.95	0.95
KinmoutDS	14573	100y	Burnt_S03_+Cont	251.2	268.11	270.56	270.56	271.46	0.004387	4.3	62.02	36.95	0.95
KinmoutDS	14573	100y	Burnt_S04_-Cont	251.2	268.11	270.56	270.56	271.46	0.004387	4.3	62.02	36.95	0.95
KinmoutDS	14573	100y	BurntRiver_RevisedBathy_2025	251.2	268.11	270.56	270.56	271.46	0.004387	4.3	62.02	36.95	0.95
KinmoutDS	14538	100y	Burnt_S01_+Man	251.2	267.95	270.82		271.03	0.001592	2.41	150.49	81.84	0.48
KinmoutDS	14538	100y	Burnt_S02_-Man	251.2	267.95	270.65		270.9	0.000734	2.61	137.19	80.05	0.53
KinmoutDS	14538	100y	Burnt_S03_+Cont	251.2	267.95	270.77		270.99	0.001081	2.46	147.06	81.47	0.49
KinmoutDS	14538	100y	Burnt_S04_-Cont	251.2	267.95	270.68		270.92	0.001244	2.57	139.48	80.67	0.52
KinmoutDS	14538	100y	BurntRiver_RevisedBathy_2025	251.2	267.95	270.73		270.96	0.001157	2.51	143.35	81.08	0.51
KinmoutDS	14496	100y	Burnt_S01_+Man	251.2	267.89	270.8		270.96	0.001058	2.06	162.32	111.9	0.39
KinmoutDS	14496	100y	Burnt_S02_-Man	251.2	267.89	270.69		270.85	0.000445	2.16	154.12	110.72	0.42
KinmoutDS	14496	100y	Burnt_S03_+Cont	251.2	267.89	270.77		270.93	0.000702	2.08	160.2	111.68	0.4
KinmoutDS	14496	100y	Burnt_S04_-Cont	251.2	267.89	270.71		270.87	0.000766	2.14	155.55	110.96	0.42
KinmoutDS	14496	100y	BurntRiver_RevisedBathy_2025	251.2	267.89	270.74		270.9	0.000733	2.11	157.85	111.32	0.41
KinmoutDS	14455	100y	Burnt_S01_+Man	251.2	267.75	270.68		270.9	0.001615	2.53	129.29	107.3	0.48
KinmoutDS	14455	100y	Burnt_S02_-Man	251.2	267.75	270.59		270.83	0.000658	2.63	124.15	106.82	0.51
KinmoutDS	14455	100y	Burnt_S03_+Cont	251.2	267.75	270.67		270.89	0.00105	2.54	128.51	107.22	0.49
KinmoutDS	14455	100y	Burnt_S04_-Cont	251.2	267.75	270.6		270.83	0.001154	2.62	124.52	106.85	0.51
KinmoutDS	14455	100y	BurntRiver_RevisedBathy_2025	251.2	267.75	270.63		270.86	0.0011	2.58	126.5	107.03	0.5
KinmoutDS	14418	100y	Burnt_S01_+Man	251.2	267.54	269.91	269.91	270.72	0.007584	4.57	65.73	63.37	1
KinmoutDS	14418	100y	Burnt_S02_-Man	251.2	267.54	269.91	269.91	270.72	0.002736	4.57	65.74	63.37	1
KinmoutDS	14418	100y	Burnt_S03_+Cont	251.2	267.54	269.91	269.91	270.72	0.004837	4.57	65.74	63.37	1
KinmoutDS	14418	100y	Burnt_S04_-Cont	251.2	267.54	269.91	269.91	270.72	0.004837	4.57	65.74	63.37	1
KinmoutDS	14418	100y	BurntRiver_RevisedBathy_2025	251.2	267.54	269.91	269.91	270.72	0.004837	4.57	65.74	63.37	1
KinmoutDS	14378	100y	Burnt_S01_+Man	251.2	265.4	269.53		269.6	0.000261	1.21	226.11	77.27	0.2
KinmoutDS	14378	100y	Burnt_S02_-Man	251.2	265.4	268.84		268.96	0.000199	1.52	174.57	72.48	0.28
KinmoutDS	14378	100y	Burnt_S03_+Cont	251.2	265.4	269.35		269.43	0.000198	1.27	212.7	76.03	0.22
KinmoutDS	14378	100y	Burnt_S04_-Cont	251.2	265.4	268.98		269.09	0.000298	1.45	184.93	73.75	0.26
KinmoutDS	14378	100y	BurntRiver_RevisedBathy_2025	251.2	265.4	269.18		269.27	0.00024	1.35	199.3	74.96	0.24

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	14337	100y	Burnt_S01_+Man	251.2	265.28	269.55		269.58	0.000092	0.76	399.77	115.11	0.12
KinmoutDS	14337	100y	Burnt_S02_-Man	251.2	265.28	268.89		268.93	0.000062	0.92	324.43	111.7	0.16
KinmoutDS	14337	100y	Burnt_S03_+Cont	251.2	265.28	269.38		269.41	0.000069	0.8	379.48	114.21	0.13
KinmoutDS	14337	100y	Burnt_S04_-Cont	251.2	265.28	269.03		269.07	0.000095	0.88	340.55	112.47	0.15
KinmoutDS	14337	100y	BurntRiver_RevisedBathy_2025	251.2	265.28	269.21		269.24	0.00008	0.83	360.61	113.44	0.14
KinmoutDS	14292	100y	Burnt_S01_+Man	251.2	265.28	269.56		269.58	0.00006	0.62	483.3	132.92	0.1
KinmoutDS	14292	100y	Burnt_S02_-Man	251.2	265.28	268.9		268.92	0.00004	0.74	396.29	130.78	0.13
KinmoutDS	14292	100y	Burnt_S03_+Cont	251.2	265.28	269.38		269.4	0.000045	0.65	459.84	132.38	0.11
KinmoutDS	14292	100y	Burnt_S04_-Cont	251.2	265.28	269.04		269.06	0.000062	0.71	415.09	131.28	0.12
KinmoutDS	14292	100y	BurntRiver_RevisedBathy_2025	251.2	265.28	269.22		269.24	0.000052	0.68	438.17	131.87	0.11
KinmoutDS	14249	100y	Burnt_S01_+Man	251.2	265.45	269.55		269.57	0.000072	0.67	460.45	126.33	0.11
KinmoutDS	14249	100y	Burnt_S02_-Man	251.2	265.45	268.89		268.92	0.000049	0.81	377.63	124.59	0.14
KinmoutDS	14249	100y	Burnt_S03_+Cont	251.2	265.45	269.37		269.4	0.000054	0.71	438.19	125.85	0.12
KinmoutDS	14249	100y	Burnt_S04_-Cont	251.2	265.45	269.03		269.06	0.000075	0.78	395.47	124.96	0.14
KinmoutDS	14249	100y	BurntRiver_RevisedBathy_2025	251.2	265.45	269.21		269.24	0.000063	0.74	417.52	125.42	0.13
KinmoutDS	14214	100y	Burnt_S01_+Man	251.2	265.51	269.54		269.57	0.000132	0.82	422.41	126.18	0.13
KinmoutDS	14214	100y	Burnt_S02_-Man	251.2	265.51	268.88		268.92	0.000091	1	339.42	123.66	0.18
KinmoutDS	14214	100y	Burnt_S03_+Cont	251.2	265.51	269.36		269.39	0.000099	0.86	400.12	125.53	0.14
KinmoutDS	14214	100y	Burnt_S04_-Cont	251.2	265.51	269.02		269.06	0.000139	0.96	357.24	124.22	0.17
KinmoutDS	14214	100y	BurntRiver_RevisedBathy_2025	251.2	265.51	269.2		269.23	0.000116	0.9	379.37	124.93	0.15
KinmoutDS	14173	100y	Burnt_S01_+Man	251.2	265.44	269.52		269.56	0.000164	1.01	427.05	150.38	0.16
KinmoutDS	14173	100y	Burnt_S02_-Man	251.2	265.44	268.85		268.91	0.000118	1.26	331.18	140.51	0.22
KinmoutDS	14173	100y	Burnt_S03_+Cont	251.2	265.44	269.35		269.39	0.000124	1.07	400.89	142.04	0.18
KinmoutDS	14173	100y	Burnt_S04_-Cont	251.2	265.44	269		269.05	0.000177	1.2	351.59	141.01	0.21
KinmoutDS	14173	100y	BurntRiver_RevisedBathy_2025	251.2	265.44	269.18		269.23	0.000147	1.13	377.09	141.54	0.19
KinmoutDS	14129	100y	Burnt_S01_+Man	251.2	265.44	269.5		269.55	0.000197	1.11	379.21	163.27	0.18
KinmoutDS	14129	100y	Burnt_S02_-Man	251.2	265.44	268.83		268.91	0.000135	1.36	285.47	117.2	0.24
KinmoutDS	14129	100y	Burnt_S03_+Cont	251.2	265.44	269.32		269.38	0.000145	1.16	350.97	155.12	0.19
KinmoutDS	14129	100y	Burnt_S04_-Cont	251.2	265.44	268.97		269.04	0.000204	1.29	303.12	124.77	0.22
KinmoutDS	14129	100y	BurntRiver_RevisedBathy_2025	251.2	265.44	269.16		269.22	0.000168	1.21	326.51	134.89	0.2
KinmoutDS	14094	100y	Burnt_S01_+Man	251.2	265.31	269.48		269.54	0.000229	1.19	342.62	127.75	0.19
KinmoutDS	14094	100y	Burnt_S02_-Man	251.2	265.31	268.8		268.9	0.000162	1.47	259.68	106.63	0.26
KinmoutDS	14094	100y	Burnt_S03_+Cont	251.2	265.31	269.3		269.37	0.000174	1.26	319.95	125.62	0.21
KinmoutDS	14094	100y	Burnt_S04_-Cont	251.2	265.31	268.95		269.03	0.000244	1.4	276.08	118.79	0.24
KinmoutDS	14094	100y	BurntRiver_RevisedBathy_2025	251.2	265.31	269.13		269.21	0.000208	1.33	298.34	124.37	0.23
KinmoutDS	14053	100y	Burnt_S01_+Man	251.2	265.08	269.48		269.53	0.000203	1.15	351.36	121.79	0.18
KinmoutDS	14053	100y	Burnt_S02_-Man	251.2	265.08	268.8		268.89	0.000141	1.42	271.89	108.62	0.25
KinmoutDS	14053	100y	Burnt_S03_+Cont	251.2	265.08	269.3		269.36	0.000153	1.22	329.85	120.84	0.2
KinmoutDS	14053	100y	Burnt_S04_-Cont	251.2	265.08	268.95		269.02	0.000214	1.35	287.65	114.08	0.23
KinmoutDS	14053	100y	BurntRiver_RevisedBathy_2025	251.2	265.08	269.13		269.2	0.000181	1.29	309.13	119.64	0.21
KinmoutDS	14012	100y	Burnt_S01_+Man	251.2	264.74	269.43		269.52	0.000314	1.47	293.89	110.53	0.23
KinmoutDS	14012	100y	Burnt_S02_-Man	251.2	264.74	268.73		268.88	0.000231	1.87	218.42	105.74	0.32
KinmoutDS	14012	100y	Burnt_S03_+Cont	251.2	264.74	269.25		269.35	0.000238	1.56	274.13	107.67	0.25
KinmoutDS	14012	100y	Burnt_S04_-Cont	251.2	264.74	268.88		269.01	0.000347	1.77	234.36	106.27	0.29
KinmoutDS	14012	100y	BurntRiver_RevisedBathy_2025	251.2	264.74	269.07		269.19	0.000284	1.65	254.98	106.97	0.27
KinmoutDS	13973	100y	Burnt_S01_+Man	251.2	264.51	269.42		269.51	0.000348	1.57	323.31	120.24	0.23
KinmoutDS	13973	100y	Burnt_S02_-Man	251.2	264.51	268.72		268.87	0.000252	1.98	243.21	112.48	0.32
KinmoutDS	13973	100y	Burnt_S03_+Cont	251.2	264.51	269.24		269.34	0.000262	1.66	302.53	114.68	0.25
KinmoutDS	13973	100y	Burnt_S04_-Cont	251.2	264.51	268.86		269	0.000381	1.88	259.61	113.02	0.3
KinmoutDS	13973	100y	BurntRiver_RevisedBathy_2025	251.2	264.51	269.06		269.17	0.000312	1.76	281.92	113.75	0.27
KinmoutDS	13934	100y	Burnt_S01_+Man	251.2	264.45	269.42		269.49	0.000279	1.41	380.06	131.61	0.21
KinmoutDS	13934	100y	Burnt_S02_-Man	251.2	264.45	268.74		268.85	0.000198	1.78	290.82	128.38	0.28
KinmoutDS	13934	100y	Burnt_S03_+Cont	251.2	264.45	269.25		269.32	0.00021	1.49	356.81	130.49	0.22
KinmoutDS	13934	100y	Burnt_S04_-Cont	251.2	264.45	268.88		268.98	0.000301	1.69	309.2	128.87	0.26
KinmoutDS	13934	100y	BurntRiver_RevisedBathy_2025	251.2	264.45	269.07		269.16	0.000249	1.58	333.88	129.65	0.24
KinmoutDS	13895	100y	Burnt_S01_+Man	251.2	264.36	269.41		269.48	0.000268	1.36	395.77	155.7	0.2
KinmoutDS	13895	100y	Burnt_S02_-Man	251.2	264.36	268.73		268.84	0.00019	1.72	290.76	145.53	0.27
KinmoutDS	13895	100y	Burnt_S03_+Cont	251.2	264.36	269.24		269.31	0.000202	1.44	368.51	155.05	0.21
KinmoutDS	13895	100y	Burnt_S04_-Cont	251.2	264.36	268.87		268.97	0.000295	1.64	311.23	151.38	0.26

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	13895	100y	BurntRiver_RevisedBathy_2025	251.2	264.36	269.06		269.15	0.000242	1.53	340.95	154.46	0.23
KinmoutDS	13853	100y	Burnt_S01_+Man	251.2	264.23	269.42		269.46	0.000185	1.15	502.17	172.76	0.17
KinmoutDS	13853	100y	Burnt_S02_-Man	251.2	264.23	268.75		268.82	0.000129	1.46	387.2	170	0.23
KinmoutDS	13853	100y	Burnt_S03_+Cont	251.2	264.23	269.25		269.29	0.000139	1.22	472.08	172.13	0.18
KinmoutDS	13853	100y	Burnt_S04_-Cont	251.2	264.23	268.89		268.95	0.000198	1.38	410.6	170.59	0.21
KinmoutDS	13853	100y	BurntRiver_RevisedBathy_2025	251.2	264.23	269.07		269.13	0.000164	1.3	442.44	171.42	0.19
KinmoutDS	13814	100y	Burnt_S01_+Man	251.2	264.03	269.43		269.45	0.000123	0.97	634.42	204.87	0.14
KinmoutDS	13814	100y	Burnt_S02_-Man	251.2	264.03	268.77		268.81	0.000083	1.21	500.28	201.59	0.19
KinmoutDS	13814	100y	Burnt_S03_+Cont	251.2	264.03	269.25		269.28	0.000092	1.03	598.83	204.05	0.15
KinmoutDS	13814	100y	Burnt_S04_-Cont	251.2	264.03	268.9		268.94	0.000128	1.15	527.86	202.45	0.17
KinmoutDS	13814	100y	BurntRiver_RevisedBathy_2025	251.2	264.03	269.08		269.12	0.000107	1.08	564.5	203.35	0.16
KinmoutDS	13773	100y	Burnt_S01_+Man	251.2	263.14	269.43		269.45	0.000076	0.83	733.18	229.44	0.11
KinmoutDS	13773	100y	Burnt_S02_-Man	251.2	263.14	268.77		268.8	0.000049	1.02	583.68	226.48	0.15
KinmoutDS	13773	100y	Burnt_S03_+Cont	251.2	263.14	269.25		269.28	0.000056	0.88	693.44	228.85	0.12
KinmoutDS	13773	100y	Burnt_S04_-Cont	251.2	263.14	268.91		268.94	0.000076	0.98	614.45	227.46	0.14
KinmoutDS	13773	100y	BurntRiver_RevisedBathy_2025	251.2	263.14	269.08		269.11	0.000065	0.92	655.22	228.18	0.13
KinmoutDS	13735	100y	Burnt_S01_+Man	251.2	260.57	269.43		269.44	0.000031	0.61	831.1	232.7	0.08
KinmoutDS	13735	100y	Burnt_S02_-Man	251.2	260.57	268.78		268.8	0.000018	0.72	680.48	230.79	0.09
KinmoutDS	13735	100y	Burnt_S03_+Cont	251.2	260.57	269.26		269.27	0.000022	0.63	790.8	232.22	0.08
KinmoutDS	13735	100y	Burnt_S04_-Cont	251.2	260.57	268.91		268.93	0.000029	0.69	711.78	231.23	0.09
KinmoutDS	13735	100y	BurntRiver_RevisedBathy_2025	251.2	260.57	269.09		269.11	0.000025	0.66	752.51	231.73	0.08
KinmoutDS	13693	100y	Burnt_S01_+Man	251.2	257.97	269.43		269.44	0.000021	0.52	778.85	194.92	0.06
KinmoutDS	13693	100y	Burnt_S02_-Man	251.2	257.97	268.78		268.8	0.000011	0.59	653.94	191.2	0.07
KinmoutDS	13693	100y	Burnt_S03_+Cont	251.2	257.97	269.26		269.27	0.000014	0.54	745.22	193.71	0.06
KinmoutDS	13693	100y	Burnt_S04_-Cont	251.2	257.97	268.92		268.93	0.000017	0.57	679.82	191.78	0.07
KinmoutDS	13693	100y	BurntRiver_RevisedBathy_2025	251.2	257.97	269.09		269.1	0.000016	0.55	713.46	192.49	0.07
KinmoutDS	13647	100y	Burnt_S01_+Man	251.2	261.5	269.42		269.44	0.00026	0.72	503.15	166.23	0.09
KinmoutDS	13647	100y	Burnt_S02_-Man	251.2	261.5	268.76		268.79	0.000161	0.88	397.46	158.16	0.12
KinmoutDS	13647	100y	Burnt_S03_+Cont	251.2	261.5	269.24		269.26	0.000191	0.76	474.42	163.36	0.1
KinmoutDS	13647	100y	Burnt_S04_-Cont	251.2	261.5	268.9		268.93	0.000254	0.84	419.19	158.89	0.11
KinmoutDS	13647	100y	BurntRiver_RevisedBathy_2025	251.2	261.5	269.08		269.1	0.000219	0.8	447.47	160.75	0.1
KinmoutDS	13610	100y	Burnt_S01_+Man	251.2	262.12	269.38		269.43	0.000199	1.09	373.37	151.16	0.15
KinmoutDS	13610	100y	Burnt_S02_-Man	251.2	262.12	268.71		268.79	0.00012	1.3	275.48	139.95	0.19
KinmoutDS	13610	100y	Burnt_S03_+Cont	251.2	262.12	269.2		269.26	0.000147	1.15	346.4	149.26	0.16
KinmoutDS	13610	100y	Burnt_S04_-Cont	251.2	262.12	268.85		268.92	0.000195	1.27	295.15	143.07	0.18
KinmoutDS	13610	100y	BurntRiver_RevisedBathy_2025	251.2	262.12	269.03		269.09	0.000168	1.2	321.33	146.69	0.17
KinmoutDS	13573	100y	Burnt_S01_+Man	251.2	263.34	269.31		269.41	0.000298	1.57	274.72	135.84	0.23
KinmoutDS	13573	100y	Burnt_S02_-Man	251.2	263.34	268.6		268.77	0.000196	1.91	182.83	116.52	0.3
KinmoutDS	13573	100y	Burnt_S03_+Cont	251.2	263.34	269.11		269.24	0.000225	1.66	248.9	134.88	0.24
KinmoutDS	13573	100y	Burnt_S04_-Cont	251.2	263.34	268.75		268.91	0.000302	1.82	201.28	124.97	0.28
KinmoutDS	13573	100y	BurntRiver_RevisedBathy_2025	251.2	263.34	268.94		269.08	0.000265	1.75	224.95	133.7	0.26
KinmoutDS	13534	100y	Burnt_S01_+Man	251.2	263.92	269.25		269.4	0.00057	1.79	213.82	117.85	0.27
KinmoutDS	13534	100y	Burnt_S02_-Man	251.2	263.92	268.5		268.75	0.000426	2.27	130.21	104.97	0.38
KinmoutDS	13534	100y	Burnt_S03_+Cont	251.2	263.92	269.05		269.22	0.000439	1.91	190.63	117.01	0.3
KinmoutDS	13534	100y	Burnt_S04_-Cont	251.2	263.92	268.66		268.89	0.000641	2.16	147.41	107.5	0.35
KinmoutDS	13534	100y	BurntRiver_RevisedBathy_2025	251.2	263.92	268.86		269.06	0.000527	2.02	169.29	112.43	0.32
KinmoutDS	13494	100y	Burnt_S01_+Man	251.2	263.64	269.23		269.37	0.000447	1.79	220.06	118.4	0.27
KinmoutDS	13494	100y	Burnt_S02_-Man	251.2	263.64	268.49		268.74	0.000318	2.24	135.55	108.9	0.36
KinmoutDS	13494	100y	Burnt_S03_+Cont	251.2	263.64	269.03		269.2	0.00034	1.9	197.38	117.49	0.29
KinmoutDS	13494	100y	Burnt_S04_-Cont	251.2	263.64	268.64		268.87	0.000488	2.14	151.95	111.71	0.34
KinmoutDS	13494	100y	BurntRiver_RevisedBathy_2025	251.2	263.64	268.84		269.04	0.000408	2.02	175.1	116.73	0.31
KinmoutDS	13455	100y	Burnt_S01_+Man	251.2	263.31	269.23		269.35	0.000345	1.67	255.07	132.01	0.24
KinmoutDS	13455	100y	Burnt_S02_-Man	251.2	263.31	268.5		268.72	0.000241	2.1	160.91	126.92	0.33
KinmoutDS	13455	100y	Burnt_S03_+Cont	251.2	263.31	269.04		269.18	0.00026	1.77	230.11	131.29	0.26
KinmoutDS	13455	100y	Burnt_S04_-Cont	251.2	263.31	268.65		268.84	0.00037	2	180.13	128.52	0.31
KinmoutDS	13455	100y	BurntRiver_RevisedBathy_2025	251.2	263.31	268.85		269.02	0.000308	1.88	205.81	130.41	0.28
KinmoutDS	13411	100y	Burnt_S01_+Man	251.2	262.94	269.24		269.33	0.000243	1.47	332.93	137.08	0.2
KinmoutDS	13411	100y	Burnt_S02_-Man	251.2	262.94	268.53		268.68	0.000165	1.84	236.72	134.72	0.27
KinmoutDS	13411	100y	Burnt_S03_+Cont	251.2	262.94	269.05		269.15	0.000182	1.56	307.11	136.46	0.22

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	13411	100y	Burnt_S04_-Cont	251.2	262.94	268.69		268.82	0.000252	1.75	257.75	135.26	0.26
KinmoutDS	13411	100y	BurntRiver_RevisedBathy_2025	251.2	262.94	268.87		268.99	0.000213	1.65	283.07	135.91	0.24
KinmoutDS	13373	100y	Burnt_S01_+Man	251.2	262.59	269.25		269.31	0.000191	1.29	393.99	136.07	0.17
KinmoutDS	13373	100y	Burnt_S02_-Man	251.2	262.59	268.56		268.66	0.000124	1.58	300.9	133.7	0.23
KinmoutDS	13373	100y	Burnt_S03_+Cont	251.2	262.59	269.06		269.13	0.000142	1.36	368.43	135.46	0.19
KinmoutDS	13373	100y	Burnt_S04_-Cont	251.2	262.59	268.71		268.81	0.000191	1.5	321.69	134.24	0.21
KinmoutDS	13373	100y	BurntRiver_RevisedBathy_2025	251.2	262.59	268.89		268.97	0.000164	1.43	345.53	134.89	0.2
KinmoutDS	13334	100y	Burnt_S01_+Man	251.2	262.22	269.23		269.31	0.000185	1.32	354.75	121.61	0.17
KinmoutDS	13334	100y	Burnt_S02_-Man	251.2	262.22	268.55		268.66	0.000114	1.59	272.06	119.35	0.22
KinmoutDS	13334	100y	Burnt_S03_+Cont	251.2	262.22	269.05		269.13	0.000136	1.38	332.09	120.93	0.18
KinmoutDS	13334	100y	Burnt_S04_-Cont	251.2	262.22	268.7		268.8	0.000178	1.52	290.28	119.87	0.21
KinmoutDS	13334	100y	BurntRiver_RevisedBathy_2025	251.2	262.22	268.88		268.97	0.000155	1.45	311.62	120.39	0.2
KinmoutDS	13293	100y	Burnt_S01_+Man	251.2	261.88	269.23		269.3	0.000172	1.26	372.46	131.08	0.16
KinmoutDS	13293	100y	Burnt_S02_-Man	251.2	261.88	268.55		268.65	0.000105	1.52	284.03	128.05	0.21
KinmoutDS	13293	100y	Burnt_S03_+Cont	251.2	261.88	269.04		269.12	0.000126	1.33	348.21	130.57	0.17
KinmoutDS	13293	100y	Burnt_S04_-Cont	251.2	261.88	268.7		268.79	0.000164	1.46	303.34	128.85	0.2
KinmoutDS	13293	100y	BurntRiver_RevisedBathy_2025	251.2	261.88	268.88		268.96	0.000143	1.39	326.18	130.11	0.18
KinmoutDS	13253	100y	Burnt_S01_+Man	251.2	261.76	269.23		269.29	0.000137	1.14	436.41	136.06	0.15
KinmoutDS	13253	100y	Burnt_S02_-Man	251.2	261.76	268.56		268.64	0.000083	1.37	345.65	133.63	0.19
KinmoutDS	13253	100y	Burnt_S03_+Cont	251.2	261.76	269.05		269.11	0.0001	1.2	411.28	135.56	0.16
KinmoutDS	13253	100y	Burnt_S04_-Cont	251.2	261.76	268.71		268.78	0.00013	1.32	365.74	134.32	0.18
KinmoutDS	13253	100y	BurntRiver_RevisedBathy_2025	251.2	261.76	268.88		268.95	0.000114	1.25	388.91	135.02	0.17
KinmoutDS	13213	100y	Burnt_S01_+Man	251.2	261.64	269.23		269.28	0.000135	1.12	444.03	138.66	0.14
KinmoutDS	13213	100y	Burnt_S02_-Man	251.2	261.64	268.56		268.64	0.000082	1.34	351.79	137.08	0.18
KinmoutDS	13213	100y	Burnt_S03_+Cont	251.2	261.64	269.05		269.1	0.000099	1.17	418.58	138.24	0.15
KinmoutDS	13213	100y	Burnt_S04_-Cont	251.2	261.64	268.71		268.78	0.000129	1.28	372.15	137.42	0.17
KinmoutDS	13213	100y	BurntRiver_RevisedBathy_2025	251.2	261.64	268.88		268.94	0.000112	1.22	395.8	137.86	0.16
KinmoutDS	13179	100y	Burnt_S01_+Man	251.2	261.54	269.22		269.27	0.000133	1.16	399.01	105.13	0.15
KinmoutDS	13179	100y	Burnt_S02_-Man	251.2	261.54	268.56		268.63	0.000077	1.35	329.62	103.66	0.19
KinmoutDS	13179	100y	Burnt_S03_+Cont	251.2	261.54	269.04		269.1	0.000096	1.21	379.87	104.72	0.16
KinmoutDS	13179	100y	Burnt_S04_-Cont	251.2	261.54	268.7		268.77	0.000122	1.31	344.79	103.98	0.18
KinmoutDS	13179	100y	BurntRiver_RevisedBathy_2025	251.2	261.54	268.87		268.94	0.000108	1.25	362.65	104.36	0.17
KinmoutDS	13136	100y	Burnt_S01_+Man	251.2	263.58	269.23		269.26	0.000146	0.94	421.55	120.25	0.14
KinmoutDS	13136	100y	Burnt_S02_-Man	251.2	263.58	268.57		268.62	0.000094	1.13	342.87	118.58	0.18
KinmoutDS	13136	100y	Burnt_S03_+Cont	251.2	263.58	269.04		269.08	0.000109	0.99	399.62	119.76	0.15
KinmoutDS	13136	100y	Burnt_S04_-Cont	251.2	263.58	268.71		268.76	0.000145	1.08	360.26	118.94	0.17
KinmoutDS	13136	100y	BurntRiver_RevisedBathy_2025	251.2	263.58	268.88		268.93	0.000125	1.03	380.28	119.36	0.16
KinmoutDS	13095	100y	Burnt_S01_+Man	251.2	264.23	269.2		269.25	0.00019	1.13	338.25	108.09	0.17
KinmoutDS	13095	100y	Burnt_S02_-Man	251.2	264.23	268.53		268.61	0.000127	1.38	266.39	106.34	0.23
KinmoutDS	13095	100y	Burnt_S03_+Cont	251.2	264.23	269.01		269.08	0.000142	1.19	318.32	107.57	0.19
KinmoutDS	13095	100y	Burnt_S04_-Cont	251.2	264.23	268.68		268.76	0.000194	1.32	282.3	106.69	0.21
KinmoutDS	13095	100y	BurntRiver_RevisedBathy_2025	251.2	264.23	268.85		268.92	0.000165	1.25	300.66	107.18	0.2
KinmoutDS	13056	100y	Burnt_S01_+Man	251.2	264.23	269.19		269.25	0.000245	1.12	353.74	120	0.17
KinmoutDS	13056	100y	Burnt_S02_-Man	251.2	264.23	268.53		268.61	0.000168	1.38	275.06	113.97	0.23
KinmoutDS	13056	100y	Burnt_S03_+Cont	251.2	264.23	269.01		269.07	0.000185	1.18	331.8	119.11	0.19
KinmoutDS	13056	100y	Burnt_S04_-Cont	251.2	264.23	268.67		268.75	0.000256	1.31	291.99	116.24	0.22
KinmoutDS	13056	100y	BurntRiver_RevisedBathy_2025	251.2	264.23	268.85		268.91	0.000216	1.24	312.23	118.23	0.2
KinmoutDS	13021	100y	Burnt_S01_+Man	251.2	262.9	269.2		269.24	0.000102	0.94	441.44	139.6	0.13
KinmoutDS	13021	100y	Burnt_S02_-Man	251.2	262.9	268.54		268.6	0.000061	1.11	355.52	122.22	0.16
KinmoutDS	13021	100y	Burnt_S03_+Cont	251.2	262.9	269.02		269.06	0.000075	0.99	416.21	136.36	0.14
KinmoutDS	13021	100y	Burnt_S04_-Cont	251.2	262.9	268.69		268.74	0.000096	1.07	373.62	125.2	0.15
KinmoutDS	13021	100y	BurntRiver_RevisedBathy_2025	251.2	262.9	268.86		268.9	0.000084	1.03	394.81	129.53	0.15
KinmoutDS	12952	100y	Burnt_S01_+Man	256.1	260.03	269.21		269.23	0.000034	0.65	525.58	130.41	0.07
KinmoutDS	12952	100y	Burnt_S02_-Man	256.1	260.03	268.56		268.59	0.000017	0.72	448.68	109.99	0.08
KinmoutDS	12952	100y	Burnt_S03_+Cont	256.1	260.03	269.02		269.05	0.000024	0.66	502.39	123.09	0.08
KinmoutDS	12952	100y	Burnt_S04_-Cont	256.1	260.03	268.71		268.73	0.000028	0.7	464.98	112.62	0.08
KinmoutDS	12952	100y	BurntRiver_RevisedBathy_2025	256.1	260.03	268.87		268.89	0.000026	0.68	483.51	117.53	0.08
KinmoutDS	12913	100y	Burnt_S01_+Man	256.1	263.63	269.15		269.22	0.000227	1.29	284.68	99.44	0.18
KinmoutDS	12913	100y	Burnt_S02_-Man	256.1	263.63	268.47		268.58	0.000141	1.54	222.89	81.1	0.24

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	12913	100y	Burnt_S03_+Cont	256.1	263.63	268.95		269.03	0.000168	1.36	265.81	96.22	0.2
KinmoutDS	12913	100y	Burnt_S04_-Cont	256.1	263.63	268.63		268.72	0.000218	1.47	236.05	85.3	0.22
KinmoutDS	12913	100y	BurntRiver_RevisedBathy_2025	256.1	263.63	268.79		268.88	0.000191	1.41	250.69	91.53	0.21
KinmoutDS	12871	100y	Burnt_S01_+Man	256.1	264.09	269.08		269.2	0.000391	1.61	235.41	85.28	0.24
KinmoutDS	12871	100y	Burnt_S02_-Man	256.1	264.09	268.38		268.56	0.000264	1.96	178.77	76.71	0.32
KinmoutDS	12871	100y	Burnt_S03_+Cont	256.1	264.09	268.88		269.02	0.000296	1.7	218.62	83.16	0.26
KinmoutDS	12871	100y	Burnt_S04_-Cont	256.1	264.09	268.55		268.71	0.000398	1.86	191.76	77.52	0.3
KinmoutDS	12871	100y	BurntRiver_RevisedBathy_2025	256.1	264.09	268.72		268.87	0.000339	1.77	205.26	78.76	0.28
KinmoutDS	12830	100y	Burnt_S01_+Man	256.1	264.1	269.08		269.18	0.000326	1.53	240.37	70.54	0.23
KinmoutDS	12830	100y	Burnt_S02_-Man	256.1	264.1	268.39		268.54	0.000211	1.84	192.73	67.22	0.3
KinmoutDS	12830	100y	Burnt_S03_+Cont	256.1	264.1	268.88		269	0.000244	1.61	226.62	69.64	0.24
KinmoutDS	12830	100y	Burnt_S04_-Cont	256.1	264.1	268.55		268.69	0.000322	1.76	203.75	67.94	0.28
KinmoutDS	12830	100y	BurntRiver_RevisedBathy_2025	256.1	264.1	268.72		268.85	0.000279	1.68	215.36	68.85	0.26
KinmoutDS	12792	100y	Burnt_S01_+Man	256.1	263.95	269.02		269.17	0.000433	1.72	167	44.38	0.25
KinmoutDS	12792	100y	Burnt_S02_-Man	256.1	263.95	268.32		268.53	0.000272	2.04	136.89	42	0.33
KinmoutDS	12792	100y	Burnt_S03_+Cont	256.1	263.95	268.82		268.98	0.000321	1.8	158.33	43.58	0.27
KinmoutDS	12792	100y	Burnt_S04_-Cont	256.1	263.95	268.48		268.67	0.000419	1.95	143.8	42.52	0.31
KinmoutDS	12792	100y	BurntRiver_RevisedBathy_2025	256.1	263.95	268.66		268.83	0.000365	1.87	151.18	43.06	0.29
KinmoutDS	12756	100y	Burnt_S01_+Man	256.1	263.8	269		269.15	0.000434	1.72	168.1	46.18	0.25
KinmoutDS	12756	100y	Burnt_S02_-Man	256.1	263.8	268.31		268.52	0.000268	2.02	137.44	42.23	0.32
KinmoutDS	12756	100y	Burnt_S03_+Cont	256.1	263.8	268.81		268.97	0.00032	1.79	159.28	45.29	0.27
KinmoutDS	12756	100y	Burnt_S04_-Cont	256.1	263.8	268.47		268.66	0.000417	1.95	144.17	43.3	0.3
KinmoutDS	12756	100y	BurntRiver_RevisedBathy_2025	256.1	263.8	268.64		268.82	0.000363	1.86	151.81	44.47	0.28
KinmoutDS	12714	100y	Burnt_S01_+Man	256.1	263.6	268.99		269.13	0.000414	1.69	176.98	51.79	0.24
KinmoutDS	12714	100y	Burnt_S02_-Man	256.1	263.6	268.31		268.5	0.000253	1.99	143.33	46.44	0.31
KinmoutDS	12714	100y	Burnt_S03_+Cont	256.1	263.6	268.8		268.96	0.000304	1.76	167.33	50.71	0.26
KinmoutDS	12714	100y	Burnt_S04_-Cont	256.1	263.6	268.46		268.64	0.000395	1.91	150.43	47.32	0.29
KinmoutDS	12714	100y	BurntRiver_RevisedBathy_2025	256.1	263.6	268.63		268.8	0.000345	1.84	158.93	49.66	0.28
KinmoutDS	12674	100y	Burnt_S01_+Man	256.1	263.41	268.98		269.11	0.000351	1.65	192.17	54.62	0.23
KinmoutDS	12674	100y	Burnt_S02_-Man	256.1	263.41	268.31		268.49	0.000211	1.93	156.6	50.95	0.3
KinmoutDS	12674	100y	Burnt_S03_+Cont	256.1	263.41	268.8		268.94	0.000256	1.72	182.14	53.68	0.25
KinmoutDS	12674	100y	Burnt_S04_-Cont	256.1	263.41	268.46		268.62	0.000332	1.86	164.17	51.85	0.28
KinmoutDS	12674	100y	BurntRiver_RevisedBathy_2025	256.1	263.41	268.63		268.78	0.00029	1.79	173.29	52.84	0.26
KinmoutDS	12632	100y	Burnt_S01_+Man	256.1	263.16	268.97		269.1	0.000337	1.65	189.64	52.49	0.23
KinmoutDS	12632	100y	Burnt_S02_-Man	256.1	263.16	268.3		268.48	0.000197	1.92	157.13	46.68	0.29
KinmoutDS	12632	100y	Burnt_S03_+Cont	256.1	263.16	268.79		268.93	0.000243	1.72	180.41	50.32	0.25
KinmoutDS	12632	100y	Burnt_S04_-Cont	256.1	263.16	268.44		268.61	0.000312	1.85	163.78	47.36	0.27
KinmoutDS	12632	100y	BurntRiver_RevisedBathy_2025	256.1	263.16	268.62		268.77	0.000274	1.78	172.16	48.61	0.26
KinmoutDS	12591	100y	Burnt_S01_+Man	256.1	262.86	268.95		269.08	0.000346	1.66	190.66	54.91	0.23
KinmoutDS	12591	100y	Burnt_S02_-Man	256.1	262.86	268.29		268.47	0.000201	1.92	156.32	47.63	0.29
KinmoutDS	12591	100y	Burnt_S03_+Cont	256.1	262.86	268.77		268.92	0.00025	1.72	181.05	53.67	0.24
KinmoutDS	12591	100y	Burnt_S04_-Cont	256.1	262.86	268.43		268.6	0.000322	1.86	162.99	51.33	0.27
KinmoutDS	12591	100y	BurntRiver_RevisedBathy_2025	256.1	262.86	268.6		268.76	0.000282	1.79	172.16	52.16	0.26
KinmoutDS	12555	100y	Burnt_S01_+Man	256.1	262.59	268.95		269.07	0.000339	1.58	200.89	55.05	0.22
KinmoutDS	12555	100y	Burnt_S02_-Man	256.1	262.59	268.3		268.46	0.000194	1.82	166.25	50.78	0.27
KinmoutDS	12555	100y	Burnt_S03_+Cont	256.1	262.59	268.77		268.9	0.000244	1.64	191.34	54.37	0.23
KinmoutDS	12555	100y	Burnt_S04_-Cont	256.1	262.59	268.43		268.58	0.000311	1.77	173.13	52.16	0.26
KinmoutDS	12555	100y	BurntRiver_RevisedBathy_2025	256.1	262.59	268.61		268.75	0.000274	1.7	182.34	53.47	0.24
KinmoutDS	12514	100y	Burnt_S01_+Man	256.1	263.09	268.92		269.05	0.000376	1.68	194.98	56.16	0.24
KinmoutDS	12514	100y	Burnt_S02_-Man	256.1	263.09	268.27		268.45	0.000222	1.95	160.08	51.53	0.3
KinmoutDS	12514	100y	Burnt_S03_+Cont	256.1	263.09	268.74		268.89	0.000271	1.74	185.42	54.26	0.25
KinmoutDS	12514	100y	Burnt_S04_-Cont	256.1	263.09	268.4		268.57	0.000353	1.89	166.92	52.34	0.28
KinmoutDS	12514	100y	BurntRiver_RevisedBathy_2025	256.1	263.09	268.58		268.73	0.000308	1.81	176.32	53.19	0.27
KinmoutDS	12476	100y	Burnt_S01_+Man	256.1	263.75	268.88		269.03	0.000457	1.8	185.31	57.02	0.27
KinmoutDS	12476	100y	Burnt_S02_-Man	256.1	263.75	268.22		268.44	0.000287	2.14	148.65	52.97	0.34
KinmoutDS	12476	100y	Burnt_S03_+Cont	256.1	263.75	268.71		268.88	0.000334	1.88	175.54	56.06	0.28
KinmoutDS	12476	100y	Burnt_S04_-Cont	256.1	263.75	268.35		268.55	0.000452	2.07	155.76	54.08	0.32
KinmoutDS	12476	100y	BurntRiver_RevisedBathy_2025	256.1	263.75	268.53		268.72	0.000386	1.97	165.84	55.14	0.3
KinmoutDS	12436	100y	Burnt_S01_+Man	256.1	264.14	268.82		269.01	0.00065	2	164.69	57.11	0.31

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Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	12436	100y	Burnt_S02_-Man	256.1	264.14	268.13		268.42	0.000451	2.46	126.53	52.76	0.42
KinmoutDS	12436	100y	Burnt_S03_+Cont	256.1	264.14	268.65		268.85	0.000485	2.1	154.72	56	0.33
KinmoutDS	12436	100y	Burnt_S04_-Cont	256.1	264.14	268.27		268.53	0.000695	2.36	133.84	53.63	0.39
KinmoutDS	12436	100y	BurntRiver_RevisedBathy_2025	256.1	264.14	268.46		268.69	0.000575	2.22	144.52	54.78	0.36
KinmoutDS	12396	100y	Burnt_S01_+Man	256.1	264.41	268.79		268.98	0.000808	2.08	169.19	71.15	0.34
KinmoutDS	12396	100y	Burnt_S02_-Man	256.1	264.41	268.07		268.39	0.00063	2.65	122.26	56.21	0.48
KinmoutDS	12396	100y	Burnt_S03_+Cont	256.1	264.41	268.61		268.83	0.000615	2.2	156.88	70.26	0.37
KinmoutDS	12396	100y	Burnt_S04_-Cont	256.1	264.41	268.2		268.49	0.000954	2.52	129.98	58.39	0.45
KinmoutDS	12396	100y	BurntRiver_RevisedBathy_2025	256.1	264.41	268.42		268.67	0.000755	2.34	143.36	66.65	0.41
KinmoutDS	12352	100y	Burnt_S01_+Man	256.1	264.2	268.84		268.92	0.000393	1.54	308.24	496.37	0.25
KinmoutDS	12352	100y	Burnt_S02_-Man	256.1	264.2	268.19		268.32	0.000277	1.91	246.22	462.52	0.34
KinmoutDS	12352	100y	Burnt_S03_+Cont	256.1	264.2	268.67		268.76	0.000297	1.63	291.36	488.4	0.27
KinmoutDS	12352	100y	Burnt_S04_-Cont	256.1	264.2	268.33		268.44	0.00042	1.82	259.28	469.8	0.32
KinmoutDS	12352	100y	BurntRiver_RevisedBathy_2025	256.1	264.2	268.5		268.6	0.00035	1.72	275.66	481.74	0.29
KinmoutDS	12314	100y	Burnt_S01_+Man	256.1	263.17	268.77		268.9	0.000442	1.71	189.8	56.91	0.25
KinmoutDS	12314	100y	Burnt_S02_-Man	256.1	263.17	268.1		268.3	0.000278	2.03	152.52	54.8	0.32
KinmoutDS	12314	100y	Burnt_S03_+Cont	256.1	263.17	268.59		268.74	0.000325	1.79	179.61	56.36	0.27
KinmoutDS	12314	100y	Burnt_S04_-Cont	256.1	263.17	268.24		268.42	0.000434	1.96	160.25	55.26	0.31
KinmoutDS	12314	100y	BurntRiver_RevisedBathy_2025	256.1	263.17	268.42		268.58	0.000373	1.87	170.13	55.85	0.29
KinmoutDS	12276	100y	Burnt_S01_+Man	256.1	261.96	268.78		268.88	0.000237	1.4	233.71	60.55	0.19
KinmoutDS	12276	100y	Burnt_S02_-Man	256.1	261.96	268.14		268.27	0.000134	1.61	195.32	58.84	0.23
KinmoutDS	12276	100y	Burnt_S03_+Cont	256.1	261.96	268.6		268.7	0.000171	1.45	222.85	60.13	0.2
KinmoutDS	12276	100y	Burnt_S04_-Cont	256.1	261.96	268.28		268.4	0.000214	1.56	203.63	59.25	0.22
KinmoutDS	12276	100y	BurntRiver_RevisedBathy_2025	256.1	261.96	268.45		268.55	0.00019	1.5	213.38	59.76	0.21
KinmoutDS	12234	100y	Burnt_S01_+Man	256.1	260.46	268.79		268.86	0.000141	1.19	271.74	63.66	0.15
KinmoutDS	12234	100y	Burnt_S02_-Man	256.1	260.46	268.16		268.25	0.000075	1.34	232.44	61.07	0.18
KinmoutDS	12234	100y	Burnt_S03_+Cont	256.1	260.46	268.61		268.69	0.0001	1.23	260.35	62.91	0.16
KinmoutDS	12234	100y	Burnt_S04_-Cont	256.1	260.46	268.31		268.39	0.000121	1.31	241.1	61.68	0.17
KinmoutDS	12234	100y	BurntRiver_RevisedBathy_2025	256.1	260.46	268.46		268.54	0.00011	1.27	250.82	62.34	0.16
KinmoutDS	12193	100y	Burnt_S01_+Man	256.1	261.47	268.73		268.85	0.000281	1.55	204.11	53.99	0.21
KinmoutDS	12193	100y	Burnt_S02_-Man	256.1	261.47	268.09		268.24	0.000158	1.78	170.26	50.56	0.26
KinmoutDS	12193	100y	Burnt_S03_+Cont	256.1	261.47	268.55		268.67	0.000202	1.61	194.17	53	0.22
KinmoutDS	12193	100y	Burnt_S04_-Cont	256.1	261.47	268.23		268.38	0.000251	1.72	177.77	51.27	0.24
KinmoutDS	12193	100y	BurntRiver_RevisedBathy_2025	256.1	261.47	268.39		268.53	0.000225	1.66	186.03	52.12	0.23
KinmoutDS	12156	100y	Burnt_S01_+Man	256.1	262.38	268.71		268.84	0.000408	1.72	263.52	102.93	0.25
KinmoutDS	12156	100y	Burnt_S02_-Man	256.1	262.38	268.02		268.23	0.000287	2.16	192.86	100.63	0.34
KinmoutDS	12156	100y	Burnt_S03_+Cont	256.1	262.38	268.52		268.66	0.00031	1.82	243.74	102.35	0.27
KinmoutDS	12156	100y	Burnt_S04_-Cont	256.1	262.38	268.18		268.36	0.00043	2.04	209.2	101.17	0.32
KinmoutDS	12156	100y	BurntRiver_RevisedBathy_2025	256.1	262.38	268.35		268.51	0.000363	1.92	226.84	101.75	0.29
KinmoutDS	12115	100y	Burnt_S01_+Man	256.1	263.17	268.66		268.81	0.000637	1.98	257.35	118.52	0.32
KinmoutDS	12115	100y	Burnt_S02_-Man	256.1	263.17	267.87		268.2	0.000579	2.73	166.91	112.66	0.48
KinmoutDS	12115	100y	Burnt_S03_+Cont	256.1	263.17	268.45		268.64	0.000507	2.14	233.46	116.96	0.35
KinmoutDS	12115	100y	Burnt_S04_-Cont	256.1	263.17	268.07		268.34	0.000797	2.5	189.11	114.17	0.43
KinmoutDS	12115	100y	BurntRiver_RevisedBathy_2025	256.1	263.17	268.27		268.49	0.000626	2.3	212.12	115.58	0.38
KinmoutDS	12073	100y	Burnt_S01_+Man	256.1	263.63	268.68		268.77	0.000448	1.64	329.62	122.37	0.26
KinmoutDS	12073	100y	Burnt_S02_-Man	256.1	263.63	267.97		268.13	0.000366	2.16	243.28	119.3	0.39
KinmoutDS	12073	100y	Burnt_S03_+Cont	256.1	263.63	268.48		268.59	0.000353	1.76	305.2	121.48	0.29
KinmoutDS	12073	100y	Burnt_S04_-Cont	256.1	263.63	268.15		268.29	0.000515	2	265.38	120.14	0.35
KinmoutDS	12073	100y	BurntRiver_RevisedBathy_2025	256.1	263.63	268.32		268.44	0.000423	1.87	285.53	120.82	0.32
KinmoutDS	12025	100y	Burnt_S01_+Man	256.1	263.94	268.7		268.74	0.000229	1.18	480.13	167.06	0.19
KinmoutDS	12025	100y	Burnt_S02_-Man	256.1	263.94	268.02		268.09	0.000177	1.52	367.83	164.64	0.27
KinmoutDS	12025	100y	Burnt_S03_+Cont	256.1	263.94	268.5		268.55	0.00018	1.26	446.84	166.14	0.21
KinmoutDS	12025	100y	Burnt_S04_-Cont	256.1	263.94	268.2		268.26	0.000251	1.41	397.61	165.17	0.24
KinmoutDS	12025	100y	BurntRiver_RevisedBathy_2025	256.1	263.94	268.35		268.4	0.000211	1.33	422.24	165.63	0.23
KinmoutDS	11995	100y	Burnt_S01_+Man	256.1	264.12	268.7		268.73	0.000191	1.07	506.03	174.5	0.17
KinmoutDS	11995	100y	Burnt_S02_-Man	256.1	264.12	268.03		268.08	0.000146	1.38	389.65	171.91	0.25
KinmoutDS	11995	100y	Burnt_S03_+Cont	256.1	264.12	268.5		268.54	0.00015	1.15	471.43	173.58	0.19
KinmoutDS	11995	100y	Burnt_S04_-Cont	256.1	264.12	268.21		268.25	0.000208	1.28	420.41	172.48	0.22
KinmoutDS	11995	100y	BurntRiver_RevisedBathy_2025	256.1	264.12	268.35		268.4	0.000176	1.21	445.89	172.97	0.21

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	11955	100y	Burnt_S01_+Man	256.1	264.3	268.67		268.72	0.00026	1.25	393.34	145.67	0.2
KinmoutDS	11955	100y	Burnt_S02_-Man	256.1	264.3	267.98		268.07	0.000199	1.59	296.38	137.1	0.29
KinmoutDS	11955	100y	Burnt_S03_+Cont	256.1	264.3	268.46		268.53	0.000205	1.34	364	144.64	0.22
KinmoutDS	11955	100y	Burnt_S04_-Cont	256.1	264.3	268.16		268.24	0.000282	1.48	321.61	137.99	0.26
KinmoutDS	11955	100y	BurntRiver_RevisedBathy_2025	256.1	264.3	268.32		268.38	0.000238	1.4	342.61	140.62	0.24
KinmoutDS	11913	100y	Burnt_S01_+Man	256.1	264.35	268.63		268.71	0.000338	1.39	308.4	108.31	0.23
KinmoutDS	11913	100y	Burnt_S02_-Man	256.1	264.35	267.93		268.06	0.000258	1.77	234.07	103.42	0.32
KinmoutDS	11913	100y	Burnt_S03_+Cont	256.1	264.35	268.43		268.51	0.000264	1.49	286.42	107.29	0.25
KinmoutDS	11913	100y	Burnt_S04_-Cont	256.1	264.35	268.12		268.23	0.000368	1.65	253.45	104.92	0.29
KinmoutDS	11913	100y	BurntRiver_RevisedBathy_2025	256.1	264.35	268.27		268.37	0.000311	1.57	269.88	106.61	0.27
KinmoutDS	11876	100y	Burnt_S01_+Man	256.1	264.23	268.59		268.69	0.000368	1.5	260.59	105.87	0.24
KinmoutDS	11876	100y	Burnt_S02_-Man	256.1	264.23	267.89		268.05	0.00026	1.85	194.85	80.47	0.33
KinmoutDS	11876	100y	Burnt_S03_+Cont	256.1	264.23	268.39		268.5	0.000275	1.57	240.29	98.53	0.26
KinmoutDS	11876	100y	Burnt_S04_-Cont	256.1	264.23	268.08		268.21	0.000377	1.74	210.42	90.17	0.3
KinmoutDS	11876	100y	BurntRiver_RevisedBathy_2025	256.1	264.23	268.23		268.36	0.00032	1.65	225.19	95.1	0.28
KinmoutDS	11836	100y	Burnt_S01_+Man	256.1	264.16	268.57		268.68	0.000393	1.5	260.36	111.04	0.24
KinmoutDS	11836	100y	Burnt_S02_-Man	256.1	264.16	267.86		268.03	0.000293	1.9	184.19	96.57	0.33
KinmoutDS	11836	100y	Burnt_S03_+Cont	256.1	264.16	268.37		268.49	0.000307	1.6	237.83	110.49	0.26
KinmoutDS	11836	100y	Burnt_S04_-Cont	256.1	264.16	268.05		268.2	0.000426	1.78	202.7	104.63	0.3
KinmoutDS	11836	100y	BurntRiver_RevisedBathy_2025	256.1	264.16	268.21		268.34	0.000361	1.69	220.05	109.26	0.28
KinmoutDS	11797	100y	Burnt_S01_+Man	256.1	263.96	268.58		268.65	0.000286	1.34	332.98	121.99	0.21
KinmoutDS	11797	100y	Burnt_S02_-Man	256.1	263.96	267.88		268.01	0.000209	1.69	248.9	119.92	0.29
KinmoutDS	11797	100y	Burnt_S03_+Cont	256.1	263.96	268.38		268.46	0.000221	1.43	308.39	121.44	0.23
KinmoutDS	11797	100y	Burnt_S04_-Cont	256.1	263.96	268.07		268.18	0.000303	1.58	270.77	120.59	0.26
KinmoutDS	11797	100y	BurntRiver_RevisedBathy_2025	256.1	263.96	268.22		268.32	0.000258	1.5	289.57	121.02	0.24
KinmoutDS	11755	100y	Burnt_S01_+Man	256.1	263.66	268.57		268.64	0.000271	1.32	311.31	102.22	0.2
KinmoutDS	11755	100y	Burnt_S02_-Man	256.1	263.66	267.88		268	0.000186	1.63	242.03	99.87	0.27
KinmoutDS	11755	100y	Burnt_S03_+Cont	256.1	263.66	268.37		268.45	0.000206	1.4	291.12	101.62	0.22
KinmoutDS	11755	100y	Burnt_S04_-Cont	256.1	263.66	268.06		268.16	0.000276	1.54	259.68	100.48	0.25
KinmoutDS	11755	100y	BurntRiver_RevisedBathy_2025	256.1	263.66	268.21		268.31	0.000238	1.47	275.34	101.06	0.23
KinmoutDS	11714	100y	Burnt_S01_+Man	256.1	263.36	268.56		268.63	0.00027	1.29	321.5	110.55	0.19
KinmoutDS	11714	100y	Burnt_S02_-Man	256.1	263.36	267.88		267.99	0.000183	1.58	247.68	106.01	0.26
KinmoutDS	11714	100y	Burnt_S03_+Cont	256.1	263.36	268.36		268.44	0.000205	1.36	299.92	109.64	0.21
KinmoutDS	11714	100y	Burnt_S04_-Cont	256.1	263.36	268.05		268.15	0.000274	1.5	266.09	107.33	0.24
KinmoutDS	11714	100y	BurntRiver_RevisedBathy_2025	256.1	263.36	268.21		268.3	0.000236	1.43	282.91	108.53	0.22
KinmoutDS	11674	100y	Burnt_S01_+Man	256.1	263.07	268.55		268.62	0.000227	1.27	327.4	121.12	0.19
KinmoutDS	11674	100y	Burnt_S02_-Man	256.1	263.07	267.88		267.98	0.000148	1.54	249.15	103.56	0.24
KinmoutDS	11674	100y	Burnt_S03_+Cont	256.1	263.07	268.36		268.44	0.000171	1.34	304.07	120.31	0.2
KinmoutDS	11674	100y	Burnt_S04_-Cont	256.1	263.07	268.04		268.14	0.000224	1.47	267.32	113.86	0.23
KinmoutDS	11674	100y	BurntRiver_RevisedBathy_2025	256.1	263.07	268.2		268.29	0.000195	1.41	285.37	117.39	0.21
KinmoutDS	11636	100y	Burnt_S01_+Man	256.1	262.79	268.54		268.61	0.000211	1.26	301.96	112.93	0.18
KinmoutDS	11636	100y	Burnt_S02_-Man	256.1	262.79	267.87		267.98	0.000132	1.5	231.42	93.67	0.23
KinmoutDS	11636	100y	Burnt_S03_+Cont	256.1	262.79	268.35		268.43	0.000156	1.32	280.72	109.7	0.19
KinmoutDS	11636	100y	Burnt_S04_-Cont	256.1	262.79	268.04		268.13	0.000203	1.44	247.52	101.62	0.22
KinmoutDS	11636	100y	BurntRiver_RevisedBathy_2025	256.1	262.79	268.19		268.28	0.000178	1.38	263.78	106.13	0.21
KinmoutDS	11596	100y	Burnt_S01_+Man	256.1	263.12	268.53		268.6	0.000204	1.25	307.96	114.21	0.19
KinmoutDS	11596	100y	Burnt_S02_-Man	256.1	263.12	267.87		267.97	0.000132	1.51	233.44	108.43	0.24
KinmoutDS	11596	100y	Burnt_S03_+Cont	256.1	263.12	268.34		268.42	0.000153	1.31	286.62	112.48	0.2
KinmoutDS	11596	100y	Burnt_S04_-Cont	256.1	263.12	268.03		268.12	0.000203	1.44	251.27	110.93	0.23
KinmoutDS	11596	100y	BurntRiver_RevisedBathy_2025	256.1	263.12	268.19		268.27	0.000176	1.37	268.91	111.63	0.21
KinmoutDS	11555	100y	Burnt_S01_+Man	256.1	263.33	268.53		268.59	0.000225	1.22	299.09	101.17	0.19
KinmoutDS	11555	100y	Burnt_S02_-Man	256.1	263.33	267.86		267.97	0.000151	1.48	233.1	97.72	0.25
KinmoutDS	11555	100y	Burnt_S03_+Cont	256.1	263.33	268.34		268.41	0.000169	1.28	280.31	99.99	0.2
KinmoutDS	11555	100y	Burnt_S04_-Cont	256.1	263.33	268.02		268.11	0.000227	1.41	248.82	98.51	0.23
KinmoutDS	11555	100y	BurntRiver_RevisedBathy_2025	256.1	263.33	268.18		268.26	0.000195	1.34	264.54	99.28	0.22
KinmoutDS	11516	100y	Burnt_S01_+Man	256.1	263.34	268.51		268.58	0.000216	1.23	251.91	85	0.19
KinmoutDS	11516	100y	Burnt_S02_-Man	256.1	263.34	267.85		267.96	0.000136	1.46	202.6	71.48	0.24
KinmoutDS	11516	100y	Burnt_S03_+Cont	256.1	263.34	268.33		268.41	0.000159	1.28	237.5	76.86	0.2
KinmoutDS	11516	100y	Burnt_S04_-Cont	256.1	263.34	268.01		268.11	0.000209	1.4	213.83	72.56	0.23
KinmoutDS	11516	100y	BurntRiver_RevisedBathy_2025	256.1	263.34	268.17		268.26	0.000181	1.34	225.5	74.8	0.21

