Hazard Rating Assessment

Doering Dam
Lincoln County, Wisconsin
Field File No. 35.26

Prepared for:

Doering Enterprises

November 2012

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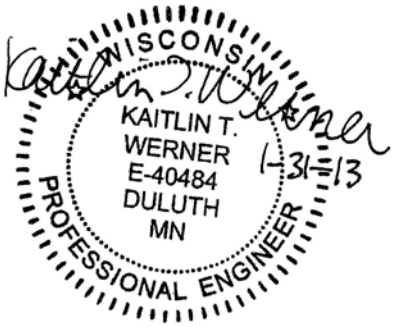

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Summary

This report presents the findings of a hazard rating assessment for Doering Dam in Lincoln County, Wisconsin. The hazard rating assessment includes a hydrologic analysis, dam failure analysis, dam hazard rating determination, and spillway capacity analysis.

The hydrologic analysis consisted of a flood frequency analysis and development of an inflow hydrograph for the 100-year flood. The 100-year peak inflow into 0.9 Reservoir is 100 cfs. The 100-year inflow hydrograph causes a reservoir surcharge of 2.0 feet above the normal water level. The corresponding peak outflow is 64 cfs.

The hydraulic analysis involved modeling three different conditions: dam nonexistent, dam in place with no failure, and dam in place with failure. The hydraulic shadow was determined by comparing the “dam nonexistent” 100-year flood elevations with the “dam in place with failure” 100-year flood elevations.

To determine the dam’s hazard rating, the elevations of potentially affected development in the hydraulic shadow were compared with the 100-year flood elevations during a dam failure. No structures exist within the hydraulic shadow, so the dam will be classified as low hazard if land use restrictions preventing development within the hydraulic shadow are adopted.

As a low hazard dam, Doering Dam will be required to pass the 10-year flood through its principal spillway and pass the 100-year flood through its principal and emergency spillways. The dam meets these requirements.

Introduction

Doering Enterprises retained Ayres Associates to perform a hazard rating assessment for Doering Dam. The purpose of the assessment is to determine the dam's hazard rating by determining whether any development would be inundated by a dam failure during the 100-year flood. This report presents the findings of the hazard rating assessment, which includes the hydrologic analysis, dam failure analysis, dam hazard rating determination, and spillway capacity analysis for Doering Dam.

Doering Dam is owned by Doering Enterprises. The dam serves as a control structure for 7-acre 0.9 Reservoir and is located in Section 8, T33N, R8E. Appendix A shows the location of the dam. The reservoir is used for recreation.

The contributing watershed area at the dam is two square miles. Downstream of the dam, Wedlers Creek continues 2.9 miles to the North Branch of the Prairie River.

Survey data for the dam structure were obtained by Ayres Associates. All cross sections were obtained from topographic data for Lincoln County that was collected using LIDAR technology. The horizontal coordinate system used in the survey is Lincoln County Coordinate System. The benchmark used is named BM 12 SAN 1964. The vertical datum used for the survey was NGVD 29, but all data were converted to NAVD 88. All elevations listed in this report are referenced to NAVD 88.

The main components of the dam include the following:

- The earthen embankment, which is approximately 220 feet long and has a nominal crest elevation of 1562.9 feet.

- A corrugated metal conduit and riser structure. The riser has a diameter of 42 inches and a top elevation of 1557.72 feet. The conduit has a diameter of 30 inches and an outlet invert of 1545.29 feet.

A plan and profile of the dam are included in Appendix B.

Hydrologic Analysis

The hydrologic analysis consisted of a flood frequency analysis and the development of an inflow hydrograph for the 100-year flood. The inflow hydrograph is required for the dam failure analysis and was developed using USGS regression equations presented in “Flood-Frequency Characteristics of Wisconsin Streams” (Walker and Krug, 2003), basin comparison, and HydroCAD.

The drainage area contributing to Doering Dam was calculated using ArcMap and the WDNR Hydrology Tool and verified using a watershed delineation website (https://engineering.purdue.edu/~lthia/). Storage; soil permeability; and 25-year, 24-hr rainfall were also determined using ArcMap and the WDNR Hydrology Tool. The USGS regression equations were used to estimate flood frequency peak inflows at the dam. The 100-year peak inflow estimated using the USGS equations is 94 cfs.

The Doering Dam watershed was compared to five gaged sites that have comparable geographic locations and sizes. After adjusting peak runoff flow rates of the three comparison watersheds based on area, soil permeability, storage, and rainfall, a 100-year peak runoff flow rate of 100 cfs was estimated. A value of 100 cfs was chosen as the estimated 100-year peak runoff flow rate.

An inflow hydrograph was generated using HydroCAD. Point rainfall values were obtained from “Rainfall Frequency Atlas of the Midwest” (Huff and Angel, 1992) and were adjusted to areal mean rainfall and distributed over the storm duration as described in Huff and Angel’s report. The distributed rainfall was entered into HydroCAD. Land use data and corresponding curve numbers were obtained from the watershed delineation web site mentioned above and entered into HydroCAD. The time of concentration was estimated by measuring the longest flow path in ArcMap using the WDNR Hydrology Tool. The time of concentration is 4 hours. The HydroCAD program computed a 100-year hydrograph with a peak inflow of 79 cfs. Each hourly ordinate of the hydrograph was multiplied by 100/79 to estimate the inflow hydrograph to be used in the hydraulic analysis.

Hydrologic calculations and documentation are included in Appendix C.

Hazard Rating Assessment

The hazard rating assigned to a dam is dependent on the risk for loss of life if the dam were to fail during the 100-year flood and whether future development in the hydraulic shadow is restricted. A dam failure analysis is used to analyze the flood impacts.

Dam Failure Analysis

A dam failure analysis was performed to obtain information that can be used to determine the hazard rating for Doering Dam. The Hydrologic Engineering Center’s River Analysis System (HEC-RAS) was used to model the following three conditions on 0.9 Reservoir and Wedlers Creek in accordance with Wisconsin Administrative Code NR 333:

- Dam nonexistent
- Dam in place with no failure
- Dam in place with failure

Model Parameters

The river stationing for the “dam nonexistent” model begins just downstream of the actual dam location. The river stationing for the models with the dam in place begin at the upstream end of 0.9 Reservoir, with the dam located at River Station 1000. The routing reach extends from 0.20 miles upstream of the dam to 2.8 miles downstream of the dam. The Manning's roughness coefficients are 0.04 in the channel and 0.08 on the overbanks.

The modeling included dynamic routing upstream and downstream of the dam using the inline structure option in HEC-RAS to represent the dam. Modeling a structure with an opening in the horizontal plane is not possible in HEC-RAS. Instead, the conduit and riser structure were modeled with the inflow hydrograph into 0.9 Reservoir using HydroCAD to obtain a rating curve, and the rating curve was entered into the inline structure editor in HEC-RAS.

The “dam nonexistent” condition was modeled in HEC-RAS assuming the existing dam is removed.

The cross-sections used in the modeling were generated using contours created from LIDAR data, USGS quadrangle maps, and data obtained from the WDNR’s database of dam information. The downstream boundary condition is a normal depth, calculated using contours generated from LIDAR data.

The flow hydrograph from the 100-year flood was used in all three conditions.

The assumed starting water surface elevation in 0.9 Reservoir is 1557.72 feet, which is equal to the elevation of the riser conduit opening. Failure is assumed to occur when the reservoir elevation reaches 1559.71 feet, which is 0.01 foot less than the 100-year peak water surface elevation at the dam during the “dam with no failure” condition. A weir coefficient of 3.1 was used.

The dam breach parameters for Doering Dam are listed in Table 1. The parameters are based on NR 333 and HEC-RAS guidelines.

Table 1
Dam Breach Parameters

Parameter	Value
Failure time	0.5 hours
Bottom of breach width	40 feet
Breach side slope (H:V)	1:1 (H:V)
Bottom of breach elevation	1548.0 feet
Reservoir elevation when failure begins	1559.71 feet
Initial reservoir elevation	1557.72 feet

A piping failure was assumed because the dam does not overtop during the no failure condition. The breach has a bottom width of 40 feet with 1:1 side slopes and a bottom elevation of 1548.0 feet, which is the lake bed elevation in the vicinity of the dam.

A privately-owned dam downstream of Doering Dam was also included in the hydraulic model. Wedler Dam, located 2.6 miles downstream of Doering Dam, was modeled as an inline structure that is assumed to remain in place after the failure of Doering Dam. No drawings are available for Wedler dam. Knowing the height of the dam as reported in the WDNR's dam database, a photo of the dam was measured to estimate its dimensions for entry into the hydraulic model. The assumed initial reservoir elevation is 1465 feet, which is based on the estimated dam height and topographical data obtained using LIDAR.

Results

Table 2 summarizes the peak flood elevations for the three conditions modeled. The maps in Appendix E show the data in Table 2 graphically, outlining the areas inundated for each condition. The No Dam/Dam No Failure Map shows the "dam nonexistent" and "dam with no failure" conditions. The "dam with failure" condition, also referred to as the hydraulic shadow, is shown in the Hydraulic Shadow Map. The flood profiles for the three conditions modeled along the river reach are presented in Appendix F.

Table 2
Flood Crest Summary

HEC-RAS River Station	Location	Distance in River Downstream of Dam (mi)	Maximum Water Surface Elevation (feet)		
			Dam Nonexistent	Dam in Place with No Failure (No Breach)	Dam in Place with Failure (Breach)
999	Downstream of dam	0.01	1545.6	1545.3	1550.5
990		0.33	1528.7	1528.5	1532.0
980		0.82	1488.6	1488.3	1492.0
970		1.37	1477.3	1477.1	1478.7
960		2.04	1472.7	1472.5	1473.4
950		2.34	1467.0	1466.7	1468.3
940	Wedlers Pond	2.43	1466.6	1466.5	1467.8
930	Wedlers Pond	2.50	1466.6	1466.4	1467.7
925	Upstream of Wedler Dam	2.57	1466.6	1466.4	1467.7
895	Downstream of Wedler Dam	2.58	1455.7	1455.5	1456.9
890		2.62	1452.6	1452.5	1453.4

The hydraulic shadow is the area of land downstream of a dam that would be inundated upon failure of the dam during the 100-year flood. The hydraulic shadow ends where the "dam with failure" flood profile converges with the "dam nonexistent" flood profile. The convergence tolerance is one foot for rural areas and zero feet within incorporated areas. Referring to Table 2, the hydraulic shadow ends 2.58 river miles downstream from the dam at River Station 895. The increase in the elevation profile ranges from 0.7 feet at Station 960 to 4.9 feet at River Station 999.

Table 3 lists the hydraulic shadow floodway data. This information was extracted from Table 2 and the information in Appendix D.

Table 3
Hydraulic Shadow Floodway Data

HEC-RAS River Station	River Mile Below Dam	Maximum Stage Elevation (feet)	Peak Discharge (cfs)	Maximum Velocity (feet/sec)	Floodplain Top Width (feet)
999	0.01	1550.5	2,010	13.2	150
990	0.33	1532.0	1,720	10.6	180
980	0.82	1492.0	1,680	10.1	146
970	1.37	1478.7	900	3.0	586
960	2.04	1473.4	400	2.1	708
950	2.34	1468.3	370	4.8	51
940	2.43	1467.8	340	0.3	630
930	2.50	1467.7	330	1.4	112
925	2.57	1467.7	330	1.0	43
895	2.58	1456.9	330	13.4	21
890	2.62	1453.4	330	6.8	122

Hazard Rating

Hazard ratings are divided into three classifications: high hazard, significant hazard, and low hazard.

A dam has a high hazard rating if

(1) existing development within the hydraulic shadow would be inundated by more than two feet of water during the 100-year dam failure flood *or*
(2) future development in the hydraulic shadow is not restricted.

A dam has a significant hazard rating if

(1) existing development within the hydraulic shadow would be inundated by two feet of water or less during the 100-year dam failure flood *and*
(2) future development in the hydraulic shadow is restricted.

A dam has a low hazard rating if

(1) no existing development would be inundated during the 100-year dam failure flood *and*
(2) future development in the hydraulic shadow is restricted.

Visual inspection of quadrangle maps and aerial photos revealed that no development exists in the vicinity of Wedlers Creek downstream of Doering Dam. The dam will have a high hazard rating until land use restrictions are adopted to prevent future development within the hydraulic shadow. If land use restrictions are adopted, the dam will be classified as low hazard.

Spillway Capacity

The required spillway capacities according to NR 333 criteria are shown in Table 4. Doering Dam will have a low hazard rating if land use restrictions are adopted.

Table 4
NR 333 Required Spillway Design Capacities

Dam Hazard Rating	Minimum Principal Spillway Capacity	Minimum Total Spillway Capacity
Low	Q_{10}	Q_{100}
Significant	Q_{50}	Q_{500}
High	Q_{100}	Q_{1000}

The dam meets the spillway capacity requirements of passing the 10-year flood through the principal spillway and the 100-year flood through the principal and emergency spillways. Doering Dam does not have an emergency spillway but is capable of passing all of the 100-year flood through the principal spillway. The principal spillway conduit is equipped with a valve which is left fully open at all times; outflow is controlled only by the lip of the riser pipe. The hydraulic model shows that the dam would not overtop during the 100-year flood. The estimated 100-year peak inflow into 0.9 Reservoir is 100 cfs, and the corresponding peak outflow is 64 cfs. The water surface elevation would rise to 1559.72 feet. The lowest surveyed elevation of the embankment crest is 1562.93 feet.

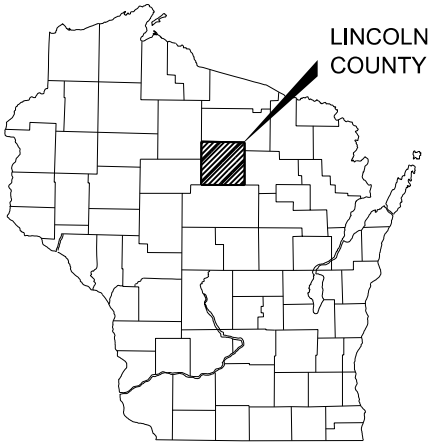
Recommendations

The results of this assessment indicate that Doering Dam will be a low hazard dam if land use restrictions are adopted to prevent future development in the hydraulic shadow. No development exists downstream of the dam.

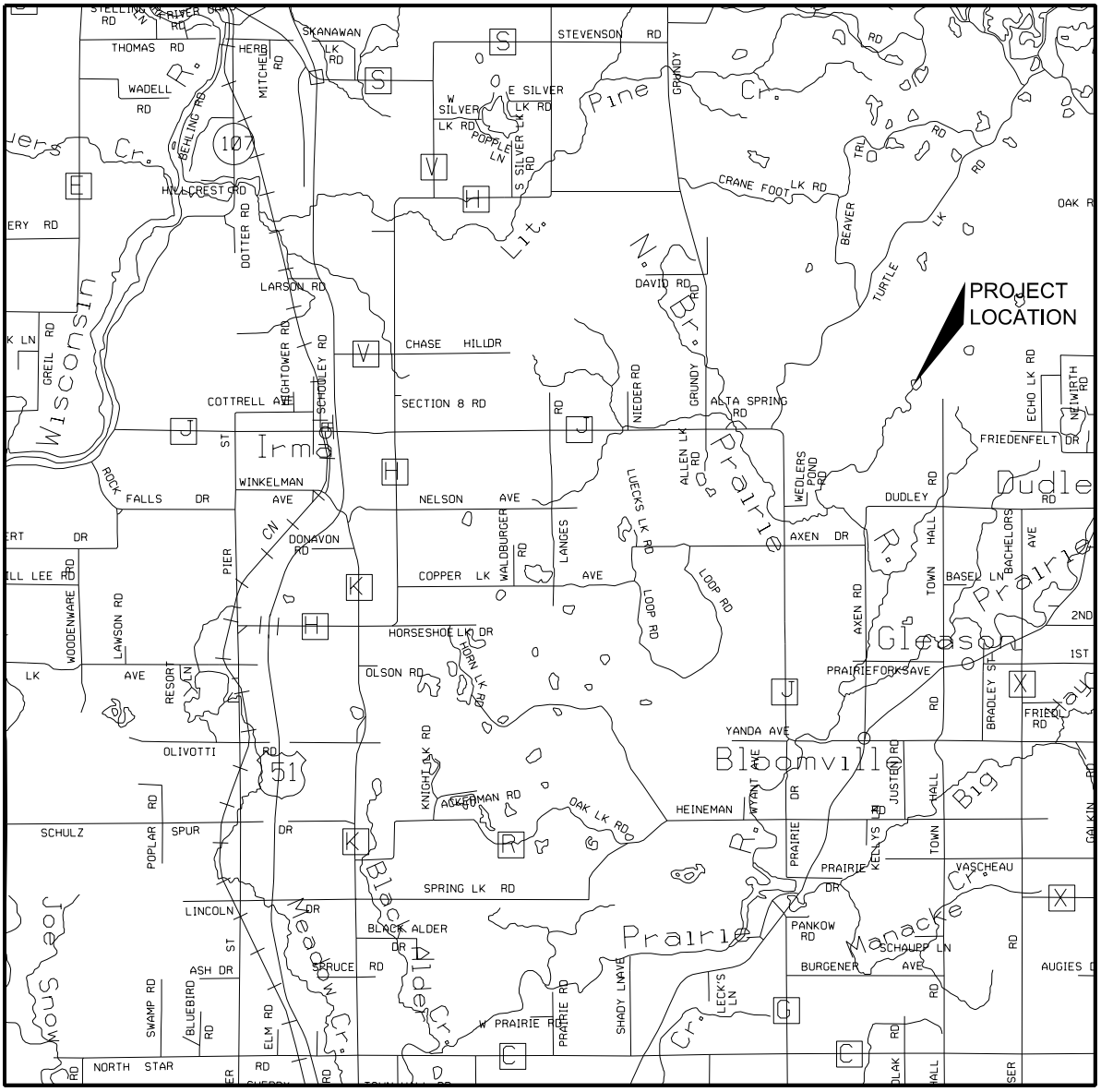
The dam meets spillway capacity requirements for low hazard dams.

Appendix A

Location Map



COUNTY MAP
NTS



NOT - FOR - CONSTRUCTION

DES BY	K WERNER
DR BY	MEA
CHK BY	C GOODWIN
DATE	NOV 2012

DOERING ENTERPRISES, LLC
DOERING DAM
LINCOLN COUNTY, WISCONSIN

AYRES ASSOCIATES
EAU CLAIRE, WISCONSIN

PROJECT LOCATION MAP

Appendix A

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11/7/2012
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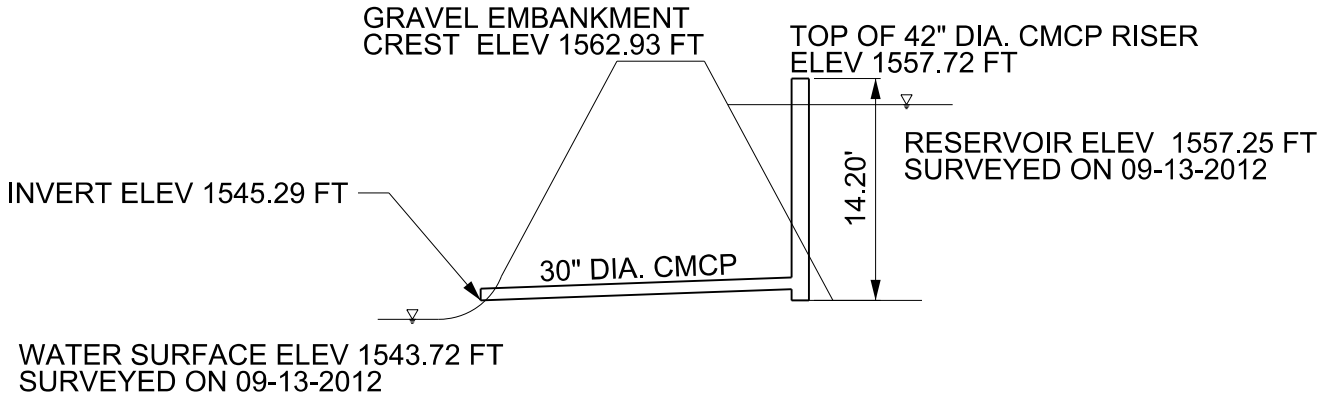
Appendix B

Structure Plan and Section



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DES BY K WERNER DR BY MEA CHK BY C GOODWIN DATE NOV 2012	DOERING ENTERPRISES, LLC DOERING DAM LINCOLN COUNTY, WISCONSIN	AYRES ASSOCIATES EAU CLAIRE, WISCONSIN	PLAN AND CROSS SECTION VIEW	Appendix B

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Appendix C

Hydrologic Analysis Computations

Flood Discharges Using The USGS 2003 Method, Walker & Krug

TITLE: Doering Dam 9/26/2012
Section 8, T33N, R8E
BY: KTW Job No. 26-0713.00

INPUT DATA

Description	Value
Area Of State	3
Drainage Area (A), mi^2	2.03
Soil Permeability (SP), in/hr	1.65
Storage (ST) %	10.34
25-Year, 24-Hour Rainfall (I24,2), in	4.66

RESULTS

Recurrence Interval (yrs)	Discharge (cfs)	Standard Error Prediction (cfs)	Discharge - Std Error (cfs)	Discharge + Std Error (cfs)	Equation Number
2	31	11	20	43	3-1
5	47	16	31	63	3-2
10	58	20	38	78	3-3
25	72	25	48	97	3-4
50	83	28	55	111	3-5
100	94	32	62	125	3-6

HYDROLOGY SUMMARY COMPARISON TABLE file: DoeringUSGS03.xls
ADJUSTMENTS PER PP 12 & 13 CONGER 81 by: KTW
date: 9/26/2012

USGS, 2003 Region 3 Doering Dam
job no: 26-0713.00

LOCATION	AREA sq-mi	Q-100 cfs	ADJ Q-100 81-EQUNS	SP	ST	I	adj per SP	adj per sp&st	adj per sp,st&I		
SITE	2.03	- - -	0.76	1.65	10.3	4.66					
4081010	1	145	248	0.50	1.00	4.38	98	66	75		
4059900	1.02	47	79	4.18	5.60	4.24	163	144	201		
4066700	1.33	74	102	0.50	20.3	4.24	40	47	65		
4066300	3.2	53	38	2.93	19.1	4.24	59	67	93		
5391950	3.23	64	45	2.50	13.9	4.66	62	66	66		
								sum =	500	average =	100

ADJ Q-100, 81-EQUNS is per Buliten 71, Q(81) = Qgage((area site/area gage)^.n)
for region 3, n = 0.76

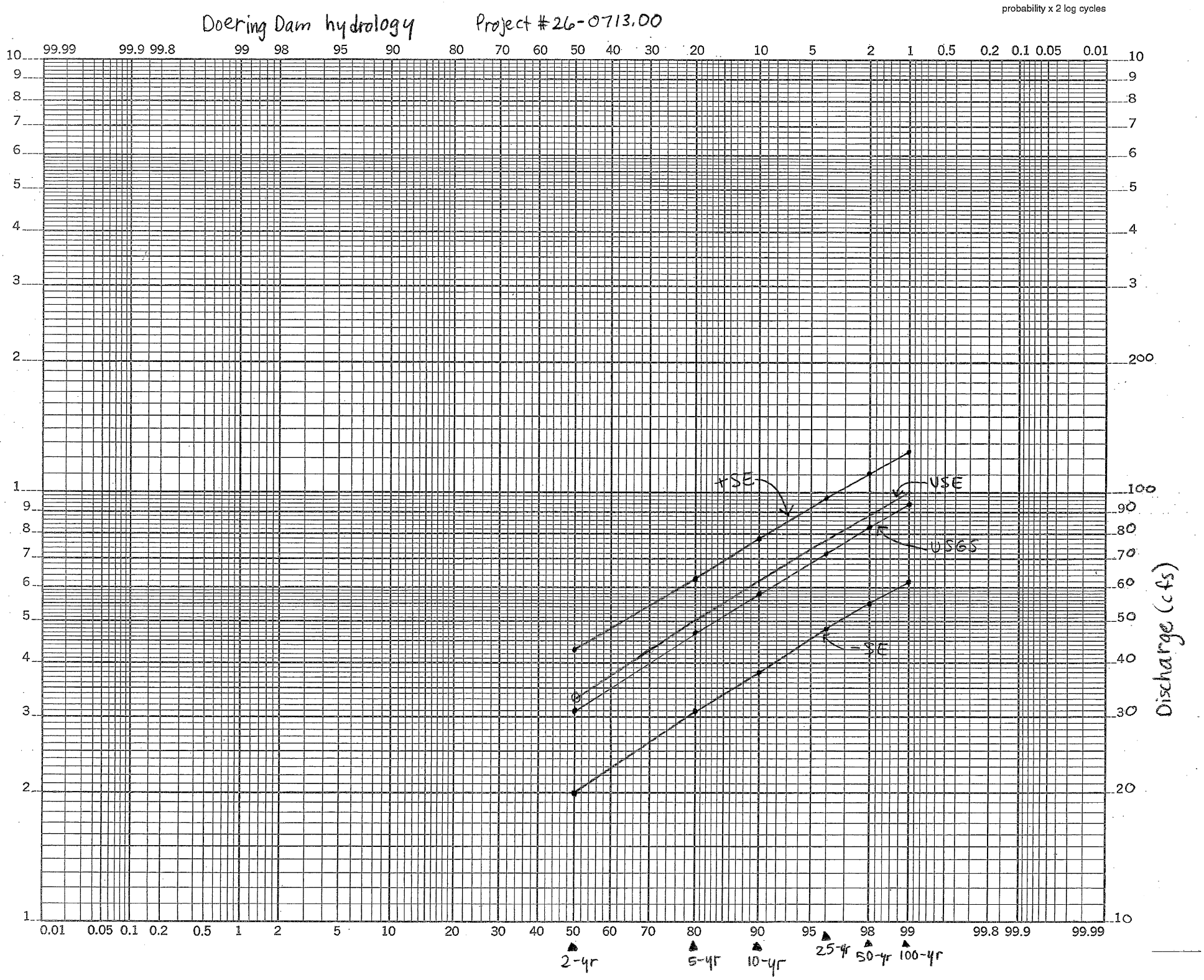
Readjust the "ADJ Q-100, 81-EQUNS" flow values per variations in Soil Permeability, Storage & 25-year rainfall intensity
Adjustments done per method presented in the WisDOT Facilities Development Manual (FDM)

per Soil Permeability (SP): Qadj-sp = Q(81) x ((SP site / SP gage)^ -0.775)

per Storage (ST): Qadj-st = Qadj-sp x (((storage site + 1) / (storage gage +1)) ^ - 0.227)

per 25-year 24-hr rainfal (I): Qadj-i = Qadj-st x (((I site - 4.2) / (I gage - 4.2)^ 0.136)

Doering Dam hydrology Project #26-0713.00



(MCC) with Stanley Changnon and Peter J. Lamb as the co-principal investigators. The work was continued and completed under the general direction of Kenneth Kunkel, present MCC Director.

Special appreciation goes to Stan Changnon for his foresight, guidance, and encouragement in establishing and accomplishing the program objectives. He and Ken Kunkel reviewed the report and made useful comments and suggestions. Special thanks go to Richard Katz, National Center for Atmospheric Research; Tibor Farago, Hungarian Meteorological Service; and J.R.M. Hosking, IBM Research Division, for providing software for some of the extreme rainfall analyses. Fred Nurnberger, Michigan State Climatologist, provided valuable long-term precipitation data for his state as well as comments on the manuscript. We also thank the following state climatologists for their review and comments on this project: Wayne Wendland, Illinois; Ken Scheeringa, Indiana; Harry Hillaker, Iowa; Glen Conner, Kentucky; Jim Zandlo, Minnesota; Wayne Decker, Missouri; Jeff Rogers, Ohio; and Pam Naber-Knox, Wisconsin.

John Brother and Linda Hascall supervised the extensive drafting work required for the report. Jean Dennison typed and assembled the report, which Eva Kingston edited and formatted.

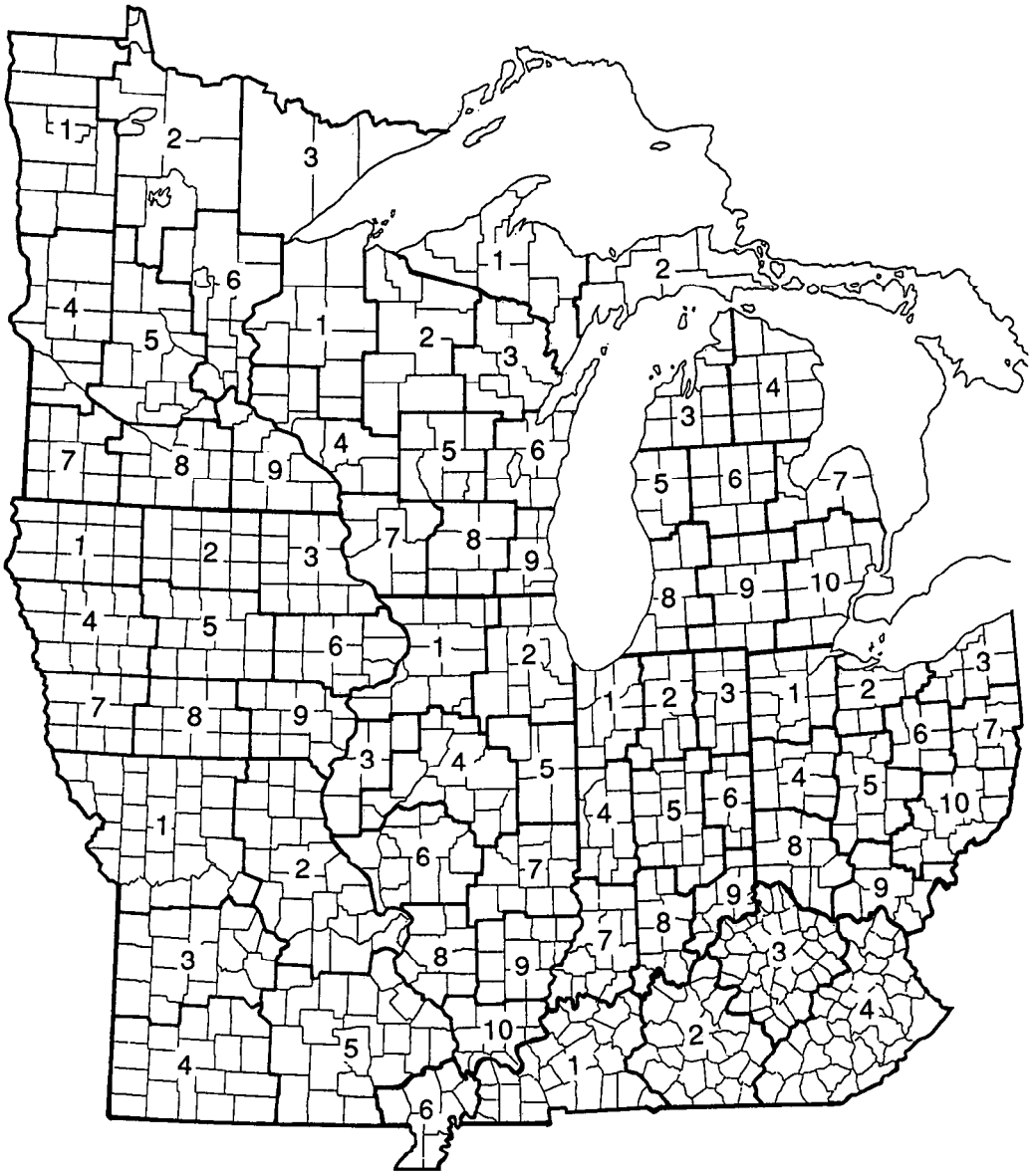


Figure 1. Climatic sections for the Midwest

Table 9. Sectional Mean Frequency Distributions for Storm Periods of 5 Minutes to 10 Days and Recurrence Intervals of 2 Months to 100 Years in Wisconsin

Sectional code (see figure 1 on page 4)

01 – Northwest
02 - North Central
03 – Northeast
04 - West Central
05 – Central
06 - East Central
07 - Southwest
08 - South Central
09 - Southeast

Rainfall (inches) for given recurrence interval

Section	Duration	2-month	3-month	4-month	6-month	9-month	1-year	2-year	5-year	10-year	25-year	50-year	100-year
01	10-day	1.90	2.29	2.64	3.10	3.57	3.88	4.78	5.83	6.58	7.63	8.47	9.37
01	5-day	1.55	1.85	2.09	2.42	2.79	3.03	3.75	4.66	5.35	6.27	7.05	7.90
01	72-hr	1.39	1.63	1.85	2.14	2.47	2.68	3.31	4.12	4.78	5.67	6.39	7.16
01	48-hr	1.30	1.53	1.70	1.97	2.26	2.46	3.05	3.82	4.41	5.23	5.88	6.56
01	24-hr	1.22	1.42	1.55	1.80	2.04	2.22	2.77	3.50	4.04	4.79	5.36	5.98
01	18-hr	1.15	1.34	1.46	1.69	1.92	2.09	2.60	3.29	3.80	4.50	5.04	5.62
01	12-hr	1.06	1.24	1.35	1.56	1.78	1.93	2.41	3.05	3.51	4.17	4.66	5.20
01	6-hr	0.91	1.06	1.16	1.34	1.53	1.66	2.08	2.62	3.03	3.59	4.02	4.49
01	3-hr	0.78	0.91	0.99	1.15	1.31	1.42	1.77	2.24	2.59	3.07	3.43	3.83
01	2-hr	0.71	0.83	0.90	1.04	1.19	1.29	1.61	2.03	2.34	2.78	3.11	3.47
01	1-hr	0.57	0.67	0.73	0.84	0.96	1.04	1.30	1.64	1.90	2.25	2.52	2.81
01	30-min	0.45	0.52	0.57	0.66	0.75	0.82	1.02	1.30	1.49	1.77	1.98	2.21
01	15-min	0.33	0.38	0.42	0.49	0.55	0.60	0.75	0.95	1.09	1.29	1.45	1.61
01	10-min	0.26	0.30	0.33	0.38	0.43	0.47	0.58	0.73	0.85	1.01	1.13	1.26
01	5-min	0.15	0.17	0.19	0.22	0.25	0.27	0.33	0.42	0.48	0.57	0.64	0.72
02	10-day	1.98	2.39	2.75	3.24	3.73	4.05	4.79	5.68	6.44	7.55	8.49	9.52
02	5-day	1.59	1.90	2.15	2.50	2.87	3.12	3.77	4.63	5.33	6.36	7.27	8.28
02	72-hr	1.40	1.65	1.86	2.16	2.48	2.70	3.30	4.08	4.72	5.69	6.50	7.41
02	48-hr	1.29	1.51	1.68	1.94	2.24	2.43	2.99	3.73	4.31	5.16	5.89	6.67
02	24-hr	1.22	1.41	1.55	1.79	2.03	2.21	2.74	3.39	3.90	4.66	5.29	6.01
02	18-hr	1.14	1.33	1.46	1.68	1.91	2.08	2.58	3.19	3.67	4.38	4.97	5.65
02	12-hr	1.06	1.23	1.34	1.56	1.77	1.92	2.38	2.95	3.39	4.05	4.60	5.23
02	6-hr	0.91	1.06	1.16	1.34	1.53	1.66	2.06	2.54	2.93	3.49	3.97	4.51
02	3-hr	0.78	0.90	0.99	1.14	1.30	1.41	1.75	2.17	2.50	2.98	3.39	3.85
02	2-hr	0.70	0.82	0.90	1.04	1.18	1.28	1.59	1.97	2.26	2.70	3.07	3.49
02	1-hr	0.57	0.67	0.73	0.84	0.96	1.04	1.29	1.59	1.83	2.19	2.49	2.82
02	30-min	0.45	0.52	0.57	0.66	0.75	0.82	1.01	1.25	1.44	1.72	1.96	2.22
02	15-min	0.33	0.38	0.42	0.49	0.55	0.60	0.74	0.92	1.05	1.26	1.43	1.62
02	10-min	0.25	0.29	0.32	0.37	0.42	0.46	0.58	0.71	0.82	0.98	1.11	1.26
02	5-min	0.15	0.17	0.19	0.22	0.25	0.27	0.33	0.41	0.47	0.56	0.63	0.72
03	10-day	1.78	2.15	2.48	2.91	3.35	3.64	4.45	5.38	6.06	7.01	7.84	8.74
03	5-day	1.38	1.65	1.87	2.17	2.49	2.71	3.33	4.08	4.68	5.64	6.47	7.45
03	72-hr	1.21	1.42	1.60	1.86	2.13	2.32	2.87	3.59	4.18	5.07	5.84	6.74
03	48-hr	1.12	1.31	1.46	1.70	1.95	2.12	2.61	3.28	3.82	4.66	5.38	6.22
03	24-hr	1.04	1.22	1.33	1.54	1.75	1.90	2.34	2.94	3.46	4.24	4.94	5.77
03	18-hr	0.98	1.15	1.25	1.45	1.65	1.79	2.20	2.76	3.25	3.99	4.64	5.42
03	12-hr	0.91	1.06	1.15	1.34	1.52	1.65	2.04	2.56	3.01	3.69	4.30	5.02
03	6-hr	0.78	0.91	0.99	1.15	1.31	1.42	1.75	2.20	2.60	3.18	3.70	4.33
03	3-hr	0.67	0.78	0.85	0.99	1.12	1.22	1.50	1.88	2.21	2.71	3.16	3.69
03	2-hr	0.61	0.70	0.77	0.89	1.01	1.10	1.36	1.71	2.01	2.46	2.87	3.35
03	1-hr	0.49	0.57	0.62	0.72	0.82	0.89	1.10	1.38	1.63	1.99	2.32	2.71
03	30-min	0.38	0.45	0.49	0.57	0.64	0.70	0.87	1.09	1.28	1.57	1.83	2.13
03	15-min	0.28	0.33	0.36	0.41	0.47	0.51	0.63	0.79	0.93	1.14	1.33	1.56
03	10-min	0.22	0.26	0.28	0.32	0.37	0.40	0.49	0.62	0.73	0.89	1.04	1.21
03	5-min	0.13	0.15	0.16	0.19	0.21	0.23	0.28	0.35	0.42	0.51	0.59	0.69

L-THIA HOME

MSDSS LTHIA Tutorials and Help

Process: 3 separate ways to locate your point:

A) Search / Zoom and Click "Delineate",

B) or type in your location coordinates.

B) select 12 digit HUC

Search for or Zoom-in to your area.

Search

Select "Delineate" button and click on the stream whose watershed you plan to analyze. Your location is sent to our L-THIA engine and the watershed of that point is calculated; then you can run L-THIA model on it to predict runoff.

Delineate

To enter a specific latitude- longitude select "Lat-Lon" button below , longitude with minus sign must be within -92.70000 to -87.00000 and latitude within 46.90000 to 42.00000

Select UTM Zone16 N coordinates in meters: range of X should be within 46000 to 490000 and Y within 4710000 to 5200000

Finally click Done

UTM Z16 Lat-Lon

Y(or Lat):

X(or Lon):

Done

To run analysis on a specific **12 DIGIT HUC**, click the "HUC 12" button and select the desired watershed.

HUC 12

About Us

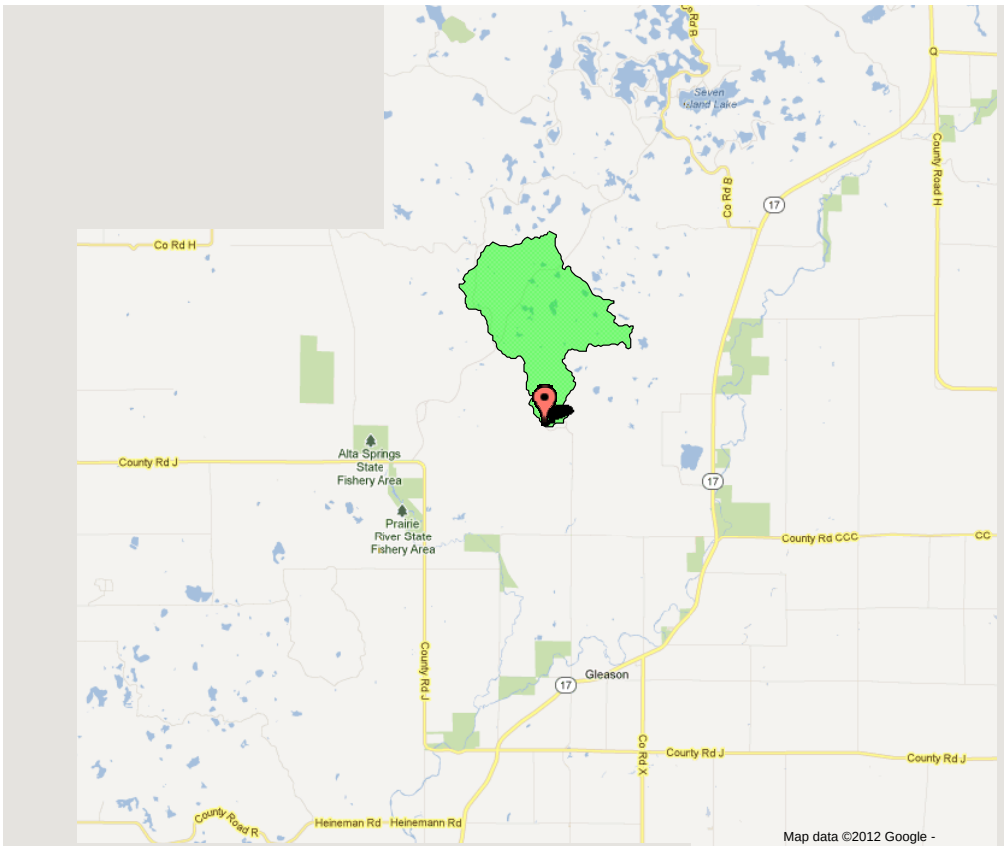
Calculate Impervious area | Run TR-55 L-THIA Model | Run Calibrated L-THIA Model | Run SWAT

Download KML

Check the checkbox to display streaming WMS layer

☑ Streaming Layer ☐ HIT Sediment ☐ HIT Erosion ☐ Wisconsin HUC 8, 10, and 12 ☐ NHD water layer

Metadata



STANDARD TR55 CN L-THIA OUTPUT

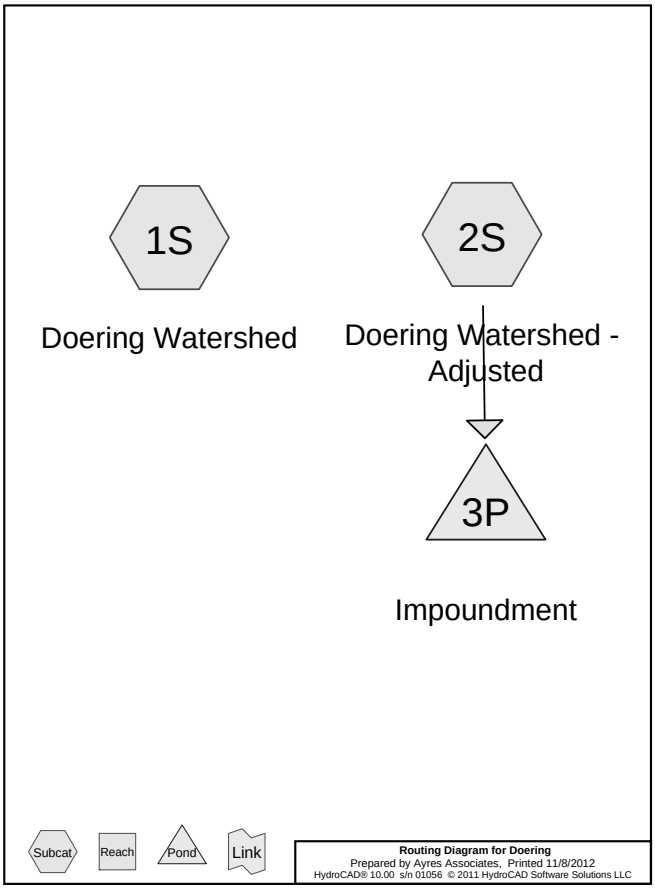
Scenario Name : wdzt22788
Total area : 1930.7 acres
State : Wisconsin
County : Lincoln

Link To GIS RAINFALL DATA Text File

Runoff
NPS

Average Annual Runoff Volume for SCENARIO 1			
Land Use	**Hydrologic Soil Group**	**Area (acres)**	**Average Annual Runoff Volume (acre-ft)**
Water/Wetlands	B	76.0	0
Water/Wetlands	D	95.5	0
Low Density Residential	B	34.3	3.78
Low Density Residential	D	0.4	0.16
Forest	B	1635.3	39.36
Forest	D	88.6	18.09
	Total Annual Volume (acre-ft)		61.40
	Average Annual Runoff Depth (in)		0.38

Average Runoff Depth For Hydrologic Soil Group And Landuse Combination			
Land Use	**Hydrologic Soil Group**	**Curve Number**	**Runoff Depth (in)**
Water/Wetlands	B	0	0
Water/Wetlands	D	0	0
Low Density Residential	B	70	1.33
Low Density Residential	D	85	4.94
Forest	B	55	0.29
Forest	D	77	2.46
Average Annual Rainfall Depth (in)			34.20



Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
2,458.500	30	Woods, Good, HSG A (1S, 2S)
79.800	65	2 acre lots, 12% imp, HSG B (1S, 2S)
140.800	77	Woods, Good, HSG D (1S, 2S)
308.200	98	Water Surface, HSG A (1S, 2S)
2,987.300	**40**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
2,766.700	HSG A	1S, 2S
79.800	HSG B	1S, 2S
0.000	HSG C	
140.800	HSG D	1S, 2S
0.000	Other	
2,987.300		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	79.800	0.000	0.000	0.000	79.800	2 acre lots, 12% imp	1S, 2S
2,458.500	0.000	0.000	140.800	0.000	2,599.300	Woods, Good	1S, 2S
308.200	0.000	0.000	0.000	0.000	308.200	Water Surface	1S, 2S
2,766.700	**79.800**	**0.000**	**140.800**	**0.000**	**2,987.300**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	3P	1,545.64	1,545.29	70.0	0.0050	0.025	30.0	0.0	0.0

Time span=5.00-40.00 hrs, dt=0.05 hrs, 701 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Doering Watershed Runoff Area=1,298.800 ac 10.64% Impervious Runoff Depth=0.50"
Flow Length=18,554' Tc=242.4 min CN=40 Runoff=78.67 cfs 54.448 af

Subcatchment 2S: Doering Watershed - Runoff Area=1,688.500 ac 10.64% Impervious Runoff Depth=0.50"
Flow Length=18,554' Tc=242.4 min CN=40 Runoff=102.28 cfs 70.785 af

Pond 3P: Impoundment Peak Elev=1,558.83' Storage=44.483 af Inflow=102.28 cfs 70.785 af
Outflow=42.07 cfs 38.328 af

Total Runoff Area = 2,987.300 ac Runoff Volume = 125.232 af Average Runoff Depth = 0.50"
89.36% Pervious = 2,669.524 ac 10.64% Impervious = 317.776 ac

Summary for Subcatchment 1S: Doering Watershed

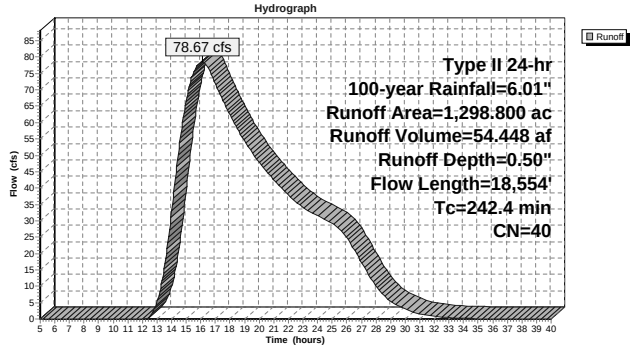
Runoff = 78.67 cfs @ 16.14 hrs, Volume= 54.448 af, Depth= 0.50"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-40.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=6.01"

Area (ac)	CN	Description
134.000	98	Water Surface, HSG A
34.700	65	2 acre lots, 12% imp, HSG B
61.200	77	Woods, Good, HSG D
1,068.900	30	Woods, Good, HSG A
1,298.800	40	Weighted Average
1,160.636		89.36% Pervious Area
138.164		10.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
46.0	300	0.1300	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.74"
114.4	2,573	0.0225	0.38		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
80.0	14,521	0.0124	3.02	7.56	**Channel Flow,** Area= 2.5 sf Perim= 4.0' r= 0.63' n= 0.040 Winding stream, pools & shoals
2.0	1,160		9.83		**Lake or Reservoir,** Mean Depth= 3.00'
242.4	18,554	Total			

Subcatchment 1S: Doering Watershed



Summary for Subcatchment 2S: Doering Watershed - Adjusted

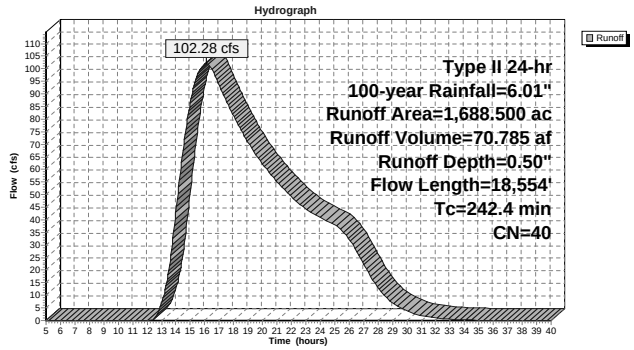
Runoff = 102.28 cfs @ 16.14 hrs, Volume= 70.785 af, Depth= 0.50"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-40.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=6.01"

Area (ac)	CN	Description
174.200	98	Water Surface, HSG A
45.100	65	2 acre lots, 12% imp, HSG B
79.600	77	Woods, Good, HSG D
1,389.600	30	Woods, Good, HSG A
1,688.500	40	Weighted Average
1,508.888		89.36% Pervious Area
179.612		10.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
46.0	300	0.1300	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.74"
114.4	2,573	0.0225	0.38		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
80.0	14,521	0.0124	3.02	7.56	**Channel Flow,** Area= 2.5 sf Perim= 4.0' r= 0.63' n= 0.040 Winding stream, pools & shoals
2.0	1,160		9.83		**Lake or Reservoir,** Mean Depth= 3.00'
242.4	18,554	Total			

Subcatchment 2S: Doering Watershed - Adjusted



Summary for Pond 3P: Impoundment

Inflow Area = 1,688.500 ac, 10.64% Impervious, Inflow Depth = 0.50" for 100-year event
Inflow = 102.28 cfs @ 16.14 hrs, Volume= 70.785 af
Outflow = 42.07 cfs @ 23.61 hrs, Volume= 38.328 af, Atten= 59%, Lag= 448.0 min
Primary = 42.07 cfs @ 23.61 hrs, Volume= 38.328 af

Routing by Stor-Ind method, Time Span= 5.00-40.00 hrs, dt= 0.05 hrs
Peak Elev= 1,558.83' @ 23.61 hrs Surf.Area= 13.000 ac Storage= 44.483 af

Plug-Flow detention time= 571.6 min calculated for 38.328 af (54% of inflow)
Center-of-Mass det. time= 387.9 min (1,559.7 - 1,171.7)

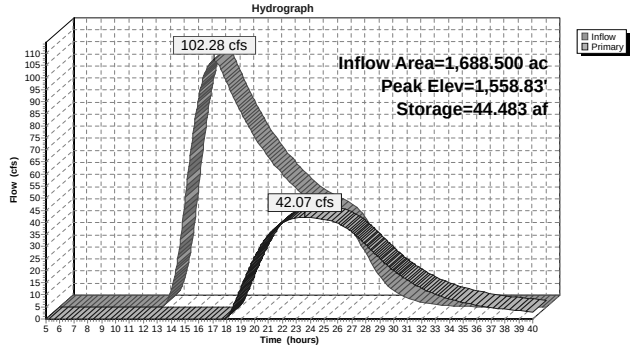
Volume	Invert	Avail.Storage	Storage Description
#1	1,553.10'	124.693 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
1,553.10	0.010	0.000	0.000
1,557.72	13.000	30.053	30.053
1,563.21	13.000	71.370	101.423
1,565.00	13.000	23.270	124.693

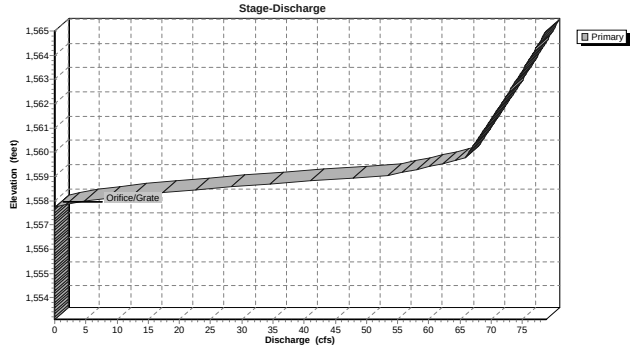
Device	Routing	Invert	Outlet Devices
#1	Primary	1,545.64'	**30.0" Round Culvert** L= 70.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,545.64' / 1,545.29' S= 0.0050 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 4.91 sf
#2	Device 1	1,557.72'	**42.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=42.05 cfs @ 23.61 hrs HW=1,558.83' (Free Discharge)
└─**1=Culvert** (Passes 42.05 cfs of 63.15 cfs potential flow)
└─**2=Orifice/Grate** (Weir Controls 42.05 cfs @ 3.45 fps)