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	11467	100y	Burnt_S01_+Man	256.1	263.03	268.49		268.57	0.000234	1.31	231.11	83.81	0.2
KinmoutDS	11467	100y	Burnt_S02_-Man	256.1	263.03	267.83		267.95	0.000144	1.54	188.13	58.21	0.25
KinmoutDS	11467	100y	Burnt_S03_+Cont	256.1	263.03	268.31		268.4	0.000172	1.36	217.02	71.94	0.21
KinmoutDS	11467	100y	Burnt_S04_-Cont	256.1	263.03	267.99		268.1	0.000223	1.48	197.06	58.53	0.23
KinmoutDS	11467	100y	BurntRiver_RevisedBathy_2025	256.1	263.03	268.15		268.25	0.000195	1.42	206.49	60.7	0.22
KinmoutDS	11431	100y	Burnt_S01_+Man	256.1	262.81	268.47		268.56	0.000267	1.35	230.72	106.96	0.2
KinmoutDS	11431	100y	Burnt_S02_-Man	256.1	262.81	267.82		267.95	0.000159	1.57	180.86	56.11	0.25
KinmoutDS	11431	100y	Burnt_S03_+Cont	256.1	262.81	268.29		268.39	0.000195	1.4	213.24	85.47	0.21
KinmoutDS	11431	100y	Burnt_S04_-Cont	256.1	262.81	267.97		268.09	0.00025	1.51	189.64	62.49	0.23
KinmoutDS	11431	100y	BurntRiver_RevisedBathy_2025	256.1	262.81	268.13		268.24	0.000221	1.46	200.42	73.71	0.22
KinmoutDS	11394	100y	Burnt_S01_+Man	256.1	262.57	268.45		268.55	0.000284	1.43	238.73	110.99	0.2
KinmoutDS	11394	100y	Burnt_S02_-Man	256.1	262.57	267.8		267.94	0.000171	1.69	176.52	72.15	0.26
KinmoutDS	11394	100y	Burnt_S03_+Cont	256.1	262.57	268.27		268.38	0.000208	1.5	219.04	104.07	0.22
KinmoutDS	11394	100y	Burnt_S04_-Cont	256.1	262.57	267.94		268.08	0.000269	1.62	188.39	85.27	0.24
KinmoutDS	11394	100y	BurntRiver_RevisedBathy_2025	256.1	262.57	268.11		268.23	0.000236	1.56	203.13	93.4	0.23
KinmoutDS	11355	100y	Burnt_S01_+Man	256.1	262.34	268.43		268.54	0.000348	1.51	256.91	397.01	0.21
KinmoutDS	11355	100y	Burnt_S02_-Man	256.1	262.34	267.77		267.93	0.000214	1.81	186.49	316.87	0.27
KinmoutDS	11355	100y	Burnt_S03_+Cont	256.1	262.34	268.25		268.37	0.000256	1.59	235.56	375.01	0.22
KinmoutDS	11355	100y	Burnt_S04_-Cont	256.1	262.34	267.92		268.06	0.000335	1.74	200.38	331.52	0.25
KinmoutDS	11355	100y	BurntRiver_RevisedBathy_2025	256.1	262.34	268.09		268.22	0.000292	1.66	217.22	352.68	0.24
KinmoutDS	11312	100y	Burnt_S01_+Man	256.1	262.02	268.42		268.53	0.000294	1.55	292.24	135.05	0.21
KinmoutDS	11312	100y	Burnt_S02_-Man	256.1	262.02	267.76		267.92	0.00018	1.86	209.79	109.77	0.27
KinmoutDS	11312	100y	Burnt_S03_+Cont	256.1	262.02	268.24		268.36	0.000216	1.63	268.64	131.52	0.22
KinmoutDS	11312	100y	Burnt_S04_-Cont	256.1	262.02	267.9		268.05	0.000283	1.79	226.3	116.98	0.25
KinmoutDS	11312	100y	BurntRiver_RevisedBathy_2025	256.1	262.02	268.08		268.21	0.000247	1.71	247.02	124.85	0.24
KinmoutDS	11269	100y	Burnt_S01_+Man	256.1	261.89	268.41		268.51	0.000308	1.55	318.82	142.72	0.21
KinmoutDS	11269	100y	Burnt_S02_-Man	256.1	261.89	267.76		267.91	0.000191	1.87	232.71	117.38	0.27
KinmoutDS	11269	100y	Burnt_S03_+Cont	256.1	261.89	268.24		268.35	0.000226	1.62	294.41	137.24	0.22
KinmoutDS	11269	100y	Burnt_S04_-Cont	256.1	261.89	267.9		268.04	0.0003	1.79	249.76	123.59	0.25
KinmoutDS	11269	100y	BurntRiver_RevisedBathy_2025	256.1	261.89	268.07		268.19	0.00026	1.71	271.65	132.18	0.23
KinmoutDS	11227	100y	Burnt_S01_+Man	256.1	261.93	268.41		268.5	0.000238	1.45	321.06	137.63	0.19
KinmoutDS	11227	100y	Burnt_S02_-Man	256.1	261.93	267.77		267.9	0.000141	1.71	242.49	111.85	0.24
KinmoutDS	11227	100y	Burnt_S03_+Cont	256.1	261.93	268.24		268.33	0.000172	1.51	298.66	125.84	0.21
KinmoutDS	11227	100y	Burnt_S04_-Cont	256.1	261.93	267.9		268.02	0.000224	1.65	258.36	116.57	0.23
KinmoutDS	11227	100y	BurntRiver_RevisedBathy_2025	256.1	261.93	268.07		268.18	0.000196	1.58	278.29	121	0.22
KinmoutDS	11189	100y	Burnt_S01_+Man	256.1	262.21	268.36		268.48	0.000331	1.65	267.9	132.92	0.23
KinmoutDS	11189	100y	Burnt_S02_-Man	256.1	262.21	267.72		267.89	0.000194	1.92	195.99	88.46	0.28
KinmoutDS	11189	100y	Burnt_S03_+Cont	256.1	262.21	268.19		268.32	0.000234	1.7	246.03	122.45	0.24
KinmoutDS	11189	100y	Burnt_S04_-Cont	256.1	262.21	267.86		268.01	0.000306	1.85	208.9	96.74	0.27
KinmoutDS	11189	100y	BurntRiver_RevisedBathy_2025	256.1	262.21	268.03		268.17	0.000267	1.77	226.25	108.4	0.25
KinmoutDS	11154	100y	Burnt_S01_+Man	256.1	262.97	268.3		268.47	0.000473	1.89	204.03	89.86	0.27
KinmoutDS	11154	100y	Burnt_S02_-Man	256.1	262.97	267.63		267.87	0.000301	2.27	148.96	69.82	0.35
KinmoutDS	11154	100y	Burnt_S03_+Cont	256.1	262.97	268.12		268.3	0.000351	1.99	187.98	87.56	0.29
KinmoutDS	11154	100y	Burnt_S04_-Cont	256.1	262.97	267.77		268	0.000469	2.18	159.42	74.44	0.33
KinmoutDS	11154	100y	BurntRiver_RevisedBathy_2025	256.1	262.97	267.95		268.15	0.000404	2.08	173.08	82.67	0.31
KinmoutDS	11092	100y	Burnt_S01_+Man	256.1	264.04	268.2		268.42	0.000882	2.21	155.79	55.02	0.36
KinmoutDS	11092	100y	Burnt_S02_-Man	256.1	264.04	267.47		267.83	0.000674	2.8	117.19	50.89	0.5
KinmoutDS	11092	100y	Burnt_S03_+Cont	256.1	264.04	268.02		268.27	0.000668	2.33	145.9	53.5	0.39
KinmoutDS	11092	100y	Burnt_S04_-Cont	256.1	264.04	267.63		267.95	0.001	2.65	125.29	51.72	0.47
KinmoutDS	11092	100y	BurntRiver_RevisedBathy_2025	256.1	264.04	267.83		268.11	0.000809	2.48	135.75	52.6	0.42
KinmoutDS	11052	100y	Burnt_S01_+Man	256.1	264.24	268.17		268.38	0.000924	2.19	151.58	68.47	0.37
KinmoutDS	11052	100y	Burnt_S02_-Man	256.1	264.24	267.43		267.8	0.000754	2.83	113.34	62.78	0.53
KinmoutDS	11052	100y	Burnt_S03_+Cont	256.1	264.24	267.99		268.24	0.000705	2.31	142.33	66.5	0.4
KinmoutDS	11052	100y	Burnt_S04_-Cont	256.1	264.24	267.58		267.91	0.001118	2.67	120.76	63.72	0.49
KinmoutDS	11052	100y	BurntRiver_RevisedBathy_2025	256.1	264.24	267.79		268.07	0.000873	2.47	131.88	65.08	0.44
KinmoutDS	11010	100y	Burnt_S01_+Man	256.1	263.61	268.11		268.34	0.000846	2.18	138.6	43.81	0.34
KinmoutDS	11010	100y	Burnt_S02_-Man	256.1	263.61	267.42		267.77	0.000579	2.65	109.23	41.21	0.46
KinmoutDS	11010	100y	Burnt_S03_+Cont	256.1	263.61	267.95		268.2	0.00062	2.27	131.62	43.22	0.37
KinmoutDS	11010	100y	Burnt_S04_-Cont	256.1	263.61	267.54		267.87	0.000909	2.56	114.21	41.77	0.43

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	11010	100y	BurntRiver_RevisedBathy_2025	256.1	263.61	267.75		268.04	0.000741	2.4	123.2	42.49	0.4
KinmoutDS	10976	100y	Burnt_S01_+Man	256.1	262.88	268.14		268.3	0.000505	1.86	181.89	53.57	0.28
KinmoutDS	10976	100y	Burnt_S02_-Man	256.1	262.88	267.49		267.72	0.000318	2.21	147.72	51.15	0.36
KinmoutDS	10976	100y	Burnt_S03_+Cont	256.1	262.88	267.98		268.15	0.000367	1.94	173.25	53	0.3
KinmoutDS	10976	100y	Burnt_S04_-Cont	256.1	262.88	267.62		267.83	0.000502	2.14	154.11	51.67	0.34
KinmoutDS	10976	100y	BurntRiver_RevisedBathy_2025	256.1	262.88	267.8		267.99	0.000426	2.03	163.85	52.38	0.32
KinmoutDS	10927	100y	Burnt_S01_+Man	256.1	261.65	268.15		268.27	0.000333	1.63	220.63	63.94	0.23
KinmoutDS	10927	100y	Burnt_S02_-Man	256.1	261.65	267.52		267.69	0.000193	1.9	181.29	61.44	0.28
KinmoutDS	10927	100y	Burnt_S03_+Cont	256.1	261.65	267.99		268.12	0.000239	1.69	210.49	63.23	0.24
KinmoutDS	10927	100y	Burnt_S04_-Cont	256.1	261.65	267.64		267.8	0.000311	1.84	188.75	61.93	0.27
KinmoutDS	10927	100y	BurntRiver_RevisedBathy_2025	256.1	261.65	267.82		267.96	0.000271	1.76	199.77	62.58	0.25
KinmoutDS	10888	100y	Burnt_S01_+Man	256.1	261.04	268.14		268.26	0.000323	1.58	221.92	69.4	0.21
KinmoutDS	10888	100y	Burnt_S02_-Man	256.1	261.04	267.52		267.68	0.000181	1.82	182.54	59.87	0.26
KinmoutDS	10888	100y	Burnt_S03_+Cont	256.1	261.04	267.98		268.11	0.000229	1.64	211.52	65.11	0.23
KinmoutDS	10888	100y	Burnt_S04_-Cont	256.1	261.04	267.64		267.79	0.000294	1.77	189.62	61.71	0.25
KinmoutDS	10888	100y	BurntRiver_RevisedBathy_2025	256.1	261.04	267.81		267.95	0.000258	1.7	200.63	63.25	0.24
KinmoutDS	10848	100y	Burnt_S01_+Man	256.1	261.09	268.12		268.24	0.000319	1.63	217.2	68.1	0.22
KinmoutDS	10848	100y	Burnt_S02_-Man	256.1	261.09	267.51		267.67	0.000179	1.88	178.14	57.18	0.27
KinmoutDS	10848	100y	Burnt_S03_+Cont	256.1	261.09	267.97		268.1	0.000227	1.69	206.84	66.56	0.23
KinmoutDS	10848	100y	Burnt_S04_-Cont	256.1	261.09	267.62		267.78	0.000291	1.83	184.6	57.98	0.26
KinmoutDS	10848	100y	BurntRiver_RevisedBathy_2025	256.1	261.09	267.8		267.94	0.000257	1.76	195.57	64.95	0.25
KinmoutDS	10808	100y	Burnt_S01_+Man	256.1	261.15	268.09		268.23	0.000388	1.73	200.63	70.73	0.24
KinmoutDS	10808	100y	Burnt_S02_-Man	256.1	261.15	267.47		267.66	0.000221	2	159.97	55.92	0.29
KinmoutDS	10808	100y	Burnt_S03_+Cont	256.1	261.15	267.94		268.09	0.000277	1.79	189.99	69.35	0.25
KinmoutDS	10808	100y	Burnt_S04_-Cont	256.1	261.15	267.58		267.76	0.00036	1.95	166.34	60.31	0.28
KinmoutDS	10808	100y	BurntRiver_RevisedBathy_2025	256.1	261.15	267.76		267.93	0.000315	1.87	177.98	67.62	0.27
KinmoutDS	10769	100y	Burnt_S01_+Man	256.1	261.21	268.05		268.21	0.000424	1.82	195.04	70.91	0.25
KinmoutDS	10769	100y	Burnt_S02_-Man	256.1	261.21	267.44		267.65	0.000245	2.12	153.41	62.19	0.32
KinmoutDS	10769	100y	Burnt_S03_+Cont	256.1	261.21	267.91		268.07	0.000302	1.89	184.62	68.78	0.27
KinmoutDS	10769	100y	Burnt_S04_-Cont	256.1	261.21	267.54		267.75	0.000401	2.07	160.15	65.02	0.31
KinmoutDS	10769	100y	BurntRiver_RevisedBathy_2025	256.1	261.21	267.73		267.91	0.000346	1.98	172.46	66.97	0.29
KinmoutDS	10732	100y	Burnt_S01_+Man	256.1	261.38	268.05		268.19	0.000407	1.79	204.66	72.81	0.25
KinmoutDS	10732	100y	Burnt_S02_-Man	256.1	261.38	267.43		267.64	0.000241	2.1	160.93	68.82	0.32
KinmoutDS	10732	100y	Burnt_S03_+Cont	256.1	261.38	267.9		268.06	0.000291	1.85	194.05	72.06	0.27
KinmoutDS	10732	100y	Burnt_S04_-Cont	256.1	261.38	267.53		267.73	0.000392	2.04	167.99	69.78	0.3
KinmoutDS	10732	100y	BurntRiver_RevisedBathy_2025	256.1	261.38	267.72		267.9	0.000336	1.94	181.23	71.14	0.28
KinmoutDS	10690	100y	Burnt_S01_+Man	256.1	261.92	268.02		268.17	0.000428	1.82	186.63	65.51	0.27
KinmoutDS	10690	100y	Burnt_S02_-Man	256.1	261.92	267.41		267.63	0.000251	2.12	149.62	54.78	0.33
KinmoutDS	10690	100y	Burnt_S03_+Cont	256.1	261.92	267.88		268.05	0.000305	1.89	177.38	64.95	0.28
KinmoutDS	10690	100y	Burnt_S04_-Cont	256.1	261.92	267.51		267.71	0.000411	2.07	154.87	57.26	0.32
KinmoutDS	10690	100y	BurntRiver_RevisedBathy_2025	256.1	261.92	267.7		267.88	0.000352	1.97	166.1	60.59	0.3
KinmoutDS	10651	100y	Burnt_S01_+Man	256.1	262.34	268		268.15	0.000488	1.78	163.06	45.76	0.27
KinmoutDS	10651	100y	Burnt_S02_-Man	256.1	262.34	267.4		267.62	0.000288	2.07	136.51	43.48	0.34
KinmoutDS	10651	100y	Burnt_S03_+Cont	256.1	262.34	267.86		268.03	0.000346	1.84	156.94	45.34	0.28
KinmoutDS	10651	100y	Burnt_S04_-Cont	256.1	262.34	267.49		267.69	0.000472	2.03	140.26	43.83	0.32
KinmoutDS	10651	100y	BurntRiver_RevisedBathy_2025	256.1	262.34	267.68		267.86	0.000401	1.93	148.74	44.71	0.3
KinmoutDS	10609	100y	Burnt_S01_+Man	256.1	262.3	268		268.13	0.000394	1.66	194.56	61.05	0.25
KinmoutDS	10609	100y	Burnt_S02_-Man	256.1	262.3	267.41		267.6	0.000236	1.94	159.9	57.77	0.32
KinmoutDS	10609	100y	Burnt_S03_+Cont	256.1	262.3	267.86		268.01	0.00028	1.72	186.53	60.28	0.27
KinmoutDS	10609	100y	Burnt_S04_-Cont	256.1	262.3	267.5		267.67	0.000386	1.9	164.69	58.33	0.31
KinmoutDS	10609	100y	BurntRiver_RevisedBathy_2025	256.1	262.3	267.68		267.84	0.000327	1.8	175.81	59.44	0.29
KinmoutDS	10570	100y	Burnt_S01_+Man	256.1	263.55	267.92		268.11	0.000787	1.94	149.56	54.59	0.33
KinmoutDS	10570	100y	Burnt_S02_-Man	256.1	263.55	267.29		267.58	0.000572	2.4	116.44	50.7	0.46
KinmoutDS	10570	100y	Burnt_S03_+Cont	256.1	263.55	267.78		267.98	0.000579	2.03	142.06	53.46	0.36
KinmoutDS	10570	100y	Burnt_S04_-Cont	256.1	263.55	267.38		267.65	0.000905	2.32	121.11	51.13	0.44
KinmoutDS	10570	100y	BurntRiver_RevisedBathy_2025	256.1	263.55	267.59		267.82	0.000712	2.16	131.88	52.09	0.39
KinmoutDS	10530	100y	Burnt_S01_+Man	256.1	264.49	267.8		268.06	0.001302	2.38	115.54	45.38	0.44
KinmoutDS	10530	100y	Burnt_S02_-Man	256.1	264.49	266.94		267.51	0.001619	3.52	77.6	42.81	0.77
KinmoutDS	10530	100y	Burnt_S03_+Cont	256.1	264.49	267.65		267.94	0.001002	2.53	108.73	44.86	0.48

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	10530	100y	Burnt_S04_-Cont	256.1	264.49	267.11		267.59	0.002172	3.23	84.8	43.32	0.68
KinmoutDS	10530	100y	BurntRiver_RevisedBathy_2025	256.1	264.49	267.41		267.77	0.001379	2.79	98.11	44.05	0.55
KinmoutDS	10491	100y	Burnt_S01_+Man	256.1	263.41	267.92		267.98	0.00021	1.17	235.35	70.1	0.19
KinmoutDS	10491	100y	Burnt_S02_-Man	256.1	263.41	267.26		267.35	0.000142	1.43	190.9	65.01	0.25
KinmoutDS	10491	100y	Burnt_S03_+Cont	256.1	263.41	267.76		267.83	0.000154	1.23	224.2	68.99	0.2
KinmoutDS	10491	100y	Burnt_S04_-Cont	256.1	263.41	267.42		267.5	0.000213	1.36	201.44	65.66	0.23
KinmoutDS	10491	100y	BurntRiver_RevisedBathy_2025	256.1	263.41	267.59		267.67	0.00018	1.29	212.76	66.32	0.21
KinmoutDS	10449	100y	Burnt_S01_+Man	256.1	261.36	267.95		267.96	0.000039	0.53	545.05	129.46	0.08
KinmoutDS	10449	100y	Burnt_S02_-Man	256.1	261.36	267.31		267.33	0.000024	0.62	462.41	128.17	0.1
KinmoutDS	10449	100y	Burnt_S03_+Cont	256.1	261.36	267.79		267.8	0.000028	0.55	523.81	129.15	0.08
KinmoutDS	10449	100y	Burnt_S04_-Cont	256.1	261.36	267.47		267.49	0.000036	0.59	483.57	128.46	0.09
KinmoutDS	10449	100y	BurntRiver_RevisedBathy_2025	256.1	261.36	267.63		267.65	0.000032	0.57	503.69	128.81	0.09
KinmoutDS	10410	100y	Burnt_S01_+Man	256.1	260.14	267.95		267.96	0.000021	0.43	725	157.32	0.06
KinmoutDS	10410	100y	Burnt_S02_-Man	256.1	260.14	267.31		267.32	0.000012	0.49	624.86	155.87	0.07
KinmoutDS	10410	100y	Burnt_S03_+Cont	256.1	260.14	267.79		267.8	0.000015	0.45	699.16	156.94	0.06
KinmoutDS	10410	100y	Burnt_S04_-Cont	256.1	260.14	267.48		267.49	0.000018	0.48	650.62	156.24	0.07
KinmoutDS	10410	100y	BurntRiver_RevisedBathy_2025	256.1	260.14	267.63		267.64	0.000016	0.46	674.88	156.59	0.07
KinmoutDS	10377	100y	Burnt_S01_+Man	256.1	260.68	267.95		267.96	0.000025	0.47	675.41	152.19	0.07
KinmoutDS	10377	100y	Burnt_S02_-Man	256.1	260.68	267.31		267.32	0.000015	0.54	578.56	150.51	0.08
KinmoutDS	10377	100y	Burnt_S03_+Cont	256.1	260.68	267.79		267.8	0.000018	0.48	650.42	151.79	0.07
KinmoutDS	10377	100y	Burnt_S04_-Cont	256.1	260.68	267.48		267.49	0.000023	0.52	603.45	150.95	0.08
KinmoutDS	10377	100y	BurntRiver_RevisedBathy_2025	256.1	260.68	267.63		267.64	0.00002	0.5	626.92	151.37	0.07
KinmoutDS	10330	100y	Burnt_S01_+Man	256.1	261.39	267.93		267.96	0.000062	0.7	369.33	80.06	0.1
KinmoutDS	10330	100y	Burnt_S02_-Man	256.1	261.39	267.29		267.32	0.000036	0.81	318.24	78.67	0.13
KinmoutDS	10330	100y	Burnt_S03_+Cont	256.1	261.39	267.77		267.79	0.000044	0.72	356.09	79.57	0.11
KinmoutDS	10330	100y	Burnt_S04_-Cont	256.1	261.39	267.46		267.49	0.000056	0.77	331.41	78.92	0.12
KinmoutDS	10330	100y	BurntRiver_RevisedBathy_2025	256.1	261.39	267.61		267.64	0.00005	0.75	343.74	79.2	0.11
KinmoutDS	10291	100y	Burnt_S01_+Man	256.1	262.02	267.91		267.95	0.000105	0.9	297.86	70.72	0.13
KinmoutDS	10291	100y	Burnt_S02_-Man	256.1	262.02	267.26		267.32	0.000063	1.05	252.36	69.06	0.17
KinmoutDS	10291	100y	Burnt_S03_+Cont	256.1	262.02	267.74		267.79	0.000076	0.93	286.05	70.32	0.14
KinmoutDS	10291	100y	Burnt_S04_-Cont	256.1	262.02	267.43		267.48	0.000097	1	264.1	69.56	0.16
KinmoutDS	10291	100y	BurntRiver_RevisedBathy_2025	256.1	262.02	267.59		267.64	0.000086	0.96	275.06	69.96	0.15
KinmoutDS	10253	100y	Burnt_S01_+Man	256.1	262.63	267.88		267.94	0.000184	1.18	243.02	60.67	0.18
KinmoutDS	10253	100y	Burnt_S02_-Man	256.1	262.63	267.21		267.31	0.000113	1.39	203.51	58.87	0.23
KinmoutDS	10253	100y	Burnt_S03_+Cont	256.1	262.63	267.71		267.78	0.000133	1.22	232.73	60.14	0.19
KinmoutDS	10253	100y	Burnt_S04_-Cont	256.1	262.63	267.39		267.48	0.000173	1.32	213.77	59.3	0.21
KinmoutDS	10253	100y	BurntRiver_RevisedBathy_2025	256.1	262.63	267.55		267.63	0.000151	1.27	223.24	59.7	0.2
KinmoutDS	10214	100y	Burnt_S01_+Man	256.1	263.01	267.84		267.93	0.000281	1.43	225.88	83.22	0.22
KinmoutDS	10214	100y	Burnt_S02_-Man	256.1	263.01	267.16		267.3	0.000181	1.71	179.28	55.86	0.28
KinmoutDS	10214	100y	Burnt_S03_+Cont	256.1	263.01	267.66		267.77	0.000207	1.49	211.93	77.6	0.23
KinmoutDS	10214	100y	Burnt_S04_-Cont	256.1	263.01	267.34		267.47	0.000272	1.62	189.37	59.32	0.26
KinmoutDS	10214	100y	BurntRiver_RevisedBathy_2025	256.1	263.01	267.5		267.62	0.000237	1.56	200.05	69.46	0.25
KinmoutDS	10170	100y	Burnt_S01_+Man	256.1	262.85	267.82	264.99	267.92	0.000272	1.42	206.7	114.08	0.21
KinmoutDS	10170	100y	Burnt_S02_-Man	256.1	262.85	267.15	264.99	267.29	0.000171	1.68	170.51	87.74	0.28
KinmoutDS	10170	100y	Burnt_S03_+Cont	256.1	262.85	267.65	264.99	267.76	0.000198	1.48	197.36	109.34	0.23
KinmoutDS	10170	100y	Burnt_S04_-Cont	256.1	262.85	267.32	264.99	267.45	0.00026	1.6	179.62	97.06	0.26
KinmoutDS	10170	100y	BurntRiver_RevisedBathy_2025	256.1	262.85	267.49	264.99	267.6	0.000226	1.54	188.46	104.08	0.24
KinmoutDS	10146	Concession Road		Bridge									
KinmoutDS	10123	100y	Burnt_S01_+Man	256.1	262.21	267.78		267.86	0.000217	1.29	219.77	131.74	0.19
KinmoutDS	10123	100y	Burnt_S02_-Man	256.1	262.21	267.11		267.23	0.000136	1.54	181.22	90.94	0.25
KinmoutDS	10123	100y	Burnt_S03_+Cont	256.1	262.21	267.59		267.68	0.00016	1.35	208.96	121.32	0.2
KinmoutDS	10123	100y	Burnt_S04_-Cont	256.1	262.21	267.31		267.41	0.000202	1.45	192.58	102.33	0.23
KinmoutDS	10123	100y	BurntRiver_RevisedBathy_2025	256.1	262.21	267.45		267.55	0.000179	1.4	200.82	109.06	0.22
KinmoutDS	10093	100y	Burnt_S01_+Man	256.1	262.34	267.77		267.85	0.000213	1.27	283.54	145.96	0.19
KinmoutDS	10093	100y	Burnt_S02_-Man	256.1	262.34	267.11		267.22	0.00014	1.54	226.2	129.28	0.25
KinmoutDS	10093	100y	Burnt_S03_+Cont	256.1	262.34	267.59		267.67	0.000159	1.33	267.53	144.1	0.2
KinmoutDS	10093	100y	Burnt_S04_-Cont	256.1	262.34	267.31		267.4	0.000205	1.45	243.27	133.85	0.23
KinmoutDS	10093	100y	BurntRiver_RevisedBathy_2025	256.1	262.34	267.45		267.54	0.00018	1.39	255.52	141	0.22

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	10051	100y	Burnt_S01_+Man	256.1	261.99	267.71		267.83	0.000329	1.58	182.62	54.31	0.23
KinmoutDS	10051	100y	Burnt_S02_-Man	256.1	261.99	267.04		267.21	0.000196	1.85	150.75	44.54	0.28
KinmoutDS	10051	100y	Burnt_S03_+Cont	256.1	261.99	267.53		267.66	0.000236	1.64	172.97	48.39	0.24
KinmoutDS	10051	100y	Burnt_S04_-Cont	256.1	261.99	267.25		267.39	0.000293	1.76	159.87	45.38	0.26
KinmoutDS	10051	100y	BurntRiver_RevisedBathy_2025	256.1	261.99	267.39		267.53	0.000262	1.69	166.44	45.98	0.25
KinmoutDS	10010	100y	Burnt_S01_+Man	256.1	260.93	267.73		267.81	0.000211	1.38	238.53	99.6	0.18
KinmoutDS	10010	100y	Burnt_S02_-Man	256.1	260.93	267.06		267.19	0.000133	1.68	180.34	68.37	0.24
KinmoutDS	10010	100y	Burnt_S03_+Cont	256.1	260.93	267.54		267.63	0.000154	1.44	220.34	93.2	0.2
KinmoutDS	10010	100y	Burnt_S04_-Cont	256.1	260.93	267.26		267.38	0.000197	1.58	195.85	83.06	0.22
KinmoutDS	10010	100y	BurntRiver_RevisedBathy_2025	256.1	260.93	267.4		267.51	0.000174	1.51	207.9	89.27	0.21
KinmoutDS	9971	100y	Burnt_S01_+Man	256.1	261.24	267.73		267.8	0.00018	1.25	263.02	99.67	0.17
KinmoutDS	9971	100y	Burnt_S02_-Man	256.1	261.24	267.06		267.18	0.000137	1.67	196.43	97.96	0.24
KinmoutDS	9971	100y	Burnt_S03_+Cont	256.1	261.24	267.54		267.62	0.000141	1.36	244.09	98.94	0.19
KinmoutDS	9971	100y	Burnt_S04_-Cont	256.1	261.24	267.27		267.37	0.000191	1.52	216.94	98.26	0.22
KinmoutDS	9971	100y	BurntRiver_RevisedBathy_2025	256.1	261.24	267.41		267.5	0.000163	1.43	230.77	98.55	0.2
KinmoutDS	9931	100y	Burnt_S01_+Man	256.1	261.34	267.69		267.79	0.000256	1.47	226.63	88.64	0.21
KinmoutDS	9931	100y	Burnt_S02_-Man	256.1	261.34	267.03		267.17	0.000155	1.74	178.19	66.85	0.26
KinmoutDS	9931	100y	Burnt_S03_+Cont	256.1	261.34	267.5		267.61	0.000181	1.51	210.76	76.94	0.21
KinmoutDS	9931	100y	Burnt_S04_-Cont	256.1	261.34	267.23		267.36	0.000229	1.64	191.83	68.45	0.24
KinmoutDS	9931	100y	BurntRiver_RevisedBathy_2025	256.1	261.34	267.37		267.49	0.000203	1.57	201.34	69.52	0.23
KinmoutDS	9890	100y	Burnt_S01_+Man	256.1	261.41	267.67		267.78	0.000316	1.49	216.18	73.15	0.21
KinmoutDS	9890	100y	Burnt_S02_-Man	256.1	261.41	267.01		267.17	0.000199	1.8	169.13	69.04	0.27
KinmoutDS	9890	100y	Burnt_S03_+Cont	256.1	261.41	267.49		267.6	0.000235	1.57	202.59	72.11	0.22
KinmoutDS	9890	100y	Burnt_S04_-Cont	256.1	261.41	267.21		267.35	0.000296	1.7	183.1	70.45	0.25
KinmoutDS	9890	100y	BurntRiver_RevisedBathy_2025	256.1	261.41	267.35		267.48	0.000262	1.63	192.97	71.32	0.24
KinmoutDS	9850	100y	Burnt_S01_+Man	256.1	261.53	267.66		267.75	0.000241	1.44	227.96	71.39	0.2
KinmoutDS	9850	100y	Burnt_S02_-Man	256.1	261.53	267.01		267.15	0.000149	1.73	182.84	67.26	0.26
KinmoutDS	9850	100y	Burnt_S03_+Cont	256.1	261.53	267.48		267.58	0.000178	1.52	215.02	70.33	0.22
KinmoutDS	9850	100y	Burnt_S04_-Cont	256.1	261.53	267.21		267.33	0.000223	1.64	196.07	68.96	0.24
KinmoutDS	9850	100y	BurntRiver_RevisedBathy_2025	256.1	261.53	267.35		267.46	0.000199	1.57	205.67	69.81	0.23
KinmoutDS	9771	100y	Burnt_S01_+Man	256.1	261.62	267.65		267.74	0.000223	1.39	231.04	100.01	0.19
KinmoutDS	9771	100y	Burnt_S02_-Man	256.1	261.62	267.01		267.14	0.000136	1.65	181.01	63.09	0.25
KinmoutDS	9771	100y	Burnt_S03_+Cont	256.1	261.62	267.47		267.57	0.000165	1.46	214.32	88.15	0.21
KinmoutDS	9771	100y	Burnt_S04_-Cont	256.1	261.62	267.2		267.32	0.000203	1.56	193.33	66.54	0.23
KinmoutDS	9771	100y	BurntRiver_RevisedBathy_2025	256.1	261.62	267.34		267.45	0.000181	1.5	203.25	77.57	0.22
KinmoutDS	9729	100y	Burnt_S01_+Man	256.1	261.72	267.62		267.73	0.00027	1.54	235.2	108.04	0.22
KinmoutDS	9729	100y	Burnt_S02_-Man	256.1	261.72	266.98		267.13	0.000163	1.83	179.4	72.99	0.27
KinmoutDS	9729	100y	Burnt_S03_+Cont	256.1	261.72	267.44		267.56	0.000198	1.62	217.01	96.29	0.23
KinmoutDS	9729	100y	Burnt_S04_-Cont	256.1	261.72	267.17		267.31	0.000246	1.74	193.68	76.46	0.25
KinmoutDS	9729	100y	BurntRiver_RevisedBathy_2025	256.1	261.72	267.31		267.44	0.00022	1.67	204.75	84.02	0.24
KinmoutDS	9690	100y	Burnt_S01_+Man	256.1	261.63	267.61		267.72	0.000295	1.55	242.45	120.31	0.22
KinmoutDS	9690	100y	Burnt_S02_-Man	256.1	261.63	266.96		267.13	0.000181	1.84	179.03	74.11	0.28
KinmoutDS	9690	100y	Burnt_S03_+Cont	256.1	261.63	267.43		267.55	0.000218	1.63	221.48	115.86	0.23
KinmoutDS	9690	100y	Burnt_S04_-Cont	256.1	261.63	267.15		267.3	0.000272	1.75	193.73	83.52	0.26
KinmoutDS	9690	100y	BurntRiver_RevisedBathy_2025	256.1	261.63	267.29		267.43	0.000242	1.68	206.59	100.08	0.24
KinmoutDS	9630	100y	Burnt_S01_+Man	256.1	261.26	267.61		267.69	0.000251	1.35	281.88	135.19	0.18
KinmoutDS	9630	100y	Burnt_S02_-Man	256.1	261.26	266.98		267.1	0.000156	1.63	206.23	100.68	0.24
KinmoutDS	9630	100y	Burnt_S03_+Cont	256.1	261.26	267.44		267.53	0.000186	1.42	258.63	129.08	0.2
KinmoutDS	9630	100y	Burnt_S04_-Cont	256.1	261.26	267.17		267.28	0.000234	1.54	225.93	111.93	0.22
KinmoutDS	9630	100y	BurntRiver_RevisedBathy_2025	256.1	261.26	267.3		267.4	0.000208	1.48	242.01	123.2	0.21
KinmoutDS	9590	100y	Burnt_S01_+Man	256.1	260.96	267.61		267.68	0.000199	1.3	316.09	145.49	0.18
KinmoutDS	9590	100y	Burnt_S02_-Man	256.1	260.96	266.98		267.1	0.000123	1.57	232.61	120.72	0.23
KinmoutDS	9590	100y	Burnt_S03_+Cont	256.1	260.96	267.43		267.52	0.000147	1.37	291.57	138.52	0.19
KinmoutDS	9590	100y	Burnt_S04_-Cont	256.1	260.96	267.17		267.27	0.000185	1.48	255.44	129.13	0.21
KinmoutDS	9590	100y	BurntRiver_RevisedBathy_2025	256.1	260.96	267.3		267.39	0.000165	1.42	273.49	135.98	0.2
KinmoutDS	9550	100y	Burnt_S01_+Man	256.1	260.66	267.6		267.67	0.000179	1.25	354.59	163.01	0.17
KinmoutDS	9550	100y	Burnt_S02_-Man	256.1	260.66	266.99		267.09	0.000107	1.48	264.94	128.4	0.21
KinmoutDS	9550	100y	Burnt_S03_+Cont	256.1	260.66	267.43		267.51	0.000132	1.31	327.19	155.89	0.18
KinmoutDS	9550	100y	Burnt_S04_-Cont	256.1	260.66	267.17		267.26	0.000161	1.4	288.97	135.79	0.2
KinmoutDS	9550	100y	BurntRiver_RevisedBathy_2025	256.1	260.66	267.3		267.38	0.000144	1.35	307.61	145.12	0.19

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	9510	100y	Burnt_S01_+Man	256.1	260.35	267.6		267.67	0.000152	1.22	374.72	162.75	0.16
KinmoutDS	9510	100y	Burnt_S02_-Man	256.1	260.35	266.99		267.08	0.000088	1.44	284.99	136.89	0.2
KinmoutDS	9510	100y	Burnt_S03_+Cont	256.1	260.35	267.43		267.5	0.000109	1.27	347.66	154.42	0.17
KinmoutDS	9510	100y	Burnt_S04_-Cont	256.1	260.35	267.17		267.25	0.000134	1.37	309.9	139.3	0.19
KinmoutDS	9510	100y	BurntRiver_RevisedBathy_2025	256.1	260.35	267.3		267.38	0.00012	1.32	328.67	142.7	0.18
KinmoutDS	9471	100y	Burnt_S01_+Man	256.1	260.77	267.58		267.66	0.000193	1.36	340.75	129.96	0.18
KinmoutDS	9471	100y	Burnt_S02_-Man	256.1	260.77	266.96		267.08	0.000115	1.62	261.87	116.5	0.23
KinmoutDS	9471	100y	Burnt_S03_+Cont	256.1	260.77	267.41		267.49	0.000141	1.43	318.29	129.16	0.2
KinmoutDS	9471	100y	Burnt_S04_-Cont	256.1	260.77	267.14		267.24	0.000174	1.53	284.29	126.35	0.22
KinmoutDS	9471	100y	BurntRiver_RevisedBathy_2025	256.1	260.77	267.28		267.37	0.000158	1.48	301.36	128.63	0.21
KinmoutDS	9428	100y	Burnt_S01_+Man	256.1	261.16	267.58		267.65	0.000167	1.23	322.23	115.19	0.17
KinmoutDS	9428	100y	Burnt_S02_-Man	256.1	261.16	266.97		267.06	0.000106	1.5	254.85	105.86	0.22
KinmoutDS	9428	100y	Burnt_S03_+Cont	256.1	261.16	267.41		267.48	0.000124	1.3	302.75	111.32	0.18
KinmoutDS	9428	100y	Burnt_S04_-Cont	256.1	261.16	267.15		267.23	0.000157	1.41	274.28	107.36	0.2
KinmoutDS	9428	100y	BurntRiver_RevisedBathy_2025	256.1	261.16	267.28		267.36	0.000139	1.35	288.57	108.98	0.19
KinmoutDS	9390	100y	Burnt_S01_+Man	256.1	261.46	267.59		267.64	0.000132	1.07	335.3	139.46	0.15
KinmoutDS	9390	100y	Burnt_S02_-Man	256.1	261.46	266.98		267.05	0.000091	1.36	259.5	115.12	0.2
KinmoutDS	9390	100y	Burnt_S03_+Cont	256.1	261.46	267.42		267.47	0.0001	1.14	312.48	127.34	0.16
KinmoutDS	9390	100y	Burnt_S04_-Cont	256.1	261.46	267.16		267.23	0.000131	1.26	280.98	119.71	0.19
KinmoutDS	9390	100y	BurntRiver_RevisedBathy_2025	256.1	261.46	267.29		267.35	0.000114	1.2	296.69	123.67	0.17
KinmoutDS	9351	100y	Burnt_S01_+Man	256.1	261.78	267.6		267.63	0.00009	0.87	357.97	140.28	0.13
KinmoutDS	9351	100y	Burnt_S02_-Man	256.1	261.78	266.99		267.04	0.000066	1.13	277.09	127.4	0.17
KinmoutDS	9351	100y	Burnt_S03_+Cont	256.1	261.78	267.42		267.46	0.000069	0.93	333.66	138.24	0.14
KinmoutDS	9351	100y	Burnt_S04_-Cont	256.1	261.78	267.17		267.22	0.000091	1.03	300.51	129.07	0.16
KinmoutDS	9351	100y	BurntRiver_RevisedBathy_2025	256.1	261.78	267.3		267.34	0.00008	0.99	316.92	134.75	0.15
KinmoutDS	9312	100y	Burnt_S01_+Man	256.1	261.94	267.6		267.62	0.000087	0.76	377.61	156.46	0.11
KinmoutDS	9312	100y	Burnt_S02_-Man	256.1	261.94	266.99		267.04	0.000069	1.03	285.8	144.12	0.16
KinmoutDS	9312	100y	Burnt_S03_+Cont	256.1	261.94	267.42		267.45	0.000071	0.84	350.33	155.83	0.12
KinmoutDS	9312	100y	Burnt_S04_-Cont	256.1	261.94	267.18		267.21	0.000093	0.93	312.55	148.36	0.14
KinmoutDS	9312	100y	BurntRiver_RevisedBathy_2025	256.1	261.94	267.3		267.33	0.000084	0.9	331.4	155.4	0.14
KinmoutDS	9272	100y	Burnt_S01_+Man	256.1	261.91	267.59		267.62	0.000114	0.93	427.66	170.64	0.13
KinmoutDS	9272	100y	Burnt_S02_-Man	256.1	261.91	266.99		267.04	0.000082	1.19	326.58	161.18	0.19
KinmoutDS	9272	100y	Burnt_S03_+Cont	256.1	261.91	267.42		267.45	0.000088	0.99	397.96	170.03	0.15
KinmoutDS	9272	100y	Burnt_S04_-Cont	256.1	261.91	267.17		267.21	0.000116	1.1	356.34	166.05	0.17
KinmoutDS	9272	100y	BurntRiver_RevisedBathy_2025	256.1	261.91	267.29		267.33	0.000101	1.04	377.28	168.44	0.16
KinmoutDS	9232	100y	Burnt_S01_+Man	256.1	261.85	267.55		267.61	0.000199	1.24	458.97	181.13	0.18
KinmoutDS	9232	100y	Burnt_S02_-Man	256.1	261.85	266.94		267.03	0.000126	1.5	352.83	160.56	0.23
KinmoutDS	9232	100y	Burnt_S03_+Cont	256.1	261.85	267.37		267.44	0.000151	1.32	426.65	179.99	0.19
KinmoutDS	9232	100y	Burnt_S04_-Cont	256.1	261.85	267.13		267.2	0.000185	1.4	383.51	169.3	0.21
KinmoutDS	9232	100y	BurntRiver_RevisedBathy_2025	256.1	261.85	267.25		267.32	0.000163	1.35	405.26	174.6	0.2
KinmoutDS	9192	100y	Burnt_S01_+Man	256.1	261.8	267.56		267.6	0.000154	1.13	588.61	242.58	0.16
KinmoutDS	9192	100y	Burnt_S02_-Man	256.1	261.8	266.95		267.02	0.000099	1.38	445.47	224.71	0.21
KinmoutDS	9192	100y	Burnt_S03_+Cont	256.1	261.8	267.38		267.43	0.000118	1.21	545.32	241.34	0.18
KinmoutDS	9192	100y	Burnt_S04_-Cont	256.1	261.8	267.14		267.19	0.000144	1.29	487.92	231.69	0.19
KinmoutDS	9192	100y	BurntRiver_RevisedBathy_2025	256.1	261.8	267.26		267.31	0.000131	1.25	516.65	239.83	0.19
KinmoutDS	9154	100y	Burnt_S01_+Man	256.1	261.74	267.55		267.59	0.000158	1.09	623.82	278.82	0.16
KinmoutDS	9154	100y	Burnt_S02_-Man	256.1	261.74	266.95		267.01	0.00011	1.39	461.4	258.55	0.21
KinmoutDS	9154	100y	Burnt_S03_+Cont	256.1	261.74	267.38		267.42	0.000121	1.16	574.96	270.38	0.17
KinmoutDS	9154	100y	Burnt_S04_-Cont	256.1	261.74	267.13		267.19	0.000158	1.28	510.02	263.02	0.19
KinmoutDS	9154	100y	BurntRiver_RevisedBathy_2025	256.1	261.74	267.26		267.31	0.000137	1.22	542.99	265.45	0.18
KinmoutDS	9112	100y	Burnt_S01_+Man	256.1	261.14	267.56		267.58	0.000069	0.74	844.35	423.82	0.1
KinmoutDS	9112	100y	Burnt_S02_-Man	256.1	261.14	266.97		267	0.000045	0.91	653.73	372.84	0.13
KinmoutDS	9112	100y	Burnt_S03_+Cont	256.1	261.14	267.39		267.41	0.000052	0.79	785.57	415.65	0.11
KinmoutDS	9112	100y	Burnt_S04_-Cont	256.1	261.14	267.15		267.18	0.000065	0.85	711.07	393.15	0.12
KinmoutDS	9112	100y	BurntRiver_RevisedBathy_2025	256.1	261.14	267.27		267.3	0.000058	0.82	748.65	407.46	0.12
KinmoutDS	9048	100y	Burnt_S01_+Man	256.1	260.58	267.56		267.58	0.000053	0.68	791.06	320.59	0.1
KinmoutDS	9048	100y	Burnt_S02_-Man	256.1	260.58	266.97		267	0.000032	0.82	613.13	277.38	0.12
KinmoutDS	9048	100y	Burnt_S03_+Cont	256.1	260.58	267.38		267.4	0.000039	0.72	735.5	309.62	0.1
KinmoutDS	9048	100y	Burnt_S04_-Cont	256.1	260.58	267.15		267.18	0.000047	0.77	665.12	294.17	0.11

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	9048	100y	BurntRiver_RevisedBathy_2025	256.1	260.58	267.27		267.29	0.000043	0.74	700.51	305.71	0.11
KinmoutDS	9012	100y	Burnt_S01_+Man	256.1	261.04	267.54		267.57	0.00009	0.88	625.32	272.93	0.12
KinmoutDS	9012	100y	Burnt_S02_-Man	256.1	261.04	266.95		266.99	0.000054	1.05	468.51	233.63	0.16
KinmoutDS	9012	100y	Burnt_S03_+Cont	256.1	261.04	267.36		267.4	0.000068	0.93	576.43	271.99	0.13
KinmoutDS	9012	100y	Burnt_S04_-Cont	256.1	261.04	267.13		267.17	0.000081	0.99	514.26	260.67	0.15
KinmoutDS	9012	100y	BurntRiver_RevisedBathy_2025	256.1	261.04	267.25		267.29	0.000073	0.95	545.71	269.97	0.14
KinmoutDS	8970	100y	Burnt_S01_+Man	256.1	261.8	267.54		267.57	0.00011	0.94	641.2	287.23	0.14
KinmoutDS	8970	100y	Burnt_S02_-Man	256.1	261.8	266.94		266.99	0.000071	1.14	473.17	268.79	0.18
KinmoutDS	8970	100y	Burnt_S03_+Cont	256.1	261.8	267.36		267.4	0.000085	1	589.69	286.57	0.15
KinmoutDS	8970	100y	Burnt_S04_-Cont	256.1	261.8	267.13		267.17	0.000103	1.07	523.94	275.65	0.16
KinmoutDS	8970	100y	BurntRiver_RevisedBathy_2025	256.1	261.8	267.25		267.28	0.000091	1.02	557.37	283.16	0.15
KinmoutDS	8932	100y	Burnt_S01_+Man	256.1	262.32	267.53		267.56	0.000146	1.04	591.56	278.09	0.16
KinmoutDS	8932	100y	Burnt_S02_-Man	256.1	262.32	266.92		266.99	0.000097	1.28	431.33	243.37	0.21
KinmoutDS	8932	100y	Burnt_S03_+Cont	256.1	262.32	267.35		267.39	0.000114	1.11	541.45	277.47	0.17
KinmoutDS	8932	100y	Burnt_S04_-Cont	256.1	262.32	267.11		267.16	0.000139	1.19	477.64	256.54	0.19
KinmoutDS	8932	100y	BurntRiver_RevisedBathy_2025	256.1	262.32	267.23		267.28	0.000123	1.14	509.89	276.11	0.18
KinmoutDS	8894	100y	Burnt_S01_+Man	256.1	262.2	267.52		267.56	0.000151	1.07	578.8	284.12	0.16
KinmoutDS	8894	100y	Burnt_S02_-Man	256.1	262.2	266.91		266.98	0.000106	1.35	407.24	270.61	0.22
KinmoutDS	8894	100y	Burnt_S03_+Cont	256.1	262.2	267.34		267.39	0.000117	1.14	527.87	283.15	0.17
KinmoutDS	8894	100y	Burnt_S04_-Cont	256.1	262.2	267.1		267.16	0.000153	1.26	459.69	281.73	0.2
KinmoutDS	8894	100y	BurntRiver_RevisedBathy_2025	256.1	262.2	267.22		267.27	0.000133	1.2	494.38	282.45	0.19
KinmoutDS	8834	100y	Burnt_S01_+Man	256.1	261.63	267.53		267.54	0.000056	0.67	960.79	321.98	0.1
KinmoutDS	8834	100y	Burnt_S02_-Man	256.1	261.63	266.94		266.96	0.000038	0.84	771.5	319.45	0.13
KinmoutDS	8834	100y	Burnt_S03_+Cont	256.1	261.63	267.35		267.37	0.000043	0.71	902.97	321.33	0.11
KinmoutDS	8834	100y	Burnt_S04_-Cont	256.1	261.63	267.13		267.15	0.000054	0.78	831.33	320.31	0.12
KinmoutDS	8834	100y	BurntRiver_RevisedBathy_2025	256.1	261.63	267.24		267.26	0.000048	0.74	867.53	320.84	0.11
KinmoutDS	8793	100y	Burnt_S01_+Man	256.1	261.56	267.5		267.54	0.000144	1.08	538.11	184.15	0.16
KinmoutDS	8793	100y	Burnt_S02_-Man	256.1	261.56	266.89		266.95	0.000092	1.32	427.02	181.27	0.2
KinmoutDS	8793	100y	Burnt_S03_+Cont	256.1	261.56	267.31		267.36	0.000108	1.15	504.06	183.42	0.17
KinmoutDS	8793	100y	Burnt_S04_-Cont	256.1	261.56	267.09		267.14	0.000134	1.24	462.53	182.5	0.19
KinmoutDS	8793	100y	BurntRiver_RevisedBathy_2025	256.1	261.56	267.2		267.25	0.00012	1.19	483.52	182.99	0.18
KinmoutDS	8754	100y	Burnt_S01_+Man	256.1	261.19	267.51		267.53	0.000091	0.89	698.26	228.19	0.12
KinmoutDS	8754	100y	Burnt_S02_-Man	256.1	261.19	266.91		266.94	0.000058	1.08	562.39	225.47	0.16
KinmoutDS	8754	100y	Burnt_S03_+Cont	256.1	261.19	267.32		267.35	0.000069	0.94	656	227.44	0.13
KinmoutDS	8754	100y	Burnt_S04_-Cont	256.1	261.19	267.1		267.13	0.000084	1.01	606.42	226.49	0.15
KinmoutDS	8754	100y	BurntRiver_RevisedBathy_2025	256.1	261.19	267.21		267.24	0.000076	0.97	631.42	226.97	0.14
KinmoutDS	8715	100y	Burnt_S01_+Man	256.1	260.76	267.5		267.53	0.000086	0.87	717.07	249.61	0.12
KinmoutDS	8715	100y	Burnt_S02_-Man	256.1	260.76	266.9		266.94	0.000055	1.07	568.73	245.33	0.15
KinmoutDS	8715	100y	Burnt_S03_+Cont	256.1	260.76	267.32		267.34	0.000065	0.93	671.01	248.76	0.13
KinmoutDS	8715	100y	Burnt_S04_-Cont	256.1	260.76	267.1		267.13	0.00008	1	616.58	247.44	0.14
KinmoutDS	8715	100y	BurntRiver_RevisedBathy_2025	256.1	260.76	267.21		267.24	0.000072	0.96	644.03	248.2	0.13
KinmoutDS	8676	100y	Burnt_S01_+Man	256.1	261.15	267.47		267.52	0.000179	1.18	446.48	168.41	0.16
KinmoutDS	8676	100y	Burnt_S02_-Man	256.1	261.15	266.85		266.93	0.000109	1.41	345.01	157.8	0.2
KinmoutDS	8676	100y	Burnt_S03_+Cont	256.1	261.15	267.28		267.34	0.000135	1.25	414.51	167.54	0.17
KinmoutDS	8676	100y	Burnt_S04_-Cont	256.1	261.15	267.05		267.12	0.000166	1.34	377.18	166.72	0.19
KinmoutDS	8676	100y	BurntRiver_RevisedBathy_2025	256.1	261.15	267.16		267.23	0.000149	1.29	396.02	167.15	0.18
KinmoutDS	8636	100y	Burnt_S01_+Man	256.1	261.35	267.46		267.51	0.000168	1.13	422.25	193.9	0.16
KinmoutDS	8636	100y	Burnt_S02_-Man	256.1	261.35	266.85		266.93	0.000108	1.4	327.48	186.15	0.21
KinmoutDS	8636	100y	Burnt_S03_+Cont	256.1	261.35	267.27		267.33	0.000127	1.21	392.63	192.25	0.17
KinmoutDS	8636	100y	Burnt_S04_-Cont	256.1	261.35	267.05		267.12	0.000157	1.3	357.91	190.67	0.19
KinmoutDS	8636	100y	BurntRiver_RevisedBathy_2025	256.1	261.35	267.16		267.22	0.000141	1.25	375.43	191.66	0.18
KinmoutDS	8595	100y	Burnt_S01_+Man	256.1	261.49	267.47		267.5	0.00011	0.99	504.41	239.64	0.14
KinmoutDS	8595	100y	Burnt_S02_-Man	256.1	261.49	266.87		266.92	0.000068	1.2	404.94	217.67	0.18
KinmoutDS	8595	100y	Burnt_S03_+Cont	256.1	261.49	267.28		267.32	0.000082	1.05	471.64	228.4	0.15
KinmoutDS	8595	100y	Burnt_S04_-Cont	256.1	261.49	267.06		267.11	0.0001	1.12	436.34	220.1	0.16
KinmoutDS	8595	100y	BurntRiver_RevisedBathy_2025	256.1	261.49	267.17		267.21	0.00009	1.08	453.96	224.49	0.16
KinmoutDS	8552	100y	Burnt_S01_+Man	256.1	261.55	267.44		267.49	0.000159	1.17	470.98	346.62	0.16
KinmoutDS	8552	100y	Burnt_S02_-Man	256.1	261.55	266.83		266.91	0.000099	1.41	368.33	337.84	0.21
KinmoutDS	8552	100y	Burnt_S03_+Cont	256.1	261.55	267.25		267.31	0.00012	1.24	438.44	345.57	0.18

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	8552	100y	Burnt_S04_-Cont	256.1	261.55	267.03		267.1	0.000146	1.33	401.71	342.72	0.19
KinmoutDS	8552	100y	BurntRiver_RevisedBathy_2025	256.1	261.55	267.14		267.2	0.000132	1.28	420.12	344.79	0.18
KinmoutDS	8514	100y	Burnt_S01_+Man	256.1	261.16	267.42		267.48	0.000176	1.24	398.6	136.42	0.17
KinmoutDS	8514	100y	Burnt_S02_-Man	256.1	261.16	266.81		266.91	0.000107	1.49	317.24	129.39	0.22
KinmoutDS	8514	100y	Burnt_S03_+Cont	256.1	261.16	267.23		267.3	0.000131	1.31	372.69	135.01	0.19
KinmoutDS	8514	100y	Burnt_S04_-Cont	256.1	261.16	267.01		267.09	0.000158	1.4	343.46	132.38	0.2
KinmoutDS	8514	100y	BurntRiver_RevisedBathy_2025	256.1	261.16	267.12		267.2	0.000144	1.36	358.1	134.13	0.2
KinmoutDS	8476	100y	Burnt_S01_+Man	256.1	260.75	267.42		267.48	0.000177	1.17	423.11	143.53	0.16
KinmoutDS	8476	100y	Burnt_S02_-Man	256.1	260.75	266.82		266.9	0.000108	1.4	337.41	140.28	0.21
KinmoutDS	8476	100y	Burnt_S03_+Cont	256.1	260.75	267.23		267.29	0.000133	1.23	395.95	142.46	0.18
KinmoutDS	8476	100y	Burnt_S04_-Cont	256.1	260.75	267.02		267.09	0.00016	1.31	365.47	141.18	0.19
KinmoutDS	8476	100y	BurntRiver_RevisedBathy_2025	256.1	260.75	267.13		267.19	0.000145	1.27	380.76	141.76	0.18
KinmoutDS	8433	100y	Burnt_S01_+Man	256.1	260.81	267.41		267.47	0.000198	1.24	404.15	141.7	0.18
KinmoutDS	8433	100y	Burnt_S02_-Man	256.1	260.81	266.8		266.89	0.000122	1.49	319.5	137.67	0.23
KinmoutDS	8433	100y	Burnt_S03_+Cont	256.1	260.81	267.22		267.29	0.000148	1.31	377.39	140.63	0.19
KinmoutDS	8433	100y	Burnt_S04_-Cont	256.1	260.81	267		267.08	0.00018	1.4	347.03	139.02	0.21
KinmoutDS	8433	100y	BurntRiver_RevisedBathy_2025	256.1	260.81	267.11		267.18	0.000163	1.36	362.26	139.88	0.2
KinmoutDS	8393	100y	Burnt_S01_+Man	256.1	261.39	267.41		267.46	0.000188	1.18	550	240.65	0.17
KinmoutDS	8393	100y	Burnt_S02_-Man	256.1	261.39	266.8		266.89	0.000134	1.52	404.35	237.41	0.24
KinmoutDS	8393	100y	Burnt_S03_+Cont	256.1	261.39	267.22		267.27	0.000147	1.27	504.33	239.83	0.19
KinmoutDS	8393	100y	Burnt_S04_-Cont	256.1	261.39	267		267.07	0.000187	1.39	452.2	238.71	0.21
KinmoutDS	8393	100y	BurntRiver_RevisedBathy_2025	256.1	261.39	267.11		267.17	0.000165	1.33	478.51	239.27	0.2
KinmoutDS	8357	100y	Burnt_S01_+Man	256.1	261.92	267.39		267.45	0.000221	1.29	509.5	241.33	0.19
KinmoutDS	8357	100y	Burnt_S02_-Man	256.1	261.92	266.78		266.88	0.000161	1.67	362.89	227.18	0.27
KinmoutDS	8357	100y	Burnt_S03_+Cont	256.1	261.92	267.2		267.27	0.000174	1.39	463.35	240.33	0.21
KinmoutDS	8357	100y	Burnt_S04_-Cont	256.1	261.92	266.98		267.06	0.000225	1.53	410.06	238.77	0.24
KinmoutDS	8357	100y	BurntRiver_RevisedBathy_2025	256.1	261.92	267.09		267.17	0.000197	1.46	436.97	239.75	0.22
KinmoutDS	8316	100y	Burnt_S01_+Man	256.1	262.51	267.38		267.44	0.000243	1.32	484.01	235.09	0.2
KinmoutDS	8316	100y	Burnt_S02_-Man	256.1	262.51	266.77		266.87	0.000179	1.71	341.72	224.94	0.28
KinmoutDS	8316	100y	Burnt_S03_+Cont	256.1	262.51	267.19		267.26	0.000192	1.42	439.63	233.92	0.22
KinmoutDS	8316	100y	Burnt_S04_-Cont	256.1	262.51	266.97		267.05	0.000249	1.57	387.41	230.84	0.25
KinmoutDS	8316	100y	BurntRiver_RevisedBathy_2025	256.1	262.51	267.08		267.16	0.000218	1.49	413.72	233.36	0.23
KinmoutDS	8277	100y	Burnt_S01_+Man	256.1	261.65	267.35		267.43	0.000237	1.37	410.4	203.05	0.2
KinmoutDS	8277	100y	Burnt_S02_-Man	256.1	261.65	266.74		266.86	0.00016	1.72	286.58	198.73	0.26
KinmoutDS	8277	100y	Burnt_S03_+Cont	256.1	261.65	267.16		267.25	0.000182	1.47	371.92	202.23	0.21
KinmoutDS	8277	100y	Burnt_S04_-Cont	256.1	261.65	266.94		267.04	0.000229	1.59	326.25	200.97	0.24
KinmoutDS	8277	100y	BurntRiver_RevisedBathy_2025	256.1	261.65	267.05		267.15	0.000204	1.53	349.34	201.45	0.22
KinmoutDS	8234	100y	Burnt_S01_+Man	256.1	259.6	267.36		267.41	0.000137	1.11	390.58	179.93	0.14
KinmoutDS	8234	100y	Burnt_S02_-Man	256.1	259.6	266.76		266.85	0.000077	1.3	285.98	171.04	0.17
KinmoutDS	8234	100y	Burnt_S03_+Cont	256.1	259.6	267.17		267.23	0.0001	1.17	357.12	177.04	0.15
KinmoutDS	8234	100y	Burnt_S04_-Cont	256.1	259.6	266.96		267.03	0.000118	1.23	319.56	175.33	0.16
KinmoutDS	8234	100y	BurntRiver_RevisedBathy_2025	256.1	259.6	267.06		267.13	0.000109	1.2	338.36	176.1	0.16
KinmoutDS	8196	100y	Burnt_S01_+Man	256.1	259.32	267.35		267.41	0.000119	1.11	388.28	162.37	0.14
KinmoutDS	8196	100y	Burnt_S02_-Man	256.1	259.32	266.76		266.84	0.000066	1.29	293.07	160.09	0.17
KinmoutDS	8196	100y	Burnt_S03_+Cont	256.1	259.32	267.17		267.23	0.000086	1.16	358.18	161.75	0.15
KinmoutDS	8196	100y	Burnt_S04_-Cont	256.1	259.32	266.95		267.03	0.000101	1.23	323.77	160.92	0.16
KinmoutDS	8196	100y	BurntRiver_RevisedBathy_2025	256.1	259.32	267.06		267.13	0.000093	1.19	341.01	161.34	0.16
KinmoutDS	8154	100y	Burnt_S01_+Man	256.1	261.49	267.32		267.4	0.000259	1.33	288.66	110.04	0.2
KinmoutDS	8154	100y	Burnt_S02_-Man	256.1	261.49	266.71		266.84	0.000162	1.59	222.54	108.07	0.25
KinmoutDS	8154	100y	Burnt_S03_+Cont	256.1	261.49	267.13		267.22	0.000195	1.4	267.85	109.44	0.21
KinmoutDS	8154	100y	Burnt_S04_-Cont	256.1	261.49	266.91		267.02	0.000238	1.5	244.08	108.76	0.23
KinmoutDS	8154	100y	BurntRiver_RevisedBathy_2025	256.1	261.49	267.02		267.12	0.000215	1.45	255.97	109.1	0.22
KinmoutDS	8107	100y	Burnt_S01_+Man	256.1	262.63	267.26		267.38	0.000415	1.56	193.94	65.26	0.25
KinmoutDS	8107	100y	Burnt_S02_-Man	256.1	262.63	266.64		266.82	0.000276	1.88	154.09	63.4	0.33
KinmoutDS	8107	100y	Burnt_S03_+Cont	256.1	262.63	267.07		267.2	0.000317	1.64	181.43	64.73	0.27
KinmoutDS	8107	100y	Burnt_S04_-Cont	256.1	262.63	266.85		267	0.000394	1.76	167.11	64.11	0.3
KinmoutDS	8107	100y	BurntRiver_RevisedBathy_2025	256.1	262.63	266.96		267.1	0.000353	1.7	174.28	64.42	0.29
KinmoutDS	8073	100y	Burnt_S01_+Man	256.1	262.73	267.22		267.36	0.000551	1.73	189.4	78.05	0.29
KinmoutDS	8073	100y	Burnt_S02_-Man	256.1	262.73	266.57		266.8	0.000411	2.18	139.26	75.77	0.41

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Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	8073	100y	Burnt_S03_+Cont	256.1	262.73	267.02		267.19	0.000433	1.85	173.93	77.29	0.32
KinmoutDS	8073	100y	Burnt_S04_-Cont	256.1	262.73	266.78		266.98	0.000561	2.01	155.9	76.44	0.36
KinmoutDS	8073	100y	BurntRiver_RevisedBathy_2025	256.1	262.73	266.9		267.08	0.000491	1.93	164.96	76.84	0.34
KinmoutDS	8033	100y	Burnt_S01_+Man	256.1	262.81	267.2		267.34	0.000565	1.76	206.22	87.2	0.3
KinmoutDS	8033	100y	Burnt_S02_-Man	256.1	262.81	266.54		266.79	0.000431	2.23	150.15	84.63	0.42
KinmoutDS	8033	100y	Burnt_S03_+Cont	256.1	262.81	267		267.17	0.000444	1.88	189.3	86.44	0.33
KinmoutDS	8033	100y	Burnt_S04_-Cont	256.1	262.81	266.76		266.96	0.000586	2.05	168.41	85.48	0.37
KinmoutDS	8033	100y	BurntRiver_RevisedBathy_2025	256.1	262.81	266.88		267.07	0.000508	1.96	178.95	85.97	0.35
KinmoutDS	7992	100y	Burnt_S01_+Man	256.1	262.83	267.19		267.31	0.000585	1.7	231.11	90.83	0.28
KinmoutDS	7992	100y	Burnt_S02_-Man	256.1	262.83	266.55		266.76	0.000435	2.15	173.69	89.01	0.39
KinmoutDS	7992	100y	Burnt_S03_+Cont	256.1	262.83	266.99		267.14	0.000457	1.81	213.8	90.3	0.31
KinmoutDS	7992	100y	Burnt_S04_-Cont	256.1	262.83	266.76		266.93	0.000598	1.98	192.29	89.63	0.35
KinmoutDS	7992	100y	BurntRiver_RevisedBathy_2025	256.1	262.83	266.88		267.04	0.000521	1.89	203.16	89.97	0.33
KinmoutDS	7953	100y	Burnt_S01_+Man	256.1	262.72	267.16		267.29	0.000492	1.72	230.6	84.89	0.28
KinmoutDS	7953	100y	Burnt_S02_-Man	256.1	262.72	266.54		266.74	0.000343	2.12	178.91	81.05	0.38
KinmoutDS	7953	100y	Burnt_S03_+Cont	256.1	262.72	266.98		267.12	0.000377	1.82	215.07	83.68	0.31
KinmoutDS	7953	100y	Burnt_S04_-Cont	256.1	262.72	266.74		266.91	0.000486	1.97	195.11	82.21	0.34
KinmoutDS	7953	100y	BurntRiver_RevisedBathy_2025	256.1	262.72	266.86		267.02	0.000426	1.89	205.16	82.91	0.32
KinmoutDS	7915	100y	Burnt_S01_+Man	256.1	262.49	267.12		267.27	0.000571	1.79	177.28	54.76	0.29
KinmoutDS	7915	100y	Burnt_S02_-Man	256.1	262.49	266.51		266.73	0.000368	2.14	144.62	52.13	0.37
KinmoutDS	7915	100y	Burnt_S03_+Cont	256.1	262.49	266.94		267.11	0.000428	1.88	167.5	53.99	0.31
KinmoutDS	7915	100y	Burnt_S04_-Cont	256.1	262.49	266.7		266.89	0.000538	2.02	154.59	52.95	0.34
KinmoutDS	7915	100y	BurntRiver_RevisedBathy_2025	256.1	262.49	266.82		267	0.000478	1.94	161.09	53.47	0.33
KinmoutDS	7874	100y	Burnt_S01_+Man	256.1	262.23	267.08		267.25	0.000547	1.83	156.31	42.42	0.29
KinmoutDS	7874	100y	Burnt_S02_-Man	256.1	262.23	266.48		266.71	0.000339	2.15	131.07	41.61	0.37
KinmoutDS	7874	100y	Burnt_S03_+Cont	256.1	262.23	266.91		267.09	0.000405	1.91	148.94	42.23	0.31
KinmoutDS	7874	100y	Burnt_S04_-Cont	256.1	262.23	266.66		266.87	0.000504	2.04	138.67	41.87	0.34
KinmoutDS	7874	100y	BurntRiver_RevisedBathy_2025	256.1	262.23	266.79		266.98	0.00045	1.97	143.86	42.05	0.32
KinmoutDS	7835	100y	Burnt_S01_+Man	256.1	261.96	267.09		267.22	0.000375	1.65	186.31	49.59	0.25
KinmoutDS	7835	100y	Burnt_S02_-Man	256.1	261.96	266.51		266.68	0.000218	1.91	157.93	48.26	0.31
KinmoutDS	7835	100y	Burnt_S03_+Cont	256.1	261.96	266.91		267.06	0.000274	1.72	177.81	49.2	0.27
KinmoutDS	7835	100y	Burnt_S04_-Cont	256.1	261.96	266.68		266.85	0.00033	1.82	166.58	48.67	0.29
KinmoutDS	7835	100y	BurntRiver_RevisedBathy_2025	256.1	261.96	266.8		266.95	0.0003	1.77	172.23	48.93	0.28
KinmoutDS	7791	100y	Burnt_S01_+Man	256.1	261.68	267.07		267.2	0.000343	1.61	174.16	45.54	0.24
KinmoutDS	7791	100y	Burnt_S02_-Man	256.1	261.68	266.5		266.67	0.000191	1.84	148.94	43.06	0.29
KinmoutDS	7791	100y	Burnt_S03_+Cont	256.1	261.68	266.9		267.04	0.000247	1.68	166.61	44.76	0.25
KinmoutDS	7791	100y	Burnt_S04_-Cont	256.1	261.68	266.67		266.83	0.000295	1.77	156.44	43.79	0.27
KinmoutDS	7791	100y	BurntRiver_RevisedBathy_2025	256.1	261.68	266.79		266.94	0.000269	1.72	161.54	44.27	0.26
KinmoutDS	7753	100y	Burnt_S01_+Man	256.1	261.42	267.07		267.18	0.000307	1.51	193.49	54.21	0.22
KinmoutDS	7753	100y	Burnt_S02_-Man	256.1	261.42	266.51		266.66	0.000167	1.71	165.68	46.93	0.26
KinmoutDS	7753	100y	Burnt_S03_+Cont	256.1	261.42	266.91		267.03	0.00022	1.56	184.76	51.26	0.23
KinmoutDS	7753	100y	Burnt_S04_-Cont	256.1	261.42	266.68		266.82	0.00026	1.64	173.76	47.73	0.24
KinmoutDS	7753	100y	BurntRiver_RevisedBathy_2025	256.1	261.42	266.8		266.92	0.000239	1.6	179.19	49.45	0.24
KinmoutDS	7716	100y	Burnt_S01_+Man	256.1	261.4	267.06		267.17	0.000296	1.48	197.02	50.75	0.21
KinmoutDS	7716	100y	Burnt_S02_-Man	256.1	261.4	266.51		266.65	0.00016	1.68	169.7	48.1	0.26
KinmoutDS	7716	100y	Burnt_S03_+Cont	256.1	261.4	266.9		267.02	0.000212	1.54	188.83	49.97	0.22
KinmoutDS	7716	100y	Burnt_S04_-Cont	256.1	261.4	266.68		266.81	0.00025	1.62	177.84	48.91	0.24
KinmoutDS	7716	100y	BurntRiver_RevisedBathy_2025	256.1	261.4	266.79		266.91	0.00023	1.58	183.33	49.44	0.23
KinmoutDS	7675	100y	Burnt_S01_+Man	256.1	261.54	267.04		267.16	0.000292	1.53	196.36	51.04	0.22
KinmoutDS	7675	100y	Burnt_S02_-Man	256.1	261.54	266.49		266.64	0.000159	1.73	168.86	48.98	0.26
KinmoutDS	7675	100y	Burnt_S03_+Cont	256.1	261.54	266.88		267.01	0.000209	1.58	188.24	50.44	0.23
KinmoutDS	7675	100y	Burnt_S04_-Cont	256.1	261.54	266.66		266.8	0.000247	1.67	177.02	49.6	0.25
KinmoutDS	7675	100y	BurntRiver_RevisedBathy_2025	256.1	261.54	266.77		266.9	0.000227	1.62	182.64	50.02	0.24
KinmoutDS	7635	100y	Burnt_S01_+Man	256.1	261.65	267.02		267.15	0.000312	1.58	189.04	49.2	0.23
KinmoutDS	7635	100y	Burnt_S02_-Man	256.1	261.65	266.48		266.64	0.00017	1.79	162.84	46.76	0.28
KinmoutDS	7635	100y	Burnt_S03_+Cont	256.1	261.65	266.87		267	0.000223	1.64	181.36	48.4	0.24
KinmoutDS	7635	100y	Burnt_S04_-Cont	256.1	261.65	266.64		266.79	0.000264	1.72	170.53	47.4	0.26
KinmoutDS	7635	100y	BurntRiver_RevisedBathy_2025	256.1	261.65	266.75		266.89	0.000242	1.68	175.95	47.87	0.25
KinmoutDS	7593	100y	Burnt_S01_+Man	256.1	261.74	267		267.13	0.000351	1.66	185.17	59.36	0.24

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	7593	100y	Burnt_S02_-Man	256.1	261.74	266.45		266.63	0.000194	1.89	156.58	48.75	0.3
KinmoutDS	7593	100y	Burnt_S03_+Cont	256.1	261.74	266.84		266.99	0.000251	1.72	176.36	54.35	0.26
KinmoutDS	7593	100y	Burnt_S04_-Cont	256.1	261.74	266.61		266.77	0.000301	1.82	164.53	49.51	0.28
KinmoutDS	7593	100y	BurntRiver_RevisedBathy_2025	256.1	261.74	266.73		266.88	0.000275	1.77	170.29	51.13	0.27
KinmoutDS	7552	100y	Burnt_S01_+Man	256.1	261.83	266.98		267.12	0.000388	1.66	190.4	61.81	0.25
KinmoutDS	7552	100y	Burnt_S02_-Man	256.1	261.83	266.44		266.62	0.000217	1.91	160.31	50.9	0.3
KinmoutDS	7552	100y	Burnt_S03_+Cont	256.1	261.83	266.83		266.97	0.000279	1.73	181.19	59.43	0.26
KinmoutDS	7552	100y	Burnt_S04_-Cont	256.1	261.83	266.6		266.76	0.000337	1.83	168.38	51.6	0.28
KinmoutDS	7552	100y	BurntRiver_RevisedBathy_2025	256.1	261.83	266.72		266.87	0.000306	1.78	174.58	54.82	0.27
KinmoutDS	7514	100y	Burnt_S01_+Man	256.1	261.91	266.95		267.1	0.000444	1.74	185.32	59.08	0.26
KinmoutDS	7514	100y	Burnt_S02_-Man	256.1	261.91	266.42		266.61	0.000248	2	155.7	51.55	0.32
KinmoutDS	7514	100y	Burnt_S03_+Cont	256.1	261.91	266.81		266.96	0.000318	1.81	176.73	56.46	0.28
KinmoutDS	7514	100y	Burnt_S04_-Cont	256.1	261.91	266.57		266.75	0.000386	1.92	163.84	53.67	0.3
KinmoutDS	7514	100y	BurntRiver_RevisedBathy_2025	256.1	261.91	266.69		266.85	0.000349	1.86	170.28	54.75	0.29
KinmoutDS	7473	100y	Burnt_S01_+Man	256.1	262	266.94		267.08	0.00047	1.72	188.21	55.57	0.26
KinmoutDS	7473	100y	Burnt_S02_-Man	256.1	262	266.41		266.6	0.000266	1.98	159.43	53.23	0.32
KinmoutDS	7473	100y	Burnt_S03_+Cont	256.1	262	266.79		266.95	0.000337	1.78	180.28	54.82	0.28
KinmoutDS	7473	100y	Burnt_S04_-Cont	256.1	262	266.56		266.73	0.000412	1.9	167.42	53.85	0.3
KinmoutDS	7473	100y	BurntRiver_RevisedBathy_2025	256.1	262	266.68		266.84	0.000372	1.84	173.89	54.34	0.29
KinmoutDS	7434	100y	Burnt_S01_+Man	256.1	262.03	266.92		267.06	0.000431	1.76	215.19	112.46	0.27
KinmoutDS	7434	100y	Burnt_S02_-Man	256.1	262.03	266.39		266.58	0.000249	2.05	170.04	79.66	0.33
KinmoutDS	7434	100y	Burnt_S03_+Cont	256.1	262.03	266.78		266.93	0.00031	1.83	202.6	108.52	0.28
KinmoutDS	7434	100y	Burnt_S04_-Cont	256.1	262.03	266.53		266.71	0.000384	1.96	181.98	86.78	0.31
KinmoutDS	7434	100y	BurntRiver_RevisedBathy_2025	256.1	262.03	266.66		266.82	0.000344	1.9	192.27	100.9	0.3
KinmoutDS	7394	100y	Burnt_S01_+Man	256.1	262.03	266.88		267.04	0.000525	1.83	181.35	102.68	0.28
KinmoutDS	7394	100y	Burnt_S02_-Man	256.1	262.03	266.36		266.57	0.0003	2.11	148.88	65.3	0.34
KinmoutDS	7394	100y	Burnt_S03_+Cont	256.1	262.03	266.74		266.92	0.000376	1.89	172.02	95.32	0.29
KinmoutDS	7394	100y	Burnt_S04_-Cont	256.1	262.03	266.5		266.7	0.000466	2.02	157.11	83.87	0.32
KinmoutDS	7394	100y	BurntRiver_RevisedBathy_2025	256.1	262.03	266.62		266.81	0.000417	1.96	164.46	88	0.31
KinmoutDS	7355	100y	Burnt_S01_+Man	256.1	262.03	266.87		267.01	0.000563	1.74	190.15	184.82	0.27
KinmoutDS	7355	100y	Burnt_S02_-Man	256.1	262.03	266.36		266.56	0.000323	2.02	151.51	147.26	0.33
KinmoutDS	7355	100y	Burnt_S03_+Cont	256.1	262.03	266.74		266.89	0.000404	1.81	178.67	174.14	0.28
KinmoutDS	7355	100y	Burnt_S04_-Cont	256.1	262.03	266.49		266.68	0.000505	1.94	160.34	153.9	0.32
KinmoutDS	7355	100y	BurntRiver_RevisedBathy_2025	256.1	262.03	266.62		266.79	0.00045	1.87	169.02	168.28	0.3
KinmoutDS	7317	100y	Burnt_S01_+Man	256.1	262.02	266.83		266.99	0.000589	1.79	180.11	254.25	0.28
KinmoutDS	7317	100y	Burnt_S02_-Man	256.1	262.02	266.33		266.54	0.000337	2.07	144.58	198.75	0.34
KinmoutDS	7317	100y	Burnt_S03_+Cont	256.1	262.02	266.71		266.88	0.00042	1.86	170.7	238.23	0.29
KinmoutDS	7317	100y	Burnt_S04_-Cont	256.1	262.02	266.46		266.66	0.000527	2	153.33	215.09	0.33
KinmoutDS	7317	100y	BurntRiver_RevisedBathy_2025	256.1	262.02	266.59		266.77	0.000468	1.92	162.07	227.48	0.31
KinmoutDS	7268	100y	Burnt_S01_+Man	256.1	262.01	266.81		266.96	0.000513	1.77	197.54	327.94	0.27
KinmoutDS	7268	100y	Burnt_S02_-Man	256.1	262.01	266.32		266.52	0.000292	2.05	156.66	292.54	0.34
KinmoutDS	7268	100y	Burnt_S03_+Cont	256.1	262.01	266.69		266.85	0.000364	1.83	184.2	323.7	0.29
KinmoutDS	7268	100y	Burnt_S04_-Cont	256.1	262.01	266.44		266.63	0.000459	1.97	165.13	299.34	0.32
KinmoutDS	7268	100y	BurntRiver_RevisedBathy_2025	256.1	262.01	266.57		266.74	0.000407	1.9	174.27	307	0.3
KinmoutDS	7231	100y	Burnt_S01_+Man	256.1	262.01	266.81		266.94	0.000485	1.7	267.21	310.41	0.26
KinmoutDS	7231	100y	Burnt_S02_-Man	256.1	262.01	266.31		266.51	0.000291	2.02	162.68	256.44	0.33
KinmoutDS	7231	100y	Burnt_S03_+Cont	256.1	262.01	266.69		266.84	0.000353	1.78	230.86	301.88	0.28
KinmoutDS	7231	100y	Burnt_S04_-Cont	256.1	262.01	266.43		266.61	0.000459	1.95	171.05	280.48	0.32
KinmoutDS	7231	100y	BurntRiver_RevisedBathy_2025	256.1	262.01	266.56		266.73	0.000404	1.87	193.32	292.91	0.3
KinmoutDS	7192	100y	Burnt_S01_+Man	256.1	262	266.79		266.92	0.000489	1.7	260.95	300.26	0.26
KinmoutDS	7192	100y	Burnt_S02_-Man	256.1	262	266.31		266.5	0.000282	1.98	169.48	209.96	0.33
KinmoutDS	7192	100y	Burnt_S03_+Cont	256.1	262	266.67		266.82	0.000354	1.77	228.44	278	0.28
KinmoutDS	7192	100y	Burnt_S04_-Cont	256.1	262	266.42		266.59	0.000449	1.91	177.31	226.4	0.31
KinmoutDS	7192	100y	BurntRiver_RevisedBathy_2025	256.1	262	266.55		266.71	0.000397	1.84	195.37	247.89	0.29
KinmoutDS	7153	100y	Burnt_S01_+Man	256.1	261.96	266.77		266.9	0.000481	1.68	272.39	314.82	0.26
KinmoutDS	7153	100y	Burnt_S02_-Man	256.1	261.96	266.3		266.48	0.000277	1.96	171.93	309.95	0.32
KinmoutDS	7153	100y	Burnt_S03_+Cont	256.1	261.96	266.66		266.81	0.000348	1.75	238.17	314.45	0.27
KinmoutDS	7153	100y	Burnt_S04_-Cont	256.1	261.96	266.4		266.57	0.000445	1.9	179.74	312.37	0.31
KinmoutDS	7153	100y	BurntRiver_RevisedBathy_2025	256.1	261.96	266.53		266.69	0.000401	1.84	197.13	314	0.29

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	7110	100y	Burnt_S01_+Man	256.1	261.91	266.78		266.87	0.000349	1.5	398.29	311.41	0.23
KinmoutDS	7110	100y	Burnt_S02_-Man	256.1	261.91	266.31		266.46	0.00023	1.87	251.72	307.49	0.3
KinmoutDS	7110	100y	Burnt_S03_+Cont	256.1	261.91	266.67		266.77	0.000255	1.57	364.56	311.08	0.24
KinmoutDS	7110	100y	Burnt_S04_-Cont	256.1	261.91	266.41		266.55	0.000355	1.78	284.27	310.09	0.28
KinmoutDS	7110	100y	BurntRiver_RevisedBathy_2025	256.1	261.91	266.55		266.67	0.0003	1.67	325.58	310.64	0.26
KinmoutDS	7072	100y	Burnt_S01_+Man	256.1	261.86	266.74		266.85	0.000426	1.66	291.13	238.96	0.25
KinmoutDS	7072	100y	Burnt_S02_-Man	256.1	261.86	266.28		266.45	0.000245	1.95	209.74	207.6	0.31
KinmoutDS	7072	100y	Burnt_S03_+Cont	256.1	261.86	266.63		266.76	0.000304	1.73	266.36	230.59	0.27
KinmoutDS	7072	100y	Burnt_S04_-Cont	256.1	261.86	266.38		266.54	0.000392	1.88	222.11	211.01	0.3
KinmoutDS	7072	100y	BurntRiver_RevisedBathy_2025	256.1	261.86	266.51		266.65	0.000346	1.81	238.95	213.17	0.28
KinmoutDS	7031	100y	Burnt_S01_+Man	256.1	261.77	266.71		266.83	0.000447	1.73	271.03	245.2	0.26
KinmoutDS	7031	100y	Burnt_S02_-Man	256.1	261.77	266.25		266.44	0.000264	2.06	193.13	222.36	0.33
KinmoutDS	7031	100y	Burnt_S03_+Cont	256.1	261.77	266.61		266.74	0.00032	1.8	246.11	241.03	0.28
KinmoutDS	7031	100y	Burnt_S04_-Cont	256.1	261.77	266.34		266.52	0.000422	1.99	203.45	226.72	0.31
KinmoutDS	7031	100y	BurntRiver_RevisedBathy_2025	256.1	261.77	266.48		266.63	0.000367	1.89	218.38	235.28	0.29
KinmoutDS	6991	100y	Burnt_S01_+Man	256.1	261.67	266.72		266.81	0.00037	1.57	388.77	324.88	0.23
KinmoutDS	6991	100y	Burnt_S02_-Man	256.1	261.67	266.25		266.42	0.000252	2.01	239.05	323	0.32
KinmoutDS	6991	100y	Burnt_S03_+Cont	256.1	261.67	266.61		266.72	0.000272	1.66	355.12	324.46	0.25
KinmoutDS	6991	100y	Burnt_S04_-Cont	256.1	261.67	266.35		266.5	0.000392	1.91	269.4	323.4	0.3
KinmoutDS	6991	100y	BurntRiver_RevisedBathy_2025	256.1	261.67	266.48		266.61	0.000324	1.78	313.88	323.95	0.27
KinmoutDS	6954	100y	Burnt_S01_+Man	256.1	261.57	266.7		266.79	0.000375	1.56	411.3	323.27	0.23
KinmoutDS	6954	100y	Burnt_S02_-Man	256.1	261.57	266.24		266.41	0.000267	2.04	261.35	320.67	0.32
KinmoutDS	6954	100y	Burnt_S03_+Cont	256.1	261.57	266.6		266.71	0.000276	1.65	378.82	322.79	0.25
KinmoutDS	6954	100y	Burnt_S04_-Cont	256.1	261.57	266.33		266.48	0.000412	1.93	290.83	321.21	0.3
KinmoutDS	6954	100y	BurntRiver_RevisedBathy_2025	256.1	261.57	266.47		266.6	0.000334	1.78	336.99	322.04	0.27
KinmoutDS	6913	100y	Burnt_S01_+Man	256.1	261.56	266.68		266.78	0.000447	1.57	379.14	301.74	0.24
KinmoutDS	6913	100y	Burnt_S02_-Man	256.1	261.56	266.21		266.4	0.000326	2.08	237.86	299.45	0.33
KinmoutDS	6913	100y	Burnt_S03_+Cont	256.1	261.56	266.59		266.69	0.000329	1.66	349.95	301.32	0.25
KinmoutDS	6913	100y	Burnt_S04_-Cont	256.1	261.56	266.3		266.47	0.000506	1.97	263.82	299.88	0.31
KinmoutDS	6913	100y	BurntRiver_RevisedBathy_2025	256.1	261.56	266.45		266.58	0.000402	1.8	309.52	300.65	0.28
KinmoutDS	6874	100y	Burnt_S01_+Man	256.1	261.57	266.7		266.75	0.000308	1.29	474.83	284.25	0.19
KinmoutDS	6874	100y	Burnt_S02_-Man	256.1	261.57	266.27		266.37	0.00021	1.66	352.63	283.2	0.26
KinmoutDS	6874	100y	Burnt_S03_+Cont	256.1	261.57	266.6		266.66	0.000225	1.36	447.81	283.99	0.21
KinmoutDS	6874	100y	Burnt_S04_-Cont	256.1	261.57	266.35		266.44	0.000326	1.58	376.71	283.39	0.25
KinmoutDS	6874	100y	BurntRiver_RevisedBathy_2025	256.1	261.57	266.48		266.55	0.000268	1.46	413.71	283.67	0.22
KinmoutDS	6833	100y	Burnt_S01_+Man	256.1	261.58	266.65		266.74	0.000314	1.5	413.99	289.91	0.23
KinmoutDS	6833	100y	Burnt_S02_-Man	256.1	261.58	266.22		266.35	0.0002	1.86	293.87	252.09	0.3
KinmoutDS	6833	100y	Burnt_S03_+Cont	256.1	261.58	266.56		266.65	0.000225	1.57	386.25	285.33	0.24
KinmoutDS	6833	100y	Burnt_S04_-Cont	256.1	261.58	266.3		266.42	0.000316	1.78	315.5	262.34	0.28
KinmoutDS	6833	100y	BurntRiver_RevisedBathy_2025	256.1	261.58	266.44		266.54	0.000262	1.66	351.93	273.91	0.26
KinmoutDS	6794	100y	Burnt_S01_+Man	256.1	261.58	266.62		266.72	0.000398	1.57	327.45	243.27	0.24
KinmoutDS	6794	100y	Burnt_S02_-Man	256.1	261.58	266.18		266.35	0.000251	1.94	228.13	200.89	0.31
KinmoutDS	6794	100y	Burnt_S03_+Cont	256.1	261.58	266.53		266.64	0.000285	1.65	304.7	237.03	0.25
KinmoutDS	6794	100y	Burnt_S04_-Cont	256.1	261.58	266.26		266.41	0.000401	1.87	244.46	209.19	0.3
KinmoutDS	6794	100y	BurntRiver_RevisedBathy_2025	256.1	261.58	266.4		266.53	0.000336	1.75	274.87	228.73	0.27
KinmoutDS	6731	100y	Burnt_S01_+Man	256.1	261.59	266.57		266.69	0.000474	1.69	303.9	251.93	0.26
KinmoutDS	6731	100y	Burnt_S02_-Man	256.1	261.59	266.11		266.32	0.000316	2.13	193.26	228.11	0.35
KinmoutDS	6731	100y	Burnt_S03_+Cont	256.1	261.59	266.48		266.61	0.000341	1.77	280.96	242.93	0.28
KinmoutDS	6731	100y	Burnt_S04_-Cont	256.1	261.59	266.19		266.38	0.000506	2.06	210.88	234.91	0.33
KinmoutDS	6731	100y	BurntRiver_RevisedBathy_2025	256.1	261.59	266.34		266.5	0.000411	1.9	247.59	238.56	0.3
KinmoutDS	6693	100y	Burnt_S01_+Man	256.1	261.55	266.56		266.67	0.000412	1.67	294.2	387.35	0.26
KinmoutDS	6693	100y	Burnt_S02_-Man	256.1	261.55	266.13		266.3	0.000238	1.97	220.72	363.46	0.32
KinmoutDS	6693	100y	Burnt_S03_+Cont	256.1	261.55	266.47		266.6	0.000289	1.72	268.25	384.59	0.27
KinmoutDS	6693	100y	Burnt_S04_-Cont	256.1	261.55	266.2		266.36	0.000389	1.92	230.13	367.85	0.31
KinmoutDS	6693	100y	BurntRiver_RevisedBathy_2025	256.1	261.55	266.34		266.48	0.000332	1.81	249.73	377.04	0.29
KinmoutDS	6634	100y	Burnt_S01_+Man	256.1	261.05	266.58		266.64	0.000244	1.27	486.56	331.81	0.19
KinmoutDS	6634	100y	Burnt_S02_-Man	256.1	261.05	266.17		266.27	0.000151	1.56	356.35	294.71	0.25
KinmoutDS	6634	100y	Burnt_S03_+Cont	256.1	261.05	266.49		266.56	0.000175	1.33	456.9	322.62	0.2
KinmoutDS	6634	100y	Burnt_S04_-Cont	256.1	261.05	266.24		266.33	0.000243	1.51	377.6	299.55	0.24
KinmoutDS	6634	100y	BurntRiver_RevisedBathy_2025	256.1	261.05	266.37		266.45	0.000205	1.41	417.79	312.23	0.22

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	6594	100y	Burnt_S01_+Man	256.1	260.63	266.56		266.63	0.000224	1.27	400.09	311.81	0.19
KinmoutDS	6594	100y	Burnt_S02_-Man	256.1	260.63	266.16		266.26	0.000126	1.5	309.83	262.71	0.23
KinmoutDS	6594	100y	Burnt_S03_+Cont	256.1	260.63	266.48		266.55	0.000157	1.32	376	290.78	0.2
KinmoutDS	6594	100y	Burnt_S04_-Cont	256.1	260.63	266.23		266.32	0.000207	1.46	323.5	264.42	0.23
KinmoutDS	6594	100y	BurntRiver_RevisedBathy_2025	256.1	260.63	266.36		266.44	0.000179	1.38	350.6	273.59	0.21
KinmoutDS	6555	100y	Burnt_S01_+Man	256.1	261.02	266.57	263.91	266.62	0.000195	1.1	519.18	237.52	0.17
KinmoutDS	6555	100y	Burnt_S02_-Man	256.1	261.02	266.18	263.91	266.24	0.000111	1.3	426.12	236.27	0.21
KinmoutDS	6555	100y	Burnt_S03_+Cont	256.1	261.02	266.49	263.9	266.53	0.000137	1.14	498.44	237.19	0.17
KinmoutDS	6555	100y	Burnt_S04_-Cont	256.1	261.02	266.25	263.9	266.31	0.000182	1.26	442.02	236.48	0.2
KinmoutDS	6555	100y	BurntRiver_RevisedBathy_2025	256.1	261.02	266.37	263.9	266.42	0.000157	1.19	470.98	236.79	0.19
KinmoutDS	6494	100y	Burnt_S01_+Man	256.1	260.9	266.47		266.59	0.000456	1.71	308.35	167.56	0.27
KinmoutDS	6494	100y	Burnt_S02_-Man	256.1	260.9	266.04		266.22	0.000274	2.05	236.22	165.61	0.34
KinmoutDS	6494	100y	Burnt_S03_+Cont	256.1	260.9	266.38		266.51	0.000324	1.78	292.37	167.12	0.28
KinmoutDS	6494	100y	Burnt_S04_-Cont	256.1	260.9	266.12		266.29	0.000441	1.98	249.01	165.88	0.33
KinmoutDS	6494	100y	BurntRiver_RevisedBathy_2025	256.1	260.9	266.25		266.4	0.000375	1.87	271.43	166.49	0.3
KinmoutDS	6452	100y	Burnt_S01_+Man	256.1	260.99	266.46		266.57	0.000448	1.69	335.22	208.61	0.27
KinmoutDS	6452	100y	Burnt_S02_-Man	256.1	260.99	266.03		266.21	0.000267	2.03	248.22	199.72	0.34
KinmoutDS	6452	100y	Burnt_S03_+Cont	256.1	260.99	266.37		266.49	0.000319	1.76	316.38	207.36	0.28
KinmoutDS	6452	100y	Burnt_S04_-Cont	256.1	260.99	266.1		266.27	0.000434	1.97	262.18	201.88	0.32
KinmoutDS	6452	100y	BurntRiver_RevisedBathy_2025	256.1	260.99	266.24		266.38	0.000374	1.87	289.81	206.63	0.3
KinmoutDS	6410	100y	Burnt_S01_+Man	256.1	261.19	266.44		266.55	0.000448	1.69	300.38	378.06	0.27
KinmoutDS	6410	100y	Burnt_S02_-Man	256.1	261.19	266.03		266.19	0.000257	1.98	239.38	362.38	0.33
KinmoutDS	6410	100y	Burnt_S03_+Cont	256.1	261.19	266.35		266.48	0.000313	1.74	287.81	376.68	0.28
KinmoutDS	6410	100y	Burnt_S04_-Cont	256.1	261.19	266.09		266.25	0.000422	1.93	248.4	364.22	0.32
KinmoutDS	6410	100y	BurntRiver_RevisedBathy_2025	256.1	261.19	266.22		266.36	0.000361	1.83	268.66	373.32	0.3
KinmoutDS	6370	100y	Burnt_S01_+Man	256.1	261.37	266.44		266.53	0.000356	1.5	480.99	401.66	0.24
KinmoutDS	6370	100y	Burnt_S02_-Man	256.1	261.37	266.02		266.18	0.000244	1.93	313.12	400.55	0.32
KinmoutDS	6370	100y	Burnt_S03_+Cont	256.1	261.37	266.36		266.45	0.000258	1.58	446.85	401.46	0.25
KinmoutDS	6370	100y	Burnt_S04_-Cont	256.1	261.37	266.09		266.23	0.000392	1.86	337.65	400.73	0.31
KinmoutDS	6370	100y	BurntRiver_RevisedBathy_2025	256.1	261.37	266.23		266.34	0.000313	1.7	395.2	401.14	0.28
KinmoutDS	6329	100y	Burnt_S01_+Man	256.1	261.56	266.43		266.51	0.00035	1.48	455.76	348.52	0.24
KinmoutDS	6329	100y	Burnt_S02_-Man	256.1	261.56	266.03		266.16	0.000223	1.83	317.43	330.96	0.31
KinmoutDS	6329	100y	Burnt_S03_+Cont	256.1	261.56	266.35		266.44	0.000249	1.54	427.89	347.04	0.25
KinmoutDS	6329	100y	Burnt_S04_-Cont	256.1	261.56	266.08		266.21	0.000366	1.78	335.44	334.85	0.3
KinmoutDS	6329	100y	BurntRiver_RevisedBathy_2025	256.1	261.56	266.22		266.33	0.000299	1.65	383.6	342.58	0.27
KinmoutDS	6292	100y	Burnt_S01_+Man	256.1	261.73	266.44		266.49	0.000253	1.26	544.01	350.38	0.2
KinmoutDS	6292	100y	Burnt_S02_-Man	256.1	261.73	266.06		266.14	0.000156	1.54	413.6	328.8	0.26
KinmoutDS	6292	100y	Burnt_S03_+Cont	256.1	261.73	266.36		266.42	0.00018	1.31	516.24	348.7	0.21
KinmoutDS	6292	100y	Burnt_S04_-Cont	256.1	261.73	266.11		266.19	0.000256	1.5	431.75	332.22	0.25
KinmoutDS	6292	100y	BurntRiver_RevisedBathy_2025	256.1	261.73	266.24		266.31	0.000213	1.4	474.82	339.36	0.23
KinmoutDS	6250	100y	Burnt_S01_+Man	256.1	261.84	266.41		266.48	0.000328	1.41	466.78	303.59	0.23
KinmoutDS	6250	100y	Burnt_S02_-Man	256.1	261.84	266.01		266.13	0.000212	1.76	347.17	295.17	0.3
KinmoutDS	6250	100y	Burnt_S03_+Cont	256.1	261.84	266.33		266.41	0.000234	1.47	442.76	302.45	0.24
KinmoutDS	6250	100y	Burnt_S04_-Cont	256.1	261.84	266.06		266.18	0.000346	1.71	363.56	296.6	0.29
KinmoutDS	6250	100y	BurntRiver_RevisedBathy_2025	256.1	261.84	266.2		266.29	0.000281	1.58	404.72	300.72	0.26
KinmoutDS	6211	100y	Burnt_S01_+Man	256.1	261.92	266.39		266.46	0.000349	1.43	400.94	264.16	0.23
KinmoutDS	6211	100y	Burnt_S02_-Man	256.1	261.92	266		266.12	0.000211	1.72	305.45	232.71	0.3
KinmoutDS	6211	100y	Burnt_S03_+Cont	256.1	261.92	266.32		266.4	0.000241	1.47	381.86	260.8	0.24
KinmoutDS	6211	100y	Burnt_S04_-Cont	256.1	261.92	266.05		266.16	0.000348	1.68	316.97	235.1	0.29
KinmoutDS	6211	100y	BurntRiver_RevisedBathy_2025	256.1	261.92	266.19		266.28	0.000285	1.56	350.2	245.05	0.26
KinmoutDS	6174	100y	Burnt_S01_+Man	256.1	261.99	266.41		266.44	0.000186	1.04	648.66	354.31	0.17
KinmoutDS	6174	100y	Burnt_S02_-Man	256.1	261.99	266.04		266.09	0.000116	1.27	519.27	351.33	0.22
KinmoutDS	6174	100y	Burnt_S03_+Cont	256.1	261.99	266.33		266.37	0.000132	1.08	622.21	353.72	0.18
KinmoutDS	6174	100y	Burnt_S04_-Cont	256.1	261.99	266.09		266.14	0.000189	1.24	537.71	351.76	0.21
KinmoutDS	6174	100y	BurntRiver_RevisedBathy_2025	256.1	261.99	266.22		266.26	0.000156	1.15	581.3	352.8	0.2
KinmoutDS	6132	100y	Burnt_S01_+Man	256.1	261.94	266.4		266.43	0.000176	0.99	623.8	339.73	0.17
KinmoutDS	6132	100y	Burnt_S02_-Man	256.1	261.94	266.04		266.09	0.000108	1.21	500.99	338.47	0.22
KinmoutDS	6132	100y	Burnt_S03_+Cont	256.1	261.94	266.33		266.36	0.000125	1.03	599.15	339.53	0.18
KinmoutDS	6132	100y	Burnt_S04_-Cont	256.1	261.94	266.09		266.14	0.000178	1.18	517.79	338.65	0.21