Pond 3P: Impoundment



Pond 3P: Impoundment

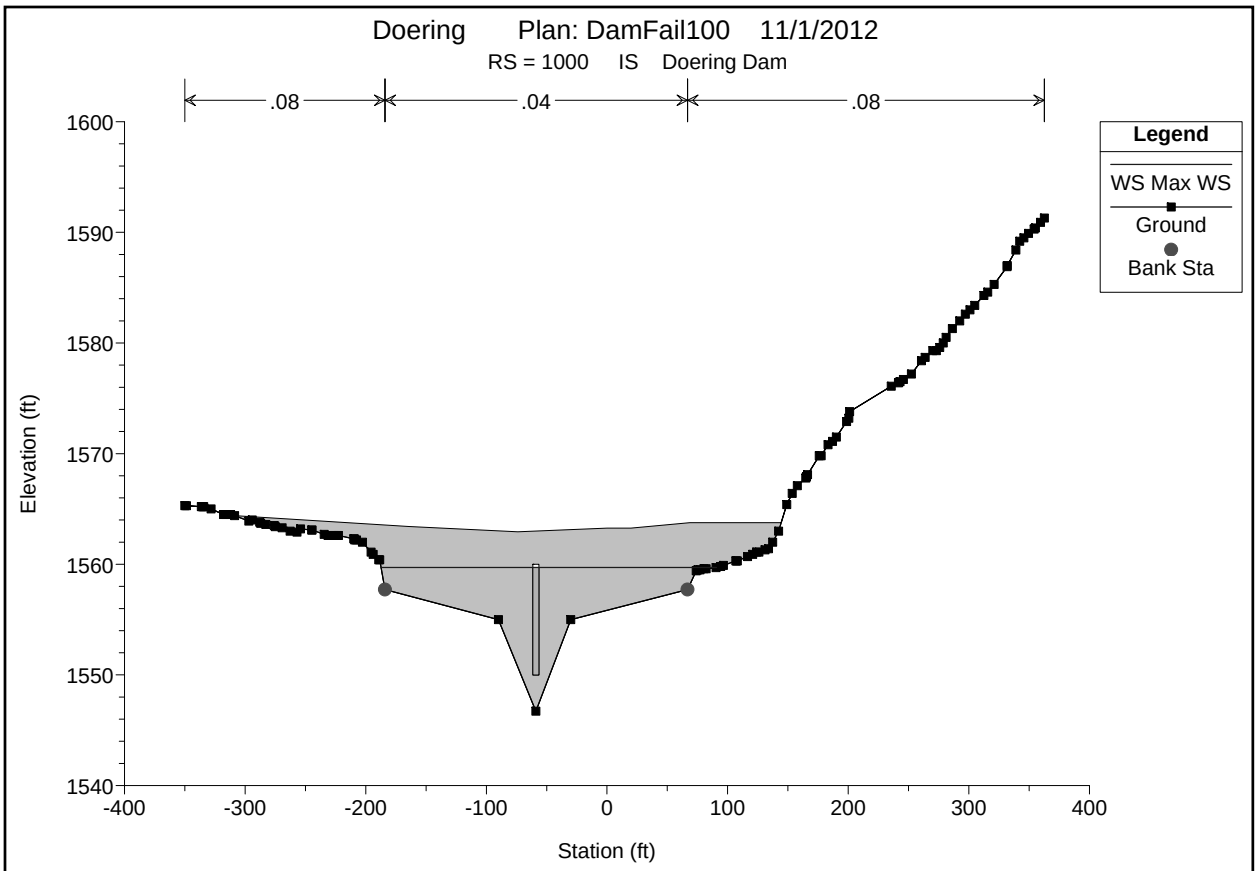


Stage-Discharge for Pond 3P: Impoundment

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
1,553.10	0.00	1,556.28	0.00	1,559.46	61.11	1,562.64	73.24
1,553.16	0.00	1,556.34	0.00	1,559.52	62.15	1,562.70	73.38
1,553.22	0.00	1,556.40	0.00	1,559.58	63.18	1,562.76	73.53
1,553.28	0.00	1,556.46	0.00	1,559.64	64.19	1,562.82	73.68
1,553.34	0.00	1,556.52	0.00	1,559.70	65.19	1,562.88	73.83
1,553.40	0.00	1,556.58	0.00	1,559.76	65.75	1,562.94	73.97
1,553.46	0.00	1,556.64	0.00	1,559.82	65.92	1,563.00	74.12
1,553.52	0.00	1,556.70	0.00	1,559.88	66.08	1,563.06	74.27
1,553.58	0.00	1,556.76	0.00	1,559.94	66.25	1,563.12	74.41
1,553.64	0.00	1,556.82	0.00	1,560.00	66.41	1,563.18	74.56
1,553.70	0.00	1,556.88	0.00	1,560.06	66.57	1,563.24	74.70
1,553.76	0.00	1,556.94	0.00	1,560.12	66.73	1,563.30	74.85
1,553.82	0.00	1,557.00	0.00	1,560.18	66.90	1,563.36	74.99
1,553.88	0.00	1,557.06	0.00	1,560.24	67.06	1,563.42	75.14
1,553.94	0.00	1,557.12	0.00	1,560.30	67.22	1,563.48	75.28
1,554.00	0.00	1,557.18	0.00	1,560.36	67.38	1,563.54	75.42
1,554.06	0.00	1,557.24	0.00	1,560.42	67.54	1,563.60	75.57
1,554.12	0.00	1,557.30	0.00	1,560.48	67.70	1,563.66	75.71
1,554.18	0.00	1,557.36	0.00	1,560.54	67.86	1,563.72	75.85
1,554.24	0.00	1,557.42	0.00	1,560.60	68.02	1,563.78	76.00
1,554.30	0.00	1,557.48	0.00	1,560.66	68.18	1,563.84	76.14
1,554.36	0.00	1,557.54	0.00	1,560.72	68.34	1,563.90	76.28
1,554.42	0.00	1,557.60	0.00	1,560.78	68.50	1,563.96	76.42
1,554.48	0.00	1,557.66	0.00	1,560.84	68.66	1,564.02	76.56
1,554.54	0.00	1,557.72	0.00	1,560.90	68.81	1,564.08	76.71
1,554.60	0.00	1,557.78	0.53	1,560.96	68.97	1,564.14	76.85
1,554.66	0.00	1,557.84	1.49	1,561.02	69.13	1,564.20	76.99
1,554.72	0.00	1,557.90	2.75	1,561.08	69.28	1,564.26	77.13
1,554.78	0.00	1,557.96	4.23	1,561.14	69.44	1,564.32	77.27
1,554.84	0.00	1,558.02	5.91	1,561.20	69.60	1,564.38	77.41
1,554.90	0.00	1,558.08	7.77	1,561.26	69.75	1,564.44	77.55
1,554.96	0.00	1,558.14	9.79	1,561.32	69.91	1,564.50	77.69
1,555.02	0.00	1,558.20	11.96	1,561.38	70.06	1,564.56	77.83
1,555.08	0.00	1,558.26	14.27	1,561.44	70.22	1,564.62	77.97
1,555.14	0.00	1,558.32	16.71	1,561.50	70.37	1,564.68	78.11
1,555.20	0.00	1,558.38	19.28	1,561.56	70.52	1,564.74	78.24
1,555.26	0.00	1,558.44	21.97	1,561.62	70.68	1,564.80	78.38
1,555.32	0.00	1,558.50	24.77	1,561.68	70.83	1,564.86	78.52
1,555.38	0.00	1,558.56	27.68	1,561.74	70.98	1,564.92	78.66
1,555.44	0.00	1,558.62	30.70	1,561.80	71.14	1,564.98	**78.80**
1,555.50	0.00	1,558.68	33.82	1,561.86	71.29		
1,555.56	0.00	1,558.74	37.04	1,561.92	71.44		
1,555.62	0.00	1,558.80	40.36	1,561.98	71.59		
1,555.68	0.00	1,558.86	43.76	1,562.04	71.74		
1,555.74	0.00	1,558.92	47.26	1,562.10	71.89		
1,555.80	0.00	1,558.98	50.85	1,562.16	72.04		
1,555.86	0.00	1,559.04	53.22	1,562.22	72.19		
1,555.92	0.00	1,559.10	54.42	1,562.28	72.34		
1,555.98	0.00	1,559.16	55.59	1,562.34	72.49		
1,556.04	0.00	1,559.22	56.74	1,562.40	72.64		
1,556.10	0.00	1,559.28	57.86	1,562.46	72.79		
1,556.16	0.00	1,559.34	58.96	1,562.52	72.94		
1,556.22	0.00	1,559.40	60.04	1,562.58	73.09		

Appendix D

Dam Failure Analysis Computations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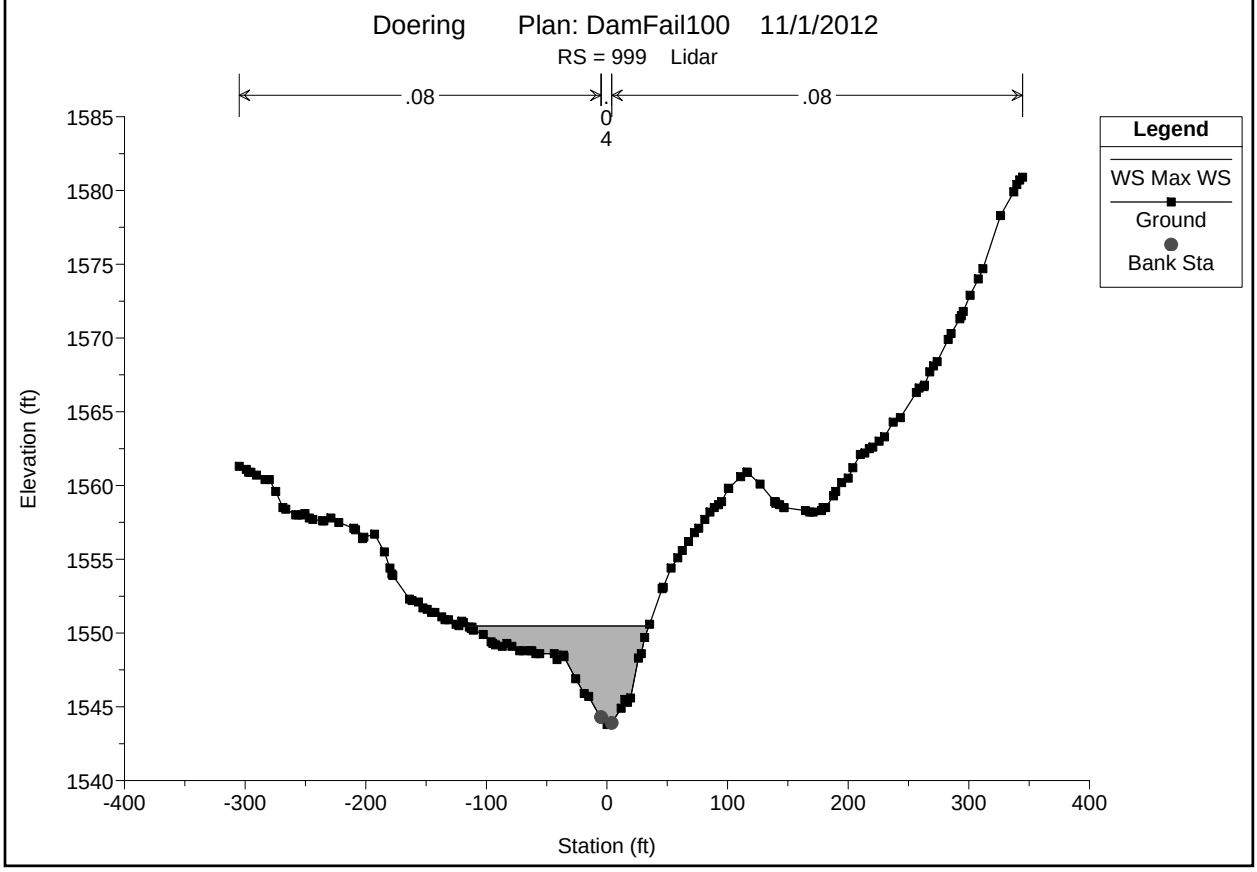
RS = 1000 IS Doering Dam
.08
.04
.08
Legend
WS Max WS
Ground
Bank Sta
Elevation (ft)
Station (ft)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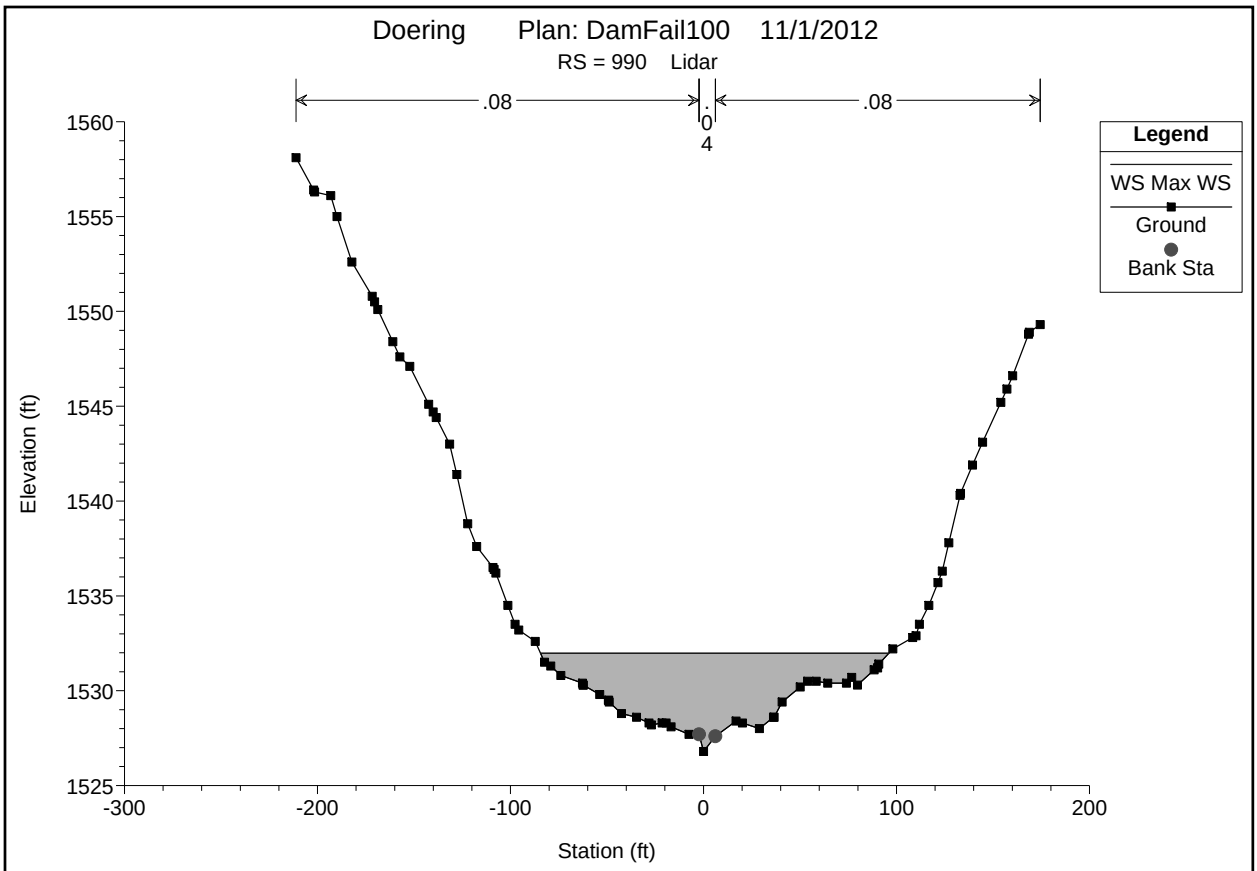
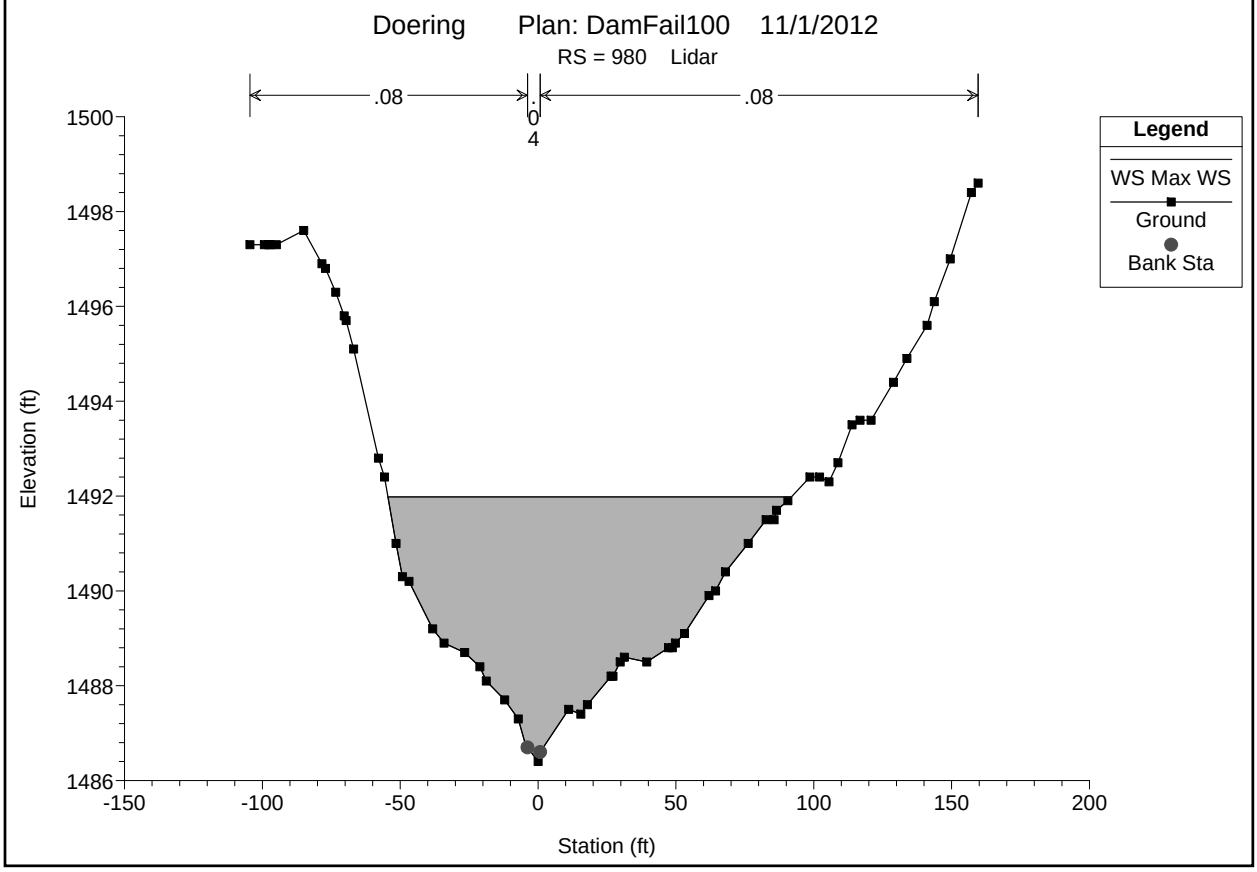
Legend
WS Max WS
Ground
Bank Sta
Elevation (ft)
Station (ft)


Doering Plan: DamFail100 11/1/2012
RS = 990 Lidar
.08
.04
.08
Legend
WS Max WS
Ground
Bank Sta
Elevation (ft)
Station (ft)
1560
1555
1550
1545
1540
1535
1530
1525
-300
-200
-100
0
100
200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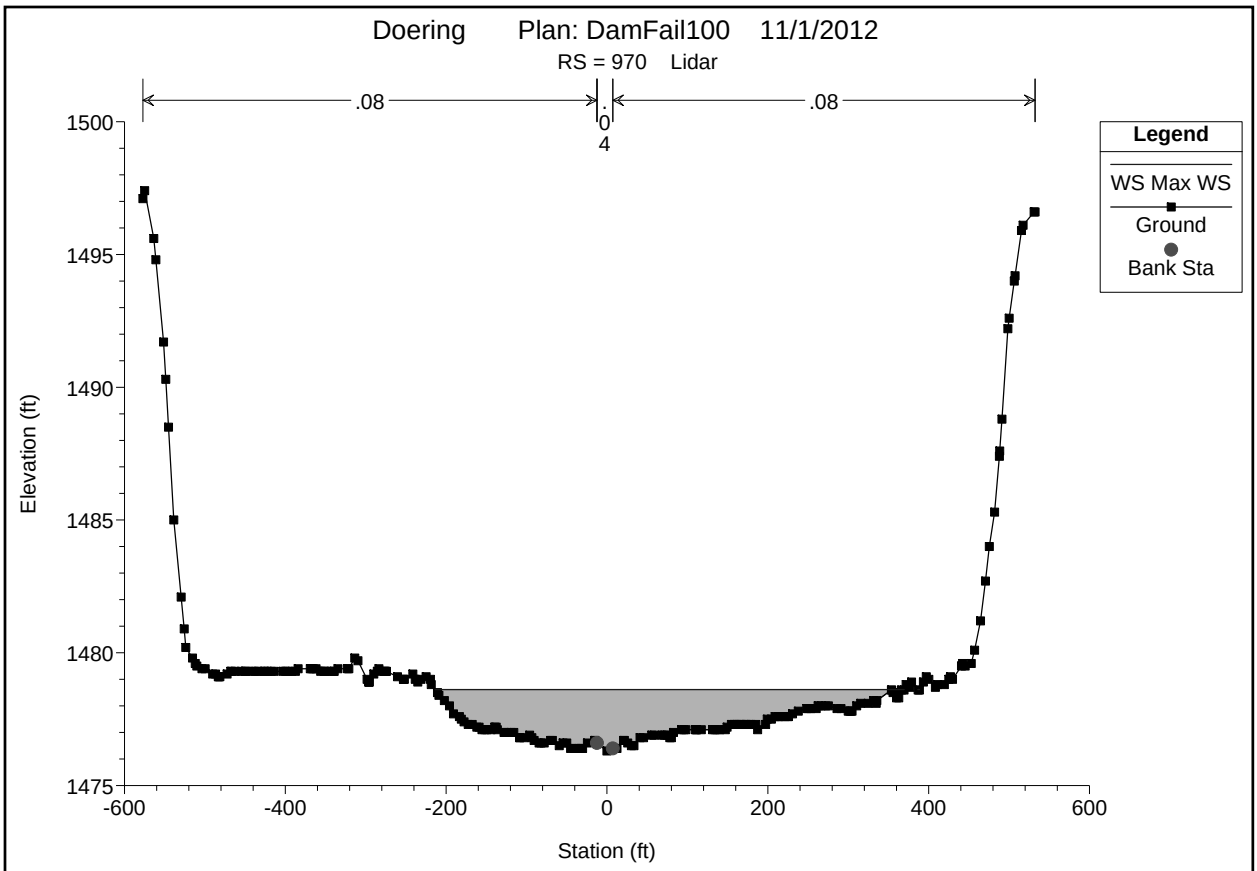
RS = 980 Lidar
.08
.04
.08
Legend
WS Max WS
Ground
Bank Sta
Elevation (ft)
Station (ft)
1500
1498
1496
1494
1492
1490
1488
1486
-150
-100
-50
0
50
100
150
200


Doering Plan: DamFail100 11/1/2012
RS = 970 Lidar
.08
.04
.08
Legend
WS Max WS
Ground
Bank Sta
Elevation (ft)
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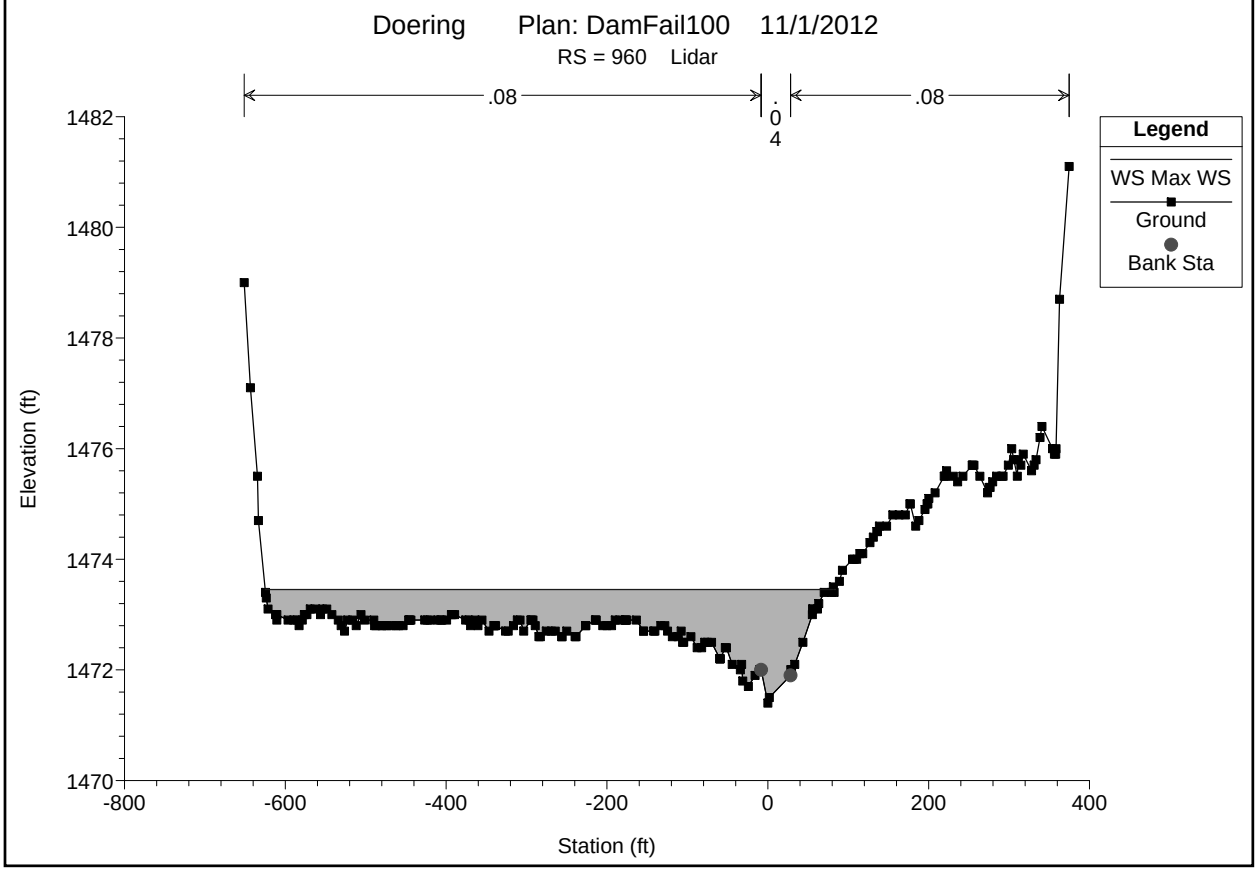
1495
1490
1485
1480
1475
-600
-400
-200
0
200
400
600
Station (ft)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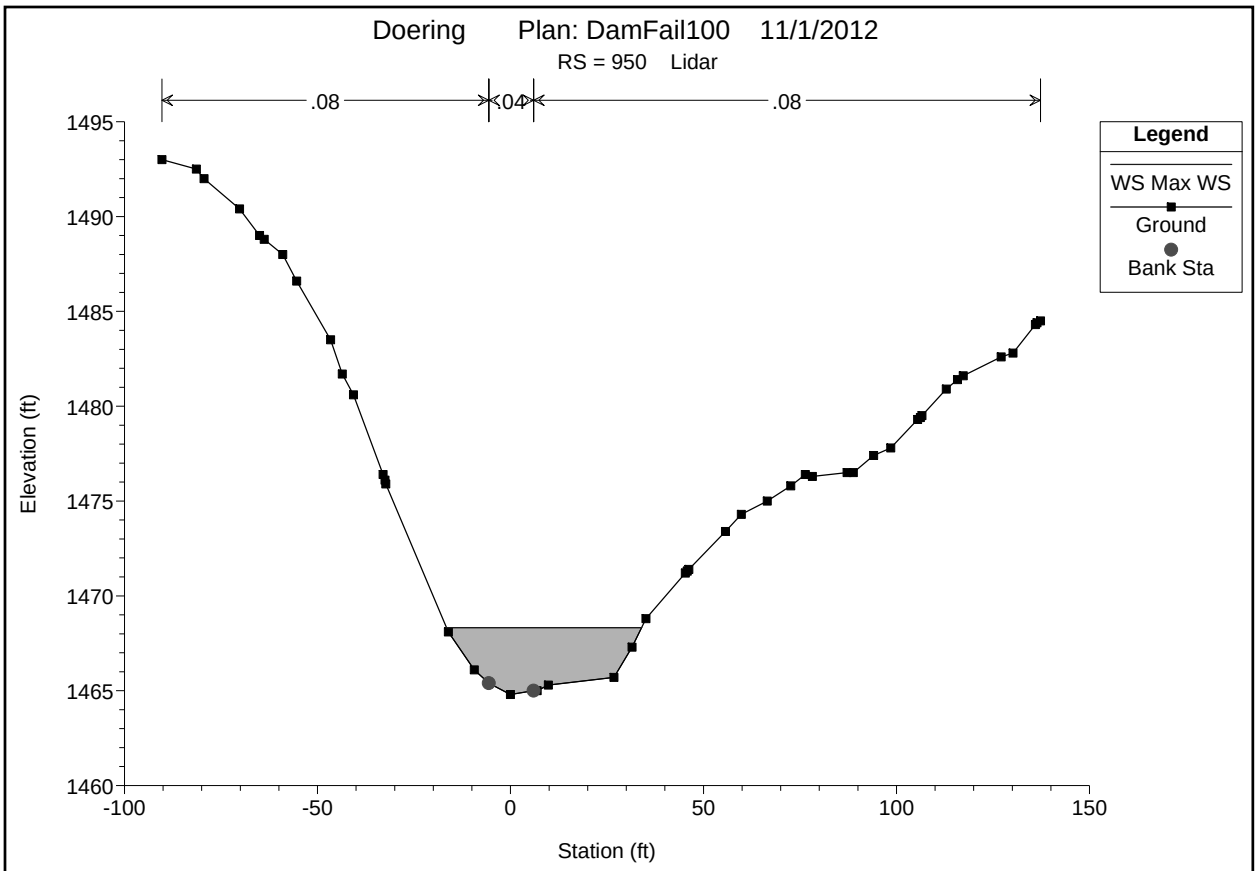
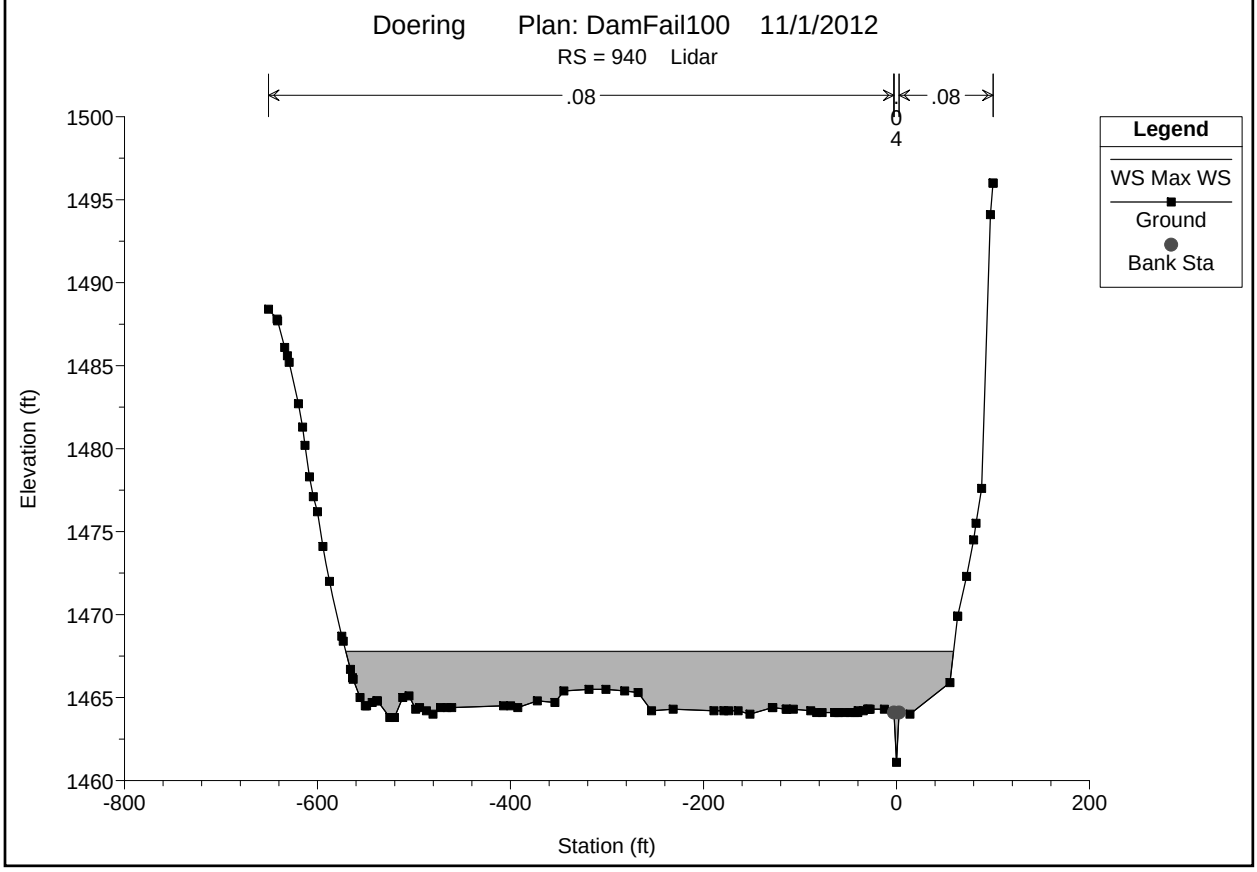
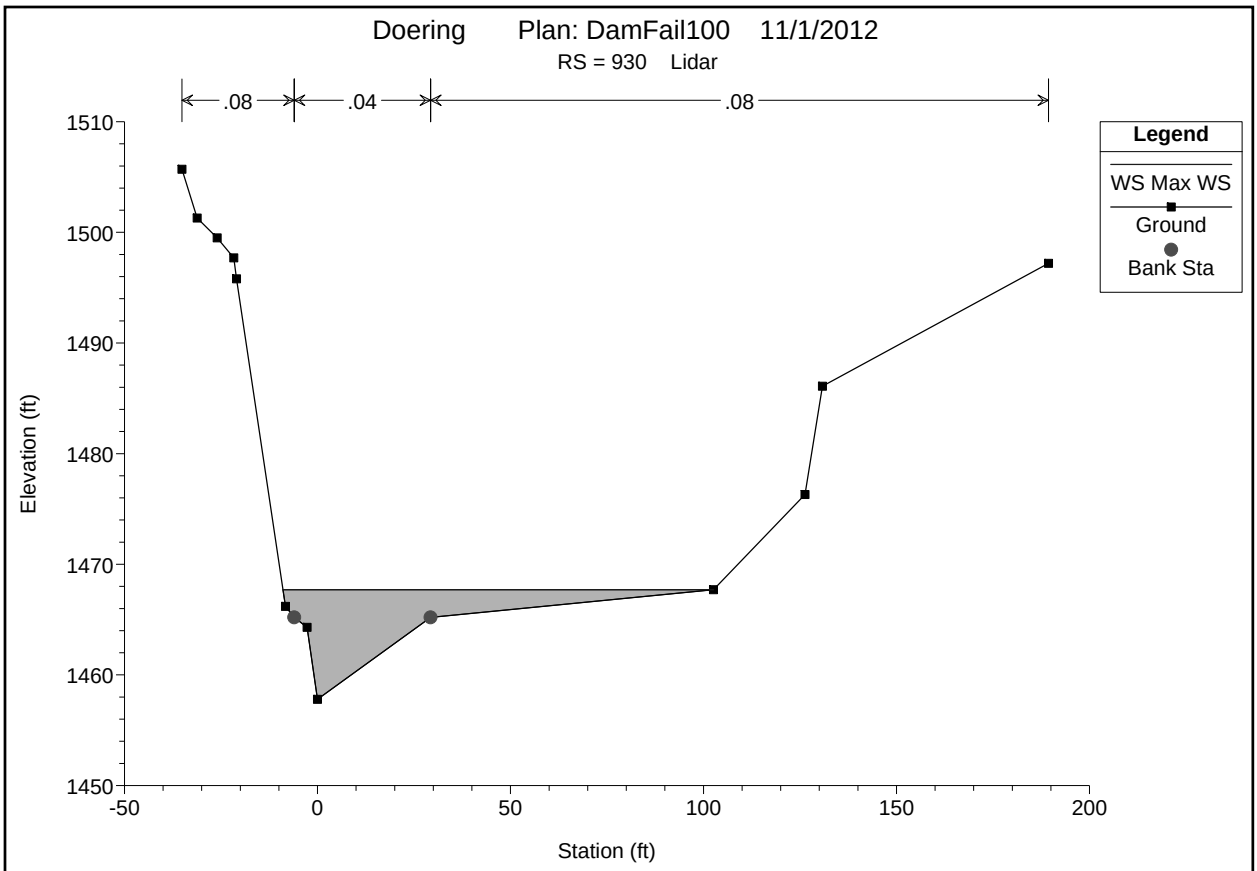
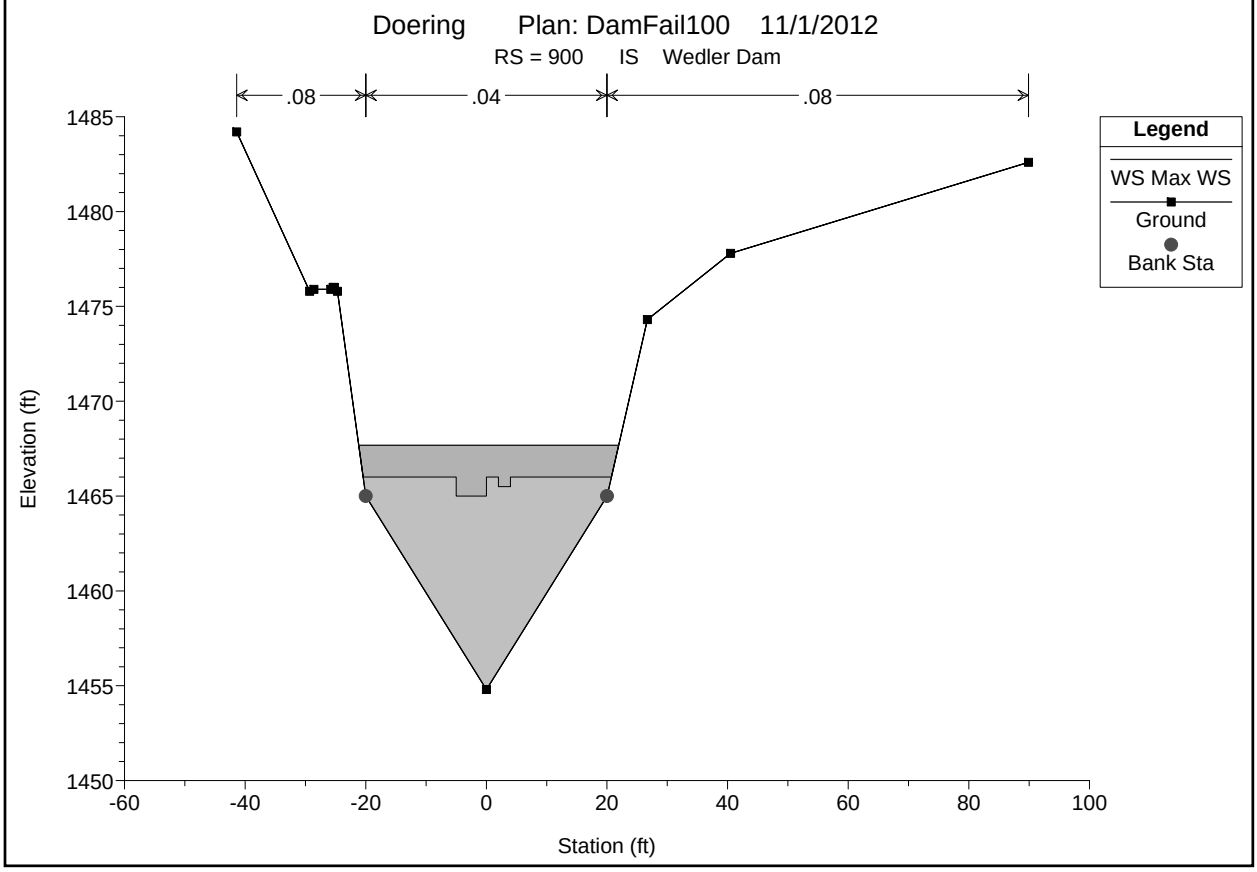
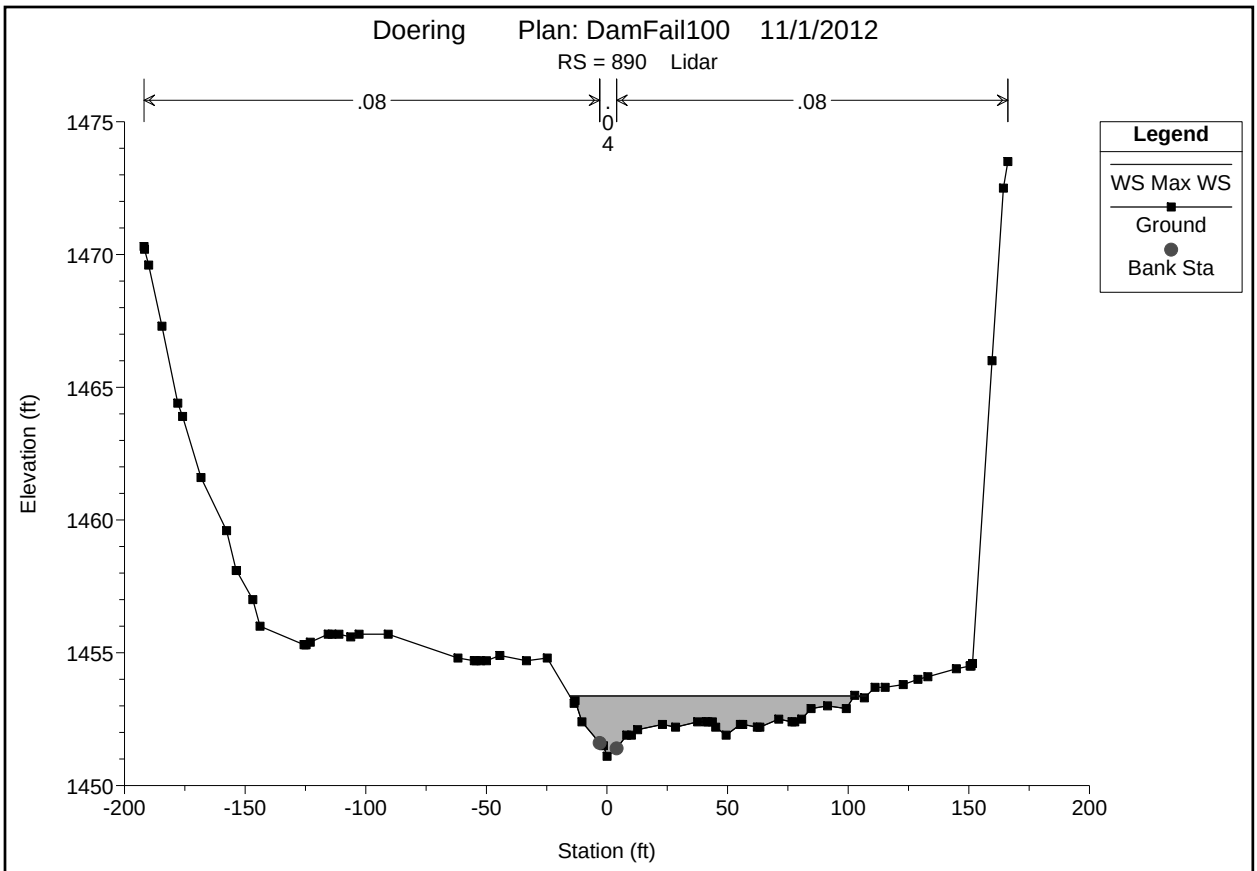
.08
.04
.08
Legend
WS Max WS
Ground
Bank Sta
Elevation (ft)
1482
1480
1478
1476
1474
1472
1470
-800
-600
-400
-200
0
200
400
Station (ft)


Doering Plan: DamFail100 11/1/2012
RS = 950 Lidar
.08
.04
.08
Legend
WS Max WS
Ground
Bank Sta
Elevation (ft)
Station (ft)
1495
1490
1485
1480
1475
1470
1465
1460
-100
-50
0
50
100
150

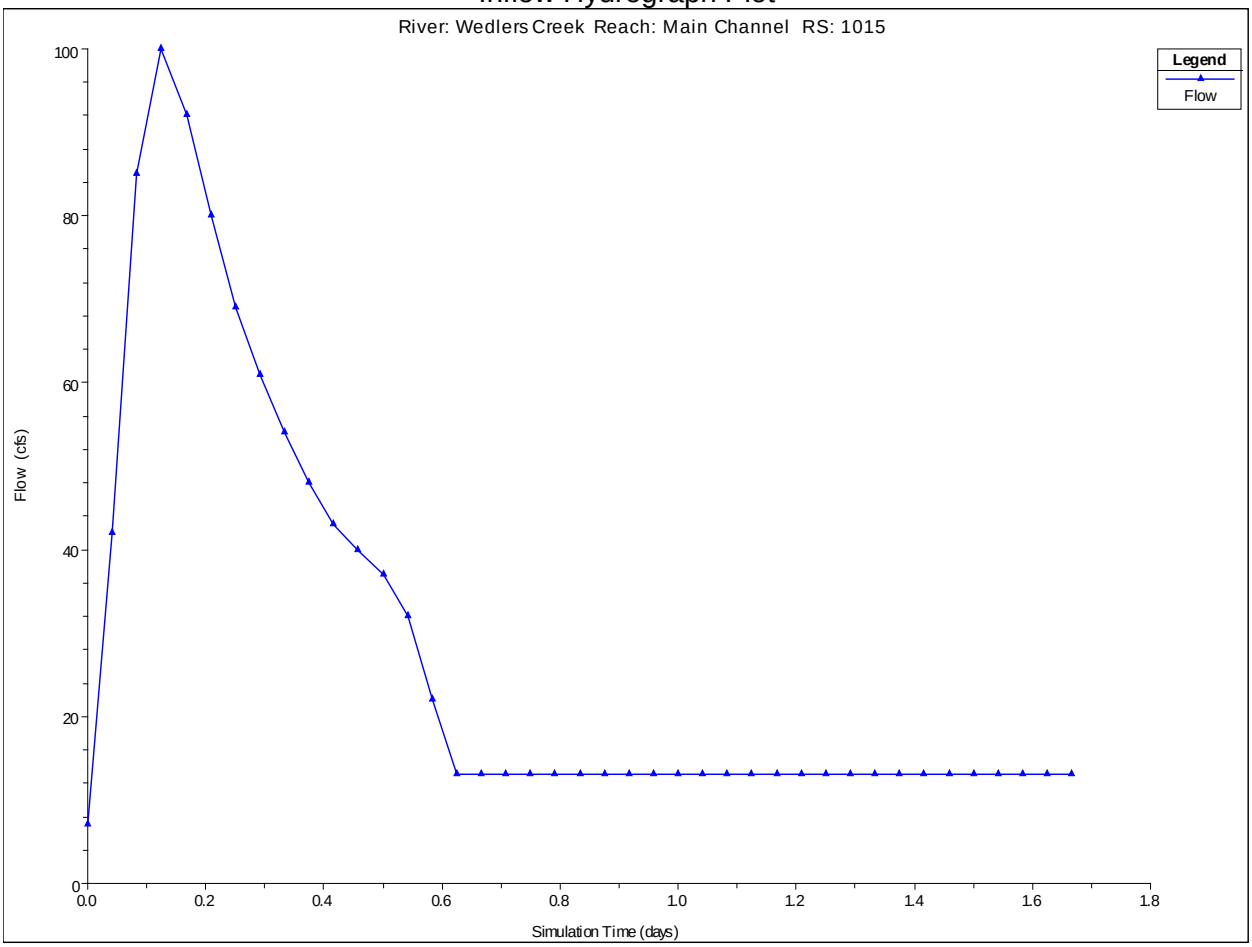

Doering Plan: DamFail100 11/1/2012
RS = 940 Lidar
.08
.08
Legend
WS Max WS
Ground
Bank Sta
Elevation (ft)
Station (ft)
1500
1495
1490
1485
1480
1475
1470
1465
1460
-800
-600
-400
-200
0
200


Doering Plan: DamFail100 11/1/2012
RS = 930 Lidar
.08
.04
.08
Legend
WS Max WS
Ground
Bank Sta
Elevation (ft)
Station (ft)
1510
1500
1490
1480
1470
1460
1450
-50
0
50
100
150
200

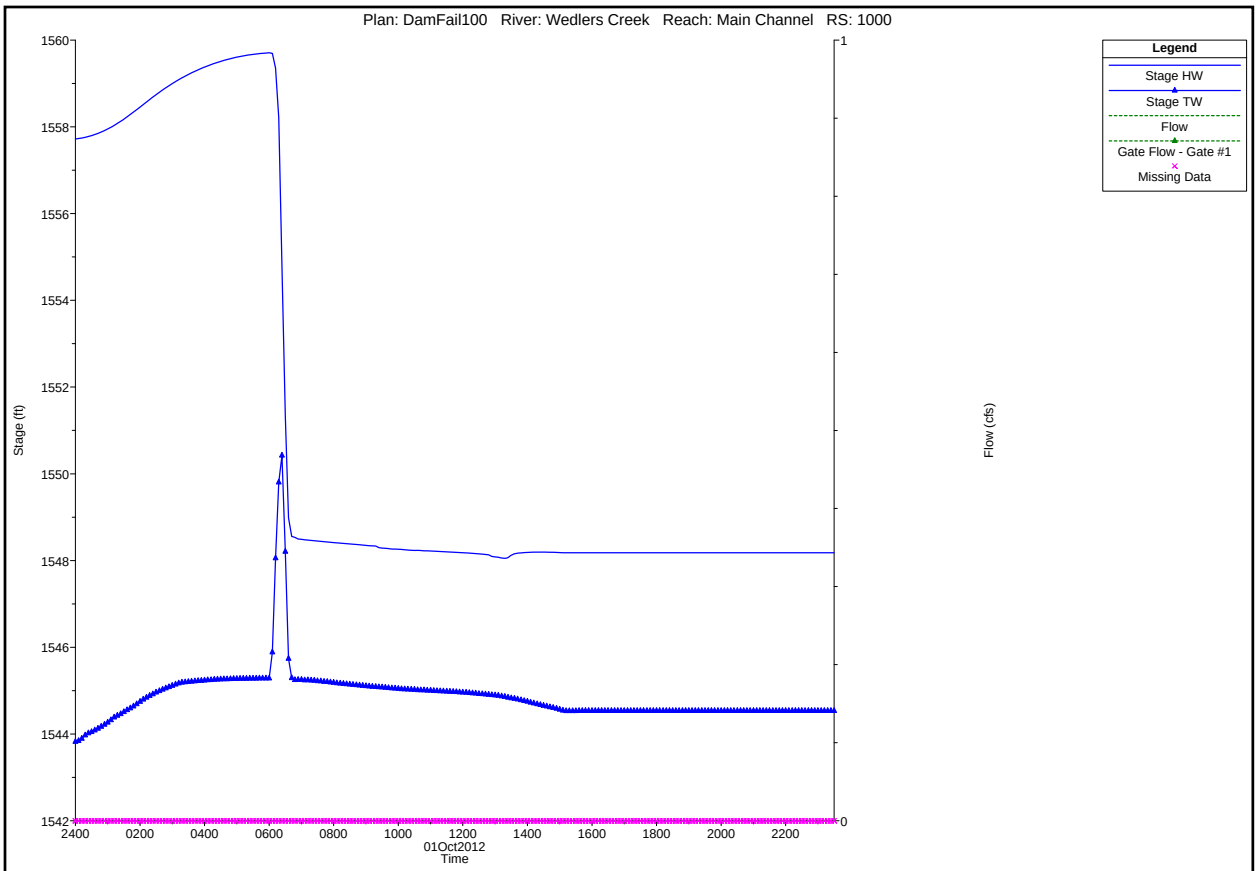

Doering Plan: DamFail100 11/1/2012
RS = 900 IS Wedler Dam
.08
.04
.08
Legend
WS Max WS
Ground
Bank Sta
Elevation (ft)
Station (ft)
1485
1480
1475
1470
1465
1460
1455
1450
-60
-40
-20
0
20
40
60
80
100

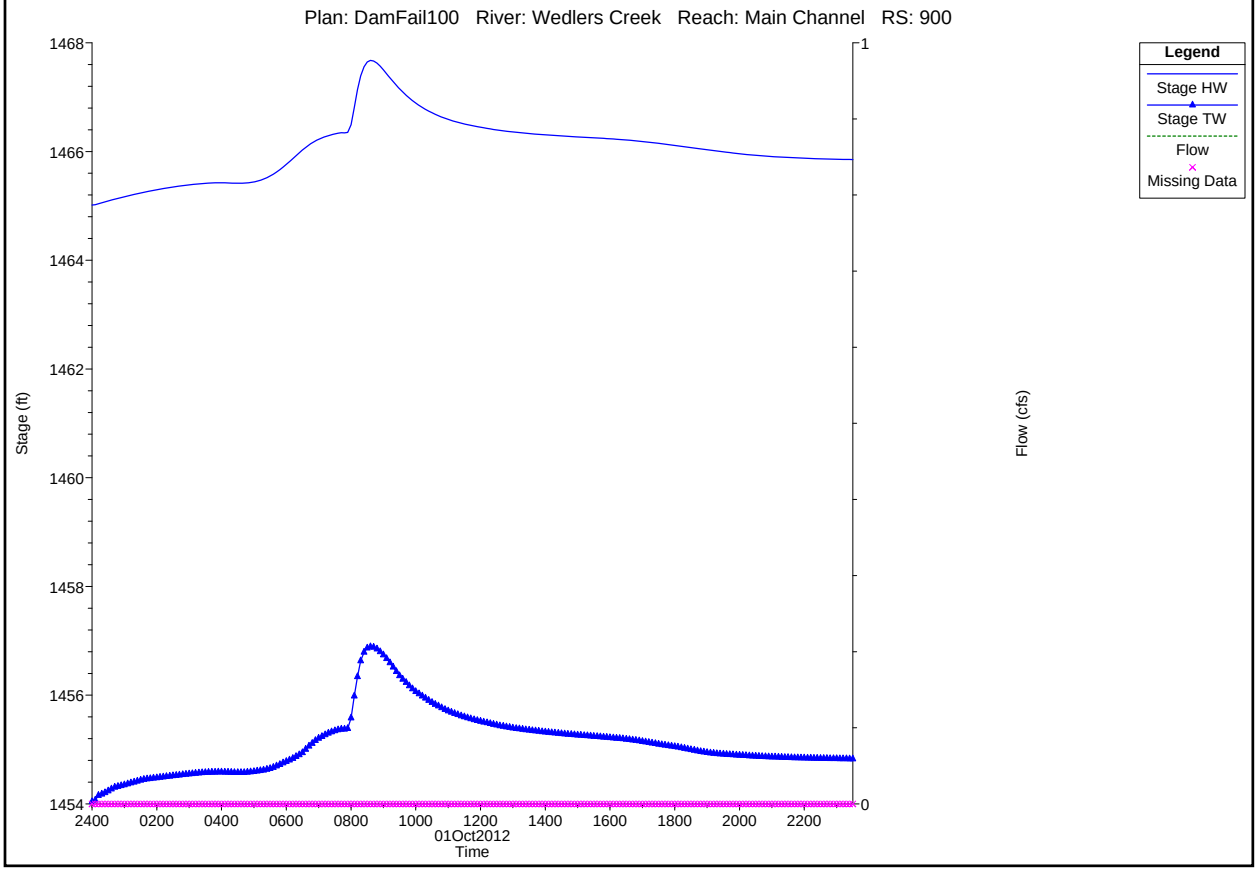

Doering Plan: DamFail100 11/1/2012
RS = 890 Lidar
.08
.04
.08
Legend
WS Max WS
Ground
Bank Sta
Elevation (ft)
1475
1470
1465
1460
1455
1450
-200
-150
-100
-50
0
50
100
150
200
Station (ft)