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	6132	100y	BurntRiver_RevisedBathy_2025	256.1	261.94	266.21		266.25	0.000147	1.1	559.78	339.1	0.19
KinmoutDS	6100	100y	Burnt_S01_+Man	256.1	261.8	266.4		266.42	0.000142	0.84	663.39	344.43	0.14
KinmoutDS	6100	100y	Burnt_S02_-Man	256.1	261.8	266.05		266.08	0.000086	1.02	541.1	343.35	0.18
KinmoutDS	6100	100y	Burnt_S03_+Cont	256.1	261.8	266.33		266.35	0.0001	0.87	638.62	344.19	0.15
KinmoutDS	6100	100y	Burnt_S04_-Cont	256.1	261.8	266.1		266.13	0.000141	0.99	557.95	343.51	0.18
KinmoutDS	6100	100y	BurntRiver_RevisedBathy_2025	256.1	261.8	266.22		266.24	0.000118	0.93	599.46	343.88	0.16
KinmoutDS	6072	100y	Burnt_S01_+Man	256.1	261.66	266.4		266.42	0.000133	0.82	670.11	352.58	0.14
KinmoutDS	6072	100y	Burnt_S02_-Man	256.1	261.66	266.05		266.08	0.00008	0.99	545.59	351.27	0.18
KinmoutDS	6072	100y	Burnt_S03_+Cont	256.1	261.66	266.33		266.35	0.000093	0.85	645.13	352.31	0.14
KinmoutDS	6072	100y	Burnt_S04_-Cont	256.1	261.66	266.09		266.12	0.000132	0.96	562.32	351.43	0.17
KinmoutDS	6072	100y	BurntRiver_RevisedBathy_2025	256.1	261.66	266.22		266.24	0.00011	0.9	604.94	351.88	0.16
KinmoutDS	6037	100y	Burnt_S01_+Man	256.1	261.55	266.4		266.42	0.000095	0.74	787.47	388.45	0.12
KinmoutDS	6037	100y	Burnt_S02_-Man	256.1	261.55	266.05		266.07	0.000056	0.87	651.87	386.77	0.15
KinmoutDS	6037	100y	Burnt_S03_+Cont	256.1	261.55	266.33		266.35	0.000067	0.76	760.23	388.11	0.13
KinmoutDS	6037	100y	Burnt_S04_-Cont	256.1	261.55	266.1		266.12	0.000092	0.85	670.01	386.99	0.15
KinmoutDS	6037	100y	BurntRiver_RevisedBathy_2025	256.1	261.55	266.22		266.24	0.000078	0.8	716.36	387.57	0.14
KinmoutDS	6009	100y	Burnt_S01_+Man	256.1	260.17	266.39		266.41	0.00008	0.75	638.16	417.2	0.11
KinmoutDS	6009	100y	Burnt_S02_-Man	256.1	260.17	266.04		266.07	0.000042	0.86	533.13	396.86	0.13
KinmoutDS	6009	100y	Burnt_S03_+Cont	256.1	260.17	266.32		266.34	0.000055	0.77	617.12	416.91	0.11
KinmoutDS	6009	100y	Burnt_S04_-Cont	256.1	260.17	266.09		266.12	0.000071	0.84	546.96	399.2	0.13
KinmoutDS	6009	100y	BurntRiver_RevisedBathy_2025	256.1	260.17	266.21		266.23	0.000062	0.8	582.96	415.34	0.12
KinmoutDS	5968	100y	Burnt_S01_+Man	256.1	260.37	266.37		266.41	0.000155	1	490.99	253.86	0.15
KinmoutDS	5968	100y	Burnt_S02_-Man	256.1	260.37	266.01		266.07	0.000087	1.17	400.18	252.63	0.19
KinmoutDS	5968	100y	Burnt_S03_+Cont	256.1	260.37	266.3		266.34	0.000108	1.03	472.9	253.61	0.16
KinmoutDS	5968	100y	Burnt_S04_-Cont	256.1	260.37	266.06		266.11	0.000145	1.15	412.27	252.79	0.18
KinmoutDS	5968	100y	BurntRiver_RevisedBathy_2025	256.1	260.37	266.18		266.23	0.000124	1.08	443.48	253.22	0.17
KinmoutDS	5934	100y	Burnt_S01_+Man	256.1	261.12	266.37		266.4	0.00019	1.06	488.56	235.85	0.17
KinmoutDS	5934	100y	Burnt_S02_-Man	256.1	261.12	266.01		266.06	0.00011	1.26	404.62	233.86	0.21
KinmoutDS	5934	100y	Burnt_S03_+Cont	256.1	261.12	266.3		266.34	0.000132	1.1	472.08	235.5	0.18
KinmoutDS	5934	100y	Burnt_S04_-Cont	256.1	261.12	266.05		266.11	0.000182	1.23	415.4	234.16	0.21
KinmoutDS	5934	100y	BurntRiver_RevisedBathy_2025	256.1	261.12	266.18		266.22	0.000154	1.16	444.6	234.91	0.19
KinmoutDS	5890	100y	Burnt_S01_+Man	256.1	260.05	266.35		266.39	0.000166	1.09	457.27	239.53	0.17
KinmoutDS	5890	100y	Burnt_S02_-Man	256.1	260.05	265.99		266.06	0.000091	1.27	372.15	238.23	0.2
KinmoutDS	5890	100y	Burnt_S03_+Cont	256.1	260.05	266.28		266.33	0.000115	1.12	440.83	239.3	0.17
KinmoutDS	5890	100y	Burnt_S04_-Cont	256.1	260.05	266.04		266.1	0.000153	1.25	382.63	238.46	0.2
KinmoutDS	5890	100y	BurntRiver_RevisedBathy_2025	256.1	260.05	266.16		266.22	0.000131	1.18	412.67	238.91	0.18
KinmoutDS	5854	100y	Burnt_S01_+Man	256.1	259.07	266.34		266.39	0.000136	1.04	442.9	212.01	0.15
KinmoutDS	5854	100y	Burnt_S02_-Man	256.1	259.07	265.99		266.05	0.000069	1.18	369.01	210.48	0.17
KinmoutDS	5854	100y	Burnt_S03_+Cont	256.1	259.07	266.28		266.32	0.000092	1.06	428.82	211.74	0.15
KinmoutDS	5854	100y	Burnt_S04_-Cont	256.1	259.07	266.03		266.09	0.000117	1.16	377.86	210.64	0.17
KinmoutDS	5854	100y	BurntRiver_RevisedBathy_2025	256.1	259.07	266.16		266.21	0.000103	1.11	404.07	211.2	0.16
KinmoutDS	5809	100y	Burnt_S01_+Man	256.1	257.91	266.33		266.38	0.000123	1.08	349.22	130.59	0.14
KinmoutDS	5809	100y	Burnt_S02_-Man	256.1	257.91	265.99		266.05	0.000056	1.16	305.01	128.89	0.16
KinmoutDS	5809	100y	Burnt_S03_+Cont	256.1	257.91	266.26		266.32	0.000082	1.09	340.88	130.15	0.14
KinmoutDS	5809	100y	Burnt_S04_-Cont	256.1	257.91	266.02		266.09	0.000097	1.15	310.1	129.03	0.15
KinmoutDS	5809	100y	BurntRiver_RevisedBathy_2025	256.1	257.91	266.15		266.21	0.000089	1.12	325.91	129.47	0.15
KinmoutDS	5774	100y	Burnt_S01_+Man	256.1	260.09	266.28		266.37	0.000296	1.41	268.23	113.89	0.21
KinmoutDS	5774	100y	Burnt_S02_-Man	256.1	260.09	265.93		266.04	0.000147	1.57	228.1	113.01	0.24
KinmoutDS	5774	100y	Burnt_S03_+Cont	256.1	260.09	266.21		266.31	0.0002	1.44	260.63	113.73	0.22
KinmoutDS	5774	100y	Burnt_S04_-Cont	256.1	260.09	265.97		266.08	0.00025	1.55	232.84	113.11	0.24
KinmoutDS	5774	100y	BurntRiver_RevisedBathy_2025	256.1	260.09	266.09		266.2	0.000223	1.49	247.15	113.43	0.23
KinmoutDS	5731	100y	Burnt_S01_+Man	256.1	262.42	266.16		266.34	0.000921	1.99	182.63	85.78	0.37
KinmoutDS	5731	100y	Burnt_S02_-Man	256.1	262.42	265.76		266.02	0.000563	2.36	149.05	81.86	0.47
KinmoutDS	5731	100y	Burnt_S03_+Cont	256.1	262.42	266.09		266.28	0.000643	2.05	176.4	85.08	0.38
KinmoutDS	5731	100y	Burnt_S04_-Cont	256.1	262.42	265.81		266.06	0.000928	2.31	153.17	82.33	0.45
KinmoutDS	5731	100y	BurntRiver_RevisedBathy_2025	256.1	262.42	265.96		266.17	0.000762	2.17	165.23	83.59	0.41
KinmoutDS	5690	100y	Burnt_S01_+Man	256.1	262.85	266.06		266.29	0.001352	2.26	139.24	63.45	0.44
KinmoutDS	5690	100y	Burnt_S02_-Man	256.1	262.85	265.64		265.98	0.000862	2.69	113.68	59.47	0.57
KinmoutDS	5690	100y	Burnt_S03_+Cont	256.1	262.85	265.99		266.24	0.000936	2.32	135.25	63.07	0.45

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	5690	100y	Burnt_S04_-Cont	256.1	262.85	265.68		266	0.001448	2.65	115.78	59.82	0.55
KinmoutDS	5690	100y	BurntRiver_RevisedBathy_2025	256.1	262.85	265.84		266.13	0.001143	2.46	125.96	62.53	0.5
KinmoutDS	5633	100y	Burnt_S01_+Man	256.1	262.97	266		266.21	0.001217	2.15	163.09	94.46	0.42
KinmoutDS	5633	100y	Burnt_S02_-Man	256.1	262.97	265.62		265.93	0.000773	2.57	129.16	84.3	0.54
KinmoutDS	5633	100y	Burnt_S03_+Cont	256.1	262.97	265.96		266.18	0.000818	2.18	159.3	91.94	0.43
KinmoutDS	5633	100y	Burnt_S04_-Cont	256.1	262.97	265.61		265.92	0.001382	2.58	128.57	84.18	0.54
KinmoutDS	5633	100y	BurntRiver_RevisedBathy_2025	256.1	262.97	265.8		266.06	0.001028	2.35	145.08	88.59	0.47
KinmoutDS	5590	100y	Burnt_S01_+Man	256.1	261.04	266.07		266.14	0.000356	1.33	319.09	165.89	0.23
KinmoutDS	5590	100y	Burnt_S02_-Man	256.1	261.04	265.75		265.85	0.000192	1.52	266.71	159.07	0.28
KinmoutDS	5590	100y	Burnt_S03_+Cont	256.1	261.04	266.02		266.1	0.000241	1.35	310.75	164.5	0.24
KinmoutDS	5590	100y	Burnt_S04_-Cont	256.1	261.04	265.77		265.86	0.000332	1.51	269.74	159.68	0.28
KinmoutDS	5590	100y	BurntRiver_RevisedBathy_2025	256.1	261.04	265.9		265.98	0.00028	1.42	291.02	162.18	0.26
KinmoutDS	5551	100y	Burnt_S01_+Man	256.1	260.33	266.08		266.13	0.000138	0.98	360.76	138.61	0.15
KinmoutDS	5551	100y	Burnt_S02_-Man	256.1	260.33	265.77		265.83	0.000066	1.08	318.28	137.14	0.17
KinmoutDS	5551	100y	Burnt_S03_+Cont	256.1	260.33	266.03		266.08	0.000092	1	353.71	138.42	0.15
KinmoutDS	5551	100y	Burnt_S04_-Cont	256.1	260.33	265.8		265.85	0.000115	1.07	321.26	137.29	0.17
KinmoutDS	5551	100y	BurntRiver_RevisedBathy_2025	256.1	260.33	265.92		265.97	0.000102	1.03	338.06	137.93	0.16
KinmoutDS	5512	100y	Burnt_S01_+Man	256.1	259.6	266.09		266.12	0.000055	0.7	494.1	155.22	0.1
KinmoutDS	5512	100y	Burnt_S02_-Man	256.1	259.6	265.79		265.82	0.000025	0.75	447.38	154.24	0.11
KinmoutDS	5512	100y	Burnt_S03_+Cont	256.1	259.6	266.04		266.06	0.000036	0.7	485.91	155.05	0.1
KinmoutDS	5512	100y	Burnt_S04_-Cont	256.1	259.6	265.82		265.84	0.000043	0.74	451.16	154.32	0.11
KinmoutDS	5512	100y	BurntRiver_RevisedBathy_2025	256.1	259.6	265.93		265.96	0.00004	0.72	469.12	154.68	0.1
KinmoutDS	5471	100y	Burnt_S01_+Man	256.1	258.58	266.09		266.11	0.000052	0.71	434.64	133.56	0.1
KinmoutDS	5471	100y	Burnt_S02_-Man	256.1	258.58	265.79		265.82	0.000023	0.76	394.68	132.45	0.11
KinmoutDS	5471	100y	Burnt_S03_+Cont	256.1	258.58	266.04		266.06	0.000035	0.72	427.69	133.34	0.1
KinmoutDS	5471	100y	Burnt_S04_-Cont	256.1	258.58	265.81		265.84	0.00004	0.76	397.84	132.53	0.1
KinmoutDS	5471	100y	BurntRiver_RevisedBathy_2025	256.1	258.58	265.93		265.96	0.000037	0.74	413.26	132.92	0.1
KinmoutDS	5431	100y	Burnt_S01_+Man	256.1	259.42	266.08		266.11	0.000079	0.83	345.76	93.76	0.12
KinmoutDS	5431	100y	Burnt_S02_-Man	256.1	259.42	265.78		265.82	0.000035	0.89	317.77	92.52	0.13
KinmoutDS	5431	100y	Burnt_S03_+Cont	256.1	259.42	266.02		266.06	0.000052	0.84	340.9	93.56	0.12
KinmoutDS	5431	100y	Burnt_S04_-Cont	256.1	259.42	265.8		265.84	0.000061	0.88	319.96	92.62	0.13
KinmoutDS	5431	100y	BurntRiver_RevisedBathy_2025	256.1	259.42	265.92		265.95	0.000056	0.86	330.77	93.15	0.12
KinmoutDS	5392	100y	Burnt_S01_+Man	256.1	260.3	266.05		266.1	0.00015	1.09	283.48	93.38	0.16
KinmoutDS	5392	100y	Burnt_S02_-Man	256.1	260.3	265.74		265.81	0.000068	1.17	255.34	92.05	0.18
KinmoutDS	5392	100y	Burnt_S03_+Cont	256.1	260.3	265.99		266.05	0.000099	1.1	278.58	93.13	0.16
KinmoutDS	5392	100y	Burnt_S04_-Cont	256.1	260.3	265.77		265.83	0.000119	1.16	257.56	92.15	0.18
KinmoutDS	5392	100y	BurntRiver_RevisedBathy_2025	256.1	260.3	265.88		265.95	0.000108	1.13	268.41	92.61	0.17
KinmoutDS	5352	100y	Burnt_S01_+Man	256.1	260.82	266		266.09	0.000273	1.39	262.48	118.85	0.21
KinmoutDS	5352	100y	Burnt_S02_-Man	256.1	260.82	265.69		265.8	0.000131	1.53	225.68	116.93	0.24
KinmoutDS	5352	100y	Burnt_S03_+Cont	256.1	260.82	265.95		266.04	0.000183	1.41	256.1	118.58	0.22
KinmoutDS	5352	100y	Burnt_S04_-Cont	256.1	260.82	265.71		265.83	0.000227	1.52	228.54	117.52	0.24
KinmoutDS	5352	100y	BurntRiver_RevisedBathy_2025	256.1	260.82	265.83		265.94	0.000203	1.46	242.8	118.06	0.23
KinmoutDS	5316	100y	Burnt_S01_+Man	256.1	260.19	266.02		266.08	0.000158	1.13	348.16	145.03	0.16
KinmoutDS	5316	100y	Burnt_S02_-Man	256.1	260.19	265.71		265.79	0.000074	1.24	304.51	144.14	0.19
KinmoutDS	5316	100y	Burnt_S03_+Cont	256.1	260.19	265.96		266.02	0.000106	1.15	340.08	144.86	0.17
KinmoutDS	5316	100y	Burnt_S04_-Cont	256.1	260.19	265.74		265.81	0.000128	1.23	308.54	144.22	0.18
KinmoutDS	5316	100y	BurntRiver_RevisedBathy_2025	256.1	260.19	265.86		265.92	0.000116	1.19	324.82	144.55	0.17
KinmoutDS	5281	100y	Burnt_S01_+Man	256.1	258.72	266.03		266.06	0.000061	0.78	452.57	174.78	0.1
KinmoutDS	5281	100y	Burnt_S02_-Man	256.1	258.72	265.74		265.77	0.000027	0.84	402.1	163.92	0.11
KinmoutDS	5281	100y	Burnt_S03_+Cont	256.1	258.72	265.98		266.01	0.00004	0.79	442.42	173.93	0.11
KinmoutDS	5281	100y	Burnt_S04_-Cont	256.1	258.72	265.77		265.8	0.000047	0.83	407.32	165.93	0.11
KinmoutDS	5281	100y	BurntRiver_RevisedBathy_2025	256.1	258.72	265.88		265.91	0.000043	0.81	425.2	172.5	0.11
KinmoutDS	5210	100y	Burnt_S01_+Man	256.1	259.1	266.01		266.06	0.000111	1.02	441.55	231.09	0.14
KinmoutDS	5210	100y	Burnt_S02_-Man	256.1	259.1	265.71		265.77	0.000051	1.11	375.17	216.95	0.16
KinmoutDS	5210	100y	Burnt_S03_+Cont	256.1	259.1	265.95		266	0.000074	1.04	428.25	226.52	0.14
KinmoutDS	5210	100y	Burnt_S04_-Cont	256.1	259.1	265.74		265.8	0.000088	1.1	382.07	217.96	0.15
KinmoutDS	5210	100y	BurntRiver_RevisedBathy_2025	256.1	259.1	265.85		265.9	0.000081	1.07	405.64	222.43	0.15
KinmoutDS	5170	100y	Burnt_S01_+Man	256.1	259.66	265.98		266.05	0.000167	1.21	375.13	243.2	0.17
KinmoutDS	5170	100y	Burnt_S02_-Man	256.1	259.66	265.68		265.76	0.000079	1.33	305.22	224.56	0.19

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	5170	100y	Burnt_S03_+Cont	256.1	259.66	265.92		265.99	0.000113	1.23	361.15	237.2	0.17
KinmoutDS	5170	100y	Burnt_S04_-Cont	256.1	259.66	265.71		265.79	0.000136	1.32	312.42	225.15	0.19
KinmoutDS	5170	100y	BurntRiver_RevisedBathy_2025	256.1	259.66	265.82		265.9	0.000124	1.27	337.25	231.22	0.18
KinmoutDS	5133	100y	Burnt_S01_+Man	256.1	259.2	265.98		266.04	0.000149	1.17	373.99	248.56	0.16
KinmoutDS	5133	100y	Burnt_S02_-Man	256.1	259.2	265.68		265.76	0.000069	1.28	303.08	232.42	0.18
KinmoutDS	5133	100y	Burnt_S03_+Cont	256.1	259.2	265.92		265.99	0.0001	1.19	360.09	245.25	0.16
KinmoutDS	5133	100y	Burnt_S04_-Cont	256.1	259.2	265.71		265.79	0.000119	1.27	310.16	233.85	0.18
KinmoutDS	5133	100y	BurntRiver_RevisedBathy_2025	256.1	259.2	265.82		265.89	0.000109	1.23	335.69	239.24	0.17
KinmoutDS	5095	100y	Burnt_S01_+Man	256.1	257.67	265.98		266.03	0.000107	1.06	422.43	246.04	0.14
KinmoutDS	5095	100y	Burnt_S02_-Man	256.1	257.67	265.69		265.75	0.000049	1.15	351.55	238.44	0.15
KinmoutDS	5095	100y	Burnt_S03_+Cont	256.1	257.67	265.92		265.98	0.000072	1.07	408.36	244.47	0.14
KinmoutDS	5095	100y	Burnt_S04_-Cont	256.1	257.67	265.72		265.78	0.000084	1.14	358.99	239.04	0.15
KinmoutDS	5095	100y	BurntRiver_RevisedBathy_2025	256.1	257.67	265.82		265.88	0.000077	1.1	384.19	241.77	0.15
KinmoutDS	5048	100y	Burnt_S01_+Man	256.1	258.7	265.98		266.03	0.000113	1.05	431.8	241.54	0.14
KinmoutDS	5048	100y	Burnt_S02_-Man	256.1	258.7	265.69		265.75	0.000052	1.14	362.8	234.29	0.16
KinmoutDS	5048	100y	Burnt_S03_+Cont	256.1	258.7	265.92		265.97	0.000076	1.07	418.33	240.36	0.14
KinmoutDS	5048	100y	Burnt_S04_-Cont	256.1	258.7	265.72		265.78	0.00009	1.13	369.75	235.25	0.16
KinmoutDS	5048	100y	BurntRiver_RevisedBathy_2025	256.1	258.7	265.82		265.88	0.000082	1.1	394.58	237.38	0.15
KinmoutDS	5009	100y	Burnt_S01_+Man	256.1	260.26	265.94		266.02	0.000216	1.31	373.83	220.04	0.19
KinmoutDS	5009	100y	Burnt_S02_-Man	256.1	260.26	265.65		265.74	0.000104	1.45	310.29	206.7	0.22
KinmoutDS	5009	100y	Burnt_S03_+Cont	256.1	260.26	265.89		265.97	0.000146	1.34	361.3	217.11	0.2
KinmoutDS	5009	100y	Burnt_S04_-Cont	256.1	260.26	265.68		265.77	0.000179	1.44	316.64	207.6	0.22
KinmoutDS	5009	100y	BurntRiver_RevisedBathy_2025	256.1	260.26	265.78		265.87	0.000161	1.38	339.37	212.29	0.21
KinmoutDS	4967	100y	Burnt_S01_+Man	256.1	260.84	265.93		266.01	0.000263	1.38	366.29	203.96	0.21
KinmoutDS	4967	100y	Burnt_S02_-Man	256.1	260.84	265.63		265.74	0.000129	1.53	308.63	190.59	0.24
KinmoutDS	4967	100y	Burnt_S03_+Cont	256.1	260.84	265.87		265.96	0.000177	1.4	355.3	198.12	0.21
KinmoutDS	4967	100y	Burnt_S04_-Cont	256.1	260.84	265.66		265.76	0.000222	1.52	313.99	191.31	0.24
KinmoutDS	4967	100y	BurntRiver_RevisedBathy_2025	256.1	260.84	265.77		265.86	0.000197	1.46	335.13	193.68	0.23
KinmoutDS	4931	100y	Burnt_S01_+Man	256.7	260.1	265.93		266	0.000181	1.21	421.97	226.89	0.18
KinmoutDS	4931	100y	Burnt_S02_-Man	256.7	260.1	265.65		265.73	0.000085	1.32	358.21	214.87	0.2
KinmoutDS	4931	100y	Burnt_S03_+Cont	256.7	260.1	265.88		265.95	0.000122	1.23	409.7	226.68	0.18
KinmoutDS	4931	100y	Burnt_S04_-Cont	256.7	260.1	265.68		265.75	0.000146	1.31	364.35	215.77	0.2
KinmoutDS	4931	100y	BurntRiver_RevisedBathy_2025	256.7	260.1	265.78		265.85	0.000133	1.26	387.3	226.23	0.19
KinmoutDS	4893	100y	Burnt_S01_+Man	256.7	259.05	265.95		265.98	0.000099	0.94	516.16	243.83	0.13
KinmoutDS	4893	100y	Burnt_S02_-Man	256.7	259.05	265.67		265.71	0.000046	1.03	448.74	237.44	0.15
KinmoutDS	4893	100y	Burnt_S03_+Cont	256.7	259.05	265.89		265.93	0.000067	0.96	502.59	243.62	0.13
KinmoutDS	4893	100y	Burnt_S04_-Cont	256.7	259.05	265.7		265.74	0.000079	1.02	456.13	238.09	0.14
KinmoutDS	4893	100y	BurntRiver_RevisedBathy_2025	256.7	259.05	265.8		265.84	0.000073	0.99	479.66	243.17	0.14
KinmoutDS	4849	100y	Burnt_S01_+Man	256.7	257.84	265.95		265.98	0.000051	0.73	555.86	252.65	0.1
KinmoutDS	4849	100y	Burnt_S02_-Man	256.7	257.84	265.68		265.71	0.000023	0.79	488.22	236.33	0.11
KinmoutDS	4849	100y	Burnt_S03_+Cont	256.7	257.84	265.9		265.92	0.000034	0.74	541.64	251.1	0.1
KinmoutDS	4849	100y	Burnt_S04_-Cont	256.7	257.84	265.71		265.74	0.00004	0.79	495.91	238.95	0.11
KinmoutDS	4849	100y	BurntRiver_RevisedBathy_2025	256.7	257.84	265.81		265.83	0.000037	0.76	519	246.4	0.1
KinmoutDS	4815	100y	Burnt_S01_+Man	256.7	256.87	265.96		265.97	0.000031	0.6	589.72	216.55	0.08
KinmoutDS	4815	100y	Burnt_S02_-Man	256.7	256.87	265.69		265.7	0.000014	0.65	531.02	213.58	0.08
KinmoutDS	4815	100y	Burnt_S03_+Cont	256.7	256.87	265.9		265.92	0.000021	0.61	577.43	215.86	0.08
KinmoutDS	4815	100y	Burnt_S04_-Cont	256.7	256.87	265.72		265.74	0.000024	0.64	538.1	213.93	0.08
KinmoutDS	4815	100y	BurntRiver_RevisedBathy_2025	256.7	256.87	265.81		265.83	0.000022	0.62	558.11	215.06	0.08
KinmoutDS	4789	100y	Burnt_S01_+Man	256.7	256.16	265.96		265.97	0.000025	0.55	625.45	215.06	0.07
KinmoutDS	4789	100y	Burnt_S02_-Man	256.7	256.16	265.69		265.7	0.000011	0.59	567.07	214.11	0.08
KinmoutDS	4789	100y	Burnt_S03_+Cont	256.7	256.16	265.9		265.92	0.000017	0.56	613.21	214.85	0.07
KinmoutDS	4789	100y	Burnt_S04_-Cont	256.7	256.16	265.72		265.74	0.00002	0.59	574.2	214.22	0.07
KinmoutDS	4789	100y	BurntRiver_RevisedBathy_2025	256.7	256.16	265.81		265.83	0.000018	0.57	594.07	214.54	0.07
KinmoutDS	4765	100y	Burnt_S01_+Man	256.7	256.93	265.96		265.97	0.000036	0.63	552.06	209.73	0.08
KinmoutDS	4765	100y	Burnt_S02_-Man	256.7	256.93	265.68		265.7	0.000017	0.69	494.86	208.78	0.09
KinmoutDS	4765	100y	Burnt_S03_+Cont	256.7	256.93	265.9		265.91	0.000024	0.64	540.07	209.53	0.08
KinmoutDS	4765	100y	Burnt_S04_-Cont	256.7	256.93	265.72		265.73	0.000028	0.68	501.85	208.9	0.09
KinmoutDS	4765	100y	BurntRiver_RevisedBathy_2025	256.7	256.93	265.81		265.83	0.000026	0.66	521.33	209.22	0.08
KinmoutDS	4743	100y	Burnt_S01_+Man	256.7	257.95	265.95		265.97	0.00005	0.7	504.49	209.37	0.09

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	4743	100y	Burnt_S02_-Man	256.7	257.95	265.68		265.7	0.000024	0.78	447.19	207.79	0.11
KinmoutDS	4743	100y	Burnt_S03_+Cont	256.7	257.95	265.89		265.91	0.000034	0.72	492.48	209.18	0.1
KinmoutDS	4743	100y	Burnt_S04_-Cont	256.7	257.95	265.71		265.73	0.00004	0.77	454.2	208.15	0.1
KinmoutDS	4743	100y	BurntRiver_RevisedBathy_2025	256.7	257.95	265.8		265.83	0.000037	0.74	473.7	208.82	0.1
KinmoutDS	4707	100y	Burnt_S01_+Man	256.7	259.64	265.94		265.97	0.0001	0.87	493.59	222.96	0.13
KinmoutDS	4707	100y	Burnt_S02_-Man	256.7	259.64	265.66		265.7	0.000051	0.99	432.19	220.19	0.15
KinmoutDS	4707	100y	Burnt_S03_+Cont	256.7	259.64	265.88		265.91	0.000068	0.89	480.78	222.39	0.13
KinmoutDS	4707	100y	Burnt_S04_-Cont	256.7	259.64	265.7		265.73	0.000086	0.97	439.69	220.55	0.15
KinmoutDS	4707	100y	BurntRiver_RevisedBathy_2025	256.7	259.64	265.79		265.82	0.000076	0.93	460.62	221.5	0.14
KinmoutDS	4671	100y	Burnt_S01_+Man	256.7	260.75	265.91		265.96	0.000181	1.14	348.16	193.45	0.17
KinmoutDS	4671	100y	Burnt_S02_-Man	256.7	260.75	265.63		265.69	0.000099	1.34	292.72	191.39	0.21
KinmoutDS	4671	100y	Burnt_S03_+Cont	256.7	260.75	265.85		265.9	0.000126	1.17	336.63	193.12	0.18
KinmoutDS	4671	100y	Burnt_S04_-Cont	256.7	260.75	265.66		265.73	0.000166	1.31	299.6	191.71	0.21
KinmoutDS	4671	100y	BurntRiver_RevisedBathy_2025	256.7	260.75	265.76		265.82	0.000144	1.24	318.53	192.47	0.19
KinmoutDS	4628	100y	Burnt_S01_+Man	256.7	260.14	265.86		265.95	0.000287	1.49	394.72	203.95	0.22
KinmoutDS	4628	100y	Burnt_S02_-Man	256.7	260.14	265.57		265.68	0.000142	1.67	335.52	202.33	0.25
KinmoutDS	4628	100y	Burnt_S03_+Cont	256.7	260.14	265.8		265.89	0.000195	1.52	382.41	203.62	0.23
KinmoutDS	4628	100y	Burnt_S04_-Cont	256.7	260.14	265.6		265.71	0.000241	1.64	342.71	202.53	0.25
KinmoutDS	4628	100y	BurntRiver_RevisedBathy_2025	256.7	260.14	265.7		265.8	0.000216	1.58	363.01	203.09	0.24
KinmoutDS	4589	100y	Burnt_S01_+Man	256.7	259.49	265.84		265.93	0.000277	1.49	339.28	143.4	0.21
KinmoutDS	4589	100y	Burnt_S02_-Man	256.7	259.49	265.56		265.68	0.000129	1.63	299.44	142.05	0.24
KinmoutDS	4589	100y	Burnt_S03_+Cont	256.7	259.49	265.79		265.88	0.000186	1.52	331.27	143.16	0.22
KinmoutDS	4589	100y	Burnt_S04_-Cont	256.7	259.49	265.59		265.7	0.000222	1.61	303.76	142.21	0.24
KinmoutDS	4589	100y	BurntRiver_RevisedBathy_2025	256.7	259.49	265.69		265.8	0.000203	1.56	317.82	142.74	0.23
KinmoutDS	4550	100y	Burnt_S01_+Man	256.7	259.6	265.8		265.92	0.00034	1.64	270.52	105.57	0.24
KinmoutDS	4550	100y	Burnt_S02_-Man	256.7	259.6	265.53		265.67	0.000155	1.77	241.97	102.41	0.26
KinmoutDS	4550	100y	Burnt_S03_+Cont	256.7	259.6	265.75		265.87	0.000227	1.66	264.91	104.89	0.24
KinmoutDS	4550	100y	Burnt_S04_-Cont	256.7	259.6	265.56		265.69	0.000268	1.76	244.9	102.64	0.26
KinmoutDS	4550	100y	BurntRiver_RevisedBathy_2025	256.7	259.6	265.66		265.79	0.000246	1.71	255.1	103.44	0.25
KinmoutDS	4530	100y	Burnt_S01_+Man	256.7	259.74	265.8		265.91	0.000344	1.62	266.27	95.69	0.24
KinmoutDS	4530	100y	Burnt_S02_-Man	256.7	259.74	265.53		265.66	0.000156	1.75	240.69	93.78	0.26
KinmoutDS	4530	100y	Burnt_S03_+Cont	256.7	259.74	265.75		265.87	0.000229	1.64	261.38	95.34	0.24
KinmoutDS	4530	100y	Burnt_S04_-Cont	256.7	259.74	265.56		265.69	0.00027	1.74	243.19	93.91	0.26
KinmoutDS	4530	100y	BurntRiver_RevisedBathy_2025	256.7	259.74	265.65		265.78	0.000248	1.69	252.47	94.56	0.25
KinmoutDS	4509	100y	Burnt_S01_+Man	256.7	259.88	265.78		265.91	0.000373	1.66	247.82	88.4	0.25
KinmoutDS	4509	100y	Burnt_S02_-Man	256.7	259.88	265.52		265.66	0.000169	1.79	225.22	83.74	0.27
KinmoutDS	4509	100y	Burnt_S03_+Cont	256.7	259.88	265.74		265.86	0.000248	1.68	243.52	85.65	0.25
KinmoutDS	4509	100y	Burnt_S04_-Cont	256.7	259.88	265.54		265.68	0.000293	1.78	227.25	83.8	0.27
KinmoutDS	4509	100y	BurntRiver_RevisedBathy_2025	256.7	259.88	265.64		265.77	0.000269	1.73	235.57	84.06	0.26
KinmoutDS	4488	100y	Burnt_S01_+Man	256.7	260.02	265.76		265.9	0.000429	1.75	219.72	88.27	0.26
KinmoutDS	4488	100y	Burnt_S02_-Man	256.7	260.02	265.49		265.65	0.000193	1.88	197.34	79.69	0.29
KinmoutDS	4488	100y	Burnt_S03_+Cont	256.7	260.02	265.71		265.85	0.000282	1.77	215.7	87.35	0.27
KinmoutDS	4488	100y	Burnt_S04_-Cont	256.7	260.02	265.52		265.68	0.000334	1.87	199.2	81.57	0.29
KinmoutDS	4488	100y	BurntRiver_RevisedBathy_2025	256.7	260.02	265.62		265.77	0.000306	1.82	207.52	84.4	0.28
KinmoutDS	4468	100y	Burnt_S01_+Man	256.7	260.15	265.73		265.89	0.000473	1.82	204.7	88.38	0.28
KinmoutDS	4468	100y	Burnt_S02_-Man	256.7	260.15	265.47		265.65	0.000216	1.96	182.53	80.02	0.31
KinmoutDS	4468	100y	Burnt_S03_+Cont	256.7	260.15	265.69		265.84	0.000314	1.84	200.7	87.1	0.28
KinmoutDS	4468	100y	Burnt_S04_-Cont	256.7	260.15	265.49		265.67	0.000374	1.95	184.29	80.52	0.31
KinmoutDS	4468	100y	BurntRiver_RevisedBathy_2025	256.7	260.15	265.59		265.76	0.000342	1.89	192.5	82.68	0.29
KinmoutDS	4450	100y	Burnt_S01_+Man	256.7	260.27	265.71		265.88	0.000505	1.86	188.99	74.81	0.29
KinmoutDS	4450	100y	Burnt_S02_-Man	256.7	260.27	265.45		265.64	0.00023	2	169.9	71.59	0.32
KinmoutDS	4450	100y	Burnt_S03_+Cont	256.7	260.27	265.67		265.84	0.000334	1.88	185.76	74	0.29
KinmoutDS	4450	100y	Burnt_S04_-Cont	256.7	260.27	265.47		265.66	0.000399	1.99	171.28	71.83	0.32
KinmoutDS	4450	100y	BurntRiver_RevisedBathy_2025	256.7	260.27	265.57		265.75	0.000364	1.93	178.65	73.12	0.3
KinmoutDS	4428	100y	Burnt_S01_+Man	256.7	260.35	265.68		265.86	0.000593	1.94	172.28	83.7	0.31
KinmoutDS	4428	100y	Burnt_S02_-Man	256.7	260.35	265.42		265.64	0.00027	2.09	154.08	75.93	0.34
KinmoutDS	4428	100y	Burnt_S03_+Cont	256.7	260.35	265.64		265.83	0.000391	1.96	169.32	82.09	0.31
KinmoutDS	4428	100y	Burnt_S04_-Cont	256.7	260.35	265.44		265.65	0.000469	2.08	155.27	76.16	0.34
KinmoutDS	4428	100y	BurntRiver_RevisedBathy_2025	256.7	260.35	265.54		265.74	0.000426	2.02	162.39	77.9	0.32

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	4410	100y	Burnt_S01_+Man	256.7	260.4	265.67		265.85	0.000585	1.95	180.57	85.75	0.31
KinmoutDS	4410	100y	Burnt_S02_-Man	256.7	260.4	265.42		265.63	0.000267	2.1	161.99	81.27	0.34
KinmoutDS	4410	100y	Burnt_S03_+Cont	256.7	260.4	265.64		265.82	0.000386	1.97	177.84	84.15	0.31
KinmoutDS	4410	100y	Burnt_S04_-Cont	256.7	260.4	265.43		265.64	0.000467	2.09	162.94	81.47	0.34
KinmoutDS	4410	100y	BurntRiver_RevisedBathy_2025	256.7	260.4	265.54		265.73	0.000423	2.03	170.56	83.03	0.33
KinmoutDS	4390	100y	Burnt_S01_+Man	256.7	260.46	265.67		265.84	0.000586	1.92	205.87	97.5	0.31
KinmoutDS	4390	100y	Burnt_S02_-Man	256.7	260.46	265.42		265.62	0.000271	2.08	182.28	93.13	0.34
KinmoutDS	4390	100y	Burnt_S03_+Cont	256.7	260.46	265.63		265.81	0.000387	1.94	202.51	96.73	0.31
KinmoutDS	4390	100y	Burnt_S04_-Cont	256.7	260.46	265.43		265.63	0.000474	2.07	183.23	93.26	0.34
KinmoutDS	4390	100y	BurntRiver_RevisedBathy_2025	256.7	260.46	265.54		265.72	0.000426	2	193.12	94.82	0.32
KinmoutDS	4370	100y	Burnt_S01_+Man	256.7	260.43	265.64		265.82	0.000674	1.99	178.75	74.94	0.32
KinmoutDS	4370	100y	Burnt_S02_-Man	256.7	260.43	265.39		265.61	0.00031	2.15	160.69	73.48	0.36
KinmoutDS	4370	100y	Burnt_S03_+Cont	256.7	260.43	265.6		265.8	0.000444	2.01	176.39	74.75	0.33
KinmoutDS	4370	100y	Burnt_S04_-Cont	256.7	260.43	265.4		265.62	0.000545	2.15	161.19	73.52	0.36
KinmoutDS	4370	100y	BurntRiver_RevisedBathy_2025	256.7	260.43	265.51		265.71	0.000489	2.07	169.02	74.15	0.34
KinmoutDS	4350	100y	Burnt_S01_+Man	256.7	260.4	265.64		265.8	0.000572	1.9	199.21	77.7	0.3
KinmoutDS	4350	100y	Burnt_S02_-Man	256.7	260.4	265.41		265.6	0.000258	2.05	181.39	76.09	0.34
KinmoutDS	4350	100y	Burnt_S03_+Cont	256.7	260.4	265.61		265.78	0.000376	1.92	196.81	77.47	0.31
KinmoutDS	4350	100y	Burnt_S04_-Cont	256.7	260.4	265.42		265.6	0.000454	2.05	181.96	76.14	0.34
KinmoutDS	4350	100y	BurntRiver_RevisedBathy_2025	256.7	260.4	265.52		265.69	0.000411	1.98	189.58	76.8	0.32
KinmoutDS	4330	100y	Burnt_S01_+Man	256.7	260.49	265.62		265.79	0.000597	1.92	190.96	73.27	0.31
KinmoutDS	4330	100y	Burnt_S02_-Man	256.7	260.49	265.4		265.59	0.000268	2.06	174.55	71.97	0.34
KinmoutDS	4330	100y	Burnt_S03_+Cont	256.7	260.49	265.59		265.77	0.000391	1.93	188.93	73.12	0.31
KinmoutDS	4330	100y	Burnt_S04_-Cont	256.7	260.49	265.4		265.6	0.000473	2.06	174.86	72	0.34
KinmoutDS	4330	100y	BurntRiver_RevisedBathy_2025	256.7	260.49	265.5		265.68	0.000428	1.99	182.11	72.58	0.33
KinmoutDS	4309	100y	Burnt_S01_+Man	256.7	260.58	265.61		265.78	0.000564	1.9	199.68	83.94	0.3
KinmoutDS	4309	100y	Burnt_S02_-Man	256.7	260.58	265.39		265.59	0.000252	2.04	181.41	82.66	0.33
KinmoutDS	4309	100y	Burnt_S03_+Cont	256.7	260.58	265.59		265.76	0.000368	1.92	197.67	83.82	0.31
KinmoutDS	4309	100y	Burnt_S04_-Cont	256.7	260.58	265.39		265.59	0.000446	2.04	181.44	82.66	0.33
KinmoutDS	4309	100y	BurntRiver_RevisedBathy_2025	256.7	260.58	265.5		265.67	0.000404	1.97	189.82	83.32	0.32
KinmoutDS	4289	100y	Burnt_S01_+Man	256.7	260.64	265.6		265.77	0.000557	1.9	198.03	83.39	0.3
KinmoutDS	4289	100y	Burnt_S02_-Man	256.7	260.64	265.39		265.58	0.000246	2.03	180.54	81.86	0.33
KinmoutDS	4289	100y	Burnt_S03_+Cont	256.7	260.64	265.58		265.75	0.000362	1.91	196.4	83.24	0.3
KinmoutDS	4289	100y	Burnt_S04_-Cont	256.7	260.64	265.39		265.58	0.000437	2.03	180.22	81.83	0.33
KinmoutDS	4289	100y	BurntRiver_RevisedBathy_2025	256.7	260.64	265.49		265.67	0.000396	1.97	188.57	82.56	0.32
KinmoutDS	4270	100y	Burnt_S01_+Man	256.7	260.65	265.59		265.76	0.000547	1.89	196.34	81.37	0.3
KinmoutDS	4270	100y	Burnt_S02_-Man	256.7	260.65	265.39		265.58	0.00024	2.02	179.77	80.33	0.32
KinmoutDS	4270	100y	Burnt_S03_+Cont	256.7	260.65	265.58		265.74	0.000354	1.9	195.07	81.29	0.3
KinmoutDS	4270	100y	Burnt_S04_-Cont	256.7	260.65	265.38		265.57	0.000428	2.02	179.15	80.3	0.33
KinmoutDS	4270	100y	BurntRiver_RevisedBathy_2025	256.7	260.65	265.48		265.66	0.000387	1.96	187.38	80.79	0.31
KinmoutDS	4250	100y	Burnt_S01_+Man	256.7	260.55	265.57		265.74	0.000545	1.92	193.11	80.33	0.3
KinmoutDS	4250	100y	Burnt_S02_-Man	256.7	260.55	265.38		265.57	0.000236	2.04	177.29	79.36	0.32
KinmoutDS	4250	100y	Burnt_S03_+Cont	256.7	260.55	265.56		265.73	0.000351	1.93	192.18	80.28	0.3
KinmoutDS	4250	100y	Burnt_S04_-Cont	256.7	260.55	265.36		265.56	0.000423	2.04	176.36	79.29	0.32
KinmoutDS	4250	100y	BurntRiver_RevisedBathy_2025	256.7	260.55	265.47		265.65	0.000384	1.98	184.54	79.86	0.31
KinmoutDS	4231	100y	Burnt_S01_+Man	256.7	260.31	265.56		265.73	0.000549	1.94	194.33	82.29	0.3
KinmoutDS	4231	100y	Burnt_S02_-Man	256.7	260.31	265.37		265.56	0.000237	2.05	178.59	81.58	0.32
KinmoutDS	4231	100y	Burnt_S03_+Cont	256.7	260.31	265.55		265.73	0.000353	1.94	193.7	82.25	0.3
KinmoutDS	4231	100y	Burnt_S04_-Cont	256.7	260.31	265.35		265.55	0.000425	2.06	177.31	81.52	0.32
KinmoutDS	4231	100y	BurntRiver_RevisedBathy_2025	256.7	260.31	265.46		265.64	0.000385	2	185.8	81.89	0.31
KinmoutDS	4212	100y	Burnt_S01_+Man	256.7	260.05	265.56		265.72	0.000494	1.88	211.04	85.11	0.28
KinmoutDS	4212	100y	Burnt_S02_-Man	256.7	260.05	265.37		265.56	0.00021	1.99	195.42	84.51	0.31
KinmoutDS	4212	100y	Burnt_S03_+Cont	256.7	260.05	265.55		265.71	0.000317	1.88	210.55	85.09	0.28
KinmoutDS	4212	100y	Burnt_S04_-Cont	256.7	260.05	265.36		265.54	0.000378	2	194	84.45	0.31
KinmoutDS	4212	100y	BurntRiver_RevisedBathy_2025	256.7	260.05	265.46		265.63	0.000345	1.94	202.56	84.76	0.3
KinmoutDS	4191	100y	Burnt_S01_+Man	256.7	259.77	265.55		265.71	0.000455	1.85	217.95	87.39	0.27
KinmoutDS	4191	100y	Burnt_S02_-Man	256.7	259.77	265.38		265.55	0.000192	1.95	202.54	86.83	0.29
KinmoutDS	4191	100y	Burnt_S03_+Cont	256.7	259.77	265.55		265.7	0.000291	1.85	217.69	87.38	0.27
KinmoutDS	4191	100y	Burnt_S04_-Cont	256.7	259.77	265.36		265.53	0.000345	1.96	200.87	86.77	0.3
KinmoutDS	4191	100y	BurntRiver_RevisedBathy_2025	256.7	259.77	265.46		265.62	0.000316	1.9	209.57	87.06	0.28

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	4170	100y	Burnt_S01_+Man	256.7	259.48	265.55		265.7	0.000425	1.81	221.74	85.45	0.26
KinmoutDS	4170	100y	Burnt_S02_-Man	256.7	259.48	265.38		265.54	0.000177	1.9	207.29	84.43	0.28
KinmoutDS	4170	100y	Burnt_S03_+Cont	256.7	259.48	265.55		265.7	0.000271	1.81	221.7	85.44	0.26
KinmoutDS	4170	100y	Burnt_S04_-Cont	256.7	259.48	265.36		265.52	0.000319	1.91	205.52	84.33	0.28
KinmoutDS	4170	100y	BurntRiver_RevisedBathy_2025	256.7	259.48	265.46		265.61	0.000293	1.85	213.87	84.9	0.27
KinmoutDS	4150	100y	Burnt_S01_+Man	256.7	259.22	265.54		265.69	0.000401	1.81	216.35	94.06	0.26
KinmoutDS	4150	100y	Burnt_S02_-Man	256.7	259.22	265.37		265.54	0.000165	1.89	201.88	82.66	0.27
KinmoutDS	4150	100y	Burnt_S03_+Cont	256.7	259.22	265.54		265.69	0.000255	1.8	216.59	94.13	0.26
KinmoutDS	4150	100y	Burnt_S04_-Cont	256.7	259.22	265.35		265.52	0.000298	1.9	199.92	82.19	0.28
KinmoutDS	4150	100y	BurntRiver_RevisedBathy_2025	256.7	259.22	265.45		265.61	0.000275	1.85	208.18	87.49	0.27
KinmoutDS	4130	100y	Burnt_S01_+Man	256.7	259.31	265.53		265.68	0.000414	1.81	210.48	90.04	0.26
KinmoutDS	4130	100y	Burnt_S02_-Man	256.7	259.31	265.37		265.54	0.000169	1.89	197.03	79	0.27
KinmoutDS	4130	100y	Burnt_S03_+Cont	256.7	259.31	265.53		265.68	0.000263	1.81	211	90.68	0.26
KinmoutDS	4130	100y	Burnt_S04_-Cont	256.7	259.31	265.34		265.51	0.000306	1.9	194.96	77.21	0.28
KinmoutDS	4130	100y	BurntRiver_RevisedBathy_2025	256.7	259.31	265.44		265.6	0.000283	1.85	202.93	84	0.27
KinmoutDS	4109	100y	Burnt_S01_+Man	256.7	259.42	265.52		265.67	0.000412	1.81	199.03	97.67	0.26
KinmoutDS	4109	100y	Burnt_S02_-Man	256.7	259.42	265.36		265.53	0.000168	1.89	184.69	88.75	0.27
KinmoutDS	4109	100y	Burnt_S03_+Cont	256.7	259.42	265.53		265.68	0.000261	1.81	199.93	97.99	0.26
KinmoutDS	4109	100y	Burnt_S04_-Cont	256.7	259.42	265.34		265.51	0.000304	1.9	182.1	85.85	0.28
KinmoutDS	4109	100y	BurntRiver_RevisedBathy_2025	256.7	259.42	265.43		265.6	0.000281	1.85	191.03	94.44	0.27
KinmoutDS	4089	100y	Burnt_S01_+Man	256.7	259.54	265.49		265.66	0.000438	1.87	173.4	75.23	0.27
KinmoutDS	4089	100y	Burnt_S02_-Man	256.7	259.54	265.35		265.53	0.000177	1.94	163.16	66.19	0.29
KinmoutDS	4089	100y	Burnt_S03_+Cont	256.7	259.54	265.51		265.67	0.000277	1.87	174.3	76.04	0.27
KinmoutDS	4089	100y	Burnt_S04_-Cont	256.7	259.54	265.31		265.5	0.000321	1.96	161.1	65.1	0.29
KinmoutDS	4089	100y	BurntRiver_RevisedBathy_2025	256.7	259.54	265.41		265.59	0.000297	1.91	167.69	68.51	0.28
KinmoutDS	4069	100y	Burnt_S01_+Man	256.7	259.65	265.45		265.65	0.000544	2	142.7	62.44	0.29
KinmoutDS	4069	100y	Burnt_S02_-Man	256.7	259.65	265.31		265.52	0.000218	2.07	134.85	48.88	0.31
KinmoutDS	4069	100y	Burnt_S03_+Cont	256.7	259.65	265.46		265.66	0.000343	1.99	143.59	64.81	0.29
KinmoutDS	4069	100y	Burnt_S04_-Cont	256.7	259.65	265.27		265.49	0.000395	2.08	133.26	46.88	0.31
KinmoutDS	4069	100y	BurntRiver_RevisedBathy_2025	256.7	259.65	265.37		265.58	0.000367	2.04	138.21	53.82	0.3
KinmoutDS	4049	100y	Burnt_S01_+Man	256.7	259.77	265.44		265.64	0.000573	2	145.9	77.96	0.29
KinmoutDS	4049	100y	Burnt_S02_-Man	256.7	259.77	265.3		265.52	0.000229	2.06	136.48	62.22	0.31
KinmoutDS	4049	100y	Burnt_S03_+Cont	256.7	259.77	265.46		265.65	0.000361	1.99	147.37	81.52	0.29
KinmoutDS	4049	100y	Burnt_S04_-Cont	256.7	259.77	265.26		265.48	0.000416	2.08	134.23	57.57	0.31
KinmoutDS	4049	100y	BurntRiver_RevisedBathy_2025	256.7	259.77	265.36		265.57	0.000387	2.03	140.49	68.41	0.3
KinmoutDS	4029	100y	Burnt_S01_+Man	256.7	259.88	265.43		265.63	0.000566	1.99	147.44	80.71	0.29
KinmoutDS	4029	100y	Burnt_S02_-Man	256.7	259.88	265.3		265.51	0.000225	2.05	138.67	58.55	0.31
KinmoutDS	4029	100y	Burnt_S03_+Cont	256.7	259.88	265.45		265.65	0.000355	1.98	149.32	85.12	0.29
KinmoutDS	4029	100y	Burnt_S04_-Cont	256.7	259.88	265.26		265.47	0.00041	2.07	136.42	51.61	0.31
KinmoutDS	4029	100y	BurntRiver_RevisedBathy_2025	256.7	259.88	265.36		265.56	0.00038	2.02	142.3	67.52	0.3
KinmoutDS	4009	100y	Burnt_S01_+Man	256.7	259.85	265.42		265.61	0.000559	1.98	151.38	87.76	0.29
KinmoutDS	4009	100y	Burnt_S02_-Man	256.7	259.85	265.3		265.5	0.00022	2.03	142.86	59.13	0.3
KinmoutDS	4009	100y	Burnt_S03_+Cont	256.7	259.85	265.44		265.64	0.000349	1.97	153.82	93.77	0.29
KinmoutDS	4009	100y	Burnt_S04_-Cont	256.7	259.85	265.25		265.46	0.000402	2.05	140.32	55.25	0.31
KinmoutDS	4009	100y	BurntRiver_RevisedBathy_2025	256.7	259.85	265.35		265.55	0.000373	2.01	146.3	68.15	0.3
KinmoutDS	3989	100y	Burnt_S01_+Man	256.7	259.73	265.42		265.6	0.000487	1.91	168.04	99.94	0.28
KinmoutDS	3989	100y	Burnt_S02_-Man	256.7	259.73	265.3		265.5	0.000191	1.96	158.2	77.84	0.29
KinmoutDS	3989	100y	Burnt_S03_+Cont	256.7	259.73	265.45		265.62	0.000304	1.9	170.95	106.49	0.28
KinmoutDS	3989	100y	Burnt_S04_-Cont	256.7	259.73	265.26		265.45	0.00035	1.98	154.83	70.45	0.3
KinmoutDS	3989	100y	BurntRiver_RevisedBathy_2025	256.7	259.73	265.36		265.54	0.000326	1.94	162.35	85.98	0.29
KinmoutDS	3970	100y	Burnt_S01_+Man	256.7	258.04	265.46		265.57	0.000234	1.45	218.41	135.99	0.2
KinmoutDS	3970	100y	Burnt_S02_-Man	256.7	258.04	265.36		265.47	0.000091	1.49	205.7	103.59	0.2
KinmoutDS	3970	100y	Burnt_S03_+Cont	256.7	258.04	265.48		265.59	0.000147	1.45	220.97	139.52	0.2
KinmoutDS	3970	100y	Burnt_S04_-Cont	256.7	258.04	265.33		265.44	0.000164	1.5	202.47	92.86	0.2
KinmoutDS	3970	100y	BurntRiver_RevisedBathy_2025	256.7	258.04	265.41		265.51	0.000155	1.47	211.04	119.56	0.2
KinmoutDS	3942	100y	Burnt_S01_+Man	256.7	253.49	265.52		265.54	0.000024	0.61	494.9	184.68	0.07
KinmoutDS	3942	100y	Burnt_S02_-Man	256.7	253.49	265.42		265.44	0.000009	0.61	477.08	161.63	0.07
KinmoutDS	3942	100y	Burnt_S03_+Cont	256.7	253.49	265.53		265.55	0.000016	0.6	495.91	184.96	0.07
KinmoutDS	3942	100y	Burnt_S04_-Cont	256.7	253.49	265.4		265.42	0.000016	0.62	474.18	155.29	0.07