Inflow Hydrograph Plot



Hydrographs at Inline Structures





```
                    HEC-RAS Version 4.1.0 Jan 2010
                     U.S. Army Corps of Engineers
                    Hydrologic Engineering Center
                          609 Second Street
                          Davis, California


          X     X  XXXXXX    XXXX        XXXX       XX      XXXX
          X     X  X        X    X       X   X     X  X    X
          X     X  X        X            X   X    X    X   X
          XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
          X     X  X        X            X  X     X    X        X
          X     X  X        X    X       X   X    X    X        X
          X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Doering
Project File : Doering.prj
Run Date and Time: 11/1/2012 2:58:47 PM

Project in English units

PLAN DATA

Plan Title: DamFail100
Plan File : v:\Dul\DuluthProject\Kaitlin\Doering Dam\RAS\Doering.p04

Geometry Title: Dam
Geometry File : v:\Dul\DuluthProject\Kaitlin\Doering Dam\RAS\Doering.g03

Flow Title :
Flow File :

Plan Summary Information:

Number of:	Cross Sections	= 80	Multiple Openings	=	0
	Culverts	= 0	Inline Structures	=	2
	Bridges	= 0	Lateral Structures	=	0

Computational Information

Water surface calculation tolerance	=	0.01
Critical depth calculation tolerance	=	0.01
Maximum number of iterations	=	20
Maximum difference tolerance	=	0.3
Flow tolerance factor	=	0.001

Computation Options
Critical depth computed only where necessary

Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Subcritical Flow

GEOMETRY DATA

Geometry Title: Dam
Geometry File : v:\Dul\DuluthProject\Kaitlin\Doering Dam\RAS\Doering.g03

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 1015

INPUT
Description: Lidar and quad map; assumed channel
Station Elevation Data num= 130

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-158.9	1604.4	-151.2	1602.6	-148.3	1599.4	-140.3	1583.3	-139.5	1583.3
-138.1	1583.1	-128.4	1582.4	-122.9	1581.4	-118.9	1580.9	-112.4	1580.2
-109.6	1579.9	-106.4	1579.5	-99.7	1578.5	-96.3	1578.1	-91.7	1576.8
-85.2	1574.9	-85	1574.8	-82.2	1574.3	-74.9	1573	-74.1	1572.6
-64.5	1564.8	-58.9	1561.9	-55.5	1559.8	-48.5	1558.3	-41.3	1557.8
-36.4	1557.6	-26.2	1558	-25.4	1558.2	-21.5	1558.2	-17.3	1558.1
-9.8	1557.4	-9.6	1557.4	-8.5	1557.5	-8.5	1557.72	3	1557
15.9	1557.72	15.9	1557.9	17.9	1557.7	27.6	1558.7	30.9	1558.9
31.5	1558.9	34.3	1557.8	40.7	1557.8	41.8	1557.8	50	1558
51.5	1558.1	51.6	1558.1	51.8	1558.1	65.4	1558.1	70.6	1558.2
73	1558.3	75.3	1558.4	83.2	1558.6	85.5	1558.4	89.4	1559.1
89.5	1559.1	104.9	1558.9	106.4	1558.9	114.9	1559.1	117.3	1559.2
118.5	1559.2	122.3	1559.3	126.3	1559.5	134.6	1559.6	136.8	1559.7
140.9	1559.7	148.3	1559.6	148.8	1559.7	160.6	1560	164.5	1559.9
168.3	1559.8	168.9	1559.8	177.7	1560.6	178.2	1560.7	180.2	1560.7

190.3 1560.8 194 1561.1 201 1561.6 204.9 1561.8 207.7
1561.9
210.4 1562.1 213 1562.2 216.4 1562.8 222.6 1564 226.2
1564.4
235.5 1565.9 235.9 1566 236.7 1566.1 242.5 1567.2 243.8
1567.3
251.9 1567.8 256.4 1568.2 265.4 1570 268.7 1570.7 279.6
1573.5
283.5 1574 290.4 1575.1 297.6 1579.5 297.7 1579.5 297.8
1579.5
305.5 1583.5 310.5 1585.2 312.8 1586.1 314.8 1586.5 323.8
1590
325.4 1590.8 326.9 1591.3 336.6 1594.4 341.3 1595.5 343.7
1595.8
346 1596.7 348.9 1597.7 353.3 1598.4 358 1598.8 365
1599.3
368.5 1600 373 1600.3 374.8 1600.3 381.9 1600.9 388.6
1601.3
391 1601.5 392 1601.6 396 1601.5 400.6 1601.6 405.9
1601.9
407.8 1601.9 411.2 1602.2 412.3 1602.2 423.5 1603 424.5
1603

Manning's n Values num= 3
Sta n Val Sta n Val Sta n Val
-158.9 .08 -8.5 .04 15.9 .08

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr.
Expan.
-8.5 15.9 100 100 100 .1
.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 1014.*

INPUT
Description:
Station Elevation Data num= 143
Sta Elev Sta Elev Sta Elev Sta Elev Sta
Elev
-183.48 1597.68 -178.43 1596.31 -176.3 1595.52 -175.49 1594.62 -173.59
1592.81
-166.12 1579.9 -165.38 1579.9 -164.07 1579.73 -155.02 1579.13 -149.89
1578.31
-146.16 1577.89 -140.09 1577.31 -137.48 1577.06 -134.49 1576.72 -128.24
1575.9
-125.07 1575.56 -120.77 1574.5 -114.71 1572.96 -114.52 1572.88 -111.91
1572.47
-105.1 1571.4 -104.35 1571.07 -95.39 1564.79 -90.17 1562.45 -87
1560.76

-80.46 1559.53 -78.33 1559.39 -73.75 1559 -69.17 1558.71 -59.66
1558.77
-58.91 1558.91 -55.27 1558.81 -51.35 1558.62 -46.79 1558.13 -44.35
1557.62
-44.17 1557.6 -43.14 1557.54 -43.14 1557.72 9.8 1556.06 63.72
1557.72
63.72 1557.86 65.38 1557.77 73.41 1558.89 76.14 1559.15 76.64
1559.17
78.95 1558.38 84.25 1558.59 85.16 1558.63 91.95 1559.06 93.19
1559.19
93.28 1559.19 93.44 1559.2 104.7 1559.64 109.01 1559.89 111
1560.05
112.9 1560.2 119.44 1560.62 121.35 1560.54 124.57 1561.22 124.66
1561.23
137.19 1561.56 137.41 1561.56 138.65 1561.57 140.15 1561.61 145.69
1561.78
147.67 1561.87 148.67 1561.88 151.81 1561.98 155.13 1562.16 162
1562.28
163.82 1562.37 167.21 1562.4 173.34 1562.36 173.75 1562.44 183.52
1562.74
186.75 1562.68 189.9 1562.62 190.4 1562.63 197.68 1563.31 198.1
1563.4
199.75 1563.41 208.11 1563.54 211.18 1563.8 216.97 1564.24 220.2
1564.42
222.52 1564.52 224.76 1564.69 226.91 1564.78 229.72 1565.28 234.86
1566.28
235.54 1566.35 237.84 1566.61 245.54 1567.83 245.87 1567.91 246.53
1567.99
251.33 1568.89 252.41 1568.97 254.5 1569.1 259.12 1569.39 262.84
1569.72
269.9 1571.1 270.29 1571.18 273.03 1571.74 282.05 1573.99 285.28
1574.39
290.64 1575.23 290.99 1575.28 296.95 1578.82 297.04 1578.82 297.12
1578.82
303.49 1582.04 307.63 1583.41 309.54 1584.14 311.19 1584.46 318.65
1587.28
319.97 1587.93 321.21 1588.33 329.24 1590.83 333.13 1591.72 335.12
1591.97
337.03 1592.7 339.43 1593.5 343.07 1594.07 345.14 1594.25 346.96
1594.41
352.76 1594.83 355.65 1595.4 359.38 1595.65 360.87 1595.66 361.14
1595.68
366.75 1596.15 372.3 1596.49 374.28 1596.65 375.11 1596.73 378.42
1596.66
382.23 1596.75 386.62 1597 388.19 1597 391.01 1597.25 391.92
1597.25
396.1 1597.55 401.19 1597.93 402.02 1597.94

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-183.48	.08	-43.14	.04	63.72	.08

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr.
Expan.

-43.14 63.72 100 100 100 .1
.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 1013.*

INPUT
Description:
Station Elevation Data num= 143

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-208.06	1590.96	-203.37	1589.48	-201.39	1588.43	-200.64	1587.59	-198.88	1586.22
-191.95	1576.5	-191.26	1576.49	-190.04	1576.36	-181.64	1575.86	-176.88	1575.22
-173.41	1574.89	-167.78	1574.41	-165.36	1574.21	-162.58	1573.95	-156.78	1573.29
-153.83	1573.02	-149.85	1572.21	-144.22	1571.01	-144.05	1570.95	-141.62	1570.63
-135.3	1569.79	-134.6	1569.54	-126.29	1564.79	-121.44	1563	-118.49	1561.71
-112.43	1560.76	-110.45	1560.64	-106.19	1560.19	-101.95	1559.82	-93.11	1559.54
-92.42	1559.62	-89.04	1559.42	-85.4	1559.15	-81.16	1558.63	-78.91	1557.84
-78.73	1557.8	-77.78	1557.59	-77.78	1557.72	16.6	1555.12	111.54	1557.72
111.54	1557.83	112.85	1557.84	119.21	1559.07	121.38	1559.41	121.77	1559.45
123.61	1558.97	127.81	1559.39	128.53	1559.46	133.91	1560.11	134.89	1560.27
134.96	1560.28	135.09	1560.29	144.01	1561.18	147.42	1561.58	148.99	1561.8
150.5	1562.01	155.68	1562.64	157.19	1562.67	159.75	1563.35	159.81	1563.35
169.74	1564.22	169.91	1564.22	170.9	1564.24	172.09	1564.29	176.47	1564.45
178.05	1564.54	178.84	1564.55	181.33	1564.65	183.95	1564.81	189.4	1564.96
190.84	1565.05	193.53	1565.09	198.38	1565.11	198.71	1565.18	206.45	1565.48
209.01	1565.47	211.5	1565.45	211.89	1565.45	217.66	1566.03	217.99	1566.09
219.3	1566.11	225.93	1566.28	228.36	1566.5	232.95	1566.88	235.5	1567.04
237.34	1567.13	239.11	1567.28	240.82	1567.37	243.05	1567.76	247.11	1568.55
247.65	1568.61	249.48	1568.81	255.58	1569.76	255.84	1569.83	256.36	1569.89
260.17	1570.58	261.02	1570.65	262.67	1570.75	266.33	1570.98	269.28	1571.24

274.87 1572.3 275.19 1572.36 277.35 1572.79 284.5 1574.48 287.06
1574.79
291.3 1575.42 291.58 1575.46 296.31 1578.14 296.37 1578.14 296.44
1578.14
301.49 1580.58 304.77 1581.62 306.28 1582.17 307.59 1582.42 313.49
1584.56
314.54 1585.05 315.52 1585.36 321.89 1587.27 324.97 1587.95 326.54
1588.14
328.05 1588.69 329.95 1589.31 332.84 1589.75 334.48 1589.89 335.92
1590.01
340.51 1590.36 342.81 1590.8 345.76 1591.01 346.94 1591.02 347.15
1591.04
351.6 1591.41 355.99 1591.67 357.57 1591.8 358.22 1591.86 360.85
1591.82
363.86 1591.9 367.34 1592.1 368.59 1592.1 370.82 1592.3 371.54
1592.3
374.85 1592.54 378.88 1592.87 379.54 1592.88

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-208.06	.08	-77.78	.04	111.54	.08

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr.
Expan.
-77.78 111.54 100 100 100 .1
.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 1012.*

INPUT
Description:
Station Elevation Data num= 143

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-232.64	1584.24	-228.32	1582.65	-226.49	1581.35	-225.79	1580.56	-224.17	1579.64
-217.77	1573.1	-217.13	1573.09	-216.01	1572.99	-208.26	1572.59	-203.86	1572.13
-200.67	1571.88	-195.47	1571.52	-193.23	1571.37	-190.67	1571.17	-185.32	1570.69
-182.6	1570.49	-178.92	1569.91	-173.73	1569.07	-173.57	1569.03	-171.33	1568.8
-165.5	1568.19	-164.86	1568.02	-157.18	1564.78	-152.71	1563.55	-149.99	1562.67
-144.39	1561.99	-142.57	1561.9	-138.64	1561.39	-134.72	1560.93	-126.57	1560.31
-125.93	1560.33	-122.81	1560.03	-119.45	1559.67	-115.54	1559.12	-113.46	1558.07
-113.3	1557.99	-112.42	1557.63	-112.42	1557.72	23.4	1554.18	159.36	1557.72

```
  159.36 1557.79  160.33 1557.91  165.02 1559.26  166.62 1559.66  166.91
1559.72
  168.26 1559.55  171.36 1560.18  171.89 1560.29  175.86 1561.17  176.58
1561.36
  176.63 1561.37  176.73 1561.39  183.31 1562.72  185.83 1563.27  186.99
1563.54
   188.1 1563.81  191.92 1564.66  193.04 1564.81  194.92 1565.47  194.97
1565.48
  202.29 1566.88  202.42 1566.88  203.15 1566.91  204.02 1566.96  207.26
1567.13
  208.42 1567.21     209 1567.23  210.84 1567.33  212.78 1567.47  216.79
1567.65
  217.86 1567.72  219.84 1567.79  223.42 1567.87  223.66 1567.92  229.37
1568.23
  231.26 1568.25   233.1 1568.27  233.39 1568.28  237.65 1568.74  237.89
1568.79
  238.86 1568.82  243.74 1569.03  245.53 1569.21  248.92 1569.52  250.81
1569.66
  252.16 1569.75  253.47 1569.87  254.73 1569.95  256.37 1570.25  259.37
1570.83
  259.77 1570.88  261.11 1571.02  265.61 1571.69  265.81 1571.74  266.19
1571.78
     269 1572.27  269.63 1572.32  270.85  1572.4  273.55 1572.58  275.73
1572.77
  279.85  1573.5  280.08 1573.54  281.68 1573.83  286.95 1574.98  288.84
1575.18
  291.97 1575.61  292.18 1575.64  295.66 1577.46  295.71 1577.46  295.76
1577.46
  299.48 1579.11   301.9 1579.83  303.01 1580.21  303.98 1580.38  308.34
1581.85
  309.11 1582.18  309.84 1582.39  314.53  1583.7   316.8 1584.17  317.97
1584.31
  319.08 1584.69  320.48 1585.11  322.61 1585.42  323.82 1585.53  324.88
1585.62
  328.27 1585.89  329.96  1586.2  332.14 1586.36  333.01 1586.38  333.17
1586.39
  336.45 1586.66  339.69 1586.86  340.85 1586.95  341.33    1587  343.27
1586.98
   345.5 1587.04  348.06 1587.19  348.98 1587.21  350.62 1587.35  351.16
1587.35
   353.6 1587.52  356.58  1587.8  357.06 1587.82

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 -232.64     .08 -112.42     .04  159.36     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
       -112.42  159.36              100     100     100             .1
.3

CROSS SECTION
```

RIVER: Wedlers Creek
REACH: Main Channel RS: 1011.*

INPUT
Description:
Station Elevation Data num= 143

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-257.22	1577.52	-253.26	1575.83	-251.58	1574.27	-250.95	1573.53	-249.46	1573.05
-243.6	1569.7	-243.01	1569.69	-241.99	1569.62	-234.88	1569.33	-230.85	1569.04
-227.92	1568.87	-223.16	1568.63	-221.11	1568.52	-218.77	1568.39	-213.86	1568.08
-211.37	1567.95	-208	1567.61	-203.24	1567.13	-203.09	1567.11	-201.04	1566.96
-195.69	1566.58	-195.11	1566.49	-188.08	1564.78	-183.98	1564.1	-181.49	1563.63
-176.36	1563.22	-174.68	1563.15	-171.08	1562.58	-167.5	1562.04	-160.02	1561.08
-159.44	1561.04	-156.58	1560.65	-153.51	1560.2	-149.92	1559.61	-148.01	1558.29
-147.87	1558.19	-147.06	1557.68	-147.06	1557.72	30.2	1553.24	207.18	1557.72
207.18	1557.76	207.8	1557.98	210.83	1559.44	211.86	1559.91	212.04	1559.99
212.92	1560.14	214.91	1560.97	215.26	1561.12	217.81	1562.23	218.28	1562.44
218.31	1562.46	218.37	1562.48	222.61	1564.26	224.24	1564.96	224.98	1565.29
225.7	1565.61	228.16	1566.68	228.88	1566.94	230.1	1567.59	230.13	1567.6
234.85	1569.54	234.93	1569.55	235.4	1569.58	235.96	1569.63	238.05	1569.8
238.8	1569.88	239.17	1569.9	240.36	1570	241.6	1570.13	244.19	1570.33
244.88	1570.4	246.15	1570.48	248.46	1570.62	248.62	1570.65	252.3	1570.97
253.51	1571.03	254.7	1571.09	254.88	1571.11	257.63	1571.46	257.78	1571.49
258.41	1571.53	261.56	1571.77	262.71	1571.91	264.89	1572.16	266.11	1572.28
266.98	1572.36	267.82	1572.46	268.64	1572.54	269.7	1572.73	271.63	1573.1
271.88	1573.14	272.75	1573.23	275.65	1573.63	275.78	1573.65	276.02	1573.68
277.83	1573.96	278.24	1573.99	279.02	1574.05	280.76	1574.17	282.17	1574.29
284.82	1574.7	284.97	1574.72	286	1574.87	289.4	1575.47	290.62	1575.58
292.63	1575.81	292.77	1575.82	295.01	1576.77	295.04	1576.78	295.08	1576.78
297.48	1577.65	299.04	1578.04	299.75	1578.24	300.38	1578.34	303.18	1579.13

303.68 1579.3 304.15 1579.42 307.17 1580.13 308.64 1580.4 309.39 1580.48
310.1 1580.68 311.01 1580.91 312.38 1581.1 313.16 1581.16 313.85 1581.23
316.03 1581.41 317.12 1581.6 318.52 1581.71 319.08 1581.74 319.18 1581.75
321.3 1581.91 323.39 1582.04 324.13 1582.1 324.45 1582.13 325.69 1582.14
327.13 1582.19 328.78 1582.29 329.37 1582.31 330.43 1582.39 330.78 1582.4
332.35 1582.51 334.27 1582.74 334.58 1582.76

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-257.22	.08	-147.06	.04	207.18	.08

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-147.06	207.18	100	100	100	.1	.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 1010

INPUT
Description: Lidar and quad map; assumed channel
Station Elevation Data num= 18

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-281.8	1570.8	-278.2	1569	-276.1	1566.5	-206.8	1564.4	-184.3	1560.1
-181.7	1557.72	37	1552.3	255	1557.72	267.4	1572.2	267.9	1572.3
284	1575.4	287.2	1575.7	289.8	1575.9	293.3	1576	302.5	1576.8
305.2	1577.1	311.1	1577.5	312.1	1577.7				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-281.8	.08	-181.7	.04	255	.08

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-181.7	255	46.88	46.88	46.88	.1	.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 1009.37*

```
INPUT
Description:
Station Elevation Data    num=      72
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
 -286.57 1570.99 -282.99 1569.44  -280.9 1567.26  -272.7 1567.09 -267.76
1566.79
 -265.91 1566.75 -260.36 1566.59 -256.04 1566.41 -250.49 1566.08 -238.57
1565.46
 -234.77  1565.3 -227.78 1564.99 -220.89  1564.7 -212.66 1564.35 -211.87
1564.31
 -211.02 1564.16    -203 1562.62 -197.35 1561.55 -194.06 1560.91 -192.82
1560.69
 -192.72 1560.67 -189.45 1559.95 -186.86 1557.72    38.5 1552.06  263.25
1557.72
  264.61 1559.11  266.09 1560.34  269.02 1563.09   271.4 1565.06  273.09
1566.41
  275.15 1568.35  276.51 1569.61   278.4 1571.74  278.83 1572.14  279.46
1572.29
  280.63 1572.58   283.1    1573  285.36 1573.17  286.11 1573.24  287.34
1573.43
  289.52 1573.85  290.88 1574.11  293.85 1574.72  297.55 1575.54  298.21
1575.68
  298.87 1575.83  299.68 1576.03  300.31 1576.14  301.34 1576.27   303.7
1576.58
  304.43 1576.66  305.95 1576.82  306.97 1576.95  308.06 1577.06  310.03
1577.26
  311.37  1577.4  312.09 1577.51  314.23 1577.76  316.54 1577.93   317.4
1578.04
  322.39  1578.6  322.47 1578.62  322.55 1578.63  322.72 1578.64  322.93
1578.66
   326.3 1579.06  326.32 1579.06  329.55 1579.33  332.56 1579.56  333.09
1579.61
  333.73 1579.63  334.99  1579.8

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 -286.57     .08 -186.86     .04  263.25     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
       -186.86  263.25            46.88   46.88   46.88             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 1008.75*

INPUT
Description:
Station Elevation Data    num=      72
```

```
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
 -291.35 1571.18 -287.78 1569.87 -285.69 1568.02 -277.53 1567.94 -272.61
1567.48
 -270.77 1567.46 -265.24 1567.31 -260.94 1567.08 -255.41 1566.58 -243.53
1565.71
 -239.74  1565.5 -232.78 1565.09 -225.92 1564.73 -217.73 1564.27 -216.93
1564.23
 -216.09 1564.08  -208.1 1562.55 -202.47 1561.49 -199.19 1560.84 -197.96
1560.64
 -197.86 1560.62  -194.6 1559.79 -192.02 1557.72      40 1551.83   271.5
1557.72
  273.14 1559.24  274.92 1560.32  278.44 1563.11  281.32 1564.82  283.35
1565.95
  285.83 1567.91  287.47 1569.18  289.75 1571.68  290.26 1572.07  291.01
1572.29
  292.42 1572.68   295.4 1573.14  298.13 1573.13  299.02 1573.16  300.51
1573.36
  303.13 1573.86  304.77 1574.16  308.34 1574.93   312.8 1576.01   313.6
1576.18
  314.39 1576.38  315.37 1576.66  316.13 1576.84  317.37 1577.02  320.21
1577.46
  321.08 1577.58  322.92  1577.8  324.14 1578.01  325.45 1578.19  327.83
1578.55
  329.44  1578.8  330.31 1578.96  332.88 1579.32  335.66 1579.49   336.7
1579.66
   342.7 1580.45   342.8 1580.48   342.9 1580.48   343.1 1580.49  343.35
1580.52
  347.41 1581.02  347.44 1581.03  351.33 1581.38  354.95 1581.68  355.59
1581.75
  356.36 1581.77  357.88  1581.9

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 -291.35     .08 -192.02     .04   271.5     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
       -192.02   271.5            46.88   46.88   46.88             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 1008.12*

INPUT
Description:
Station Elevation Data    num=      72
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
 -296.12 1571.36 -292.57 1570.31 -290.49 1568.78 -282.36 1568.78 -277.46
1568.16
```

-275.62 1568.17 -270.12 1568.02 -265.83 1567.75 -260.32 1567.08 -248.49
1565.96
-244.72 1565.7 -237.78 1565.19 -230.95 1564.76 -222.79 1564.19 -222
1564.14
-221.16 1564 -213.2 1562.47 -207.59 1561.42 -204.33 1560.76 -203.1
1560.58
-203 1560.57 -199.76 1559.64 -197.19 1557.72 41.5 1551.59 279.75
1557.72
281.66 1559.36 283.75 1560.3 287.87 1563.12 291.23 1564.59 293.61
1565.49
296.51 1567.48 298.42 1568.75 301.09 1571.62 301.69 1572.01 302.57
1572.28
304.22 1572.79 307.7 1573.29 310.89 1573.09 311.93 1573.09 313.67
1573.28
316.75 1573.86 318.66 1574.22 322.83 1575.14 328.05 1576.47 328.98
1576.68
329.91 1576.93 331.05 1577.29 331.94 1577.53 333.39 1577.76 336.71
1578.33
337.74 1578.5 339.88 1578.79 341.31 1579.06 342.84 1579.33 345.62
1579.84
347.5 1580.2 348.52 1580.42 351.54 1580.89 354.78 1581.06 356
1581.29
363.02 1582.29 363.13 1582.33 363.25 1582.33 363.48 1582.34 363.78
1582.38
368.53 1582.99 368.56 1582.99 373.11 1583.43 377.34 1583.8 378.1
1583.89
378.99 1583.9 380.76 1584

Manning's n Values num= 3
Sta n Val Sta n Val Sta n Val
-296.12 .08 -197.19 .04 279.75 .08

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr.
Expan.
-197.19 279.75 46.88 46.88 46.88 .1
.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 1007.5*

INPUT
Description:
Station Elevation Data num= 72
Sta Elev Sta Elev Sta Elev Sta Elev Sta
Elev
-300.9 1571.55 -297.36 1570.74 -295.29 1569.54 -287.18 1569.63 -282.31
1568.85
-280.48 1568.87 -274.99 1568.74 -270.73 1568.42 -265.24 1567.59 -253.45
1566.21
-249.69 1565.9 -242.79 1565.29 -235.98 1564.79 -227.85 1564.11 -227.06
1564.05

-226.23 1563.92 -218.3 1562.4 -212.71 1561.36 -209.46 1560.69 -208.24
1560.52
-208.14 1560.51 -204.91 1559.48 -202.35 1557.72 43 1551.35 288
1557.72
290.19 1559.49 292.58 1560.28 297.29 1563.14 301.15 1564.35 303.87
1565.03
307.19 1567.04 309.38 1568.32 312.43 1571.55 313.11 1571.94 314.13
1572.27
316.02 1572.89 320 1573.43 323.65 1573.05 324.85 1573.01 326.84
1573.2
330.36 1573.87 332.55 1574.28 337.33 1575.35 343.3 1576.94 344.36
1577.19
345.43 1577.49 346.74 1577.92 347.75 1578.22 349.41 1578.51 353.22
1579.21
354.39 1579.42 356.85 1579.77 358.48 1580.11 360.23 1580.46 363.42
1581.13
365.57 1581.6 366.74 1581.88 370.19 1582.45 373.91 1582.63 375.3
1582.91
383.33 1584.13 383.47 1584.18 383.6 1584.19 383.87 1584.19 384.21
1584.24
389.64 1584.95 389.67 1584.95 394.89 1585.49 399.73 1585.92 400.6
1586.03
401.62 1586.03 403.65 1586.1

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-300.9	.08	-202.35	.04	288	.08

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr.
Expan.
-202.35 288 46.88 46.88 46.88 .1
.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 1006.87*

INPUT
Description:
Station Elevation Data num= 72
Sta Elev Sta Elev Sta Elev Sta Elev Sta
Elev
-305.67 1571.74 -302.14 1571.18 -300.09 1570.3 -292.01 1570.47 -287.16
1569.54
-285.33 1569.58 -279.87 1569.45 -275.62 1569.09 -270.15 1568.09 -258.42
1566.45
-254.67 1566.1 -247.79 1565.39 -241.01 1564.82 -232.91 1564.03 -232.13
1563.96
-231.29 1563.84 -223.4 1562.32 -217.83 1561.29 -214.6 1560.62 -213.38
1560.47
-213.28 1560.46 -210.06 1559.33 -207.51 1557.72 44.5 1551.11 296.25
1557.72

298.72 1559.62 301.41 1560.26 306.72 1563.15 311.06 1564.11 314.13
1564.58
317.86 1566.61 320.33 1567.89 323.77 1571.49 324.54 1571.88 325.68
1572.27
327.81 1572.99 332.3 1573.57 336.41 1573.01 337.76 1572.93 340
1573.13
343.97 1573.88 346.44 1574.33 351.82 1575.56 358.55 1577.4 359.75
1577.69
360.95 1578.04 362.42 1578.55 363.56 1578.92 365.43 1579.26 369.72
1580.09
371.04 1580.34 373.81 1580.75 375.65 1581.17 377.62 1581.6 381.21
1582.43
383.64 1583.01 384.95 1583.33 388.84 1584.01 393.03 1584.2 394.6
1584.53
403.65 1585.97 403.8 1586.04 403.95 1586.04 404.25 1586.04 404.63
1586.09
410.76 1586.91 410.79 1586.92 416.66 1587.54 422.12 1588.04 423.1
1588.17
424.26 1588.17 426.54 1588.2

Manning's n Values num= 3
Sta n Val Sta n Val Sta n Val
-305.67 .08 -207.51 .04 296.25 .08

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr.
Expan.
-207.51 296.25 46.88 46.88 46.88 .1
.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 1006.25*

INPUT
Description:
Station Elevation Data num= 72
Sta Elev Sta Elev Sta Elev Sta Elev Sta
Elev
-310.45 1571.93 -306.93 1571.61 -304.88 1571.06 -296.84 1571.31 -292
1570.23
-290.19 1570.29 -284.75 1570.17 -280.51 1569.76 -275.07 1568.59 -263.38
1566.7
-259.65 1566.3 -252.79 1565.5 -246.04 1564.84 -237.98 1563.96 -237.19
1563.88
-236.36 1563.76 -228.5 1562.25 -222.96 1561.23 -219.73 1560.55 -218.52
1560.41
-218.42 1560.41 -215.21 1559.17 -212.68 1557.72 46 1550.88 304.5
1557.72
307.25 1559.75 310.24 1560.24 316.15 1563.17 320.97 1563.87 324.38
1564.12
328.54 1566.17 331.29 1567.46 335.12 1571.43 335.97 1571.81 337.24
1572.26

339.61 1573.09 344.6 1573.71 349.18 1572.98 350.67 1572.85 353.17
1573.05
357.58 1573.89 360.32 1574.39 366.31 1575.78 373.8 1577.87 375.13
1578.19
376.46 1578.59 378.1 1579.17 379.38 1579.61 381.46 1580.01 386.23
1580.97
387.69 1581.26 390.77 1581.73 392.83 1582.22 395.02 1582.73 399.01
1583.72
401.71 1584.41 403.17 1584.79 407.49 1585.57 412.15 1585.76 413.9
1586.15
423.97 1587.82 424.13 1587.89 424.3 1587.89 424.63 1587.9 425.06
1587.95
431.87 1588.87 431.91 1588.88 438.44 1589.59 444.52 1590.16 445.6
1590.32
446.89 1590.3 449.43 1590.3

Manning's n Values num= 3
Sta n Val Sta n Val Sta n Val
-310.45 .08 -212.68 .04 304.5 .08

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr.
Expan.
-212.68 304.5 46.88 46.88 46.88 .1
.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 1005.62*

INPUT
Description:
Station Elevation Data num= 72
Sta Elev Sta Elev Sta Elev Sta Elev Sta
Elev
-315.23 1572.11 -311.72 1572.05 -309.68 1571.83 -301.67 1572.16 -296.85
1570.91
-295.04 1570.99 -289.62 1570.88 -285.41 1570.43 -279.98 1569.1 -268.34
1566.95
-264.62 1566.5 -257.8 1565.6 -251.07 1564.87 -243.04 1563.88 -242.26
1563.79
-241.43 1563.68 -233.6 1562.17 -228.08 1561.16 -224.87 1560.47 -223.66
1560.36
-223.56 1560.35 -220.37 1559.02 -217.84 1557.72 47.5 1550.64 312.75
1557.72
315.77 1559.87 319.07 1560.22 325.57 1563.18 330.89 1563.64 334.64
1563.66
339.22 1565.74 342.24 1567.03 346.46 1571.36 347.4 1571.75 348.8
1572.25
351.4 1573.2 356.9 1573.86 361.94 1572.94 363.59 1572.78 366.33
1572.98
371.19 1573.89 374.21 1574.44 380.81 1575.99 389.05 1578.33 390.52
1578.7

```
  391.98 1579.15  393.79  1579.8  395.19 1580.31  397.48 1580.75  402.73
1581.85
  404.35 1582.18  407.74 1582.72     410 1583.28  412.41 1583.87   416.8
1585.01
  419.78 1585.81  421.38 1586.24  426.15 1587.14  431.28 1587.33   433.2
1587.78
  444.28 1589.66  444.47 1589.75  444.65 1589.75  445.02 1589.75  445.49
1589.81
  452.99 1590.84  453.03 1590.84  460.22 1591.65  466.91 1592.28   468.1
1592.46
  469.52 1592.43  472.31  1592.4

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 -315.23     .08 -217.84     .04  312.75     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
       -217.84  312.75            46.88   46.88   46.88             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 1005

INPUT
Description: Lidar, quad map; assumed channel
Station Elevation Data    num=      59
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
    -320  1572.3  -306.5    1573  -301.7  1571.6  -299.9  1571.7  -294.5
1571.6
  -290.3  1571.1  -284.9  1569.6  -273.3  1567.2  -269.6  1566.7  -262.8
1565.7
  -256.1  1564.9  -248.1  1563.8  -246.5  1563.6  -238.7  1562.1  -233.2
1561.1
    -230  1560.4  -228.8  1560.3  -228.7  1560.3    -223 1557.72      49
1550.4
     321 1557.72   324.3    1560   327.9  1560.2     335  1563.2   340.8
1563.4
   344.9  1563.2   349.9  1565.3   353.2  1566.6   357.8  1571.3   363.2
1573.3
   369.2    1574   374.7  1572.9   376.5  1572.7   379.5  1572.9   384.8
1573.9
   388.1  1574.5   395.3  1576.2   404.3  1578.8   405.9  1579.2   407.5
1579.7
     411    1581   413.5  1581.5     421  1583.1   424.7  1583.7   429.8
1585
   434.6  1586.3   439.6  1587.7   444.8  1588.7   450.4  1588.9   452.5
1589.4
   464.6  1591.5   464.8  1591.6     465  1591.6   465.4  1591.6   474.1
1592.8
```

```
     482  1593.7   489.3  1594.4   490.6  1594.6   495.2  1594.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
    -320     .08    -223     .04     321     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
          -223     321               10      10      10             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 1004.75*

INPUT
Description:
Station Elevation Data    num=     157
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
  -322.5 1571.72 -321.63 1571.76 -314.02 1572.09 -313.46 1572.11 -313.22
1572.12
 -312.78 1572.14 -309.07 1572.29  -308.2 1572.33 -303.12 1571.01 -302.63
1571.03
 -301.45 1571.09 -301.21  1571.1 -298.98 1571.06    -297 1571.02 -295.49
1570.99
 -291.04 1570.51 -289.63 1570.16  -287.9 1569.75 -285.32 1569.12 -284.06
1568.89
 -283.57 1568.79 -280.97 1568.32 -276.63 1567.54 -276.08 1567.43 -273.03
1566.88
 -272.55 1566.82 -269.11  1566.4 -268.46 1566.31 -264.94 1565.85 -263.14
1565.65
 -261.91 1565.49 -257.38 1565.02 -257.26    1565 -254.81 1564.74 -251.01
1564.26
 -249.03 1564.02 -246.34  1563.7 -245.69 1563.63 -244.76 1563.53 -244.64
1563.52
 -243.64 1563.35 -236.38 1562.12 -235.78 1562.02 -235.53 1561.98 -235.29
1561.94
 -234.42  1561.8 -231.32  1561.3 -230.55 1561.16 -227.16 1560.46 -226.93
1560.44
 -225.89 1560.35 -225.88 1560.35 -225.79 1560.35 -222.97  1559.2 -222.47
1559.01
 -219.75 1557.72      40 1550.33  299.82 1557.72  303.31 1559.92  304.24
1559.99
  305.18 1560.05  306.24  1560.1  307.12 1560.15  308.35  1560.6  309.41
1560.99
  314.52 1562.87  314.63 1562.91  316.95 1562.99  318.32 1563.04  320.77
1563.12
  324.81 1562.97  325.06 1562.96  325.11 1562.96  325.49  1563.1   330.4
1564.91
  330.79 1565.05  333.47 1565.98  333.89 1566.13   335.4 1567.48  336.65
1568.58
```

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  338.76 1570.46  339.82 1570.81  341.63  1571.4  343.81 1572.15  344.47
1572.38
   346.8 1572.68  350.82 1573.27  351.04 1573.25  353.85 1572.84  356.53
1572.44
  356.64 1572.42  358.55 1572.26  360.89 1572.43  361.26 1572.46  361.72
1572.5
  361.82 1572.52  367.33 1573.55   367.8 1573.63   368.8 1573.79  370.82
1574.15
  372.42 1574.52  374.72 1575.01  376.72 1575.46  378.44 1575.85  381.95
1576.8
  383.13 1577.13  383.57 1577.28  387.96 1578.42  389.66  1578.8  391.35
1579.28
  395.05  1580.5   397.7 1580.98  405.01  1582.4  405.63 1582.52  408.75
1582.98
  409.55  1583.1   411.3  1583.5  414.95 1584.34  415.48 1584.47  420.02
1585.63
  420.65 1585.79  422.58 1586.29  425.32 1586.98  426.57 1587.21  428.31
1587.5
  430.06 1587.82  430.82 1587.96  431.87 1588.01  433.42  1588.1   436.6
1588.26
  436.74 1588.27  438.97 1588.76   440.4    1589  443.27 1589.48   445.7
1589.88
  448.19 1590.29  451.77 1590.88  451.98 1590.98  452.19 1590.98  452.62
1590.99
  452.93 1591.03  454.92 1591.29  458.16 1591.74  461.82 1592.25  464.89
1592.61
  464.96 1592.63  469.44 1593.19  470.18 1593.28  471.38 1593.42  473.56
1593.63
  475.99 1593.87  477.91 1594.05  478.85 1594.18  479.28 1594.25  479.54
1594.25
  482.16 1594.24  484.15 1594.23

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -322.5     .08 -219.75     .04  299.82     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
       -219.75  299.82               10      10      10             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 1004.5*

INPUT
Description:
Station Elevation Data    num=     157
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
    -325 1571.13 -324.08 1571.17 -316.05 1571.46 -315.46 1571.49  -315.2
1571.5
```

-314.74 1571.51 -310.82 1571.63 -309.9 1571.66 -304.53 1570.42 -304.02
1570.44
-302.78 1570.49 -302.52 1570.5 -300.16 1570.47 -298.07 1570.42 -296.48
1570.38
-291.78 1569.92 -290.29 1569.59 -288.46 1569.23 -285.74 1568.64 -284.41
1568.43
-283.89 1568.33 -281.14 1567.89 -276.57 1567.17 -275.98 1567.06 -272.76
1566.55
-272.25 1566.5 -268.62 1566.09 -267.94 1566.01 -264.21 1565.58 -262.32
1565.43
-261.02 1565.28 -256.24 1564.84 -256.11 1564.83 -253.52 1564.57 -249.51
1564.12
-247.42 1563.89 -244.58 1563.6 -243.89 1563.54 -242.91 1563.44 -242.79
1563.43
-241.73 1563.28 -234.06 1562.14 -233.43 1562.05 -233.17 1562.01 -232.91
1561.96
-231.99 1561.84 -228.72 1561.36 -227.91 1561.22 -224.33 1560.52 -224.08
1560.5
-222.99 1560.4 -222.97 1560.4 -222.88 1560.4 -219.9 1559.31 -219.38
1559.14
-216.5 1557.72 31 1550.25 278.63 1557.72 282.32 1559.84 283.3
1559.94
284.29 1560 285.4 1560.04 286.34 1560.09 287.64 1560.51 288.76
1560.86
294.15 1562.58 294.26 1562.62 296.71 1562.7 298.16 1562.75 300.74
1562.84
305 1562.73 305.26 1562.72 305.31 1562.72 305.72 1562.84 310.9
1564.53
311.31 1564.65 314.13 1565.52 314.58 1565.66 316.17 1566.9 317.49
1567.9
319.71 1569.62 320.84 1569.94 322.75 1570.49 325.05 1571.22 325.74
1571.45
328.2 1571.8 332.44 1572.55 332.67 1572.53 335.63 1572.26 338.46
1571.95
338.58 1571.94 340.59 1571.82 343.06 1572.01 343.46 1572.04 343.94
1572.09
344.05 1572.12 349.86 1573.19 350.36 1573.28 351.41 1573.43 353.54
1573.81
355.22 1574.18 357.66 1574.66 359.76 1575.1 361.58 1575.49 365.28
1576.45
366.53 1576.77 366.99 1576.97 371.62 1578.05 373.41 1578.41 375.2
1578.86
379.1 1580.01 381.89 1580.47 389.61 1581.83 390.27 1581.94 393.55
1582.38
394.4 1582.5 396.25 1582.89 400.09 1583.69 400.65 1583.81 405.45
1584.96
406.11 1585.12 408.15 1585.6 411.03 1586.27 412.35 1586.49 414.19
1586.75
416.04 1587.07 416.84 1587.21 417.94 1587.28 419.59 1587.41 422.94
1587.63
423.09 1587.64 425.43 1588.12 426.95 1588.36 429.97 1588.85 432.54
1589.25
435.17 1589.66 438.94 1590.26 439.16 1590.35 439.39 1590.36 439.83
1590.37

440.16 1590.42 442.27 1590.68 445.69 1591.15 449.55 1591.7 452.79 1592.09
452.85 1592.11 457.58 1592.75 458.36 1592.87 459.62 1593.04 461.92 1593.25
464.49 1593.51 466.51 1593.69 467.51 1593.83 467.96 1593.89 468.24 1593.9
471 1593.93 473.1 1593.97

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-325	.08	-216.5	.04	278.63	.08

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-216.5	278.63	10	10	10	.1	.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 1004.25*

INPUT
Description:
Station Elevation Data num= 157

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-327.5	1570.55	-326.54	1570.58	-318.07	1570.84	-317.45	1570.86	-317.18	1570.87
-316.69	1570.88	-312.56	1570.97	-311.6	1570.98	-305.95	1569.83	-305.41	1569.84
-304.1	1569.89	-303.83	1569.9	-301.35	1569.87	-299.14	1569.82	-297.47	1569.77
-292.52	1569.32	-290.95	1569.02	-289.03	1568.71	-286.16	1568.17	-284.76	1567.97
-284.21	1567.87	-281.32	1567.46	-276.5	1566.8	-275.88	1566.7	-272.5	1566.23
-271.96	1566.18	-268.14	1565.79	-267.42	1565.71	-263.49	1565.31	-261.5	1565.2
-260.13	1565.07	-255.1	1564.67	-254.96	1564.66	-252.24	1564.41	-248.01	1563.98
-245.8	1563.76	-242.81	1563.5	-242.09	1563.44	-241.06	1563.36	-240.93	1563.35
-239.82	1563.21	-231.74	1562.16	-231.08	1562.07	-230.8	1562.04	-230.53	1561.98
-229.56	1561.87	-226.12	1561.42	-225.26	1561.29	-221.49	1560.59	-221.23	1560.56
-220.08	1560.45	-220.06	1560.45	-219.96	1560.45	-216.83	1559.42	-216.28	1559.26
-213.25	1557.72	22	1550.18	257.45	1557.72	261.33	1559.76	262.36	1559.89
263.4	1559.95	264.57	1559.99	265.55	1560.04	266.93	1560.42	268.1	1560.74

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  273.77 1562.29  273.89 1562.33  276.47 1562.41  277.99 1562.47  280.71
1562.56
  285.19 1562.49  285.46 1562.48  285.52 1562.47  285.95 1562.59  291.39
1564.14
  291.83 1564.26   294.8 1565.06  295.27 1565.19  296.95 1566.32  298.33
1567.22
  300.67 1568.78  301.86 1569.08  303.86 1569.58  306.28  1570.3  307.01
1570.53
   309.6 1570.92  314.06 1571.82  314.31 1571.82  317.42 1571.67  320.39
1571.47
  320.52 1571.45  322.64 1571.38  325.23 1571.59  325.65 1571.63  326.16
1571.69
  326.27 1571.71  332.38 1572.84  332.91 1572.94  334.02 1573.06  336.26
1573.46
  338.03 1573.84  340.59  1574.3   342.8 1574.74  344.72 1575.14  348.61
1576.09
  349.93 1576.41  350.41 1576.65  355.29 1577.67  357.17 1578.01  359.05
1578.43
  363.16 1579.51  366.09 1579.95  374.21 1581.26   374.9 1581.36  378.36
1581.78
  379.25  1581.9  381.19 1582.27  385.24 1583.03  385.83 1583.15  390.87
1584.29
  391.57 1584.45  393.71 1584.91  396.75 1585.55  398.14 1585.77  400.08
1586.01
  402.01 1586.32  402.85 1586.47  404.02 1586.55  405.75 1586.72  409.27
1587
  409.43 1587.01   411.9 1587.48  413.49 1587.73  416.68 1588.23  419.37
1588.63
  422.14 1589.04  426.11 1589.64  426.34 1589.73  426.58 1589.74  427.05
1589.76
   427.4 1589.81  429.61 1590.08  433.21 1590.57  437.27 1591.14  440.68
1591.57
  440.75  1591.6  445.73 1592.32  446.55 1592.45  447.87 1592.66  450.29
1592.88
  452.99 1593.14  455.12 1593.34  456.17 1593.48  456.65 1593.54  456.93
1593.55
  459.84 1593.63  462.05  1593.7

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -327.5     .08 -213.25     .04  257.45     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
       -213.25  257.45               10      10      10             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 1004.*