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3942	100y	BurntRiver_RevisedBathy_2025	256.7	253.49	265.47		265.49	0.000016	0.61	484.88	176.94	0.07
KinmoutDS	3917	100y	Burnt_S01_+Man	256.7	256.29	265.51		265.54	0.000055	0.8	409.07	179.46	0.1
KinmoutDS	3917	100y	Burnt_S02_-Man	256.7	256.29	265.41		265.44	0.000021	0.81	391.86	154.99	0.1
KinmoutDS	3917	100y	Burnt_S03_+Cont	256.7	256.29	265.51		265.54	0.000035	0.8	410.01	180.82	0.1
KinmoutDS	3917	100y	Burnt_S04_-Cont	256.7	256.29	265.39		265.42	0.000038	0.81	389.13	147.47	0.1
KinmoutDS	3917	100y	BurntRiver_RevisedBathy_2025	256.7	256.29	265.45		265.48	0.000036	0.8	399.41	170.72	0.1
KinmoutDS	3896	100y	Burnt_S01_+Man	256.7	259	265.45		265.53	0.00019	1.27	262.65	158.78	0.18
KinmoutDS	3896	100y	Burnt_S02_-Man	256.7	259	265.35		265.43	0.000074	1.3	246.93	136.54	0.19
KinmoutDS	3896	100y	Burnt_S03_+Cont	256.7	259	265.46		265.54	0.000121	1.27	263.23	159	0.18
KinmoutDS	3896	100y	Burnt_S04_-Cont	256.7	259	265.33		265.42	0.000132	1.31	244.7	130.73	0.19
KinmoutDS	3896	100y	BurntRiver_RevisedBathy_2025	256.7	259	265.4		265.48	0.000126	1.29	253.82	152.84	0.18
KinmoutDS	3876	100y	Burnt_S01_+Man	256.7	259.73	265.4		265.52	0.000352	1.58	196.56	130.24	0.24
KinmoutDS	3876	100y	Burnt_S02_-Man	256.7	259.73	265.29		265.43	0.000138	1.63	183.73	115.54	0.25
KinmoutDS	3876	100y	Burnt_S03_+Cont	256.7	259.73	265.4		265.53	0.000224	1.58	196.98	131.14	0.24
KinmoutDS	3876	100y	Burnt_S04_-Cont	256.7	259.73	265.28		265.41	0.000247	1.63	181.89	111.37	0.25
KinmoutDS	3876	100y	BurntRiver_RevisedBathy_2025	256.7	259.73	265.34		265.47	0.000235	1.61	189.32	122.49	0.25
KinmoutDS	3857	100y	Burnt_S01_+Man	256.7	260.07	265.36		265.51	0.000474	1.78	191.95	111.73	0.28
KinmoutDS	3857	100y	Burnt_S02_-Man	256.7	260.07	265.25		265.42	0.000188	1.84	180.48	109.43	0.29
KinmoutDS	3857	100y	Burnt_S03_+Cont	256.7	260.07	265.36		265.52	0.000302	1.78	192.39	112.1	0.28
KinmoutDS	3857	100y	Burnt_S04_-Cont	256.7	260.07	265.24		265.4	0.000339	1.85	178.54	109.03	0.29
KinmoutDS	3857	100y	BurntRiver_RevisedBathy_2025	256.7	260.07	265.3		265.46	0.000319	1.81	185.63	110.35	0.28
KinmoutDS	3836	100y	Burnt_S01_+Man	256.7	260.46	265.25		265.49	0.000848	2.25	147.34	79.3	0.36
KinmoutDS	3836	100y	Burnt_S02_-Man	256.7	260.46	265.14		265.41	0.000338	2.32	139.31	76.79	0.38
KinmoutDS	3836	100y	Burnt_S03_+Cont	256.7	260.46	265.25		265.5	0.000539	2.24	147.69	79.39	0.36
KinmoutDS	3836	100y	Burnt_S04_-Cont	256.7	260.46	265.13		265.39	0.000608	2.33	137.91	76	0.38
KinmoutDS	3836	100y	BurntRiver_RevisedBathy_2025	256.7	260.46	265.19		265.44	0.000572	2.29	142.86	77.92	0.37
KinmoutDS	3814	100y	Burnt_S01_+Man	256.7	260.8	265		265.45	0.001841	3.05	111.91	51.72	0.53
KinmoutDS	3814	100y	Burnt_S02_-Man	256.7	260.8	264.89		265.37	0.000744	3.16	106.45	49.74	0.56
KinmoutDS	3814	100y	Burnt_S03_+Cont	256.7	260.8	265.01		265.45	0.001169	3.04	112.15	51.76	0.53
KinmoutDS	3814	100y	Burnt_S04_-Cont	256.7	260.8	264.87		265.36	0.001346	3.18	105.47	49.51	0.56
KinmoutDS	3814	100y	BurntRiver_RevisedBathy_2025	256.7	260.8	264.94		265.41	0.001254	3.11	108.81	51.22	0.54
KinmoutDS	3795	100y	Burnt_S01_+Man	256.7	261	264.63	264.24	265.37	0.003913	3.93	81.69	45.25	0.75
KinmoutDS	3795	100y	Burnt_S02_-Man	256.7	261	264.43	264.24	265.31	0.001839	4.27	72.92	43.14	0.84
KinmoutDS	3795	100y	Burnt_S03_+Cont	256.7	261	264.65	264.24	265.38	0.002422	3.89	82.75	45.48	0.74
KinmoutDS	3795	100y	Burnt_S04_-Cont	256.7	261	264.32	264.24	265.3	0.003815	4.49	68.08	41.14	0.9
KinmoutDS	3795	100y	BurntRiver_RevisedBathy_2025	256.7	261	264.53	264.24	265.34	0.002832	4.09	77.38	44.26	0.79
KinmoutDS	3775	100y	Burnt_S01_+Man	256.7	260.9	264.72	264.09	265.23	0.002563	3.4	102.13	46.63	0.62
KinmoutDS	3775	100y	Burnt_S02_-Man	256.7	260.9	264.63	264.09	265.19	0.001029	3.52	98.06	46.26	0.65
KinmoutDS	3775	100y	Burnt_S03_+Cont	256.7	260.9	264.73	264.09	265.24	0.001619	3.39	102.53	46.66	0.61
KinmoutDS	3775	100y	Burnt_S04_-Cont	256.7	260.9	264.61	264.09	265.18	0.00186	3.54	97.28	46.19	0.65
KinmoutDS	3775	100y	BurntRiver_RevisedBathy_2025	256.7	260.9	264.67	264.09	265.21	0.001734	3.46	99.9	46.42	0.63
KinmoutDS	3756	100y	Burnt_S01_+Man	256.7	260.75	263.97	263.97	265.1	0.006621	4.75	59.89	35.56	0.95
KinmoutDS	3756	100y	Burnt_S02_-Man	256.7	260.75	263.97	263.97	265.1	0.002389	4.75	59.89	35.56	0.95
KinmoutDS	3756	100y	Burnt_S03_+Cont	256.7	260.75	263.97	263.97	265.1	0.004225	4.75	59.88	35.56	0.96
KinmoutDS	3756	100y	Burnt_S04_-Cont	256.7	260.75	263.97	263.97	265.1	0.004225	4.75	59.88	35.56	0.96
KinmoutDS	3756	100y	BurntRiver_RevisedBathy_2025	256.7	260.75	263.97	263.97	265.1	0.004225	4.75	59.88	35.56	0.96
KinmoutDS	3736	100y	Burnt_S01_+Man	256.7	260.58	263.76	263.76	264.88	0.006612	4.73	58.82	34.74	0.95
KinmoutDS	3736	100y	Burnt_S02_-Man	256.7	260.58	263.76	263.76	264.88	0.002386	4.73	58.82	34.74	0.95
KinmoutDS	3736	100y	Burnt_S03_+Cont	256.7	260.58	263.76	263.76	264.88	0.004219	4.73	58.82	34.74	0.95
KinmoutDS	3736	100y	Burnt_S04_-Cont	256.7	260.58	263.76	263.76	264.88	0.004219	4.73	58.82	34.74	0.95
KinmoutDS	3736	100y	BurntRiver_RevisedBathy_2025	256.7	260.58	263.76	263.76	264.88	0.004219	4.73	58.82	34.74	0.95
KinmoutDS	3717	100y	Burnt_S01_+Man	256.7	260.44	263.42	263.42	264.52	0.007381	4.72	58.72	29.15	0.98
KinmoutDS	3717	100y	Burnt_S02_-Man	256.7	260.44	263.42	263.42	264.52	0.002663	4.72	58.72	29.15	0.98
KinmoutDS	3717	100y	Burnt_S03_+Cont	256.7	260.44	263.42	263.42	264.52	0.00471	4.72	58.72	29.15	0.98
KinmoutDS	3717	100y	Burnt_S04_-Cont	256.7	260.44	263.42	263.42	264.52	0.00471	4.72	58.72	29.15	0.98
KinmoutDS	3717	100y	BurntRiver_RevisedBathy_2025	256.7	260.44	263.42	263.42	264.52	0.00471	4.72	58.72	29.15	0.98
KinmoutDS	3695	100y	Burnt_S01_+Man	256.7	260.27	263.09	263.09	264.05	0.007131	4.5	67.03	37.2	0.97
KinmoutDS	3695	100y	Burnt_S02_-Man	256.7	260.27	263.09	263.09	264.05	0.002573	4.5	67.03	37.2	0.97
KinmoutDS	3695	100y	Burnt_S03_+Cont	256.7	260.27	263.09	263.09	264.05	0.00455	4.5	67.03	37.2	0.97

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3695	100y	Burnt_S04_-Cont	256.7	260.27	263.09	263.09	264.05	0.00455	4.5	67.03	37.2	0.97
KinmoutDS	3695	100y	BurntRiver_RevisedBathy_2025	256.7	260.27	263.09	263.09	264.05	0.00455	4.5	67.03	37.2	0.97
KinmoutDS	3677	100y	Burnt_S01_+Man	256.7	260.14	262.72	262.72	263.62	0.007255	4.42	72.1	43	0.99
KinmoutDS	3677	100y	Burnt_S02_-Man	256.7	260.14	262.72	262.72	263.62	0.002616	4.42	72.11	43	0.99
KinmoutDS	3677	100y	Burnt_S03_+Cont	256.7	260.14	262.72	262.72	263.62	0.004629	4.42	72.11	43	0.99
KinmoutDS	3677	100y	Burnt_S04_-Cont	256.7	260.14	262.72	262.72	263.62	0.004629	4.42	72.11	43	0.99
KinmoutDS	3677	100y	BurntRiver_RevisedBathy_2025	256.7	260.14	262.72	262.72	263.62	0.004629	4.42	72.11	43	0.99
KinmoutDS	3657	100y	Burnt_S01_+Man	256.7	259.97	262.53	262.39	263.38	0.005677	4.2	71.02	37.65	0.88
KinmoutDS	3657	100y	Burnt_S02_-Man	256.7	259.97	262.39	262.39	263.37	0.002577	4.51	65.51	36.96	0.98
KinmoutDS	3657	100y	Burnt_S03_+Cont	256.7	259.97	262.51	262.39	263.38	0.003768	4.25	70.04	37.53	0.9
KinmoutDS	3657	100y	Burnt_S04_-Cont	256.7	259.97	262.39	262.39	263.37	0.004557	4.51	65.51	36.96	0.98
KinmoutDS	3657	100y	BurntRiver_RevisedBathy_2025	256.7	259.97	262.39	262.39	263.37	0.004557	4.51	65.51	36.96	0.98
KinmoutDS	3633	100y	Burnt_S01_+Man	256.7	259.74	262.58		263.2	0.004132	3.59	80.97	34.98	0.73
KinmoutDS	3633	100y	Burnt_S02_-Man	256.7	259.74	262.45		263.14	0.001802	3.82	76.15	34.84	0.8
KinmoutDS	3633	100y	Burnt_S03_+Cont	256.7	259.74	262.56		263.19	0.002706	3.62	80.28	34.96	0.74
KinmoutDS	3633	100y	Burnt_S04_-Cont	256.7	259.74	262.49		263.15	0.003001	3.74	77.64	34.88	0.78
KinmoutDS	3633	100y	BurntRiver_RevisedBathy_2025	256.7	259.74	262.52		263.17	0.002882	3.7	78.67	34.91	0.76
KinmoutDS	3615	100y	Burnt_S01_+Man	256.7	259.58	262.21	262.12	263.08	0.006896	4.24	67.62	35.27	0.94
KinmoutDS	3615	100y	Burnt_S02_-Man	256.7	259.58	262.12	262.12	263.07	0.0029	4.45	64.3	35.12	1.01
KinmoutDS	3615	100y	Burnt_S03_+Cont	256.7	259.58	262.12	262.12	263.07	0.005127	4.45	64.31	35.12	1.01
KinmoutDS	3615	100y	Burnt_S04_-Cont	256.7	259.58	262.12	262.12	263.07	0.005127	4.45	64.31	35.12	1.01
KinmoutDS	3615	100y	BurntRiver_RevisedBathy_2025	256.7	259.58	262.12	262.12	263.07	0.005127	4.45	64.31	35.12	1.01
KinmoutDS	3596	100y	Burnt_S01_+Man	256.7	259.4	262.34		262.89	0.003568	3.39	85.5	39.76	0.69
KinmoutDS	3596	100y	Burnt_S02_-Man	256.7	259.4	261.8	261.8	262.73	0.002903	4.37	64.86	37.61	1.01
KinmoutDS	3596	100y	Burnt_S03_+Cont	256.7	259.4	261.8	261.8	262.73	0.005134	4.37	64.86	37.61	1.01
KinmoutDS	3596	100y	Burnt_S04_-Cont	256.7	259.4	261.8	261.8	262.73	0.005134	4.37	64.86	37.61	1.01
KinmoutDS	3596	100y	BurntRiver_RevisedBathy_2025	256.7	259.4	261.8	261.8	262.73	0.005134	4.37	64.86	37.61	1.01
KinmoutDS	3576	100y	Burnt_S01_+Man	256.7	259.22	262.31		262.81	0.003031	3.2	89.47	42.12	0.64
KinmoutDS	3576	100y	Burnt_S02_-Man	256.7	259.22	261.69	261.69	262.6	0.002813	4.29	64.36	39.04	0.99
KinmoutDS	3576	100y	Burnt_S03_+Cont	256.7	259.22	261.69	261.69	262.6	0.004976	4.3	64.35	39.03	0.99
KinmoutDS	3576	100y	Burnt_S04_-Cont	256.7	259.22	261.69	261.69	262.6	0.004976	4.3	64.35	39.03	0.99
KinmoutDS	3576	100y	BurntRiver_RevisedBathy_2025	256.7	259.22	261.69	261.69	262.6	0.004976	4.3	64.35	39.03	0.99
KinmoutDS	3554	100y	Burnt_S01_+Man	256.7	259.02	262.39		262.71	0.001591	2.63	116.06	46.65	0.48
KinmoutDS	3554	100y	Burnt_S02_-Man	256.7	259.02	261.28	261.28	262.17	0.002822	4.29	66.99	41.45	0.99
KinmoutDS	3554	100y	Burnt_S03_+Cont	256.7	259.02	261.7		262.27	0.002515	3.48	84.79	44.02	0.73
KinmoutDS	3554	100y	Burnt_S04_-Cont	256.7	259.02	261.28	261.28	262.17	0.004989	4.29	67	41.45	0.99
KinmoutDS	3554	100y	BurntRiver_RevisedBathy_2025	256.7	259.02	261.3	261.28	262.17	0.0048	4.24	67.89	41.65	0.98
KinmoutDS	3536	100y	Burnt_S01_+Man	256.7	258.74	262.46		262.65	0.000728	2.03	159.09	54.02	0.34
KinmoutDS	3536	100y	Burnt_S02_-Man	256.7	258.74	260.62	260.62	261.48	0.002951	4.27	69.81	44.01	1.01
KinmoutDS	3536	100y	Burnt_S03_+Cont	256.7	258.74	261.83		262.12	0.00089	2.48	126.84	49.17	0.45
KinmoutDS	3536	100y	Burnt_S04_-Cont	256.7	258.74	261.43		261.82	0.001463	2.89	107.28	47.97	0.57
KinmoutDS	3536	100y	BurntRiver_RevisedBathy_2025	256.7	258.74	261.65		261.97	0.00111	2.65	117.71	48.46	0.5
KinmoutDS	3514	100y	Burnt_S01_+Man	256.7	258.07	262.5		262.62	0.000348	1.56	202.16	62.56	0.24
KinmoutDS	3514	100y	Burnt_S02_-Man	256.7	258.07	260.91		261.22	0.000624	2.54	112.2	51.42	0.5
KinmoutDS	3514	100y	Burnt_S03_+Cont	256.7	258.07	261.89		262.05	0.000379	1.84	165.24	57.57	0.31
KinmoutDS	3514	100y	Burnt_S04_-Cont	256.7	258.07	261.58		261.77	0.000515	2.02	147.69	54.96	0.35
KinmoutDS	3514	100y	BurntRiver_RevisedBathy_2025	256.7	258.07	261.74		261.91	0.000438	1.92	156.61	55.92	0.33
KinmoutDS	3495	100y	Burnt_S01_+Man	256.7	257.68	262.53		262.6	0.000173	1.2	254.77	68.97	0.17
KinmoutDS	3495	100y	Burnt_S02_-Man	256.7	257.68	261.01		261.17	0.000243	1.83	156.24	60.87	0.32
KinmoutDS	3495	100y	Burnt_S03_+Cont	256.7	257.68	261.92		262.01	0.00018	1.39	213.71	65.62	0.22
KinmoutDS	3495	100y	Burnt_S04_-Cont	256.7	257.68	261.65		261.75	0.000229	1.5	195.87	64.05	0.24
KinmoutDS	3495	100y	BurntRiver_RevisedBathy_2025	256.7	257.68	261.79		261.88	0.000202	1.44	204.9	64.84	0.23
KinmoutDS	3475	100y	Burnt_S01_+Man	256.7	257.68	262.53		262.59	0.000178	1.21	277.53	78.2	0.18
KinmoutDS	3475	100y	Burnt_S02_-Man	256.7	257.68	261.01		261.16	0.000243	1.83	170.92	64.16	0.32
KinmoutDS	3475	100y	Burnt_S03_+Cont	256.7	257.68	261.92		262.01	0.000183	1.4	232.03	70.63	0.22
KinmoutDS	3475	100y	Burnt_S04_-Cont	256.7	257.68	261.64		261.75	0.000232	1.51	212.88	68.4	0.24
KinmoutDS	3475	100y	BurntRiver_RevisedBathy_2025	256.7	257.68	261.78		261.88	0.000205	1.45	222.55	69.59	0.23
KinmoutDS	3455	100y	Burnt_S01_+Man	256.7	257.68	262.52		262.59	0.000168	1.18	279.41	77.72	0.17
KinmoutDS	3455	100y	Burnt_S02_-Man	256.7	257.68	261.01		261.15	0.000223	1.76	175.22	64	0.31

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3455	100y	Burnt_S03_+Cont	256.7	257.68	261.91		262	0.000171	1.36	235.54	69.3	0.21
KinmoutDS	3455	100y	Burnt_S04_-Cont	256.7	257.68	261.64		261.74	0.000216	1.46	216.72	67.57	0.24
KinmoutDS	3455	100y	BurntRiver_RevisedBathy_2025	256.7	257.68	261.78		261.87	0.000191	1.41	226.24	68.49	0.22
KinmoutDS	3436	100y	Burnt_S01_+Man	256.7	257.68	262.51		262.58	0.000194	1.25	248.92	69.93	0.18
KinmoutDS	3436	100y	Burnt_S02_-Man	256.7	257.68	260.97		261.15	0.000268	1.88	153.61	56.17	0.34
KinmoutDS	3436	100y	Burnt_S03_+Cont	256.7	257.68	261.89		262	0.000199	1.44	207.64	61.92	0.23
KinmoutDS	3436	100y	Burnt_S04_-Cont	256.7	257.68	261.62		261.73	0.000253	1.55	190.75	59.94	0.25
KinmoutDS	3436	100y	BurntRiver_RevisedBathy_2025	256.7	257.68	261.76		261.87	0.000223	1.49	199.29	60.82	0.24
KinmoutDS	3416	100y	Burnt_S01_+Man	256.7	257.68	262.5		262.58	0.000203	1.26	232.5	71.72	0.19
KinmoutDS	3416	100y	Burnt_S02_-Man	256.7	257.68	260.96		261.14	0.00029	1.92	143.94	52.04	0.35
KinmoutDS	3416	100y	Burnt_S03_+Cont	256.7	257.68	261.89		261.99	0.00021	1.46	194.84	57.25	0.23
KinmoutDS	3416	100y	Burnt_S04_-Cont	256.7	257.68	261.61		261.73	0.000269	1.57	179.09	55.71	0.26
KinmoutDS	3416	100y	BurntRiver_RevisedBathy_2025	256.7	257.68	261.75		261.86	0.000237	1.51	187.07	56.44	0.24
KinmoutDS	3395	100y	Burnt_S01_+Man	256.7	257.47	262.5		262.58	0.000189	1.22	240.87	85.1	0.18
KinmoutDS	3395	100y	Burnt_S02_-Man	256.7	257.47	260.96		261.13	0.000264	1.84	147.98	53.81	0.33
KinmoutDS	3395	100y	Burnt_S03_+Cont	256.7	257.47	261.88		261.98	0.000195	1.41	199.29	57.62	0.22
KinmoutDS	3395	100y	Burnt_S04_-Cont	256.7	257.47	261.61		261.72	0.000247	1.52	183.53	56.21	0.25
KinmoutDS	3395	100y	BurntRiver_RevisedBathy_2025	256.7	257.47	261.75		261.86	0.000218	1.46	191.5	56.83	0.24
KinmoutDS	3375	100y	Burnt_S01_+Man	256.7	257.23	262.5		262.57	0.000166	1.17	246.89	78.73	0.17
KinmoutDS	3375	100y	Burnt_S02_-Man	256.7	257.23	260.97		261.12	0.00022	1.74	155.96	53.07	0.31
KinmoutDS	3375	100y	Burnt_S03_+Cont	256.7	257.23	261.89		261.98	0.000169	1.35	205.97	56.18	0.21
KinmoutDS	3375	100y	Burnt_S04_-Cont	256.7	257.23	261.61		261.72	0.000212	1.44	190.73	55.19	0.23
KinmoutDS	3375	100y	BurntRiver_RevisedBathy_2025	256.7	257.23	261.75		261.85	0.000188	1.39	198.44	55.69	0.22
KinmoutDS	3355	100y	Burnt_S01_+Man	256.7	256.99	262.5		262.56	0.000149	1.12	262.86	80.17	0.16
KinmoutDS	3355	100y	Burnt_S02_-Man	256.7	256.99	260.98		261.11	0.000192	1.65	168.73	55.18	0.29
KinmoutDS	3355	100y	Burnt_S03_+Cont	256.7	256.99	261.89		261.97	0.000151	1.29	219.82	57.11	0.2
KinmoutDS	3355	100y	Burnt_S04_-Cont	256.7	256.99	261.62		261.71	0.000188	1.38	204.46	56.51	0.22
KinmoutDS	3355	100y	BurntRiver_RevisedBathy_2025	256.7	256.99	261.75		261.84	0.000168	1.33	212.25	56.82	0.21
KinmoutDS	3336	100y	Burnt_S01_+Man	256.7	256.78	262.5		262.56	0.000128	1.07	293.47	87.49	0.15
KinmoutDS	3336	100y	Burnt_S02_-Man	256.7	256.78	260.99		261.1	0.000151	1.53	191.36	60.29	0.26
KinmoutDS	3336	100y	Burnt_S03_+Cont	256.7	256.78	261.89		261.96	0.000124	1.21	246.83	62.78	0.18
KinmoutDS	3336	100y	Burnt_S04_-Cont	256.7	256.78	261.62		261.71	0.000153	1.29	230.24	61.95	0.2
KinmoutDS	3336	100y	BurntRiver_RevisedBathy_2025	256.7	256.78	261.76		261.84	0.000137	1.25	238.63	62.35	0.19
KinmoutDS	3315	100y	Burnt_S01_+Man	256.7	256.59	262.51		262.56	0.000112	1	313.11	80.51	0.14
KinmoutDS	3315	100y	Burnt_S02_-Man	256.7	256.59	261		261.09	0.000129	1.42	210.58	62.61	0.24
KinmoutDS	3315	100y	Burnt_S03_+Cont	256.7	256.59	261.89		261.96	0.000109	1.13	267.97	67.99	0.17
KinmoutDS	3315	100y	Burnt_S04_-Cont	256.7	256.59	261.63		261.7	0.000134	1.21	250.72	64.12	0.19
KinmoutDS	3315	100y	BurntRiver_RevisedBathy_2025	256.7	256.59	261.76		261.83	0.000121	1.17	259.3	65.63	0.18
KinmoutDS	3295	100y	Burnt_S01_+Man	256.7	256.58	262.5		262.55	0.000111	1.01	313.41	77.98	0.14
KinmoutDS	3295	100y	Burnt_S02_-Man	256.7	256.58	260.99		261.09	0.00013	1.44	207.58	62.89	0.24
KinmoutDS	3295	100y	Burnt_S03_+Cont	256.7	256.58	261.89		261.95	0.000109	1.15	267.24	72.45	0.17
KinmoutDS	3295	100y	Burnt_S04_-Cont	256.7	256.58	261.63		261.7	0.000133	1.22	248.56	69.29	0.19
KinmoutDS	3295	100y	BurntRiver_RevisedBathy_2025	256.7	256.58	261.76		261.83	0.00012	1.19	257.92	71.02	0.18
KinmoutDS	3275	100y	Burnt_S01_+Man	256.7	256.57	262.5		262.55	0.000117	1.03	306.37	82.32	0.14
KinmoutDS	3275	100y	Burnt_S02_-Man	256.7	256.57	260.98		261.09	0.000138	1.48	197.87	61.86	0.25
KinmoutDS	3275	100y	Burnt_S03_+Cont	256.7	256.57	261.88		261.95	0.000115	1.18	258.55	72.49	0.18
KinmoutDS	3275	100y	Burnt_S04_-Cont	256.7	256.57	261.62		261.7	0.000141	1.26	239.72	70.1	0.19
KinmoutDS	3275	100y	BurntRiver_RevisedBathy_2025	256.7	256.57	261.75		261.82	0.000127	1.22	249.19	71.33	0.18
KinmoutDS	3255	100y	Burnt_S01_+Man	256.7	256.56	262.5		262.55	0.000114	1.03	329.25	80.57	0.14
KinmoutDS	3255	100y	Burnt_S02_-Man	256.7	256.56	260.98		261.09	0.000138	1.5	210.65	75.17	0.25
KinmoutDS	3255	100y	Burnt_S03_+Cont	256.7	256.56	261.88		261.95	0.000113	1.18	280.15	78.54	0.17
KinmoutDS	3255	100y	Burnt_S04_-Cont	256.7	256.56	261.62		261.69	0.000139	1.26	259.54	77.58	0.19
KinmoutDS	3255	100y	BurntRiver_RevisedBathy_2025	256.7	256.56	261.75		261.82	0.000125	1.22	269.97	78.06	0.18
KinmoutDS	3235	100y	Burnt_S01_+Man	256.7	256.55	262.49		262.54	0.000137	1.1	269.65	69.23	0.15
KinmoutDS	3235	100y	Burnt_S02_-Man	256.7	256.55	260.96		261.08	0.00016	1.57	181.43	54.33	0.26
KinmoutDS	3235	100y	Burnt_S03_+Cont	256.7	256.55	261.87		261.94	0.000134	1.25	231.7	56.67	0.19
KinmoutDS	3235	100y	Burnt_S04_-Cont	256.7	256.55	261.6		261.69	0.000164	1.33	216.82	55.9	0.2
KinmoutDS	3235	100y	BurntRiver_RevisedBathy_2025	256.7	256.55	261.74		261.82	0.000148	1.29	224.34	56.31	0.19
KinmoutDS	3215	100y	Burnt_S01_+Man	256.7	256.54	262.48		262.54	0.000148	1.15	267.95	71.65	0.16

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	3215	100y	Burnt_S02_-Man	256.7	256.54	260.94		261.08	0.000173	1.65	177.48	54.06	0.27
KinmoutDS	3215	100y	Burnt_S03_+Cont	256.7	256.54	261.86		261.94	0.000145	1.31	227.94	56.73	0.19
KinmoutDS	3215	100y	Burnt_S04_-Cont	256.7	256.54	261.59		261.69	0.000177	1.4	213	55.94	0.21
KinmoutDS	3215	100y	BurntRiver_RevisedBathy_2025	256.7	256.54	261.73		261.81	0.00016	1.35	220.56	56.34	0.2
KinmoutDS	3196	100y	Burnt_S01_+Man	256.7	256.53	262.47		262.54	0.000148	1.17	282.37	79.49	0.16
KinmoutDS	3196	100y	Burnt_S02_-Man	256.7	256.53	260.94		261.07	0.000174	1.68	180.45	56.08	0.28
KinmoutDS	3196	100y	Burnt_S03_+Cont	256.7	256.53	261.85		261.94	0.000146	1.34	236.15	69.95	0.2
KinmoutDS	3196	100y	Burnt_S04_-Cont	256.7	256.53	261.58		261.68	0.000178	1.42	218.17	64.96	0.22
KinmoutDS	3196	100y	BurntRiver_RevisedBathy_2025	256.7	256.53	261.72		261.81	0.000161	1.38	227.17	67.73	0.21
KinmoutDS	3175	100y	Burnt_S01_+Man	256.7	256.52	262.47		262.53	0.000153	1.18	295.72	85.01	0.16
KinmoutDS	3175	100y	Burnt_S02_-Man	256.7	256.52	260.93		261.07	0.000187	1.73	178.7	65.8	0.29
KinmoutDS	3175	100y	Burnt_S03_+Cont	256.7	256.52	261.85		261.93	0.000153	1.36	245.05	77.96	0.2
KinmoutDS	3175	100y	Burnt_S04_-Cont	256.7	256.52	261.58		261.68	0.000188	1.45	224.45	75.6	0.22
KinmoutDS	3175	100y	BurntRiver_RevisedBathy_2025	256.7	256.52	261.71		261.81	0.000169	1.41	234.83	76.83	0.21
KinmoutDS	3155	100y	Burnt_S01_+Man	256.7	256.51	262.46		262.53	0.000163	1.22	297.05	82.1	0.17
KinmoutDS	3155	100y	Burnt_S02_-Man	256.7	256.51	260.91		261.06	0.000201	1.8	181.12	68.22	0.3
KinmoutDS	3155	100y	Burnt_S03_+Cont	256.7	256.51	261.84		261.93	0.000163	1.41	247.64	75.72	0.21
KinmoutDS	3155	100y	Burnt_S04_-Cont	256.7	256.51	261.57		261.67	0.000201	1.51	227.55	73.44	0.23
KinmoutDS	3155	100y	BurntRiver_RevisedBathy_2025	256.7	256.51	261.7		261.8	0.000181	1.46	237.68	74.63	0.22
KinmoutDS	3133	100y	Burnt_S01_+Man	256.7	256.49	262.46		262.53	0.000165	1.25	296.72	74.69	0.17
KinmoutDS	3133	100y	Burnt_S02_-Man	256.7	256.49	260.91		261.06	0.0002	1.83	187.36	64.78	0.3
KinmoutDS	3133	100y	Burnt_S03_+Cont	256.7	256.49	261.83		261.92	0.000164	1.44	250.93	71.76	0.21
KinmoutDS	3133	100y	Burnt_S04_-Cont	256.7	256.49	261.56		261.67	0.000203	1.54	231.68	70.58	0.23
KinmoutDS	3133	100y	BurntRiver_RevisedBathy_2025	256.7	256.49	261.7		261.8	0.000182	1.48	241.43	71.19	0.22
KinmoutDS	3115	100y	Burnt_S01_+Man	256.7	256.48	262.46		262.52	0.000156	1.21	329.73	83.55	0.17
KinmoutDS	3115	100y	Burnt_S02_-Man	256.7	256.48	260.91		261.05	0.000193	1.8	205.66	75.45	0.29
KinmoutDS	3115	100y	Burnt_S03_+Cont	256.7	256.48	261.83		261.92	0.000156	1.4	278.26	80.91	0.2
KinmoutDS	3115	100y	Burnt_S04_-Cont	256.7	256.48	261.56		261.66	0.000193	1.5	256.68	80.14	0.23
KinmoutDS	3115	100y	BurntRiver_RevisedBathy_2025	256.7	256.48	261.7		261.79	0.000173	1.45	267.63	80.53	0.21
KinmoutDS	3095	100y	Burnt_S01_+Man	256.7	256.47	262.43		262.52	0.0002	1.35	253.38	93.75	0.19
KinmoutDS	3095	100y	Burnt_S02_-Man	256.7	256.47	260.87		261.05	0.000239	1.96	161.13	71.91	0.32
KinmoutDS	3095	100y	Burnt_S03_+Cont	256.7	256.47	261.8		261.91	0.000197	1.54	212.89	81.58	0.23
KinmoutDS	3095	100y	Burnt_S04_-Cont	256.7	256.47	261.53		261.66	0.000241	1.64	197.64	78.51	0.25
KinmoutDS	3095	100y	BurntRiver_RevisedBathy_2025	256.7	256.47	261.67		261.79	0.000217	1.59	205.34	80.07	0.24
KinmoutDS	3075	100y	Burnt_S01_+Man	256.7	256.45	262.43		262.51	0.0002	1.36	258.11	68.38	0.19
KinmoutDS	3075	100y	Burnt_S02_-Man	256.7	256.45	260.86		261.04	0.000238	1.97	164.22	54.9	0.32
KinmoutDS	3075	100y	Burnt_S03_+Cont	256.7	256.45	261.8		261.91	0.000197	1.55	217.54	58.57	0.23
KinmoutDS	3075	100y	Burnt_S04_-Cont	256.7	256.45	261.53		261.65	0.000241	1.65	201.85	57.73	0.25
KinmoutDS	3075	100y	BurntRiver_RevisedBathy_2025	256.7	256.45	261.66		261.78	0.000217	1.6	209.8	58.16	0.24
KinmoutDS	3056	100y	Burnt_S01_+Man	256.7	256.44	262.43		262.51	0.000203	1.35	263.14	70.4	0.18
KinmoutDS	3056	100y	Burnt_S02_-Man	256.7	256.44	260.86		261.04	0.000241	1.96	166.53	55.89	0.32
KinmoutDS	3056	100y	Burnt_S03_+Cont	256.7	256.44	261.79		261.9	0.0002	1.54	220.49	62.92	0.22
KinmoutDS	3056	100y	Burnt_S04_-Cont	256.7	256.44	261.52		261.65	0.000244	1.65	204.45	57.83	0.24
KinmoutDS	3056	100y	BurntRiver_RevisedBathy_2025	256.7	256.44	261.66		261.78	0.00022	1.59	212.42	58.27	0.23
KinmoutDS	3036	100y	Burnt_S01_+Man	256.7	256.43	262.42		262.5	0.000216	1.4	246.31	68.59	0.19
KinmoutDS	3036	100y	Burnt_S02_-Man	256.7	256.43	260.84		261.03	0.00025	2	158.32	49.32	0.32
KinmoutDS	3036	100y	Burnt_S03_+Cont	256.7	256.43	261.78		261.9	0.000211	1.59	206.3	56.63	0.23
KinmoutDS	3036	100y	Burnt_S04_-Cont	256.7	256.43	261.51		261.64	0.000257	1.69	192.02	51.63	0.25
KinmoutDS	3036	100y	BurntRiver_RevisedBathy_2025	256.7	256.43	261.65		261.77	0.000232	1.64	199.16	52.11	0.24
KinmoutDS	3016	100y	Burnt_S01_+Man	256.7	256.41	262.4		262.5	0.000245	1.47	242.44	72.55	0.2
KinmoutDS	3016	100y	Burnt_S02_-Man	256.7	256.41	260.81		261.02	0.000292	2.14	149.23	49.64	0.34
KinmoutDS	3016	100y	Burnt_S03_+Cont	256.7	256.41	261.76		261.89	0.000242	1.69	200.02	56.55	0.24
KinmoutDS	3016	100y	Burnt_S04_-Cont	256.7	256.41	261.49		261.64	0.000296	1.8	184.83	54.8	0.27
KinmoutDS	3016	100y	BurntRiver_RevisedBathy_2025	256.7	256.41	261.63		261.77	0.000267	1.74	192.5	55.55	0.25
KinmoutDS	2996	100y	Burnt_S01_+Man	256.7	256.41	262.39		262.49	0.000268	1.53	243.39	63.68	0.21
KinmoutDS	2996	100y	Burnt_S02_-Man	256.7	256.41	260.78		261.02	0.000324	2.24	152.12	51.81	0.36
KinmoutDS	2996	100y	Burnt_S03_+Cont	256.7	256.41	261.74		261.88	0.000266	1.76	204.17	58.13	0.25
KinmoutDS	2996	100y	Burnt_S04_-Cont	256.7	256.41	261.47		261.63	0.000325	1.87	188.76	55.08	0.28
KinmoutDS	2996	100y	BurntRiver_RevisedBathy_2025	256.7	256.41	261.61		261.76	0.000292	1.81	196.52	56.11	0.26

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2975	100y	Burnt_S01_+Man	256.7	256.38	262.36		262.48	0.000322	1.7	227.97	63.42	0.23
KinmoutDS	2975	100y	Burnt_S02_-Man	256.7	256.38	260.7		261	0.000413	2.54	136.55	50.84	0.41
KinmoutDS	2975	100y	Burnt_S03_+Cont	256.7	256.38	261.7		261.87	0.000322	1.96	189.9	56.13	0.28
KinmoutDS	2975	100y	Burnt_S04_-Cont	256.7	256.38	261.42		261.62	0.000397	2.09	174.48	54.45	0.31
KinmoutDS	2975	100y	BurntRiver_RevisedBathy_2025	256.7	256.38	261.57		261.75	0.000356	2.02	182.28	55.19	0.29
KinmoutDS	2955	100y	Burnt_S01_+Man	256.7	256.37	262.34		262.48	0.000397	1.79	224.31	64.37	0.24
KinmoutDS	2955	100y	Burnt_S02_-Man	256.7	256.37	260.66		260.99	0.000524	2.71	132.58	49.36	0.43
KinmoutDS	2955	100y	Burnt_S03_+Cont	256.7	256.37	261.68		261.87	0.000397	2.06	185.6	54.08	0.29
KinmoutDS	2955	100y	Burnt_S04_-Cont	256.7	256.37	261.4		261.61	0.000494	2.21	170.42	53.04	0.33
KinmoutDS	2955	100y	BurntRiver_RevisedBathy_2025	256.7	256.37	261.54		261.74	0.000441	2.13	178.12	53.56	0.31
KinmoutDS	2935	100y	Burnt_S01_+Man	256.7	256.35	262.31		262.47	0.000444	1.97	211.46	64.91	0.26
KinmoutDS	2935	100y	Burnt_S02_-Man	256.7	256.35	260.57		260.97	0.000608	3.01	122.49	44.58	0.48
KinmoutDS	2935	100y	Burnt_S03_+Cont	256.7	256.35	261.63		261.85	0.000451	2.28	173.18	51.73	0.33
KinmoutDS	2935	100y	Burnt_S04_-Cont	256.7	256.35	261.34		261.6	0.000562	2.45	158.46	50.27	0.36
KinmoutDS	2935	100y	BurntRiver_RevisedBathy_2025	256.7	256.35	261.49		261.73	0.000501	2.36	165.92	50.98	0.34
KinmoutDS	2916	100y	Burnt_S01_+Man	256.7	256.34	262.3		262.46	0.000446	1.97	226.85	63.54	0.26
KinmoutDS	2916	100y	Burnt_S02_-Man	256.7	256.34	260.52		260.95	0.000693	3.19	122.15	52.33	0.51
KinmoutDS	2916	100y	Burnt_S03_+Cont	256.7	256.34	261.62		261.84	0.000469	2.33	184.65	60.48	0.33
KinmoutDS	2916	100y	Burnt_S04_-Cont	256.7	256.34	261.33		261.59	0.000593	2.51	167.13	58.42	0.37
KinmoutDS	2916	100y	BurntRiver_RevisedBathy_2025	256.7	256.34	261.48		261.72	0.000525	2.41	176.03	59.75	0.35
KinmoutDS	2894	100y	Burnt_S01_+Man	256.7	256.31	262.27		262.44	0.000488	2.1	212.34	71.13	0.28
KinmoutDS	2894	100y	Burnt_S02_-Man	256.7	256.31	260.47		260.94	0.000732	3.33	114.89	43.91	0.54
KinmoutDS	2894	100y	Burnt_S03_+Cont	256.7	256.31	261.58		261.83	0.000505	2.45	167.68	54.84	0.35
KinmoutDS	2894	100y	Burnt_S04_-Cont	256.7	256.31	261.29		261.57	0.000632	2.64	152.71	48.62	0.39
KinmoutDS	2894	100y	BurntRiver_RevisedBathy_2025	256.7	256.31	261.44		261.7	0.000562	2.54	160.15	49.84	0.37
KinmoutDS	2876	100y	Burnt_S01_+Man	256.7	256.36	262.26		262.44	0.000441	2.1	204.14	88.24	0.28
KinmoutDS	2876	100y	Burnt_S02_-Man	256.7	256.36	260.45		260.93	0.000667	3.32	117.02	70.96	0.54
KinmoutDS	2876	100y	Burnt_S03_+Cont	256.7	256.36	261.57		261.82	0.000456	2.45	169.35	80.66	0.35
KinmoutDS	2876	100y	Burnt_S04_-Cont	256.7	256.36	261.28		261.56	0.000574	2.64	154.94	78.34	0.39
KinmoutDS	2876	100y	BurntRiver_RevisedBathy_2025	256.7	256.36	261.43		261.69	0.000509	2.54	162.3	79.58	0.37
KinmoutDS	2855	100y	Burnt_S01_+Man	256.7	256.41	262.26		262.42	0.000442	2.02	208.22	91.81	0.27
KinmoutDS	2855	100y	Burnt_S02_-Man	256.7	256.41	260.45		260.9	0.00068	3.21	115.8	62	0.53
KinmoutDS	2855	100y	Burnt_S03_+Cont	256.7	256.41	261.57		261.8	0.000461	2.36	170.06	80.53	0.34
KinmoutDS	2855	100y	Burnt_S04_-Cont	256.7	256.41	261.27		261.55	0.000577	2.54	155.05	74.9	0.38
KinmoutDS	2855	100y	BurntRiver_RevisedBathy_2025	256.7	256.41	261.43		261.68	0.000512	2.44	162.66	77.39	0.36
KinmoutDS	2836	100y	Burnt_S01_+Man	256.7	256.46	262.26		262.41	0.000394	1.91	209.68	55.79	0.26
KinmoutDS	2836	100y	Burnt_S02_-Man	256.7	256.46	260.47		260.88	0.000592	3.01	119.75	45.94	0.5
KinmoutDS	2836	100y	Burnt_S03_+Cont	256.7	256.46	261.57		261.79	0.000408	2.23	172.91	51.57	0.32
KinmoutDS	2836	100y	Burnt_S04_-Cont	256.7	256.46	261.28		261.53	0.000509	2.4	158.36	49.27	0.36
KinmoutDS	2836	100y	BurntRiver_RevisedBathy_2025	256.7	256.46	261.43		261.66	0.000454	2.31	165.73	50.68	0.34
KinmoutDS	2816	100y	Burnt_S01_+Man	256.7	256.51	262.25		262.4	0.000357	1.86	204.22	53.94	0.25
KinmoutDS	2816	100y	Burnt_S02_-Man	256.7	256.51	260.47		260.86	0.000536	2.91	116.75	44.57	0.48
KinmoutDS	2816	100y	Burnt_S03_+Cont	256.7	256.51	261.57		261.78	0.000369	2.16	168.76	49.89	0.32
KinmoutDS	2816	100y	Burnt_S04_-Cont	256.7	256.51	261.28		261.52	0.000462	2.32	154.55	48.57	0.35
KinmoutDS	2816	100y	BurntRiver_RevisedBathy_2025	256.7	256.51	261.43		261.65	0.000411	2.24	161.8	49.24	0.33
KinmoutDS	2796	100y	Burnt_S01_+Man	256.7	256.51	262.25		262.39	0.000325	1.75	203.57	66.58	0.24
KinmoutDS	2796	100y	Burnt_S02_-Man	256.7	256.51	260.49		260.84	0.000478	2.72	117.27	42.99	0.46
KinmoutDS	2796	100y	Burnt_S03_+Cont	256.7	256.51	261.57		261.76	0.000336	2.04	167.18	49.59	0.3
KinmoutDS	2796	100y	Burnt_S04_-Cont	256.7	256.51	261.29		261.51	0.000418	2.18	153.5	47.77	0.33
KinmoutDS	2796	100y	BurntRiver_RevisedBathy_2025	256.7	256.51	261.43		261.64	0.000373	2.11	160.45	48.7	0.31
KinmoutDS	2776	100y	Burnt_S01_+Man	256.7	256.46	262.25		262.38	0.000315	1.69	203.37	77.32	0.23
KinmoutDS	2776	100y	Burnt_S02_-Man	256.7	256.46	260.48		260.83	0.000476	2.65	114.42	44.31	0.45
KinmoutDS	2776	100y	Burnt_S03_+Cont	256.7	256.46	261.57		261.75	0.000327	1.97	166.56	58.09	0.29
KinmoutDS	2776	100y	Burnt_S04_-Cont	256.7	256.46	261.28		261.5	0.000409	2.12	152.37	52.68	0.32
KinmoutDS	2776	100y	BurntRiver_RevisedBathy_2025	256.7	256.46	261.43		261.63	0.000364	2.04	159.6	53.98	0.31
KinmoutDS	2755	100y	Burnt_S01_+Man	256.7	256.42	262.25		262.37	0.000289	1.58	209.31	79.56	0.22
KinmoutDS	2755	100y	Burnt_S02_-Man	256.7	256.42	260.51		260.8	0.000421	2.44	122.55	44.91	0.41
KinmoutDS	2755	100y	Burnt_S03_+Cont	256.7	256.42	261.57		261.73	0.000298	1.83	172.8	61.84	0.27
KinmoutDS	2755	100y	Burnt_S04_-Cont	256.7	256.42	261.3		261.49	0.000368	1.96	159.54	53.83	0.3
KinmoutDS	2755	100y	BurntRiver_RevisedBathy_2025	256.7	256.42	261.44		261.61	0.00033	1.89	166.28	56.49	0.29

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2736	100y	Burnt_S01_+Man	256.7	256.38	262.26		262.36	0.000282	1.5	225.58	88.48	0.21
KinmoutDS	2736	100y	Burnt_S02_-Man	256.7	256.38	260.53		260.78	0.000415	2.32	134.44	48.04	0.4
KinmoutDS	2736	100y	Burnt_S03_+Cont	256.7	256.38	261.58		261.72	0.000293	1.75	187.43	58.35	0.26
KinmoutDS	2736	100y	Burnt_S04_-Cont	256.7	256.38	261.31		261.48	0.00036	1.86	173.67	53.54	0.29
KinmoutDS	2736	100y	BurntRiver_RevisedBathy_2025	256.7	256.38	261.45		261.6	0.000324	1.8	180.64	55.88	0.27
KinmoutDS	2715	100y	Burnt_S01_+Man	256.7	256.32	262.26		262.36	0.00025	1.45	237.58	69.67	0.2
KinmoutDS	2715	100y	Burnt_S02_-Man	256.7	256.32	260.53		260.77	0.000366	2.23	142.19	51.64	0.38
KinmoutDS	2715	100y	Burnt_S03_+Cont	256.7	256.32	261.58		261.71	0.00026	1.68	198.43	55.91	0.25
KinmoutDS	2715	100y	Burnt_S04_-Cont	256.7	256.32	261.32		261.47	0.000319	1.79	184.04	54.89	0.28
KinmoutDS	2715	100y	BurntRiver_RevisedBathy_2025	256.7	256.32	261.45		261.59	0.000287	1.73	191.35	55.37	0.26
KinmoutDS	2695	100y	Burnt_S01_+Man	256.7	256.4	262.25		262.35	0.000218	1.42	235.91	72.63	0.2
KinmoutDS	2695	100y	Burnt_S02_-Man	256.7	256.4	260.53		260.76	0.000306	2.16	142.67	49.8	0.36
KinmoutDS	2695	100y	Burnt_S03_+Cont	256.7	256.4	261.57		261.7	0.000225	1.65	196.57	55.26	0.24
KinmoutDS	2695	100y	Burnt_S04_-Cont	256.7	256.4	261.31		261.46	0.000273	1.75	182.75	52.61	0.27
KinmoutDS	2695	100y	BurntRiver_RevisedBathy_2025	256.7	256.4	261.45		261.58	0.000247	1.69	189.75	53.36	0.26
KinmoutDS	2675	100y	Burnt_S01_+Man	256.7	255.71	262.25		262.35	0.000205	1.4	223.25	68.28	0.19
KinmoutDS	2675	100y	Burnt_S02_-Man	256.7	255.71	260.53		260.75	0.000277	2.09	134.89	45.97	0.35
KinmoutDS	2675	100y	Burnt_S03_+Cont	256.7	255.71	261.57		261.7	0.000208	1.61	185.56	51.44	0.24
KinmoutDS	2675	100y	Burnt_S04_-Cont	256.7	255.71	261.31		261.46	0.000253	1.71	172.39	50.13	0.26
KinmoutDS	2675	100y	BurntRiver_RevisedBathy_2025	256.7	255.71	261.44		261.58	0.000229	1.66	179.07	50.8	0.25
KinmoutDS	2655	100y	Burnt_S01_+Man	256.7	255	262.26		262.34	0.000157	1.26	258.45	75.63	0.17
KinmoutDS	2655	100y	Burnt_S02_-Man	256.7	255	260.56		260.73	0.000193	1.84	159.3	49.29	0.29
KinmoutDS	2655	100y	Burnt_S03_+Cont	256.7	255	261.58		261.68	0.000157	1.45	213.47	60.89	0.21
KinmoutDS	2655	100y	Burnt_S04_-Cont	256.7	255	261.33		261.45	0.000187	1.52	199.27	54.72	0.22
KinmoutDS	2655	100y	BurntRiver_RevisedBathy_2025	256.7	255	261.46		261.57	0.000171	1.48	206.27	57.18	0.21
KinmoutDS	2635	100y	Burnt_S01_+Man	256.7	255.24	262.24		262.33	0.000193	1.38	219.75	67.05	0.19
KinmoutDS	2635	100y	Burnt_S02_-Man	256.7	255.24	260.51		260.72	0.000246	2.05	136.18	46.66	0.33
KinmoutDS	2635	100y	Burnt_S03_+Cont	256.7	255.24	261.55		261.68	0.000193	1.59	184.6	58.11	0.23
KinmoutDS	2635	100y	Burnt_S04_-Cont	256.7	255.24	261.3		261.44	0.000231	1.68	172.51	55.38	0.25
KinmoutDS	2635	100y	BurntRiver_RevisedBathy_2025	256.7	255.24	261.43		261.56	0.00021	1.63	178.63	56.77	0.24
KinmoutDS	2616	100y	Burnt_S01_+Man	256.7	255.48	262.22		262.33	0.00026	1.48	192.58	53.5	0.21
KinmoutDS	2616	100y	Burnt_S02_-Man	256.7	255.48	260.44		260.71	0.000395	2.31	114.95	40.27	0.4
KinmoutDS	2616	100y	Burnt_S03_+Cont	256.7	255.48	261.52		261.67	0.000273	1.73	160.25	43.74	0.26
KinmoutDS	2616	100y	Burnt_S04_-Cont	256.7	255.48	261.26		261.43	0.000333	1.84	149.32	42.74	0.29
KinmoutDS	2616	100y	BurntRiver_RevisedBathy_2025	256.7	255.48	261.39		261.55	0.000301	1.78	154.85	43.1	0.27
KinmoutDS	2585	100y	Burnt_S01_+Man	256.7	255.86	262.2		262.32	0.000271	1.5	176.1	49.5	0.21
KinmoutDS	2585	100y	Burnt_S02_-Man	256.7	255.86	260.42		260.7	0.000427	2.35	109.82	34.43	0.42
KinmoutDS	2585	100y	Burnt_S03_+Cont	256.7	255.86	261.5		261.66	0.000286	1.75	149.74	44.1	0.27
KinmoutDS	2585	100y	Burnt_S04_-Cont	256.7	255.86	261.25		261.42	0.000351	1.86	140.13	42.78	0.29
KinmoutDS	2585	100y	BurntRiver_RevisedBathy_2025	256.7	255.86	261.38		261.54	0.000316	1.8	145.03	43.45	0.28
KinmoutDS	2566	100y	Burnt_S01_+Man	256.7	256.05	262.2		262.31	0.000283	1.51	173.96	40.07	0.22
KinmoutDS	2566	100y	Burnt_S02_-Man	256.7	256.05	260.4		260.69	0.000468	2.39	107.87	34.96	0.43
KinmoutDS	2566	100y	Burnt_S03_+Cont	256.7	256.05	261.5		261.65	0.000302	1.76	147.13	37.06	0.27
KinmoutDS	2566	100y	Burnt_S04_-Cont	256.7	256.05	261.24		261.42	0.000373	1.88	137.67	36.55	0.3
KinmoutDS	2566	100y	BurntRiver_RevisedBathy_2025	256.7	256.05	261.37		261.54	0.000335	1.82	142.48	36.78	0.29
KinmoutDS	2546	100y	Burnt_S01_+Man	256.7	256.27	262.2		262.3	0.000235	1.42	190.38	43.89	0.2
KinmoutDS	2546	100y	Burnt_S02_-Man	256.7	256.27	260.42		260.67	0.000366	2.2	118.13	38.56	0.39
KinmoutDS	2546	100y	Burnt_S03_+Cont	256.7	256.27	261.5		261.64	0.000248	1.65	160.87	40.63	0.25
KinmoutDS	2546	100y	Burnt_S04_-Cont	256.7	256.27	261.25		261.41	0.000302	1.75	150.81	40.04	0.28
KinmoutDS	2546	100y	BurntRiver_RevisedBathy_2025	256.7	256.27	261.38		261.52	0.000273	1.7	155.92	40.32	0.26
KinmoutDS	2525	100y	Burnt_S01_+Man	256.7	256.48	262.2		262.29	0.000205	1.35	208.67	48.71	0.19
KinmoutDS	2525	100y	Burnt_S02_-Man	256.7	256.48	260.43		260.65	0.000306	2.07	129.38	41.28	0.36
KinmoutDS	2525	100y	Burnt_S03_+Cont	256.7	256.48	261.5		261.63	0.000214	1.57	175.62	45.86	0.24
KinmoutDS	2525	100y	Burnt_S04_-Cont	256.7	256.48	261.26		261.4	0.000259	1.66	164.62	44.43	0.26
KinmoutDS	2525	100y	BurntRiver_RevisedBathy_2025	256.7	256.48	261.38		261.51	0.000235	1.61	170.18	45.15	0.25
KinmoutDS	2505	100y	Burnt_S01_+Man	256.7	256.67	262.21		262.29	0.000166	1.25	241.01	61.23	0.17
KinmoutDS	2505	100y	Burnt_S02_-Man	256.7	256.67	260.45		260.63	0.000233	1.89	146.75	47.2	0.32
KinmoutDS	2505	100y	Burnt_S03_+Cont	256.7	256.67	261.51		261.61	0.000172	1.45	200.23	54.81	0.22
KinmoutDS	2505	100y	Burnt_S04_-Cont	256.7	256.67	261.27		261.39	0.000205	1.53	187.46	52.95	0.23

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2505	100y	BurntRiver_RevisedBathy_2025	256.7	256.67	261.39		261.5	0.000187	1.49	193.91	53.99	0.22
KinmoutDS	2485	100y	Burnt_S01_+Man	256.7	256.79	262.21		262.28	0.000152	1.22	259.04	69.94	0.17
KinmoutDS	2485	100y	Burnt_S02_-Man	256.7	256.79	260.46		260.62	0.000204	1.8	161.67	48.94	0.3
KinmoutDS	2485	100y	Burnt_S03_+Cont	256.7	256.79	261.51		261.61	0.000155	1.4	216.25	55.56	0.21
KinmoutDS	2485	100y	Burnt_S04_-Cont	256.7	256.79	261.28		261.38	0.000184	1.47	203.48	53.96	0.22
KinmoutDS	2485	100y	BurntRiver_RevisedBathy_2025	256.7	256.79	261.4		261.5	0.000168	1.43	209.92	54.79	0.21
KinmoutDS	2465	100y	Burnt_S01_+Man	256.7	256.53	262.22		262.27	0.00013	1.13	311.27	70.38	0.15
KinmoutDS	2465	100y	Burnt_S02_-Man	256.7	256.53	260.48		260.61	0.00017	1.66	199.45	59.41	0.28
KinmoutDS	2465	100y	Burnt_S03_+Cont	256.7	256.53	261.52		261.6	0.000132	1.3	263.65	65.55	0.19
KinmoutDS	2465	100y	Burnt_S04_-Cont	256.7	256.53	261.29		261.38	0.000155	1.36	249.18	63.34	0.2
KinmoutDS	2465	100y	BurntRiver_RevisedBathy_2025	256.7	256.53	261.41		261.49	0.000142	1.33	256.48	63.98	0.2
KinmoutDS	2445	100y	Burnt_S01_+Man	256.7	256.14	262.23		262.27	0.000093	0.97	416.58	92.41	0.13
KinmoutDS	2445	100y	Burnt_S02_-Man	256.7	256.14	260.51		260.59	0.000119	1.42	268.04	80.12	0.23
KinmoutDS	2445	100y	Burnt_S03_+Cont	256.7	256.14	261.53		261.58	0.000095	1.12	353.34	88.67	0.16
KinmoutDS	2445	100y	Burnt_S04_-Cont	256.7	256.14	261.31		261.37	0.000111	1.17	334.36	87.09	0.17
KinmoutDS	2445	100y	BurntRiver_RevisedBathy_2025	256.7	256.14	261.42		261.48	0.000102	1.15	343.94	87.88	0.17
KinmoutDS	2425	100y	Burnt_S01_+Man	256.7	255.75	262.23		262.26	0.000079	0.91	443.05	89.8	0.12
KinmoutDS	2425	100y	Burnt_S02_-Man	256.7	255.75	260.52		260.59	0.000097	1.32	293.66	84.58	0.21
KinmoutDS	2425	100y	Burnt_S03_+Cont	256.7	255.75	261.53		261.58	0.000079	1.04	381.23	87.6	0.15
KinmoutDS	2425	100y	Burnt_S04_-Cont	256.7	255.75	261.32		261.37	0.000091	1.09	362.66	86.98	0.16
KinmoutDS	2425	100y	BurntRiver_RevisedBathy_2025	256.7	255.75	261.43		261.47	0.000085	1.06	372.05	87.3	0.15
KinmoutDS	2405	100y	Burnt_S01_+Man	256.7	255.35	262.23		262.26	0.000079	0.92	433.2	90.33	0.12
KinmoutDS	2405	100y	Burnt_S02_-Man	256.7	255.35	260.51		260.58	0.000096	1.34	285.75	82.4	0.21
KinmoutDS	2405	100y	Burnt_S03_+Cont	256.7	255.35	261.53		261.57	0.000079	1.06	371.82	86.33	0.15
KinmoutDS	2405	100y	Burnt_S04_-Cont	256.7	255.35	261.32		261.37	0.000091	1.11	353.53	85.44	0.16
KinmoutDS	2405	100y	BurntRiver_RevisedBathy_2025	256.7	255.35	261.42		261.47	0.000084	1.08	362.77	85.87	0.15
KinmoutDS	2386	100y	Burnt_S01_+Man	256.7	254.96	262.21		262.26	0.000093	1.02	371.72	82.28	0.13
KinmoutDS	2386	100y	Burnt_S02_-Man	256.7	254.96	260.48		260.58	0.000111	1.47	243.15	70.99	0.23
KinmoutDS	2386	100y	Burnt_S03_+Cont	256.7	254.96	261.51		261.57	0.000092	1.16	317.89	74.14	0.16
KinmoutDS	2386	100y	Burnt_S04_-Cont	256.7	254.96	261.3		261.36	0.000106	1.22	302.15	73.53	0.17
KinmoutDS	2386	100y	BurntRiver_RevisedBathy_2025	256.7	254.96	261.4		261.47	0.000099	1.19	310.11	73.84	0.17
KinmoutDS	2365	100y	Burnt_S01_+Man	256.7	254.69	262.21		262.26	0.000098	1.05	352.89	99.26	0.14
KinmoutDS	2365	100y	Burnt_S02_-Man	256.7	254.69	260.47		260.58	0.000112	1.5	220.21	62.45	0.23
KinmoutDS	2365	100y	Burnt_S03_+Cont	256.7	254.69	261.5		261.57	0.000095	1.2	290.65	78.99	0.16
KinmoutDS	2365	100y	Burnt_S04_-Cont	256.7	254.69	261.29		261.36	0.000109	1.25	274.19	75.18	0.17
KinmoutDS	2365	100y	BurntRiver_RevisedBathy_2025	256.7	254.69	261.4		261.47	0.000102	1.22	282.44	77.16	0.17
KinmoutDS	2346	100y	Burnt_S01_+Man	256.7	254.7	262.21		262.25	0.00009	1.01	367.61	105.57	0.13
KinmoutDS	2346	100y	Burnt_S02_-Man	256.7	254.7	260.48		260.57	0.000103	1.44	228.54	63.19	0.22
KinmoutDS	2346	100y	Burnt_S03_+Cont	256.7	254.7	261.5		261.56	0.000088	1.15	302.02	84.85	0.16
KinmoutDS	2346	100y	Burnt_S04_-Cont	256.7	254.7	261.29		261.36	0.000101	1.2	284.71	79.27	0.17
KinmoutDS	2346	100y	BurntRiver_RevisedBathy_2025	256.7	254.7	261.4		261.46	0.000094	1.18	293.32	82.3	0.16
KinmoutDS	2326	100y	Burnt_S01_+Man	256.7	254.71	262.21		262.25	0.000075	0.92	450.18	134.61	0.12
KinmoutDS	2326	100y	Burnt_S02_-Man	256.7	254.71	260.49		260.56	0.000089	1.34	278.06	82.08	0.2
KinmoutDS	2326	100y	Burnt_S03_+Cont	256.7	254.71	261.51		261.55	0.000075	1.06	371.36	100.22	0.14
KinmoutDS	2326	100y	Burnt_S04_-Cont	256.7	254.71	261.3		261.35	0.000086	1.11	350.97	96.43	0.15
KinmoutDS	2326	100y	BurntRiver_RevisedBathy_2025	256.7	254.71	261.41		261.46	0.00008	1.08	361.22	98.79	0.15
KinmoutDS	2305	100y	Burnt_S01_+Man	256.7	254.71	262.2		262.24	0.000088	1	370.97	118.98	0.13
KinmoutDS	2305	100y	Burnt_S02_-Man	256.7	254.71	260.46		260.56	0.000103	1.44	220.17	59.68	0.22
KinmoutDS	2305	100y	Burnt_S03_+Cont	256.7	254.71	261.49		261.55	0.000088	1.15	295.2	91.11	0.16
KinmoutDS	2305	100y	Burnt_S04_-Cont	256.7	254.71	261.29		261.35	0.000101	1.2	277.17	84.17	0.17
KinmoutDS	2305	100y	BurntRiver_RevisedBathy_2025	256.7	254.71	261.39		261.45	0.000094	1.17	286.13	87.06	0.16
KinmoutDS	2285	100y	Burnt_S01_+Man	256.7	254.72	262.2		262.24	0.000094	1.03	365.72	120.29	0.13
KinmoutDS	2285	100y	Burnt_S02_-Man	256.7	254.72	260.45		260.56	0.00011	1.49	212.09	58.03	0.23
KinmoutDS	2285	100y	Burnt_S03_+Cont	256.7	254.72	261.48		261.55	0.000094	1.19	288.56	94.56	0.16
KinmoutDS	2285	100y	Burnt_S04_-Cont	256.7	254.72	261.28		261.35	0.000108	1.24	270	84.59	0.17
KinmoutDS	2285	100y	BurntRiver_RevisedBathy_2025	256.7	254.72	261.38		261.45	0.000101	1.21	279.13	89.79	0.17
KinmoutDS	2266	100y	Burnt_S01_+Man	256.7	254.71	262.19		262.24	0.000105	1.09	347.37	120.43	0.14
KinmoutDS	2266	100y	Burnt_S02_-Man	256.7	254.71	260.44		260.55	0.000122	1.56	198.02	58.11	0.24
KinmoutDS	2266	100y	Burnt_S03_+Cont	256.7	254.71	261.47		261.55	0.000103	1.24	270.17	85.95	0.17

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2266	100y	Burnt_S04_-Cont	256.7	254.71	261.27		261.35	0.000118	1.3	253.48	76.97	0.18
KinmoutDS	2266	100y	BurntRiver_RevisedBathy_2025	256.7	254.71	261.37		261.45	0.00011	1.27	261.76	80.11	0.18
KinmoutDS	2246	100y	Burnt_S01_+Man	256.7	254.72	262.18		262.24	0.000109	1.11	342.58	120.91	0.14
KinmoutDS	2246	100y	Burnt_S02_-Man	256.7	254.72	260.42		260.55	0.000129	1.61	188.82	55.31	0.24
KinmoutDS	2246	100y	Burnt_S03_+Cont	256.7	254.72	261.46		261.54	0.00011	1.29	263.59	94.45	0.18
KinmoutDS	2246	100y	Burnt_S04_-Cont	256.7	254.72	261.26		261.34	0.000125	1.33	244.89	85.15	0.19
KinmoutDS	2246	100y	BurntRiver_RevisedBathy_2025	256.7	254.72	261.36		261.44	0.000118	1.32	254.06	91.24	0.18
KinmoutDS	2226	100y	Burnt_S01_+Man	256.7	254.72	262.17		262.23	0.000122	1.17	298.77	119.12	0.15
KinmoutDS	2226	100y	Burnt_S02_-Man	256.7	254.72	260.41		260.55	0.000141	1.67	176.25	70.35	0.25
KinmoutDS	2226	100y	Burnt_S03_+Cont	256.7	254.72	261.45		261.54	0.000119	1.32	234.68	109.5	0.18
KinmoutDS	2226	100y	Burnt_S04_-Cont	256.7	254.72	261.25		261.34	0.000136	1.38	222.66	101.64	0.19
KinmoutDS	2226	100y	BurntRiver_RevisedBathy_2025	256.7	254.72	261.35		261.44	0.000127	1.35	228.73	107.16	0.19
KinmoutDS	2206	100y	Burnt_S01_+Man	256.7	254.7	262.17		262.23	0.000122	1.17	292.08	119.12	0.15
KinmoutDS	2206	100y	Burnt_S02_-Man	256.7	254.7	260.4		260.54	0.00014	1.67	175.8	67.88	0.25
KinmoutDS	2206	100y	Burnt_S03_+Cont	256.7	254.7	261.45		261.54	0.000118	1.33	229.72	103.12	0.18
KinmoutDS	2206	100y	Burnt_S04_-Cont	256.7	254.7	261.24		261.34	0.000135	1.39	218.75	88.84	0.19
KinmoutDS	2206	100y	BurntRiver_RevisedBathy_2025	256.7	254.7	261.35		261.44	0.000126	1.36	224.29	93.63	0.19
KinmoutDS	2186	100y	Burnt_S01_+Man	256.7	254.69	262.16		262.23	0.000125	1.18	288.19	132.5	0.15
KinmoutDS	2186	100y	Burnt_S02_-Man	256.7	254.69	260.4		260.54	0.000143	1.68	171.99	67.01	0.26
KinmoutDS	2186	100y	Burnt_S03_+Cont	256.7	254.69	261.45		261.53	0.000121	1.34	224.1	104.48	0.18
KinmoutDS	2186	100y	Burnt_S04_-Cont	256.7	254.69	261.24		261.33	0.000139	1.4	213.28	92	0.2
KinmoutDS	2186	100y	BurntRiver_RevisedBathy_2025	256.7	254.69	261.34		261.44	0.000129	1.37	218.68	98.13	0.19
KinmoutDS	2167	100y	Burnt_S01_+Man	256.7	254.67	262.16		262.23	0.000124	1.17	296.38	147.03	0.15
KinmoutDS	2167	100y	Burnt_S02_-Man	256.7	254.67	260.4		260.54	0.000145	1.69	169.03	103.56	0.26
KinmoutDS	2167	100y	Burnt_S03_+Cont	256.7	254.67	261.44		261.53	0.000123	1.35	222.7	138.59	0.19
KinmoutDS	2167	100y	Burnt_S04_-Cont	256.7	254.67	261.23		261.33	0.000141	1.4	211.07	134.54	0.2
KinmoutDS	2167	100y	BurntRiver_RevisedBathy_2025	256.7	254.67	261.34		261.43	0.000131	1.37	216.91	136.57	0.19
KinmoutDS	2136	100y	Burnt_S01_+Man	256.7	254.65	262.16		262.22	0.000115	1.13	348.4	136.82	0.15
KinmoutDS	2136	100y	Burnt_S02_-Man	256.7	254.65	260.39		260.53	0.000143	1.67	178.79	95.21	0.26
KinmoutDS	2136	100y	Burnt_S03_+Cont	256.7	254.65	261.44		261.53	0.000121	1.34	250.66	134.54	0.18
KinmoutDS	2136	100y	Burnt_S04_-Cont	256.7	254.65	261.23		261.33	0.000137	1.39	227.72	133.18	0.19
KinmoutDS	2136	100y	BurntRiver_RevisedBathy_2025	256.7	254.65	261.34		261.43	0.00013	1.37	236.81	134.19	0.19
KinmoutDS	2117	100y	Burnt_S01_+Man	256.7	254.63	262.17		262.21	0.000087	0.99	448.61	138.1	0.13
KinmoutDS	2117	100y	Burnt_S02_-Man	256.7	254.63	260.42		260.52	0.000112	1.49	246.77	118.63	0.23
KinmoutDS	2117	100y	Burnt_S03_+Cont	256.7	254.63	261.45		261.51	0.000093	1.18	350.01	136.01	0.16
KinmoutDS	2117	100y	Burnt_S04_-Cont	256.7	254.63	261.25		261.32	0.000109	1.24	322.89	135.5	0.17
KinmoutDS	2117	100y	BurntRiver_RevisedBathy_2025	256.7	254.63	261.35		261.42	0.000101	1.21	336.62	135.75	0.17
KinmoutDS	2096	100y	Burnt_S01_+Man	256.7	254.61	262.16		262.21	0.000096	1.04	418.6	141.86	0.13
KinmoutDS	2096	100y	Burnt_S02_-Man	256.7	254.61	260.37		260.51	0.000145	1.69	178.89	127.78	0.26
KinmoutDS	2096	100y	Burnt_S03_+Cont	256.7	254.61	261.44		261.51	0.000107	1.26	316.19	139.45	0.17
KinmoutDS	2096	100y	Burnt_S04_-Cont	256.7	254.61	261.23		261.32	0.000126	1.34	288.11	138.84	0.19
KinmoutDS	2096	100y	BurntRiver_RevisedBathy_2025	256.7	254.61	261.34		261.41	0.000116	1.3	302.33	139.15	0.18
KinmoutDS	2075	100y	Burnt_S01_+Man	256.7	254.6	262.16		262.21	0.000091	1.01	441.02	146.35	0.13
KinmoutDS	2075	100y	Burnt_S02_-Man	256.7	254.6	260.36		260.51	0.000147	1.71	189.12	128.34	0.26
KinmoutDS	2075	100y	Burnt_S03_+Cont	256.7	254.6	261.44		261.5	0.000102	1.23	334.96	144.36	0.17
KinmoutDS	2075	100y	Burnt_S04_-Cont	256.7	254.6	261.24		261.31	0.00012	1.31	306.34	141.51	0.18
KinmoutDS	2075	100y	BurntRiver_RevisedBathy_2025	256.7	254.6	261.34		261.41	0.00011	1.27	320.78	142.79	0.18
KinmoutDS	2056	100y	Burnt_S01_+Man	256.7	254.58	262.16		262.21	0.000092	1.01	428.84	137.21	0.13
KinmoutDS	2056	100y	Burnt_S02_-Man	256.7	254.58	260.36		260.5	0.000147	1.7	193.72	124.47	0.26
KinmoutDS	2056	100y	Burnt_S03_+Cont	256.7	254.58	261.43		261.5	0.000102	1.23	331.33	131.54	0.17
KinmoutDS	2056	100y	Burnt_S04_-Cont	256.7	254.58	261.23		261.31	0.00012	1.3	305.1	130.57	0.18
KinmoutDS	2056	100y	BurntRiver_RevisedBathy_2025	256.7	254.58	261.34		261.41	0.00011	1.26	318.36	131.06	0.17
KinmoutDS	2036	100y	Burnt_S01_+Man	256.7	254.56	262.16		262.2	0.000098	1.02	403.87	130.59	0.13
KinmoutDS	2036	100y	Burnt_S02_-Man	256.7	254.56	260.36		260.5	0.00015	1.68	186.26	115.86	0.26
KinmoutDS	2036	100y	Burnt_S03_+Cont	256.7	254.56	261.43		261.5	0.000107	1.23	312.89	120.93	0.17
KinmoutDS	2036	100y	Burnt_S04_-Cont	256.7	254.56	261.23		261.31	0.000125	1.3	288.8	119.84	0.18
KinmoutDS	2036	100y	BurntRiver_RevisedBathy_2025	256.7	254.56	261.33		261.41	0.000115	1.26	300.97	120.42	0.17
KinmoutDS	2017	100y	Burnt_S01_+Man	256.7	254.67	262.15		262.2	0.000098	1.04	385.83	120.86	0.13
KinmoutDS	2017	100y	Burnt_S02_-Man	256.7	254.67	260.36		260.5	0.000145	1.68	186.62	105.38	0.26

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	2017	100y	Burnt_S03_+Cont	256.7	254.67	261.43		261.5	0.000105	1.24	301.22	109.04	0.17
KinmoutDS	2017	100y	Burnt_S04_-Cont	256.7	254.67	261.23		261.31	0.000123	1.31	279.51	108.2	0.18
KinmoutDS	2017	100y	BurntRiver_RevisedBathy_2025	256.7	254.67	261.33		261.4	0.000114	1.28	290.49	108.52	0.18
KinmoutDS	1995	100y	Burnt_S01_+Man	256.7	254.9	262.15		262.2	0.000105	1.06	375.53	113.66	0.14
KinmoutDS	1995	100y	Burnt_S02_-Man	256.7	254.9	260.35		260.49	0.000156	1.71	195.2	89.37	0.27
KinmoutDS	1995	100y	Burnt_S03_+Cont	256.7	254.9	261.42		261.49	0.000113	1.27	293.76	107.28	0.18
KinmoutDS	1995	100y	Burnt_S04_-Cont	256.7	254.9	261.22		261.3	0.000131	1.33	274.29	93.81	0.19
KinmoutDS	1995	100y	BurntRiver_RevisedBathy_2025	256.7	254.9	261.32		261.4	0.000121	1.3	283.84	95.8	0.18
KinmoutDS	1969	100y	Burnt_S01_+Man	256.7	255.14	262.15		262.2	0.00011	1.07	360.68	110.83	0.14
KinmoutDS	1969	100y	Burnt_S02_-Man	256.7	255.14	260.35		260.49	0.00016	1.68	194.65	75.54	0.27
KinmoutDS	1969	100y	Burnt_S03_+Cont	256.7	255.14	261.42		261.49	0.000118	1.26	282.34	98.29	0.18
KinmoutDS	1969	100y	Burnt_S04_-Cont	256.7	255.14	261.22		261.3	0.000137	1.33	263.14	93.04	0.19
KinmoutDS	1969	100y	BurntRiver_RevisedBathy_2025	256.7	255.14	261.32		261.4	0.000127	1.3	272.74	96.5	0.18
KinmoutDS	1949	100y	Burnt_S01_+Man	256.7	255.34	262.14		262.19	0.00011	1.08	364.14	127.47	0.14
KinmoutDS	1949	100y	Burnt_S02_-Man	256.7	255.34	260.35		260.48	0.000157	1.68	188.56	69.95	0.27
KinmoutDS	1949	100y	Burnt_S03_+Cont	256.7	255.34	261.41		261.49	0.000118	1.28	273.09	111.69	0.18
KinmoutDS	1949	100y	Burnt_S04_-Cont	256.7	255.34	261.21		261.3	0.000136	1.34	252.36	94.43	0.19
KinmoutDS	1949	100y	BurntRiver_RevisedBathy_2025	256.7	255.34	261.31		261.39	0.000127	1.31	262.48	104.66	0.19
KinmoutDS	1929	100y	Burnt_S01_+Man	256.7	255.52	262.14		262.19	0.000111	1.08	385.84	142.11	0.14
KinmoutDS	1929	100y	Burnt_S02_-Man	256.7	255.52	260.34		260.48	0.000159	1.68	187.51	66.66	0.27
KinmoutDS	1929	100y	Burnt_S03_+Cont	256.7	255.52	261.41		261.49	0.00012	1.28	284.37	122.32	0.18
KinmoutDS	1929	100y	Burnt_S04_-Cont	256.7	255.52	261.21		261.29	0.000139	1.35	261.33	107.86	0.19
KinmoutDS	1929	100y	BurntRiver_RevisedBathy_2025	256.7	255.52	261.31		261.39	0.000129	1.31	272.64	115.11	0.19
KinmoutDS	1908	100y	Burnt_S01_+Man	256.7	255.71	262.14		262.19	0.000104	1.05	413.51	159.39	0.14
KinmoutDS	1908	100y	Burnt_S02_-Man	256.7	255.71	260.35		260.47	0.000148	1.62	197.24	61.8	0.26
KinmoutDS	1908	100y	Burnt_S03_+Cont	256.7	255.71	261.41		261.48	0.000113	1.25	299.34	138.46	0.18
KinmoutDS	1908	100y	Burnt_S04_-Cont	256.7	255.71	261.21		261.29	0.000132	1.31	273.65	122.05	0.19
KinmoutDS	1908	100y	BurntRiver_RevisedBathy_2025	256.7	255.71	261.31		261.39	0.000122	1.28	286.27	127.99	0.18
KinmoutDS	1888	100y	Burnt_S01_+Man	256.7	255.74	262.14		262.19	0.000105	1.05	399.91	165.49	0.14
KinmoutDS	1888	100y	Burnt_S02_-Man	256.7	255.74	260.34		260.47	0.000151	1.63	175.68	53.83	0.26
KinmoutDS	1888	100y	Burnt_S03_+Cont	256.7	255.74	261.4		261.48	0.000115	1.25	281.41	144.32	0.18
KinmoutDS	1888	100y	Burnt_S04_-Cont	256.7	255.74	261.2		261.29	0.000134	1.32	254.16	127.01	0.19
KinmoutDS	1888	100y	BurntRiver_RevisedBathy_2025	256.7	255.74	261.31		261.38	0.000124	1.28	267.49	138.8	0.18
KinmoutDS	1868	100y	Burnt_S01_+Man	256.7	255.61	262.14		262.18	0.000098	1.02	459.75	276.56	0.13
KinmoutDS	1868	100y	Burnt_S02_-Man	256.7	255.61	260.34		260.47	0.000142	1.59	187.78	63.81	0.25
KinmoutDS	1868	100y	Burnt_S03_+Cont	256.7	255.61	261.4		261.47	0.000107	1.22	292.54	177.31	0.17
KinmoutDS	1868	100y	Burnt_S04_-Cont	256.7	255.61	261.21		261.28	0.000125	1.28	266	143.48	0.18
KinmoutDS	1868	100y	BurntRiver_RevisedBathy_2025	256.7	255.61	261.31		261.38	0.000116	1.25	276.42	159.81	0.18
KinmoutDS	1847	100y	Burnt_S01_+Man	256.7	255.51	262.14		262.18	0.000083	0.96	512.75	303.07	0.12
KinmoutDS	1847	100y	Burnt_S02_-Man	256.7	255.51	260.35		260.46	0.000115	1.48	216.11	79.26	0.23
KinmoutDS	1847	100y	Burnt_S03_+Cont	256.7	255.51	261.41		261.47	0.00009	1.14	333.52	191.57	0.16
KinmoutDS	1847	100y	Burnt_S04_-Cont	256.7	255.51	261.21		261.28	0.000104	1.2	304.56	158.04	0.17
KinmoutDS	1847	100y	BurntRiver_RevisedBathy_2025	256.7	255.51	261.31		261.38	0.000097	1.17	316.29	174.48	0.16
KinmoutDS	1818	100y	Burnt_S01_+Man	256.7	255.17	262.14		262.18	0.000079	0.94	531.19	307.25	0.12
KinmoutDS	1818	100y	Burnt_S02_-Man	256.7	255.17	260.35		260.45	0.000108	1.46	215.48	83.29	0.22
KinmoutDS	1818	100y	Burnt_S03_+Cont	256.7	255.17	261.41		261.47	0.000087	1.13	344.9	205.49	0.15
KinmoutDS	1818	100y	Burnt_S04_-Cont	256.7	255.17	261.21		261.28	0.000099	1.19	312.01	174.36	0.16
KinmoutDS	1818	100y	BurntRiver_RevisedBathy_2025	256.7	255.17	261.31		261.37	0.000093	1.16	326.09	191.87	0.16
KinmoutDS	1797	100y	Burnt_S01_+Man	256.7	254.82	262.14		262.17	0.00007	0.91	531.29	309.02	0.11
KinmoutDS	1797	100y	Burnt_S02_-Man	256.7	254.82	260.36		260.45	0.000089	1.38	213.97	85.02	0.2
KinmoutDS	1797	100y	Burnt_S03_+Cont	256.7	254.82	261.41		261.46	0.000075	1.09	343.39	209.85	0.14
KinmoutDS	1797	100y	Burnt_S04_-Cont	256.7	254.82	261.21		261.28	0.000086	1.14	310.18	182.25	0.15
KinmoutDS	1797	100y	BurntRiver_RevisedBathy_2025	256.7	254.82	261.31		261.37	0.00008	1.11	324.42	193.1	0.15
KinmoutDS	1777	100y	Burnt_S01_+Man	256.7	254.72	262.13		262.17	0.000072	0.94	521.14	318.92	0.12
KinmoutDS	1777	100y	Burnt_S02_-Man	256.7	254.72	260.35		260.45	0.00009	1.42	198.61	90.56	0.21
KinmoutDS	1777	100y	Burnt_S03_+Cont	256.7	254.72	261.4		261.46	0.000076	1.12	328.5	208.01	0.15
KinmoutDS	1777	100y	Burnt_S04_-Cont	256.7	254.72	261.21		261.27	0.000087	1.17	296.02	179.77	0.16
KinmoutDS	1777	100y	BurntRiver_RevisedBathy_2025	256.7	254.72	261.3		261.37	0.000081	1.14	309.65	192.94	0.15
KinmoutDS	1757	100y	Burnt_S01_+Man	256.7	254.85	262.13		262.17	0.000083	0.93	542.79	314.35	0.12

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1757	100y	Burnt_S02_-Man	256.7	254.85	260.34		260.44	0.00011	1.44	225.05	107.06	0.21
KinmoutDS	1757	100y	Burnt_S03_+Cont	256.7	254.85	261.4		261.46	0.000088	1.11	357.57	188.62	0.15
KinmoutDS	1757	100y	Burnt_S04_-Cont	256.7	254.85	261.21		261.27	0.000101	1.16	327.31	174.73	0.16
KinmoutDS	1757	100y	BurntRiver_RevisedBathy_2025	256.7	254.85	261.3		261.36	0.000094	1.13	340.16	181.97	0.15
KinmoutDS	1737	100y	Burnt_S01_+Man	256.7	254.96	262.13		262.17	0.000082	0.97	528.91	323	0.12
KinmoutDS	1737	100y	Burnt_S02_-Man	256.7	254.96	260.33		260.44	0.000112	1.51	208.55	110.26	0.23
KinmoutDS	1737	100y	Burnt_S03_+Cont	256.7	254.96	261.39		261.45	0.000087	1.15	341.7	193.29	0.16
KinmoutDS	1737	100y	Burnt_S04_-Cont	256.7	254.96	261.2		261.27	0.0001	1.21	311.73	176.82	0.17
KinmoutDS	1737	100y	BurntRiver_RevisedBathy_2025	256.7	254.96	261.3		261.36	0.000093	1.18	324.06	183.93	0.16
KinmoutDS	1716	100y	Burnt_S01_+Man	256.7	255.09	262.12		262.17	0.000088	0.99	526.78	327.67	0.13
KinmoutDS	1716	100y	Burnt_S02_-Man	256.7	255.09	260.32		260.44	0.000123	1.55	208.64	110.91	0.24
KinmoutDS	1716	100y	Burnt_S03_+Cont	256.7	255.09	261.39		261.45	0.000094	1.18	338.44	187.48	0.16
KinmoutDS	1716	100y	Burnt_S04_-Cont	256.7	255.09	261.19		261.27	0.000108	1.24	310.13	161.11	0.17
KinmoutDS	1716	100y	BurntRiver_RevisedBathy_2025	256.7	255.09	261.29		261.36	0.000101	1.21	321.98	171.15	0.17
KinmoutDS	1696	100y	Burnt_S01_+Man	256.7	255.2	262.12		262.17	0.000095	1.02	499.72	318.19	0.13
KinmoutDS	1696	100y	Burnt_S02_-Man	256.7	255.2	260.31		260.44	0.000132	1.57	207.91	99.03	0.24
KinmoutDS	1696	100y	Burnt_S03_+Cont	256.7	255.2	261.38		261.45	0.0001	1.2	322.53	164.43	0.17
KinmoutDS	1696	100y	Burnt_S04_-Cont	256.7	255.2	261.19		261.26	0.000115	1.25	297.76	139.55	0.18
KinmoutDS	1696	100y	BurntRiver_RevisedBathy_2025	256.7	255.2	261.29		261.36	0.000107	1.22	308.3	149.51	0.17
KinmoutDS	1676	100y	Burnt_S01_+Man	256.7	255.34	262.12		262.16	0.0001	1.03	474.22	294.15	0.13
KinmoutDS	1676	100y	Burnt_S02_-Man	256.7	255.34	260.32		260.43	0.000128	1.53	220.07	87.62	0.24
KinmoutDS	1676	100y	Burnt_S03_+Cont	256.7	255.34	261.38		261.45	0.000101	1.19	313.96	137.88	0.17
KinmoutDS	1676	100y	Burnt_S04_-Cont	256.7	255.34	261.19		261.26	0.000116	1.24	293.3	119.32	0.18
KinmoutDS	1676	100y	BurntRiver_RevisedBathy_2025	256.7	255.34	261.29		261.36	0.000108	1.22	301.87	129.73	0.17
KinmoutDS	1656	100y	Burnt_S01_+Man	256.7	255.46	262.11		262.16	0.000109	1.07	413.94	270.55	0.14
KinmoutDS	1656	100y	Burnt_S02_-Man	256.7	255.46	260.3		260.43	0.000144	1.61	192.33	77.25	0.25
KinmoutDS	1656	100y	Burnt_S03_+Cont	256.7	255.46	261.37		261.44	0.000114	1.25	270.83	118.23	0.18
KinmoutDS	1656	100y	Burnt_S04_-Cont	256.7	255.46	261.18		261.26	0.000128	1.3	252.96	105.63	0.19
KinmoutDS	1656	100y	BurntRiver_RevisedBathy_2025	256.7	255.46	261.27		261.35	0.000122	1.28	260.66	113.43	0.18
KinmoutDS	1633	100y	Burnt_S01_+Man	256.7	255.6	262.1		262.16	0.000108	1.08	394.42	252.51	0.14
KinmoutDS	1633	100y	Burnt_S02_-Man	256.7	255.6	260.29		260.42	0.000146	1.63	178.12	74.87	0.26
KinmoutDS	1633	100y	Burnt_S03_+Cont	256.7	255.6	261.36		261.44	0.000114	1.27	251.69	120.39	0.18
KinmoutDS	1633	100y	Burnt_S04_-Cont	256.7	255.6	261.17		261.26	0.000131	1.32	235.5	104.25	0.19
KinmoutDS	1633	100y	BurntRiver_RevisedBathy_2025	256.7	255.6	261.27		261.35	0.000122	1.3	242.17	114.88	0.18
KinmoutDS	1606	100y	Burnt_S01_+Man	256.7	255.63	262.1		262.16	0.000116	1.11	406.72	239	0.15
KinmoutDS	1606	100y	Burnt_S02_-Man	256.7	255.63	260.27		260.42	0.000171	1.74	179.68	81.31	0.28
KinmoutDS	1606	100y	Burnt_S03_+Cont	256.7	255.63	261.35		261.44	0.000127	1.32	271.45	131.28	0.19
KinmoutDS	1606	100y	Burnt_S04_-Cont	256.7	255.63	261.16		261.25	0.000144	1.37	251.53	112.37	0.2
KinmoutDS	1606	100y	BurntRiver_RevisedBathy_2025	256.7	255.63	261.26		261.35	0.000134	1.34	260.55	124.97	0.19
KinmoutDS	1587	100y	Burnt_S01_+Man	256.7	255.51	262.1		262.15	0.000119	1.1	376.41	200.17	0.15
KinmoutDS	1587	100y	Burnt_S02_-Man	256.7	255.51	260.27		260.41	0.000172	1.72	177.36	78.22	0.27
KinmoutDS	1587	100y	Burnt_S03_+Cont	256.7	255.51	261.35		261.43	0.00013	1.32	257.55	129.29	0.19
KinmoutDS	1587	100y	Burnt_S04_-Cont	256.7	255.51	261.16		261.25	0.000148	1.37	240.33	119.29	0.2
KinmoutDS	1587	100y	BurntRiver_RevisedBathy_2025	256.7	255.51	261.26		261.34	0.000138	1.34	247.7	126.68	0.19
KinmoutDS	1567	100y	Burnt_S01_+Man	256.7	255.34	262.1		262.15	0.000117	1.11	394.06	192.57	0.15
KinmoutDS	1567	100y	Burnt_S02_-Man	256.7	255.34	260.25		260.41	0.000181	1.78	179.3	79.48	0.28
KinmoutDS	1567	100y	Burnt_S03_+Cont	256.7	255.34	261.35		261.43	0.00013	1.34	296.35	129.36	0.19
KinmoutDS	1567	100y	Burnt_S04_-Cont	256.7	255.34	261.15		261.25	0.000151	1.41	271.39	124.52	0.2
KinmoutDS	1567	100y	BurntRiver_RevisedBathy_2025	256.7	255.34	261.25		261.34	0.00014	1.37	283.95	127.29	0.2
KinmoutDS	1547	100y	Burnt_S01_+Man	256.7	255.2	262.09		262.15	0.000123	1.14	370.75	220.02	0.15
KinmoutDS	1547	100y	Burnt_S02_-Man	256.7	255.2	260.25		260.4	0.000183	1.81	181.13	76.94	0.29
KinmoutDS	1547	100y	Burnt_S03_+Cont	256.7	255.2	261.34		261.43	0.000134	1.37	285.72	138.04	0.19
KinmoutDS	1547	100y	Burnt_S04_-Cont	256.7	255.2	261.15		261.24	0.000155	1.43	263.98	128.79	0.2
KinmoutDS	1547	100y	BurntRiver_RevisedBathy_2025	256.7	255.2	261.25		261.34	0.000145	1.4	274.95	133.54	0.2
KinmoutDS	1526	100y	Burnt_S01_+Man	256.7	255.04	262.09		262.14	0.000122	1.16	367.01	208.1	0.15
KinmoutDS	1526	100y	Burnt_S02_-Man	256.7	255.04	260.23		260.4	0.000182	1.84	176.15	87.35	0.29
KinmoutDS	1526	100y	Burnt_S03_+Cont	256.7	255.04	261.34		261.43	0.000131	1.37	286.41	153.56	0.19
KinmoutDS	1526	100y	Burnt_S04_-Cont	256.7	255.04	261.14		261.24	0.000152	1.44	265.71	142.74	0.2
KinmoutDS	1526	100y	BurntRiver_RevisedBathy_2025	256.7	255.04	261.24		261.33	0.000141	1.41	276.22	149.01	0.2

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1506	100y	Burnt_S01_+Man	256.7	254.89	262.08		262.14	0.000136	1.14	376.54	217.13	0.15
KinmoutDS	1506	100y	Burnt_S02_-Man	256.7	254.89	260.23		260.39	0.000205	1.83	179.06	126.35	0.28
KinmoutDS	1506	100y	Burnt_S03_+Cont	256.7	254.89	261.34		261.42	0.000146	1.36	292.76	201.22	0.19
KinmoutDS	1506	100y	Burnt_S04_-Cont	256.7	254.89	261.14		261.24	0.00017	1.42	271.93	183.57	0.2
KinmoutDS	1506	100y	BurntRiver_RevisedBathy_2025	256.7	254.89	261.24		261.33	0.000157	1.39	282.5	192.9	0.19
KinmoutDS	1486	100y	Burnt_S01_+Man	256.7	254.87	262.08		262.14	0.000117	1.14	392.61	228.42	0.15
KinmoutDS	1486	100y	Burnt_S02_-Man	256.7	254.87	260.23		260.39	0.000178	1.83	196.69	181.41	0.28
KinmoutDS	1486	100y	Burnt_S03_+Cont	256.7	254.87	261.34		261.42	0.000126	1.35	311.56	205.84	0.19
KinmoutDS	1486	100y	Burnt_S04_-Cont	256.7	254.87	261.14		261.23	0.000146	1.42	290.78	201.5	0.2
KinmoutDS	1486	100y	BurntRiver_RevisedBathy_2025	256.7	254.87	261.24		261.33	0.000135	1.38	301.32	203.59	0.19
KinmoutDS	1468	100y	Burnt_S01_+Man	256.7	254.95	262.08		262.14	0.000116	1.13	365.25	228.29	0.15
KinmoutDS	1468	100y	Burnt_S02_-Man	256.7	254.95	260.23		260.38	0.000172	1.79	191.04	211.16	0.28
KinmoutDS	1468	100y	Burnt_S03_+Cont	256.7	254.95	261.33		261.42	0.000123	1.33	294.26	225.57	0.19
KinmoutDS	1468	100y	Burnt_S04_-Cont	256.7	254.95	261.14		261.23	0.000143	1.4	275.89	224.98	0.2
KinmoutDS	1468	100y	BurntRiver_RevisedBathy_2025	256.7	254.95	261.24		261.32	0.000133	1.37	285.22	225.26	0.19
KinmoutDS	1447	100y	Burnt_S01_+Man	256.7	255.05	262.09		262.13	0.000079	0.93	427.48	195.94	0.12
KinmoutDS	1447	100y	Burnt_S02_-Man	256.7	255.05	260.28		260.36	0.000105	1.4	260.72	158.48	0.22
KinmoutDS	1447	100y	Burnt_S03_+Cont	256.7	255.05	261.35		261.4	0.000081	1.08	355.64	182.19	0.15
KinmoutDS	1447	100y	Burnt_S04_-Cont	256.7	255.05	261.17		261.22	0.000092	1.13	339.11	178.81	0.16
KinmoutDS	1447	100y	BurntRiver_RevisedBathy_2025	256.7	255.05	261.26		261.31	0.000087	1.1	347.44	180.85	0.16
KinmoutDS	1427	100y	Burnt_S01_+Man	256.7	255.14	262.08		262.13	0.000086	0.97	361	122.29	0.13
KinmoutDS	1427	100y	Burnt_S02_-Man	256.7	255.14	260.26		260.36	0.000111	1.44	227.28	96.06	0.23
KinmoutDS	1427	100y	Burnt_S03_+Cont	256.7	255.14	261.34		261.39	0.000087	1.12	302.43	108.52	0.16
KinmoutDS	1427	100y	Burnt_S04_-Cont	256.7	255.14	261.16		261.22	0.000099	1.16	289.61	106.54	0.17
KinmoutDS	1427	100y	BurntRiver_RevisedBathy_2025	256.7	255.14	261.25		261.31	0.000093	1.14	296.08	107.15	0.16
KinmoutDS	1416	100y	Burnt_S01_+Man	256.7	255.19	262.06		262.12	0.000116	1.08	270.12	89.08	0.14
KinmoutDS	1416	100y	Burnt_S02_-Man	256.7	255.19	260.22		260.35	0.000156	1.62	163.03	48.75	0.26
KinmoutDS	1416	100y	Burnt_S03_+Cont	256.7	255.19	261.31		261.39	0.00012	1.25	220.28	60.76	0.18
KinmoutDS	1416	100y	Burnt_S04_-Cont	256.7	255.19	261.13		261.22	0.000136	1.3	210.34	54.46	0.19
KinmoutDS	1416	100y	BurntRiver_RevisedBathy_2025	256.7	255.19	261.22		261.3	0.000128	1.28	215.33	57.96	0.18
KinmoutDS	1405	100y	Burnt_S01_+Man	256.7	255.23	262.05		262.12	0.000142	1.15	243.15	75.75	0.16
KinmoutDS	1405	100y	Burnt_S02_-Man	256.7	255.23	260.19		260.35	0.000207	1.74	147.53	42.44	0.29
KinmoutDS	1405	100y	Burnt_S03_+Cont	256.7	255.23	261.3		261.39	0.00015	1.33	197.25	47.43	0.2
KinmoutDS	1405	100y	Burnt_S04_-Cont	256.7	255.23	261.12		261.21	0.000171	1.39	188.77	46.41	0.21
KinmoutDS	1405	100y	BurntRiver_RevisedBathy_2025	256.7	255.23	261.21		261.3	0.00016	1.36	193.04	46.87	0.2
KinmoutDS	1386	100y	Burnt_S01_+Man	256.7	255.32	262.06		262.12	0.000123	1.1	258.73	65.2	0.15
KinmoutDS	1386	100y	Burnt_S02_-Man	256.7	255.32	260.2		260.34	0.000168	1.65	160.31	46.25	0.27
KinmoutDS	1386	100y	Burnt_S03_+Cont	256.7	255.32	261.3		261.38	0.000128	1.28	213.94	51.39	0.18
KinmoutDS	1386	100y	Burnt_S04_-Cont	256.7	255.32	261.12		261.21	0.000144	1.33	204.86	50.53	0.19
KinmoutDS	1386	100y	BurntRiver_RevisedBathy_2025	256.7	255.32	261.21		261.3	0.000136	1.3	209.42	50.97	0.19
KinmoutDS	1365	100y	Burnt_S01_+Man	256.7	255.41	262.06		262.11	0.000099	1.02	312.91	67.7	0.14
KinmoutDS	1365	100y	Burnt_S02_-Man	256.7	255.41	260.21		260.33	0.000132	1.52	196.96	59.06	0.24
KinmoutDS	1365	100y	Burnt_S03_+Cont	256.7	255.41	261.3		261.37	0.000102	1.18	263.61	63.38	0.17
KinmoutDS	1365	100y	Burnt_S04_-Cont	256.7	255.41	261.13		261.2	0.000115	1.22	252.74	62.58	0.18
KinmoutDS	1365	100y	BurntRiver_RevisedBathy_2025	256.7	255.41	261.22		261.29	0.000108	1.2	258.21	62.99	0.17
KinmoutDS	1346	100y	Burnt_S01_+Man	256.7	255.53	262.06		262.11	0.000088	0.95	354.12	85.89	0.13
KinmoutDS	1346	100y	Burnt_S02_-Man	256.7	255.53	260.22		260.32	0.000119	1.43	217.61	68.5	0.23
KinmoutDS	1346	100y	Burnt_S03_+Cont	256.7	255.53	261.31		261.36	0.00009	1.1	294.68	73.39	0.16
KinmoutDS	1346	100y	Burnt_S04_-Cont	256.7	255.53	261.14		261.2	0.000102	1.14	282.34	72.67	0.17
KinmoutDS	1346	100y	BurntRiver_RevisedBathy_2025	256.7	255.53	261.22		261.28	0.000096	1.12	288.55	73.04	0.16
KinmoutDS	1326	100y	Burnt_S01_+Man	256.7	255.65	262.07		262.1	0.000067	0.84	431.78	99.36	0.11
KinmoutDS	1326	100y	Burnt_S02_-Man	256.7	255.65	260.24		260.31	0.000091	1.26	266.73	80.28	0.2
KinmoutDS	1326	100y	Burnt_S03_+Cont	256.7	255.65	261.31		261.36	0.00007	0.98	358.65	93.37	0.14
KinmoutDS	1326	100y	Burnt_S04_-Cont	256.7	255.65	261.15		261.2	0.000079	1.01	343.63	89.41	0.15
KinmoutDS	1326	100y	BurntRiver_RevisedBathy_2025	256.7	255.65	261.23		261.28	0.000074	0.99	351.1	92.56	0.14
KinmoutDS	1306	100y	Burnt_S01_+Man	256.7	255.75	262.08		262.1	0.000051	0.73	514.26	114.45	0.1
KinmoutDS	1306	100y	Burnt_S02_-Man	256.7	255.75	260.25		260.3	0.00007	1.1	324.26	96.47	0.18
KinmoutDS	1306	100y	Burnt_S03_+Cont	256.7	255.75	261.32		261.35	0.000053	0.85	431	104.56	0.12
KinmoutDS	1306	100y	Burnt_S04_-Cont	256.7	255.75	261.16		261.19	0.00006	0.88	414.4	103.6	0.13
KinmoutDS	1306	100y	BurntRiver_RevisedBathy_2025	256.7	255.75	261.24		261.27	0.000057	0.87	422.74	104.1	0.12

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1286	100y	Burnt_S01_+Man	256.7	255.86	262.08		262.1	0.000042	0.66	570.94	126.86	0.09
KinmoutDS	1286	100y	Burnt_S02_-Man	256.7	255.86	260.26		260.3	0.000057	0.99	363.15	106.26	0.16
KinmoutDS	1286	100y	Burnt_S03_+Cont	256.7	255.86	261.32		261.35	0.000044	0.77	478.28	111.86	0.11
KinmoutDS	1286	100y	Burnt_S04_-Cont	256.7	255.86	261.16		261.19	0.000049	0.8	460.85	109.59	0.12
KinmoutDS	1286	100y	BurntRiver_RevisedBathy_2025	256.7	255.86	261.24		261.27	0.000046	0.78	469.58	110.76	0.11
KinmoutDS	1266	100y	Burnt_S01_+Man	256.7	255.84	262.08		262.09	0.000036	0.61	626.13	134.09	0.08
KinmoutDS	1266	100y	Burnt_S02_-Man	256.7	255.84	260.26		260.29	0.000048	0.91	397.28	115.79	0.15
KinmoutDS	1266	100y	Burnt_S03_+Cont	256.7	255.84	261.32		261.34	0.000037	0.71	527.07	128.66	0.1
KinmoutDS	1266	100y	Burnt_S04_-Cont	256.7	255.84	261.17		261.19	0.000042	0.73	507.08	127.39	0.11
KinmoutDS	1266	100y	BurntRiver_RevisedBathy_2025	256.7	255.84	261.25		261.27	0.000039	0.72	517.12	128.11	0.1
KinmoutDS	1246	100y	Burnt_S01_+Man	256.7	255.82	262.08		262.09	0.000033	0.59	617.71	131.8	0.08
KinmoutDS	1246	100y	Burnt_S02_-Man	256.7	255.82	260.26		260.29	0.000045	0.88	395.21	112.99	0.14
KinmoutDS	1246	100y	Burnt_S03_+Cont	256.7	255.82	261.32		261.34	0.000035	0.68	519.42	126.76	0.1
KinmoutDS	1246	100y	Burnt_S04_-Cont	256.7	255.82	261.17		261.19	0.000039	0.71	499.85	123.24	0.1
KinmoutDS	1246	100y	BurntRiver_RevisedBathy_2025	256.7	255.82	261.25		261.27	0.000037	0.7	509.63	126.23	0.1
KinmoutDS	1225	100y	Burnt_S01_+Man	256.7	255.79	262.08		262.09	0.000034	0.59	577.16	124.72	0.08
KinmoutDS	1225	100y	Burnt_S02_-Man	256.7	255.79	260.26		260.29	0.000046	0.89	366.11	105.41	0.14
KinmoutDS	1225	100y	Burnt_S03_+Cont	256.7	255.79	261.32		261.34	0.000035	0.69	484.67	119.52	0.1
KinmoutDS	1225	100y	Burnt_S04_-Cont	256.7	255.79	261.16		261.19	0.00004	0.71	466.11	118.5	0.1
KinmoutDS	1225	100y	BurntRiver_RevisedBathy_2025	256.7	255.79	261.24		261.26	0.000037	0.7	475.43	119.04	0.1
KinmoutDS	1205	100y	Burnt_S01_+Man	256.7	255.77	262.07		262.09	0.000037	0.62	538.88	132.6	0.08
KinmoutDS	1205	100y	Burnt_S02_-Man	256.7	255.77	260.25		260.29	0.000051	0.94	319.32	94.41	0.15
KinmoutDS	1205	100y	Burnt_S03_+Cont	256.7	255.77	261.32		261.34	0.000039	0.73	439.88	127.45	0.1
KinmoutDS	1205	100y	Burnt_S04_-Cont	256.7	255.77	261.16		261.19	0.000044	0.75	420.16	125.25	0.11
KinmoutDS	1205	100y	BurntRiver_RevisedBathy_2025	256.7	255.77	261.24		261.26	0.000042	0.74	430.03	126.52	0.11
KinmoutDS	1186	100y	Burnt_S01_+Man	256.7	255.78	262.07		262.09	0.000044	0.66	506.52	145.48	0.09
KinmoutDS	1186	100y	Burnt_S02_-Man	256.7	255.78	260.24		260.29	0.000063	1.02	273.26	88.37	0.17
KinmoutDS	1186	100y	Burnt_S03_+Cont	256.7	255.78	261.31		261.34	0.000047	0.78	397.61	140.82	0.11
KinmoutDS	1186	100y	Burnt_S04_-Cont	256.7	255.78	261.15		261.18	0.000053	0.81	375.7	139.72	0.12
KinmoutDS	1186	100y	BurntRiver_RevisedBathy_2025	256.7	255.78	261.23		261.26	0.00005	0.79	386.71	140.37	0.12
KinmoutDS	1164	100y	Burnt_S01_+Man	256.7	255.88	262.07		262.09	0.000045	0.67	524.16	155.91	0.09
KinmoutDS	1164	100y	Burnt_S02_-Man	256.7	255.88	260.23		260.29	0.000066	1.04	273.01	89.88	0.17
KinmoutDS	1164	100y	Burnt_S03_+Cont	256.7	255.88	261.31		261.34	0.000049	0.79	406.76	152.74	0.11
KinmoutDS	1164	100y	Burnt_S04_-Cont	256.7	255.88	261.15		261.18	0.000055	0.82	382.94	151.81	0.12
KinmoutDS	1164	100y	BurntRiver_RevisedBathy_2025	256.7	255.88	261.23		261.26	0.000052	0.8	394.91	152.35	0.12
KinmoutDS	1145	100y	Burnt_S01_+Man	256.7	255.82	262.07		262.09	0.000043	0.66	551.04	165.43	0.09
KinmoutDS	1145	100y	Burnt_S02_-Man	256.7	255.82	260.23		260.29	0.000066	1.04	276.05	102.53	0.17
KinmoutDS	1145	100y	Burnt_S03_+Cont	256.7	255.82	261.31		261.34	0.000048	0.78	426.35	161.9	0.11
KinmoutDS	1145	100y	Burnt_S04_-Cont	256.7	255.82	261.15		261.18	0.000054	0.82	401.08	161.41	0.12
KinmoutDS	1145	100y	BurntRiver_RevisedBathy_2025	256.7	255.82	261.23		261.26	0.000051	0.8	413.79	161.66	0.12
KinmoutDS	1124	100y	Burnt_S01_+Man	256.7	255.71	262.07		262.09	0.000045	0.67	570.99	173.79	0.09
KinmoutDS	1124	100y	Burnt_S02_-Man	256.7	255.71	260.23		260.28	0.000071	1.07	270.1	119.99	0.18
KinmoutDS	1124	100y	Burnt_S03_+Cont	256.7	255.71	261.3		261.33	0.00005	0.8	439.53	170.63	0.12
KinmoutDS	1124	100y	Burnt_S04_-Cont	256.7	255.71	261.15		261.18	0.000057	0.83	412.9	169.39	0.12
KinmoutDS	1124	100y	BurntRiver_RevisedBathy_2025	256.7	255.71	261.23		261.26	0.000053	0.82	426.29	170.13	0.12
KinmoutDS	1105	100y	Burnt_S01_+Man	256.7	255.61	262.06		262.09	0.000049	0.71	568	176.63	0.09
KinmoutDS	1105	100y	Burnt_S02_-Man	256.7	255.61	260.21		260.28	0.00008	1.15	257.16	138.43	0.19
KinmoutDS	1105	100y	Burnt_S03_+Cont	256.7	255.61	261.3		261.33	0.000055	0.85	434.19	173.34	0.12
KinmoutDS	1105	100y	Burnt_S04_-Cont	256.7	255.61	261.14		261.18	0.000063	0.89	407.12	171.87	0.13
KinmoutDS	1105	100y	BurntRiver_RevisedBathy_2025	256.7	255.61	261.22		261.26	0.000059	0.87	420.72	172.55	0.13
KinmoutDS	1085	100y	Burnt_S01_+Man	256.7	255.52	262.06		262.08	0.000054	0.73	580.62	184.84	0.1
KinmoutDS	1085	100y	Burnt_S02_-Man	256.7	255.52	260.2		260.28	0.000094	1.24	245.53	167.49	0.2
KinmoutDS	1085	100y	Burnt_S03_+Cont	256.7	255.52	261.29		261.33	0.000062	0.89	439.92	182.12	0.13
KinmoutDS	1085	100y	Burnt_S04_-Cont	256.7	255.52	261.14		261.18	0.00007	0.93	411.36	181.05	0.14
KinmoutDS	1085	100y	BurntRiver_RevisedBathy_2025	256.7	255.52	261.22		261.26	0.000066	0.91	425.72	181.61	0.13
KinmoutDS	1065	100y	Burnt_S01_+Man	256.7	255.41	262.06		262.08	0.000053	0.74	633.46	195.05	0.1
KinmoutDS	1065	100y	Burnt_S02_-Man	256.7	255.41	260.2		260.28	0.000096	1.27	281.49	171.64	0.21
KinmoutDS	1065	100y	Burnt_S03_+Cont	256.7	255.41	261.29		261.33	0.000062	0.9	484.75	192.77	0.13
KinmoutDS	1065	100y	Burnt_S04_-Cont	256.7	255.41	261.14		261.18	0.000071	0.94	454.47	192.19	0.14