INPUT
```

Description:
Station Elevation Data num= 157

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-330	1569.97	-328.99	1569.99	-320.1	1570.21	-319.45	1570.23	-319.16	1570.24
-318.65	1570.25	-314.31	1570.31	-313.3	1570.31	-307.36	1569.25	-306.8	1569.25
-305.42	1569.29	-305.13	1569.3	-302.53	1569.27	-300.22	1569.22	-298.45	1569.17
-293.26	1568.73	-291.61	1568.45	-289.59	1568.18	-286.58	1567.69	-285.11	1567.5
-284.53	1567.41	-281.49	1567.03	-276.43	1566.44	-275.78	1566.33	-272.23	1565.9
-271.66	1565.86	-267.65	1565.48	-266.89	1565.41	-262.77	1565.05	-260.67	1564.98
-259.24	1564.86	-253.95	1564.49	-253.81	1564.48	-250.95	1564.25	-246.51	1563.84
-244.19	1563.63	-241.05	1563.4	-240.29	1563.35	-239.2	1563.28	-239.07	1563.27
-237.9	1563.15	-229.42	1562.17	-228.72	1562.1	-228.43	1562.07	-228.14	1562.01
-227.13	1561.91	-223.52	1561.49	-222.62	1561.35	-218.66	1560.65	-218.39	1560.62
-217.18	1560.5	-217.16	1560.5	-217.05	1560.49	-213.76	1559.53	-213.18	1559.39
-210	1557.72	13	1550.1	236.27	1557.72	240.33	1559.68	241.42	1559.83
242.51	1559.9	243.74	1559.94	244.77	1559.98	246.21	1560.33	247.45	1560.61
253.4	1562	253.52	1562.03	256.23	1562.12	257.83	1562.18	260.67	1562.28
265.38	1562.24	265.67	1562.23	265.73	1562.23	266.18	1562.34	271.89	1563.76
272.35	1563.86	275.47	1564.6	275.96	1564.71	277.72	1565.74	279.17	1566.54
281.63	1567.94	282.87	1568.22	284.98	1568.67	287.52	1569.38	288.29	1569.61
291	1570.04	295.68	1571.09	295.94	1571.11	299.21	1571.09	302.33	1570.98
302.46	1570.97	304.68	1570.94	307.41	1571.17	307.84	1571.21	308.38	1571.29
308.5	1571.31	314.91	1572.49	315.47	1572.59	316.63	1572.7	318.98	1573.12
320.84	1573.5	323.52	1573.95	325.85	1574.38	327.85	1574.79	331.95	1575.74
333.32	1576.05	333.83	1576.33	338.95	1577.29	340.92	1577.62	342.89	1578.01
347.21	1579.01	350.29	1579.44	358.81	1580.68	359.53	1580.78	363.16	1581.18
364.1	1581.3	366.14	1581.65	370.38	1582.38	371	1582.49	376.3	1583.62
377.03	1583.78	379.28	1584.22	382.46	1584.84	383.92	1585.05	385.96	1585.26

387.99 1585.57 388.87 1585.72 390.09 1585.82 391.91 1586.03 395.61 1586.36
395.78 1586.38 398.36 1586.85 400.04 1587.09 403.38 1587.6 406.21 1588
409.11 1588.41 413.28 1589.03 413.53 1589.11 413.77 1589.12 414.27 1589.15
414.63 1589.19 416.95 1589.47 420.73 1589.98 424.99 1590.59 428.57 1591.05
428.64 1591.09 433.87 1591.88 434.73 1592.04 436.12 1592.27 438.66 1592.5
441.49 1592.78 443.73 1592.99 444.83 1593.13 445.33 1593.19 445.63 1593.2
448.68 1593.33 451 1593.43

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-330	.08	-210	.04	236.27	.08

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

-210	236.27	10	10	10	.1	.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 1003.75*

INPUT
Description:
Station Elevation Data num= 157

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-332.5	1569.38	-331.44	1569.41	-322.12	1569.58	-321.44	1569.6	-321.14	1569.61
-320.61	1569.62	-316.06	1569.64	-315	1569.64	-308.78	1568.66	-308.18	1568.66
-306.74	1568.69	-306.44	1568.7	-303.71	1568.68	-301.29	1568.62	-299.44	1568.56
-294	1568.14	-292.28	1567.88	-290.15	1567.66	-287	1567.21	-285.46	1567.04
-284.85	1566.94	-281.67	1566.6	-276.37	1566.07	-275.69	1565.96	-271.96	1565.58
-271.37	1565.54	-267.16	1565.18	-266.37	1565.11	-262.05	1564.78	-259.85	1564.76
-258.35	1564.65	-252.81	1564.32	-252.66	1564.31	-249.66	1564.08	-245.01	1563.7
-242.58	1563.5	-239.29	1563.3	-238.49	1563.26	-237.35	1563.19	-237.22	1563.18
-235.99	1563.08	-227.1	1562.19	-226.37	1562.12	-226.07	1562.1	-225.76	1562.03
-224.7	1561.95	-220.92	1561.55	-219.97	1561.41	-215.82	1560.71	-215.54	1560.68

-214.27 1560.55 -214.25 1560.55 -214.14 1560.54 -210.69 1559.64 -210.08
1559.52
-206.75 1557.72 4 1550.03 215.08 1557.72 219.34 1559.6 220.48
1559.78
221.62 1559.85 222.91 1559.88 223.99 1559.93 225.5 1560.24 226.79
1560.48
233.02 1561.72 233.16 1561.74 235.99 1561.83 237.66 1561.9 240.64
1562
245.57 1562 245.87 1561.99 245.93 1561.99 246.4 1562.08 252.39
1563.37
252.87 1563.47 256.13 1564.13 256.65 1564.24 258.49 1565.16 260.01
1565.86
262.59 1567.11 263.89 1567.35 266.09 1567.76 268.75 1568.46 269.56
1568.68
272.4 1569.16 277.3 1570.36 277.57 1570.39 280.99 1570.5 284.26
1570.5
284.4 1570.49 286.73 1570.5 289.58 1570.74 290.04 1570.8 290.6
1570.88
290.72 1570.91 297.44 1572.14 298.02 1572.24 299.24 1572.34 301.7
1572.77
303.65 1573.17 306.46 1573.59 308.89 1574.02 310.99 1574.43 315.28
1575.38
316.72 1575.7 317.25 1576.02 322.61 1576.91 324.68 1577.22 326.74
1577.59
331.26 1578.51 334.49 1578.92 343.4 1580.11 344.17 1580.2 347.97
1580.59
348.94 1580.7 351.08 1581.03 355.53 1581.72 356.18 1581.83 361.72
1582.95
362.49 1583.1 364.84 1583.53 368.18 1584.12 369.71 1584.33 371.84
1584.52
373.96 1584.83 374.89 1584.98 376.17 1585.1 378.07 1585.33 381.95
1585.73
382.12 1585.74 384.83 1586.21 386.58 1586.45 390.08 1586.98 393.05
1587.38
396.09 1587.78 400.45 1588.41 400.71 1588.48 400.97 1588.5 401.48
1588.53
401.86 1588.58 404.3 1588.86 408.25 1589.4 412.71 1590.04 416.46
1590.53
416.54 1590.58 422.01 1591.45 422.91 1591.62 424.37 1591.89 427.03
1592.13
429.99 1592.42 432.33 1592.64 433.49 1592.77 434.01 1592.83 434.32
1592.85
437.52 1593.02 439.95 1593.17

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-332.5	.08	-206.75	.04	215.08	.08

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-206.75	215.08	10	10	10	.1	.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 1003.5*

INPUT
Description:
Station Elevation Data num= 157

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-335	1568.8	-333.89	1568.82	-324.15	1568.96	-323.43	1568.97	-323.12	1568.98
-322.56	1568.99	-317.81	1568.98	-316.7	1568.97	-310.19	1568.07	-309.57	1568.06
-308.07	1568.09	-307.75	1568.1	-304.9	1568.08	-302.36	1568.01	-300.43	1567.95
-294.74	1567.55	-292.94	1567.32	-290.72	1567.14	-287.42	1566.73	-285.81	1566.58
-285.17	1566.48	-281.85	1566.17	-276.3	1565.7	-275.59	1565.6	-271.69	1565.26
-271.07	1565.22	-266.67	1564.87	-265.84	1564.8	-261.33	1564.51	-259.03	1564.54
-257.46	1564.44	-251.66	1564.14	-251.51	1564.14	-248.37	1563.92	-243.5	1563.55
-240.97	1563.37	-237.53	1563.2	-236.69	1563.16	-235.5	1563.11	-235.36	1563.1
-234.08	1563.01	-224.78	1562.21	-224.02	1562.15	-223.7	1562.13	-223.38	1562.06
-222.27	1561.98	-218.31	1561.62	-217.33	1561.47	-212.99	1560.77	-212.69	1560.74
-211.36	1560.6	-211.34	1560.6	-211.23	1560.59	-207.62	1559.75	-206.99	1559.64
-203.5	1557.72	-5	1549.95	193.9	1557.72	198.35	1559.52	199.54	1559.72
200.73	1559.8	202.08	1559.83	203.21	1559.87	204.78	1560.15	206.13	1560.36
212.65	1561.43	212.79	1561.45	215.75	1561.54	217.5	1561.61	220.61	1561.73
225.76	1561.76	226.08	1561.75	226.14	1561.75	226.63	1561.83	232.89	1562.99
233.38	1563.07	236.8	1563.67	237.34	1563.77	239.26	1564.58	240.85	1565.18
243.54	1566.27	244.9	1566.49	247.21	1566.85	249.99	1567.53	250.83	1567.76
253.8	1568.28	258.92	1569.64	259.2	1569.68	262.78	1569.91	266.2	1570.01
266.34	1570.01	268.77	1570.06	271.76	1570.32	272.23	1570.39	272.82	1570.48
272.95	1570.51	279.97	1571.78	280.58	1571.89	281.85	1571.98	284.42	1572.43
286.45	1572.83	289.39	1573.24	291.94	1573.66	294.13	1574.08	298.61	1575.03
300.12	1575.34	300.67	1575.7	306.27	1576.54	308.43	1576.83	310.59	1577.17

315.31 1578.02 318.68 1578.41 328 1579.54 328.8 1579.63 332.77 1579.99
333.79 1580.1 336.03 1580.41 340.67 1581.07 341.35 1581.17 347.15 1582.28
347.94 1582.43 350.41 1582.84 353.89 1583.41 355.49 1583.61 357.72 1583.77
359.94 1584.08 360.91 1584.23 362.25 1584.37 364.23 1584.64 368.28 1585.1
368.46 1585.11 371.3 1585.57 373.13 1585.82 376.78 1586.35 379.88 1586.75
383.06 1587.16 387.62 1587.79 387.89 1587.86 388.16 1587.88 388.7 1587.92
389.1 1587.97 391.64 1588.25 395.77 1588.81 400.44 1589.48 404.35 1590.02
404.43 1590.07 410.15 1591.01 411.09 1591.2 412.61 1591.5 415.39 1591.75
418.49 1592.06 420.94 1592.28 422.15 1592.42 422.69 1592.48 423.02 1592.5
426.36 1592.72 428.9 1592.9

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-335	.08	-203.5	.04	193.9	.08

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

Left	Right	Left	Channel	Right	Coeff Contr.	Expan.
-203.5	193.9	10	10	10	.1	.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 1003.25*

INPUT
Description:
Station Elevation Data num= 158

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-337.5	1568.22	-336.34	1568.23	-326.17	1568.33	-325.43	1568.34	-325.1	1568.35
-324.52	1568.36	-319.56	1568.32	-318.4	1568.29	-311.61	1567.48	-310.96	1567.47
-309.39	1567.49	-309.06	1567.5	-306.08	1567.48	-303.44	1567.41	-301.42	1567.34
-295.48	1566.96	-293.6	1566.75	-291.28	1566.62	-287.84	1566.25	-286.16	1566.11
-285.49	1566.02	-282.02	1565.75	-276.23	1565.33	-275.49	1565.23	-271.42	1564.93
-270.78	1564.9	-266.19	1564.57	-265.32	1564.5	-260.61	1564.24	-258.21	1564.31
-256.56	1564.23	-250.52	1563.97	-250.35	1563.96	-247.08	1563.76	-242	1563.41

-239.36 1563.25 -235.77 1563.1 -234.89 1563.07 -233.65 1563.02 -233.5
1563.02
-232.16 1562.94 -222.46 1562.23 -221.66 1562.17 -221.33 1562.16 -221
1562.08
-219.85 1562.02 -215.71 1561.68 -214.68 1561.53 -210.15 1560.84 -209.84
1560.8
-208.46 1560.65 -208.44 1560.65 -208.32 1560.64 -204.55 1559.86 -203.89
1559.77
-200.25 1557.72 -14 1549.88 172.72 1557.72 177.36 1559.44 178.6
1559.67
179.84 1559.75 181.25 1559.77 182.43 1559.82 184.07 1560.06 185.48
1560.23
192.27 1561.14 192.42 1561.16 195.51 1561.25 197.33 1561.33 200.58
1561.45
205.95 1561.51 206.28 1561.51 206.35 1561.51 206.86 1561.57 213.38
1562.6
213.9 1562.68 217.47 1563.21 218.03 1563.3 220.04 1564 221.69
1564.5
224.5 1565.43 225.92 1565.62 228.32 1565.94 231.22 1566.61 232.1
1566.84
235.2 1567.4 240.54 1568.91 240.84 1568.97 244.57 1569.33 248.13
1569.53
248.28 1569.53 250.82 1569.62 253.93 1569.9 254.43 1569.97 255.04
1570.08
255.17 1570.11 262.5 1571.43 263.13 1571.54 264.46 1571.61 267.14
1572.08
269.26 1572.49 272.33 1572.88 274.98 1573.3 277.27 1573.73 281.94
1574.67
283.52 1574.98 284.1 1575.38 289.94 1576.16 292.19 1576.43 294.44
1576.75
299.36 1577.52 302.88 1577.89 312.6 1578.96 313.44 1579.05 317.58
1579.39
318.64 1579.5 318.65 1579.5 320.97 1579.79 325.82 1580.41 326.53
1580.51
332.57 1581.61 333.4 1581.76 335.97 1582.15 339.61 1582.69 341.28
1582.89
343.6 1583.03 345.92 1583.33 346.93 1583.49 348.32 1583.64 350.39
1583.95
354.62 1584.46 354.81 1584.48 357.76 1584.93 359.67 1585.18 363.49
1585.73
366.72 1586.13 370.03 1586.53 374.79 1587.17 375.07 1587.24 375.35
1587.26
375.92 1587.31 376.33 1587.36 378.98 1587.64 383.29 1588.23 388.16
1588.93
392.24 1589.5 392.33 1589.56 398.29 1590.58 399.28 1590.79 400.86
1591.12
403.76 1591.38 406.99 1591.7 409.55 1591.93 410.81 1592.07 411.38
1592.13
411.72 1592.15 415.2 1592.42 417.85 1592.63

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-337.5	.08	-200.25	.04	172.72	.08

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
       -200.25  172.72               10      10      10             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 1003.*

INPUT
Description:
Station Elevation Data    num=     158
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
    -340 1567.63 -338.79 1567.65  -328.2  1567.7 -327.42 1567.71 -327.08
1567.72
 -326.48 1567.73 -321.31 1567.65  -320.1 1567.62 -313.02 1566.89 -312.35
1566.88
 -310.71  1566.9 -310.37  1566.9 -307.27 1566.89 -304.51 1566.81 -302.41
1566.73
 -296.22 1566.36 -294.26 1566.18 -291.85 1566.09 -288.25 1565.78  -286.5
1565.65
 -285.82 1565.55  -282.2 1565.32 -276.17 1564.97 -275.39 1564.86 -271.15
1564.61
 -270.48 1564.58  -265.7 1564.27  -264.8  1564.2 -259.89 1563.97 -257.39
1564.09
 -255.67 1564.02 -249.38  1563.8  -249.2 1563.79  -245.8  1563.6  -240.5
1563.27
 -237.75 1563.12    -234    1563 -233.09 1562.97  -231.8 1562.94 -231.64
1562.93
 -230.25 1562.87 -220.15 1562.25 -219.31  1562.2 -218.97 1562.18 -218.62
1562.1
 -217.42 1562.05 -213.11 1561.74 -212.04 1561.59 -207.32  1560.9 -206.99
1560.86
 -205.55  1560.7 -205.53  1560.7  -205.4 1560.69 -201.48 1559.97 -200.79
1559.89
    -197 1557.72     -23  1549.8  151.53 1557.72  156.37 1559.36  157.66
1559.62
  158.95  1559.7  160.42 1559.72  161.64 1559.76  163.36 1559.96  164.82
1560.11
   171.9 1560.85  172.05 1560.87  175.27 1560.96  177.16 1561.04  180.55
1561.17
  186.14 1561.27  186.48 1561.27  186.56 1561.27  187.09 1561.32  193.88
1562.21
  194.42 1562.28  198.13 1562.75  198.72 1562.83  200.81 1563.42  202.53
1563.82
  205.46 1564.59  206.94 1564.76  209.44 1565.04  212.46 1565.69  213.37
1565.91
   216.6 1566.52  222.16 1568.18  222.47 1568.25  226.35 1568.74  230.06
1569.04
  230.22 1569.05  232.86 1569.18   236.1 1569.48  236.62 1569.56  237.26
1569.68
```

```
   237.4 1569.71  245.02 1571.08  245.68 1571.19  247.06 1571.25  249.86
1571.74
  252.07 1572.15  255.26 1572.52  258.02 1572.94  260.41 1573.37  265.27
1574.32
  266.91 1574.63  267.52 1575.07   273.6 1575.78  275.94 1576.04  278.29
1576.32
  283.42 1577.02  287.08 1577.38   297.2 1578.39  298.07 1578.47  302.38
1578.79
  303.49  1578.9   303.5  1578.9  305.92 1579.17  310.97 1579.76   311.7
1579.85
     318 1580.94  318.86 1581.09  321.54 1581.46  325.33 1581.97  327.06
1582.18
  329.48 1582.28  331.89 1582.59  332.95 1582.75   334.4 1582.91  336.55
1583.26
  340.96 1583.83  341.15 1583.85  344.23 1584.29  346.22 1584.55  350.19
1585.1
  353.55  1585.5  357.01  1585.9  361.96 1586.55  362.25 1586.61  362.55
1586.64
  363.13 1586.69  363.57 1586.75  366.33 1587.03  370.81 1587.64  375.88
1588.38
  380.13 1588.98  380.22 1589.05  386.43 1590.14  387.46 1590.37  389.11
1590.74
  392.13    1591   395.5 1591.34  398.15 1591.58  399.46 1591.71  400.06
1591.78
  400.41  1591.8  404.04 1592.11   406.8 1592.37

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
    -340     .08    -197     .04  151.53     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
          -197  151.53               10      10      10             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 1002.75*

INPUT
Description:
Station Elevation Data    num=     158
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
  -342.5 1567.05 -341.25 1567.06 -330.22 1567.08 -329.42 1567.09 -329.06
1567.09
 -328.43 1567.09 -323.05 1566.99  -321.8 1566.95 -314.44  1566.3 -313.74
1566.28
 -312.03  1566.3 -311.68  1566.3 -308.45 1566.29 -305.58 1566.21  -303.4
1566.12
 -296.95 1565.77 -294.92 1565.61 -292.41 1565.57 -288.67  1565.3 -286.85
1565.19
```

-286.14 1565.09 -282.37 1564.89 -276.1 1564.6 -275.29 1564.5 -270.89
1564.29
-270.19 1564.26 -265.21 1563.96 -264.27 1563.9 -259.16 1563.71 -256.57
1563.87
-254.78 1563.81 -248.23 1563.62 -248.05 1563.62 -244.51 1563.43 -239
1563.13
-236.13 1562.99 -232.24 1562.9 -231.3 1562.88 -229.95 1562.85 -229.79
1562.85
-228.34 1562.8 -217.83 1562.27 -216.96 1562.22 -216.6 1562.21 -216.24
1562.13
-214.99 1562.09 -210.51 1561.81 -209.39 1561.66 -204.48 1560.96 -204.14
1560.92
-202.64 1560.75 -202.62 1560.75 -202.49 1560.74 -198.41 1560.07 -197.69
1560.02
-193.75 1557.72 -32 1549.72 130.35 1557.72 135.38 1559.28 136.72
1559.56
138.07 1559.65 139.59 1559.66 140.86 1559.71 142.64 1559.87 144.17
1559.98
151.52 1560.56 151.68 1560.58 155.02 1560.67 157 1560.76 160.52
1560.89
166.33 1561.03 166.69 1561.03 166.76 1561.03 167.32 1561.06 174.38
1561.83
174.94 1561.89 178.8 1562.29 179.41 1562.36 181.58 1562.84 183.38
1563.14
186.42 1563.75 187.95 1563.89 190.55 1564.13 193.69 1564.77 194.64
1564.99
198 1565.64 203.78 1567.46 204.1 1567.54 208.14 1568.16 212
1568.56
212.16 1568.56 214.91 1568.74 218.28 1569.06 218.82 1569.14 219.48
1569.27
219.62 1569.3 227.55 1570.72 228.24 1570.85 229.67 1570.89 232.58
1571.39
234.88 1571.81 238.2 1572.17 241.07 1572.58 243.55 1573.02 248.6
1573.96
250.31 1574.27 250.94 1574.75 257.26 1575.4 259.7 1575.64 262.14
1575.9
267.47 1576.52 271.28 1576.86 281.8 1577.82 282.7 1577.89 287.19
1578.19
288.34 1578.3 288.35 1578.3 290.86 1578.56 296.11 1579.1 296.88
1579.18
303.42 1580.27 304.32 1580.42 307.1 1580.77 311.04 1581.26 312.85
1581.46
315.36 1581.54 317.87 1581.84 318.96 1582 320.47 1582.18 322.72
1582.57
327.29 1583.2 327.5 1583.22 330.7 1583.65 332.76 1583.91 336.89
1584.48
340.39 1584.88 343.98 1585.28 349.13 1585.93 349.43 1585.99 349.74
1586.02
350.35 1586.08 350.8 1586.14 353.67 1586.43 358.34 1587.06 363.6
1587.83
368.03 1588.46 368.12 1588.53 374.58 1589.71 375.64 1589.95 377.36
1590.35
380.5 1590.63 384 1590.98 386.76 1591.23 388.12 1591.36 388.74
1591.42

389.11 1591.45 392.88 1591.81 395.75 1592.1

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-342.5	.08	-193.75	.04	130.35	.08

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-193.75	130.35	10	10	10	.1	.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 1002.5*

INPUT
Description:
Station Elevation Data num= 158

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-345	1566.47	-343.7	1566.47	-332.25	1566.45	-331.41	1566.46	-331.04	1566.46
-330.39	1566.46	-324.8	1566.33	-323.5	1566.28	-315.85	1565.71	-315.12	1565.69
-313.36	1565.7	-312.99	1565.7	-309.63	1565.69	-306.65	1565.6	-304.38	1565.51
-297.69	1565.18	-295.58	1565.04	-292.97	1565.05	-289.09	1564.82	-287.2	1564.73
-286.46	1564.63	-282.55	1564.46	-276.03	1564.23	-275.2	1564.13	-270.62	1563.96
-269.89	1563.94	-264.72	1563.66	-263.75	1563.6	-258.44	1563.44	-255.74	1563.65
-253.89	1563.6	-247.09	1563.45	-246.9	1563.45	-243.22	1563.27	-237.5	1562.98
-234.52	1562.86	-230.48	1562.8	-229.5	1562.79	-228.1	1562.77	-227.93	1562.77
-226.43	1562.74	-215.51	1562.29	-214.61	1562.25	-214.23	1562.24	-213.86	1562.15
-212.56	1562.13	-207.9	1561.87	-206.75	1561.72	-201.65	1561.02	-201.3	1560.98
-199.74	1560.8	-199.71	1560.8	-199.58	1560.79	-195.34	1560.18	-194.6	1560.15
-190.5	1557.72	-41	1549.65	109.17	1557.72	114.39	1559.2	115.78	1559.51
117.18	1559.6	118.76	1559.61	120.08	1559.65	121.93	1559.78	123.51	1559.85
131.15	1560.28	131.31	1560.29	134.78	1560.38	136.83	1560.47	140.48	1560.61
146.52	1560.79	146.89	1560.78	146.97	1560.78	147.54	1560.81	154.88	1561.44
155.46	1561.49	159.47	1561.82	160.1	1561.89	162.35	1562.26	164.22	1562.46

```
  167.37 1562.91  168.97 1563.03  171.67 1563.22  174.93 1563.84  175.91
1564.07
   179.4 1564.76   185.4 1566.73  185.73 1566.83  189.93 1567.57  193.93
1568.07
   194.1 1568.08  196.95  1568.3  200.45 1568.64  201.01 1568.73   201.7
1568.87
  201.85  1568.9  210.08 1570.37  210.79  1570.5  212.28 1570.53   215.3
1571.05
  217.68 1571.48  221.13 1571.81  224.11 1572.22  226.69 1572.67  231.94
1573.61
  233.71 1573.91  234.36 1574.43  240.92 1575.03  243.45 1575.24  245.98
1575.48
  251.52 1576.03  255.47 1576.35   266.4 1577.25  267.34 1577.31  271.99
1577.6
  273.19  1577.7   273.2  1577.7  275.81 1577.94  281.26 1578.45  282.05
1578.52
  288.85  1579.6  289.78 1579.74  292.67 1580.08  296.76 1580.54  298.63
1580.74
  301.24 1580.79  303.85 1581.09  304.98 1581.26  306.55 1581.46  308.88
1581.88
  313.63 1582.57  313.84 1582.59  317.16 1583.01  319.31 1583.27  323.59
1583.85
  327.23 1584.25  330.95 1584.65   336.3 1585.32  336.62 1585.37  336.93
1585.4
  337.57 1585.47  338.03 1585.52  341.01 1585.82  345.86 1586.47  351.33
1587.27
  355.92 1587.94  356.01 1588.02  362.72 1589.27  363.82 1589.54   365.6
1589.97
  368.86 1590.25   372.5 1590.62  375.37 1590.87  376.78 1591.01  377.42
1591.07
  377.81  1591.1  381.72 1591.51   384.7 1591.83

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
    -345     .08  -190.5     .04  109.17     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
        -190.5  109.17               10      10      10             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 1002.25*

INPUT
Description:
Station Elevation Data    num=     158
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
  -347.5 1565.88 -346.15 1565.89 -334.27 1565.83 -333.41 1565.83 -333.02
1565.83
```

-332.34 1565.83 -326.55 1565.66 -325.2 1565.6 -317.27 1565.13 -316.51
1565.09
-314.68 1565.1 -314.29 1565.1 -310.82 1565.1 -307.73 1565 -305.37
1564.91
-298.43 1564.59 -296.24 1564.47 -293.54 1564.52 -289.51 1564.34 -287.55
1564.26
-286.78 1564.16 -282.72 1564.03 -275.97 1563.87 -275.1 1563.77 -270.35
1563.64
-269.6 1563.62 -264.24 1563.35 -263.22 1563.3 -257.72 1563.17 -254.92
1563.42
-253 1563.39 -245.94 1563.27 -245.75 1563.27 -241.93 1563.11 -236
1562.84
-232.91 1562.73 -228.72 1562.7 -227.7 1562.69 -226.25 1562.68 -226.07
1562.68
-224.51 1562.67 -213.19 1562.3 -212.25 1562.27 -211.87 1562.27 -211.48
1562.18
-210.13 1562.16 -205.3 1561.94 -204.1 1561.78 -198.81 1561.09 -198.45
1561.04
-196.83 1560.85 -196.81 1560.85 -196.67 1560.84 -192.27 1560.29 -191.5
1560.27
-187.25 1557.72 -50 1549.57 87.98 1557.72 93.39 1559.13 94.84
1559.45
96.29 1559.55 97.93 1559.55 99.3 1559.6 101.21 1559.69 102.86
1559.73
110.77 1559.99 110.94 1560 114.54 1560.09 116.67 1560.19 120.45
1560.33
126.71 1560.54 127.1 1560.54 127.18 1560.54 127.77 1560.55 135.38
1561.06
135.98 1561.1 140.13 1561.36 140.79 1561.42 143.13 1561.68 145.06
1561.78
148.33 1562.07 149.98 1562.16 152.78 1562.31 156.16 1562.92 157.19
1563.14
160.8 1563.88 167.03 1566 167.37 1566.11 171.71 1566.99 175.87
1567.59
176.04 1567.6 179 1567.86 182.63 1568.22 183.21 1568.31 183.92
1568.47
184.07 1568.5 192.61 1570.02 193.35 1570.15 194.89 1570.16 198.02
1570.7
200.49 1571.14 204.07 1571.46 207.16 1571.86 209.83 1572.31 215.27
1573.25
217.1 1573.56 217.78 1574.12 224.59 1574.65 227.21 1574.85 229.83
1575.06
235.57 1575.53 239.67 1575.83 251 1576.67 251.97 1576.73 256.8
1577
258.04 1577.1 258.05 1577.1 260.75 1577.32 266.4 1577.79 267.23
1577.86
274.27 1578.93 275.24 1579.07 278.23 1579.39 282.47 1579.83 284.42
1580.02
287.12 1580.05 289.82 1580.35 291 1580.51 292.62 1580.73 295.04
1581.19
299.96 1581.93 300.18 1581.96 303.63 1582.37 305.85 1582.64 310.3
1583.23
314.06 1583.63 317.93 1584.03 323.47 1584.7 323.8 1584.74 324.13
1584.78

324.78 1584.85 325.27 1584.91 328.36 1585.21 333.38 1585.89 339.05 1586.72
343.81 1587.42 343.91 1587.51 350.86 1588.84 352 1589.12 353.85 1589.58
357.23 1589.88 361 1590.26 363.97 1590.52 365.44 1590.65 366.11 1590.72
366.5 1590.75 370.56 1591.2 373.65 1591.57

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-347.5	.08	-187.25	.04	87.98	.08

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-187.25	87.98	10	10	10	.1	.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 1002

INPUT
Description: Lidar, quad map; assumed channel
Station Elevation Data num= 104

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-350	1565.3	-348.6	1565.3	-336.3	1565.2	-335.4	1565.2	-335	1565.2
-334.3	1565.2	-328.3	1565	-317.9	1564.5	-316	1564.5	-312	1564.5
-308.8	1564.4	-296.9	1563.9	-294.1	1564	-287.9	1563.8	-287.1	1563.7
-282.9	1563.6	-275.9	1563.5	-275	1563.4	-269.3	1563.3	-262.7	1563
-257	1562.9	-254.1	1563.2	-244.8	1563.1	-244.6	1563.1	-234.5	1562.7
-231.3	1562.6	-225.9	1562.6	-224.4	1562.6	-222.6	1562.6	-209.9	1562.3
-209.5	1562.3	-209.1	1562.2	-207.7	1562.2	-202.7	1562	-195.6	1561.1
-193.9	1560.9	-189.2	1560.4	-188.4	1560.4	-184	1557.72	-59	1549.5
66.8	1557.72	73.9	1559.4	75.4	1559.5	77.1	1559.5	80.5	1559.6
82.2	1559.6	90.4	1559.7	94.3	1559.8	96.5	1559.9	106.9	1560.3
107.3	1560.3	108	1560.3	116.5	1560.7	120.8	1560.9	123.9	1561.1
125.9	1561.1	131	1561.3	133.9	1561.4	137.4	1562	142.2	1563
149	1565.4	153.5	1566.4	157.8	1567.1	164.8	1567.8	165.4	1567.9

```
   166.3  1568.1   175.9  1569.8   177.5  1569.8   183.3  1570.8     187
1571.1
   190.2  1571.5   198.6  1572.9   200.5  1573.2   201.2  1573.8   235.6
1576.1
   241.6  1576.4   242.9  1576.5   245.7  1576.7   252.4  1577.2   260.7
1578.4
   263.8  1578.7   270.2  1579.3     273  1579.3   275.8  1579.6   278.7
1580
   281.2  1580.5   286.3  1581.3   292.4    1582     297  1582.6   300.9
1583
   304.9  1583.4   312.5  1584.3   315.7  1584.6   320.9  1585.3   331.7
1586.9
   331.8    1587     339  1588.4   342.1  1589.2   345.6  1589.5   349.5
1589.9
   354.1  1590.3   355.2  1590.4   359.4  1590.9   362.6  1591.3

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
    -350     .08    -184     .04    66.8     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
          -184    66.8            50.01   50.01   50.01             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 1001

INPUT
Description: Lidar, quad map; assumed channel
Station Elevation Data    num=     106
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
    -350  1565.3  -348.6  1565.3  -336.3  1565.2  -335.4  1565.2    -335
1565.2
  -334.3  1565.2  -328.3    1565  -317.9  1564.5    -316  1564.5    -312
1564.5
  -308.8  1564.4  -296.9  1563.9  -294.1    1564  -287.9  1563.8  -287.1
1563.7
  -282.9  1563.6  -275.9  1563.5    -275  1563.4  -269.3  1563.3  -262.7
1563
    -257  1562.9  -254.1  1563.2  -244.8  1563.1  -244.6  1563.1  -234.5
1562.7
  -231.3  1562.6  -225.9  1562.6  -224.4  1562.6  -222.6  1562.6  -209.9
1562.3
  -209.5  1562.3  -209.1  1562.2  -207.7  1562.2  -202.7    1562  -195.6
1561.1
  -193.9  1560.9  -189.2  1560.4  -188.4  1560.4    -184 1557.72     -90
1555
     -59 1546.72     -30    1555    66.8 1557.72    73.9  1559.4    75.4
1559.5
```

```
    77.1  1559.5    80.5  1559.6    82.2  1559.6    90.4  1559.7    94.3
1559.8
    96.5  1559.9   106.9  1560.3   107.3  1560.3     108  1560.3   116.5
1560.7
   120.8  1560.9   123.9  1561.1   125.9  1561.1     131  1561.3   133.9
1561.4
   137.4    1562   142.2    1563     149  1565.4   153.5  1566.4   157.8
1567.1
   164.8  1567.8   165.4  1567.9   166.3  1568.1   175.9  1569.8   177.5
1569.8
   183.3  1570.8     187  1571.1   190.2  1571.5   198.6  1572.9   200.5
1573.2
   201.2  1573.8   235.6  1576.1   241.6  1576.4   242.9  1576.5   245.7
1576.7
   252.4  1577.2   260.7  1578.4   263.8  1578.7   270.2  1579.3     273
1579.3
   275.8  1579.6   278.7    1580   281.2  1580.5   286.3  1581.3   292.4
1582
     297  1582.6   300.9    1583   304.9  1583.4   312.5  1584.3   315.7
1584.6
   320.9  1585.3   331.7  1586.9   331.8    1587     339  1588.4   342.1
1589.2
   345.6  1589.5   349.5  1589.9   354.1  1590.3   355.2  1590.4   359.4
1590.9
   362.6  1591.3

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
    -350     .08    -184     .04    66.8     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
          -184    66.8               40      40      40             .1
.3

INLINE STRUCTURE


RIVER: Wedlers Creek
REACH: Main Channel       RS: 1000

INPUT
Description: Doering Dam
Distance from Upstream XS =      12
Deck/Roadway Width        =      15
Weir Coefficient          =     3.1
 Weir Embankment Coordinates    num =        7
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
  -308.8  1564.4    -164 1563.41   -73.9 1562.93       0 1563.27    19.8
1563.27
    68.6 1563.76     149 1563.76
```

```
Upstream Embankment side slope              =       0 horiz. to 1.0
vertical
Downstream Embankment side slope            =       0 horiz. to 1.0
vertical
Maximum allowable submergence for weir flow =     .98
Elevation at which weir flow begins         =
Weir crest shape                            = Broad Crested

INLINE STRUCTURE GATE    Gate #1
      Height            =      10
      Width             =       5
      Invert            =    1550
      Gate Type         = Radial      Radial Coefficient=
      Trunion Exponent  =       0
      Opening Exponent  =       1
      Head Exponent     =      .5
      Trunion Height    =       0
      Weir Coefficient  =       3
      Weir crest shape  = Broad Crested
Number of Gate Openings =       1
     Sta
     -59


CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 999

INPUT
Description: Lidar
Station Elevation Data    num=     145
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
  -304.9  1561.3  -299.1  1561.1  -297.1  1560.9  -295.2  1560.9  -290.6
1560.7
  -283.6  1560.4  -279.9  1560.4  -274.7  1559.6  -268.7  1558.5  -266.3
1558.4
  -258.1    1558  -256.1    1558  -252.7    1558  -250.4  1558.1  -246.8
1557.8
  -243.9  1557.7  -235.8  1557.6  -234.7  1557.6  -228.9  1557.8  -222.4
1557.5
  -209.9  1557.1  -208.5    1557  -202.7  1556.4  -201.6  1556.5  -192.7
1556.7
  -184.6  1555.5  -179.9  1554.4  -178.3    1554  -177.6  1553.9  -163.7
1552.3
  -161.6  1552.2  -156.3  1552.1  -152.6  1551.7    -149  1551.6  -145.4
1551.4
  -142.6  1551.4    -137  1551.1  -134.3  1550.9  -131.4  1550.9  -125.1
1550.6
  -122.7  1550.5  -120.4  1550.8    -119  1550.7  -114.2  1550.4  -112.6
1550.3
```

-111.9	1550.4	-110.8	1550.2	-102.6	1549.9	-96.1	1549.4	-94.6	1549.3
-92.4	1549.2	-86.8	1549.1	-83	1549.3	-78.8	1549.1	-72.4	1548.8
-69.3	1548.8	-63.2	1548.8	-62.3	1548.8	-59	1548.6	-55.8	1548.6
-43.7	1548.6	-41.5	1548.2	-36	1548.5	-35.6	1548.4	-25.9	1546.9
-18.9	1545.9	-15.2	1545.7	-5.5	1544.3	-5.3	1544.3	-4.8	1544.3
0	1543.8	3.9	1543.9	11.8	1544.9	14.8	1545.5	17.1	1545.3
19.5	1545.6	26.1	1548.3	28.5	1548.6	31.2	1549.7	35.4	1550.6
45.7	1553	46.6	1553.1	53.1	1554.4	58.7	1555.1	62.4	1555.6
67.6	1556.2	72.5	1556.8	76.1	1557.1	81.1	1557.7	85.3	1558.2
88.9	1558.5	92.5	1558.7	95	1558.9	100.6	1559.8	100.8	1559.8
100.9	1559.8	110.8	1560.6	116	1560.9	116.2	1560.9	126.9	1560.1
139.1	1558.9	139.5	1558.9	140	1558.8	143.1	1558.7	146.6	1558.5
146.8	1558.5	164.5	1558.3	168.1	1558.2	170.9	1558.2	177.8	1558.3
179.2	1558.5	181.3	1558.5	187.7	1559.3	189.6	1559.6	194.5	1560.2
200	1560.5	203.8	1561.2	210.1	1562.1	213.8	1562.2	217.5	1562.5
220.4	1562.6	225.6	1563	230.1	1563.3	237.2	1564.3	243.2	1564.6
256.5	1566.3	258.7	1566.6	262.8	1566.7	263.2	1566.8	267.6	1567.7
270.7	1568.1	273.7	1568.4	282.9	1569.9	285.2	1570.3	292.5	1571.3
293.7	1571.5	295.3	1571.8	301.1	1572.9	307.8	1574	311.6	1574.7
326.3	1578.3	337.2	1579.9	339.8	1580.4	342.2	1580.7	344.5	1580.9

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-304.9	.08	-4.8	.04	3.9	.08

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-4.8	3.9	425	425	425	.1	.3

CROSS SECTION

RIVER: Wedlers Creek

REACH: Main Channel RS: 996.75*

INPUT
Description:
Station Elevation Data num= 221

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-281.45	1560.5	-276.09	1560.16	-274.24	1559.95	-272.49	1559.88	-269.37	1559.66
-268.7	1559.62	-268.24	1559.6	-261.77	1559.34	-258.35	1559.33	-257.55	1559.22
-253.55	1558.47	-253.3	1558.41	-248	1557.31	-245.79	1557.11	-243.07	1556.84
-238.21	1556.49	-236.36	1556.43	-233.22	1556.33	-231.1	1556.34	-229.13	1556.14
-227.77	1555.99	-227.4	1555.96	-225.28	1555.81	-225.09	1555.79	-217.61	1555.41
-216.59	1555.37	-214.92	1555.35	-211.23	1555.3	-210.01	1555.2	-205.22	1554.94
-203.23	1554.85	-193.68	1554.23	-192.38	1554.11	-190.22	1553.84	-187.17	1553.49
-187.02	1553.47	-186.01	1553.51	-185.04	1553.49	-177.78	1553.35	-175.75	1553.03
-170.83	1552.04	-170.3	1551.93	-165.96	1550.72	-164.48	1550.29	-163.83	1550.16
-163.4	1550.08	-157.15	1549.2	-150.99	1548.47	-149.05	1548.35	-146	1548.23
-145.2	1548.19	-144.15	1548.13	-144.01	1548.11	-140.73	1547.66	-137.41	1547.41
-135.77	1547.25	-134.08	1547.09	-131.49	1546.96	-130.73	1546.89	-128.21	1546.71
-126.32	1546.6	-123.83	1546.42	-121.15	1546.38	-116.92	1546.16	-115.33	1546.03
-113.11	1545.86	-110.98	1545.99	-110.54	1545.95	-109.69	1545.89	-106.16	1545.67
-105.25	1545.61	-103.78	1545.51	-103.13	1545.57	-102.11	1545.4	-99.26	1545.27
-94.54	1545.09	-88.53	1544.68	-87.14	1544.59	-85.11	1544.5	-84.38	1544.49
-83.98	1544.46	-83.85	1544.46	-79.94	1544.36	-76.43	1544.47	-72.56	1544.28
-72.55	1544.27	-66.63	1543.98	-66.59	1543.98	-66.32	1543.98	-66.06	1543.95
-63.77	1543.91	-58.13	1543.81	-57.56	1543.8	-57.3	1543.8	-54.25	1543.63
-51.3	1543.62	-47.2	1543.6	-40.12	1543.54	-38.57	1543.3	-38.08	1543.22
-36.98	1543.25	-33	1543.44	-32.63	1543.36	-29.54	1542.99	-26.88	1542.65
-23.67	1542.2	-23.43	1542.17	-17.2	1541.4	-13.78	1541.22	-11.08	1540.88
-4.82	1540.15	-4.64	1540.15	-4.18	1540.15	0	1539.55	4.47	1539.82

```
   11.38 1540.65      14 1541.13   16.01    1541    18.1 1541.24   23.39
1543.16
   23.87 1543.32   25.96 1543.54   28.32 1544.35   29.22 1544.52   31.99
1545.01
   40.99 1546.77   41.77 1546.84   44.78 1547.34   47.45 1547.83   52.34
1548.41
   55.58 1548.83   57.69 1549.06   58.22 1549.11   60.12 1549.35    64.4
1549.92
   65.46 1550.03   67.54  1550.2   71.91  1550.7   75.58 1551.12   78.73
1551.38
   81.87 1551.57   82.08 1551.59   84.05 1551.75    88.8 1552.45   88.95
1552.48
   89.12 1552.48   89.21 1552.48   96.76    1553   97.86 1553.07   102.4
1553.29
  102.57 1553.29  107.36 1552.97  111.92 1552.68  122.58 1551.78  122.93
1551.78
  123.36  1551.7  124.51 1551.67  126.07 1551.65  129.13 1551.55  129.28
1551.55
   129.3 1551.55  134.59  1551.4  144.76 1551.43  147.91  1551.4  149.79
1551.42
  150.35 1551.43  152.97 1551.48  154.03 1551.55  156.38 1551.61  157.61
1551.78
  159.44 1551.81  165.03  1552.5  166.69 1552.75  166.94 1552.78  170.97
1553.23
  175.77  1553.5  179.09 1554.05   184.6 1554.77  185.15 1554.79  187.83
1554.87
  188.15  1554.9  191.06 1555.24  191.33 1555.26  193.59 1555.39  198.14
1555.82
     200 1555.98  202.07 1556.17  208.27 1557.15  208.31 1557.15  212.19
1557.47
  213.51 1557.61  218.21 1558.42  225.13  1559.6  227.05 1559.94  228.46
1560.05
  228.99 1560.09  230.63 1560.18  230.98 1560.27  234.83 1561.07  237.53
1561.47
  239.95 1561.76  240.15 1561.78  248.19 1563.17  249.14 1563.34   250.2
1563.53
  256.58 1564.48  257.62 1564.67  259.02 1564.93  264.09 1565.92  265.94
1566.24
  269.94 1566.93  271.42 1567.21  273.26 1567.56  276.72  1568.4   286.1
1570.73
  291.22 1571.57  291.92 1571.68  295.62 1572.19  297.89 1572.58  299.99
1572.83
     302    1573

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 -281.45     .08   -4.18     .04    4.47     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         -4.18    4.47              425     425     425             .1
.3

CROSS SECTION
```

RIVER: Wedlers Creek
REACH: Main Channel RS: 994.5*

INPUT
Description:
Station Elevation Data num= 221

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-258	1559.7	-253.08	1559.22	-251.39	1558.99	-249.78	1558.87	-246.91	1558.58
-246.3	1558.51	-245.88	1558.5	-239.94	1558.29	-236.8	1558.26	-236.06	1558.18
-232.39	1557.33	-232.17	1557.28	-227.31	1556.13	-225.27	1555.82	-222.78	1555.43
-218.32	1554.99	-216.62	1554.87	-213.74	1554.66	-211.79	1554.58	-209.99	1554.36
-208.74	1554.18	-208.4	1554.14	-206.45	1553.9	-206.28	1553.88	-199.41	1553.22
-198.48	1553.14	-196.95	1553.03	-193.56	1552.8	-192.44	1552.67	-188.05	1552.37
-186.22	1552.27	-177.45	1551.37	-176.26	1551.22	-174.28	1550.93	-171.48	1550.56
-171.35	1550.54	-170.41	1550.52	-169.53	1550.46	-162.87	1550	-161	1549.69
-156.49	1548.49	-156	1548.36	-152.01	1547.05	-150.66	1546.59	-150.06	1546.43
-149.66	1546.32	-143.94	1545.33	-138.28	1544.65	-136.5	1544.5	-133.7	1544.32
-132.97	1544.26	-132	1544.16	-131.87	1544.14	-128.87	1543.61	-125.81	1543.22
-124.32	1543	-122.76	1542.78	-120.39	1542.53	-119.69	1542.43	-117.37	1542.2
-115.64	1542.1	-113.35	1541.93	-110.89	1541.86	-107.01	1541.64	-105.55	1541.46
-103.52	1541.22	-101.57	1541.19	-101.16	1541.13	-100.38	1541.08	-97.14	1540.88
-96.31	1540.82	-94.95	1540.71	-94.36	1540.74	-93.43	1540.6	-90.8	1540.44
-86.47	1540.29	-80.96	1539.96	-79.69	1539.89	-77.82	1539.81	-77.16	1539.79
-76.79	1539.74	-76.67	1539.74	-73.08	1539.61	-69.85	1539.64	-66.31	1539.45
-66.29	1539.45	-60.87	1539.15	-60.83	1539.15	-60.58	1539.15	-60.34	1539.1
-58.24	1539.02	-53.07	1538.82	-52.54	1538.8	-52.3	1538.8	-49.51	1538.67
-46.79	1538.64	-43.03	1538.6	-36.53	1538.48	-35.11	1538.3	-34.67	1538.23
-33.65	1538.23	-30	1538.38	-29.66	1538.33	-26.83	1538.09	-24.39	1537.87
-21.44	1537.51	-21.22	1537.48	-15.51	1536.9	-12.37	1536.74	-9.89	1536.49

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   -4.14    1536   -3.97    1536   -3.55    1536       0  1535.3    5.05
1535.75
   10.95  1536.4   13.19 1536.75   14.91 1536.69    16.7 1536.89   21.23
1538.24
   21.63 1538.35   23.43 1538.48   25.44 1539.01   26.22 1539.11   28.58
1539.42
   36.28 1540.54   36.95 1540.58   39.52 1540.89   41.81 1541.26   45.99
1541.73
   48.75 1542.05   50.56 1542.24   51.01 1542.27   52.64  1542.5    56.3
1543.04
   57.21 1543.15   58.99  1543.3   62.72 1543.71   65.86 1544.04   68.55
1544.27
   71.24 1544.44   71.42 1544.46   73.11 1544.59   77.17 1545.14   77.29
1545.15
   77.44 1545.15   77.52 1545.15   83.97  1545.5   84.91 1545.54    88.8
1545.67
   88.95 1545.67   93.04 1545.45   96.94 1545.25  106.05 1544.65  106.35
1544.65
  106.73  1544.6  107.71 1544.58  109.04  1544.6  111.66  1544.6  111.79
1544.6
  111.81  1544.6  116.32 1544.37  125.03 1544.57  127.72  1544.6  129.33
1544.65
  129.81 1544.66  132.05 1544.72  132.96 1544.83  134.96 1544.92  136.01
1545.06
  137.58 1545.12  142.36 1545.69  143.78 1545.89  143.99 1545.92  147.44
1546.27
  151.55  1546.5  154.39  1546.9  159.09 1547.44  159.56 1547.46  161.86
1547.54
  162.13 1547.56  164.62 1547.97  164.86 1548.01  166.79 1548.18  170.67
1548.64
  172.26 1548.82  174.04 1549.05  179.34    1550  179.37    1550   182.7
1550.41
  183.82 1550.61  187.84 1551.54  193.76 1552.89   195.4 1553.28  196.61
1553.47
  197.06 1553.53  198.46 1553.66  198.76 1553.74  202.05 1554.45  204.37
1554.83
  206.43 1555.14  206.61 1555.16  213.48 1556.44  214.29 1556.59   215.2
1556.77
  220.65 1557.66  221.55 1557.83  222.74 1558.07  227.08 1558.93  228.66
1559.22
  232.08 1559.86  233.34 1560.11  234.92 1560.42  237.88 1561.13   245.9
1563.16
  250.28 1563.98  250.88 1564.09  254.05 1564.47  255.99 1564.77  257.78
1564.96
   259.5  1565.1

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
    -258     .08   -3.55     .04    5.05     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         -3.55    5.05              425     425     425             .1
.3
```

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 992.25*

INPUT
Description:
Station Elevation Data num= 221

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-234.55	1558.9	-230.07	1558.28	-228.53	1558.04	-227.06	1557.85	-224.46	1557.49
-223.9	1557.41	-223.51	1557.39	-218.11	1557.23	-215.25	1557.19	-214.58	1557.14
-211.24	1556.2	-211.03	1556.14	-206.61	1554.94	-204.76	1554.53	-202.49	1554.01
-198.43	1553.48	-196.88	1553.3	-194.26	1553	-192.49	1552.82	-190.84	1552.58
-189.71	1552.37	-189.4	1552.32	-187.63	1552	-187.47	1551.98	-181.22	1551.03
-180.37	1550.91	-178.97	1550.72	-175.89	1550.3	-174.87	1550.13	-170.87	1549.81
-169.21	1549.68	-161.23	1548.5	-160.15	1548.32	-158.34	1548.01	-155.79	1547.63
-155.67	1547.61	-154.82	1547.53	-154.01	1547.43	-147.95	1546.66	-146.25	1546.34
-142.14	1544.95	-141.7	1544.79	-138.07	1543.37	-136.84	1542.88	-136.3	1542.69
-135.93	1542.56	-130.72	1541.47	-125.57	1540.82	-123.95	1540.65	-121.4	1540.41
-120.73	1540.33	-119.86	1540.19	-119.74	1540.17	-117	1539.57	-114.22	1539.03
-112.86	1538.75	-111.44	1538.47	-109.28	1538.09	-108.64	1537.96	-106.54	1537.7
-104.96	1537.6	-102.88	1537.45	-100.64	1537.34	-97.11	1537.12	-95.78	1536.89
-93.92	1536.58	-92.15	1536.38	-91.78	1536.32	-91.07	1536.27	-88.12	1536.09
-87.36	1536.03	-86.13	1535.92	-85.59	1535.91	-84.74	1535.81	-82.35	1535.62
-78.41	1535.48	-73.39	1535.23	-72.23	1535.18	-70.54	1535.11	-69.93	1535.1
-69.59	1535.02	-69.48	1535.02	-66.21	1534.87	-63.28	1534.8	-60.05	1534.63
-60.04	1534.62	-55.1	1534.33	-55.06	1534.32	-54.84	1534.32	-54.62	1534.25
-52.71	1534.13	-48	1533.83	-47.52	1533.8	-47.31	1533.8	-44.76	1533.7
-42.29	1533.66	-38.87	1533.6	-32.95	1533.42	-31.66	1533.3	-31.25	1533.25
-30.33	1533.22	-27.01	1533.32	-26.7	1533.29	-24.11	1533.2	-21.89	1533.08

```
  -19.21 1532.81  -19.01 1532.79  -13.81  1532.4  -10.95 1532.27   -8.69
1532.09
   -3.47 1531.85   -3.31 1531.85   -2.92 1531.85       0 1531.05    5.62
1531.68
   10.53 1532.14   12.39 1532.38   13.82 1532.39   15.31 1532.53   19.06
1533.32
    19.4 1533.37   20.89 1533.42   22.57 1533.66   23.21 1533.71   25.17
1533.83
   31.57  1534.3   32.12 1534.32   34.26 1534.45   36.16 1534.69   39.63
1535.04
   41.93 1535.28   43.43 1535.42   43.81 1535.44   45.16 1535.66    48.2
1536.16
   48.95 1536.28   50.43  1536.4   53.54 1536.71   56.14 1536.97   58.38
1537.15
   60.61 1537.32   60.76 1537.33   62.16 1537.44   65.53 1537.82   65.64
1537.82
   65.76 1537.82   65.82 1537.82   71.19    1538   71.97 1538.02   75.19
1538.06
   75.32 1538.06   78.72 1537.92   81.96 1537.82   89.53 1537.53   89.78
1537.53
   90.09  1537.5    90.9 1537.49   92.01 1537.55   94.18 1537.64   94.29
1537.65
   94.31 1537.65   98.06 1537.33  105.29  1537.7  107.53  1537.8  108.86
1537.88
  109.26 1537.89  111.12 1537.96  111.88 1538.12  113.55 1538.23  114.42
1538.34
  115.72 1538.43  119.69 1538.89  120.87 1539.04  121.05 1539.06  123.91
1539.3
  127.32 1539.49  129.68 1539.75  133.59 1540.11  133.98 1540.13  135.89
1540.22
  136.12 1540.23  138.18 1540.71  138.38 1540.75  139.98 1540.97  143.21
1541.46
  144.53 1541.66     146 1541.92  150.41 1542.85  150.44 1542.85   153.2
1543.36
  154.13 1543.62  157.47 1544.67  162.39 1546.19  163.75 1546.62  164.75
1546.88
  165.13 1546.96   166.3 1547.14  166.55  1547.2  169.28 1547.82   171.2
1548.2
  172.92 1548.52  173.06 1548.55  178.77 1549.71  179.45 1549.85   180.2
1550
  184.73 1550.85  185.47    1551  186.47  1551.2  190.07 1551.95  191.38
1552.21
  194.22 1552.78  195.27    1553  196.58 1553.28  199.04 1553.87  205.71
1555.59
  209.34 1556.39  209.84 1556.49  212.47 1556.76  214.08 1556.95  215.57
1557.09
     217  1557.2

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 -234.55     .08   -2.92     .04    5.62     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
```

```
         -2.92    5.62              425     425     425             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 990

INPUT
Description: Lidar
Station Elevation Data    num=      81
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
  -211.1  1558.1    -202  1556.4  -201.5  1556.3  -193.1  1556.1  -189.9
1555
  -182.2  1552.6  -171.7  1550.8  -170.4  1550.5  -168.8  1550.1    -161
1548.4
  -157.3  1547.6  -152.2  1547.1  -142.4  1545.1  -140.1  1544.7  -138.5
1544.4
  -131.5    1543  -127.8  1541.4  -122.2  1538.8  -117.5  1537.6  -109.1
1536.5
  -108.5  1536.4  -107.6  1536.2  -101.4  1534.5   -97.6  1533.5   -95.7
1533.2
   -87.2  1532.6   -82.4  1531.5   -79.1  1531.3   -73.9  1530.8   -62.7
1530.4
   -62.4  1530.3   -62.3  1530.3   -53.8  1529.8   -49.3  1529.5   -49.1
1529.5
   -48.9  1529.4   -42.5  1528.8   -34.7  1528.6   -28.2  1528.3     -27
1528.2
   -21.4  1528.3   -19.4  1528.3   -16.8  1528.1    -7.5  1527.7    -2.3
1527.7
       0  1526.8     6.2  1527.6    16.9  1528.4    20.2  1528.3      29
1528
    36.3  1528.6    36.6  1528.6    40.7  1529.4    50.1  1530.2    53.9
1530.5
    58.4  1530.5    64.4  1530.4    74.1  1530.4    76.8  1530.7    79.8
1530.3
    88.4  1531.1    90.2  1531.2    90.8  1531.4    98.1  1532.2   108.4
1532.8
   110.1  1532.9   111.9  1533.5   116.8  1534.5   121.5  1535.7   123.7
1536.3
   127.1  1537.8   132.9  1540.3   133.2  1540.4   139.4  1541.9   144.6
1543.1
   154.1  1545.2   157.2  1545.9   160.2  1546.6   168.4  1548.8   168.8
1548.9
   174.5  1549.3

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -211.1     .08    -2.3     .04     6.2     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
```

-2.3 6.2 408.67 408.67 408.67 .1
.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 988.333*

INPUT
Description:
Station Elevation Data num= 169

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-181.9	1551.17	-174.13	1550.03	-173.7	1549.97	-172.33	1549.94	-167.01	1549.84
-166.53	1549.82	-164.89	1549.33	-163.79	1548.99	-157.22	1547.16	-153.65	1546.56
-148.25	1545.63	-147.14	1545.38	-145.77	1545.06	-144.08	1544.71	-139.11	1543.5
-137.7	1543.16	-135.95	1542.83	-131.59	1542.39	-130.41	1542.18	-128.13	1541.81
-123.22	1540.82	-121.26	1540.47	-119.89	1540.22	-117.95	1539.83	-114.76	1539.13
-113.91	1538.97	-112.63	1538.5	-110.75	1537.72	-105.97	1535.61	-105.8	1535.57
-101.96	1534.53	-95.47	1533.4	-94.78	1533.31	-94.27	1533.23	-93.5	1533.07
-91.06	1532.48	-88.21	1531.8	-84.96	1531.06	-83.92	1530.91	-83.34	1530.83
-76.08	1530.34	-75.72	1530.27	-71.98	1529.53	-70.1	1529.41	-69.16	1529.28
-66.45	1528.83	-64.72	1528.49	-63.11	1528.26	-55.15	1527.33	-54.9	1527.24
-54.81	1527.23	-51.42	1526.78	-47.55	1526.15	-46.86	1526.03	-43.71	1525.67
-43.54	1525.66	-43.37	1525.58	-37.9	1524.84	-33.95	1524.52	-32.58	1524.39
-31.24	1524.33	-25.69	1523.97	-24.66	1523.88	-19.88	1523.81	-18.17	1523.76
-15.95	1523.57	-14.81	1523.49	-14.2	1523.47	-13.29	1523.41	-8.01	1523.12
-3.57	1523.03	-.07	1522.2	0	1522.2	.91	1522.31	6.53	1523
7.82	1523.09	8.95	1523.17	9.17	1523.18	12.87	1523.4	18.07	1523.71
18.67	1523.74	19.32	1523.79	23.26	1523.89	28.32	1524	33.78	1523.56
34.81	1523.55	34.96	1523.55	35.41	1523.58	41.44	1523.92	42.5	1523.97
42.86	1523.97	42.95	1523.98	45.44	1524.18	47.76	1524.41	51.78	1524.56
53.66	1524.65	57.05	1524.84	57.66	1524.87	57.88	1524.88	58.99	1524.97

63.53 1525.32 63.92 1525.33 64.97 1525.4 68.67 1525.47 68.91
1525.47
73.79 1525.49 75.3 1525.51 76.08 1525.52 80.81 1525.63 83.22
1525.7
83.6 1525.7 87.67 1525.84 89.55 1526.02 90.89 1526.15 94.48
1526
96.26 1526.16 97.92 1526.31 104.75 1526.81 105.99 1526.87 106.52
1526.89
106.9 1526.91 107.62 1527.06 109.31 1527.2 114.36 1527.61 116.34
1527.73
117.9 1527.78 123.41 1528 124.31 1528.03 128.65 1528.4 128.69
1528.4
129.67 1528.5 129.82 1528.51 130.68 1528.56 132.83 1529.02 138.11
1529.77
138.69 1529.86 138.94 1529.9 140.15 1530.14 144.3 1530.89 146.93
1531.39
147.16 1531.46 150.93 1532.55 151 1532.57 154.62 1533.77 157.93
1534.67
158.28 1534.74 160.13 1535.05 165.26 1535.87 165.69 1535.97 166.99
1536.23
171.91 1537.09 172.04 1537.12 173.55 1537.37 175.74 1537.67 178.15
1538
179.66 1538.22 183.26 1538.79 184.56 1539 186.96 1539.36 190.55
1539.91
191.57 1540.09 194.74 1540.59 195.95 1540.81 198.96 1541.46 200.34
1541.76
200.82 1541.85 202.58 1542.04 205.67 1542.52 207.63 1542.77

Manning's n Values num= 3
Sta n Val Sta n Val Sta n Val
-181.9 .08 -3.57 .04 6.53 .08

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr.
Expan.
-3.57 6.53 408.67 408.67 408.67 .1
.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 986.666*

INPUT
Description:
Station Elevation Data num= 169
Sta Elev Sta Elev Sta Elev Sta Elev Sta
Elev
-152.7 1544.23 -146.26 1543.67 -145.9 1543.63 -144.77 1543.62 -140.36
1543.57
-139.95 1543.54 -138.59 1543.21 -137.69 1542.99 -132.23 1541.72 -129.27
1541.23
-124.8 1540.45 -123.88 1540.27 -122.74 1540.03 -121.34 1539.76 -117.22
1538.61

-116.05 1538.28 -114.6 1538.05 -110.99 1537.69 -110 1537.54 -108.11
1537.36
-104.05 1536.55 -102.42 1536.25 -101.29 1536.03 -99.67 1535.71 -97.03
1535.07
-96.33 1534.95 -95.27 1534.65 -93.71 1534.04 -89.74 1532.43 -89.6
1532.38
-86.41 1531.45 -81.03 1530.2 -80.47 1530.13 -80.04 1530.06 -79.4
1529.95
-77.38 1529.54 -75.01 1529.1 -72.32 1528.62 -71.46 1528.5 -70.98
1528.45
-64.96 1528.08 -64.66 1528.03 -61.56 1527.57 -60 1527.46 -59.22
1527.26
-56.98 1526.67 -55.54 1526.18 -54.21 1525.78 -47.61 1524.26 -47.39
1524.18
-47.32 1524.17 -44.51 1523.49 -41.3 1522.5 -40.73 1522.32 -38.12
1521.84
-37.98 1521.82 -37.83 1521.77 -33.3 1520.89 -30.02 1520.36 -28.89
1520.15
-27.78 1520.06 -23.18 1519.65 -22.33 1519.55 -18.36 1519.32 -16.94
1519.22
-15.1 1519.03 -14.15 1518.95 -13.65 1518.94 -12.89 1518.86 -8.52
1518.55
-4.83 1518.37 -.13 1517.6 0 1517.6 .95 1517.7 6.87
1518.4
8.36 1518.49 9.67 1518.58 9.94 1518.59 14.23 1518.8 20.29
1519.11
20.99 1519.12 21.74 1519.19 26.32 1519.48 32.21 1519.85 38.55
1519.13
39.75 1519.02 39.93 1519.03 40.46 1519.04 47.47 1519.31 48.7
1519.33
49.12 1519.33 49.23 1519.34 52.12 1519.34 54.81 1519.42 59.49
1519.43
61.68 1519.47 65.63 1519.62 66.33 1519.64 66.59 1519.64 67.88
1519.74
73.16 1520.14 73.61 1520.17 74.84 1520.3 79.13 1520.43 79.41
1520.44
85.1 1520.54 86.85 1520.6 87.75 1520.64 93.25 1520.87 96.06
1521
96.5 1521 101.23 1521.27 103.43 1521.46 104.99 1521.59 109.15
1521.71
111.23 1521.88 113.16 1522.06 121.11 1522.52 122.54 1522.59 123.16
1522.59
123.61 1522.62 124.44 1522.72 126.4 1522.85 132.28 1523.21 134.59
1523.27
136.4 1523.29 142.8 1523.45 143.86 1523.46 148.9 1524 148.94
1524
150.08 1524.15 150.26 1524.15 151.26 1524.22 153.77 1524.54 159.91
1525.13
160.58 1525.21 160.87 1525.25 162.27 1525.47 167.11 1526.08 170.17
1526.48
170.43 1526.53 174.82 1527.33 174.89 1527.35 179.11 1528.44 182.95
1529.03
183.37 1529.09 185.51 1529.32 191.48 1529.94 191.99 1530.03 193.5
1530.32