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	1065	100y	BurntRiver_RevisedBathy_2025	256.7	255.41	261.22		261.25	0.000066	0.92	469.71	192.5	0.13
KinmoutDS	1044	100y	Burnt_S01_+Man	256.7	255.29	262.06		262.08	0.000054	0.75	667.39	209.61	0.1
KinmoutDS	1044	100y	Burnt_S02_-Man	256.7	255.29	260.19		260.27	0.000102	1.3	304.43	179.5	0.21
KinmoutDS	1044	100y	Burnt_S03_+Cont	256.7	255.29	261.29		261.33	0.000063	0.92	515.53	202.32	0.13
KinmoutDS	1044	100y	Burnt_S04_-Cont	256.7	255.29	261.14		261.18	0.000073	0.96	484.61	198.48	0.14
KinmoutDS	1044	100y	BurntRiver_RevisedBathy_2025	256.7	255.29	261.21		261.25	0.000068	0.94	500.18	201.38	0.14
KinmoutDS	1025	100y	Burnt_S01_+Man	256.7	255.17	262.06		262.08	0.000054	0.75	709.54	245.5	0.1
KinmoutDS	1025	100y	Burnt_S02_-Man	256.7	255.17	260.19		260.27	0.000103	1.33	332.1	193.92	0.21
KinmoutDS	1025	100y	Burnt_S03_+Cont	256.7	255.17	261.29		261.33	0.000063	0.92	552.23	223.33	0.13
KinmoutDS	1025	100y	Burnt_S04_-Cont	256.7	255.17	261.14		261.17	0.000072	0.96	520.23	213.84	0.14
KinmoutDS	1025	100y	BurntRiver_RevisedBathy_2025	256.7	255.17	261.21		261.25	0.000067	0.94	536.34	217.35	0.14
KinmoutDS	1006	100y	Burnt_S01_+Man	256.7	255.05	262.06		262.08	0.000053	0.74	749.16	234.8	0.1
KinmoutDS	1006	100y	Burnt_S02_-Man	256.7	255.05	260.19		260.27	0.000102	1.32	363.69	208.21	0.21
KinmoutDS	1006	100y	Burnt_S03_+Cont	256.7	255.05	261.29		261.32	0.000062	0.91	585.99	222.21	0.13
KinmoutDS	1006	100y	Burnt_S04_-Cont	256.7	255.05	261.14		261.17	0.000071	0.96	553.63	219.95	0.14
KinmoutDS	1006	100y	BurntRiver_RevisedBathy_2025	256.7	255.05	261.22		261.25	0.000066	0.93	569.9	221.03	0.13
KinmoutDS	986	100y	Burnt_S01_+Man	256.7	254.94	262.06		262.08	0.000046	0.7	853.4	273.99	0.09
KinmoutDS	986	100y	Burnt_S02_-Man	256.7	254.94	260.2		260.26	0.000089	1.25	431.44	237.4	0.2
KinmoutDS	986	100y	Burnt_S03_+Cont	256.7	254.94	261.29		261.32	0.000054	0.86	674.3	263.25	0.12
KinmoutDS	986	100y	Burnt_S04_-Cont	256.7	254.94	261.14		261.17	0.000062	0.9	638.77	259.72	0.13
KinmoutDS	986	100y	BurntRiver_RevisedBathy_2025	256.7	254.94	261.22		261.25	0.000058	0.88	656.61	262.01	0.12
KinmoutDS	964	100y	Burnt_S01_+Man	256.7	254.81	262.06		262.08	0.000036	0.62	1026.55	319.46	0.08
KinmoutDS	964	100y	Burnt_S02_-Man	256.7	254.81	260.21		260.26	0.000072	1.13	532.82	283.02	0.18
KinmoutDS	964	100y	Burnt_S03_+Cont	256.7	254.81	261.3		261.32	0.000043	0.77	818.7	304.29	0.11
KinmoutDS	964	100y	Burnt_S04_-Cont	256.7	254.81	261.15		261.17	0.000049	0.8	778.31	301.94	0.11
KinmoutDS	964	100y	BurntRiver_RevisedBathy_2025	256.7	254.81	261.22		261.24	0.000046	0.78	798.6	303.18	0.11
KinmoutDS	946	100y	Burnt_S01_+Man	256.7	254.73	262.07		262.07	0.00002	0.48	1351.03	365.17	0.06
KinmoutDS	946	100y	Burnt_S02_-Man	256.7	254.73	260.23		260.25	0.000037	0.86	759.78	353.62	0.13
KinmoutDS	946	100y	Burnt_S03_+Cont	256.7	254.73	261.3		261.31	0.000023	0.59	1104.59	359.97	0.08
KinmoutDS	946	100y	Burnt_S04_-Cont	256.7	254.73	261.16		261.17	0.000026	0.62	1057.2	358.55	0.09
KinmoutDS	946	100y	BurntRiver_RevisedBathy_2025	256.7	254.73	261.23		261.24	0.000025	0.61	1081	358.93	0.08
KinmoutDS	924	100y	Burnt_S01_+Man	256.7	254.9	262.07		262.07	0.000022	0.49	1296.34	360.35	0.06
KinmoutDS	924	100y	Burnt_S02_-Man	256.7	254.9	260.22		260.25	0.000041	0.9	722.14	350.58	0.14
KinmoutDS	924	100y	Burnt_S03_+Cont	256.7	254.9	261.3		261.31	0.000025	0.61	1057.24	355.27	0.08
KinmoutDS	924	100y	Burnt_S04_-Cont	256.7	254.9	261.15		261.16	0.000029	0.64	1011.23	354.56	0.09
KinmoutDS	924	100y	BurntRiver_RevisedBathy_2025	256.7	254.9	261.23		261.24	0.000027	0.62	1034.34	354.92	0.09
KinmoutDS	906	100y	Burnt_S01_+Man	256.7	255.03	262.07		262.07	0.00002	0.48	1314.28	361.96	0.06
KinmoutDS	906	100y	Burnt_S02_-Man	256.7	255.03	260.23		260.25	0.000037	0.84	751.26	349.03	0.13
KinmoutDS	906	100y	Burnt_S03_+Cont	256.7	255.03	261.3		261.31	0.000023	0.58	1079.67	358.28	0.08
KinmoutDS	906	100y	Burnt_S04_-Cont	256.7	255.03	261.15		261.16	0.000026	0.61	1034.66	357.07	0.08
KinmoutDS	906	100y	BurntRiver_RevisedBathy_2025	256.7	255.03	261.23		261.24	0.000025	0.6	1057.26	357.68	0.08
KinmoutDS	885	100y	Burnt_S01_+Man	256.7	254.64	262.07		262.07	0.00002	0.48	1266.18	349.92	0.06
KinmoutDS	885	100y	Burnt_S02_-Man	256.7	254.64	260.23		260.24	0.000035	0.84	733.76	341.88	0.13
KinmoutDS	885	100y	Burnt_S03_+Cont	256.7	254.64	261.3		261.31	0.000023	0.59	1043.93	346.04	0.08
KinmoutDS	885	100y	Burnt_S04_-Cont	256.7	254.64	261.15		261.16	0.000026	0.61	1001.33	345.51	0.08
KinmoutDS	885	100y	BurntRiver_RevisedBathy_2025	256.7	254.64	261.23		261.24	0.000024	0.6	1022.72	345.77	0.08
KinmoutDS	865	100y	Burnt_S01_+Man	256.7	254.26	262.06		262.07	0.000025	0.55	1030.74	324.86	0.07
KinmoutDS	865	100y	Burnt_S02_-Man	256.7	254.26	260.22		260.24	0.000042	0.93	596.84	305.92	0.14
KinmoutDS	865	100y	Burnt_S03_+Cont	256.7	254.26	261.3		261.31	0.000028	0.66	848.08	315.15	0.09
KinmoutDS	865	100y	Burnt_S04_-Cont	256.7	254.26	261.15		261.16	0.000032	0.69	813.39	314.28	0.09
KinmoutDS	865	100y	BurntRiver_RevisedBathy_2025	256.7	254.26	261.22		261.24	0.00003	0.68	830.8	314.71	0.09
KinmoutDS	846	100y	Burnt_S01_+Man	256.7	253.91	262.06		262.07	0.000024	0.54	974.27	305.05	0.07
KinmoutDS	846	100y	Burnt_S02_-Man	256.7	253.91	260.22		260.24	0.000038	0.9	584.28	290.97	0.13
KinmoutDS	846	100y	Burnt_S03_+Cont	256.7	253.91	261.3		261.31	0.000026	0.65	811.72	297.09	0.09
KinmoutDS	846	100y	Burnt_S04_-Cont	256.7	253.91	261.15		261.16	0.00003	0.67	780.66	296.1	0.09
KinmoutDS	846	100y	BurntRiver_RevisedBathy_2025	256.7	253.91	261.22		261.23	0.000028	0.66	796.25	296.65	0.09
KinmoutDS	826	100y	Burnt_S01_+Man	256.7	253.5	262.06		262.07	0.000024	0.53	946.44	286.4	0.07
KinmoutDS	826	100y	Burnt_S02_-Man	256.7	253.5	260.22		260.24	0.000034	0.85	586.57	262.62	0.13
KinmoutDS	826	100y	Burnt_S03_+Cont	256.7	253.5	261.3		261.31	0.000026	0.64	793.17	284.51	0.08

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	826	100y	Burnt_S04_-Cont	256.7	253.5	261.15		261.16	0.000028	0.66	763.82	284.17	0.09
KinmoutDS	826	100y	BurntRiver_RevisedBathy_2025	256.7	253.5	261.22		261.23	0.000027	0.65	778.55	284.33	0.09
KinmoutDS	806	100y	Burnt_S01_+Man	256.7	253.11	262.06		262.07	0.00002	0.49	1008.16	288.34	0.06
KinmoutDS	806	100y	Burnt_S02_-Man	256.7	253.11	260.22		260.24	0.000027	0.77	646.5	262.08	0.11
KinmoutDS	806	100y	Burnt_S03_+Cont	256.7	253.11	261.3		261.31	0.000021	0.58	854.94	285.97	0.08
KinmoutDS	806	100y	Burnt_S04_-Cont	256.7	253.11	261.15		261.16	0.000023	0.6	825.77	285.66	0.08
KinmoutDS	806	100y	BurntRiver_RevisedBathy_2025	256.7	253.11	261.22		261.23	0.000022	0.59	840.41	285.81	0.08
KinmoutDS	787	100y	Burnt_S01_+Man	256.7	252.73	262.06		262.07	0.000025	0.56	906.07	287.68	0.07
KinmoutDS	787	100y	Burnt_S02_-Man	256.7	252.73	260.21		260.24	0.000036	0.9	552.44	256.68	0.13
KinmoutDS	787	100y	Burnt_S03_+Cont	256.7	252.73	261.29		261.3	0.000027	0.67	756.32	285.75	0.09
KinmoutDS	787	100y	Burnt_S04_-Cont	256.7	252.73	261.15		261.16	0.00003	0.69	727.85	285.27	0.09
KinmoutDS	787	100y	BurntRiver_RevisedBathy_2025	256.7	252.73	261.22		261.23	0.000029	0.68	742.14	285.56	0.09
KinmoutDS	766	100y	Burnt_S01_+Man	256.7	252.91	262.06		262.07	0.000031	0.62	800.54	289.69	0.07
KinmoutDS	766	100y	Burnt_S02_-Man	256.7	252.91	260.2		260.24	0.000043	0.99	480.08	271.4	0.14
KinmoutDS	766	100y	Burnt_S03_+Cont	256.7	252.91	261.29		261.3	0.000033	0.73	665.85	287.2	0.09
KinmoutDS	766	100y	Burnt_S04_-Cont	256.7	252.91	261.14		261.16	0.000036	0.76	640.3	286.86	0.1
KinmoutDS	766	100y	BurntRiver_RevisedBathy_2025	256.7	252.91	261.21		261.23	0.000034	0.75	653.12	287.04	0.1
KinmoutDS	747	100y	Burnt_S01_+Man	256.7	253.44	262.05		262.07	0.000035	0.65	683.51	283.86	0.08
KinmoutDS	747	100y	Burnt_S02_-Man	256.7	253.44	260.2		260.23	0.000044	1	420.72	248.89	0.14
KinmoutDS	747	100y	Burnt_S03_+Cont	256.7	253.44	261.28		261.3	0.000036	0.77	567.94	283.07	0.1
KinmoutDS	747	100y	Burnt_S04_-Cont	256.7	253.44	261.14		261.16	0.00004	0.8	546.07	282.93	0.1
KinmoutDS	747	100y	BurntRiver_RevisedBathy_2025	256.7	253.44	261.21		261.23	0.000038	0.78	557.05	283	0.1
KinmoutDS	728	100y	Burnt_S01_+Man	256.7	253.86	262.05		262.07	0.000036	0.67	547.82	193.21	0.08
KinmoutDS	728	100y	Burnt_S02_-Man	256.7	253.86	260.19		260.23	0.000041	0.98	341.45	112.79	0.14
KinmoutDS	728	100y	Burnt_S03_+Cont	256.7	253.86	261.27		261.3	0.000036	0.78	451.28	164.21	0.1
KinmoutDS	728	100y	Burnt_S04_-Cont	256.7	253.86	261.13		261.16	0.000039	0.81	433.09	162.96	0.11
KinmoutDS	728	100y	BurntRiver_RevisedBathy_2025	256.7	253.86	261.2		261.23	0.000038	0.8	442.22	163.42	0.1
KinmoutDS	712	100y	Burnt_S01_+Man	256.7	253.94	262.04		262.06	0.000044	0.76	506.62	119.48	0.09
KinmoutDS	712	100y	Burnt_S02_-Man	256.7	253.94	260.18		260.23	0.00005	1.09	311.38	80.64	0.15
KinmoutDS	712	100y	Burnt_S03_+Cont	256.7	253.94	261.26		261.3	0.000045	0.89	414.28	118.43	0.11
KinmoutDS	712	100y	Burnt_S04_-Cont	256.7	253.94	261.12		261.16	0.000049	0.91	397.23	112.92	0.12
KinmoutDS	712	100y	BurntRiver_RevisedBathy_2025	256.7	253.94	261.19		261.23	0.000047	0.9	405.7	118.29	0.12
KinmoutDS	697	100y	Burnt_S01_+Man	256.7	253.25	262.03		262.06	0.000051	0.83	480.55	115.08	0.1
KinmoutDS	697	100y	Burnt_S02_-Man	256.7	253.25	260.16		260.23	0.000058	1.19	291.03	79.89	0.17
KinmoutDS	697	100y	Burnt_S03_+Cont	256.7	253.25	261.25		261.3	0.000053	0.97	391.43	113.76	0.12
KinmoutDS	697	100y	Burnt_S04_-Cont	256.7	253.25	261.11		261.15	0.000057	1	375.13	109.02	0.13
KinmoutDS	697	100y	BurntRiver_RevisedBathy_2025	256.7	253.25	261.18		261.23	0.000055	0.99	383.17	113.69	0.13
KinmoutDS	676	100y	Burnt_S01_+Man	256.7	252.41	262.03		262.06	0.000044	0.79	484.58	105.27	0.09
KinmoutDS	676	100y	Burnt_S02_-Man	256.7	252.41	260.17		260.22	0.000045	1.1	305.87	75.81	0.15
KinmoutDS	676	100y	Burnt_S03_+Cont	256.7	252.41	261.26		261.29	0.000044	0.92	402.99	104.39	0.11
KinmoutDS	676	100y	Burnt_S04_-Cont	256.7	252.41	261.11		261.15	0.000048	0.95	387.99	104.23	0.12
KinmoutDS	676	100y	BurntRiver_RevisedBathy_2025	256.7	252.41	261.18		261.22	0.000046	0.93	395.5	104.31	0.11
KinmoutDS	657	100y	Burnt_S01_+Man	256.7	252.75	262.03		262.06	0.000049	0.82	436.88	92.08	0.1
KinmoutDS	657	100y	Burnt_S02_-Man	256.7	252.75	260.16		260.22	0.000053	1.16	272.22	69.92	0.16
KinmoutDS	657	100y	Burnt_S03_+Cont	256.7	252.75	261.25		261.29	0.000049	0.94	366.84	89.44	0.12
KinmoutDS	657	100y	Burnt_S04_-Cont	256.7	252.75	261.11		261.15	0.000053	0.97	354	89.3	0.12
KinmoutDS	657	100y	BurntRiver_RevisedBathy_2025	256.7	252.75	261.18		261.22	0.000051	0.96	360.43	89.39	0.12
KinmoutDS	637	100y	Burnt_S01_+Man	256.7	253.18	262.03		262.06	0.000056	0.83	425.58	124.62	0.1
KinmoutDS	637	100y	Burnt_S02_-Man	256.7	253.18	260.15		260.22	0.000068	1.25	252.73	89.47	0.18
KinmoutDS	637	100y	Burnt_S03_+Cont	256.7	253.18	261.25		261.29	0.000056	0.97	351.51	89.7	0.12
KinmoutDS	637	100y	Burnt_S04_-Cont	256.7	253.18	261.1		261.15	0.000062	1	338.62	89.68	0.13
KinmoutDS	637	100y	BurntRiver_RevisedBathy_2025	256.7	253.18	261.18		261.22	0.000059	0.98	345.07	89.69	0.13
KinmoutDS	616	100y	Burnt_S01_+Man	256.7	253.61	262.03		262.06	0.000054	0.81	455.77	140.6	0.1
KinmoutDS	616	100y	Burnt_S02_-Man	256.7	253.61	260.14		260.22	0.00007	1.24	258.03	95.52	0.18
KinmoutDS	616	100y	Burnt_S03_+Cont	256.7	253.61	261.25		261.29	0.000056	0.95	364.19	98.22	0.12
KinmoutDS	616	100y	Burnt_S04_-Cont	256.7	253.61	261.1		261.15	0.000061	0.99	350.22	96.84	0.13
KinmoutDS	616	100y	BurntRiver_RevisedBathy_2025	256.7	253.61	261.18		261.22	0.000058	0.97	357.19	97.28	0.13
KinmoutDS	587	100y	Burnt_S01_+Man	256.7	254.22	262.03		262.05	0.00005	0.75	519.52	128	0.1
KinmoutDS	587	100y	Burnt_S02_-Man	256.7	254.22	260.15		260.21	0.000072	1.18	304.57	104.51	0.18

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	587	100y	Burnt_S03_+Cont	256.7	254.22	261.25		261.28	0.000053	0.89	423.53	112.81	0.12
KinmoutDS	587	100y	Burnt_S04_-Cont	256.7	254.22	261.11		261.15	0.000059	0.92	407.73	112.1	0.13
KinmoutDS	587	100y	BurntRiver_RevisedBathy_2025	256.7	254.22	261.18		261.22	0.000056	0.9	415.63	112.45	0.12
KinmoutDS	567	100y	Burnt_S01_+Man	256.7	254.58	262.04		262.05	0.000031	0.59	807.69	238.78	0.08
KinmoutDS	567	100y	Burnt_S02_-Man	256.7	254.58	260.16		260.21	0.000054	1.01	430.17	184.68	0.16
KinmoutDS	567	100y	Burnt_S03_+Cont	256.7	254.58	261.26		261.28	0.000035	0.72	638.43	199.64	0.1
KinmoutDS	567	100y	Burnt_S04_-Cont	256.7	254.58	261.12		261.14	0.00004	0.74	611.43	198.23	0.1
KinmoutDS	567	100y	BurntRiver_RevisedBathy_2025	256.7	254.58	261.19		261.21	0.000037	0.73	624.91	199.16	0.1
KinmoutDS	539	100y	Burnt_S01_+Man	278	253.76	261.99	257.14	262.04	0.00009	1.02	443.37	223.24	0.13
KinmoutDS	539	100y	Burnt_S02_-Man	278	253.76	260.05	257.13	260.18	0.000125	1.59	185.17	191.54	0.24
KinmoutDS	539	100y	Burnt_S03_+Cont	278	253.76	261.16	257.14	261.25	0.000108	1.29	262.46	214.03	0.17
KinmoutDS	539	100y	Burnt_S04_-Cont	278	253.76	261.04	257.14	261.13	0.000118	1.33	236.66	210.66	0.18
KinmoutDS	539	100y	BurntRiver_RevisedBathy_2025	278	253.76	261.1	257.14	261.19	0.000113	1.31	249.4	213.44	0.18
KinmoutDS	528	Hillside Drive		Bridge									
KinmoutDS	508	100y	Burnt_S01_+Man	278	251.29	261.97		261.99	0.000032	0.7	528.2	224.6	0.08
KinmoutDS	508	100y	Burnt_S02_-Man	278	251.29	260.04		260.1	0.000035	1.02	276.15	195.34	0.13
KinmoutDS	508	100y	Burnt_S03_+Cont	278	251.29	261.05		261.1	0.000039	0.91	330.63	208.36	0.11
KinmoutDS	508	100y	Burnt_S04_-Cont	278	251.29	261.04		261.08	0.00004	0.91	326.61	207.99	0.11
KinmoutDS	508	100y	BurntRiver_RevisedBathy_2025	278	251.29	261.05		261.09	0.00004	0.91	328.62	208.18	0.11
KinmoutDS	487	100y	Burnt_S01_+Man	278	251.29	261.97		261.98	0.00002	0.54	583.63	102.33	0.06
KinmoutDS	487	100y	Burnt_S02_-Man	278	251.29	260.05		260.08	0.000022	0.78	393.21	95.75	0.1
KinmoutDS	487	100y	Burnt_S03_+Cont	278	251.29	261.06		261.08	0.000021	0.63	491.59	99.47	0.08
KinmoutDS	487	100y	Burnt_S04_-Cont	278	251.29	261.05		261.07	0.000021	0.63	490.8	99.44	0.08
KinmoutDS	487	100y	BurntRiver_RevisedBathy_2025	278	251.29	261.06		261.08	0.000021	0.63	491.2	99.45	0.08
KinmoutDS	448	100y	Burnt_S01_+Man	278	251.29	261.97		261.98	0.000017	0.51	645.82	123.18	0.06
KinmoutDS	448	100y	Burnt_S02_-Man	278	251.29	260.05		260.08	0.000021	0.76	417.29	113.4	0.1
KinmoutDS	448	100y	Burnt_S03_+Cont	278	251.29	261.06		261.08	0.000019	0.61	535.13	120.01	0.07
KinmoutDS	448	100y	Burnt_S04_-Cont	278	251.29	261.05		261.07	0.000019	0.61	534.26	119.99	0.07
KinmoutDS	448	100y	BurntRiver_RevisedBathy_2025	278	251.29	261.06		261.07	0.000019	0.61	534.69	120	0.07
KinmoutDS	407	100y	Burnt_S01_+Man	278	251.29	261.97		261.98	0.000012	0.42	757.85	164.27	0.05
KinmoutDS	407	100y	Burnt_S02_-Man	278	251.29	260.06		260.08	0.000019	0.75	448.95	157.26	0.1
KinmoutDS	407	100y	Burnt_S03_+Cont	278	251.29	261.06		261.07	0.000014	0.54	609.61	161.37	0.06
KinmoutDS	407	100y	Burnt_S04_-Cont	278	251.29	261.06		261.07	0.000014	0.54	608.64	161.35	0.06
KinmoutDS	407	100y	BurntRiver_RevisedBathy_2025	278	251.29	261.06		261.07	0.000014	0.54	609.13	161.36	0.06
KinmoutDS	367	100y	Burnt_S01_+Man	278	251.29	261.97		261.98	0.000014	0.48	727.89	171.57	0.05
KinmoutDS	367	100y	Burnt_S02_-Man	278	251.29	260.04		260.08	0.000028	0.95	404.79	161.99	0.11
KinmoutDS	367	100y	Burnt_S03_+Cont	278	251.29	261.06		261.07	0.000019	0.65	572.63	168.17	0.07
KinmoutDS	367	100y	Burnt_S04_-Cont	278	251.29	261.05		261.07	0.000019	0.65	571.68	168.15	0.07
KinmoutDS	367	100y	BurntRiver_RevisedBathy_2025	278	251.29	261.05		261.07	0.000019	0.65	572.15	168.16	0.07
KinmoutDS	327	100y	Burnt_S01_+Man	278	251.29	261.97		261.98	0.000013	0.45	728.45	184.19	0.05
KinmoutDS	327	100y	Burnt_S02_-Man	278	251.29	260.04		260.08	0.000024	0.87	400.91	154.05	0.11
KinmoutDS	327	100y	Burnt_S03_+Cont	278	251.29	261.06		261.07	0.000017	0.6	565.94	171.29	0.07
KinmoutDS	327	100y	Burnt_S04_-Cont	278	251.29	261.05		261.07	0.000017	0.6	565.02	171.2	0.07
KinmoutDS	327	100y	BurntRiver_RevisedBathy_2025	278	251.29	261.05		261.07	0.000017	0.6	565.48	171.25	0.07
KinmoutDS	287	100y	Burnt_S01_+Man	278	251.29	261.97		261.98	0.000014	0.47	674.38	156.05	0.05
KinmoutDS	287	100y	Burnt_S02_-Man	278	251.29	260.04		260.07	0.000025	0.88	389.8	138.46	0.11
KinmoutDS	287	100y	Burnt_S03_+Cont	278	251.29	261.06		261.07	0.000018	0.62	535.01	148.77	0.07
KinmoutDS	287	100y	Burnt_S04_-Cont	278	251.29	261.05		261.07	0.000018	0.62	534.23	148.73	0.07
KinmoutDS	287	100y	BurntRiver_RevisedBathy_2025	278	251.29	261.05		261.07	0.000018	0.62	534.62	148.75	0.07
KinmoutDS	248	100y	Burnt_S01_+Man	278	251.29	261.97		261.98	0.000014	0.47	642.88	146.35	0.05
KinmoutDS	248	100y	Burnt_S02_-Man	278	251.29	260.04		260.07	0.000022	0.84	385.29	118.56	0.1
KinmoutDS	248	100y	Burnt_S03_+Cont	278	251.29	261.05		261.07	0.000017	0.6	514.53	134.19	0.07
KinmoutDS	248	100y	Burnt_S04_-Cont	278	251.29	261.05		261.07	0.000017	0.61	513.83	134.12	0.07
KinmoutDS	248	100y	BurntRiver_RevisedBathy_2025	278	251.29	261.05		261.07	0.000017	0.6	514.18	134.15	0.07
KinmoutDS	207	100y	Burnt_S01_+Man	278	251.29	261.97		261.98	0.000015	0.49	681.75	153.6	0.05
KinmoutDS	207	100y	Burnt_S02_-Man	278	251.29	260.04		260.07	0.000021	0.8	403.51	136.41	0.1
KinmoutDS	207	100y	Burnt_S03_+Cont	278	251.29	261.05		261.07	0.000017	0.6	545.46	144.96	0.07
KinmoutDS	207	100y	Burnt_S04_-Cont	278	251.29	261.05		261.07	0.000017	0.6	544.71	144.92	0.07
KinmoutDS	207	100y	BurntRiver_RevisedBathy_2025	278	251.29	261.05		261.07	0.000017	0.6	545.08	144.94	0.07

Sensitivity Analysis HEC-RAS Results Summary

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
KinmoutDS	167	100y	Burnt_S01_+Man	278	251.29	261.96		261.98	0.000025	0.62	622.33	148.06	0.07
KinmoutDS	167	100y	Burnt_S02_-Man	278	251.29	260.03		260.07	0.00003	0.96	355.62	128.13	0.12
KinmoutDS	167	100y	Burnt_S03_+Cont	278	251.29	261.04		261.07	0.000027	0.76	491.23	138.52	0.09
KinmoutDS	167	100y	Burnt_S04_-Cont	278	251.29	261.04		261.06	0.000027	0.76	490.64	138.48	0.09
KinmoutDS	167	100y	BurntRiver_RevisedBathy_2025	278	251.29	261.04		261.07	0.000027	0.76	490.93	138.5	0.09
KinmoutDS	128	100y	Burnt_S01_+Man	278	251.29	261.95		261.97	0.000044	0.82	558.09	123.99	0.09
KinmoutDS	128	100y	Burnt_S02_-Man	278	251.29	260		260.07	0.000047	1.2	335.84	109.78	0.14
KinmoutDS	128	100y	Burnt_S03_+Cont	278	251.29	261.02		261.06	0.000045	0.97	450.18	113.71	0.11
KinmoutDS	128	100y	Burnt_S04_-Cont	278	251.29	261.02		261.06	0.000045	0.97	449.85	113.69	0.11
KinmoutDS	128	100y	BurntRiver_RevisedBathy_2025	278	251.29	261.02		261.06	0.000045	0.97	450.01	113.7	0.11
KinmoutDS	87	100y	Burnt_S01_+Man	278	251.29	261.95		261.97	0.000035	0.75	552.65	126.62	0.08
KinmoutDS	87	100y	Burnt_S02_-Man	278	251.29	260		260.06	0.000041	1.15	332.4	107.09	0.14
KinmoutDS	87	100y	Burnt_S03_+Cont	278	251.29	261.03		261.06	0.000037	0.9	443.97	111.47	0.1
KinmoutDS	87	100y	Burnt_S04_-Cont	278	251.29	261.03		261.06	0.000037	0.9	443.88	111.47	0.1
KinmoutDS	87	100y	BurntRiver_RevisedBathy_2025	278	251.29	261.03		261.06	0.000037	0.9	443.93	111.47	0.1
KinmoutDS	48	100y	Burnt_S01_+Man	278	251.29	261.94	254.51	261.97	0.000045	0.85	547.5	116.59	0.09
KinmoutDS	48	100y	Burnt_S02_-Man	278	251.29	259.99	254.52	260.06	0.000045	1.21	339.96	98.18	0.14
KinmoutDS	48	100y	Burnt_S03_+Cont	278	251.29	261.02	254.52	261.06	0.000045	0.99	443.8	105.76	0.11
KinmoutDS	48	100y	Burnt_S04_-Cont	278	251.29	261.02	254.52	261.06	0.000045	0.99	443.8	105.76	0.11
KinmoutDS	48	100y	BurntRiver_RevisedBathy_2025	278	251.29	261.02	254.52	261.06	0.000045	0.99	443.8	105.76	0.11

Appendix D

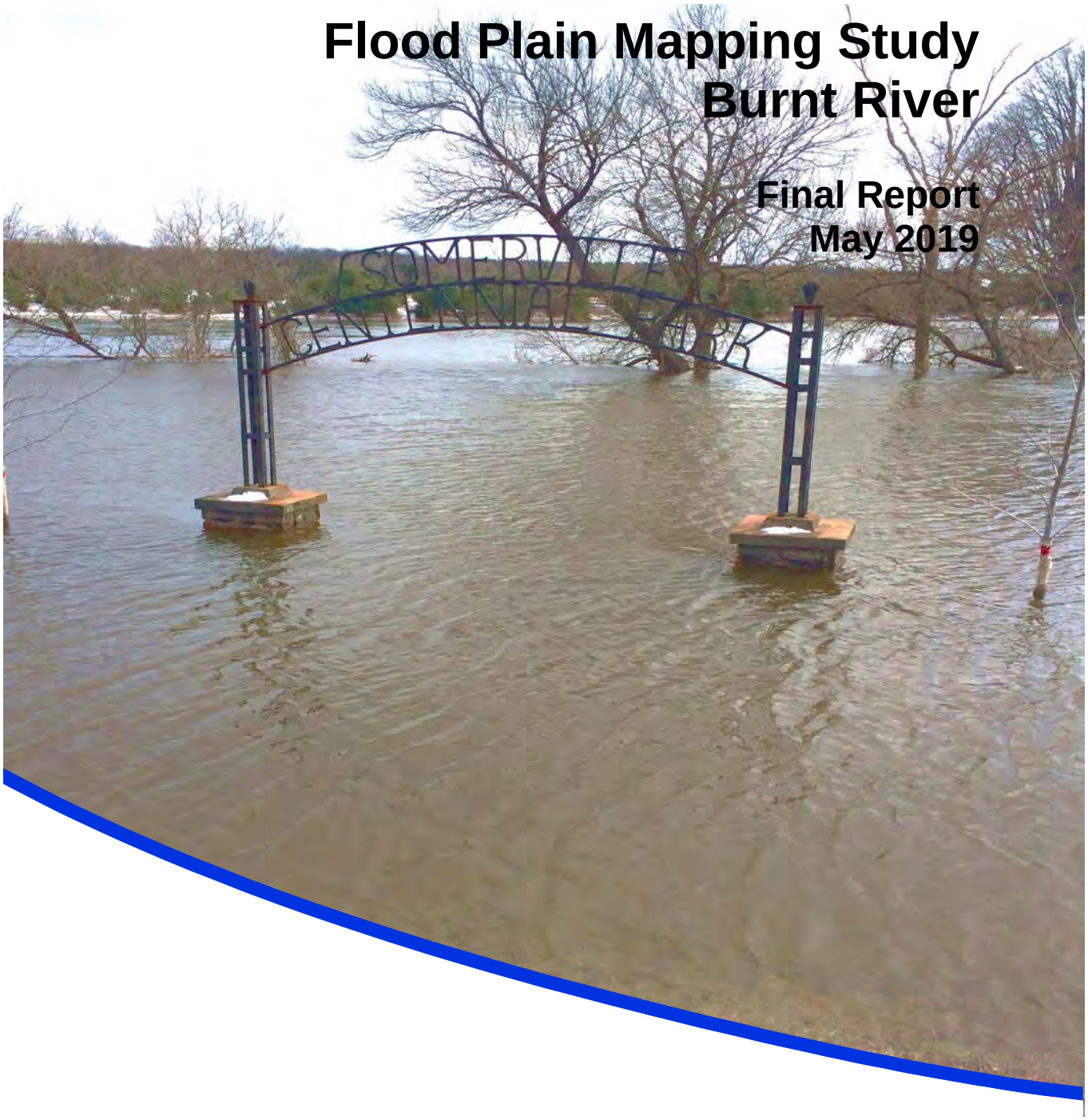
Floodplain Mapping
(Provided as Separate PDF Files)

Appendix E

2019 Burnt River Floodplain Mapping Study (KRCA)

Flood Plain Mapping Study
Burnt River

Final Report
May 2019



KAWARTHA CONSERVATION
Discover · Protect · Restore

KAWARTHA LAKES

Executive Summary

The primary goals of this study are to create hydrologic and hydraulic models of the watershed and produce flood plain mapping for Burnt River from the outlet to Cameron Lake to the hamlet of Burnt River. The mapping will allow the City of Kawartha Lakes and Kawartha Conservation staff to make informed decisions about future land use and identify flood hazard reduction opportunities.

The Burnt River Flood Plain Mapping Study was subject to a comprehensive peer review for core components: data collection, data processing, hydrologic modeling, hydraulic modeling, and map generation. The process was supported throughout by a Technical Committee consisting of technical/managerial staff from Ganaraska Conservation, the City of Kawartha Lakes, and Kawartha Conservation.

Topics discussed in this study include:

- Previous studies in the area
- Collection of LiDAR, bathymetry and orthophoto data
- Proposed land use
- Delineation of hydrology subcatchments
- Creation of a Visual OTTHYMO hydrology model for Regional (Timmins) Storm
- Calculation of subcatchment hydrology model parameters
- Derivation of flow peaks at key nodes along the watercourse
- Flood Frequency Analysis for the 2, 5, 10, 25, 50 and 100 year events
- Creation of a HEC-RAS hydraulic model
- Creation of flood plain maps

Key elements of this study include:

- The Timmins storm is the Regulatory Event for the watercourse
- Flood plain maps are to be created based on the highest flood elevation of the calculated water surface elevations

Key recommendations of this study:

- The maps created from the results of the HEC-RAS model for Burnt River Creek should be endorsed by the Kawartha Conservation Board.
- Update the FFA to include peak flow experienced in 2019.
- Confirm current dam operations and corresponding stage-storage-discharge data and update if necessary.
- Calibrate the new hydrologic model based on more recent events and analysis (e.g. 2013, 2016 and 2019) to validate any adjustments to hydrologic parameters i.e. time to peak.

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1. Introduction

1.1. Objective

The objective of this study is to generate updated floodplain mapping for the Burnt River watercourse to protect the public from flooding hazards. This is the sixth flood plain study in a multi-year flood line mapping update project undertaken by the City of Kawartha Lakes (CKL). The mapping will allow the City of Kawartha Lakes staff to make informed decisions about future land use and identify flood hazard reduction opportunities.

1.2. Study Process

At the project beginning, the Technical Committee (consisting of one representative from each of the City of Kawartha Lakes, Kawartha Conservation, and Ganaraska Conservation) created quality assurance (Q/A) and quality control (Q/C) processes to be applied to all projects in the multi-year initiative. The Q/A methodology for each component ensures that the project design meets industry standards, and that the work outline and planned deliverables are valid. The three goals of the Q/C component are: that the product is consistent with standards and generally accepted approaches; that the study results meet the Technical Committee's requirements, and that the products and results are scientifically defensible. Each methodology was peer-reviewed for Q/A and Q/C by an external firm or agency. Four separate components of the project were established for Q/A and Q/C:

- Mapping and air photo
- Survey data collection and integration
- Hydrology modeling
- Hydraulic modeling

For the mapping and air photo portion of the project Q/A, the City of Kawartha Lakes and Kawartha Conservation created a request for proposal (RFP) for geographic data acquisition using LiDAR technology. For the survey data collection and integration, Kawartha Conservation purchased new digital survey equipment and established procedures for survey collection. For the Q/C portion, Ganaraska Conservation's GIS staff performed accuracy checks on the LiDAR-derived Base DEM and orthoimagery using the Terms of Reference found in **Appendix L**. For accuracy check results, refer to the "*Digital Elevation Model and Orthoimagery Data Accuracy Assessment Report – Flood Plain Mapping Study – Burnt River"* in **Appendix J**.

For the Q/A portion of the hydrology and hydraulic modeling components, a hydraulic/hydrologic modeling procedures document was created that: established data input parameters to meet municipal and provincial standards; put in place data collection and extraction procedures; and short-listed computer models. The document was peer-reviewed by Greck and Associates and was found to be satisfactory.

1.3. Watercourse Context and Description

The Burnt River watershed forms part of the Haliburton reservoir lakes area that services the Trent Severn Waterway. It is shaped roughly like an ice cream cone; whose northern bulbous area lies in the Canadian Shield. Its northwestern tributary is the Drag River system, which consists mainly of a series of lakes connected by short river sections. Flowing from the east is the Irondale River whose flow is augmented from numerous lakes draining into its channel.
The two tributaries join just north of Kinmount and flow south in a meandering fashion to Cameron Lake on the Trent Severn Waterway.

North of Kinmount the topography is typical of the Canadian Shield; it is rocky, wooded, and littered with many lakes. On the Drag River system are six (6) lakes controlled by dams operated by the Trent Severn Waterway (TSW). On the Irondale branch the TSW operates dams on nine (9) lakes. The two branches join about six km north of Kinmount, flowing south to Cameron Lake. A dam operated by Ontario's Ministry of Natural Resources and Forestry (MNRF) is within Kinmount village limits.

The Drag River system drains 513 km^2 while the Irondale River drains 547 km^2. The total drainage area at the outlet to Cameron Lake is about 1438 km^2 (determined by Kawartha Conservation staff using ArcGIS), compared to 1470 km^2 obtained by OBM maps with a scale of 1:10000 (MacLaren Plansearch). To put this in perspective, it is equivalent to roughly one quarter the size of Prince Edward Island.

The size of the watershed, numerous lakes and wetlands, several of which are large, have significantly influenced flood flow rates in the watershed. The lower watershed of the Burnt River through the area of floodplain mapping is very sinuous. There are a number of Oxbows, lakes on low depressions in the table lands which are susceptible to flooding but don't contribute to the conveyance of flow

Please refer to **Figure 1.1**.

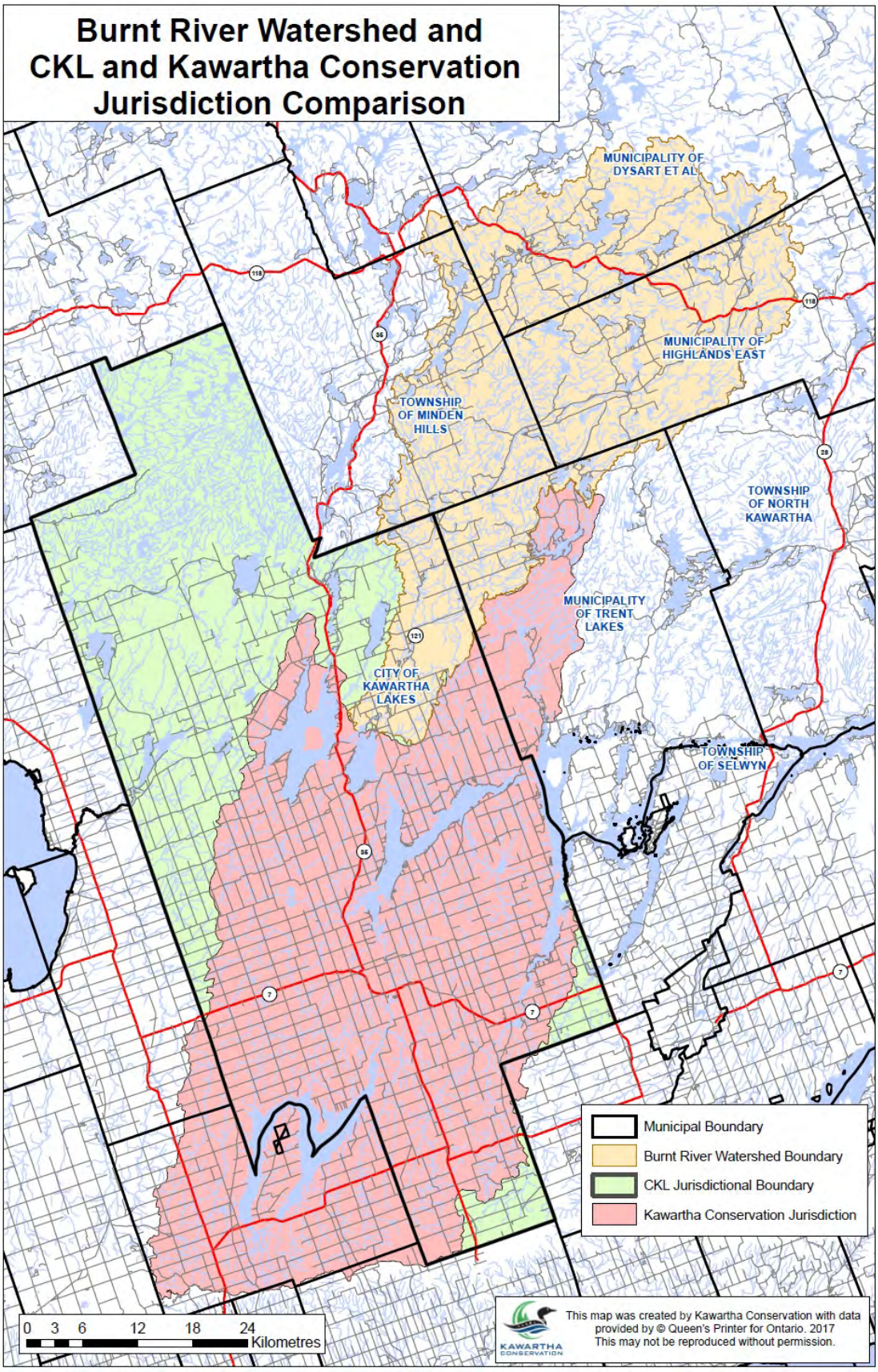


Figure 1.1: Burnt River Study Area

1.4. Background Information

The Burnt River has experienced flooding in the past, as recently as 2013 and 2016 and has been of particular concern in the hamlet of Burnt River. Record flood conditions exist in April, 2019 at the time of finalizing this report.

The engineering firm MacLaren Plansearch was retained by the Township of Somerville to carry out the *Burnt River Floodline Mapping Study* as part of the Canada-Ontario Flood Damage Reduction Program. The March 1992 report detailed the hydrologic and hydraulic analyses undertaken to calculate the floodlinemaps for two sections of the river: the portion of the river between the village of Burnt River and Cameron Lake, and the area immediately upstream and downstream of Kinmount. For return period events, the flood frequency analyses were carried out using data from three flow gauges for the 2-100 year events. For the Regional event, a Visual-OTTHYMO model was created for Timmins Storm simulation. A HEC-II model was created for the hydraulic analysis. Relevant excerpts can be found in **Appendix K**.

While the floodline mapping study was underway, a significant flood event occurred in April 1991 along the Burnt River watercourse and several adjacent rivers. MacLaren Plansearch was commissioned to evaluate the cause of flooding in the lower reaches of the Burnt River watershed. The January 1992 report, *Report on the 1991 Burnt River Flood Analysis* analyzed rainfall data, reviewed snowpack information, carried out frequency analyses for both flow gauges and reservoir levels, examined TSW reservoir operations, and verified the HEC-II model for the flood event. Relevant excerpts can be found in **Appendix K**.

In June of 1992 MacLaren Plansearch released the *Preliminary Flood Damage Reduction Study of the Burnt River Flood Risk Mapping Area* report. The objectives of this study were to:

- recommend a flood forecasting and warning system
- prepare a plan outline for flood emergency measures
- undertake a preliminary flood damage cost analysis, and
- investigate options to alleviate flood impacts

Relevant excerpts can be found in **Appendix K.**

The engineering firm Cummings Cockburn Limited (CCL) was retained by the Ministry of Natural Resources and Forest (MNRF) to carry out a dam safety review of the Kinmount dam, whose findings were summarized in the April 2000 *Dam Safety Assessment* report. The MNRF's 2002 document, *Burnt River Dam, Operation Plan and Maintenance Manual – Volume 1 of 4 – Dam Operations Manual* stated the normal operating water level of the dam is 248.2m.

The TSW commissioned the engineering firm AECOM Canada Ltd. to undertake a Water Management Study. The results are contained in four separate reports dated May 2011:

- Water Management Manual
- Data Collection and Management Guide
- Evaluation of the Current Approach to Water Management
- Review of Water Management Systems and Models

All reports were reviewed by Conservation Authority staff as background information to the current study.

1.5. Modeling Approach

In this report, peak flows were derived using flood frequency analysis for the 2-100 year events. The Timmins (Regional) Storm was simulated using standard unsteady flow methods using Visual OTTHYMO Suite 5.0 (VH Suite 5). Flooding throughout the Burnt River in the project area was determined by conducting standard step steady flow methods using HEC-RAS Version 5.03.

The Burnt River watershed has three flow gauges: a TSW gauge on the Irondale River at Furnace Falls, a TSW gauge on the upper Burnt River at Gelert, and a WSC gauge on the Burnt River downstream of the junction of the Irondale River and the Drag Lake catchments. Their locations are shown on (**Figure 1.2**.)

Over 100 years of flow data has been collected at the WSC gauge. A flood frequency analysis has been carried out to calculate the 2-100 year flood peaks based on these historic flows.

The analysis was carried out using the Consolidated Frequency Analysis (CFA) software package, which is a MS-DOS program which performs both parametric and non-parametric analysis of extreme daily and instantaneous data from the HYDAT database maintained by the Water Survey Canada. However, the graphing was completed in Microsoft Excel.

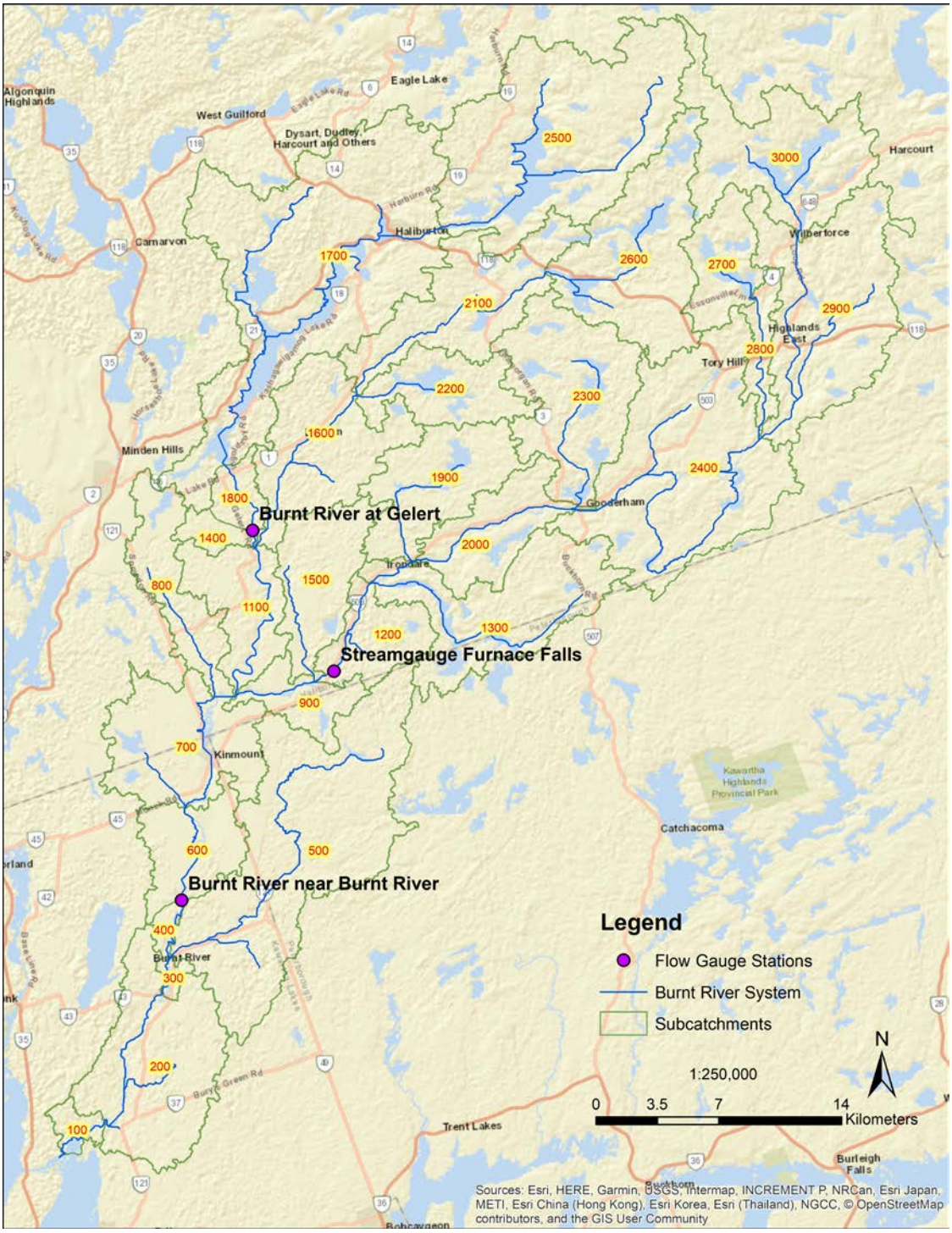


Figure 1.2: Flow Gauges

For the Timmins event, however, a hydrologic model was set up to calculate the corresponding flows. Geographic data (such as subcatchment area, land use, topography, and soil types) was extracted from GIS for each subcatchment to obtain the parameters described in the Hydrology Modeling Parameters Selection document (refer to **Appendix A**), and to calculate values such as imperviousness, SCS Curve Numbers (CN), time to peak (T_p), and time of concentration (T_c).

For all events, the HEC-RAS hydraulic model (U.S. Army Corp of Engineers) was used to calculate the water surface elevations at every cross-section. The results of the HEC-RAS model were mapped to provide updated flood elevations for the Regional and 100 year events.

1.6. Snowmelt and Snowmelt/Rainfall Events

These analyses were not carried out for this report for the Timmins event, but snowmelt and snowmelt/rainfall affect would be reflected in the results of the flood frequency analyses of the return period events.

1.7. Climate Change

Climate change considerations were not included within the terms of reference for this study.
Any changes in river flows due to climate change would have already been considered in the flood frequency analysis, however cannot be applied to estimate future changes in flows due to climate change.

1.8. Land Use

The analyses for the 2-100 year events were undertaken based on existing land use since there is no way to reflect future development in the flood frequency analysis. For the Timmins storm however, future development based on the Municipality's Official Plan was modelled in the hydrologic model.

2. Hydrology Input Parameters

2.1. Overview

In 2012, the City of Kawartha Lakes and Kawartha Conservation produced a standardized methodology for undertaking their flood plain mapping studies. This approach was peer-reviewed by Greck and Associates Limited, and their findings concluded the methodology is valid. All parameters and modeling approaches described within this report follow the recommendations presented in **Appendix A** unless otherwise noted. For this study Kawartha Conservation extracted hydrologic parameters from LiDAR elevation data, Arc Hydro watershed boundaries, and Official Plan and field surveys.

2.2. Flood Frequency Analysis (FFA) – 2 to 100 year events

Flow in the Drag River branch is captured by the flow gauge at Galert. The TSW historically operated the gauge from 1915-1950, and again from 1975-present. The technical appendices from the 1992 MacLaren Plansearch report were the source of data for 1915-1950 and 1977-1989; the flow data is the peak daily flow. TSW provided a spreadsheet of peak daily flows for the years 1988-2017.

Flow is measured in the Irondale branch at Furnace Falls by a gauge operated by the TSW. It was initially in place below the falls from 1916-1950; after 1950 the gauge was re-located above the falls and is still in operation. TSW provided spreadsheet data of peak daily flows to the model team for the years from 1988-2017.

On the main channel a gauge has been in place continuously at the Village of Burnt River since 1912. Until 1962 it was operated by TSW. In 1963 ownership changed to Water Survey Canada (WSC). The technical appendices from the 1992 MacLaren Plansearch report provided key data for the years prior to 1964. Data for this gauge was exported from the WSC website for the years 1964-2016 and provided both daily peak flow and annual maximum daily flow.

Instantaneous maximum peak flow is the peak flow at any one moment during a day. The average daily flow is the average over a 24-hour period; for any given year the 365 average daily flows are analyzed and the highest (peak) value extracted.

Because there is 104 years of flow data (from 1913 to 2017) an annual peak flow frequency analysis can be carried out to determine the 2-100 year flood flow estimates. The initial flow data was recorded once daily; according to the *Burnt River Floodline Mapping Study* flows were collected daily at 8:00am. When the WSC took responsibility of the Burnt River gauge in 1963, flows were collected hourly.

At the writing of this report, the Burnt River was experiencing record high flows on April 21, 2019, which will be included in the flood frequency analysis at a later date. However, due to the extensive record of flow data in this watershed, it is not anticipated that there will be a significant change, if any, to the Flood Frequency Analysis.

2.3. Regional Storm

The Timmins storm occurred in 1961 with a total rainfall of 193mm and this event is the Regional storm event for this part of Ontario. The full storm is defined by Chart 1.04 of the *MTO Drainage Manual*. The Ontario Ministry of Natural Resources (MNR) technical manuals provide a rainfall reduction table for the Timmins storm. The areal reduction is based on the size of the equivalent circle method and resulted in a reduction factor of 66%.

Antecedent Moisture Condition II, referred to as AMC (II), was applied. A CN value of 50 was applied to lakes to account for low gradient waterbodies what would provide some attenuation of flows in the sub-catchments (MTO Drainage Management Manual, 1997 Chapter 8 p/23).

2.3.1. Digital Elevation Model (DEM)

LiDAR and orthoimagery full-suite remote sensing data were acquired by the City of Kawartha Lakes in 2012. The acquisition included orthoimagery, LiDAR-derived point cloud data, elevation raster files, and other geospatial/non-geospatial datasets produced by the vendor. At the time of the acquisition, the *2009 Ontario Imagery and Elevation Acquisition Guidelines* was the technical document that set geospatial data acquisition specifications in Ontario and defined geospatial data accuracy targets based on levels or risk.

For the length of the Burnt River watercourse study area, two points per square meter LiDAR data was acquired. However, this area of interest had to be extended for hydrology purposes, necessitating the use of existing pixel-autocorrelation elevation data holdings derived from South Central Ontario Orthophotography Project 2013 (SCOOP2013) acquisition deliverables. ArcGIS version 10.5.1 and LP360 computer software programs were to be used to produce bare earth Base DEM using best available raster and point cloud data which preserved the LiDAR acquisition data where possible and effectively added supplementary pixel-autocorrelated data where needed. The Base DEM was produced at a 0.5m cell resolution within the LiDAR acquisition area, and 2m cell resolution in the supplementary pixel-autocorrelation data areas.

A Sound Navigation and Ranging (SONAR) bathymetric survey was also conducted to acquire cross-section information within the channel. The data acquisition was performed using a survey-grade RTK GNSS SONAR setup mounted on a small manually operated watercraft. Data was delivered in ESRI shapefile format.

2.3.2. Subcatchment Discretization

In order to discretize subcatchments, watershed flow paths were generated using ArcHydro version 10.2 software. Surveyed bridge and/or culvert data was integrated into the Base DEM to create a hydrologically-conditioned DEM (referred to as a Hydro DEM) at a 0.5m cell resolution. This allows flow connections under road barriers to a downstream channel or subcatchment; flow barriers and other impediments were therefore removed from GIS calculations.

Critical nodes within the watershed were selected by the engineer as the basis to delineate the initial subcatchments in ArcHydro. ArcHydro is suitable for the delineation of rural subcatchments.

For urban subcatchments the ArcHydro tool cannot account for sub-surface pipe networks nor can it determine overland flow pathways where the topography forms a concave shape. To overcome this gap, field visits were carried out to verify urban subcatchment boundaries. Manual adjustments of the urban subcatchments were carried out under the direction of the engineer and approval of the technical committee. **Figure 2.1** illustrates the creek subcatchments.