```
  199.21 1531.09  199.37 1531.11  201.13 1531.33  203.67 1531.54  206.48
1531.75
  208.23 1531.91  212.42 1532.38  213.93 1532.55  216.72 1532.81  220.89
1533.22
  222.09 1533.34  225.77 1533.65  227.17  1533.8  230.68 1534.43  232.29
1534.71
  232.84 1534.81  234.89 1535.07  238.49 1535.86  240.77 1536.23

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -152.7     .08   -4.83     .04    6.87     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         -4.83    6.87           408.67  408.67  408.67             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 985

INPUT
Description: Lidar
Station Elevation Data    num=      93
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
  -123.5  1537.3  -117.2  1537.3  -113.7  1537.3  -112.3  1537.1  -104.9
1535.9
   -98.6  1534.8   -94.4  1533.4   -89.6  1532.9   -88.1  1532.9   -81.4
1531.6
   -79.3    1531   -77.9  1530.8   -73.4  1529.2   -66.6    1527   -63.7
1526.6
     -59  1526.1   -53.6  1525.8   -49.9  1525.5   -47.5  1524.5   -45.3
1523.3
   -37.6  1520.2   -34.6  1518.6   -26.1  1516.2   -25.2  1515.9   -13.5
1514.4
   -13.1  1514.4   -12.5  1514.3    -6.1  1513.7     -.2    1513       0
1513
       1  1513.1     7.2  1513.8     8.9  1513.9    10.4    1514    10.7
1514
    15.6  1514.2    22.5  1514.5    23.3  1514.5    36.1  1515.7    44.7
1514.5
    44.9  1514.5    45.5  1514.5    53.5  1514.7    55.5  1514.7    58.8
1514.5
    67.2  1514.3    69.7  1514.3    74.2  1514.4      75  1514.4    75.3
1514.4
    83.3    1515    84.7  1515.2    89.6  1515.4    96.4  1515.6    98.4
1515.7
   105.7  1516.1   108.9  1516.3   109.4  1516.3   117.3  1516.9   126.2
1517.6
   128.4  1517.8   139.1  1518.3   139.8  1518.3   143.5  1518.5   150.2
1518.8
```

```
   154.9  1518.8   162.2  1518.9   163.4  1518.9   169.2  1519.6   170.5
1519.8
   170.7  1519.8   181.7  1520.5   182.8  1520.6   184.4  1520.8   193.7
1521.6
   198.7  1522.1   203.6  1523.1   210.9  1523.6   217.7    1524     220
1524.4
   226.7  1525.1   228.7  1525.3   231.6  1525.4   234.8  1525.5   236.8
1525.6
   243.3  1526.1   252.6  1526.6   256.8  1526.7   258.4  1526.8   262.4
1527.4
   267.2  1528.1   271.3  1529.2   273.9  1529.7

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -123.5     .08    -6.1     .04     7.2     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
          -6.1     7.2              440     440     440             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 984.*

INPUT
Description:
Station Elevation Data    num=     148
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
  -119.7  1529.3 -113.81  1529.3 -113.58  1529.3 -112.22  1529.3  -111.2
1529.3
 -110.18  1529.3 -108.83 1529.14 -101.63 1528.22  -97.61 1527.66  -95.51
1527.32
  -91.43 1526.12  -90.14 1525.99  -88.66 1525.84  -86.76 1525.63  -85.31
1525.6
  -84.47 1525.45  -80.96 1524.79  -80.17 1524.64   -78.8 1524.37  -77.11
1523.9
  -76.76  1523.8   -75.4 1523.58  -71.03 1522.11  -66.92 1520.83  -64.43
1520.08
   -61.6 1519.59  -59.67 1519.31  -57.06 1518.94  -57.04 1518.94  -54.34
1518.8
  -51.79 1518.63  -48.19 1518.31  -45.86 1517.47   -44.6 1516.87  -43.72
1516.47
  -39.96 1515.17  -36.24 1513.92  -33.33 1512.63  -31.46 1512.19  -25.24
1510.68
  -25.07 1510.64   -24.2 1510.38  -22.63 1510.17  -15.04 1509.29  -12.83
1509.03
  -12.44 1509.02  -11.86 1508.93   -9.49 1508.72   -6.21 1508.34   -5.64
1508.3
    -.16 1507.68       0 1507.68     .82 1507.77    5.92 1508.36    7.48
1508.46
```

```
    8.86 1508.55    9.14 1508.56   13.64 1508.77   19.98 1509.08   20.72
1509.09
   21.82 1509.19   28.61 1509.72   32.32 1510.07   32.48 1510.08   40.39
1509.19
   40.57 1509.19   41.12  1509.2   45.59 1509.34   46.67 1509.36   48.47
1509.43
   50.31 1509.45   50.68 1509.44      53 1509.34   53.34 1509.32   61.07
1509.15
   63.36 1509.14    65.5 1509.18    67.5 1509.23   68.23 1509.23   68.51
1509.23
   75.86 1509.75   77.15 1509.92    77.7 1509.94   79.86 1510.02   81.56
1510.1
   81.65  1510.1   86.65 1510.27    87.9 1510.31   89.74 1510.42   96.45
1510.81
   99.39 1511.01   99.85 1511.01  100.39 1511.06  104.09 1511.32  107.11
1511.56
  109.65 1511.77  115.29 1512.21  117.31 1512.39  122.31 1512.64  127.15
1512.89
  127.79 1512.89  131.19 1513.09  132.34 1513.14  136.82 1513.32  137.35
1513.36
   138.2 1513.38  141.67  1513.4  144.53 1513.45  148.38 1513.53  149.48
1513.54
  154.81 1514.14  156.01 1514.31  156.19 1514.31  156.88 1514.36  162.28
1514.66
   166.3 1514.86  167.31 1514.94  167.53 1514.96  168.78 1515.12  172.63
1515.47
  177.33 1515.92   180.5 1516.26  181.92 1516.39  184.97 1516.94  186.43
1517.2
  191.15 1517.48  193.14 1517.63  199.39 1518.03   201.5 1518.37  203.65
1518.6
  207.66 1519.01   209.5  1519.2  211.22 1519.27  212.16 1519.31   215.1
1519.43
  216.94 1519.53  222.48 1519.97  222.92 1520.01   226.5 1520.27  231.46
1520.6
  235.32 1520.76  235.45 1520.77  236.79 1520.87  240.47 1521.44  244.88
1522.1
  247.34 1522.73  248.65 1523.05  251.04 1523.48

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -119.7     .08   -5.64     .04    5.92     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         -5.64    5.92              440     440     440             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 983.*

INPUT
```

Description:
Station Elevation Data num= 148

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-115.9	1521.3	-110.18	1521.3	-109.96	1521.3	-108.64	1521.3	-107.65	1521.3
-106.66	1521.3	-105.34	1521.18	-98.36	1520.54	-94.46	1520.15	-92.42	1519.84
-88.46	1518.85	-87.2	1518.72	-85.77	1518.58	-83.93	1518.37	-82.51	1518.3
-81.71	1518.16	-78.3	1517.54	-77.53	1517.4	-76.2	1517.13	-74.56	1516.7
-74.21	1516.61	-72.89	1516.37	-68.65	1515.01	-64.66	1513.82	-62.24	1513.16
-59.5	1512.59	-57.63	1512.23	-55.1	1511.78	-55.07	1511.78	-52.46	1511.65
-49.98	1511.46	-46.49	1511.13	-44.22	1510.43	-43	1509.96	-42.15	1509.64
-38.49	1508.6	-34.89	1507.65	-32.06	1506.66	-30.25	1506.31	-24.2	1505.11
-24.04	1505.07	-23.19	1504.85	-21.67	1504.66	-14.31	1503.9	-12.16	1503.66
-11.78	1503.65	-11.22	1503.57	-8.92	1503.36	-5.73	1502.93	-5.18	1502.9
-.12	1502.36	0	1502.36	.64	1502.43	4.64	1502.92	6.06	1503.02
7.32	1503.11	7.57	1503.11	11.68	1503.33	17.46	1503.66	18.13	1503.68
19.14	1503.77	25.33	1504.14	28.71	1504.45	28.86	1504.46	36.07	1503.89
36.24	1503.89	36.74	1503.9	40.82	1504.05	41.8	1504.07	43.45	1504.15
45.12	1504.21	45.46	1504.21	47.57	1504.15	47.89	1504.14	54.93	1503.99
57.03	1503.99	58.98	1504.01	60.8	1504.06	61.47	1504.07	61.72	1504.07
68.42	1504.5	69.6	1504.63	70.1	1504.65	72.07	1504.71	73.62	1504.8
73.71	1504.8	78.26	1504.98	79.4	1505.03	81.08	1505.13	87.2	1505.53
89.88	1505.72	90.3	1505.73	90.79	1505.77	94.17	1505.99	96.92	1506.23
99.24	1506.43	104.38	1506.83	106.23	1506.99	110.78	1507.23	115.19	1507.48
115.78	1507.49	118.88	1507.68	119.93	1507.73	124.01	1507.86	124.5	1507.91
125.28	1507.96	128.44	1508	131.05	1508.07	134.56	1508.16	135.56	1508.18
140.42	1508.69	141.51	1508.83	141.68	1508.83	142.31	1508.87	147.24	1509.09
150.9	1509.23	151.82	1509.28	152.02	1509.3	153.16	1509.44	156.67	1509.78
160.96	1510.23	163.85	1510.57	165.15	1510.67	167.93	1511.11	169.26	1511.3

```
  173.56 1511.51  175.38 1511.65  181.07 1512.05     183 1512.34  184.96
1512.55
  188.62 1512.93  190.29 1513.09  191.86 1513.18  192.73 1513.22  195.41
1513.36
  197.08 1513.46  202.14 1513.88  202.53 1513.92   205.8 1514.23  210.33
1514.6
  213.85 1514.81  213.96 1514.83  215.19 1514.94  218.54 1515.48  222.56
1516.1
   224.8 1516.65     226 1516.91  228.18 1517.26

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -115.9     .08   -5.18     .04    4.64     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         -5.18    4.64              440     440     440             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 982.*

INPUT
Description:
Station Elevation Data    num=     148
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
  -112.1  1513.3 -106.56  1513.3 -106.34  1513.3 -105.06  1513.3  -104.1
1513.3
 -103.14  1513.3 -101.86 1513.22  -95.09 1512.86  -91.31 1512.63  -89.33
1512.36
  -85.48 1511.57  -84.27 1511.44  -82.88 1511.32  -81.09  1511.1  -79.72
1511
  -78.94 1510.87  -75.63 1510.29  -74.88 1510.17  -73.59  1509.9  -72.01
1509.5
  -71.67 1509.41  -70.39 1509.15  -66.28 1507.92  -62.41 1506.81  -60.06
1506.24
   -57.4 1505.58  -55.58 1505.16  -53.13 1504.62  -53.11 1504.62  -50.57
1504.5
  -48.17 1504.28  -44.78 1503.94  -42.59  1503.4   -41.4 1503.04  -40.57
1502.81
  -37.03 1502.04  -33.53 1501.37  -30.79 1500.69  -29.03 1500.44  -23.17
1499.54
  -23.01 1499.51  -22.19 1499.33  -20.72 1499.14  -13.57  1498.5  -11.49
1498.28
  -11.12 1498.27  -10.57  1498.2   -8.35 1498.01   -5.25 1497.52   -4.72
1497.5
    -.08 1497.04       0 1497.04     .47  1497.1    3.36 1497.48    4.65
1497.57
    5.78 1497.66    6.01 1497.67    9.72  1497.9   14.95 1498.24   15.55
1498.26
```

```
   16.46 1498.34   22.06 1498.56   25.11 1498.83   25.24 1498.84   31.76
1498.58
   31.91 1498.58   32.36  1498.6   36.04 1498.77   36.94 1498.78   38.42
1498.88
   39.94 1498.96   40.24 1498.97   42.15 1498.97   42.43 1498.96    48.8
1498.84
   50.69 1498.83   52.45 1498.84    54.1 1498.89    54.7  1498.9   54.93
1498.9
   60.99 1499.25   62.05 1499.35    62.5 1499.37   64.28 1499.41   65.68
1499.5
   65.76  1499.5   69.87 1499.68   70.91 1499.74   72.42 1499.85   77.95
1500.24
   80.37 1500.43   80.75 1500.44   81.19 1500.48   84.25 1500.66   86.73
1500.89
   88.82 1501.09   93.47 1501.44   95.14 1501.58   99.25 1501.82  103.24
1502.06
  103.77 1502.08  106.57 1502.27  107.52 1502.32  111.21 1502.41  111.65
1502.47
  112.35 1502.54  115.21 1502.61  117.57 1502.68  120.73 1502.79  121.64
1502.82
  126.04 1503.23  127.02 1503.34  127.17 1503.34  127.74 1503.38  132.19
1503.53
   135.5 1503.59  136.33 1503.62  136.52 1503.63  137.55 1503.76  140.71
1504.08
  144.59 1504.55   147.2 1504.88  148.37 1504.96  150.89 1505.27  152.08
1505.4
  155.97 1505.54  157.61 1505.68  162.76 1506.08   164.5 1506.32  166.28
1506.5
  169.58 1506.84  171.09 1506.99  172.51 1507.09  173.29 1507.14  175.71
1507.28
  177.23 1507.39  181.79 1507.79  182.15 1507.83   185.1 1508.18  189.19
1508.6
  192.37 1508.87  192.47 1508.88  193.58 1509.02  196.61 1509.51  200.25
1510.11
  202.27 1510.57  203.35 1510.76  205.32 1511.04

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -112.1     .08   -4.72     .04    3.36     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         -4.72    3.36              440     440     440             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 981.*

INPUT
Description:
Station Elevation Data    num=     148
```

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-108.3	1505.3	-102.93	1505.3	-102.72	1505.3	-101.48	1505.3	-100.55	1505.3
-99.62	1505.3	-98.38	1505.26	-91.82	1505.17	-88.15	1505.12	-86.23	1504.88
-82.51	1504.3	-81.33	1504.17	-79.99	1504.06	-78.26	1503.84	-76.93	1503.7
-76.17	1503.59	-72.97	1503.05	-72.24	1502.93	-70.99	1502.66	-69.45	1502.3
-69.13	1502.22	-67.89	1501.93	-63.9	1500.82	-60.15	1499.81	-57.88	1499.32
-55.31	1498.58	-53.54	1498.08	-51.17	1497.46	-51.14	1497.46	-48.69	1497.35
-46.35	1497.11	-43.08	1496.75	-40.95	1496.36	-39.8	1496.12	-39	1495.97
-35.56	1495.47	-32.18	1495.09	-29.52	1494.72	-27.82	1494.57	-22.13	1493.97
-21.98	1493.94	-21.19	1493.8	-19.76	1493.62	-12.84	1493.1	-10.82	1492.91
-10.46	1492.89	-9.93	1492.84	-7.77	1492.65	-4.78	1492.11	-4.26	1492.1
-.04	1491.72	0	1491.72	.29	1491.76	2.08	1492.04	3.23	1492.13
4.24	1492.21	4.45	1492.23	7.76	1492.47	12.43	1492.82	12.97	1492.85
13.78	1492.92	18.78	1492.98	21.5	1493.22	21.63	1493.23	27.44	1493.27
27.58	1493.28	27.98	1493.3	31.27	1493.48	32.07	1493.49	33.39	1493.61
34.75	1493.72	35.02	1493.74	36.72	1493.78	36.98	1493.78	42.66	1493.69
44.35	1493.67	45.93	1493.67	47.39	1493.72	47.94	1493.73	48.14	1493.74
53.55	1494	54.5	1494.07	54.9	1494.08	56.49	1494.1	57.74	1494.2
57.81	1494.2	61.49	1494.39	62.41	1494.46	63.76	1494.56	68.7	1494.96
70.86	1495.13	71.2	1495.16	71.6	1495.19	74.32	1495.33	76.55	1495.55
78.41	1495.74	82.56	1496.05	84.05	1496.17	87.73	1496.41	91.29	1496.65
91.76	1496.68	94.27	1496.85	95.11	1496.91	98.4	1496.95	98.8	1497.02
99.43	1497.12	101.98	1497.21	104.08	1497.29	106.91	1497.42	107.72	1497.46
111.65	1497.77	112.53	1497.85	112.66	1497.86	113.17	1497.89	117.15	1497.96
120.1	1497.96	120.85	1497.96	121.01	1497.97	121.93	1498.08	124.76	1498.39
128.22	1498.86	130.55	1499.19	131.6	1499.25	133.84	1499.44	134.91	1499.5
138.39	1499.57	139.85	1499.7	144.45	1500.1	146.01	1500.29	147.59	1500.45

```
  150.54 1500.75  151.89 1500.89  153.15 1500.99  153.85 1501.05  156.02
1501.21
  157.37 1501.32  161.45 1501.69  161.76 1501.74   164.4 1502.14  168.05
1502.6
  170.89 1502.93  170.99 1502.94  171.98 1503.09  174.68 1503.55  177.93
1504.11
  179.73 1504.48   180.7 1504.62  182.46 1504.82

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -108.3     .08   -4.26     .04    2.08     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         -4.26    2.08              440     440     440             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 980

INPUT
Description: Lidar
Station Elevation Data    num=      62
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
  -104.5  1497.3   -99.3  1497.3   -97.9  1497.3     -97  1497.3   -94.9
1497.3
     -85  1497.6   -78.4  1496.9   -77.1  1496.8   -73.4  1496.3   -70.3
1495.8
   -69.6  1495.7   -66.9  1495.1   -57.9  1492.8   -55.7  1492.4   -51.5
1491
   -49.2  1490.3   -46.8  1490.2   -38.2  1489.2   -34.1  1488.9   -26.6
1488.7
   -21.1  1488.4   -18.8  1488.1   -12.1  1487.7    -7.2  1487.3    -4.3
1486.7
    -3.8  1486.7       0  1486.4      .8  1486.6    11.1  1487.5    15.5
1487.4
    17.9  1487.6    26.5  1488.2    27.2  1488.2    29.8  1488.5    31.3
1488.6
    39.4  1488.5    47.3  1488.8    48.7  1488.8    49.8  1488.9    53.1
1489.1
      62  1489.9    64.4    1490      68  1490.4    76.2    1491    82.7
1491.5
    85.6  1491.5    86.5  1491.7    90.6  1491.9    98.6  1492.4   102.1
1492.4
   105.5  1492.3   108.8  1492.7   113.9  1493.5   116.8  1493.6   120.8
1493.6
   128.9  1494.4   133.8  1494.9   141.1  1495.6   143.7  1496.1   149.5
1497
   157.2  1498.4   159.6  1498.6
```

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-104.5	.08	-3.8	.04	.8	.08

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

-3.8	.8	425	425	425	.1	.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 977.5*

INPUT
Description:
Station Elevation Data num= 279

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-231.55	1505.85	-227.64	1505.85	-225.97	1505.8	-221.1	1505.35	-219.73	1505.23
-216.61	1504.95	-216.55	1504.94	-214.5	1504.48	-214.37	1504.45	-210.46	1503.65
-209.73	1503.51	-207.38	1503.07	-205.14	1501.73	-200.91	1500.51	-196.94	1498.64
-194.69	1496.8	-191.87	1496.47	-191.36	1496.42	-190.59	1496.43	-187.22	1496.45
-184.56	1496.39	-182.26	1496.38	-177.45	1495.57	-172.22	1493.83	-172.13	1493.8
-169.44	1492.8	-169.27	1492.75	-163.8	1490.99	-163.35	1490.87	-160.86	1490.69
-157.9	1490.45	-156.87	1490.21	-156.1	1490.18	-153.81	1490.15	-152.22	1490.13
-151.3	1490.1	-149.37	1489.96	-146.3	1489.71	-146.08	1489.7	-141.68	1489.5
-140.34	1489.43	-135.72	1489.22	-131.81	1489	-126.36	1488.69	-125.62	1488.65
-123.93	1488.58	-122.13	1488.51	-120.62	1488.45	-120.47	1488.44	-118.48	1488.29
-116.36	1488.19	-111.08	1487.84	-108.99	1487.71	-108.29	1487.66	-108.09	1487.65
-107.9	1487.64	-105.85	1487.5	-100.39	1487.45	-97.71	1487.38	-93.86	1487.28
-92.97	1487.26	-92.71	1487.25	-89.57	1487.17	-85.02	1487.01	-83.74	1486.72
-83.22	1486.61	-83.16	1486.61	-80.84	1486.55	-74.63	1486.45	-73.29	1486.43
-71.52	1486.55	-71.49	1486.55	-70.28	1486.54	-65.85	1486.52	-65.15	1486.51
-62.97	1486.55	-59.63	1486.28	-55.28	1486.15	-54.48	1486.15	-52.01	1486.12
-48.16	1485.92	-47.01	1486.01	-43.93	1485.92	-42.2	1485.95	-41.97	1485.91

-41.3	1485.78	-36.75	1485.69	-36.11	1485.69	-34.12	1485.72	-28.1	1485.74
-24.64	1485.64	-22.14	1485.81	-21.52	1485.79	-15.09	1485.58	-14.51	1485.52
-12.78	1485.39	-12.07	1485.33	-10.38	1485.23	-3.79	1484.65	-2.65	1484.6
0	1484.4	2.5	1484.7	6.48	1484.91	10.83	1485.18	12.85	1485.32
15.85	1485.41	19.71	1485.43	21.79	1485.51	27.3	1485.65	28.22	1485.66
30.42	1485.7	30.57	1485.7	34.53	1485.73	38.45	1485.92	39.49	1485.91
40.34	1485.91	42.56	1485.85	46.59	1485.81	49.1	1486.01	49.65	1486.06
50.39	1486.12	56.94	1486.15	59.82	1486.19	62.2	1486.02	62.76	1486.02
67.41	1486.43	69.68	1486.51	72.54	1486.52	73.84	1486.5	74.44	1486.53
74.88	1486.56	78.31	1486.53	81.53	1486.6	82.17	1486.61	85.29	1486.75
85.62	1486.74	86.76	1486.7	90.5	1486.79	95.21	1486.88	97.72	1486.82
100.29	1486.87	105.93	1486.9	106.78	1486.9	107.69	1486.9	111.25	1486.92
119.15	1486.83	119.21	1486.83	127.36	1487.14	128.15	1487.14	129.22	1487.13
130.6	1487.1	132.01	1487.1	133.03	1487.15	136.03	1487.35	137.16	1487.41
143.34	1487.23	145.02	1487.22	145.85	1487.21	149.22	1487.32	151.73	1487.36
155.83	1487.68	156.81	1487.69	157.36	1487.7	161.22	1487.62	162.69	1487.59
166.43	1487.8	167.35	1487.87	169.28	1487.9	171.51	1487.92	173.04	1488.03
175.82	1488.09	176.16	1488.11	180.14	1488.19	181.12	1488.11	181.8	1488.12
185.63	1488.27	187.68	1488.33	192.33	1488.44	192.57	1488.44	193.06	1488.45
200.9	1488.56	201.88	1488.57	204.27	1488.5	204.94	1488.56	207.97	1488.67
209.41	1488.72	211.92	1488.71	216.27	1488.92	221.05	1489.03	223.01	1489.21
225.69	1489.29	226.32	1489.3	228.83	1489.25	232.19	1489.3	233.59	1489.38
233.85	1489.41	236.04	1489.47	238.01	1489.47	240.22	1489.44	241.69	1489.5
247.22	1489.64	247.75	1489.66	249.22	1489.67	253.81	1489.83	259.2	1489.99
259.81	1489.99	259.99	1490	263.73	1490.19	266.42	1490.22	269.02	1490.19
272.85	1490.1	273.96	1490.1	276.41	1490.25	277.32	1490.25	278.56	1490.26
285.84	1490.26	287.37	1490.25	287.82	1490.35	288.47	1490.51	288.96	1490.58

290.73 1490.66 296.25 1490.74 296.81 1490.75 299.43 1490.83 303.84
1491
305.19 1491.09 308.06 1491.27 310.71 1491.28 313.82 1491.22 315.96
1491.18
317.43 1491.24 318.61 1491.25 319.45 1491.25 321.72 1491.35 327.23
1491.8
329.52 1491.94 330.6 1492.02 331.39 1492.08 332.37 1492.25 337.64
1493.15
338.25 1493.21 344.38 1494.07 348.72 1495.15 350.01 1495.52 351.42
1495.75
351.59 1495.78 357.36 1496.81 357.91 1496.87 360.6 1497.12 361.71
1497.24
364.52 1497.44 364.94 1497.46 368.56 1497.56 371.01 1497.91 374.26
1498.36
376.77 1498.96 380.26 1500.22 384.84 1501.57 386.2 1502 388.53
1502.43
389.69 1502.82 391.92 1503.33 392.81 1503.53 395.26 1503.85 399.3
1504.56
403.59 1505.18 405.37 1505.53 406.65 1505.77 407.73 1505.96 411.12
1506.56
415.1 1507.3 417.55 1507.73 422.39 1508.49 423.37 1508.57 424.29
1508.65
428.71 1509.04 430.84 1509.18 431.51 1509.24 435.25 1509.75

Manning's n Values num= 3
Sta n Val Sta n Val Sta n Val
-231.55 .08 -2.65 .04 2.5 .08

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr.
Expan.
-2.65 2.5 425 425 425 .1
.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 975

INPUT
Description: Lidar
Station Elevation Data num= 222
Sta Elev Sta Elev Sta Elev Sta Elev Sta
Elev
-358.6 1514.4 -352.5 1514.4 -349.9 1514.3 -342.3 1513.4 -335.3
1512.6
-331.8 1511.6 -325.7 1510 -320.9 1508.8 -317.4 1506.1 -310.8
1503.6
-304.6 1499.8 -301.1 1496.1 -296.7 1495.4 -295.9 1495.3 -294.7
1495.3
-285.3 1495.3 -281.7 1495.4 -274.2 1494 -265.9 1490.7 -261.7
1488.8
-252.9 1485.5 -252.2 1485.3 -243.7 1484.8 -242.1 1484.4 -240.9
1484.4

-233.4	1484.6	-230.4	1484.5	-225.6	1484.3	-218.4	1484.4	-216.3
1484.4								
-209.1	1484.5	-203	1484.5	-194.5	1484.5	-190.7	1484.5	-187.9
1484.5								
-185.3	1484.5	-182.2	1484.5	-178.9	1484.6	-167.4	1484.7	-166.3
1484.7								
-166	1484.7	-165.7	1484.7	-149.8	1484.7	-143.8	1484.7	-142.4
1484.7								
-142	1484.7	-137.1	1484.7	-130	1484.6	-128	1484.1	-127.2
1483.9								
-127.1	1483.9	-113.8	1483.9	-111.7	1483.9	-108.9	1484.2	-107
1484.2								
-100.1	1484.2	-99	1484.2	-95.6	1484.3	-90.4	1483.8	-83.6
1483.6								
-78.5	1483.6	-72.5	1483.3	-70.7	1483.5	-65.9	1483.4	-63.2
1483.5								
-61.8	1483.2	-53.7	1483.3	-50.6	1483.4	-41.2	1483.6	-35.8
1483.5								
-31.9	1483.9	-20.9	1483.7	-20	1483.6	-17.3	1483.4	-16.2
1483.3								
-1.5	1482.5	0	1482.4	4.2	1482.8	10.7	1483.1	17.8
1483.5								
21.1	1483.7	26	1483.8	32.3	1483.7	35.7	1483.8	44.7
1483.9								
46.2	1483.9	49.8	1483.9	56.5	1484	62.9	1484.4	64.6
1484.4								
66	1484.4	76.2	1484.1	81.2	1484.5	82.4	1484.6	93.1
1484.5								
97.8	1484.5	101.7	1484.1	102.6	1484.1	110.2	1484.8	113.9
1484.9								
120.7	1484.8	122.4	1484.9	128	1484.7	134.3	1484.7	139.4
1484.9								
141.8	1484.8	147.9	1485	155.6	1485.2	159.7	1485.1	163.9
1485.2								
173.1	1485.3	174.5	1485.3	181.8	1485.3	194.7	1485	194.8
1485								
208.1	1485.5	209.4	1485.5	213.4	1485.4	215.7	1485.4	224.1
1485.9								
234.2	1485.4	238.3	1485.3	243.8	1485.4	247.9	1485.4	254.6
1485.9								
256.2	1485.9	257.1	1485.9	263.4	1485.6	265.8	1485.5	271.9
1485.8								
273.4	1485.9	280.2	1485.9	282.7	1486.1	287.8	1486.2	294.3
1486.2								
295.9	1486	297	1486	306.6	1486.2	314.2	1486.3	314.6
1486.3								
315.4	1486.3	328.2	1486.3	329.8	1486.3	333.7	1486.1	334.8
1486.2								
342.1	1486.4	346.2	1486.3	353.3	1486.6	361.1	1486.7	364.3
1487								
369.7	1487.1	373.8	1487	379.3	1487.1	382	1487.3	388.8
1487.2								
392.4	1487.1	394.8	1487.2	404.7	1487.4	407.1	1487.4	414.6
1487.6								

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   423.4  1487.8   424.4  1487.8   424.7  1487.8   430.8  1488.1   435.2
1488.1
   445.7  1487.8   447.5  1487.8   451.5  1488.1     453  1488.1   466.9
1488.2
   469.4  1488.2   471.2  1488.7     472  1488.8   474.9  1488.9   483.9
1488.8
   489.1  1488.8   496.3  1488.9   498.5    1489   503.2  1489.2   512.6
1488.9
   516.1  1488.8   518.5  1488.9   521.8  1488.9   525.5  1489.1   534.5
1490
     540  1490.4   541.3  1490.5   542.9  1490.8   551.5  1492.4   552.5
1492.5
   562.5    1494   569.6    1496   571.7  1496.7     574  1497.1   583.7
1499
   584.6  1499.1     589  1499.5   590.8  1499.7   595.4    1500     602
1500.1
     606  1500.7   611.3  1501.5   615.4  1502.6   621.1    1505   630.8
1508.3
   634.6    1509   636.5  1509.7   641.6  1510.9   645.6  1511.4   652.2
1512.6
   659.2  1513.6   662.1  1514.2   664.2  1514.6   671.5  1515.9     678
1517.1
     682  1517.8   689.9    1519   691.5  1519.1     693  1519.2   703.7
1519.9
   704.8    1520   710.9  1520.9

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -358.6     .08    -1.5     .04     4.2     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
          -1.5     4.2              416     416     416             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 974.*

INPUT
Description:
Station Elevation Data    num=     459
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
  -402.3 1510.94 -400.75    1511 -395.49 1510.76 -392.77 1510.57 -392.59
1510.54
 -390.94 1510.26 -384.16 1509.06  -384.1 1509.05 -382.25 1508.63 -379.78
1508.07
 -376.29 1507.24 -375.26 1506.87 -372.38 1506.02 -368.77 1505.02 -366.09
1504.28
 -365.57 1504.13 -364.68 1503.88 -360.22 1503.02 -358.75 1502.19 -356.42
1500.86
```

-356.31 1500.8 -355 1500.43 -350.49 1499.18 -348.94 1498.76 -347.73
1498.23
-342.02 1495.69 -341.1 1494.98 -338.49 1493 -338.11 1492.72 -336.16
1492.48
-335.8 1492.44 -334.75 1492.32 -333.2 1492.14 -332.31 1492.07 -330.97
1492.07
-328.46 1492.08 -325.15 1492.1 -324.3 1492.1 -321.33 1492.1 -320.48
1492.1
-316.46 1492.18 -315.9 1492.1 -312.58 1491.66 -312.37 1491.63 -311.95
1491.58
-308.09 1491.06 -305.17 1490.23 -303.62 1489.79 -300.93 1489.02 -298.82
1488.42
-295.99 1487.5 -295.29 1487.27 -294.13 1486.9 -292.89 1486.56 -289.64
1485.69
-287.1 1485.01 -284.31 1484.26 -283.53 1484.1 -279.47 1483.93 -277
1483.82
-275.45 1483.76 -274.04 1483.7 -272.25 1483.38 -271.64 1483.38 -270.92
1483.38
-268.39 1483.43 -266.13 1483.49 -262.54 1483.56 -259.19 1483.48 -255.4
1483.37
-254.2 1483.33 -253.84 1483.32 -252.79 1483.33 -250.39 1483.35 -246.3
1483.38
-245.8 1483.38 -243.45 1483.38 -243.26 1483.38 -243.05 1483.38 -242.2
1483.39
-236.91 1483.45 -235.42 1483.46 -234.79 1483.46 -234.51 1483.46 -231.12
1483.48
-228.61 1483.48 -222.72 1483.48 -221.59 1483.48 -219.12 1483.52 -216.3
1483.56
-214.88 1483.55 -213.54 1483.54 -211.75 1483.51 -208.85 1483.46 -205.57
1483.4
-205.39 1483.4 -204.01 1483.41 -203.94 1483.41 -203.87 1483.41 -203.66
1483.42
-201.71 1483.49 -199.71 1483.53 -196.53 1483.57 -195.12 1483.6 -190.39
1483.61
-189.97 1483.61 -189.12 1483.62 -188.87 1483.62 -188.55 1483.62 -187.64
1483.62
-187.31 1483.61 -186.97 1483.61 -178.88 1483.58 -173.66 1483.56 -173.45
1483.56
-172.81 1483.56 -169.22 1483.58 -165.4 1483.6 -163.28 1483.56 -162.53
1483.55
-160.96 1483.54 -160.52 1483.54 -158.27 1483.56 -155.05 1483.57 -153.68
1483.57
-149.94 1483.51 -149.24 1483.46 -147.12 1483.42 -144.89 1482.99 -144
1482.82
-143.88 1482.82 -143.8 1482.82 -142.53 1482.8 -137.66 1482.76 -133.21
1482.72
-129.68 1482.66 -129.04 1482.66 -126.69 1482.65 -124.46 1482.81 -123.57
1482.87
-122.76 1482.86 -121.45 1482.85 -120.36 1482.84 -116.84 1482.82 -113.74
1482.82
-113.31 1482.82 -112.52 1482.82 -109.14 1482.87 -108.72 1482.88 -107.24
1482.78
-104.62 1482.58 -102.92 1482.46 -102.36 1482.45 -100.46 1482.41 -96.65
1482.33

-95.33	1482.31	-93.47	1482.32	-92.2	1482.32	-91.14	1482.3	-89.63	1482.29
-85.28	1482.12	-84.65	1482.1	-82.94	1482.04	-80.93	1482.2	-78.93	1482.17
-76.81	1482.14	-75.57	1482.11	-72.55	1482.17	-71.73	1482.03	-71.45	1481.99
-70.99	1481.92	-67.85	1481.95	-62.9	1482.01	-61.95	1482.01	-60.93	1482.02
-58.88	1482.05	-58.49	1482.06	-54.5	1482.1	-52.81	1482.13	-49.99	1482.17
-48	1482.21	-44.48	1482.17	-42.93	1482.15	-41.97	1482.13	-37.61	1482.43
-36.86	1482.41	-33.54	1482.39	-30.22	1482.34	-26.9	1482.26	-25.34	1482.24
-24.33	1482.16	-23.52	1482.12	-21.32	1482	-20.09	1481.92	-19.77	1481.91
-17.44	1481.82	-16.32	1481.77	-12.15	1481.65	-5.8	1481.42	-5.59	1481.41
-3.68	1481.32	0	1481.18	4.82	1481.52	6.86	1481.6	7.63	1481.63
10.99	1481.76	11.33	1481.78	17.72	1482.12	20.85	1482.29	21.8	1482.32
23.08	1482.34	25.5	1482.37	28.31	1482.32	31.48	1482.27	34.32	1482.33
34.7	1482.34	38.27	1482.37	43.24	1482.45	44.66	1482.46	47.98	1482.48
48.08	1482.48	53.47	1482.55	54.43	1482.56	60.5	1482.89	62.11	1482.89
63.44	1482.9	66.62	1482.82	70.32	1482.73	73.12	1482.66	77.86	1482.98
79	1483.06	82.96	1483.03	86.92	1483	89.15	1482.98	91.01	1482.98
93.61	1482.97	95.1	1482.83	97.31	1482.64	97.65	1482.64	98.16	1482.65
100.97	1482.9	105.37	1483.25	108.88	1483.33	114.12	1483.28	115.33	1483.26
116.94	1483.34	117.95	1483.31	120.5	1483.23	122.25	1483.18	128.23	1483.18
133.07	1483.34	135.34	1483.26	135.57	1483.27	137.49	1483.32	137.87	1483.33
141.13	1483.42	145.28	1483.51	148.43	1483.58	152.32	1483.5	156.31	1483.58
163.02	1483.64	165.03	1483.66	166.36	1483.66	166.73	1483.66	169.54	1483.66
173.29	1483.66	174.64	1483.63	183.45	1483.46	185.52	1483.43	185.62	1483.44
186.26	1483.46	193.03	1483.7	197.63	1483.84	198.24	1483.86	199.47	1483.86
201.71	1483.81	203.26	1483.78	205.44	1483.78	205.67	1483.79	209.12	1483.96
213.41	1484.18	216.27	1484.06	218.06	1483.99	222.99	1483.78	224.32	1483.75
226.88	1483.7	231.98	1483.78	232.1	1483.78	234.79	1483.74	235.99	1483.74

242.34 1484.16 243.86 1484.17 244.72 1484.17 247.3 1484.08 249.85
1484.01
250.69 1483.98 252.97 1483.9 256.62 1484.05 258.75 1484.15 260.18
1484.23
262.37 1484.24 266.63 1484.24 267.86 1484.32 269 1484.4 269.52
1484.41
270.79 1484.43 273.84 1484.48 278.2 1484.48 280 1484.48 281.52
1484.32
282.56 1484.32 282.8 1484.32 283.69 1484.34 290.07 1484.47 291.67
1484.5
298.88 1484.6 299.26 1484.6 300.02 1484.6 312.16 1484.62 312.67
1484.62
313.68 1484.62 314.97 1484.56 317.38 1484.46 318.42 1484.54 319.31
1484.56
325.34 1484.7 327.74 1484.65 329.23 1484.63 330.81 1484.7 335.4
1484.86
335.97 1484.88 342.68 1484.95 343.37 1484.96 346.4 1485.2 346.9
1485.21
351.53 1485.27 355.41 1485.19 360.63 1485.26 360.81 1485.27 363.19
1485.42
366.94 1485.37 369.64 1485.34 373.06 1485.25 375.33 1485.33 378.56
1485.38
380.99 1485.42 382.78 1485.45 384.56 1485.48 384.73 1485.48 387
1485.49
391.84 1485.63 394.12 1485.69 398.23 1485.78 402.46 1485.86 403.41
1485.86
403.7 1485.86 409.48 1486.1 410.1 1486.1 413.66 1486.11 418.91
1485.99
422.87 1485.88 423.62 1485.87 424.02 1485.88 425.32 1485.88 429.12
1486.14
430.54 1486.14 443.73 1486.27 446.1 1486.28 447 1486.49 447.64
1486.64
447.81 1486.68 448.56 1486.75 449.56 1486.77 451.32 1486.81 455.17
1486.74
458.75 1486.71 459.85 1486.71 463.22 1486.76 464.79 1486.76 467.05
1486.79
470.37 1486.87 471.62 1486.88 473.7 1486.95 476.24 1487.03 478.16
1487.13
479.05 1487.12 487.08 1486.85 489.52 1486.78 490.4 1486.76 491.44
1486.8
492.67 1486.85 495.8 1486.88 497.95 1487 499.31 1487.07 502.42
1487.36
506.63 1487.7 507.85 1487.79 513.07 1488.08 514.3 1488.15 515.82
1488.39
516.85 1488.54 520.17 1489.08 523.98 1489.68 524.93 1489.76 531.15
1490.55
534.41 1490.98 538.3 1491.92 540.85 1492.55 541.15 1492.62 543.14
1493.17
544.17 1493.31 545.32 1493.49 554.52 1495.07 555.37 1495.16 558.35
1495.41
559.55 1495.51 560.13 1495.57 561.26 1495.67 564.22 1495.82 565.62
1495.9
571.88 1496 573.8 1496.24 575.67 1496.52 579.16 1497.02 580.7
1497.26

584.59 1498.23 588.61 1499.75 590 1500.29 596.4 1502.38 599.2
1503.3
602.65 1503.98 602.8 1504 604.61 1504.62 609.44 1505.73 610.95
1505.94
613.24 1506.31 618.49 1507.4 619.13 1507.54 619.5 1507.63 622.57
1508.21
626.14 1508.89 628.89 1509.57 630.88 1510.03 632.15 1510.31 634.06
1510.68
637.81 1511.37 642.11 1512.19 643.39 1512.43 643.97 1512.54 647.77
1513.23
653.6 1514.17 655.26 1514.41 656.15 1514.47 656.78 1514.5 658.2
1514.59
668.35 1515.21 669.39 1515.3 673.78 1515.87 675.18 1516.04

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-402.3	.08	-3.68	.04	4.82	.08

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr.
Expan.
-3.68 4.82 416 416 416 .1
.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 973.*

INPUT
Description:
Station Elevation Data num= 459
Sta Elev Sta Elev Sta Elev Sta Elev Sta
Elev
-446 1507.48 -444.29 1507.6 -438.48 1507.13 -435.48 1506.82 -435.28
1506.79
-433.45 1506.39 -425.97 1504.72 -425.91 1504.7 -423.86 1504.05 -421.14
1503.17
-417.28 1501.88 -416.15 1501.4 -412.97 1500.45 -408.98 1499.29 -406.02
1498.43
-405.45 1498.26 -404.46 1497.96 -399.53 1497.24 -397.91 1496.59 -395.34
1495.54
-395.22 1495.5 -393.78 1495.19 -388.79 1494.23 -387.08 1493.92 -385.75
1493.52
-379.44 1491.57 -378.42 1491.04 -375.54 1489.55 -375.13 1489.33 -372.97
1489.13
-372.58 1489.1 -371.41 1489.01 -369.71 1488.89 -368.72 1488.84 -367.24
1488.84
-364.47 1488.86 -360.81 1488.9 -359.87 1488.9 -356.6 1488.9 -355.65
1488.9
-351.22 1488.96 -350.6 1488.9 -346.94 1488.57 -346.7 1488.55 -346.23
1488.51
-341.97 1488.12 -338.75 1487.5 -337.04 1487.16 -334.07 1486.59 -331.74
1486.14

-328.62 1485.45 -327.84 1485.28 -326.57 1485 -325.19 1484.75 -321.6
1484.09
-318.8 1483.58 -315.72 1483.02 -314.86 1482.9 -310.38 1482.77 -307.65
1482.69
-305.94 1482.64 -304.38 1482.6 -302.41 1482.36 -301.73 1482.36 -300.93
1482.36
-298.14 1482.4 -295.65 1482.47 -291.69 1482.52 -287.99 1482.46 -283.8
1482.38
-282.48 1482.35 -282.07 1482.34 -280.92 1482.35 -278.27 1482.37 -273.75
1482.36
-273.2 1482.36 -270.61 1482.36 -270.4 1482.36 -270.16 1482.36 -269.23
1482.37
-263.38 1482.41 -261.74 1482.42 -261.04 1482.42 -260.73 1482.42 -256.99
1482.46
-254.22 1482.46 -247.71 1482.46 -246.47 1482.46 -243.74 1482.53 -240.62
1482.62
-239.06 1482.6 -237.58 1482.58 -235.61 1482.52 -232.4 1482.42 -228.77
1482.3
-228.58 1482.3 -227.06 1482.28 -226.98 1482.28 -226.9 1482.28 -226.67
1482.29
-224.51 1482.38 -222.31 1482.45 -218.8 1482.5 -217.24 1482.55 -212.02
1482.53
-211.55 1482.53 -210.61 1482.54 -210.34 1482.54 -209.99 1482.54 -208.98
1482.53
-208.61 1482.53 -208.24 1482.53 -199.31 1482.46 -193.54 1482.42 -193.31
1482.42
-192.61 1482.42 -188.65 1482.46 -184.43 1482.5 -182.09 1482.42 -181.25
1482.41
-179.52 1482.38 -179.03 1482.39 -176.55 1482.42 -172.99 1482.45 -171.49
1482.45
-167.36 1482.38 -166.58 1482.3 -164.24 1482.23 -161.78 1481.88 -160.79
1481.74
-160.67 1481.74 -160.58 1481.74 -159.17 1481.7 -153.79 1481.62 -148.88
1481.54
-144.99 1481.42 -144.27 1481.42 -141.69 1481.4 -139.22 1481.51 -138.23
1481.54
-137.35 1481.52 -135.89 1481.5 -134.7 1481.48 -130.8 1481.44 -127.39
1481.44
-126.9 1481.44 -126.03 1481.43 -122.31 1481.45 -121.84 1481.46 -120.2
1481.38
-117.32 1481.21 -115.43 1481.12 -114.82 1481.11 -112.72 1481.08 -108.51
1481.02
-107.05 1481.02 -105 1481.04 -103.6 1481.04 -102.43 1481 -100.77
1480.99
-95.96 1480.84 -95.26 1480.83 -93.37 1480.78 -91.15 1480.9 -88.95
1480.88
-86.61 1480.85 -85.24 1480.82 -81.91 1480.83 -81 1480.72 -80.68
1480.69
-80.18 1480.64 -76.71 1480.66 -71.25 1480.73 -70.2 1480.72 -69.07
1480.72
-66.81 1480.71 -66.38 1480.72 -61.98 1480.73 -60.11 1480.74 -56.99
1480.78
-54.79 1480.81 -50.91 1480.8 -49.2 1480.79 -48.14 1480.77 -43.33
1480.95

-42.49	1480.93	-38.83	1480.94	-35.17	1480.91	-31.5	1480.8	-29.77	1480.78
-28.66	1480.72	-27.76	1480.69	-25.33	1480.6	-23.98	1480.54	-23.63	1480.53
-21.06	1480.46	-19.81	1480.43	-15.21	1480.39	-8.2	1480.24	-7.96	1480.24
-5.86	1480.14	0	1479.96	5.44	1480.24	7.37	1480.3	8.1	1480.32
11.27	1480.42	11.6	1480.43	17.64	1480.73	20.6	1480.89	21.5	1480.91
22.71	1480.93	25	1480.94	27.66	1480.89	30.65	1480.84	33.34	1480.87
33.7	1480.88	37.08	1480.91	41.77	1481	43.12	1481.02	46.26	1481.06
46.35	1481.06	51.45	1481.11	52.36	1481.12	58.1	1481.38	59.63	1481.39
60.88	1481.39	63.89	1481.34	67.39	1481.27	70.04	1481.22	74.52	1481.46
75.6	1481.52	79.35	1481.5	83.09	1481.47	85.2	1481.46	86.96	1481.46
89.41	1481.43	90.82	1481.32	92.91	1481.18	93.24	1481.18	93.72	1481.19
96.38	1481.42	100.54	1481.69	103.86	1481.76	108.82	1481.73	109.96	1481.72
111.48	1481.78	112.44	1481.76	114.85	1481.7	116.51	1481.66	122.16	1481.66
126.74	1481.78	128.89	1481.72	129.1	1481.72	130.92	1481.76	131.28	1481.77
134.36	1481.84	138.28	1481.91	141.27	1481.96	144.95	1481.9	148.72	1481.96
155.07	1482.01	156.97	1482.02	158.23	1482.02	158.57	1482.02	161.23	1482.02
164.77	1482.02	166.06	1482	174.39	1481.87	176.35	1481.87	176.44	1481.87
177.05	1481.9	183.45	1482.1	187.8	1482.21	188.37	1482.22	189.54	1482.22
191.66	1482.18	193.12	1482.16	195.19	1482.16	195.4	1482.17	198.67	1482.3
202.72	1482.46	205.43	1482.37	207.12	1482.31	211.79	1482.16	213.04	1482.14
215.46	1482.1	220.28	1482.16	220.4	1482.16	222.94	1482.08	224.08	1482.09
230.09	1482.43	231.52	1482.44	232.33	1482.44	234.77	1482.38	237.19	1482.39
237.98	1482.36	240.14	1482.3	243.59	1482.41	245.61	1482.49	246.95	1482.56
249.02	1482.58	253.06	1482.58	254.22	1482.64	255.3	1482.7	255.79	1482.71
256.99	1482.72	259.87	1482.76	264	1482.76	265.7	1482.76	267.14	1482.64
268.13	1482.64	268.35	1482.64	269.19	1482.65	275.23	1482.78	276.74	1482.81
283.56	1482.9	283.92	1482.9	284.63	1482.9	296.12	1482.94	296.61	1482.94

297.55 1482.94 298.78 1482.9 301.05 1482.82 302.04 1482.88 302.89 1482.9
308.59 1483 310.86 1482.96 312.27 1482.96 313.75 1483.02 318.1 1483.14
318.64 1483.16 324.99 1483.21 325.63 1483.22 328.51 1483.4 328.97 1483.41
333.35 1483.45 337.03 1483.38 341.96 1483.42 342.13 1483.43 344.39 1483.54
347.93 1483.51 350.49 1483.47 353.72 1483.4 355.87 1483.45 358.92 1483.48
361.22 1483.51 362.91 1483.54 364.6 1483.56 364.75 1483.56 366.9 1483.59
371.48 1483.72 373.63 1483.77 377.52 1483.86 381.53 1483.92 382.42 1483.92
382.69 1483.92 388.17 1484.1 388.75 1484.1 392.11 1484.12 397.08 1484.05
400.83 1483.93 401.53 1483.95 401.91 1483.96 403.15 1483.97 406.74 1484.18
408.08 1484.19 420.55 1484.34 422.8 1484.35 423.65 1484.52 424.26 1484.63
424.41 1484.66 425.13 1484.7 426.07 1484.7 427.73 1484.71 431.38 1484.63
434.76 1484.61 435.81 1484.63 438.99 1484.72 440.47 1484.72 442.61 1484.74
445.75 1484.85 446.93 1484.85 448.9 1484.9 451.31 1484.95 453.12 1485.05
453.96 1485.06 461.55 1484.81 463.87 1484.74 464.69 1484.72 465.68 1484.75
466.85 1484.8 469.81 1484.86 471.84 1484.97 473.13 1485.04 476.06 1485.3
480.05 1485.52 481.2 1485.59 486.14 1485.76 487.3 1485.81 488.74 1485.97
489.71 1486.08 492.85 1486.51 496.45 1486.96 497.35 1487.02 503.24 1487.61
506.32 1487.96 510 1488.69 512.41 1489.19 512.69 1489.24 514.58 1489.63
515.55 1489.73 516.64 1489.88 525.34 1491.15 526.15 1491.22 528.96 1491.43
530.1 1491.53 530.65 1491.58 531.71 1491.65 534.51 1491.74 535.84 1491.81
541.76 1491.89 543.57 1492.08 545.35 1492.33 548.64 1492.79 550.1 1493.01
553.78 1493.85 557.58 1495.11 558.9 1495.59 564.95 1497.46 567.6 1498.29
570.87 1498.98 571.01 1499.01 572.71 1499.54 577.29 1500.57 578.71 1500.78
580.88 1501.21 585.84 1502.4 586.44 1502.56 586.8 1502.65 589.7 1503.36
593.08 1504.19 595.68 1504.94 597.56 1505.46 598.76 1505.78 600.57 1506.16
604.11 1506.84 608.18 1507.64 609.39 1507.87 609.94 1507.98 613.53 1508.65
619.05 1509.6 620.62 1509.81 621.47 1509.88 622.06 1509.91 623.4 1509.98

633 1510.52 633.99 1510.59 638.13 1511.05 639.46 1511.18

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-446	.08	-5.86	.04	5.44	.08

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-5.86	5.44	416	416	416	.1	.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 972.*

INPUT
Description:
Station Elevation Data num= 460

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-489.7	1504.02	-487.82	1504.2	-481.47	1503.49	-478.19	1503.08	-477.97	1503.03
-475.97	1502.53	-467.78	1500.38	-467.71	1500.36	-465.48	1499.46	-462.49	1498.28
-458.27	1496.52	-457.03	1495.93	-453.55	1494.87	-449.18	1493.56	-445.94	1492.59
-445.32	1492.39	-444.24	1492.04	-438.85	1491.46	-437.07	1490.99	-434.26	1490.23
-434.13	1490.2	-432.55	1489.96	-427.09	1489.29	-425.23	1489.08	-423.77	1488.81
-416.86	1487.46	-415.75	1487.09	-412.59	1486.1	-412.14	1485.95	-409.78	1485.79
-409.35	1485.77	-408.07	1485.71	-406.21	1485.63	-405.13	1485.6	-403.51	1485.62
-400.48	1485.64	-396.47	1485.7	-395.45	1485.7	-391.87	1485.7	-390.83	1485.7
-385.98	1485.74	-385.3	1485.7	-381.29	1485.48	-381.03	1485.47	-380.52	1485.44
-375.86	1485.18	-372.33	1484.76	-370.46	1484.54	-367.22	1484.16	-364.67	1483.86
-361.25	1483.4	-360.39	1483.29	-359	1483.1	-357.49	1482.93	-353.57	1482.5
-350.5	1482.15	-347.13	1481.78	-346.19	1481.7	-341.29	1481.61	-338.3	1481.56
-336.43	1481.53	-334.72	1481.5	-332.56	1481.34	-331.82	1481.34	-330.95	1481.34
-327.9	1481.36	-325.17	1481.45	-320.83	1481.48	-316.78	1481.44	-312.2	1481.38
-310.75	1481.37	-310.31	1481.36	-309.05	1481.37	-306.15	1481.38	-301.2	1481.34
-300.6	1481.34	-297.76	1481.34	-297.53	1481.34	-297.27	1481.34	-296.25	1481.35

-289.85 1481.37 -288.05 1481.38 -287.3 1481.38 -286.95 1481.38 -282.86
1481.44
-279.83 1481.44 -272.71 1481.44 -271.35 1481.44 -268.36 1481.55 -264.95
1481.68
-263.23 1481.65 -261.62 1481.62 -259.46 1481.53 -255.95 1481.37 -251.98
1481.2
-251.77 1481.19 -250.11 1481.15 -250.02 1481.16 -249.94 1481.16 -249.68
1481.16
-247.32 1481.27 -244.9 1481.37 -241.07 1481.44 -239.36 1481.5 -233.64
1481.46
-233.13 1481.46 -232.11 1481.46 -231.81 1481.46 -231.43 1481.46 -230.32
1481.45
-229.92 1481.44 -229.51 1481.44 -219.74 1481.34 -213.43 1481.28 -213.17
1481.28
-212.41 1481.28 -208.07 1481.34 -203.45 1481.4 -200.89 1481.28 -199.98
1481.26
-198.09 1481.22 -198.08 1481.22 -197.55 1481.23 -194.84 1481.28 -190.94
1481.32
-189.29 1481.33 -184.77 1481.25 -183.92 1481.13 -181.36 1481.05 -178.66
1480.78
-177.59 1480.67 -177.45 1480.66 -177.35 1480.66 -175.81 1480.6 -169.93
1480.48
-164.56 1480.36 -160.29 1480.18 -159.51 1480.17 -156.68 1480.15 -153.98
1480.21
-152.9 1480.21 -151.93 1480.18 -150.34 1480.15 -149.03 1480.12 -144.77
1480.06
-141.03 1480.06 -140.5 1480.06 -139.55 1480.05 -135.47 1480.04 -134.96
1480.04
-133.17 1479.99 -130.01 1479.84 -127.95 1479.78 -127.28 1479.77 -124.98
1479.75
-120.37 1479.71 -118.78 1479.72 -116.54 1479.76 -115 1479.76 -113.72
1479.7
-111.9 1479.68 -106.64 1479.56 -105.87 1479.55 -103.81 1479.52 -101.38
1479.6
-98.96 1479.59 -96.41 1479.57 -94.9 1479.53 -91.26 1479.5 -90.26
1479.42
-89.92 1479.4 -89.37 1479.36 -85.57 1479.37 -79.6 1479.46 -78.45
1479.43
-77.21 1479.41 -74.74 1479.38 -74.27 1479.37 -69.45 1479.35 -67.41
1479.36
-63.99 1479.38 -61.59 1479.42 -57.34 1479.44 -55.46 1479.43 -54.3
1479.4
-49.04 1479.47 -48.13 1479.46 -44.12 1479.49 -40.11 1479.47 -36.1
1479.33
-34.21 1479.32 -32.99 1479.28 -32.01 1479.26 -29.35 1479.2 -27.87
1479.16
-27.49 1479.15 -24.67 1479.11 -23.31 1479.09 -18.28 1479.13 -10.6
1479.06
-10.34 1479.06 -8.04 1478.96 0 1478.74 6.06 1478.96 7.88
1479
8.56 1479.01 11.56 1479.08 11.87 1479.09 17.56 1479.35 20.35
1479.48
21.2 1479.51 22.34 1479.52 24.5 1479.51 27.01 1479.46 29.83
1479.41

32.36 1479.42 32.7 1479.42 35.89 1479.44 40.31 1479.55 41.58
1479.58
44.54 1479.64 44.63 1479.64 49.43 1479.67 50.29 1479.68 55.7
1479.87
57.14 1479.88 58.33 1479.89 61.16 1479.86 64.46 1479.81 66.95
1479.78
71.18 1479.94 72.2 1479.98 75.73 1479.96 79.26 1479.95 81.25
1479.94
82.9 1479.94 85.22 1479.9 86.55 1479.82 88.52 1479.72 88.82
1479.72
89.28 1479.74 91.78 1479.95 95.71 1480.14 98.84 1480.2 103.51
1480.19
104.59 1480.18 106.03 1480.22 106.93 1480.2 109.2 1480.17 110.76
1480.14
116.09 1480.14 120.4 1480.22 122.43 1480.18 122.64 1480.18 124.34
1480.21
124.69 1480.21 127.59 1480.26 131.29 1480.31 134.1 1480.34 137.57
1480.3
141.12 1480.34 147.11 1480.37 148.9 1480.38 150.09 1480.38 150.41
1480.38
152.92 1480.38 156.26 1480.38 157.47 1480.37 165.33 1480.28 167.17
1480.3
167.26 1480.31 167.83 1480.33 173.87 1480.5 177.96 1480.57 178.51
1480.58
179.6 1480.58 181.61 1480.56 182.99 1480.54 184.93 1480.54 185.14
1480.55
188.21 1480.63 192.04 1480.74 194.59 1480.68 196.18 1480.64 200.58
1480.54
201.76 1480.53 204.05 1480.5 208.59 1480.54 208.7 1480.53 211.09
1480.42
212.17 1480.43 217.83 1480.69 219.18 1480.71 219.95 1480.72 222.25
1480.69
224.53 1480.76 225.27 1480.74 227.3 1480.7 230.56 1480.78 232.46
1480.84
233.73 1480.9 235.68 1480.92 239.48 1480.92 240.58 1480.96 241.6
1481
242.06 1481 243.2 1481.01 245.91 1481.04 249.8 1481.04 251.41
1481.04
252.76 1480.96 253.69 1480.96 253.9 1480.96 254.69 1480.97 260.39
1481.09
261.81 1481.11 268.24 1481.2 268.58 1481.2 269.25 1481.2 280.08
1481.26
280.54 1481.26 281.43 1481.26 282.59 1481.23 284.73 1481.18 285.66
1481.22
286.46 1481.23 291.83 1481.3 293.97 1481.28 295.3 1481.29 296.7
1481.35
300.8 1481.43 301.31 1481.44 307.29 1481.48 307.9 1481.48 310.61
1481.6
311.05 1481.6 315.18 1481.62 318.64 1481.56 323.29 1481.58 323.46
1481.59
325.58 1481.66 328.92 1481.64 331.33 1481.61 334.37 1481.55 336.4
1481.58
339.28 1481.59 341.44 1481.61 343.04 1481.62 344.63 1481.64 344.78
1481.64

```
  346.81 1481.68  351.12 1481.81  353.15 1481.86  356.81 1481.94  360.59
1481.98
  361.44 1481.98  361.69 1481.98  366.85  1482.1   367.4  1482.1  370.57
1482.12
  375.26  1482.1  378.78 1481.99  379.45 1482.02  379.81 1482.04  380.97
1482.05
  384.36 1482.21  385.63 1482.23  397.38 1482.41   399.5 1482.43   400.3
1482.55
  400.87 1482.62  401.02 1482.63  401.69 1482.65  402.58 1482.63  404.15
1482.62
  407.59 1482.52  410.77 1482.51  411.76 1482.54  414.76 1482.68  416.16
1482.68
  418.17 1482.69  421.13 1482.83  422.25 1482.83  424.11 1482.85  426.37
1482.87
  428.08 1482.98  428.88 1483.01  436.03 1482.76  438.21 1482.69  438.99
1482.68
  439.92  1482.7  441.02 1482.75  443.81 1482.84  445.72 1482.95  446.94
1483.02
  449.71 1483.23  453.47 1483.35  454.55 1483.38   459.2 1483.45   460.3
1483.46
  461.66 1483.56  462.57 1483.62  465.53 1483.94  468.93 1484.24  469.78
1484.28
  475.32 1484.67  478.23 1484.93   481.7 1485.46  483.98 1485.83  484.24
1485.85
  486.01  1486.1  486.94 1486.16  487.96 1486.26  496.16 1487.22  496.92
1487.28
  499.57 1487.45  500.65 1487.54  501.17 1487.59  502.17 1487.62  504.81
1487.66
  506.06 1487.71  511.64 1487.79  513.35 1487.92  515.02 1488.15  518.13
1488.56
   519.5 1488.77  522.97 1489.48  526.55 1490.47  527.79 1490.88   533.5
1492.54
     536 1493.29  539.08 1493.99  539.21 1494.01  540.82 1494.46  545.13
1495.4
  546.48 1495.62  548.51 1496.12  553.19  1497.4  553.76 1497.57   554.1
1497.68
  556.84 1498.51  560.02 1499.48  562.47 1500.31  564.24 1500.89  565.37
1501.26
  567.08 1501.64  570.42 1502.31  574.25 1503.09  575.39 1503.31  575.92
1503.42
   579.3 1504.08   584.5 1505.03  585.98 1505.22  586.78 1505.28  587.33
1505.31
   588.6 1505.37  597.65 1505.83  598.58 1505.89  602.49 1506.23  603.74
1506.32

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -489.7     .08   -8.04     .04    6.06     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         -8.04    6.06              416     416     416             .1
.3
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CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 971.*

INPUT
Description:
Station Elevation Data num= 460

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-533.4	1500.56	-531.36	1500.8	-524.46	1499.85	-520.89	1499.34	-520.65	1499.28
-518.48	1498.66	-509.59	1496.04	-509.52	1496.01	-507.09	1494.88	-503.85	1493.39
-499.26	1491.16	-497.92	1490.47	-494.14	1489.29	-489.39	1487.83	-485.87	1486.74
-485.2	1486.52	-484.02	1486.12	-478.17	1485.68	-476.24	1485.4	-473.18	1484.91
-473.04	1484.89	-471.33	1484.73	-465.4	1484.34	-463.37	1484.24	-461.78	1484.11
-454.29	1483.34	-453.07	1483.15	-449.65	1482.65	-449.16	1482.57	-446.59	1482.44
-446.13	1482.43	-444.74	1482.4	-442.71	1482.38	-441.54	1482.37	-439.78	1482.39
-436.49	1482.42	-432.14	1482.5	-431.02	1482.5	-427.13	1482.5	-426.01	1482.5
-420.74	1482.52	-420	1482.5	-415.65	1482.39	-415.37	1482.38	-414.81	1482.37
-409.75	1482.24	-405.92	1482.03	-403.88	1481.92	-400.36	1481.73	-397.59	1481.58
-393.87	1481.35	-392.95	1481.29	-391.43	1481.2	-389.8	1481.12	-385.53	1480.9
-382.2	1480.73	-378.54	1480.54	-377.52	1480.5	-372.19	1480.46	-368.95	1480.43
-366.91	1480.41	-365.06	1480.4	-362.72	1480.32	-361.91	1480.32	-360.96	1480.32
-357.65	1480.33	-354.68	1480.42	-349.97	1480.44	-345.58	1480.42	-340.6	1480.39
-339.03	1480.38	-338.54	1480.38	-337.17	1480.38	-334.02	1480.39	-328.65	1480.32
-328	1480.32	-324.92	1480.32	-324.67	1480.32	-324.39	1480.32	-323.28	1480.32
-316.33	1480.34	-314.37	1480.34	-313.55	1480.34	-313.18	1480.34	-308.73	1480.42
-305.43	1480.42	-297.7	1480.42	-296.22	1480.42	-292.98	1480.57	-289.27	1480.74
-287.41	1480.7	-285.66	1480.66	-283.31	1480.53	-279.5	1480.33	-275.19	1480.1
-274.96	1480.09	-273.15	1480.03	-273.06	1480.03	-272.97	1480.03	-272.69	1480.03
-270.13	1480.16	-267.5	1480.28	-263.33	1480.37	-261.48	1480.45	-255.27	1480.38

-254.72 1480.38 -253.6 1480.38 -253.28 1480.38 -252.86 1480.38 -251.67
1480.36
-251.23 1480.36 -250.79 1480.35 -240.17 1480.22 -233.31 1480.14 -233.04
1480.14
-232.2 1480.14 -227.49 1480.22 -222.48 1480.3 -219.7 1480.14 -218.7
1480.11
-216.65 1480.06 -216.64 1480.06 -216.06 1480.07 -213.12 1480.14 -208.88
1480.2
-207.1 1480.22 -202.19 1480.13 -201.26 1479.97 -198.48 1479.87 -195.55
1479.67
-194.38 1479.59 -194.23 1479.58 -194.13 1479.58 -192.46 1479.5 -186.06
1479.34
-180.23 1479.18 -175.6 1478.94 -174.75 1478.93 -171.67 1478.89 -168.74
1478.9
-167.57 1478.88 -166.52 1478.84 -164.79 1478.8 -163.37 1478.76 -158.73
1478.68
-154.68 1478.68 -154.1 1478.68 -153.07 1478.66 -148.64 1478.62 -148.08
1478.62
-146.13 1478.59 -142.71 1478.47 -140.47 1478.44 -139.74 1478.44 -137.24
1478.43
-132.24 1478.41 -130.5 1478.43 -128.07 1478.48 -126.4 1478.48 -125.01
1478.4
-123.03 1478.38 -117.32 1478.28 -116.49 1478.28 -114.24 1478.26 -111.6
1478.3
-108.98 1478.29 -106.2 1478.28 -104.57 1478.24 -100.62 1478.17 -99.53
1478.11
-99.16 1478.1 -98.56 1478.08 -94.44 1478.09 -87.95 1478.18 -86.7
1478.14
-85.36 1478.11 -82.67 1478.04 -82.16 1478.03 -76.93 1477.98 -74.7
1477.98
-71 1477.99 -68.38 1478.03 -63.77 1478.07 -61.73 1478.06 -60.47
1478.03
-54.76 1478 -53.76 1477.98 -49.41 1478.05 -45.06 1478.04 -40.7
1477.87
-38.64 1477.86 -37.32 1477.84 -36.25 1477.83 -33.37 1477.8 -31.76
1477.78
-31.34 1477.78 -28.29 1477.75 -26.8 1477.74 -21.34 1477.86 -13
1477.88
-12.72 1477.88 -10.22 1477.78 0 1477.52 6.68 1477.68 8.39
1477.7
9.03 1477.71 11.84 1477.74 12.13 1477.74 17.48 1477.97 20.1
1478.08
20.9 1478.1 21.97 1478.11 24 1478.08 26.35 1478.03 29
1477.98
31.38 1477.96 31.7 1477.96 34.69 1477.97 38.85 1478.1 40.04
1478.14
42.82 1478.22 42.9 1478.22 47.42 1478.24 48.22 1478.25 53.31
1478.36
54.66 1478.37 55.77 1478.38 58.43 1478.38 61.53 1478.36 63.87
1478.34
67.84 1478.42 68.8 1478.44 72.12 1478.43 75.43 1478.42 77.29
1478.42
78.85 1478.42 81.03 1478.37 82.27 1478.31 84.13 1478.26 84.41
1478.26

84.84	1478.28	87.19	1478.47	90.88	1478.59	93.82	1478.63	98.21	1478.64
99.22	1478.64	100.57	1478.66	101.41	1478.65	103.55	1478.63	105.02	1478.62
110.02	1478.62	114.07	1478.66	115.98	1478.64	116.17	1478.64	117.77	1478.65
118.09	1478.66	120.82	1478.68	124.29	1478.7	126.94	1478.72	130.2	1478.7
133.53	1478.72	139.16	1478.74	140.84	1478.74	141.95	1478.74	142.26	1478.74
144.61	1478.74	147.75	1478.74	148.89	1478.73	156.26	1478.69	158	1478.74
158.08	1478.74	158.62	1478.77	164.28	1478.9	168.13	1478.94	168.64	1478.94
169.67	1478.94	171.55	1478.93	172.85	1478.92	174.68	1478.92	174.87	1478.92
177.76	1478.97	181.35	1479.02	183.74	1478.99	185.24	1478.97	189.37	1478.92
190.48	1478.91	192.63	1478.9	196.89	1478.92	197	1478.91	199.25	1478.76
200.25	1478.78	205.58	1478.96	206.85	1478.98	207.56	1478.99	209.72	1478.99
211.86	1479.13	212.57	1479.12	214.47	1479.1	217.53	1479.14	219.32	1479.19
220.51	1479.23	222.34	1479.26	225.91	1479.26	226.94	1479.28	227.9	1479.3
228.33	1479.3	229.4	1479.31	231.95	1479.32	235.6	1479.32	237.11	1479.32
238.38	1479.28	239.25	1479.28	239.45	1479.28	240.2	1479.28	245.54	1479.39
246.88	1479.41	252.92	1479.5	253.23	1479.5	253.87	1479.5	264.04	1479.58
264.47	1479.58	265.31	1479.58	266.39	1479.57	268.41	1479.54	269.28	1479.56
270.03	1479.57	275.08	1479.6	277.09	1479.59	278.33	1479.62	279.65	1479.67
283.5	1479.71	283.97	1479.72	289.6	1479.74	290.17	1479.74	292.71	1479.8
293.12	1479.8	297	1479.79	300.26	1479.75	304.63	1479.74	304.78	1479.74
306.77	1479.78	309.91	1479.77	312.17	1479.74	315.03	1479.7	316.94	1479.7
319.64	1479.69	321.67	1479.7	323.17	1479.71	324.67	1479.72	324.8	1479.72
326.71	1479.77	330.76	1479.91	332.67	1479.95	336.11	1480.02	339.66	1480.04
340.45	1480.04	340.69	1480.04	345.53	1480.1	346.05	1480.1	349.03	1480.13
353.43	1480.15	356.74	1480.04	357.37	1480.09	357.7	1480.12	358.8	1480.14
361.98	1480.25	363.17	1480.27	374.21	1480.47	376.19	1480.51	376.95	1480.57
377.49	1480.61	377.62	1480.61	378.26	1480.6	379.09	1480.57	380.56	1480.53

383.79 1480.41 386.79 1480.4 387.71 1480.46 390.53 1480.64 391.84
1480.64
393.74 1480.65 396.52 1480.82 397.56 1480.8 399.31 1480.79 401.44
1480.78
403.04 1480.91 403.79 1480.95 410.51 1480.72 412.56 1480.65 413.29
1480.64
414.16 1480.65 415.19 1480.71 417.82 1480.82 419.61 1480.92 420.75
1480.99
423.35 1481.17 426.88 1481.17 427.9 1481.17 432.27 1481.13 433.3
1481.12
434.58 1481.14 435.44 1481.16 438.22 1481.37 441.41 1481.52 442.2
1481.54
447.41 1481.74 450.14 1481.91 453.4 1482.23 455.54 1482.46 455.78
1482.47
457.45 1482.56 458.32 1482.58 459.28 1482.65 466.98 1483.29 467.7
1483.34
470.19 1483.48 471.19 1483.55 471.68 1483.59 472.62 1483.6 475.1
1483.58
476.28 1483.61 481.52 1483.68 483.12 1483.76 484.7 1483.96 487.61
1484.33
488.91 1484.52 492.16 1485.11 495.53 1485.84 496.69 1486.17 502.05
1487.62
504.4 1488.29 507.29 1488.99 507.41 1489.02 508.92 1489.38 512.97
1490.23
514.24 1490.46 516.15 1491.03 520.55 1492.4 521.08 1492.59 521.39
1492.7
523.97 1493.65 526.95 1494.77 529.26 1495.67 530.93 1496.32 531.99
1496.73
533.59 1497.12 536.72 1497.78 540.33 1498.55 541.4 1498.76 541.89
1498.86
545.06 1499.5 549.95 1500.47 551.34 1500.62 552.09 1500.69 552.61
1500.71
553.8 1500.77 562.3 1501.14 563.17 1501.18 566.84 1501.42 568.02
1501.46

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-533.4	.08	-10.22	.04	6.68	.08

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr.
Expan.
-10.22 6.68 416 416 416 .1
.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 970

INPUT
Description: Lidar
Station Elevation Data num= 244

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-577.1	1497.1	-574.9	1497.4	-563.6	1495.6	-561	1494.8	-551.4	1491.7
-548.7	1490.3	-545.2	1488.5	-538.8	1485	-529.6	1482.1	-525.8	1480.9
-523.8	1480.2	-515.4	1479.8	-512.1	1479.6	-510.1	1479.5	-503.7	1479.4
-499.8	1479.4	-490.4	1479.2	-486.7	1479.2	-483.4	1479.1	-482.9	1479.1
-481.4	1479.1	-472.5	1479.2	-467.8	1479.3	-466.6	1479.3	-462.4	1479.3
-454.7	1479.3	-450	1479.3	-449.7	1479.3	-449.1	1479.3	-439.5	1479.3
-437.3	1479.3	-433.5	1479.3	-426.5	1479.3	-425.5	1479.3	-422.1	1479.3
-417.5	1479.3	-413.9	1479.3	-403.1	1479.3	-399.6	1479.3	-397.4	1479.3
-392	1479.3	-387.4	1479.3	-384.2	1479.4	-369	1479.4	-367.3	1479.4
-365.3	1479.4	-361.9	1479.4	-356.1	1479.3	-351.8	1479.3	-351.5	1479.3
-350.3	1479.3	-342.8	1479.3	-339.8	1479.3	-339.4	1479.3	-334.6	1479.4
-322.7	1479.4	-321.1	1479.4	-313.6	1479.8	-309.7	1479.7	-298.4	1479
-296.2	1478.9	-296.1	1478.9	-296	1478.9	-295.7	1478.9	-290.1	1479.2
-285.6	1479.3	-283.6	1479.4	-276.9	1479.3	-276.3	1479.3	-275.1	1479.3
-274.3	1479.3	-260.6	1479.1	-253.2	1479	-252.9	1479	-252	1479
-241.5	1479.2	-238.5	1479	-235.2	1478.9	-231.4	1479	-224.9	1479.1
-219.6	1479	-218.6	1478.8	-210.9	1478.5	-209.1	1478.4	-202.2	1478.2
-195.9	1478	-190.9	1477.7	-183.5	1477.6	-181.1	1477.5	-177.7	1477.4
-172.7	1477.3	-167.7	1477.3	-161.8	1477.2	-159.1	1477.2	-155.4	1477.1
-152.2	1477.1	-149.5	1477.1	-144.1	1477.1	-139.6	1477.2	-137.8	1477.2
-136.3	1477.1	-128	1477	-127.1	1477	-119	1477	-116	1477
-108.8	1476.8	-108.4	1476.8	-103.3	1476.8	-96.3	1476.9	-93.5	1476.8
-90.6	1476.7	-84.4	1476.6	-82	1476.6	-78	1476.6	-70.2	1476.7
-68	1476.7	-59.4	1476.5	-54.7	1476.6	-50	1476.6	-45.3	1476.4
-40.5	1476.4	-35.2	1476.4	-31.9	1476.4	-30.3	1476.4	-24.4	1476.6
-15.4	1476.7	-15.1	1476.7	-12.4	1476.6	0	1476.3	7.3	1476.4

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     8.9  1476.4     9.5  1476.4    12.4  1476.4    20.6  1476.7    21.6
1476.7
    25.7  1476.6    30.4  1476.5    33.5  1476.5    41.1  1476.8    45.4
1476.8
    55.7  1476.9    58.6  1476.9    68.5  1476.9    71.6  1476.9    74.8
1476.9
      78  1476.8      80  1476.8    82.6    1477    92.9  1477.1    95.9
1477.1
    97.9  1477.1   109.7  1477.1   111.2  1477.1   111.5  1477.1   117.3
1477.1
   131.2  1477.1   134.1  1477.1   136.3  1477.1   140.3  1477.1   147.2
1477.1
   149.4  1477.2   154.7  1477.3   158.3  1477.3   161.5  1477.3   164.6
1477.3
   167.3  1477.3   172.9  1477.3   174.3  1477.3   179.2  1477.3   185.2
1477.3
   187.4  1477.1   197.2  1477.3   199.2  1477.5   204.5  1477.5     209
1477.6
   213.3  1477.6   214.6  1477.6   215.6  1477.6   221.4  1477.6     225
1477.6
   225.7  1477.6   230.7  1477.7   237.9  1477.8   248.4  1477.9   250.2
1477.9
   253.6  1477.9   260.2  1477.9   262.6    1478   266.2    1478   271.9
1478
   275.2    1478   286.1  1477.9   290.9  1477.9     300  1477.8   301.9
1477.8
   303.3  1477.8   304.7  1477.8   310.4    1478   315.4  1478.1   324.7
1478.1
   331.6  1478.2   334.7  1478.1   335.6  1478.2   353.6  1478.6   354.1
1478.6
   355.6  1478.5     360  1478.3   362.8  1478.3   366.3  1478.6   369.3
1478.6
   371.9  1478.8   376.5  1478.7   378.7  1478.9   386.9  1478.6   388.4
1478.6
   393.5  1478.9     397  1479.1   400.3    1479   408.3  1478.7   410.9
1478.8
   419.5  1478.8   425.1    1479   427.1  1479.1   429.7    1479   440.8
1479.5
   442.2  1479.6   445.4  1479.5   452.9  1479.6   457.1  1480.1   464.5
1481.2
   470.6  1482.7   475.5    1484     482  1485.3   487.9  1487.4   488.4
1487.6
   491.1  1488.8   498.6  1492.2   500.1  1492.6   506.4    1494   507.4
1494.2
   515.4  1495.9   517.4  1496.1   531.2  1496.6   532.3  1496.6

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -577.1     .08   -12.4     .04     7.3     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         -12.4     7.3              445     445     445             .1
.3
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CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 967.5*

INPUT
Description:
Station Elevation Data num= 360

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-479.3	1493.55	-478.05	1493.7	-477.46	1493.75	-473.56	1493.38	-468.04	1492.59
-467.2	1492.4	-465.87	1492.08	-457.86	1490.14	-455.97	1489.46	-455.6	1489.34
-452.68	1488.33	-451.98	1488.07	-448.24	1486.94	-447.34	1486.63	-440.25	1485.16
-439.66	1485.05	-436.49	1484.45	-434.83	1484.1	-434.76	1484.1	-427.82	1483.67
-427.15	1483.63	-425.06	1483.38	-423.39	1483.19	-418.05	1482.69	-416.92	1482.6
-415.67	1482.55	-415.18	1482.5	-414.8	1482.47	-406.96	1481.7	-406.32	1481.65
-405.2	1481.55	-403.87	1481.18	-401.11	1480.35	-400.7	1480.24	-399.45	1479.89
-397.71	1479.41	-396.96	1479.22	-392.02	1478	-388.85	1477.24	-388.1	1477.25
-387.1	1477.25	-384.11	1477.25	-383.59	1477.24	-378.87	1477.15	-377.17	1477.13
-373.24	1477.07	-372.99	1477.06	-372.49	1477.06	-372.01	1477.05	-366.52	1477.1
-364.48	1477.09	-362.65	1477.08	-359.48	1477.06	-358.29	1477.05	-356.17	1476.95
-353.64	1476.96	-352.8	1476.96	-349.96	1476.97	-346.13	1476.99	-343.19	1477
-343.12	1477	-337.58	1477	-334.21	1477	-334.11	1477	-331.19	1477.02
-329.35	1477.04	-327.47	1477.05	-324.85	1477.07	-321.01	1477.1	-318.34	1477.17
-314	1477.2	-306.64	1477.15	-305.66	1477.13	-304.24	1477.1	-304.14	1477.1
-302.57	1477.11	-299.73	1477.12	-294.89	1477.09	-293.29	1477.1	-292.04	1477.1
-291.3	1477.1	-291.05	1477.1	-290.17	1477.1	-290.05	1477.1	-284.18	1477
-283.79	1477.01	-281.29	1477.05	-280.96	1477.05	-277.95	1477.14	-276.95	1477.14
-270.58	1477.1	-267.02	1477.1	-265.97	1477.1	-265.69	1477.1	-259.61	1477.34
-259.43	1477.35	-256.17	1477.24	-254.24	1477.13	-246.75	1476.85	-246.01	1476.83
-245.13	1476.81	-244.91	1476.8	-244.83	1476.8	-244.74	1476.8	-244.49	1476.8

-243.89 1476.82 -239.82 1476.95 -236.07 1477 -234.4 1477.05 -233.91
1477.05
-229.29 1477 -228.81 1477 -228.3 1477.01 -227.3 1477.01 -226.64
1477.02
-221.68 1477.01 -218.31 1476.98 -215.2 1476.94 -209.03 1476.87 -208.78
1476.87
-208.03 1476.86 -204.46 1476.89 -200.47 1476.94 -199.27 1476.95 -196.76
1476.85
-194.01 1476.8 -192.61 1476.82 -190.84 1476.85 -185.42 1476.9 -184.88
1476.89
-182.01 1476.91 -180.99 1476.87 -180.51 1476.79 -180.16 1476.75 -173.73
1476.58
-172.23 1476.52 -166.47 1476.4 -165.04 1476.37 -161.55 1476.31 -161.22
1476.3
-159.18 1476.23 -157.04 1476.15 -156.18 1476.14 -155.06 1476.08 -152.19
1476.11
-150.87 1476.09 -148.87 1476.03 -146.03 1475.96 -144.21 1475.93 -141.86
1475.88
-138.84 1475.85 -137.69 1475.85 -132.76 1475.8 -131.36 1475.8 -130.51
1475.8
-127.42 1475.75 -124.75 1475.75 -122.5 1475.75 -121.88 1475.75 -117.99
1475.75
-114.24 1475.8 -112.74 1475.8 -111.65 1475.76 -111.49 1475.75 -111.4
1475.75
-110.77 1475.74 -104.56 1475.68 -103.81 1475.68 -97.05 1475.66 -94.55
1475.65
-92.81 1475.62 -88.54 1475.48 -88.2 1475.47 -83.95 1475.4 -79.96
1475.38
-78.11 1475.4 -78.09 1475.4 -75.77 1475.41 -74.34 1475.42 -73.35
1475.39
-68.18 1475.3 -67.61 1475.3 -66.18 1475.3 -63.37 1475.3 -62.84
1475.29
-61 1475.26 -56.33 1475.27 -54.49 1475.26 -52.64 1475.22 -47.32
1475.27
-43.4 1475.41 -41.78 1475.45 -39.47 1475.49 -35.55 1475.45 -31.55
1475.4
-27.12 1475.35 -27.06 1475.35 -24.37 1475.35 -23.04 1475.35 -18.11
1475.45
-15.96 1475.46 -10.6 1475.41 -10.35 1475.4 -10.1 1475.39 -9.85
1475.39
-9.6 1475.38 -8.1 1475.25 0 1474.8 1.18 1474.86 6.35
1475
7.39 1475.01 7.78 1475.02 9.67 1475.04 13.88 1475.22 15.01
1475.24
15.66 1475.24 18.33 1475.17 21.4 1475.11 23.41 1475.09 28.37
1475.21
30.88 1475.2 31.17 1475.2 37.87 1475.35 39.76 1475.38 41.21
1475.4
46.21 1475.44 47.45 1475.45 48.23 1475.47 50.32 1475.51 52.19
1475.51
52.4 1475.5 53.7 1475.51 55.4 1475.63 58.21 1475.67 62.1
1475.7
64.06 1475.7 65.1 1475.7 65.36 1475.7 69.83 1475.65 73.05
1475.69

```
   74.02  1475.7   74.22 1475.71      78 1475.75   87.05 1475.87   88.94
1475.89
   90.37 1475.91   92.98 1475.94   93.51 1475.95   97.47 1475.95    98.9
1476
   99.53 1476.01  102.36 1476.04   104.7 1476.02  106.79 1476.01   108.8
1476
  110.56 1475.99  114.21 1475.98  115.12 1475.97  118.31 1475.96  119.33
1475.95
  121.91 1475.95  122.22 1475.95  122.77 1475.91  123.66 1475.86  130.04
1476.01
  131.34 1476.12  134.79 1476.14   135.9 1476.17  136.76 1476.18  137.72
1476.2
  140.52 1476.21  141.37 1476.22  142.02 1476.22   145.8 1476.23  148.15
1476.24
   148.6 1476.24  151.86  1476.3  156.55 1476.37  163.39 1476.45  164.56
1476.45
  164.74 1476.45  166.77 1476.45  168.18 1476.45  171.07 1476.49  171.62
1476.52
  172.64 1476.57  174.98  1476.6  178.69 1476.66  180.84 1476.69  184.96
1476.72
  187.94 1476.66  191.07 1476.63     197  1476.5  198.23 1476.49  199.14
1476.48
  200.06 1476.47  203.77 1476.52  205.41 1476.53  207.03 1476.53  210.57
1476.5
  213.08  1476.5  217.58 1476.55   219.6  1476.5  220.18 1476.55  224.35
1476.62
  231.02 1476.78  231.91  1476.8  232.23 1476.81  233.21 1476.76  236.08
1476.67
   237.9 1476.68  240.18 1476.84  242.13 1476.85  242.85 1476.89  243.83
1476.94
  246.82 1476.87  248.26 1476.96   253.6 1476.77  254.57 1476.76  257.89
1476.88
  260.17 1476.96  262.01 1476.91  262.32 1476.91  265.66  1476.9  267.53
1476.84
  269.23 1476.88  274.83 1476.86  276.21 1476.89  276.42 1476.89  276.85
1476.91
  278.48 1477.09  279.78 1477.26  281.47 1477.36  288.69 1478.25   288.7
1478.25
  289.61 1478.33   291.7 1478.35  296.58 1478.56  299.32  1478.9  300.96
1479.14
  304.14 1479.61  308.11  1480.5  309.56 1480.85   311.3 1481.43  314.08
1482.23
  315.54 1482.55  319.38 1483.88  319.71 1484.01  320.32 1484.26  321.47
1484.76
  326.35 1486.96  327.33 1487.25  328.29 1487.51  331.43 1488.08  332.08
1488.19
  337.29 1489.09   338.6 1489.21   342.7 1489.36  347.58 1489.54   348.3
1489.55

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -479.3     .08    -8.1     .04    6.35     .08
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Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
          -8.1    6.35              445     445     445             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 965

INPUT
Description: Lidar
Station Elevation Data    num=     123
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
  -381.5    1490  -380.5  1490.1  -376.9  1490.1  -371.8  1489.5  -362.8
1488.4
  -359.6  1488.1  -356.6  1488.3  -350.2    1488  -345.8    1488  -339.7
1487.5
  -331.5  1485.8  -330.5  1485.7  -330.1  1485.6    -323  1484.1  -322.1
1483.9
  -316.1  1479.7  -315.5  1479.3    -309  1475.2  -305.2  1475.2    -301
1475
  -295.5  1474.8  -291.1  1474.9  -284.5  1474.8  -282.8  1474.6  -272.4
1474.7
  -267.9  1474.7  -265.2  1474.7  -259.8  1474.8    -249    1475  -243.1
1474.9
  -241.1  1474.8  -232.4  1474.9  -231.4  1474.9  -229.9  1474.9  -225.1
1474.7
  -220.1  1474.9  -214.2  1474.8  -210.5  1474.8  -205.4  1474.9  -201.1
1474.7
  -194.5  1474.7  -193.8  1474.7  -192.8  1474.7  -184.8  1474.7  -181.1
1474.7
    -175  1474.8  -172.3  1474.8  -161.2  1474.7    -158  1474.7  -151.7
1474.7
  -145.5  1474.7  -143.2  1474.8    -142  1474.7  -129.6  1474.6  -126.8
1474.6
  -124.9  1474.6  -122.5  1474.6  -121.6  1474.5  -119.3  1474.6  -112.9
1474.5
  -108.6  1474.4  -102.6  1474.4     -95  1474.4   -86.8  1474.4   -86.6
1474.4
   -86.1  1474.4   -71.7  1474.3   -64.6    1474   -61.4  1473.9   -59.9
1473.9
   -56.9  1474.1   -51.5    1474   -48.1    1474   -46.2  1473.9   -39.5
1473.8
   -30.8  1474.3   -25.8  1474.5     -19  1474.3   -10.1  1474.3    -5.4
1474.1
    -5.2  1474.1      -5  1474.1    -3.8  1473.9       0  1473.3       1
1473.4
     5.4  1473.6     8.9  1473.8    16.8  1473.6    21.6  1473.9    24.5
1474
    26.7  1474.2    29.5  1474.3    32.7  1474.3    34.9  1474.2    45.9
1474.8
```

```
    48.7  1474.8    57.9  1474.6    59.1  1474.6    59.5  1474.6    65.6
1474.8
      66  1474.8      79    1475    80.6    1475    82.2  1475.1    88.4
1475.5
    97.9    1475   100.3  1474.9   106.7  1474.9   109.8    1475   115.3
1475.1
   124.2  1474.8   125.9    1475   130.8  1474.9   130.9  1474.9   131.1
1474.9
   136.6    1477   142.3  1477.8   146.3  1478.4   148.4  1479.6   151.3
1480.5
     155  1482.1   161.7  1482.4   164.3  1482.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -381.5     .08    -3.8     .04     5.4     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
          -3.8     5.4              440     440     440             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 964.166*

INPUT
Description:
Station Elevation Data    num=     326
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
 -426.45 1488.17 -425.33 1488.18 -421.33 1487.93 -421.31 1487.93 -415.62
1487.17
 -414.77 1486.96 -409.06 1486.22  -408.4 1486.14 -406.96 1485.98 -405.56
1485.85
 -401.99 1485.59 -400.86 1485.64 -399.74 1485.68 -399.74  1485.7 -398.64
1485.75
 -391.49 1485.48 -390.68 1485.48 -386.57 1485.48 -386.03 1485.45 -383.33
1485.29
 -381.69 1485.17 -379.76 1485.06 -379.07 1484.96  -377.3  1484.7 -375.26
1484.39
 -372.44 1483.97  -370.6 1483.68 -369.48  1483.6 -369.03 1483.52  -368.9
1483.49
 -364.11 1482.72  -362.4 1482.47  -361.1 1482.27  -360.1  1482.1 -359.05
1481.55
 -354.92 1479.38  -353.4 1478.58 -352.73 1478.24 -349.67 1476.79 -347.24
1475.64
 -345.47 1474.79 -344.62 1474.78 -342.12 1474.82 -341.22 1474.82 -338.05
1474.7
 -336.53 1474.64 -334.97 1474.59  -331.1 1474.52 -330.39  1474.5 -328.21
1474.52
 -325.47 1474.57 -320.66 1474.51 -320.01 1474.49 -318.83 1474.47  -318.1
1474.47
```

-316.2 1474.3 -314.04 1474.32 -313.58 1474.32 -310.03 1474.34 -306.69
1474.37
-304.58 1474.38 -302.55 1474.38 -300.25 1474.38 -299.56 1474.38 -296.78
1474.38
-296.54 1474.38 -292.18 1474.46 -291.39 1474.47 -291.2 1474.47 -290.51
1474.48
-290.34 1474.49 -279.19 1474.64 -278.44 1474.65 -276.89 1474.63 -274.79
1474.6
-271.85 1474.57 -269.62 1474.48 -268.49 1474.49 -266.13 1474.51 -265.01
1474.52
-261.21 1474.56 -259.9 1474.57 -258.78 1474.58 -257.34 1474.58 -257.11
1474.58
-256.48 1474.56 -254.78 1474.51 -251.75 1474.41 -246.16 1474.57 -245.72
1474.56
-243.03 1474.53 -241.65 1474.49 -239.57 1474.48 -238.11 1474.48 -235.61
1474.47
-235.44 1474.47 -232.4 1474.53 -229.74 1474.55 -226.62 1474.43 -224.94
1474.37
-222.55 1474.38 -222.29 1474.38 -222.16 1474.38 -221.24 1474.38 -217.57
1474.38
-216.78 1474.37 -215.67 1474.37 -213.17 1474.37 -210.94 1474.37 -206.73
1474.38
-206.61 1474.38 -203.52 1474.4 -202.6 1474.4 -201.29 1474.42 -198.34
1474.42
-195.78 1474.46 -192.77 1474.48 -192.43 1474.48 -191.51 1474.47 -190.73
1474.47
-188.95 1474.44 -185.87 1474.39 -184.75 1474.38 -180.37 1474.37 -179.96
1474.37
-176.8 1474.37 -175.76 1474.37 -172.55 1474.37 -169.76 1474.36 -167.36
1474.35
-166.97 1474.35 -163.16 1474.37 -162.83 1474.37 -160.26 1474.44 -158.92
1474.36
-156.34 1474.33 -155.68 1474.33 -147.81 1474.32 -147.61 1474.32 -145.07
1474.31
-141.94 1474.31 -139.82 1474.32 -139.8 1474.32 -139.61 1474.32 -139.15
1474.32
-137.14 1474.31 -136.14 1474.22 -133.76 1474.29 -133.57 1474.3 -130.35
1474.26
-126.68 1474.22 -126.42 1474.22 -123.66 1474.19 -121.61 1474.15 -120.05
1474.15
-115.39 1474.15 -115.26 1474.15 -115.13 1474.15 -114.91 1474.15 -114.14
1474.15
-106.42 1474.15 -106.33 1474.15 -100.56 1474.12 -100.49 1474.12 -97.26
1474.12
-97.04 1474.12 -96.48 1474.12 -92.29 1474.09 -91.31 1474.09 -86.45
1474.08
-83.1 1474.06 -80.87 1474.04 -80.4 1474.03 -77 1473.91 -72.47
1473.77
-72.41 1473.77 -69.78 1473.72 -68.89 1473.67 -68.67 1473.67 -67.68
1473.67
-67.22 1473.67 -63.86 1473.84 -61.84 1473.82 -57.83 1473.74 -56.79
1473.73
-54.03 1473.73 -53.18 1473.7 -51.91 1473.66 -50.68 1473.65 -48.45
1473.63

-45.04 1473.59 -44.43 1473.58 -38.28 1473.8 -38.22 1473.8 -38.15
1473.8
-38.02 1473.81 -34.71 1473.98 -33.75 1474.01 -32.9 1474.04 -29.12
1474.11
-28.24 1474.08 -21.53 1473.92 -21.48 1473.92 -20.43 1473.93 -19.51
1473.88
-15.05 1473.87 -11.59 1473.89 -9.54 1473.83 -6.34 1473.75 -6.11
1473.75
-5.89 1473.75 -5.67 1473.72 -4.55 1473.58 0 1472.98 .62
1473.03
1.71 1473.09 9.23 1473.32 9.4 1473.34 9.67 1473.35 9.84
1473.36
11.98 1473.46 13.42 1473.53 17.58 1473.51 22.87 1473.48 24.06
1473.55
24.22 1473.58 24.33 1473.58 27.52 1473.72 28.45 1473.78 28.62
1473.78
32.09 1473.9 32.13 1473.9 34.72 1474.07 37.23 1474.13 38.07
1474.16
38.39 1474.17 38.94 1474.15 41.9 1474.18 42.51 1474.16 44.53
1474.13
51.45 1474.43 52.72 1474.48 54.31 1474.54 56.51 1474.64 57.69
1474.68
58.43 1474.68 61.04 1474.7 63.37 1474.68 65.62 1474.66 68.04
1474.64
68.53 1474.64 69.85 1474.63 72.05 1474.6 73.49 1474.6 73.97
1474.6
74.79 1474.62 78.96 1474.75 81.27 1474.8 81.74 1474.8 83.3
1474.82
87.53 1474.86 90.66 1474.93 90.88 1474.93 94.61 1474.9 96.81
1474.94
97.3 1474.95 99.21 1474.97 100.98 1475.06 101.13 1475.07 102.41
1475.14
102.9 1475.16 103.56 1475.21 107.84 1475.42 108.55 1475.46 114.1
1475.3
114.87 1475.27 115.75 1475.25 119.92 1475.08 120.3 1475.07 122.79
1474.99
123.21 1474.98 126.84 1475 130.44 1475.02 133.15 1475.09 133.59
1475.1
134.15 1475.12 134.41 1475.12 138.42 1475.14 140.74 1475.14 143.64
1475.05
144.79 1475.04 145.4 1475.02 147.21 1475 149.73 1474.96 151.38
1474.92
153.3 1475.07 153.42 1475.08 154.24 1475.07 157.86 1475.05 159.28
1475.06
159.4 1475.07 159.64 1475.07 160.17 1475.22 161.59 1475.57 163.95
1476.15
164.56 1476.36 166.22 1476.78 166.37 1476.8 168.07 1477 173.04
1477.44
173.73 1477.5 175.48 1477.71 176.75 1477.85 177.83 1477.99 179.55
1478.72
180.34 1479.05 180.86 1479.18 183.81 1479.79 188 1481.01 188.24
1481.08
189.32 1481.1 190.25 1481.13 190.47 1481.15 192.83 1481.68 196.26
1481.99

199.37 1482.27

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-426.45	.08	-4.55	.04	9.23	.08

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-4.55	9.23	440	440	440	.1	.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 963.333*

INPUT
Description:
Station Elevation Data num= 326

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-471.4	1486.33	-470.17	1486.26	-465.75	1485.77	-465.72	1485.76	-459.44	1484.83
-458.5	1484.51	-452.19	1483.66	-451.46	1483.57	-449.87	1483.4	-448.32	1483.29
-444.37	1483.07	-443.13	1483.11	-441.89	1483.12	-441.89	1483.16	-440.67	1483.2
-432.77	1482.97	-431.89	1482.97	-427.34	1482.97	-426.74	1482.94	-423.77	1482.81
-421.96	1482.69	-419.82	1482.62	-419.06	1482.55	-417.1	1482.36	-414.85	1482.11
-411.73	1481.79	-409.7	1481.57	-408.46	1481.5	-407.97	1481.43	-407.82	1481.42
-402.53	1480.78	-400.64	1480.6	-399.21	1480.43	-398.1	1480.3	-396.94	1479.86
-392.38	1478.1	-390.69	1477.46	-389.95	1477.19	-386.58	1476.02	-383.89	1475.07
-381.93	1474.38	-380.99	1474.37	-378.24	1474.43	-377.24	1474.43	-373.74	1474.34
-372.06	1474.28	-370.34	1474.23	-366.06	1474.22	-365.27	1474.19	-362.87	1474.2
-359.84	1474.23	-354.53	1474.19	-353.81	1474.15	-352.5	1474.14	-351.7	1474.13
-349.6	1474	-347.21	1474.01	-346.7	1474.02	-342.79	1474.04	-339.09	1474.05
-336.77	1474.07	-334.52	1474.07	-331.98	1474.07	-331.21	1474.07	-328.14	1474.07
-327.88	1474.07	-323.07	1474.15	-322.2	1474.16	-321.98	1474.16	-321.22	1474.17
-321.04	1474.17	-308.71	1474.29	-307.89	1474.3	-306.17	1474.28	-303.85	1474.26
-300.61	1474.23	-298.14	1474.17	-296.89	1474.17	-294.28	1474.19	-293.05	1474.2

-288.85 1474.22 -287.4 1474.24 -286.17 1474.25 -284.57 1474.27 -284.32
1474.27
-283.63 1474.25 -281.74 1474.21 -278.39 1474.12 -272.22 1474.23 -271.74
1474.23
-268.76 1474.2 -267.24 1474.15 -264.94 1474.15 -263.33 1474.17 -260.57
1474.13
-260.38 1474.14 -257.02 1474.2 -254.08 1474.2 -250.64 1474.08 -248.78
1474.05
-246.14 1474.07 -245.85 1474.07 -245.71 1474.07 -244.69 1474.07 -240.63
1474.05
-239.77 1474.05 -238.54 1474.04 -235.78 1474.03 -233.31 1474.03 -228.66
1474.07
-228.53 1474.07 -225.12 1474.1 -224.1 1474.1 -222.65 1474.11 -219.39
1474.08
-216.57 1474.13 -213.24 1474.16 -212.87 1474.16 -211.85 1474.16 -210.98
1474.16
-209.02 1474.11 -205.62 1474.03 -204.38 1474.02 -199.54 1474.03 -199.09
1474.03
-195.59 1474.03 -194.45 1474.03 -190.9 1474.03 -187.82 1474.02 -185.17
1474
-184.74 1474 -180.53 1474.03 -180.16 1474.03 -177.33 1474.09 -175.85
1474.01
-172.99 1473.99 -172.27 1473.98 -163.57 1474.01 -163.35 1474.01 -160.54
1474.01
-157.09 1474.02 -154.74 1474.03 -154.72 1474.03 -154.5 1474.03 -154
1474.03
-151.78 1474.02 -150.67 1473.95 -148.05 1473.99 -147.83 1474 -144.28
1473.97
-140.22 1473.94 -139.93 1473.94 -136.89 1473.93 -134.63 1473.9 -132.9
1473.9
-127.75 1473.9 -127.61 1473.9 -127.46 1473.9 -127.22 1473.9 -126.37
1473.9
-117.85 1473.9 -117.75 1473.9 -111.37 1473.83 -111.29 1473.83 -107.73
1473.83
-107.48 1473.83 -106.86 1473.83 -102.23 1473.82 -101.14 1473.81 -95.78
1473.83
-92.08 1473.81 -89.62 1473.77 -89.09 1473.76 -85.34 1473.65 -80.33
1473.53
-80.26 1473.53 -77.36 1473.52 -76.38 1473.45 -76.13 1473.43 -75.04
1473.43
-74.53 1473.44 -70.83 1473.59 -68.59 1473.58 -64.16 1473.48 -63.01
1473.47
-59.97 1473.47 -59.02 1473.44 -57.62 1473.42 -56.27 1473.42 -53.8
1473.4
-50.03 1473.37 -49.36 1473.36 -42.56 1473.48 -42.49 1473.48 -42.42
1473.48
-42.27 1473.49 -38.62 1473.65 -37.56 1473.69 -36.62 1473.71 -32.45
1473.72
-31.47 1473.68 -24.06 1473.53 -24 1473.53 -22.84 1473.57 -21.83
1473.47
-16.9 1473.43 -13.07 1473.48 -10.81 1473.45 -7.27 1473.39 -7.03
1473.4
-6.78 1473.4 -6.53 1473.38 -5.3 1473.27 0 1472.67 .87
1472.72

```
    2.42 1472.78   13.07 1473.03   13.26 1473.07   13.58 1473.08   13.77
1473.09
   16.26 1473.19   17.94 1473.27   22.78 1473.31   28.95 1473.37   30.33
1473.44
   30.52 1473.48   30.65 1473.48   34.35 1473.59   35.44 1473.66   35.64
1473.67
   39.68  1473.8   39.72  1473.8   42.74 1473.93   45.67 1473.98   46.64
1474.02
   47.01 1474.03   47.65    1474    51.1 1474.06    51.8 1474.05   54.16
1474.07
   62.22 1474.34   63.69 1474.38   65.55 1474.43    68.1 1474.53   69.49
1474.57
   70.34 1474.57   73.39  1474.6    76.1 1474.61   78.72 1474.61   81.53
1474.62
    82.1 1474.61   83.64 1474.63   86.21  1474.6   87.88  1474.6   88.43
1474.6
   89.39 1474.61   94.25 1474.76   96.93  1474.8   97.49  1474.8    99.3
1474.81
  104.22 1474.85  107.87 1474.94  108.12 1474.94  112.47 1474.84  115.02
1474.9
   115.6 1474.91  117.83 1474.94  119.88 1475.03  120.06 1475.04  121.54
1475.11
  122.12 1475.13  122.89 1475.19  127.87 1475.37   128.7 1475.41  135.16
1475.34
  136.06 1475.31  137.08 1475.32  141.93 1475.17  142.38 1475.16  145.27
1475.07
  145.77 1475.07  149.99  1475.1  154.19 1475.14  157.34 1475.22  157.85
1475.22
  158.51 1475.23  158.81 1475.24  163.48 1475.21  166.17 1475.19  169.55
1475.08
  170.89 1475.09   171.6 1475.08  173.71 1475.08  176.65 1475.06  178.57
1475.03
   180.8 1475.16  180.94 1475.17  181.89 1475.16  186.11 1475.18  187.76
1475.23
   187.9 1475.23  188.18 1475.24  188.79 1475.38  190.45 1475.62   193.2
1476.02
  193.91 1476.25  195.84 1476.57  196.02 1476.58     198 1476.78  203.78
1477.08
  204.58 1477.12  206.63  1477.3   208.1 1477.44  209.36 1477.58  211.36
1478.21
  212.28 1478.51  212.89 1478.62  216.32 1479.08   221.2 1480.01  221.48
1480.06
  222.74 1480.06  223.82 1480.08  224.08 1480.12  226.83 1481.08  230.81
1481.59
  234.43 1482.03

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -471.4     .08    -5.3     .04   13.07     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
          -5.3   13.07              440     440     440             .1
.3
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CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 962.5*

INPUT
Description:
Station Elevation Data num= 326

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-516.35	1484.5	-515	1484.34	-510.16	1483.6	-510.14	1483.6	-503.25	1482.5
-502.22	1482.05	-495.32	1481.09	-494.52	1481.01	-492.78	1480.83	-491.08	1480.74
-486.76	1480.56	-485.39	1480.58	-484.04	1480.57	-484.04	1480.62	-482.71	1480.64
-474.06	1480.45	-473.09	1480.45	-468.12	1480.45	-467.46	1480.43	-464.2	1480.33
-462.22	1480.22	-459.88	1480.19	-459.04	1480.14	-456.9	1480.02	-454.44	1479.83
-451.02	1479.62	-448.8	1479.45	-447.45	1479.4	-446.9	1479.35	-446.74	1479.34
-440.94	1478.83	-438.88	1478.72	-437.31	1478.6	-436.1	1478.5	-434.83	1478.17
-429.83	1476.83	-427.99	1476.34	-427.18	1476.13	-423.48	1475.24	-420.54	1474.5
-418.4	1473.97	-417.37	1473.95	-414.35	1474.05	-413.26	1474.05	-409.43	1473.98
-407.59	1473.93	-405.7	1473.87	-401.02	1473.91	-400.16	1473.89	-397.53	1473.87
-394.21	1473.9	-388.4	1473.87	-387.6	1473.81	-386.18	1473.8	-385.3	1473.8
-383	1473.7	-380.38	1473.71	-379.83	1473.71	-375.54	1473.73	-371.49	1473.74
-368.95	1473.75	-366.49	1473.75	-363.71	1473.75	-362.87	1473.75	-359.51	1473.75
-359.22	1473.75	-353.95	1473.84	-353	1473.84	-352.76	1473.84	-351.92	1473.85
-351.73	1473.85	-338.23	1473.94	-337.33	1473.95	-335.46	1473.94	-332.92	1473.92
-329.36	1473.9	-326.66	1473.85	-325.3	1473.86	-322.44	1473.87	-321.09	1473.87
-316.48	1473.89	-314.91	1473.92	-313.55	1473.93	-311.8	1473.95	-311.53	1473.95
-310.77	1473.94	-308.71	1473.91	-305.04	1473.83	-298.29	1473.9	-297.75	1473.9
-294.5	1473.88	-292.83	1473.82	-290.32	1473.83	-288.54	1473.85	-285.53	1473.8
-285.32	1473.8	-281.64	1473.88	-278.43	1473.85	-274.65	1473.74	-272.62	1473.72
-269.73	1473.75	-269.42	1473.75	-269.26	1473.75	-268.15	1473.75	-263.7	1473.73