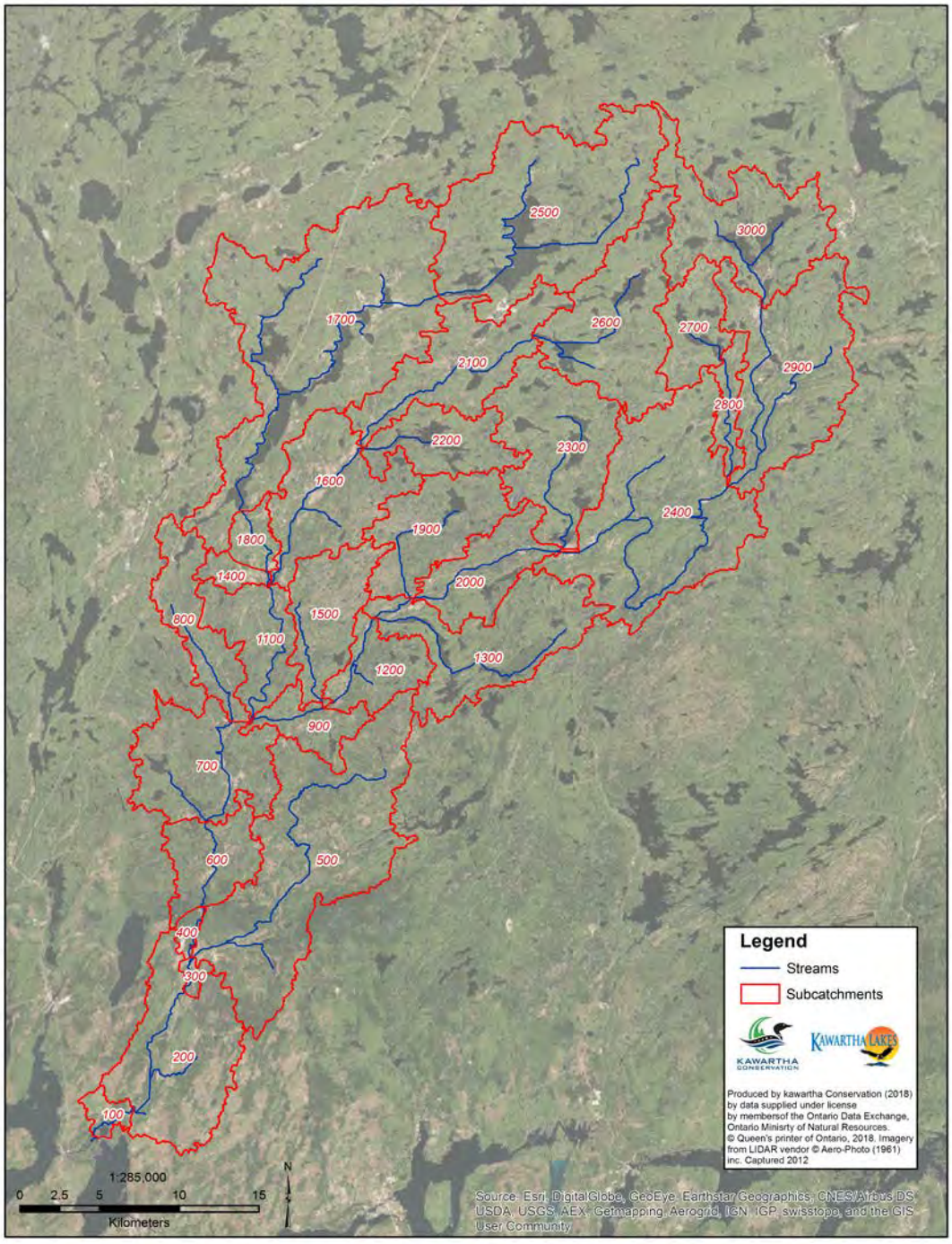


Figure 2.1: Subcatchment Boundaries

2.3.3. Land Use

The draft April 2013 Schedule 'F-4' Land Use map version from the Secondary Plan Project, Burnt River Settlement Area is the base data referenced for land use patterns. The January 2008 Schedule 'A' zoning map from the Village of Burnt River Zoning By-Law 1993-15 is also used for reference.

Land values in the hydrology model do not reflect current land use; instead, the model assumes that all developable areas indicated in the Official Plan are fully built out. The rationale for this decision is that the City has approved in principle the proposed land use and therefore the flood lines should reflect the most conservative flood scenario. Copies of the schedules' maps are found in **Appendix F**.

2.3.4. Subcatchment Flow Paths

The longest flow paths of each rural subcatchment were derived using ArcHydro. In this process, the downstream node was selected, and ArcHydro calculated the longest overland and channel flow paths. **Appendix C** contains a figure showing the subcatchments and their respective lengths.

2.3.5. Calculation of Slope

For rural subcatchments, spreadsheets were created that calculate channel and subcatchment slopes, based on overland and channel flow data. Details can be found in **Appendix B**.

2.3.6. CN Values

The Soil Conservation Service (SCS) curve number (CN) is used in the determination of the runoff. Users must choose which antecedent moisture condition (AMC I, II, or III) is relevant for the model. The Timmins Storm occurred under AMC II conditions. Improved CN method (CN*) was applied as per MTO Drainage Manual (1997). A weighted CN (AMC II) value was calculated, as shown in **Appendix B**.

Figure 2.2 provides soils information while **Figure 2.3** shows the future land use of the watershed based on Official Plan data. Spreadsheets with the calculations are provided in **Appendix B**.

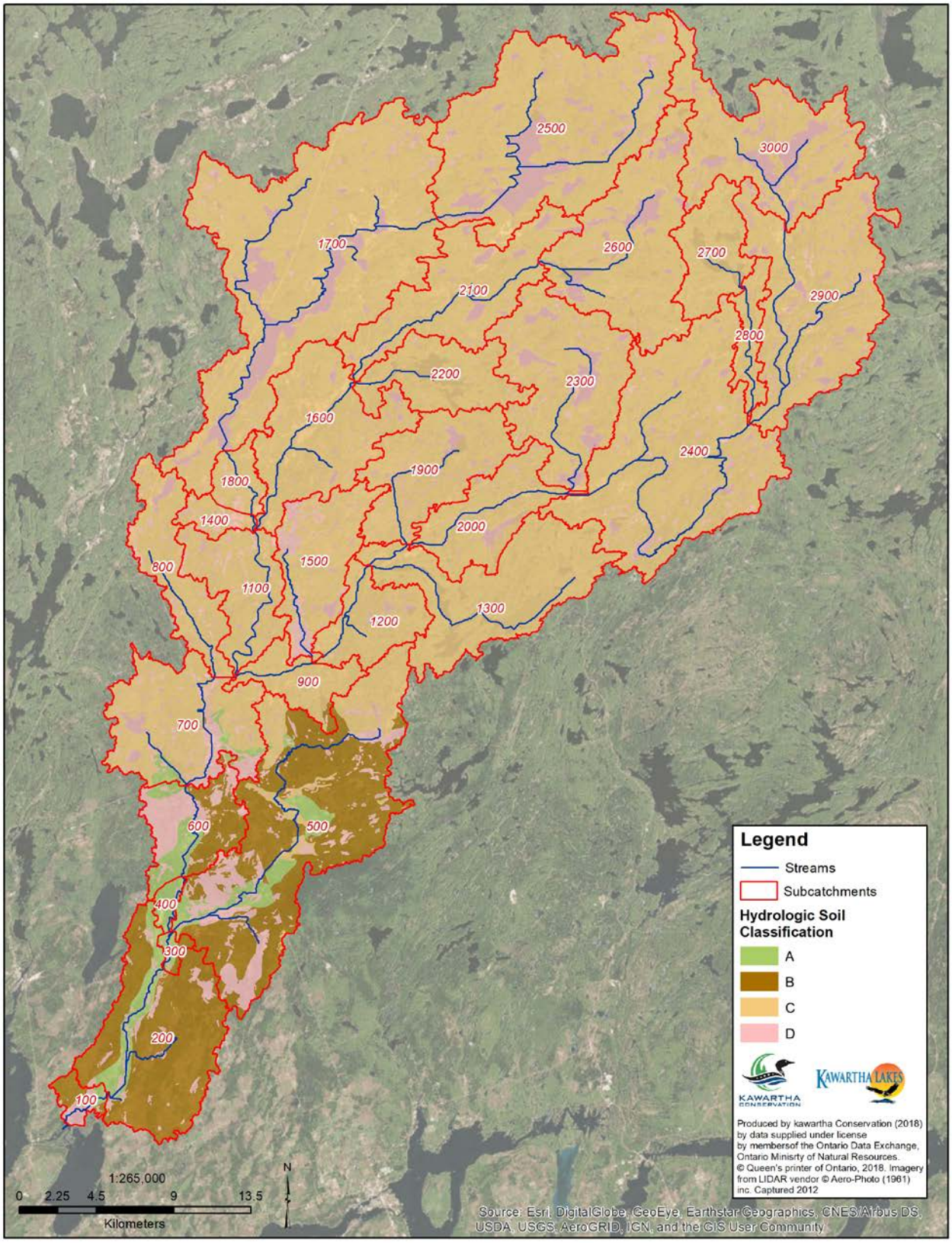


Figure 2.2: Soils

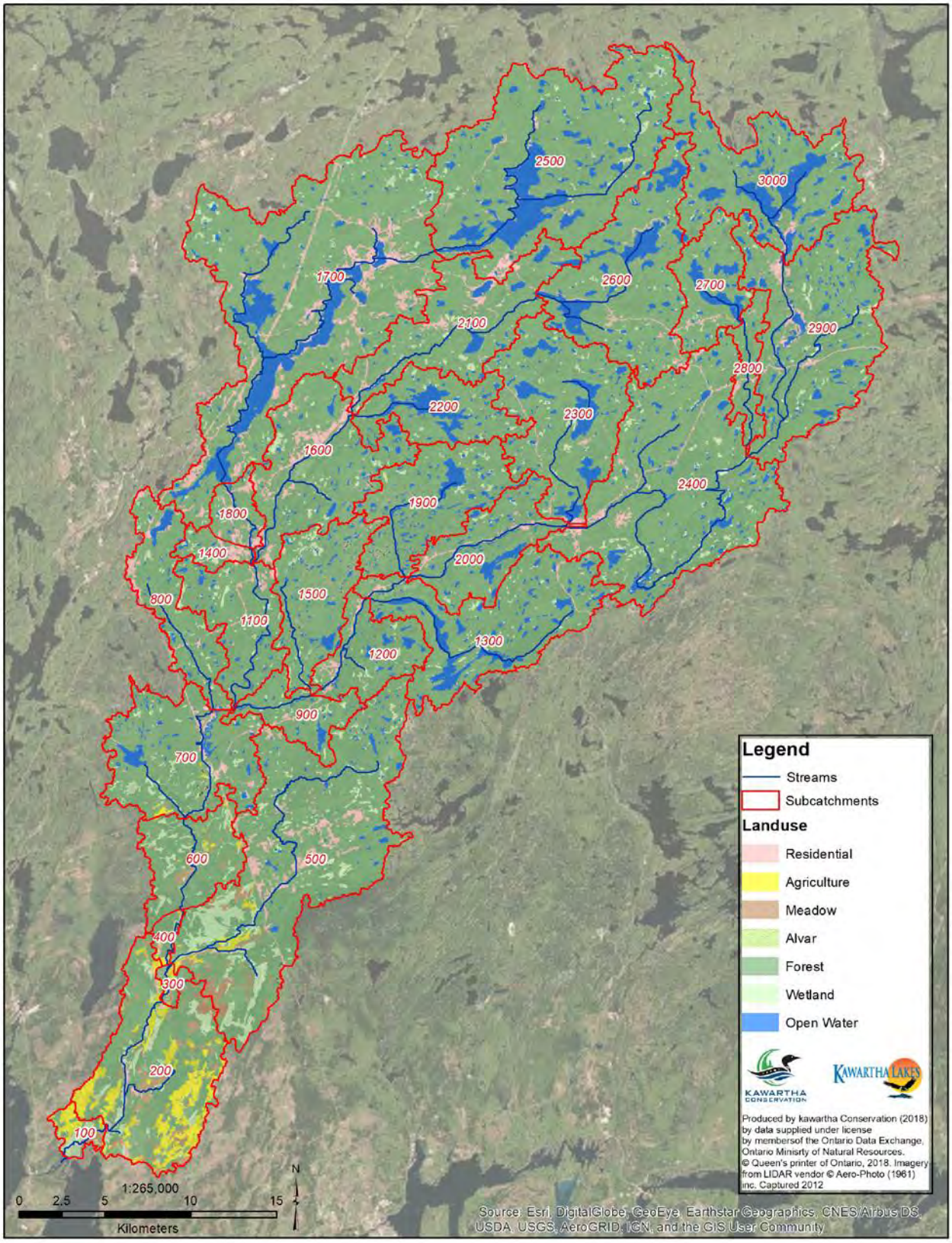


Figure 2.3: Land Use

2.3.7. Impervious Land Use & Runoff Coefficients

The detailed land use denoted in the Official Plan determines the weighted total impervious area (T_{imp}), and runoff coefficient (C) for each subcatchment using the tables from the Hydrologic Parameters List in **Appendix A**.

Subcatchments with a T_{imp} value greater than 20% were modeled with the StandHYD command; otherwise the NashHYD command was used. Spreadsheets with the calculations are provided in **Appendix B**.

2.3.8. Time of Concentration

Time of concentration (T_c) is a key variable for calculating peak flow in rural subcatchments. This is the time it takes for the flow wave to travel from the hydraulically farthest point of a subcatchment to where it joins the watercourse.

Time of concentration was calculated using the Airport method for subcatchments with a C value less than 0.4; the Bransby-Williams method was chosen if the C value exceeded 0.4.

The Time to Peak (T_p) is the length of time in hours from the start of the hydrograph to the peak flow and is defined by VH SUITE 5 model via the equation: $T_p = (^2/_3) * T_c$

Time to peak is used in the NashHYD command only. Spreadsheets with the T_c and T_p calculations are found in **Appendix B**, using the flow lengths shown in the subcatchment figure found in **Appendix C**. It should be noted that the Tp value in this report is multiplied by 3 (Table 2.1) in order to be consistent with Maclaren Plansearch Burnt River Floodline Mapping Study (1992).

The time to peak values for subcatchments were calculated and adjusted to result in hydrographs which are calibrated to known hydrologic events, this is consistent with the McLaren Plansearch study, 1992.

2.3.9. Channel Routing

Channel routing in VH SUITE 5 accounts for the time lag of flows being routed in the main channel. HEC-RAS cross sections are input to the Route Channel command within VH SUITE 5. One representative cross-section was used for each channel reach. Reach channel and overbank Manning's n values were averaged, as were the channel and overbank slopes.

The Burnt River watershed is part of the Trent Severn Waterway System (TSW). The flow is regulated by 14 reservoirs for low flow augmentation, recreation and minor flood control purposes. Two dams, at Billings Lake and Kinmount, are for recreation purposed and provide insignificant flood storage. Approximately 40% of the entire watershed is regulated by the TSW.

As per Maclaren Plansearch Burnt River Floodline Mapping Study (1992), the drainage areas of reservoirs have been lumped into stage-storage-discharge relationships (Figure 5-2/Table 5-1-Appendix N). The similar approach is carried to this study and model with variations in discretization of subcatchments (**Appendix C**)

2.3.10. Model Input Data

The input parameters were calculated as described above, and are summarized in **Table 2.1** below.

Table 2.1: OTTHYMO Model Input Parameters for the Timmins Storm Event

Catchment	Area (Ha)	C	T_p (hr)	Tp *3	CN (II)	CN* (II)	X_{imp}	T_{imp}
100	615.4	0.29	1.84	5.53	60	53	0.01	0.01
200	7004.9	0.26	5.07	15.22	62	55	0.01	0.02
300	300.7	0.20	1.10	3.31	53	42	0.01	0.01
400	364.2	0.14	1.23	3.69	42	26	0.03	0.01
500	12896.9	0.28	7.76	23.28	64	59	0.02	0.02
600	2951.6	0.29	4.75	14.25	66	60	0.01	0.01
700	5439.4	0.32	3.60	10.81	73	72	0.02	0.02
800	3125.5	0.30	5.00	15.01	74	73	0.02	0.03
900	1824.2	0.30	4.07	12.22	73	72	0.01	0.02
1100	3229.6	0.28	4.47	13.42	73	72	0.01	0.02
1200	2472.1	0.31	3.85	11.55	75	73	0.02	0.03
1300	6417.0	0.36	4.98	14.93	77	76	0.01	0.02
1400	698.1	0.28	2.27	6.80	73	72	0.02	0.03
1500	3641.7	0.31	4.20	12.60	74	73	0.03	0.03
1600	5488.9	0.29	4.28	12.84	74	73	0.02	0.03
1700	16794.7	0.34	6.46	19.39	76	76	0.02	0.03
1800	1008.7	0.28	2.61	7.83	75	73	0.03	0.04
1900	3249.4	0.37	3.71	11.13	77	76	0.03	0.03
2000	3268.3	0.34	1.41	4.22	76	76	0.02	0.03
2100	5333.5	0.33	4.38	13.14	75	73	0.02	0.02
2200	3089.2	0.40	3.32	9.96	78	78	0.01	0.01
2300	6277.0	0.36	4.59	13.76	76	76	0.01	0.01
2400	11213.0	0.30	4.14	12.42	74	73	0.02	0.02
2500	12059.3	0.37	4.82	14.47	66	60	0.01	0.01
2600	6847.7	0.38	4.15	12.46	66	60	0.01	0.01
2700	2465.8	0.37	3.16	9.49	77	76	0.01	0.01
2800	1188.8	0.27	2.39	7.17	74	73	0.01	0.02
2900	8136.8	0.33	2.28	6.85	76	76	0.01	0.02
3000	6379.7	0.40	3.42	10.26	78	78	0.01	0.01
Total Area	143,782.3	*Ha*						
	1,437.8	*km²*						

3. Flood Frequency Analysis Output

3.1. Flow Frequency Curve

Figure 3.1 shows the flows frequency curve for the 2-100 year flows that were calculated by the CFA program.

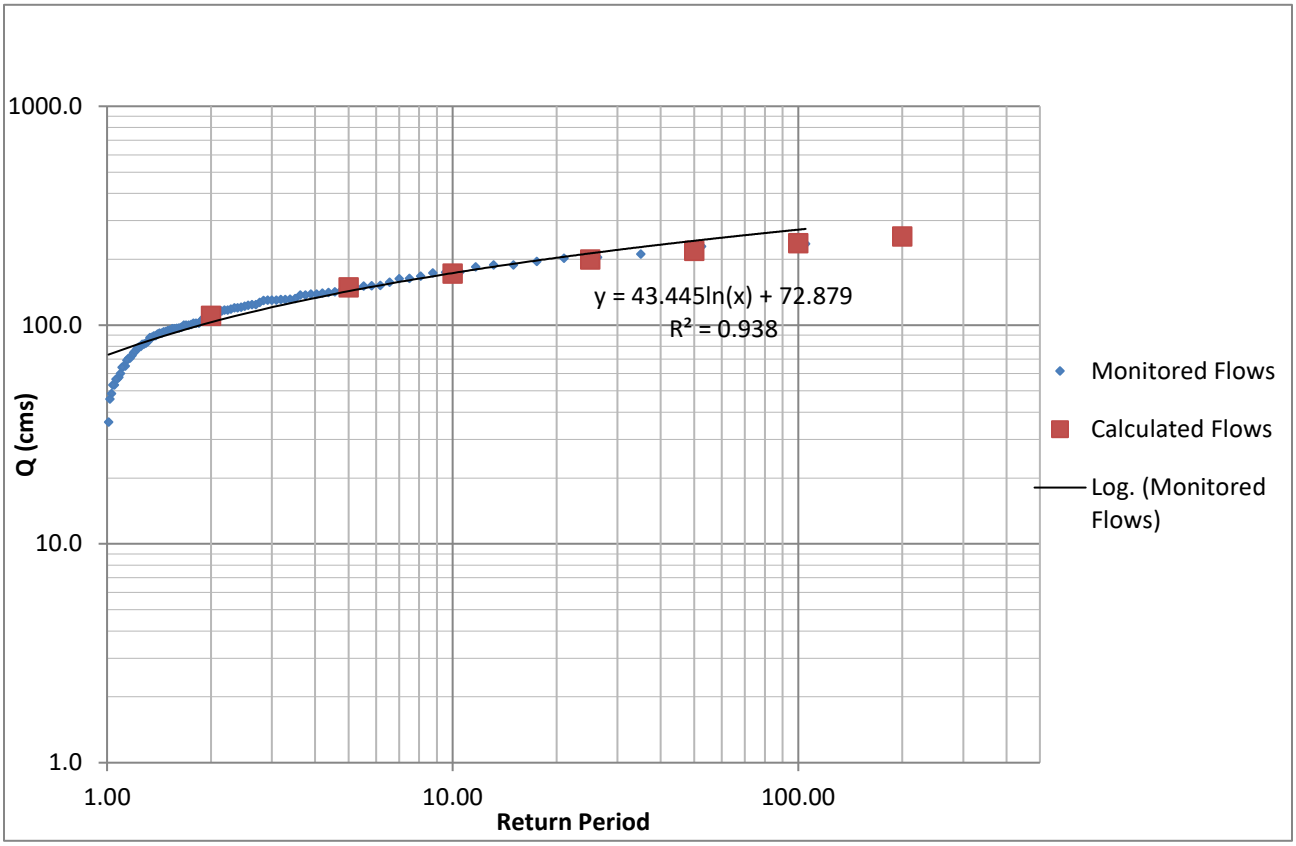


Figure 3.1: Flow Frequency Discharge Curve Burnt River Near Burnt River

Table 3.1 compares previous flood frequency analyses, which were undertaken previously; specifically, by MacLaren Plansearch in 1988 and by MNR in 2011. The updated results reflect flows to and including 2016 (including two significant runoff events in 2013 and 2016). Our results are slightly higher as expected due to significant events in 2013 and 2016.

Table 3.1.: Comparing the results of the different FFA Analyses

Return Period	Burnt River Gauge Near Burnt River Flood Estimates from Study (cms)		
	MacLaren (1913-1988) 76 years	**MNR** (1963-2011) 49 years	**KRCA** (1913-2016) 104 years
2-year	112	108	110
5-year	147	139	147
10-year	168	157	170
25-year	186	175	191
50-year	209	196	217
100-year	226	212	236

3.2. Prorating of Flows

As the flood frequency analysis was undertaken at the Burnt River gauge, which is upstream of the study search, it was necessary to pro-rate the flows to reflect additional area contributing to the runoff at the river's confluence with Cameron Lake.

Interpolation of flows from the known stream gauge at Burnt River (122,600 ha) is done based on the Modified Index Flood method as follows:

$$Q_2 = Q_1 [A_2 / A_1]^{0.75}$$

Where:

Q_1 = Known peak discharge
Q_2 = Unknown peak discharge
A_1 = Known basin area
A_2 = Unknown basin area

with the following results in Table 3.2- Prorated flows:

Table 3.2: Pro-rated Flows

Location	Area (ha)	Flow at Key HEC-RAS Locations (cms)					
		2-year	**5-year**	**10-year**	**25-year**	**50-year**	**100-year**
Hillside Bridge	135,861	118.73	158.77	183.61	206.29	234.38	254.90
Burnt River Bridge	136,162	119.01	159.03	183.92	206.64	234.76	255.32
Northline Bridge	143,167	123.57	165.13	190.97	214.56	243.77	265.11
Outlet	143,782	123.97	165.66	191.58	215.25	244.55	265.71

3.3. Schematic

The information gathered in the preceding sections was used to build a VH SUITE 5 model of the watershed, as shown schematically in Appendix D.

4. Regional Storm Model Output

4.1. Flow Results

As can be seen in **Figure 4.1** below, most of the sub-catchments have similar response time between 10 and 15 hours from the start of the Timmins storm with the flow peak occurring around 15 hours after the beginning of the Timmins event. Sub-catchments 500 (Green) & 1700 (Violet), being so much larger, takes longer to peak.

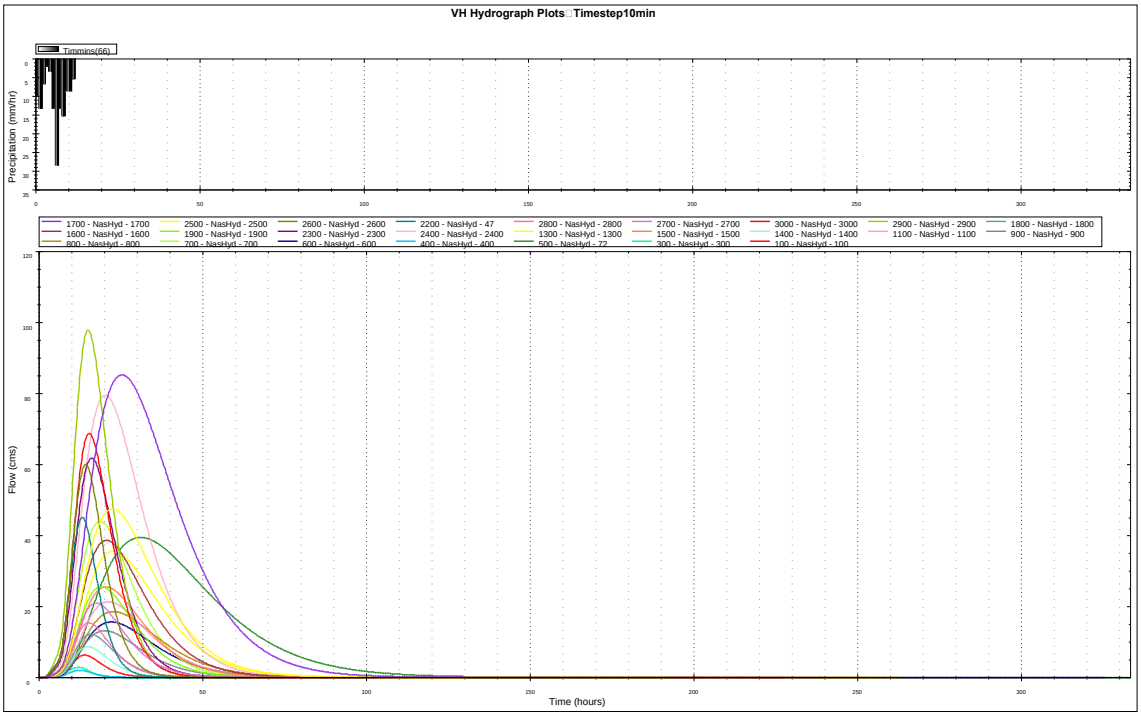


Figure 4.1. Hydrographs (10-minute time step)

Table 4.1 shows the representative peak flows to be input to the HEC-RAS model; the 2-100 year flows are derived from FFA. Detail model output flow summary can be found in **Appendix E**.

Table 4.1: Input Flows to HEC-RAS

Node/XS	Peak Storm Flows in m^3/s						
	2yr	5yr	10yr	25yr	50yr	100yr	Timmins
Hillside Bridge	118.73	158.77	183.61	206.29	234.73	254.9	452.50
Burnt River Bridge	119.01	159.03	183.93	206.64	234.76	255.32	487.93
Northline Bridge	123.57	165.13	190.97	214.56	243.77	265.11	503.73
Outlet to Cameron Lake	123.97	165.66	191.58	215.25	244.55	265.96	499.77

4.2. Sensitivity Analysis

Curve Number (CN*)

Flows at the key nodes were assessed to analyze the impact of varying CN* value (+/-20 %). Increasing CN* by 20% resulted in an average increase in peak flows of 26% at key nodes during Timmins storm event. Similarly, decreasing CN* by 20% resulted in an average decrease of 29%. Because there is a significant difference in peak flows as a result of modifying the CN*, it is imperative to get an accurate value.

CN* is determined by land use and soil type. Soil type information is extracted from the digitized Victoria County soils map originally produced as a joint venture by the Federal Department of Agriculture and the Ontario Agricultural College. Land use is derived from the City of Kawartha Lakes' Secondary Plan and zoning maps as well as the 2010 Ecological Land Classification (ELC) mapping. Aerial orthophotography was reviewed to confirm land use throughout the watershed. This base data is valid, and therefore any calculated value (such as CN*) based on this data truly represents the land.

Model Time Step (DT)

The model time step of 10 minutes was modified by changing it 5 & 10 minutes at all subcatchments and channel routing. There was little to no effect on peak flows at key flow nodes during the Timmins Storm Event. Therefore, time step has no effect on the regulatory flows.

The results of sensitivity analysis are shown in **Appendix M**.

5. Hydraulic Model Input Parameters

5.1. Cross Sections

Cross-section geometric data was extracted using HEC-GeoRAS from the Base DEM to ensure geo-referencing in HEC-RAS. It was necessary to supplement these areas with surveyed data to create accurate river geometry. Bathymetric survey points were taken in-channel up to the top of bank throughout the project area. The surveyed data was fused into the cross-sections generated by HEC-GeoRAS. Data sources generated by different entities were placed into the same projection and datum for consistency in processing. Stream crossings were selected based on project orthoimagery, field reconnaissance, and information in previous reports. Full photographic records of all stream cross sections are found in **Appendix G**.

As per HEC-RAS requirements, all cross-sections are oriented looking downstream, cut from left to right. The initial cross-section is at the outlet of the creek at the pond; cross-section nomenclature reflects the distance in meters relative to the initial cross-section.

Left overbank, main channel, and right overbank downstream lengths were measured from the GIS. As per HEC-RAS recommendations, the overbank distances are measured from each overbank centroid.

5.2. Bridge River Station

There are three bridges within the study area. Northline Bridge, Burnt River Bridge and Hillside Bridge. Four cross-sections were cut at each of these bridge crossings to accurately represent channel flow: two upstream and two downstream bounding cross sections. Representative deck elevations were extracted from the Base DEM. The bridges were field-surveyed by KRCA staff to ensure accuracy. Invert elevations, height/width dimensions, piers, length, and channel bottom were surveyed with either total station or GPS. **Table 5.1** provides River Station and associated Bridge and photographs are found in **Appendix H**.

Table 5.1: HEC-RAS Structure Data

Name	River Sta.
Hillside Bridge	19482
Burnt River Bridge	15618
Northline (Mitchell's) Bridge	3820

5.3. Manning's n Values

Manning's n values for channel, left and right overbanks were based on recommended values in Table 3-1 of the *HEC-RAS River Analysis System Technical Manual*, included in **Appendix I.** The main channel n value 0.04 and the overbank n values are set to 0.045 in general. Higher Manning's roughness values were included accordingly to describe areas such as woodlots/heavily forested areas. These values were chosen based on air photo and survey notes/photos. The main channel and overbank lengths were determined by performing measurements in GIS.

5.4. Building Obstructions

Where buildings are located within or between the cross-sections, the cross-section was modified by introducing obstructions to flow. The effect of a building can occur upstream and downstream of a cross-section. A 1:1 contraction effect was used for a cross-section upstream of a building; whereby the actual building width is reduced at a 1:1 ratio from each end of the building face. For instance, if a cross-section is 5m upstream of a 30m-wide building, the obstruction representing the building in the cross-section is 20m wide. A 4:1 expansion effect was used for a cross-section downstream of a building. For instance, if a cross-section is 8m downstream of a 30m-wide building, the obstruction representing the building in the cross-section is 26m wide. A representation of the expansion/contraction effects of a building location is shown in **Figure 5.1** below.

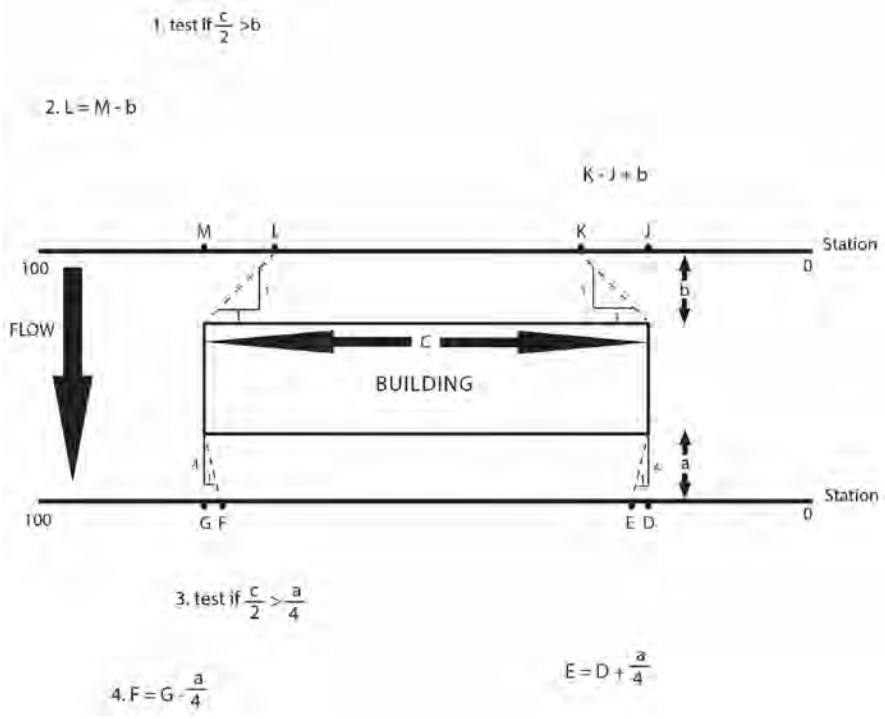


Figure 5.1: Building expansion/contraction effects

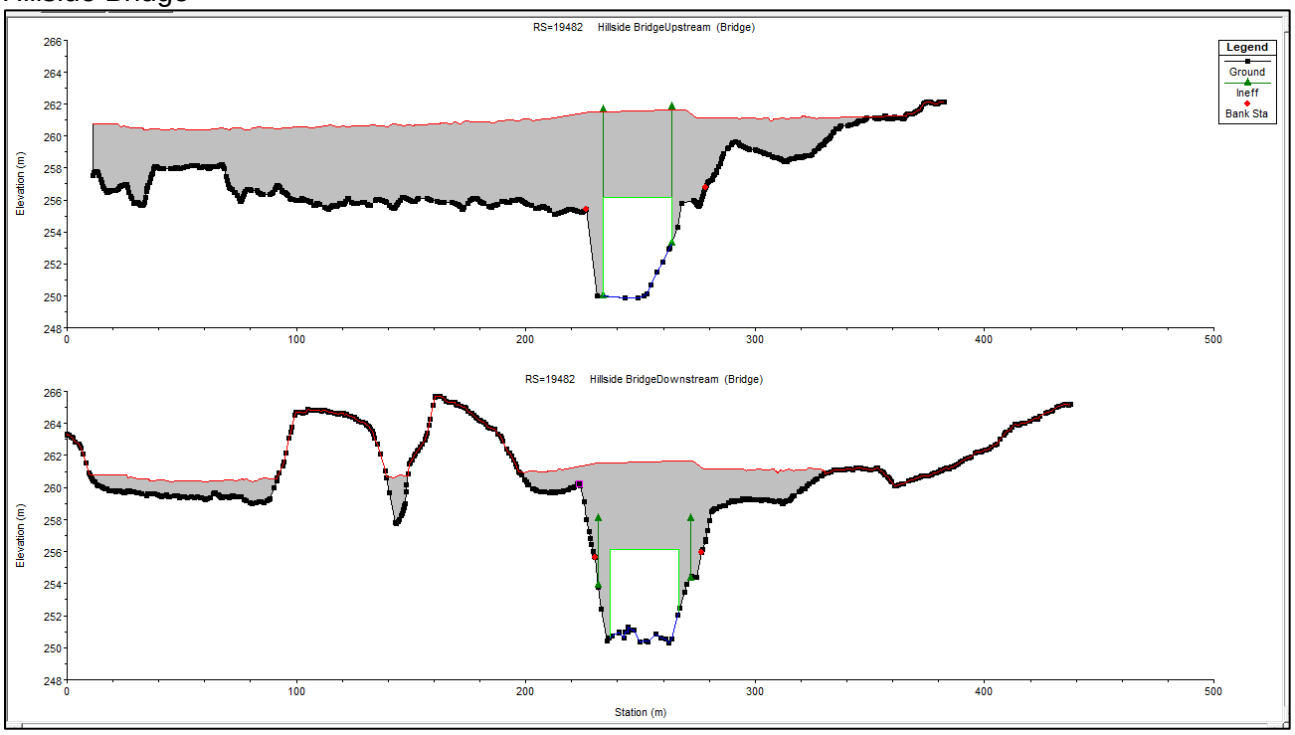
5.5. Ineffective Flow Elevations

Ineffective areas are often used to describe portions of a cross section in which water will pond, and the velocity is zero with no conveyance such as certain low lying areas and oxbows. Once the water level goes above either of the established elevations, then that specific area is no longer considered ineffective.

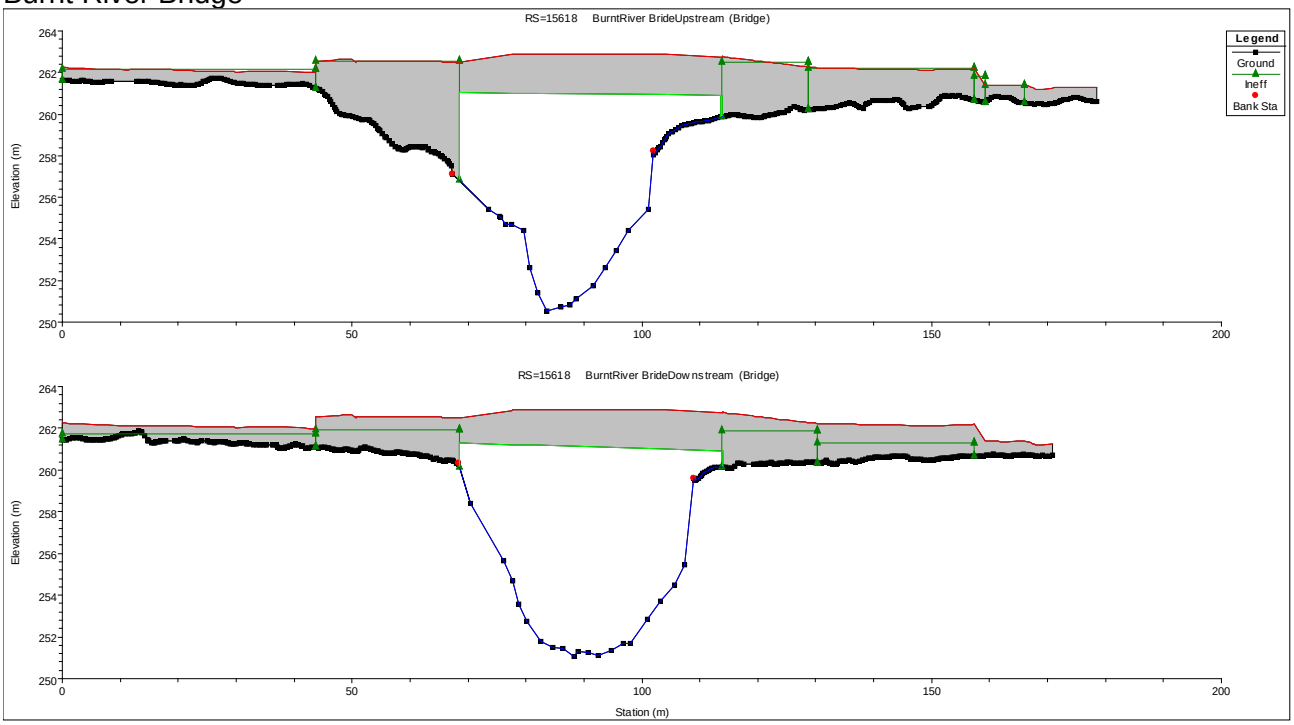
Standard normal ineffective flow areas were introduced at the Hillside Bridge, Burnt River Bridge and Northline Bridge crossings to capture the varying guardrail elevations, as shown in **Figure 5.2** below. For the upstream bounding cross-section, ineffective flow elevations are equal to the low points of bridge deck. For the downstream bounding cross-section, the

ineffective flow elevations are set at a point midway between the guardrail and the bridge obvert elevations.

Hillside Bridge



Burnt River Bridge



Northline Bridge

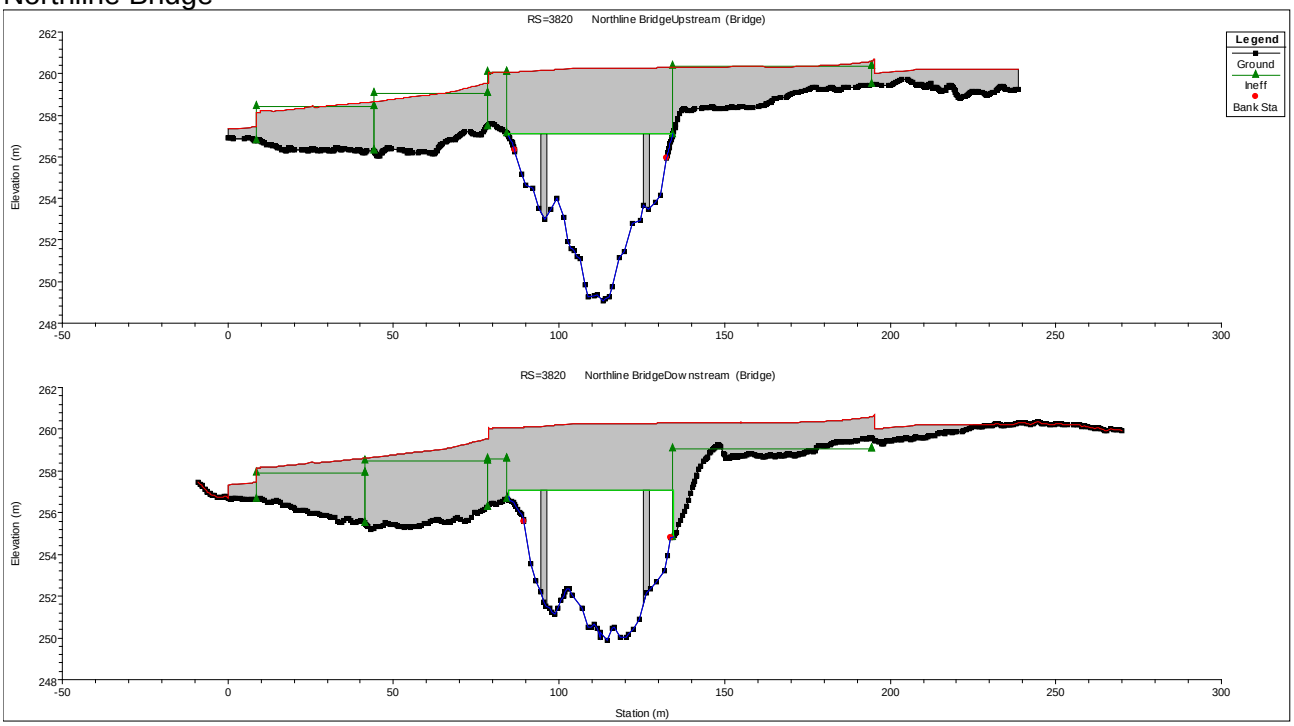


Figure 5.2: Cross-section view of ineffective flow areas

5.6. Boundary Conditions

For the flow analysis, the downstream boundary conditions are as follows:

100-yr:	255.05m
Timmins event:	255.05m

as established lake level by Parks Canada on May 16, 2019.

5.7. Expansion/Contraction Coefficients

The model uses the HEC-RAS recommendations of 0.1 and 0.3 for contraction and expansion coefficients at all normal cross sections. At the bridges, the values were increased to 0.3 and 0.5, respectively.

5.8. Schematic

The information gathered in the preceding section was used to build a HEC-RAS model of the watercourse. The geometry of the model is shown schematically in **Figure 5.3**.

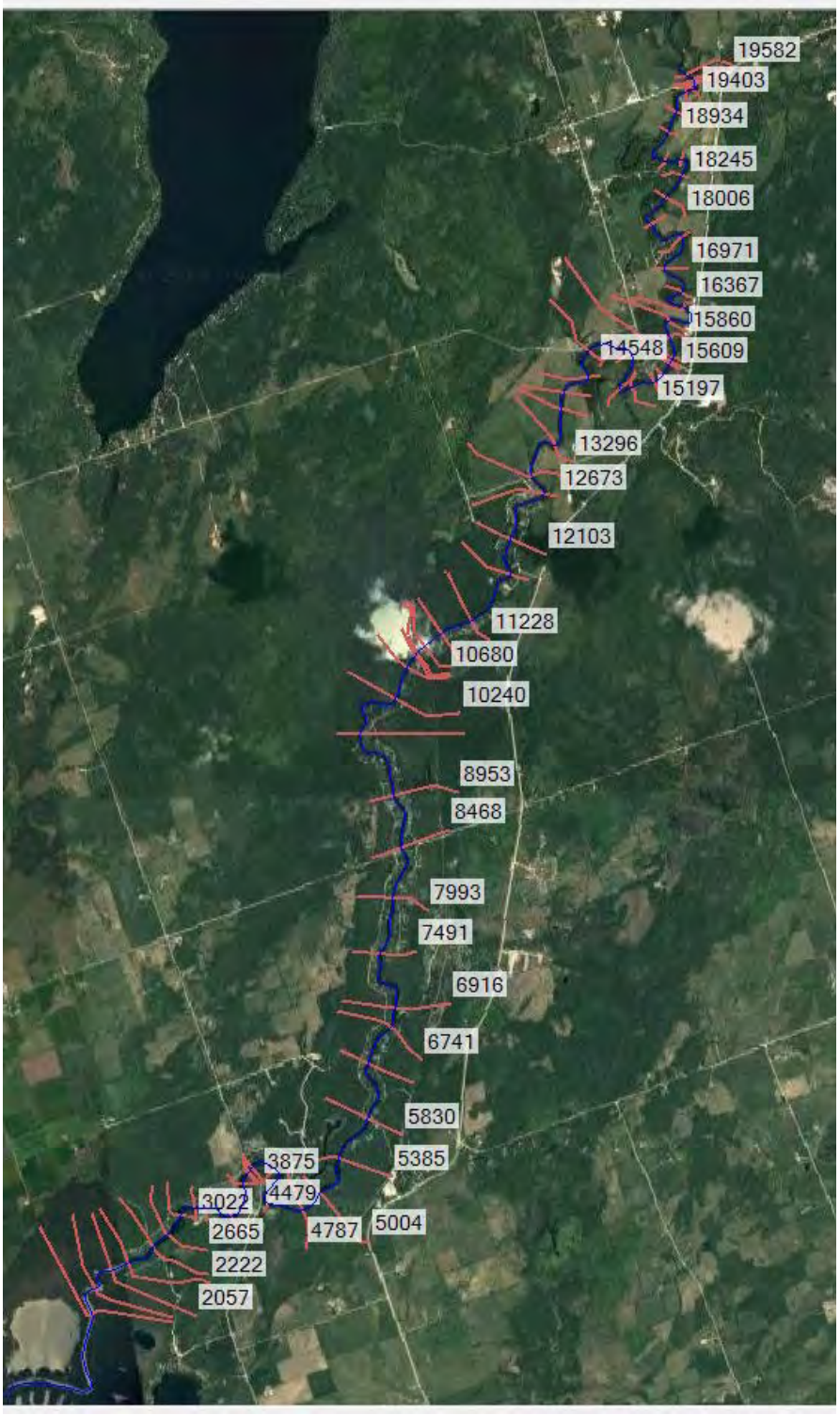


Figure 5.3: HEC-RAS Schematic

6. Hydraulic Model results

6.1. Comparison of Flood Frequency Analysis Results with Observed High Flow Survey Points

Table 6.1 shows the return period flows from the CFA model and the peak flows during the 2013 and 2016 events at the Burnt River near Burnt River gauge.

Table 6.1: Calculated and Recorded Flows

Return Period	Flow cms
2 yr	110
5 yr	147
10 yr	170
25 yr	191
2016 Event	202
2013 Event	211
50 yr	217
100 yr	236

The 2013 and 2016 peak flow events fell between the 25 year and 50 year calculated events.

Flood lines for the 25yr and 50yr events resultant from the FFA were compared to high flow data, which KRCA staff obtained during the flood events in 2013 and 2016. The difference between the generated flood lines and the actual high points is generally low and therefore is a good indicator to verify the established flood lines for the Burnt River in HEC-RAS.

7. Sensitivity Analyses

Manning's n values are varied by +/- 20 % to determine the effect on the computed water surface elevations. Results show a maximum change of depth of plus ~0.25 m for an increased roughness coefficient and a minimum change of depth of minus ~1 m for decreased Manning's n. Greatest deviations are observed in the upper reach of the Burnt River, while the downstream reach has little change in water surface elevation with varying Manning's n.

The values of flow length are varied by +/- 20 %, while other parameters remain unchanged. Results show a maximum change of depth of plus ~0.20 m for an increased flow length and a

minimum change of depth of minus ~0.25 m for decreased flow lengths. Again the upper reach seems more impacted by the variation compared to the lower reach where changes in water surface elevation drop to zero.

Downstream boundary conditions were analyzed using the average lake level (255.05m) and the high level (256.22m) as established by McLaren Plansearch, 1991, while other parameters remain unchanged. This change seems to have little effect on the simulated water surface elevation upstream. The difference at the downstream end of Burnt River shows a range of higher water surface elevations from 1.17m to 0.03m.

In conclusion, simulated water surface elevations are most sensitive to changes in the roughness coefficient in the upper reach and to changes in downstream boundary conditions of the Burnt River. Results are shown in Appendix M.

A scenario was created by running 1:100 year plus 50% flows and flood levels were compared with the original flows (Appendix M). The results show difference of the levels between 1:100 yr. (vs. 1:100 yr + 50%) flows was highest (1-1.30m) at the upper reaches and then it gradually decreases to 0 at the outlet. Whereas, the difference in Timmins flows (vs. 1:100 yr + 50%) was in the range of (-0.95-0.6 m).

8. Burnt River Flood Results

The final floodplain maps are the result of the calculated Regional Storm Flood line and the 1:100 year Cameron Lake levels.

The Regulatory flood elevations in the Burnt River are listed in **Table 8.1** below, as well as the 2- through 100-year events.

Table 8.1: HEC-RAS Flood Elevations for Burnt River

Node/HEC-RiverStation	HEC-RAS Creek Flood Elevations (m)						
	Timmins	100yr	50yr	25yr	10yr	5yr	2yr
Hillside Bridge/19501	261.43	259.75	259.48	259.09	258.76	258.37	257.71
Burnt River Bridge/15631	260.51	259.11	258.89	258.55	258.27	257.93	257.36
Northline Bridge/3829	257.44	256.25	256.14	256.00	255.89	255.77	255.61
Outlet/1494	255.05	255.05	255.05	255.05	255.05	255.05	255.05

Figure 8.1 shows the Regulatory flood extents for the creek based on a starting water surface elevation of 255.05m, the normal headpond operating level at Cameron Lake.

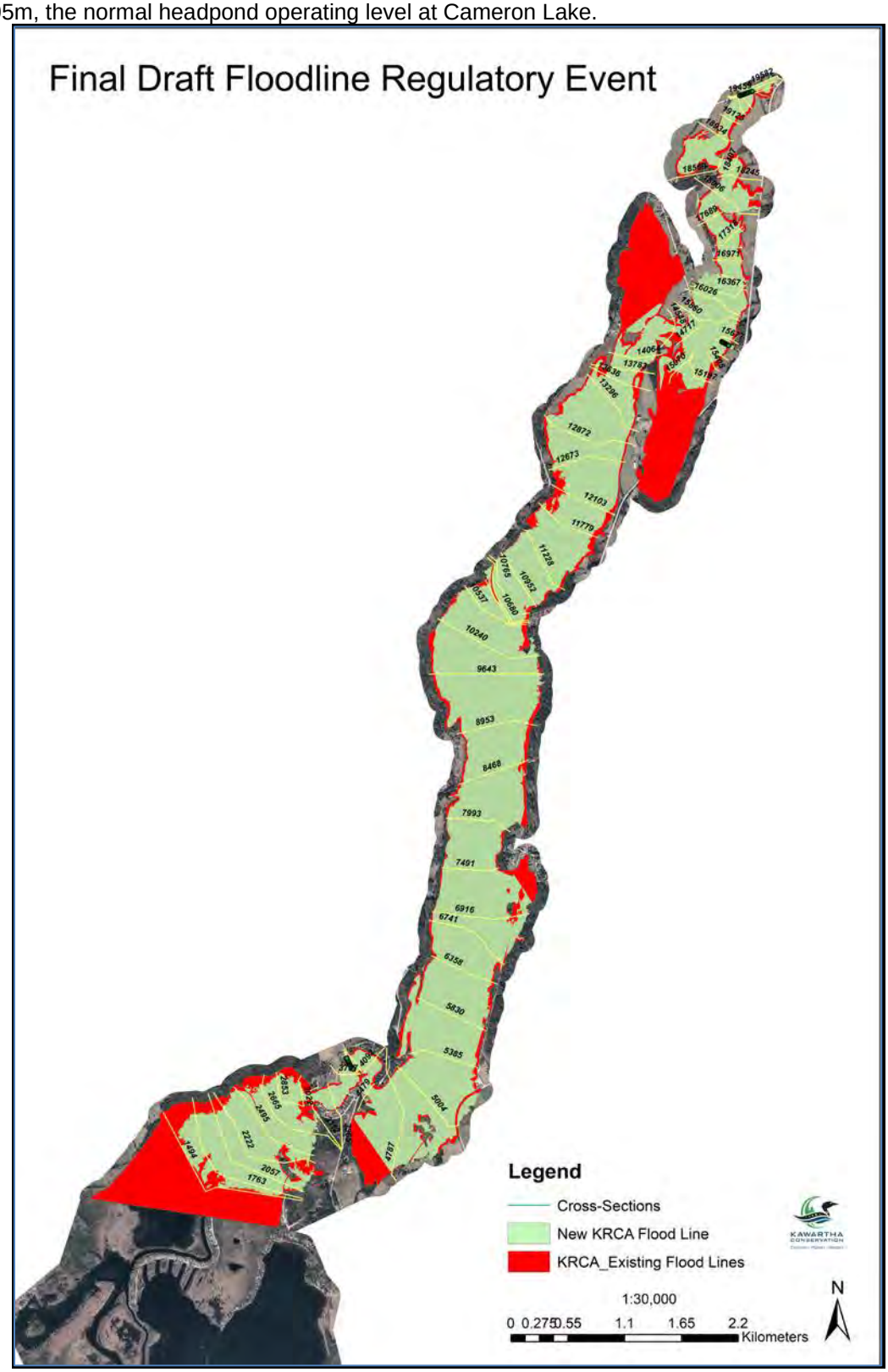


Figure 8.1: Regulatory Flood Line

9. Conclusions and Recommendations

It is recommended that the results of the HEC-RAS model for Burnt River watercourse be adopted as the flood maps. The flood maps are found at the back of this report. The results of the models are reasonable and should be used to establish new Regulatory floodlines for the watershed.

The following additional analyses are recommended:

1. Update the FFA to include peak flow experienced in 2019.
2. Confirm current dam operations and corresponding stage-storage-discharge data and update if necessary.
3. Calibrate the new hydrologic model based on more recent events and analysis (e.g. 2013, 2016 and 2019) to validate any adjustments to hydrologic parameters i.e. time to peak.

Appendices

(Bound in a separate document)

Appendix A: Modeling Parameters Selection

Appendix B: Subcatchment Data

Appendix C: Subcatchment Maps

Appendix D: VH Suite Output

Appendix E: Hydrology Model Flow Summary

Appendix F: Official & Secondary Plan Maps

Appendix G: Cross-section Photo Inventory

Appendix H: Structure Photo Inventory Record

Appendix I: Manning's n Values

Appendix J: Digital Elevation Model and Orthoimagery Data Accuracy Assessment Report

Appendix K: Excerpts of Previous Studies

Appendix L: Terms of Reference for Digital Elevation and Orthoimagery Data Quality ControlAppendix M: Hydraulic Sensitivity Analyses .....

Appendix N: Dam Reservoirs-Storage Discharge tables