-262.75 1473.72 -261.4 1473.72 -258.38 1473.7 -255.68 1473.7 -250.59
1473.75
-250.44 1473.75 -246.71 1473.8 -245.6 1473.8 -244.02 1473.81 -240.44
1473.73
-237.35 1473.79 -233.71 1473.84 -233.3 1473.85 -232.19 1473.84 -231.24
1473.84
-229.09 1473.78 -225.36 1473.67 -224.01 1473.67 -218.71 1473.7 -218.22
1473.7
-214.39 1473.7 -213.14 1473.7 -209.25 1473.7 -205.87 1473.67 -202.98
1473.65
-202.5 1473.65 -197.9 1473.7 -197.5 1473.7 -194.39 1473.73 -192.77
1473.67
-189.64 1473.64 -188.85 1473.64 -179.32 1473.71 -179.09 1473.71 -176.01
1473.72
-172.23 1473.74 -169.66 1473.75 -169.64 1473.75 -169.4 1473.75 -168.85
1473.75
-166.42 1473.73 -165.21 1473.67 -162.34 1473.7 -162.1 1473.7 -158.21
1473.68
-153.77 1473.65 -153.45 1473.65 -150.12 1473.67 -147.64 1473.65 -145.75
1473.65
-140.11 1473.65 -139.96 1473.65 -139.8 1473.65 -139.54 1473.65 -138.61
1473.65
-129.27 1473.65 -129.16 1473.65 -122.18 1473.55 -122.1 1473.55 -118.19
1473.55
-117.92 1473.55 -117.24 1473.55 -112.17 1473.54 -110.98 1473.53 -105.11
1473.57
-101.06 1473.56 -98.36 1473.5 -97.79 1473.49 -93.68 1473.39 -88.2
1473.3
-88.12 1473.3 -84.95 1473.31 -83.87 1473.22 -83.6 1473.2 -82.41
1473.2
-81.85 1473.2 -77.79 1473.33 -75.34 1473.33 -70.5 1473.22 -69.23
1473.2
-65.9 1473.2 -64.87 1473.18 -63.34 1473.18 -61.85 1473.19 -59.15
1473.18
-55.02 1473.15 -54.28 1473.14 -46.85 1473.16 -46.77 1473.16 -46.69
1473.16
-46.53 1473.16 -42.53 1473.33 -41.37 1473.37 -40.34 1473.38 -35.77
1473.33
-34.7 1473.29 -26.59 1473.15 -26.53 1473.15 -25.26 1473.2 -24.15
1473.05
-18.75 1473 -14.56 1473.06 -12.08 1473.06 -8.21 1473.04 -7.94
1473.04
-7.67 1473.05 -7.4 1473.03 -6.05 1472.95 0 1472.35 1.13
1472.42
3.13 1472.48 16.9 1472.75 17.12 1472.8 17.48 1472.81 17.7
1472.81
20.55 1472.92 22.46 1473 27.99 1473.11 35.02 1473.25 36.59
1473.33
36.81 1473.39 36.96 1473.39 41.19 1473.47 42.43 1473.55 42.65
1473.55
47.26 1473.7 47.32 1473.7 50.76 1473.8 54.1 1473.84 55.21
1473.89
55.63 1473.9 56.36 1473.85 60.3 1473.93 61.1 1473.94 63.8
1474

```
   72.99 1474.26   74.67 1474.29   76.79 1474.32    79.7 1474.42   81.28
1474.45
   82.26 1474.45   85.73  1474.5   88.82 1474.53   91.81 1474.56   95.02
1474.59
   95.68 1474.58   97.43 1474.62  100.36  1474.6  102.27  1474.6   102.9
1474.6
  103.99 1474.61  109.54 1474.77   112.6  1474.8  113.23  1474.8   115.3
1474.81
  120.92 1474.84  125.07 1474.96  125.37 1474.96  130.33 1474.78  133.24
1474.85
   133.9 1474.86  136.44 1474.91  138.79    1475  138.99 1475.01  140.68
1475.08
  141.34  1475.1  142.22 1475.17   147.9 1475.33  148.84 1475.37  156.22
1475.38
  157.24 1475.36  158.41 1475.39  163.95 1475.25  164.46 1475.24  167.76
1475.16
  168.33 1475.15  173.14  1475.2  177.93 1475.26  181.53 1475.34  182.11
1475.34
  182.86 1475.35  183.21 1475.35  188.53 1475.28  191.61 1475.23  195.46
1475.11
     197 1475.14   197.8 1475.13   200.2 1475.16  203.56 1475.17  205.75
1475.15
   208.3 1475.24  208.46 1475.25  209.54 1475.24  214.36 1475.31  216.25
1475.39
   216.4  1475.4  216.72 1475.42  217.42 1475.53  219.32 1475.66  222.45
1475.89
  223.25 1476.13  225.47 1476.35  225.66 1476.36  227.92 1476.56  234.53
1476.72
  235.44 1476.74  237.77  1476.9  239.45 1477.03  240.89 1477.18  243.17
1477.71
  244.22 1477.96  244.92 1478.07  248.83 1478.37   254.4 1479.01  254.72
1479.04
  256.15 1479.02  257.39 1479.04  257.68 1479.09  260.82 1480.49  265.37
1481.18
   269.5  1481.8

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 -516.35     .08   -6.05     .04    16.9     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         -6.05    16.9              440     440     440             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 961.666*

INPUT
Description:
Station Elevation Data    num=     326
```

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-561.3	1482.67	-559.83	1482.42	-554.57	1481.43	-554.55	1481.43	-547.07	1480.17
-545.95	1479.6	-538.44	1478.53	-537.58	1478.44	-535.68	1478.25	-533.85	1478.18
-529.15	1478.05	-527.66	1478.06	-526.2	1478.01	-526.2	1478.08	-524.74	1478.09
-515.35	1477.94	-514.29	1477.93	-508.89	1477.93	-508.17	1477.92	-504.63	1477.85
-502.48	1477.75	-499.93	1477.75	-499.03	1477.72	-496.7	1477.68	-494.03	1477.56
-490.32	1477.45	-487.9	1477.33	-486.43	1477.3	-485.84	1477.27	-485.66	1477.26
-479.36	1476.89	-477.12	1476.85	-475.42	1476.77	-474.1	1476.7	-472.72	1476.48
-467.29	1475.55	-465.29	1475.21	-464.41	1475.07	-460.39	1474.46	-457.2	1473.93
-454.86	1473.55	-453.75	1473.53	-450.47	1473.67	-449.28	1473.67	-445.12	1473.62
-443.12	1473.57	-441.07	1473.52	-435.98	1473.61	-435.04	1473.58	-432.18	1473.55
-428.58	1473.57	-422.27	1473.54	-421.4	1473.48	-419.85	1473.47	-418.89	1473.47
-416.4	1473.4	-413.55	1473.41	-412.95	1473.41	-408.29	1473.42	-403.89	1473.43
-401.13	1473.43	-398.46	1473.43	-395.44	1473.43	-394.52	1473.43	-390.87	1473.43
-390.56	1473.44	-384.83	1473.52	-383.8	1473.53	-383.54	1473.53	-382.63	1473.53
-382.42	1473.53	-367.76	1473.6	-366.78	1473.6	-364.74	1473.59	-361.98	1473.58
-358.12	1473.57	-355.18	1473.53	-353.7	1473.54	-350.59	1473.55	-349.13	1473.55
-344.12	1473.56	-342.41	1473.59	-340.94	1473.61	-339.03	1473.63	-338.74	1473.63
-337.91	1473.63	-335.67	1473.6	-331.69	1473.54	-324.35	1473.57	-323.77	1473.56
-320.23	1473.55	-318.42	1473.48	-315.69	1473.51	-313.76	1473.53	-310.49	1473.47
-310.26	1473.47	-306.26	1473.55	-302.77	1473.51	-298.67	1473.39	-296.46	1473.39
-293.32	1473.43	-292.98	1473.43	-292.8	1473.43	-291.6	1473.43	-286.77	1473.4
-285.74	1473.4	-284.27	1473.39	-280.99	1473.37	-278.06	1473.37	-272.53	1473.43
-272.36	1473.43	-268.31	1473.5	-267.09	1473.5	-265.38	1473.51	-261.5	1473.39
-258.14	1473.46	-254.17	1473.53	-253.73	1473.53	-252.53	1473.53	-251.49	1473.53
-249.16	1473.46	-245.11	1473.31	-243.64	1473.31	-237.88	1473.36	-237.35	1473.37
-233.18	1473.37	-231.83	1473.37	-227.6	1473.37	-223.93	1473.33	-220.79	1473.3

-220.27 1473.3 -215.27 1473.37 -214.83 1473.36 -211.45 1473.37 -209.69
1473.33
-206.3 1473.29 -205.43 1473.29 -195.08 1473.41 -194.82 1473.41 -191.49
1473.42
-187.38 1473.45 -184.59 1473.47 -184.56 1473.47 -184.3 1473.47 -183.7
1473.47
-181.06 1473.44 -179.74 1473.4 -176.63 1473.4 -176.37 1473.4 -172.14
1473.39
-167.31 1473.37 -166.97 1473.37 -163.34 1473.41 -160.66 1473.4 -158.6
1473.4
-152.48 1473.4 -152.3 1473.4 -152.13 1473.4 -151.85 1473.4 -150.84
1473.4
-140.69 1473.4 -140.57 1473.4 -132.98 1473.27 -132.9 1473.27 -128.65
1473.27
-128.36 1473.27 -127.62 1473.27 -122.12 1473.26 -120.82 1473.26 -114.44
1473.31
-110.04 1473.31 -107.11 1473.23 -106.48 1473.23 -102.02 1473.12 -96.06
1473.07
-95.98 1473.07 -92.53 1473.11 -91.36 1472.99 -91.07 1472.97 -89.77
1472.97
-89.16 1472.97 -84.76 1473.08 -82.1 1473.09 -76.83 1472.96 -75.45
1472.93
-71.84 1472.93 -70.71 1472.92 -69.05 1472.93 -67.43 1472.96 -64.5
1472.95
-60.02 1472.94 -59.21 1472.92 -51.13 1472.84 -51.05 1472.84 -50.96
1472.84
-50.79 1472.84 -46.44 1473 -45.18 1473.04 -44.06 1473.05 -39.1
1472.94
-37.94 1472.89 -29.12 1472.77 -29.05 1472.77 -27.67 1472.83 -26.46
1472.63
-20.6 1472.57 -16.05 1472.65 -13.35 1472.67 -9.15 1472.69 -8.86
1472.69
-8.56 1472.7 -8.27 1472.69 -6.8 1472.63 0 1472.03 1.39
1472.11
3.84 1472.17 20.73 1472.47 20.98 1472.54 21.39 1472.54 21.63
1472.54
24.83 1472.64 26.99 1472.74 33.19 1472.9 41.1 1473.14 42.86
1473.22
43.11 1473.29 43.27 1473.29 48.03 1473.35 49.42 1473.43 49.67
1473.44
54.85 1473.6 54.91 1473.6 58.78 1473.67 62.53 1473.69 63.78
1473.75
64.25 1473.77 65.07 1473.7 69.5 1473.81 70.4 1473.83 73.43
1473.93
83.76 1474.17 85.65 1474.19 88.02 1474.22 91.3 1474.32 93.08
1474.33
94.17 1474.33 98.08 1474.4 101.55 1474.45 104.91 1474.51 108.51
1474.56
109.25 1474.55 111.22 1474.61 114.51 1474.6 116.65 1474.6 117.37
1474.6
118.6 1474.61 124.82 1474.78 128.26 1474.8 128.98 1474.8 131.3
1474.81
137.61 1474.82 142.28 1474.97 142.61 1474.97 148.18 1474.72 151.46
1474.8

```
   152.2 1474.82  155.06 1474.88  157.69 1474.96  157.92 1474.97  159.82
1475.06
  160.56 1475.07  161.54 1475.14  167.94 1475.29  168.99 1475.32  177.28
1475.42
  178.43 1475.41  179.74 1475.46  185.96 1475.34  186.54 1475.33  190.25
1475.24
  190.89 1475.23   196.3  1475.3  201.68 1475.38  205.72 1475.46  206.38
1475.46
  207.22 1475.47  207.61 1475.47  213.59 1475.35  217.04 1475.28  221.38
1475.14
   223.1  1475.2     224 1475.19   226.7 1475.24  230.47 1475.28  232.94
1475.27
   235.8 1475.33  235.98 1475.33  237.19 1475.33   242.6 1475.44  244.73
1475.56
  244.91 1475.57  245.26 1475.59  246.05 1475.69  248.18 1475.71   251.7
1475.76
   252.6 1476.02  255.09 1476.14  255.31 1476.14  257.85 1476.34  265.27
1476.36
  266.29 1476.36  268.91  1476.5   270.8 1476.62  272.41 1476.77  274.98
1477.21
  276.17 1477.41  276.95 1477.51  281.35 1477.66   287.6    1478  287.95
1478.02
  289.57 1477.98  290.96 1477.99  291.29 1478.06  294.81 1479.89  299.92
1480.77
  304.57 1481.57

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -561.3     .08    -6.8     .04   20.73     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
          -6.8   20.73              440     440     440             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 960.833*

INPUT
Description:
Station Elevation Data    num=     327
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
 -606.25 1480.83 -604.66  1480.5 -598.99 1479.27 -598.96 1479.26 -590.88
1477.83
 -590.87 1477.83 -589.67 1477.15 -581.57 1475.96 -580.64 1475.87 -578.59
1475.68
 -576.61 1475.63 -571.54 1475.53 -569.93 1475.53 -568.35 1475.46 -568.35
1475.54
 -566.78 1475.54 -556.64 1475.42  -555.5 1475.42 -549.66 1475.42 -548.89
1475.41
```

-545.07 1475.38 -542.74 1475.27 -539.99 1475.31 -539.01 1475.31 -536.5
1475.34
-533.61 1475.28 -529.61 1475.27 -526.99 1475.22 -525.41 1475.2 -524.77
1475.18
-524.58 1475.18 -517.78 1474.94 -515.36 1474.97 -513.52 1474.93 -512.09
1474.9
-510.61 1474.79 -504.74 1474.28 -502.58 1474.09 -501.63 1474.02 -497.29
1473.68
-493.85 1473.37 -491.33 1473.14 -490.12 1473.12 -486.58 1473.28 -485.31
1473.28
-480.81 1473.26 -478.65 1473.21 -476.43 1473.16 -470.94 1473.3 -469.93
1473.28
-466.84 1473.22 -462.96 1473.23 -456.13 1473.22 -455.2 1473.14 -453.53
1473.14
-452.49 1473.13 -449.8 1473.1 -446.73 1473.1 -446.08 1473.1 -441.05
1473.11
-436.3 1473.11 -433.31 1473.12 -430.43 1473.12 -427.17 1473.12 -426.18
1473.12
-422.24 1473.12 -421.9 1473.12 -415.72 1473.21 -414.6 1473.21 -414.32
1473.21
-413.34 1473.22 -413.11 1473.22 -397.28 1473.25 -396.22 1473.25 -394.02
1473.25
-391.04 1473.24 -386.87 1473.23 -383.7 1473.22 -382.1 1473.22 -378.75
1473.22
-377.16 1473.22 -371.76 1473.23 -369.91 1473.26 -368.32 1473.29 -366.27
1473.32
-365.95 1473.32 -365.06 1473.31 -362.64 1473.3 -358.34 1473.26 -350.41
1473.24
-349.78 1473.23 -345.97 1473.23 -344.01 1473.14 -341.06 1473.18 -338.98
1473.22
-335.44 1473.13 -335.19 1473.14 -330.88 1473.23 -327.11 1473.16 -322.68
1473.04
-320.29 1473.07 -316.91 1473.12 -316.54 1473.12 -316.35 1473.12 -315.05
1473.12
-309.83 1473.08 -308.72 1473.07 -307.14 1473.06 -303.59 1473.03 -300.43
1473.03
-294.46 1473.11 -294.28 1473.12 -289.9 1473.2 -288.59 1473.2 -286.74
1473.2
-282.55 1473.04 -278.92 1473.12 -274.64 1473.21 -274.17 1473.22 -272.86
1473.21
-271.75 1473.21 -269.23 1473.13 -264.85 1472.96 -263.27 1472.96 -257.05
1473.03
-256.47 1473.03 -251.98 1473.03 -250.51 1473.03 -245.95 1473.03 -241.99
1472.99
-238.59 1472.95 -238.03 1472.95 -232.63 1473.03 -232.16 1473.03 -228.52
1473.01
-226.61 1472.98 -222.95 1472.95 -222.02 1472.95 -210.84 1473.1 -210.56
1473.1
-206.96 1473.13 -202.52 1473.16 -199.51 1473.18 -199.48 1473.18 -199.2
1473.18
-198.55 1473.18 -195.7 1473.15 -194.28 1473.12 -190.91 1473.1 -190.63
1473.1
-186.07 1473.09 -180.86 1473.08 -180.49 1473.09 -176.57 1473.16 -173.67
1473.15

-171.45 1473.15 -164.84 1473.15 -164.65 1473.15 -164.47 1473.15 -164.16
1473.15
-163.07 1473.15 -152.11 1473.15 -151.99 1473.15 -143.79 1472.98 -143.7
1472.98
-139.12 1472.98 -138.8 1472.98 -138.01 1472.98 -132.06 1472.98 -130.66
1472.98
-123.77 1473.06 -119.02 1473.05 -115.85 1472.97 -115.18 1472.96 -110.36
1472.86
-103.93 1472.83 -103.84 1472.83 -100.12 1472.9 -98.85 1472.77 -98.53
1472.73
-97.14 1472.73 -96.48 1472.74 -91.72 1472.82 -88.85 1472.84 -83.16
1472.7
-81.68 1472.67 -77.77 1472.67 -76.56 1472.66 -74.76 1472.69 -73.02
1472.73
-69.85 1472.73 -65.01 1472.72 -64.14 1472.69 -55.42 1472.52 -55.32
1472.52
-55.23 1472.52 -55.04 1472.52 -50.35 1472.68 -48.99 1472.72 -47.78
1472.73
-42.42 1472.55 -41.17 1472.5 -31.64 1472.38 -31.58 1472.38 -30.09
1472.47
-28.78 1472.22 -22.45 1472.13 -17.54 1472.24 -14.63 1472.29 -10.09
1472.34
-9.77 1472.34 -9.45 1472.35 -9.13 1472.34 -7.55 1472.32 0
1471.72
1.64 1471.81 4.55 1471.86 24.57 1472.18 24.84 1472.27 25.29
1472.27
25.57 1472.27 29.12 1472.37 31.51 1472.47 38.4 1472.7 47.17
1473.02
49.13 1473.11 49.4 1473.2 49.59 1473.2 54.86 1473.22 56.41
1473.32
56.69 1473.32 62.44 1473.5 62.51 1473.5 66.8 1473.53 70.97
1473.55
72.35 1473.61 72.88 1473.63 73.79 1473.55 78.7 1473.69 79.7
1473.71
83.06 1473.87 94.53 1474.09 96.62 1474.1 99.26 1474.11 102.9
1474.21
104.87 1474.22 106.09 1474.22 110.42 1474.3 114.27 1474.38 118
1474.45
122.01 1474.53 122.83 1474.53 125.01 1474.61 128.66 1474.6 131.04
1474.6
131.84 1474.6 133.2 1474.6 140.11 1474.79 143.93 1474.8 144.72
1474.8
147.3 1474.8 154.31 1474.81 159.49 1474.99 159.86 1474.99 166.04
1474.66
169.68 1474.75 170.5 1474.77 173.67 1474.85 176.6 1474.93 176.85
1474.94
178.96 1475.03 179.78 1475.03 180.87 1475.12 187.97 1475.24 189.14
1475.28
198.34 1475.46 199.61 1475.45 201.07 1475.53 207.98 1475.42 208.62
1475.41
212.73 1475.33 213.44 1475.32 219.45 1475.4 225.42 1475.5 229.91
1475.58
230.64 1475.58 231.57 1475.58 232 1475.58 238.64 1475.43 242.48
1475.32

247.29 1475.17 249.2 1475.25 250.2 1475.24 253.2 1475.32 257.39 1475.39
260.12 1475.38 263.3 1475.41 263.49 1475.42 264.85 1475.41 270.85 1475.57
273.21 1475.72 273.41 1475.73 273.8 1475.76 274.67 1475.84 277.04 1475.75
280.95 1475.63 281.95 1475.91 284.71 1475.92 284.95 1475.92 287.77 1476.12
296.01 1476 297.15 1475.98 300.06 1476.1 302.15 1476.21 303.94 1476.36
306.79 1476.7 308.11 1476.87 308.97 1476.96 313.86 1476.95 320.8 1477
321.19 1477 322.98 1476.94 324.53 1476.95 324.89 1477.03 328.81 1479.3
334.48 1480.36 339.63 1481.33

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-606.25	.08	-7.55	.04	24.57	.08

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-7.55	24.57	440	440	440	.1	.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 960

INPUT
Description: Lidar
Station Elevation Data num= 210

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-651.2	1479	-643.4	1477.1	-634.7	1475.5	-633.4	1474.7	-624.7	1473.4
-623.7	1473.3	-621.5	1473.1	-612.2	1473	-610.5	1472.9	-610.5	1473
-596.7	1472.9	-589.6	1472.9	-585.5	1472.9	-583	1472.8	-579	1472.9
-576.3	1473	-573.2	1473	-568.9	1473.1	-563.5	1473.1	-556.2	1473
-553.6	1473.1	-548.5	1473.1	-542.2	1473	-534.2	1472.9	-530.5	1472.8
-526.5	1472.7	-522.7	1472.9	-516.5	1472.9	-511.8	1472.8	-505.9	1473
-501.5	1472.9	-490	1472.9	-489	1472.8	-487.2	1472.8	-479.9	1472.8
-479.2	1472.8	-473.8	1472.8	-468.7	1472.8	-462.4	1472.8	-458.9	1472.8
-453.6	1472.8	-446.6	1472.9	-445.4	1472.9	-445.1	1472.9	-443.8	1472.9

-426.8	1472.9	-423.3	1472.9	-420.1	1472.9	-410.5	1472.9	-406.9
1472.9								
-405.2	1472.9	-399.4	1472.9	-393.5	1473	-392.2	1473	-389.6
1473								
-375.8	1472.9	-371.7	1472.9	-369.6	1472.8	-364.2	1472.9	-360.4
1472.8								
-355.5	1472.9	-346.7	1472.7	-340.5	1472.8	-340.1	1472.8	-339.9
1472.8								
-338.5	1472.8	-326.2	1472.7	-322.8	1472.7	-316.2	1472.8	-311.5
1472.9								
-308.1	1472.9	-303.6	1472.7	-294.6	1472.9	-293.2	1472.9	-292
1472.9								
-289.3	1472.8	-284.6	1472.6	-282.9	1472.6	-275.6	1472.7	-269.2
1472.7								
-264.3	1472.7	-256.4	1472.6	-255.8	1472.6	-250	1472.7	-239.6
1472.6								
-238.6	1472.6	-226.6	1472.8	-226.3	1472.8	-214.4	1472.9	-214.1
1472.9								
-213.4	1472.9	-205.2	1472.8	-200	1472.8	-194.4	1472.8	-189.8
1472.9								
-184.3	1472.9	-177.2	1472.9	-177	1472.9	-176.8	1472.9	-175.3
1472.9								
-163.4	1472.9	-154.6	1472.7	-154.5	1472.7	-142	1472.7	-140.5
1472.7								
-133.1	1472.8	-128	1472.8	-124.6	1472.7	-118.7	1472.6	-111.7
1472.6								
-107.7	1472.7	-106	1472.5	-104.5	1472.5	-95.6	1472.6	-87.9
1472.4								
-82.4	1472.4	-78.6	1472.5	-75.2	1472.5	-70	1472.5	-59.7
1472.2								
-59.6	1472.2	-59.5	1472.2	-59.3	1472.2	-52.8	1472.4	-51.5
1472.4								
-44.4	1472.1	-34.1	1472	-32.5	1472.1	-31.1	1471.8	-24.3
1471.7								
-15.9	1471.9	-10	1472	-8.3	1472	0	1471.4	1.9
1471.5								
28.4	1471.9	28.7	1472	29.2	1472	29.5	1472	33.4
1472.1								
43.6	1472.5	55.4	1473	55.7	1473.1	55.9	1473.1	61.7
1473.1								
63.4	1473.2	70.1	1473.4	79.4	1473.4	81.5	1473.5	82.5
1473.4								
89	1473.6	92.7	1473.8	105.3	1474	107.6	1474	110.5
1474								
114.5	1474.1	118	1474.1	127	1474.3	131.1	1474.4	135.5
1474.5								
136.4	1474.5	138.8	1474.6	147.8	1474.6	155.4	1474.8	163.3
1474.8								
171	1474.8	176.7	1475	177.1	1475	183.9	1474.6	187.9
1474.7								
195.5	1474.9	198.1	1475	199	1475	200.2	1475.1	208
1475.2								
219.4	1475.5	220.8	1475.5	222.4	1475.6	230.7	1475.5	236
1475.4								

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   242.6  1475.5   254.1  1475.7   254.9  1475.7   256.4  1475.7   263.7
1475.5
   273.2  1475.2   275.3  1475.3   276.4  1475.3   279.7  1475.4   284.3
1475.5
   290.8  1475.5   292.5  1475.5   299.1  1475.7   303.3    1476   305.9
1475.8
   310.2  1475.5   311.3  1475.8   314.6  1475.7   317.7  1475.9     328
1475.6
   331.2  1475.7   333.5  1475.8   338.6  1476.2     341  1476.4     354
1476
   356.4  1475.9   358.1  1475.9   358.5    1476   362.8  1478.7   374.7
1481.1

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -651.2     .08    -8.3     .04    28.4     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
          -8.3    28.4            183.2   183.2   183.2             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 959.*

INPUT
Description:
Station Elevation Data    num=     317
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
 -584.74  1485.3 -577.74 1483.78 -577.55 1483.75 -569.93 1482.51 -568.77
1481.87
 -560.96 1480.84 -560.06 1480.76 -558.09  1480.6 -557.46 1480.59 -557.28
1480.59
 -549.74 1480.39 -548.22 1480.28 -548.22 1480.36 -535.83 1480.06 -529.46
1479.95
 -529.08 1479.94 -525.78 1479.88 -523.54 1479.76 -521.15 1479.77 -519.95
1479.78
 -517.53 1479.83 -514.75 1479.79 -514.15 1479.79 -510.89 1479.83 -508.06
1479.8
 -506.04 1479.78  -502.9  1479.7 -499.49 1479.61 -497.16 1479.66 -492.58
1479.59
 -486.93 1479.43 -480.23 1479.27 -479.75 1479.26 -476.43 1479.15 -475.81
1479.13
 -472.84 1479.03 -469.43 1479.16 -464.56 1479.12 -463.86 1479.11 -459.65
1478.98
 -456.27 1479.04 -454.35 1479.08  -452.4 1479.02  -450.4 1478.96 -440.08
1478.83
 -439.19 1478.74 -437.57 1478.72  -434.7 1478.68  -431.2 1478.58 -431.02
1478.58
```

-430.39 1478.57 -427.52 1478.54 -425.55 1478.51 -420.97 1478.45 -417.01
1478.4
-415.32 1478.38 -412.18 1478.34 -407.42 1478.28 -405.4 1478.29 -401.53
1478.28
-401.14 1478.27 -400.06 1478.25 -399.79 1478.25 -398.63 1478.23 -397.1
1478.2
-383.37 1477.94 -380.23 1477.88 -377.36 1477.83 -377.01 1477.82 -372.04
1477.68
-368.74 1477.56 -368.72 1477.56 -367.61 1477.54 -365.51 1477.47 -363.99
1477.42
-358.78 1477.25 -354.71 1477.18 -353.49 1477.16 -352.32 1477.12 -349.99
1477.05
-347.71 1476.97 -337.6 1476.53 -336.28 1476.48 -333.92 1476.38 -332.04
1476.22
-331.67 1476.21 -327.19 1476.07 -323.78 1475.83 -319.39 1475.7 -317.66
1475.59
-313.79 1475.37 -311.49 1475.22 -309.18 1475.15 -305.93 1475.06 -305.57
1475.05
-305.39 1475.04 -304.13 1474.99 -301.99 1474.88 -293.09 1474.35 -291.12
1474.24
-290.04 1474.19 -284.12 1473.98 -283.75 1473.97 -279.9 1473.84 -279.51
1473.82
-276.85 1473.72 -272.81 1473.42 -271.77 1473.4 -264.74 1473.32 -263.48
1473.28
-262.4 1473.25 -259.98 1473.09 -259.6 1473.07 -258.68 1473.01 -258.31
1473
-255.76 1472.84 -254.24 1472.8 -247.69 1472.73 -245.78 1472.68 -241.94
1472.65
-237.55 1472.61 -236.74 1472.59 -230.46 1472.42 -229.92 1472.41 -227.16
1472.4
-224.71 1472.39 -221.63 1472.29 -215.38 1472.21 -214.48 1472.21 -208.36
1472.27
-205.41 1472.31 -203.72 1472.32 -203.45 1472.32 -203.2 1472.32 -202.65
1472.33
-197.85 1472.34 -192.77 1472.37 -192.5 1472.37 -191.87 1472.37 -186.06
1472.3
-185.14 1472.29 -184.77 1472.28 -184.51 1472.28 -179.85 1472.27 -174.82
1472.26
-172.42 1472.31 -170.69 1472.32 -170.21 1472.32 -170.02 1472.32 -165.76
1472.3
-159.39 1472.27 -159.21 1472.27 -159.03 1472.27 -157.68 1472.27 -147
1472.22
-139.11 1472.02 -139.02 1472.02 -138.32 1472.02 -133.53 1472.02 -127.8
1472.05
-126.45 1472.05 -124.49 1472.08 -119.81 1472.15 -115.83 1472.16 -115.24
1472.16
-112.18 1472.1 -108.83 1472.07 -106.89 1472.04 -100.61 1472.06 -99.06
1472.09
-97.02 1472.16 -95.49 1472.01 -94.15 1472.02 -86.16 1472.16 -83.21
1472.11
-79.25 1472.04 -75.83 1472.06 -74.32 1472.05 -70.91 1472.12 -67.85
1472.11
-65.33 1472.1 -63.19 1472.07 -57.22 1471.84 -53.94 1471.76 -53.86
1471.76

-53.77 1471.76 -53.59 1471.76 -47.75 1471.92 -46.59 1471.92 -41.73 1471.74
-40.22 1471.68 -30.97 1471.57 -29.54 1471.64 -28.83 1471.51 -28.28 1471.4
-22.75 1471.33 -22.18 1471.32 -14.64 1471.46 -9.35 1471.51 -7.82 1471.5
0 1470.98 1.58 1471.06 23.58 1471.42 23.86 1471.5 24.32 1471.5
24.59 1471.51 28.18 1471.61 32.63 1471.79 37.56 1471.99 41.68 1472.17
48.42 1472.44 48.58 1472.49 48.69 1472.52 48.88 1472.52 54.21 1472.52
55.78 1472.6 57.48 1472.64 61.16 1472.76 61.94 1472.78 66.22 1472.78
70.5 1472.8 72.43 1472.89 73.35 1472.81 74.96 1472.86 77.11 1472.94
79.33 1473.02 82.73 1473.21 94.32 1473.48 94.44 1473.48 96.44 1473.49
99.11 1473.51 102.79 1473.62 106.01 1473.64 106.25 1473.64 111.01 1473.74
114.29 1473.83 118.06 1473.95 122.11 1474.07 122.94 1474.08 125.14 1474.18
127.42 1474.2 130.64 1474.24 133.42 1474.26 140.41 1474.47 145.21 1474.5
147.68 1474.52 151.35 1474.56 154.77 1474.67 160.01 1475 160.38 1475.01
164.85 1474.93 166.63 1474.89 167.61 1474.94 170.31 1475.08 175.58 1475.36
177.3 1475.48 179.7 1475.67 180.52 1475.71 181.63 1475.84 181.72 1475.84
188.8 1476.17 198.44 1476.74 199.29 1476.8 199.67 1476.82 200.58 1476.89
202.05 1477.07 207.18 1477.39 209.69 1477.44 214.56 1477.52 220.37 1477.78
220.63 1477.79 221.75 1477.84 222.98 1477.86 231.21 1478.17 231.95 1478.19
233.33 1478.22 233.41 1478.22 236.78 1478.18 240.05 1478.11 248.78 1477.91
250.72 1478 251.73 1478 254.76 1478.1 255.5 1478.11 258.26 1478.19
259 1478.2 259.79 1478.2 264.98 1478.19 266.54 1478.18 272.61 1478.33
274.82 1478.46 276.48 1478.57 278.87 1478.41 282.82 1478.19 283.83 1478.43
286.17 1478.38 286.87 1478.36 288.32 1478.44 289.72 1478.57 292 1478.6
299.2 1478.44 301.05 1478.49 302.14 1478.54 304.26 1478.65 308.95 1479.03
310.72 1479.19 311.16 1479.22 317.77 1479.08 323.12 1478.95 325.32 1478.88
326.21 1478.88 326.89 1478.88 327.26 1478.95 329.74 1480.29 331.21 1481.13
334.34 1481.73 342.16 1483.1

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-584.74	.08	-7.82	.04	23.58	.08

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-7.82	23.58	183.2	183.2	183.2	.1	.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 958.*

INPUT
Description:
Station Elevation Data num= 317

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-518.28	1491.6	-512.08	1490.46	-511.91	1490.44	-505.17	1489.52	-504.13	1489.04
-497.22	1488.27	-496.42	1488.21	-494.68	1488.1	-494.12	1488.1	-493.96	1488.09
-487.29	1487.77	-485.93	1487.66	-485.93	1487.72	-474.97	1487.22	-469.32	1486.99
-468.98	1486.98	-466.07	1486.86	-464.08	1486.72	-461.96	1486.68	-460.9	1486.67
-458.75	1486.66	-456.29	1486.58	-455.76	1486.57	-452.87	1486.56	-450.37	1486.5
-448.58	1486.45	-445.8	1486.35	-442.78	1486.22	-440.71	1486.22	-436.66	1486.09
-431.65	1485.87	-425.72	1485.62	-425.3	1485.61	-422.35	1485.49	-421.81	1485.47
-419.18	1485.37	-416.16	1485.43	-411.85	1485.34	-411.23	1485.32	-407.49	1485.16
-404.5	1485.16	-402.8	1485.16	-401.07	1485.09	-399.31	1485.01	-390.17	1484.75
-389.37	1484.67	-387.94	1484.63	-385.4	1484.56	-382.3	1484.36	-382.14	1484.36
-381.58	1484.34	-379.04	1484.28	-377.29	1484.23	-373.24	1484.11	-369.73	1484
-368.23	1483.96	-365.45	1483.88	-361.24	1483.77	-359.45	1483.74	-356.02	1483.66
-355.68	1483.65	-354.72	1483.61	-354.48	1483.6	-353.45	1483.56	-352.1	1483.5
-339.94	1482.98	-337.16	1482.86	-334.61	1482.75	-334.31	1482.74	-329.9	1482.46
-326.99	1482.22	-326.96	1482.22	-325.98	1482.18	-324.12	1482.04	-322.77	1481.94
-318.16	1481.61	-314.56	1481.39	-313.47	1481.32	-312.44	1481.25	-310.38	1481.1
-308.35	1480.95	-299.41	1480.16	-298.23	1480.06	-296.15	1479.86	-294.48	1479.63

-294.15 1479.6 -290.19 1479.24 -287.17 1478.86 -283.27 1478.5 -281.75
1478.31
-278.32 1477.97 -276.28 1477.74 -274.24 1477.56 -271.35 1477.33 -271.04
1477.3
-270.88 1477.28 -269.76 1477.18 -267.87 1476.99 -259.99 1475.99 -258.24
1475.78
-257.29 1475.67 -252.04 1475.16 -251.71 1475.13 -248.31 1474.78 -247.96
1474.74
-245.6 1474.55 -242.03 1474.14 -241.1 1474.08 -234.87 1473.74 -233.76
1473.66
-232.81 1473.6 -230.66 1473.38 -230.33 1473.35 -229.51 1473.28 -229.18
1473.27
-226.93 1473.08 -225.58 1473.01 -219.77 1472.75 -218.08 1472.66 -214.69
1472.59
-210.79 1472.51 -210.08 1472.49 -204.52 1472.23 -204.04 1472.21 -201.6
1472.15
-199.43 1472.07 -196.7 1471.92 -191.16 1471.82 -190.37 1471.82 -184.94
1471.83
-182.33 1471.86 -180.83 1471.85 -180.59 1471.84 -180.37 1471.84 -179.88
1471.84
-175.64 1471.83 -171.14 1471.84 -170.9 1471.84 -170.34 1471.84 -165.19
1471.77
-164.38 1471.77 -164.05 1471.76 -163.82 1471.76 -159.69 1471.74 -155.24
1471.73
-153.11 1471.76 -151.59 1471.75 -151.15 1471.74 -150.99 1471.74 -147.21
1471.7
-141.57 1471.65 -141.41 1471.64 -141.25 1471.64 -140.06 1471.63 -130.6
1471.54
-123.61 1471.35 -123.53 1471.35 -122.91 1471.34 -118.67 1471.34 -113.6
1471.39
-112.4 1471.4 -110.67 1471.44 -106.52 1471.5 -103 1471.52 -102.47
1471.53
-99.77 1471.5 -96.8 1471.5 -95.08 1471.49 -89.52 1471.51 -88.14
1471.55
-86.34 1471.61 -84.99 1471.51 -83.79 1471.53 -76.72 1471.72 -74.11
1471.71
-70.6 1471.68 -67.58 1471.72 -66.23 1471.71 -63.21 1471.74 -60.51
1471.72
-58.27 1471.7 -56.38 1471.65 -51.09 1471.38 -48.19 1471.32 -48.11
1471.32
-48.03 1471.32 -47.87 1471.32 -42.71 1471.44 -41.67 1471.44 -37.38
1471.3
-36.03 1471.25 -27.84 1471.13 -26.57 1471.18 -25.95 1471.08 -25.46
1471
-20.56 1470.95 -20.06 1470.94 -13.38 1471.02 -8.69 1471.02 -7.34
1471
0 1470.56 1.26 1470.63 18.76 1470.94 19.01 1471 19.43
1471.01
19.68 1471.01 22.96 1471.12 27.02 1471.29 31.53 1471.49 35.28
1471.65
41.44 1471.88 41.59 1471.92 41.69 1471.94 41.86 1471.94 46.73
1471.94
48.16 1472 49.71 1472.03 53.07 1472.14 53.78 1472.16 57.69
1472.16

```
    61.6  1472.2   63.36 1472.28    64.2 1472.23   65.67 1472.27   67.63
1472.36
   69.66 1472.44   72.77 1472.62   83.35 1472.96   83.46 1472.96   85.28
1472.99
   87.72 1473.02   91.08 1473.13   94.02 1473.18   94.24 1473.18   98.58
1473.25
  101.57 1473.36  105.02  1473.5  108.71 1473.64  109.47 1473.65  111.49
1473.76
  113.57  1473.8  116.51 1473.88  119.04 1473.92  125.43 1474.13  129.81
1474.2
  132.06 1474.25  135.41 1474.32  138.53 1474.54  143.32    1475  143.65
1475.03
  147.74 1475.15  149.37 1475.18  150.26 1475.26  152.73 1475.46  157.54
1475.87
  159.11 1476.06  161.29 1476.34  162.05 1476.41  163.06 1476.57  163.14
1476.58
  169.61 1477.15   178.4 1478.01  179.18  1478.1  179.52 1478.14  180.36
1478.27
   181.7 1478.54  186.39 1479.24  188.67 1479.38  193.12 1479.63  198.43
1480.06
  198.67 1480.08  199.69 1480.15  200.81 1480.17  208.33 1480.64     209
1480.67
  210.26 1480.74  210.33 1480.74  213.41 1480.76  216.39 1480.73  224.37
1480.62
  226.13  1480.7  227.06 1480.71  229.83 1480.79   230.5 1480.81  233.02
1480.89
  233.69  1480.9  234.42  1480.9  239.15 1480.87  240.58 1480.86  246.12
1480.95
  248.14 1481.04  249.65 1481.13  251.83 1481.03  255.45 1480.88  256.37
1481.06
  258.51 1481.03  259.14 1481.02  260.47 1481.08  261.75 1481.25  263.83
1481.38
   270.4 1481.27  272.09 1481.32  273.08 1481.37  275.02 1481.49   279.3
1481.87
  280.91 1482.02  281.32 1482.05  287.35 1481.99  292.23 1481.91  294.25
1481.86
  295.06 1481.86  295.68 1481.85  296.01 1481.91  298.28  1482.9  299.63
1483.55
  302.48 1484.07  309.62  1485.1

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 -518.28     .08   -7.34     .04   18.76     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         -7.34   18.76            183.2   183.2   183.2             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 957.*
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INPUT
Description:
Station Elevation Data num= 317

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-451.82	1497.9	-446.42	1497.14	-446.28	1497.12	-440.4	1496.52	-439.5	1496.21
-433.48	1495.71	-432.79	1495.67	-431.26	1495.6	-430.78	1495.6	-430.64	1495.6
-424.83	1495.16	-423.65	1495.04	-423.65	1495.08	-414.1	1494.38	-409.19	1494.04
-408.89	1494.02	-406.35	1493.85	-404.62	1493.69	-402.77	1493.59	-401.85	1493.55
-399.98	1493.48	-397.84	1493.37	-397.37	1493.35	-394.86	1493.28	-392.68	1493.2
-391.12	1493.13	-388.7	1493	-386.07	1492.84	-384.27	1492.78	-380.74	1492.58
-376.38	1492.3	-371.22	1491.98	-370.84	1491.97	-368.28	1491.84	-367.8	1491.81
-365.51	1491.7	-362.88	1491.69	-359.13	1491.56	-358.59	1491.53	-355.34	1491.34
-352.73	1491.27	-351.26	1491.24	-349.75	1491.16	-348.21	1491.07	-340.25	1490.68
-339.56	1490.61	-338.31	1490.55	-336.1	1490.44	-333.4	1490.14	-333.26	1490.13
-332.78	1490.11	-330.56	1490.02	-329.04	1489.94	-325.51	1489.76	-322.45	1489.6
-321.15	1489.54	-318.73	1489.43	-315.06	1489.25	-313.5	1489.19	-310.51	1489.04
-310.21	1489.02	-309.38	1488.96	-309.18	1488.95	-308.28	1488.88	-307.1	1488.8
-296.51	1488.02	-294.09	1487.84	-291.87	1487.68	-291.61	1487.66	-287.77	1487.24
-285.23	1486.88	-285.21	1486.88	-284.36	1486.82	-282.74	1486.61	-281.56	1486.47
-277.55	1485.96	-274.4	1485.59	-273.46	1485.48	-272.56	1485.37	-270.76	1485.16
-269	1484.93	-261.21	1483.79	-260.19	1483.64	-258.37	1483.33	-256.92	1483.05
-256.63	1483	-253.18	1482.41	-250.55	1481.89	-247.16	1481.3	-245.83	1481.04
-242.85	1480.58	-241.07	1480.26	-239.29	1479.98	-236.78	1479.59	-236.5	1479.55
-236.36	1479.53	-235.4	1479.37	-233.75	1479.09	-226.88	1477.64	-225.36	1477.32
-224.53	1477.16	-219.96	1476.33	-219.67	1476.28	-216.71	1475.72	-216.4	1475.66
-214.36	1475.37	-211.24	1474.85	-210.43	1474.75	-205.01	1474.16	-204.04	1474.04
-203.21	1473.94	-201.34	1473.68	-201.05	1473.63	-200.34	1473.56	-200.06	1473.55
-198.09	1473.32	-196.91	1473.21	-191.86	1472.78	-190.39	1472.64	-187.43	1472.54

-184.04 1472.42 -183.42 1472.4 -178.57 1472.05 -178.16 1472.02 -176.03
1471.9
-174.14 1471.76 -171.77 1471.55 -166.95 1471.44 -166.25 1471.42 -161.53
1471.39
-159.26 1471.41 -157.95 1471.37 -157.74 1471.37 -157.55 1471.36 -157.12
1471.36
-153.43 1471.32 -149.5 1471.31 -149.3 1471.31 -148.81 1471.31 -144.33
1471.25
-143.62 1471.24 -143.33 1471.24 -143.14 1471.24 -139.54 1471.22 -135.66
1471.19
-133.81 1471.2 -132.48 1471.17 -132.1 1471.16 -131.96 1471.16 -128.67
1471.1
-123.76 1471.02 -123.62 1471.02 -123.48 1471.01 -122.44 1471 -114.21
1470.86
-108.12 1470.67 -108.05 1470.67 -107.51 1470.66 -103.81 1470.66 -99.4
1470.74
-98.36 1470.75 -96.85 1470.79 -93.24 1470.85 -90.17 1470.88 -89.71
1470.89
-87.35 1470.9 -84.76 1470.93 -83.27 1470.93 -78.42 1470.97 -77.23
1471
-75.66 1471.07 -74.48 1471.02 -73.44 1471.05 -67.28 1471.27 -65
1471.31
-61.95 1471.32 -59.32 1471.38 -58.15 1471.36 -55.52 1471.36 -53.16
1471.33
-51.21 1471.3 -49.56 1471.22 -44.96 1470.92 -42.43 1470.88 -42.37
1470.88
-42.3 1470.88 -42.16 1470.88 -37.66 1470.96 -36.76 1470.96 -33.02
1470.87
-31.85 1470.83 -24.72 1470.7 -23.61 1470.73 -23.07 1470.65 -22.64
1470.6
-18.37 1470.56 -17.93 1470.56 -12.12 1470.58 -8.04 1470.53 -6.86
1470.5
0 1470.14 .93 1470.19 13.94 1470.46 14.17 1470.51 14.55
1470.51
14.78 1470.52 17.74 1470.63 21.41 1470.8 25.49 1470.98 28.89
1471.14
34.46 1471.32 34.59 1471.34 34.68 1471.36 34.84 1471.36 39.24
1471.36
40.54 1471.4 41.94 1471.42 44.98 1471.53 45.63 1471.54 49.16
1471.54
52.69 1471.6 54.29 1471.67 55.05 1471.64 56.38 1471.68 58.16
1471.77
59.99 1471.86 62.8 1472.04 72.37 1472.44 72.47 1472.44 74.12
1472.48
76.32 1472.53 79.36 1472.65 82.02 1472.72 82.23 1472.72 86.15
1472.77
88.86 1472.9 91.98 1473.05 95.32 1473.2 96.01 1473.23 97.83
1473.33
99.71 1473.4 102.37 1473.52 104.67 1473.58 110.44 1473.8 114.41
1473.9
116.45 1473.97 119.47 1474.08 122.3 1474.41 126.63 1475.01 126.93
1475.04
130.62 1475.37 132.1 1475.48 132.9 1475.57 135.14 1475.84 139.49
1476.38

140.91 1476.64 142.89 1477 143.57 1477.12 144.48 1477.31 144.56
1477.32
150.41 1478.12 158.37 1479.27 159.07 1479.41 159.38 1479.46 160.14
1479.66
161.35 1480.01 165.59 1481.09 167.66 1481.32 171.69 1481.75 176.49
1482.34
176.7 1482.36 177.63 1482.47 178.64 1482.48 185.44 1483.11 186.05
1483.16
187.19 1483.25 187.26 1483.26 190.04 1483.34 192.74 1483.34 199.95
1483.33
201.55 1483.4 202.39 1483.41 204.89 1483.49 205.5 1483.51 207.78
1483.59
208.39 1483.6 209.05 1483.6 213.33 1483.56 214.62 1483.55 219.63
1483.58
221.46 1483.63 222.83 1483.7 224.8 1483.64 228.07 1483.56 228.9
1483.7
230.84 1483.69 231.41 1483.68 232.61 1483.72 233.77 1483.92 235.65
1484.15
241.59 1484.11 243.13 1484.15 244.03 1484.21 245.77 1484.34 249.65
1484.7
251.11 1484.84 251.47 1484.87 256.94 1484.89 261.35 1484.86 263.17
1484.83
263.9 1484.84 264.47 1484.83 264.77 1484.86 266.82 1485.5 268.04
1485.98
270.62 1486.41 277.08 1487.1

Manning's n Values num= 3
Sta n Val Sta n Val Sta n Val
-451.82 .08 -6.86 .04 13.94 .08

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr.
Expan.
-6.86 13.94 183.2 183.2 183.2 .1
.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 956.*

INPUT
Description:
Station Elevation Data num= 317
Sta Elev Sta Elev Sta Elev Sta Elev Sta
Elev
-385.36 1504.2 -380.76 1503.82 -380.64 1503.81 -375.63 1503.53 -374.87
1503.38
-369.74 1503.15 -369.15 1503.13 -367.85 1503.1 -367.44 1503.1 -367.32
1503.1
-362.37 1502.55 -361.37 1502.42 -361.37 1502.44 -353.23 1501.54 -349.05
1501.09
-348.79 1501.06 -346.63 1500.83 -345.16 1500.65 -343.59 1500.49 -342.8
1500.43

-341.21 1500.31 -339.38 1500.15 -338.99 1500.12 -336.85 1500.01 -334.99
1499.9
-333.66 1499.81 -331.6 1499.65 -329.36 1499.45 -327.83 1499.34 -324.82
1499.08
-321.11 1498.74 -316.71 1498.34 -316.39 1498.32 -314.21 1498.18 -313.8
1498.16
-311.85 1498.03 -309.61 1497.95 -306.42 1497.78 -305.96 1497.75 -303.19
1497.52
-300.97 1497.39 -299.71 1497.32 -298.42 1497.23 -297.11 1497.12 -290.33
1496.61
-289.75 1496.54 -288.68 1496.46 -286.8 1496.32 -284.5 1495.92 -284.38
1495.91
-283.97 1495.88 -282.08 1495.76 -280.79 1495.66 -277.78 1495.41 -275.18
1495.2
-274.07 1495.12 -272 1494.97 -268.88 1494.74 -267.55 1494.65 -265.01
1494.42
-264.75 1494.39 -264.04 1494.31 -263.87 1494.29 -263.1 1494.21 -262.1
1494.1
-253.08 1493.06 -251.02 1492.82 -249.13 1492.61 -248.9 1492.58 -245.63
1492.02
-243.47 1491.54 -243.45 1491.54 -242.73 1491.46 -241.35 1491.19 -240.35
1490.99
-236.93 1490.31 -234.25 1489.8 -233.45 1489.65 -232.68 1489.5 -231.15
1489.21
-229.65 1488.92 -223.02 1487.42 -222.14 1487.22 -220.6 1486.81 -219.36
1486.46
-219.12 1486.4 -216.18 1485.58 -213.94 1484.91 -211.05 1484.11 -209.92
1483.77
-207.37 1483.19 -205.86 1482.78 -204.35 1482.39 -202.21 1481.86 -201.97
1481.8
-201.85 1481.77 -201.03 1481.56 -199.62 1481.2 -193.78 1479.28 -192.48
1478.86
-191.77 1478.65 -187.88 1477.51 -187.64 1477.44 -185.11 1476.66 -184.85
1476.58
-183.11 1476.2 -180.45 1475.57 -179.77 1475.43 -175.15 1474.58 -174.32
1474.42
-173.62 1474.29 -172.03 1473.97 -171.78 1473.92 -171.17 1473.83 -170.93
1473.82
-169.25 1473.56 -168.25 1473.41 -163.95 1472.8 -162.69 1472.62 -160.18
1472.48
-157.29 1472.33 -156.76 1472.3 -152.63 1471.86 -152.28 1471.82 -150.47
1471.65
-148.86 1471.45 -146.83 1471.17 -142.73 1471.05 -142.14 1471.03 -138.11
1470.94
-136.18 1470.95 -135.06 1470.9 -134.89 1470.89 -134.72 1470.88 -134.36
1470.88
-131.21 1470.81 -127.87 1470.79 -127.7 1470.78 -127.28 1470.78 -123.46
1470.72
-122.86 1470.72 -122.62 1470.72 -122.45 1470.72 -119.38 1470.69 -116.08
1470.66
-114.5 1470.65 -113.37 1470.6 -113.05 1470.58 -112.93 1470.58 -110.13
1470.5
-105.94 1470.39 -105.83 1470.39 -105.71 1470.39 -104.82 1470.36 -97.81
1470.17

-92.62 1469.99 -92.56 1469.99 -92.1 1469.98 -88.96 1469.98 -85.19
1470.08
-84.31 1470.11 -83.02 1470.15 -79.95 1470.2 -77.33 1470.24 -76.94
1470.25
-74.94 1470.3 -72.73 1470.37 -71.46 1470.38 -67.33 1470.43 -66.31
1470.45
-64.97 1470.52 -63.97 1470.53 -63.09 1470.57 -57.84 1470.83 -55.9
1470.9
-53.3 1470.97 -51.06 1471.04 -50.06 1471.02 -47.82 1470.98 -45.82
1470.94
-44.16 1470.9 -42.75 1470.79 -38.83 1470.46 -36.68 1470.44 -36.62
1470.44
-36.56 1470.44 -36.44 1470.44 -32.61 1470.48 -31.85 1470.48 -28.66
1470.43
-27.66 1470.4 -21.59 1470.27 -20.65 1470.27 -20.18 1470.23 -19.82
1470.2
-16.19 1470.18 -15.81 1470.17 -10.86 1470.14 -7.38 1470.04 -6.38
1470
0 1469.72 .61 1469.75 9.12 1469.98 9.32 1470.01 9.66
1470.02
9.87 1470.03 12.52 1470.14 15.81 1470.3 19.45 1470.47 22.49
1470.62
27.48 1470.76 27.6 1470.77 27.68 1470.78 27.81 1470.78 31.76
1470.78
32.91 1470.8 34.17 1470.81 36.89 1470.91 37.47 1470.92 40.63
1470.92
43.79 1471 45.22 1471.05 45.9 1471.05 47.09 1471.09 48.68
1471.19
50.32 1471.28 52.83 1471.45 61.4 1471.92 61.49 1471.92 62.96
1471.97
64.93 1472.05 67.65 1472.17 70.03 1472.25 70.21 1472.26 73.73
1472.28
76.15 1472.43 78.94 1472.59 81.93 1472.77 82.54 1472.81 84.17
1472.91
85.86 1473 88.24 1473.16 90.29 1473.24 95.46 1473.47 99
1473.6
100.83 1473.7 103.54 1473.84 106.06 1474.29 109.94 1475.01 110.21
1475.06
113.51 1475.58 114.83 1475.77 115.55 1475.89 117.55 1476.23 121.45
1476.89
122.72 1477.21 124.48 1477.67 125.1 1477.82 125.91 1478.04 125.98
1478.06
131.21 1479.1 138.33 1480.54 138.96 1480.71 139.24 1480.78 139.92
1481.04
141 1481.49 144.8 1482.95 146.65 1483.26 150.25 1483.86 154.54
1484.62
154.74 1484.65 155.56 1484.78 156.47 1484.79 162.55 1485.58 163.1
1485.65
164.12 1485.77 164.18 1485.78 166.67 1485.92 169.08 1485.96 175.54
1486.05
176.97 1486.1 177.71 1486.12 179.96 1486.19 180.5 1486.2 182.54
1486.3
183.08 1486.3 183.67 1486.3 187.5 1486.24 188.66 1486.23 193.15
1486.2

194.78 1486.21 196 1486.26 197.77 1486.26 200.69 1486.25 201.44 1486.33
203.17 1486.34 203.68 1486.34 204.76 1486.36 205.79 1486.59 207.48 1486.93
212.79 1486.94 214.16 1486.97 214.97 1487.04 216.53 1487.19 220 1487.54
221.3 1487.67 221.63 1487.69 226.52 1487.8 230.47 1487.81 232.1 1487.81
232.75 1487.82 233.26 1487.8 233.53 1487.82 235.36 1488.1 236.45 1488.4
238.76 1488.76 244.54 1489.1

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-385.36	.08	-6.38	.04	9.12	.08

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-6.38	9.12	183.2	183.2	183.2	.1	.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 955

INPUT
Description: Lidar
Station Elevation Data num= 113

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-318.9	1510.5	-315	1510.5	-304.1	1510.6	-304	1510.6	-288.7	1508.1
-284.4	1507.4	-280.6	1506.9	-277.3	1506.6	-274.5	1506.3	-262.2	1504.7
-259.8	1504.5	-253.7	1504	-249.2	1503.5	-247.1	1503.3	-237.5	1502.2
-235.6	1501.7	-233.6	1501.5	-227.9	1500.8	-221.6	1500.1	-219.5	1499.8
-217.1	1499.4	-206.2	1497.5	-203.5	1496.8	-201.7	1496.2	-201.1	1496.1
-194.1	1494	-190.3	1492.9	-184.1	1490.8	-181.6	1489.8	-174	1486.5
-171.9	1485.8	-169.4	1484.8	-165.5	1483.3	-159.6	1480.4	-155.6	1478.6
-153.3	1477.5	-149.1	1476.1	-142.5	1474.2	-142	1474.1	-141.8	1474.1
-135	1472.6	-130.1	1472.2	-124.9	1471.4	-121.9	1470.8	-114.7	1470.5
-113.1	1470.5	-111.9	1470.4	-111.6	1470.4	-109	1470.3	-102.6	1470.2
-102.1	1470.2	-101.9	1470.2	-95.2	1470.1	-94	1470	-93.9	1470

```
   -76.7  1469.3   -74.1  1469.3   -69.2  1469.5   -64.5  1469.6   -60.7
1469.8
   -55.4  1469.9   -46.8  1470.5   -42.8  1470.7   -37.1  1470.5   -32.7
1470
   -24.3    1470   -17.3  1469.8     -14  1469.8    -9.6  1469.7    -5.9
1469.5
       0  1469.3     4.3  1469.5    10.2  1469.8    16.1  1470.1    20.6
1470.2
    26.4  1470.2    28.8  1470.3    32.1  1470.3    37.8  1470.5    39.2
1470.6
    50.5  1471.4    58.2  1471.8    61.3  1471.8      72  1472.6    74.1
1472.8
    83.6  1473.3    87.6  1473.6    96.4  1475.8    98.2  1476.2   103.4
1477.4
   107.4  1478.8   118.3  1481.8   119.1  1482.1     124  1484.8   132.6
1486.9
   133.5  1487.1   134.3  1487.1   141.1  1488.3   143.3  1488.5   155.5
1488.9
   157.3    1489   158.3    1489   168.1  1488.8   175.5    1489   176.9
1489
   179.3  1489.7   185.2  1489.8   191.5  1490.5   196.1  1490.7   201.6
1490.8
   203.9  1490.7   206.9  1491.1     212  1491.1

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -318.9     .08    -5.9     .04     4.3     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
          -5.9     4.3              169     169     169             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 953.75*

INPUT
Description:
Station Elevation Data    num=     156
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
 -261.75 1506.12 -258.56 1506.11 -249.65 1506.14 -249.57 1506.14 -237.06
1504.21
 -234.86 1503.87 -233.54 1503.65 -230.43 1503.21 -228.82 1503.04 -227.74
1502.93
 -225.45 1502.68 -215.39 1501.33 -213.43 1501.15 -208.44 1500.71 -204.76
1500.28
 -203.04  1500.1 -201.02 1499.86 -195.19 1499.12 -193.64 1498.71    -192
1498.52
 -187.34  1497.9  -185.3 1497.64 -182.19 1497.28 -181.68 1497.21 -180.48
1497.03
```

-178.51 1496.71 -169.6 1495.16 -167.39 1494.6 -167.18 1494.53 -165.92
1494.11
-165.43 1494.02 -159.71 1492.26 -156.6 1491.33 -156.3 1491.23 -151.53
1489.61
-149.49 1488.8 -143.27 1486.15 -141.56 1485.57 -139.51 1484.76 -136.32
1483.54
-131.5 1481.23 -129.71 1480.44 -128.23 1479.75 -126.35 1478.83 -122.91
1477.61
-120.64 1476.9 -117.52 1475.98 -117.11 1475.89 -116.94 1475.88 -111.88
1474.7
-111.38 1474.58 -107.38 1474.1 -103.13 1473.3 -100.67 1472.74 -94.79
1472.25
-93.48 1472.19 -92.5 1472.08 -92.25 1472.06 -90.12 1471.89 -88.62
1471.8
-87.1 1471.71 -86.5 1471.65 -84.89 1471.56 -84.48 1471.54 -84.32
1471.54
-78.84 1471.24 -77.86 1471.13 -77.78 1471.13 -63.71 1470.04 -61.59
1469.96
-57.58 1469.95 -53.74 1469.87 -50.63 1469.9 -46.3 1469.8 -39.27
1469.97
-37.55 1469.98 -36 1470.01 -31.34 1469.75 -27.74 1469.28 -20.87
1469.11
-17.31 1468.93 -15.15 1468.84 -12.45 1468.8 -8.85 1468.67 -5.82
1468.47
0 1468.18 4.73 1468.38 6.02 1468.43 10.08 1468.67 10.18
1468.68
15.44 1468.92 19.53 1469.01 24.79 1469.03 26.97 1469.12 29.97
1469.13
34.6 1469.28 35.14 1469.33 36.42 1469.48 41.35 1470.06 46.52
1470.74
46.68 1470.76 53.67 1471.34 56.48 1471.46 61.18 1471.94 61.89
1472.01
62.47 1472.07 66.2 1472.44 68.11 1472.66 76.11 1473.3 76.73
1473.35
80.36 1473.71 82 1474.11 88.36 1475.54 89.99 1475.87 91.63
1476.21
94.71 1476.87 98.34 1478 100.39 1478.52 105.85 1479.91 108.24
1480.43
108.43 1480.48 108.97 1480.65 113.42 1482.69 121.23 1484.3 121.36
1484.32
122.04 1484.45 122.77 1484.45 123.66 1484.58 128.94 1485.51 130.94
1485.72
131.27 1485.73 137.59 1486.01 142.02 1486.29 143.66 1486.43 144.56
1486.46
147.65 1486.52 148.65 1486.53 149.23 1486.55 153.46 1486.64 158.28
1486.93
160.18 1487.03 161.45 1487.07 162.44 1487.34 163.63 1487.65 164.6
1487.69
168.99 1487.83 174.71 1488.45 178.67 1488.67 178.89 1488.68 183.13
1488.79
183.88 1488.83 185.97 1488.85 188.69 1489.28 191.46 1489.4 192.03
1489.43
193.32 1489.45

```
Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 -261.75     .08   -5.82     .04    4.73     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         -5.82    4.73              169     169     169             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 952.5*

INPUT
Description:
Station Elevation Data    num=     156
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
  -204.6 1501.75 -202.12 1501.72  -195.2 1501.69 -195.13 1501.69 -185.41
1500.32
 -183.71 1500.08 -182.68  1499.9 -180.27 1499.52 -179.01 1499.36 -178.17
1499.27
 -176.39 1499.05 -168.58 1497.96 -167.05 1497.81 -163.18 1497.41 -160.32
1497.06
 -158.99 1496.91 -157.41 1496.71 -152.89 1496.04 -151.68 1495.72 -150.41
1495.55
 -146.79 1494.99  -145.2 1494.76 -142.78 1494.46 -142.39 1494.41 -141.45
1494.27
 -139.93 1494.01    -133 1492.82 -131.29 1492.41 -131.12 1492.36 -130.14
1492.02
 -129.76 1491.94 -125.31 1490.52  -122.9 1489.77 -122.67 1489.69 -118.96
1488.42
 -117.37  1487.8 -112.54 1485.79 -111.21 1485.34 -109.62 1484.72 -107.14
1483.79
  -103.4 1482.05 -102.01 1481.46 -100.85  1480.9  -99.39 1480.17  -96.73
1479.13
  -94.96  1478.5  -92.53 1477.75  -92.21 1477.68  -92.09 1477.67  -88.15
1476.67
  -87.77 1476.56  -84.65 1475.99  -81.35 1475.21  -79.45 1474.69  -74.87
1474.01
  -73.85 1473.89  -73.09 1473.75   -72.9 1473.73  -71.25 1473.49  -70.08
1473.34
   -68.9 1473.17  -68.43 1473.07  -67.18 1472.92  -66.87 1472.89  -66.74
1472.88
  -62.48 1472.39  -61.72 1472.26  -61.66 1472.26  -50.73 1470.78  -49.08
1470.62
  -45.96  1470.4  -42.98 1470.14  -40.56 1469.99   -37.2  1469.7  -31.73
1469.44
   -30.4 1469.35  -29.19 1469.32  -25.57 1468.99  -22.78 1468.57  -17.44
1468.23
  -14.67 1467.99  -12.99 1467.88   -10.9  1467.8    -8.1 1467.64   -5.75
1467.45
```

```
       0 1467.05    5.15 1467.25    6.31 1467.29    9.96 1467.55   10.06
1467.55
   14.78 1467.74   18.45 1467.83   23.19 1467.87   25.14 1467.94   27.84
1467.96
      32 1468.09   32.49 1468.16   33.63 1468.36   38.07 1469.14   42.72
1470.09
   42.85 1470.11   49.14 1470.89   51.67 1471.12   55.88 1471.69   56.53
1471.77
   57.05 1471.85    60.4 1472.27   62.11 1472.51   69.31 1473.33   69.87
1473.4
   73.13 1473.82    74.6 1474.18   80.31 1475.28   81.78 1475.54   83.25
1475.81
   86.02 1476.34   89.29 1477.21   91.13 1477.61   96.03 1478.74   98.18
1479.05
   98.36 1479.09   98.84  1479.2  102.83 1480.59  109.85  1481.7  109.97
1481.72
  110.59  1481.8  111.24  1481.8  112.04 1481.89  116.79 1482.71  118.59
1482.93
  118.88 1482.96  124.56 1483.27  128.54 1483.68  130.01 1483.85  130.83
1483.92
   133.6 1484.12   134.5 1484.15  135.02  1484.2  138.82 1484.48  143.15
1484.92
  144.86 1485.06  146.01 1485.14  146.89 1485.36  147.96 1485.61  148.83
1485.66
  152.78 1485.86  157.92 1486.41  161.48 1486.64  161.67 1486.65  165.48
1486.79
  166.16 1486.87  168.04 1487.01  170.49 1487.45  172.97  1487.7  173.49
1487.75
  174.65  1487.8

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -204.6     .08   -5.75     .04    5.15     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         -5.75    5.15              169     169     169             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 951.25*

INPUT
Description:
Station Elevation Data    num=     156
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
 -147.45 1497.38 -145.68 1497.33 -140.75 1497.23  -140.7 1497.23 -133.77
1496.43
 -132.55 1496.29 -131.82 1496.14  -130.1 1495.83 -129.21 1495.68 -128.61
1495.6
```

-127.34 1495.43 -121.77 1494.6 -120.68 1494.46 -117.92 1494.12 -115.88
1493.84
-114.93 1493.71 -113.81 1493.55 -110.58 1492.96 -109.72 1492.73 -108.81
1492.57
-106.23 1492.09 -105.1 1491.88 -103.38 1491.65 -103.09 1491.6 -102.43
1491.5
-101.34 1491.32 -96.4 1490.48 -95.18 1490.21 -95.06 1490.18 -94.36
1489.93
-94.09 1489.86 -90.92 1488.78 -89.2 1488.2 -89.03 1488.14 -86.39
1487.23
-85.26 1486.8 -81.82 1485.44 -80.87 1485.11 -79.73 1484.68 -77.97
1484.03
-75.29 1482.88 -74.3 1482.48 -73.48 1482.05 -72.44 1481.5 -70.54
1480.64
-69.28 1480.1 -67.55 1479.53 -67.32 1479.47 -67.23 1479.45 -64.43
1478.63
-64.15 1478.53 -61.93 1477.89 -59.58 1477.11 -58.22 1476.63 -54.96
1475.76
-54.23 1475.58 -53.69 1475.43 -53.55 1475.39 -52.37 1475.08 -51.54
1474.87
-50.7 1474.64 -50.37 1474.48 -49.48 1474.28 -49.25 1474.23 -49.16
1474.21
-46.12 1473.53 -45.58 1473.39 -45.54 1473.38 -37.74 1471.53 -36.57
1471.27
-34.35 1470.84 -32.22 1470.41 -30.5 1470.09 -28.1 1469.6 -24.2
1468.91
-23.25 1468.73 -22.39 1468.63 -19.81 1468.24 -17.81 1467.85 -14.01
1467.34
-12.04 1467.04 -10.84 1466.93 -9.34 1466.8 -7.35 1466.61 -5.68
1466.43
0 1465.93 5.57 1466.12 6.61 1466.14 9.85 1466.42 9.93
1466.43
14.12 1466.56 17.38 1466.64 21.58 1466.7 23.32 1466.76 25.71
1466.79
29.4 1466.89 29.83 1467 30.85 1467.25 34.78 1468.22 38.91
1469.45
39.03 1469.47 44.61 1470.43 46.85 1470.77 50.59 1471.45 51.16
1471.54
51.62 1471.62 54.6 1472.11 56.12 1472.37 62.5 1473.37 63
1473.45
65.89 1473.94 67.2 1474.24 72.27 1475.02 73.57 1475.21 74.88
1475.4
77.34 1475.81 80.23 1476.41 81.86 1476.71 86.22 1477.57 88.12
1477.68
88.28 1477.69 88.7 1477.76 92.25 1478.48 98.48 1479.1 98.59
1479.11
99.13 1479.15 99.71 1479.15 100.42 1479.19 104.63 1479.92 106.23
1480.15
106.49 1480.18 111.53 1480.54 115.06 1481.07 116.37 1481.28 117.09
1481.38
119.55 1481.71 120.35 1481.78 120.81 1481.85 124.19 1482.32 128.03
1482.91
129.54 1483.1 130.56 1483.21 131.35 1483.38 132.3 1483.56 133.07
1483.63

136.57 1483.88 141.13 1484.36 144.29 1484.62 144.46 1484.63 147.84 1484.8
148.44 1484.9 150.11 1485.16 152.28 1485.63 154.49 1486 154.94 1486.07
155.98 1486.15

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-147.45	.08	-5.68	.04	5.57	.08

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-5.68	5.57	169	169	169	.1	.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 950

INPUT
Description: Lidar
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-90.3	1493	-81.4	1492.5	-79.4	1492	-70.2	1490.4	-65	1489
-63.8	1488.8	-59	1488	-55.4	1486.6	-46.6	1483.5	-43.6	1481.7
-40.7	1480.6	-33	1476.4	-32.5	1476.1	-32.3	1475.9	-16.1	1468.1
-9.4	1466.1	-5.6	1465.4	0	1464.8	6	1465	6.9	1465
9.8	1465.3	26.8	1465.7	31.5	1467.3	35.1	1468.8	45.3	1471.2
45.8	1471.3	46.2	1471.4	55.7	1473.4	59.8	1474.3	66.5	1475
72.6	1475.8	76.4	1476.4	78.2	1476.3	87.2	1476.5	88.8	1476.5
94.1	1477.4	98.5	1477.8	105.5	1479.3	106.2	1479.4	106.6	1479.5
112.9	1480.9	115.8	1481.4	117.3	1481.6	127.1	1482.6	130.2	1482.8
136	1484.3	136.4	1484.4	137.3	1484.5				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-90.3	.08	-5.6	.04	6	.08

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-5.6	6	372	372	372	.1	.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 945

INPUT
Description: Lidar
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-210	1475.1	-206.3	1474.3	-197.5	1471.9	-190.5	1470.7	-185	1469.8
-180.2	1469.1	-172.4	1468.1	-170.9	1467.9	-170.3	1467.8	-168.3	1467.6
-159.9	1466.6	-157.1	1466.3	-156.2	1466.2	-148.4	1465.7	-147.4	1465.6
-136.1	1464.4	-131.2	1464.5	-128.7	1464.6	-119.7	1464.6	-116.1	1464.4
-114.2	1464.4	-105.6	1464.1	-104.7	1464	-104	1464	-94.1	1464.3
-90.8	1464.3	-87.4	1464.3	-83.2	1464.3	-80.8	1464.3	-78.8	1464.4
-63.6	1465	-61.1	1464.4	-55.8	1464.4	-51	1464.2	-48	1464.1
-46.2	1464	-43.2	1464	-34.3	1464.3	-28.7	1464.3	-24.6	1464
-10.8	1463.7	-4.2	1463.6	0	1461.6	3.8	1463.6	9.3	1467.2
14	1468	28.1	1466.4	30.6	1465.1	37.7	1469.2	38.4	1469.2
46.8	1469	49.3	1470.2	53.7	1474.6	57.5	1483.4		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-210	.08	-4.2	.04	3.8	.08

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-4.2	3.8	58	58	58	.1	.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 940

INPUT
Description: Lidar
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

```
  -650.8  1488.4    -642  1487.8  -641.4  1487.7    -634  1486.1  -631.2
1485.6
  -629.4  1485.2  -619.8  1482.7  -615.4  1481.3    -613  1480.2  -608.3
1478.3
  -604.4  1477.1    -600  1476.2  -594.4  1474.1  -587.6    1472  -574.9
1468.7
  -573.4  1468.4  -565.8  1466.7  -563.8  1466.2  -563.1  1466.1    -556
1465
  -550.5  1464.5  -549.1  1464.5  -543.4  1464.7  -538.6  1464.8  -537.8
1464.8
  -525.1  1463.8  -520.2  1463.8  -511.6    1465  -505.2  1465.1  -498.2
1464.3
  -494.3  1464.4  -487.1  1464.2  -480.3    1464  -472.6  1464.4  -465.7
1464.4
    -461  1464.4  -407.2  1464.5  -399.9  1464.5  -392.4  1464.4  -372.2
1464.8
  -353.9  1464.7  -344.7  1465.4  -318.7  1465.5    -301  1465.5  -281.7
1465.4
  -267.7  1465.3  -253.9  1464.2  -231.4  1464.3  -189.2  1464.2  -178.8
1464.2
  -174.1  1464.2  -164.1  1464.2  -151.8    1464  -128.7  1464.4  -128.2
1464.4
  -114.4  1464.3  -113.5  1464.3  -106.9  1464.3   -88.8  1464.2   -82.7
1464.1
   -77.1  1464.1   -64.2  1464.1   -60.9  1464.1   -59.7  1464.1   -53.2
1464.1
     -48  1464.1   -43.2  1464.1   -40.1  1464.1   -39.7  1464.2   -34.4
1464.2
   -29.8  1464.3   -28.5  1464.3   -27.3  1464.3   -12.5  1464.3    -2.7
1464.1
       0  1461.1     2.7  1464.1      14    1464    55.4  1465.9    63.3
1469.9
    63.4  1469.9    72.7  1472.3      80  1474.5    82.5  1475.5    88.2
1477.6
    97.3  1494.1     100    1496   100.2    1496

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -650.8     .08    -2.7     .04     2.7     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
          -2.7     2.7               57      57      57             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 937.5*

INPUT
Description:
Station Elevation Data    num=     164
```

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-565.1	1492.75	-562.5	1492.75	-557.47	1491.9	-556.95	1491.78	-553.18	1490.83
-550.53	1490.19	-548.1	1489.65	-547.28	1489.44	-546.54	1489.15	-540.55	1486.6
-540.08	1486.43	-539.01	1486.12	-538.21	1485.84	-534.39	1484.4	-532.88	1483.7
-532.31	1483.41	-528.23	1481.43	-524.85	1479.97	-521.03	1478.56	-516.18	1476.28
-512.69	1474.78	-512.34	1474.62	-512.22	1474.55	-510.28	1474.01	-506.08	1472.97
-499.26	1470.3	-497.96	1469.83	-492.04	1467.64	-491.37	1467.35	-491.21	1467.28
-490.38	1466.96	-490.03	1466.91	-489.63	1466.81	-489.09	1466.71	-489.02	1466.7
-482.86	1465.7	-478.09	1465.11	-476.88	1465.03	-473.03	1464.83	-471.93	1464.8
-467.77	1464.67	-467.37	1464.65	-467.08	1464.64	-465.12	1464.51	-456.06	1464.1
-451.81	1464.1	-444.35	1464.7	-438.8	1464.75	-432.73	1464.35	-429.34	1464.4
-423.1	1464.3	-420.39	1464.25	-417.2	1464.2	-410.52	1464.41	-404.53	1464.42
-400.46	1464.42	-353.79	1464.52	-347.45	1464.52	-340.95	1464.48	-323.43	1464.69
-307.55	1464.66	-299.57	1465.02	-277.02	1465.09	-267.18	1465.1	-261.66	1465.1
-257.86	1465.09	-244.92	1465.11	-235.55	1465.11	-235.43	1465.11	-234.84	1465.16
-232.78	1465.23	-223.74	1465.18	-221.97	1465.15	-220.81	1465.07	-209.34	1464.83
-201.29	1464.93	-199.43	1464.95	-187.27	1465.08	-168.98	1464.71	-164.68	1464.59
-157.64	1464.4	-155.66	1464.38	-152.57	1464.35	-151.58	1464.33	-147.61	1464.25
-147.26	1464.25	-142.91	1464.23	-136.04	1464.14	-132.24	1464.1	-131.32	1464.11
-120.82	1464.21	-112.2	1464.26	-111.77	1464.26	-110.19	1464.24	-99.8	1464.2
-99.01	1464.2	-97.8	1464.2	-93.29	1464.19	-77.59	1464.11	-74.78	1464.07
-74.55	1464.07	-74.31	1464.07	-74.19	1464.07	-73.72	1464.06	-72.3	1464.05
-69	1464.05	-67.44	1464.05	-65.46	1464.05	-56.25	1464.1	-55.43	1464.1
-53.39	1464.1	-52.35	1464.1	-50.82	1464.1	-46.71	1464.1	-43.74	1464.1
-42.2	1464.1	-38.03	1464.1	-35.71	1464.1	-35.34	1464.1	-35	1464.16
-31.82	1464.2	-30.4	1464.2	-26.41	1464.25	-26.27	1464.25	-25.28	1464.25
-24.24	1464.26	-14.59	1464.3	-11.4	1464.25	-2.9	1464	0	1460.6

```
     3.7    1464   16.16 1464.11   17.75 1464.14   25.11 1464.49   31.46
1464.5
    46.6 1465.23   47.52  1465.3   58.56    1467   61.15 1467.55   62.49
1467.53
   69.24    1469   72.52 1470.32   74.78 1471.23   76.12 1471.75   79.06
1472.74
   79.19 1472.76   82.14 1473.46      90 1474.37   90.75 1474.52   94.76
1475.39
   97.44 1476.41   98.69 1476.66   99.83  1476.8   99.95 1476.82  100.37
1476.99
  102.94  1477.6  110.03 1479.22  111.07 1480.06  113.33 1482.31  115.08
1483.44
  118.85 1486.18  121.34 1489.31   124.7 1492.02  124.95 1492.15

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -565.1     .08    -2.9     .04     3.7     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
          -2.9     3.7               57      57      57             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 935

INPUT
Description: Lidar
Station Elevation Data    num=      81
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
  -479.4  1497.1  -477.2  1497.3  -469.3  1494.9  -464.3  1493.5  -458.6
1489.8
  -458.2  1489.6  -457.3  1489.3  -452.1  1486.9    -435  1476.7  -434.7
1476.5
  -434.6  1476.4  -429.4  1475.2  -417.5  1468.4  -416.8  1467.9  -416.1
1467.5
  -415.8  1467.5    -415  1467.3  -401.4    1465  -396.6  1464.5  -394.7
1464.4
  -356.8  1464.4    -227  1464.7  -219.1  1464.7  -200.2  1464.9  -200.1
1464.9
  -199.6    1465  -190.2  1465.9  -188.7    1466    -178  1465.4  -169.6
1465.6
  -159.3  1465.9  -143.8  1465.2  -134.2  1464.6  -129.9  1464.5  -125.7
1464.3
  -125.4  1464.3  -115.9  1464.2  -111.9  1464.2    -103  1464.2     -94
1464.1
   -83.5  1464.1     -64    1464   -63.8    1464   -63.6    1464   -63.5
1464
   -63.1    1464   -59.1    1464   -56.1    1464   -47.6  1464.1   -43.7
1464.1
```

```
   -37.7  1464.1   -30.9  1464.1   -27.6  1464.2   -22.9  1464.2     -13
1464.3
    -3.1  1463.9       0  1460.1     4.7  1463.9    19.6  1464.2    30.3
1464.7
    37.9  1464.5      56  1465.4    57.1  1465.5    70.3  1468.5    73.4
1469.5
      75  1469.4      87  1473.4    89.7  1474.3    91.3  1474.8    98.5
1476.4
   107.9  1476.6   113.6  1477.5   116.8  1478.9   118.3  1479.1   119.8
1479.1
   120.3  1479.3   133.1    1481   135.8  1482.2   137.9  1481.9   142.4
1481.9
   149.7  1488.3

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -479.4     .08    -3.1     .04     4.7     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
          -3.1     4.7               90      90      90             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 933.333*

INPUT
Description:
Station Elevation Data    num=      96
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
  -331.3 1499.97 -329.79 1500.05 -324.36 1498.27 -320.93 1497.22 -317.01
1494.62
 -316.73 1494.48 -316.12 1494.26 -312.54 1492.54  -300.8 1485.35 -300.59
1485.21
 -300.52 1485.14 -296.95 1484.22 -288.77 1479.41 -288.29 1479.06 -287.81
1478.78
  -287.6 1478.77 -287.44 1478.73 -287.06 1478.63 -277.71    1477 -274.41
1476.63
 -273.11 1476.55 -247.07 1476.29 -228.97 1476.14 -180.62 1475.65 -172.74
1475.03
 -157.89 1474.04 -152.47 1473.67 -139.48  1472.9 -139.41  1472.9 -139.07
1472.94
 -132.61 1473.09 -131.58 1473.09 -124.23 1472.18 -118.46 1471.92 -111.38
1471.63
 -100.73 1470.42  -94.14 1469.57  -91.18  1469.3   -88.3 1468.97  -88.09
1468.95
  -81.56 1468.43  -78.82 1468.24   -72.7 1467.82  -66.52 1467.33   -59.3
1466.83
  -45.91 1465.84  -45.77 1465.83  -45.63 1465.82  -45.56 1465.81  -45.29
1465.79
```

-42.54 1465.6 -40.48 1465.46 -34.64 1465.13 -31.96 1464.94 -29.93 1464.8
-27.84 1464.77 -23.17 1464.71 -20.9 1464.75 -17.67 1464.71 -10.87 1464.69
-4.07 1464.33 -1.83 1462.64 0 1459.33 12.9 1464.33 28.32 1464.72
39.39 1465.19 47.25 1465.15 58.63 1467.75 62.67 1466.07 62.88 1466.14
63.19 1466.08 65.46 1466.64 65.98 1465.98 67.12 1466.06 80.78 1468.22
81.59 1468.4 83.98 1469.21 85.64 1469.36 98.06 1473.63 100.85 1474.59
102.51 1475.13 103.8 1475.49 108.02 1479.36 109.96 1479.76 119.68 1480.55
125.58 1481.55 128.89 1482.71 130.44 1482.94 132 1483.05 132.51 1483.22
140.89 1493.32 145.76 1485.24 148.55 1486.23 150.72 1486.18 155.38 1486.49
162.93 1491.27

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-331.3	.08	-4.07	.04	12.9	.08

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-4.07	12.9	90	90	90	.1	.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 931.666*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-183.2	1502.83	-182.38	1502.8	-179.42	1501.64	-177.55	1500.94	-175.42	1499.44
-175.27	1499.36	-174.93	1499.22	-172.99	1498.18	-166.59	1493.99	-166.48	1493.91
-166.44	1493.87	-164.5	1493.24	-160.05	1490.42	-159.78	1490.22	-159.52	1490.06
-159.41	1490.04	-159.32	1490.01	-159.11	1489.96	-154.02	1489	-152.23	1488.77
-151.52	1488.71	-137.34	1488.17	-127.48	1487.82	-101.16	1486.67	-96.87	1485.42
-88.79	1483.38	-85.83	1482.63	-78.76	1480.9	-78.72	1480.89	-78.54	1480.88
-75.02	1480.29	-74.46	1480.18	-70.46	1478.96	-67.31	1478.23	-63.46	1477.35

-57.66 1475.65 -54.07 1474.54 -52.46 1474.1 -50.89 1473.63 -50.78
1473.6
-47.23 1472.67 -45.73 1472.29 -42.4 1471.44 -39.04 1470.56 -35.11
1469.56
-27.81 1467.67 -27.74 1467.66 -27.66 1467.64 -27.63 1467.63 -27.48
1467.59
-25.98 1467.21 -24.86 1466.92 -21.68 1466.15 -20.22 1465.78 -19.12
1465.5
-17.98 1465.45 -15.43 1465.33 -14.2 1465.3 -12.44 1465.22 -8.74
1465.08
-5.03 1464.77 -2.27 1463.47 0 1458.57 21.1 1464.77 37.03
1465.24
48.48 1465.68 56.6 1465.8 68.37 1467.31 72.54 1466.54 72.75
1466.58
73.07 1466.55 75.43 1466.88 75.96 1466.55 77.14 1466.62 91.25
1467.95
92.1 1468.05 94.57 1468.92 96.28 1469.31 109.11 1473.85 112
1474.87
113.71 1475.47 115.05 1475.89 119.41 1482.73 121.41 1483.13 131.46
1484.51
137.56 1485.6 140.98 1486.51 142.59 1486.79 144.19 1487 144.73
1487.13
153.39 1493.03 158.41 1489.49 161.3 1490.26 163.55 1490.45 168.36
1491.08
176.17 1494.23

Manning's n Values num= 3
Sta n Val Sta n Val Sta n Val
-183.2 .08 -5.03 .04 21.1 .08

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr.
Expan.
-5.03 21.1 90 90 90 .1
.3

CROSS SECTION

RIVER: Wedlers Creek
REACH: Main Channel RS: 930

INPUT
Description: Lidar
Station Elevation Data num= 14
Sta Elev Sta Elev Sta Elev Sta Elev Sta
Elev
-35.1 1505.7 -31.2 1501.3 -26 1499.5 -21.7 1497.7 -21
1495.8
-8.3 1466.2 -6 1465.2 -2.7 1464.3 0 1457.8 29.3
1465.2
102.6 1467.7 126.3 1476.3 130.8 1486.1 189.4 1497.2

Manning's n Values num= 3
Sta n Val Sta n Val Sta n Val

```
   -35.1     .08      -6     .04    29.3     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
            -6    29.3             87.5    87.5    87.5             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 928.75*

INPUT
Description:
Station Elevation Data    num=      23
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
  -36.67 1500.32  -33.03 1496.53  -28.18 1494.51  -24.16 1492.61  -23.51
1491.1
  -21.31 1486.69  -20.42 1485.05  -16.87 1478.39  -16.36 1477.47  -16.23
1477.23
   -16.1 1476.99  -15.47 1475.75  -11.65 1466.87    -9.5 1465.15   -4.28
1463.07
       0 1457.05   26.97 1465.15   40.16 1467.87   67.32 1469.55   89.95
1470.5
  110.31 1477.21  114.18  1484.6  164.52 1493.55

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -36.67     .08    -9.5     .04   26.97     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
          -9.5   26.97             87.5    87.5    87.5             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 927.5*

INPUT
Description:
Station Elevation Data    num=      23
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
  -38.25 1494.95  -34.87 1491.75  -30.35 1489.53  -26.62 1487.53  -26.02
1486.4
  -23.97 1483.06  -23.15    1482  -19.84 1477.56  -19.37 1476.98  -19.25
1476.82
  -19.14 1476.66  -18.55 1475.77     -15 1467.54     -13  1465.1   -5.85
1461.84
```

```
       0  1456.3   24.65  1465.1   35.67 1470.01   58.38  1472.3    77.3
1473.31
   94.33 1478.11   97.56 1483.11  139.65  1489.9

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -38.25     .08     -13     .04   24.65     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
           -13   24.65             87.5    87.5    87.5             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 926.25*

INPUT
Description:
Station Elevation Data    num=      23
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
  -39.83 1489.57   -36.7 1486.98  -32.53 1484.54  -29.08 1482.44  -28.52
1481.7
  -26.64 1479.43  -25.87 1478.95  -22.82 1476.73  -22.39 1476.49  -22.28
1476.41
  -22.17 1476.33  -21.62 1475.78  -18.34 1468.22   -16.5 1465.05   -7.43
1460.62
       0 1455.55   22.33 1465.05   31.19 1472.16   49.44 1475.05   64.65
1476.11
   78.34 1479.02   80.94 1481.61  114.78 1486.25

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -39.83     .08   -16.5     .04   22.33     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         -16.5   22.33             87.5    87.5    87.5             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 925

INPUT
Description: Lidar and google earth
Station Elevation Data    num=      14
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
```

```
   -41.4  1484.2   -29.3  1475.8   -28.6  1475.9   -25.8  1475.9   -25.4
1476
   -25.3    1476   -25.2    1476   -24.7  1475.8     -20    1465       0
1454.8
      20    1465    26.7  1474.3    40.5  1477.8    89.9  1482.6

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   -41.4     .08     -20     .04      20     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
           -20      20               90      90      90             .1
.3

INLINE STRUCTURE


RIVER: Wedlers Creek
REACH: Main Channel       RS: 900

INPUT
Description: Wedler Dam
Distance from Upstream XS =      70
Deck/Roadway Width        =      15
Weir Coefficient          =     3.1
 Weir Embankment Coordinates    num =       10
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
     -25    1466      -5    1466      -5    1465       0    1465       0
1466
       2    1466       2  1465.5       4  1465.5       4    1466      25
1466

Upstream Embankment side slope              =       0 horiz. to 1.0
vertical
Downstream Embankment side slope            =       0 horiz. to 1.0
vertical
Maximum allowable submergence for weir flow =     .98
Elevation at which weir flow begins         =
Weir crest shape                            = Broad Crested


CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 895

INPUT
Description: Lidar
Station Elevation Data    num=      17
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
```

```
   -49.3    1479   -46.4  1474.8   -44.4  1471.4   -29.6  1461.6   -29.5
1461.6
   -21.9  1460.6   -16.1  1458.5    -9.6    1457    -3.5  1454.6       0
1454
     2.8  1454.5     7.6  1454.4    10.7  1456.6    21.3  1459.6    24.8
1461
    36.2  1481.4    36.4  1481.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   -49.3     .08    -3.5     .04     2.8     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
          -3.5     2.8               45      45      45             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 893.75*

INPUT
Description:
Station Elevation Data    num=      85
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
  -84.95 1476.82  -84.86 1476.75  -84.13 1476.15  -81.75 1474.13  -79.78
1472.42
   -78.9 1471.57  -78.04 1470.83  -76.22 1469.21  -74.76 1468.54  -70.18
1466.77
  -68.45 1465.91  -68.41  1465.9  -65.47  1464.8  -64.18 1464.19  -56.32
1461.83
  -56.06 1461.75  -55.93 1461.72   -55.2 1461.54     -52 1460.72  -51.31
1460.53
  -50.06 1460.18  -49.86 1460.12  -49.68 1460.12  -47.94    1460  -46.47
1459.95
  -41.25 1459.66  -36.15 1459.28  -28.77 1458.02  -25.83 1457.55  -25.82
1457.55
  -25.49 1457.52  -24.66 1457.44  -23.67 1457.34  -21.25 1457.16   -16.5
1456.64
  -14.24 1456.44  -12.79 1456.21   -7.95 1454.98   -7.78 1454.98   -6.57
1454.58
   -3.38 1453.85   -1.69  1453.6       0 1453.28     3.1 1453.72     4.8
1453.84
    5.57 1453.83    6.63 1453.87    10.8 1453.89   12.49 1453.86   12.99
1453.99
   16.72 1455.05   18.14 1455.44   18.46 1455.52   18.56 1455.55   19.19
1455.62
   19.76 1455.63    21.5 1455.74    23.9  1456.1    24.3 1456.15   26.73
1456.39
   27.18 1456.44   30.34 1456.85   32.57 1457.07   33.02 1457.12   34.19
1457.27
```

```
   35.77 1457.54   38.53 1457.87    39.3 1457.94   41.69 1458.29   43.11
1458.63
   44.73 1458.86   46.15 1459.15   46.51 1459.42   48.22 1460.59   51.26
1462.7
   53.73 1464.45   55.39 1465.61   60.18 1468.97   62.49 1470.58   62.65
1470.69
   62.89 1470.88   66.17 1475.98   68.08 1478.92   68.46  1479.3   68.85
1479.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -84.95     .08   -3.38     .04     3.1     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         -3.38     3.1               45      45      45             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 892.5*

INPUT
Description:
Station Elevation Data    num=      85
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
  -120.6 1474.65 -120.48 1474.56 -119.42 1473.97    -116 1471.85 -113.17
1470.05
  -111.9 1469.18 -110.66 1468.52 -108.05 1467.01 -105.94 1466.23  -99.35
1464.38
  -96.87 1463.31  -96.81  1463.3  -92.58  1462.2  -90.72 1461.46  -79.41
1459.65
  -79.04  1459.6  -78.85 1459.58   -77.8 1459.49   -73.2 1459.05  -72.21
1458.92
   -70.4 1458.69  -70.12 1458.65  -69.87 1458.64  -67.36 1458.54  -65.25
1458.53
  -57.73 1458.34  -50.39 1457.97  -39.78 1456.95  -35.55  1456.6  -35.53
1456.6
  -35.06 1456.58  -33.88 1456.53  -32.45 1456.46  -28.97  1456.4  -22.14
1456
  -18.88 1455.88  -16.79 1455.74   -9.84 1454.36   -9.59 1454.39   -7.85
1453.85
   -3.25  1453.1   -1.62  1452.9       0 1452.55     3.4 1452.95    5.94
1453.19
    7.08 1453.19    8.65 1453.28   14.87 1453.36   17.39 1453.31   18.13
1453.39
   23.68 1454.17   25.79 1454.42   26.28 1454.48   26.42  1454.5   27.36
1454.55
   28.21 1454.49    30.8 1454.46   34.36 1454.84   34.97 1454.87   38.59
1454.99
```

```
   39.25 1455.02   43.96  1455.4   47.28 1455.51   47.94 1455.55   49.69
1455.68
   52.05 1455.99   56.15 1456.24    57.3 1456.29   60.86 1456.49   62.97
1456.89
   65.39    1457    67.5 1457.31   68.04 1457.52   70.58 1458.29    75.1
1459.73
   78.79 1460.97   81.26 1461.78   88.38 1464.11   91.82 1465.22   92.07
1465.29
   92.43 1465.45   97.32 1472.66  100.15 1476.78  100.72  1477.2   101.3
1477.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  -120.6     .08   -3.25     .04     3.4     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         -3.25     3.4               45      45      45             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 891.25*

INPUT
Description:
Station Elevation Data    num=      85
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
 -156.25 1472.48 -156.09 1472.38 -154.71 1471.78 -150.25 1469.58 -146.55
1467.67
  -144.9 1466.79 -143.28 1466.21 -139.87 1464.82 -137.12 1463.91 -128.53
1461.99
 -125.28  1460.7  -125.2  1460.7 -119.69  1459.6 -117.26 1458.73 -102.51
1457.48
 -102.02 1457.45 -101.78 1457.44  -100.4 1457.45   -94.4 1457.37   -93.1
1457.31
  -90.75 1457.19  -90.39 1457.17  -90.05 1457.16  -86.78 1457.07  -84.02
1457.12
  -74.22 1457.02  -64.64 1456.65  -50.79 1455.88  -45.28 1455.65  -45.25
1455.65
  -44.63 1455.64  -43.09 1455.61  -41.22 1455.58  -36.68 1455.65  -27.77
1455.35
  -23.52 1455.32   -20.8 1455.27  -11.72 1453.73  -11.39 1453.79   -9.12
1453.13
   -3.12 1452.35   -1.56  1452.2       0 1451.82     3.7 1452.18    7.07
1452.55
    8.59 1452.54   10.68 1452.69   18.93 1452.83   22.28 1452.77   23.26
1452.8
   30.64 1453.28   33.45 1453.41   34.09 1453.44   34.28 1453.45   35.53
1453.47
```

```
   36.65 1453.34    40.1 1453.18   44.83 1453.57   45.63 1453.58   50.44
1453.6
   51.33 1453.61   57.58 1453.95   61.99 1453.96   62.87 1453.97    65.2
1454.09
   68.32 1454.45   73.78 1454.62    75.3 1454.63   80.03  1454.7   82.84
1455.14
   86.04 1455.15   88.85 1455.46   89.57 1455.61   92.94    1456   98.95
1456.77
  103.84 1457.48  107.13 1457.94  116.59 1459.26  121.16 1459.86  121.48
1459.9
  121.96 1460.03  128.46 1469.33  132.23 1474.64  132.98 1475.09  133.75
1475.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 -156.25     .08   -3.12     .04     3.7     .08

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         -3.12     3.7               45      45      45             .1
.3

CROSS SECTION


RIVER: Wedlers Creek
REACH: Main Channel       RS: 890

INPUT
Description: Lidar
Station Elevation Data    num=      73
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
  -191.9  1470.3  -191.7  1470.2    -190  1469.6  -184.5  1467.3  -177.9
1464.4
  -175.9  1463.9  -168.3  1461.6  -157.7  1459.6  -153.7  1458.1  -153.6
1458.1
  -146.8    1457  -143.8    1456  -125.6  1455.3    -125  1455.3  -124.7
1455.3
    -123  1455.4  -115.6  1455.7    -114  1455.7  -111.1  1455.7  -106.2
1455.6
  -102.8  1455.7   -90.7  1455.7   -61.8  1454.8     -55  1454.7   -54.2
1454.7
   -52.3  1454.7     -50  1454.7   -44.4  1454.9   -33.4  1454.7   -24.8
1454.8
   -13.6  1453.1   -13.2  1453.2   -10.4  1452.4      -3  1451.6    -1.5
1451.5
       0  1451.1       4  1451.4     8.2  1451.9    10.1  1451.9    12.7
1452.1
      23  1452.3    28.4  1452.2    37.6  1452.4    41.1  1452.4    41.9
1452.4
    43.7  1452.4    45.1  1452.2    49.4  1451.9    55.3  1452.3    56.3
1452.3
```

62.3	1452.2	63.4	1452.2	71.2	1452.5	76.7	1452.4	77.8	1452.4
80.7	1452.5	84.6	1452.9	91.4	1453	99.2	1452.9	102.7	1453.4
106.7	1453.3	111.1	1453.7	115.3	1453.7	122.8	1453.8	128.9	1454
133	1454.1	144.8	1454.4	150.5	1454.5	150.9	1454.5	151.5	1454.6
159.6	1466	164.3	1472.5	166.2	1473.5				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-191.9	.08	-3	.04	4	.08

Bank Sta: Left	Right	Coeff Contr.	Expan.
-3	4	.1	.3

SUMMARY OF MANNING'S N VALUES

River:Wedlers Creek

Reach	River Sta.	n1	n2	n3
Main Channel	1015	.08	.04	.08
Main Channel	1014.*	.08	.04	.08
Main Channel	1013.*	.08	.04	.08
Main Channel	1012.*	.08	.04	.08
Main Channel	1011.*	.08	.04	.08
Main Channel	1010	.08	.04	.08
Main Channel	1009.37*	.08	.04	.08
Main Channel	1008.75*	.08	.04	.08
Main Channel	1008.12*	.08	.04	.08
Main Channel	1007.5*	.08	.04	.08
Main Channel	1006.87*	.08	.04	.08
Main Channel	1006.25*	.08	.04	.08
Main Channel	1005.62*	.08	.04	.08
Main Channel	1005	.08	.04	.08
Main Channel	1004.75*	.08	.04	.08
Main Channel	1004.5*	.08	.04	.08
Main Channel	1004.25*	.08	.04	.08
Main Channel	1004.*	.08	.04	.08
Main Channel	1003.75*	.08	.04	.08
Main Channel	1003.5*	.08	.04	.08
Main Channel	1003.25*	.08	.04	.08
Main Channel	1003.*	.08	.04	.08
Main Channel	1002.75*	.08	.04	.08
Main Channel	1002.5*	.08	.04	.08
Main Channel	1002.25*	.08	.04	.08
Main Channel	1002	.08	.04	.08
Main Channel	1001	.08	.04	.08
Main Channel	1000	Inl Struct		
Main Channel	999	.08	.04	.08

Main Channel	996.75*	.08	.04	.08
Main Channel	994.5*	.08	.04	.08
Main Channel	992.25*	.08	.04	.08
Main Channel	990	.08	.04	.08
Main Channel	988.333*	.08	.04	.08
Main Channel	986.666*	.08	.04	.08
Main Channel	985	.08	.04	.08
Main Channel	984.*	.08	.04	.08
Main Channel	983.*	.08	.04	.08
Main Channel	982.*	.08	.04	.08
Main Channel	981.*	.08	.04	.08
Main Channel	980	.08	.04	.08
Main Channel	977.5*	.08	.04	.08
Main Channel	975	.08	.04	.08
Main Channel	974.*	.08	.04	.08
Main Channel	973.*	.08	.04	.08
Main Channel	972.*	.08	.04	.08
Main Channel	971.*	.08	.04	.08
Main Channel	970	.08	.04	.08
Main Channel	967.5*	.08	.04	.08
Main Channel	965	.08	.04	.08
Main Channel	964.166*	.08	.04	.08
Main Channel	963.333*	.08	.04	.08
Main Channel	962.5*	.08	.04	.08
Main Channel	961.666*	.08	.04	.08
Main Channel	960.833*	.08	.04	.08
Main Channel	960	.08	.04	.08
Main Channel	959.*	.08	.04	.08
Main Channel	958.*	.08	.04	.08
Main Channel	957.*	.08	.04	.08
Main Channel	956.*	.08	.04	.08
Main Channel	955	.08	.04	.08
Main Channel	953.75*	.08	.04	.08
Main Channel	952.5*	.08	.04	.08
Main Channel	951.25*	.08	.04	.08
Main Channel	950	.08	.04	.08
Main Channel	945	.08	.04	.08
Main Channel	940	.08	.04	.08
Main Channel	937.5*	.08	.04	.08
Main Channel	935	.08	.04	.08
Main Channel	933.333*	.08	.04	.08
Main Channel	931.666*	.08	.04	.08
Main Channel	930	.08	.04	.08
Main Channel	928.75*	.08	.04	.08
Main Channel	927.5*	.08	.04	.08
Main Channel	926.25*	.08	.04	.08
Main Channel	925	.08	.04	.08
Main Channel	900	Inl Struct		
Main Channel	895	.08	.04	.08
Main Channel	893.75*	.08	.04	.08
Main Channel	892.5*	.08	.04	.08
Main Channel	891.25*	.08	.04	.08
Main Channel	890	.08	.04	.08

SUMMARY OF REACH LENGTHS

River: Wedlers Creek

Reach	River Sta.	Left	Channel	Right
Main Channel	1015	100	100	100
Main Channel	1014.*	100	100	100
Main Channel	1013.*	100	100	100
Main Channel	1012.*	100	100	100
Main Channel	1011.*	100	100	100
Main Channel	1010	46.88	46.88	46.88
Main Channel	1009.37*	46.88	46.88	46.88
Main Channel	1008.75*	46.88	46.88	46.88
Main Channel	1008.12*	46.88	46.88	46.88
Main Channel	1007.5*	46.88	46.88	46.88
Main Channel	1006.87*	46.88	46.88	46.88
Main Channel	1006.25*	46.88	46.88	46.88
Main Channel	1005.62*	46.88	46.88	46.88
Main Channel	1005	10	10	10
Main Channel	1004.75*	10	10	10
Main Channel	1004.5*	10	10	10
Main Channel	1004.25*	10	10	10
Main Channel	1004.*	10	10	10
Main Channel	1003.75*	10	10	10
Main Channel	1003.5*	10	10	10
Main Channel	1003.25*	10	10	10
Main Channel	1003.*	10	10	10
Main Channel	1002.75*	10	10	10
Main Channel	1002.5*	10	10	10
Main Channel	1002.25*	10	10	10
Main Channel	1002	50.01	50.01	50.01
Main Channel	1001	40	40	40
Main Channel	1000	Inl Struct		
Main Channel	999	425	425	425
Main Channel	996.75*	425	425	425
Main Channel	994.5*	425	425	425
Main Channel	992.25*	425	425	425
Main Channel	990	408.67	408.67	408.67
Main Channel	988.333*	408.67	408.67	408.67
Main Channel	986.666*	408.67	408.67	408.67
Main Channel	985	440	440	440
Main Channel	984.*	440	440	440
Main Channel	983.*	440	440	440
Main Channel	982.*	440	440	440
Main Channel	981.*	440	440	440
Main Channel	980	425	425	425
Main Channel	977.5*	425	425	425
Main Channel	975	416	416	416
Main Channel	974.*	416	416	416
Main Channel	973.*	416	416	416

Main Channel	972.*	416	416	416
Main Channel	971.*	416	416	416
Main Channel	970	445	445	445
Main Channel	967.5*	445	445	445
Main Channel	965	440	440	440
Main Channel	964.166*	440	440	440
Main Channel	963.333*	440	440	440
Main Channel	962.5*	440	440	440
Main Channel	961.666*	440	440	440
Main Channel	960.833*	440	440	440
Main Channel	960	183.2	183.2	183.2
Main Channel	959.*	183.2	183.2	183.2
Main Channel	958.*	183.2	183.2	183.2
Main Channel	957.*	183.2	183.2	183.2
Main Channel	956.*	183.2	183.2	183.2
Main Channel	955	169	169	169
Main Channel	953.75*	169	169	169
Main Channel	952.5*	169	169	169
Main Channel	951.25*	169	169	169
Main Channel	950	372	372	372
Main Channel	945	58	58	58
Main Channel	940	57	57	57
Main Channel	937.5*	57	57	57
Main Channel	935	90	90	90
Main Channel	933.333*	90	90	90
Main Channel	931.666*	90	90	90
Main Channel	930	87.5	87.5	87.5
Main Channel	928.75*	87.5	87.5	87.5
Main Channel	927.5*	87.5	87.5	87.5
Main Channel	926.25*	87.5	87.5	87.5
Main Channel	925	90	90	90
Main Channel	900	Inl Struct		
Main Channel	895	45	45	45
Main Channel	893.75*	45	45	45
Main Channel	892.5*	45	45	45
Main Channel	891.25*	45	45	45
Main Channel	890			

SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS
River: Wedlers Creek

Reach	River Sta.	Contr.	Expan.
Main Channel	1015	.1	.3
Main Channel	1014.*	.1	.3
Main Channel	1013.*	.1	.3
Main Channel	1012.*	.1	.3
Main Channel	1011.*	.1	.3
Main Channel	1010	.1	.3
Main Channel	1009.37*	.1	.3

Main Channel	1008.75*		.1	.3
Main Channel	1008.12*		.1	.3
Main Channel	1007.5*		.1	.3
Main Channel	1006.87*		.1	.3
Main Channel	1006.25*		.1	.3
Main Channel	1005.62*		.1	.3
Main Channel	1005		.1	.3
Main Channel	1004.75*		.1	.3
Main Channel	1004.5*		.1	.3
Main Channel	1004.25*		.1	.3
Main Channel	1004.*		.1	.3
Main Channel	1003.75*		.1	.3
Main Channel	1003.5*		.1	.3
Main Channel	1003.25*		.1	.3
Main Channel	1003.*		.1	.3
Main Channel	1002.75*		.1	.3
Main Channel	1002.5*		.1	.3
Main Channel	1002.25*		.1	.3
Main Channel	1002		.1	.3
Main Channel	1001		.1	.3
Main Channel	1000	Inl Struct		
Main Channel	999		.1	.3
Main Channel	996.75*		.1	.3
Main Channel	994.5*		.1	.3
Main Channel	992.25*		.1	.3
Main Channel	990		.1	.3
Main Channel	988.333*		.1	.3
Main Channel	986.666*		.1	.3
Main Channel	985		.1	.3
Main Channel	984.*		.1	.3
Main Channel	983.*		.1	.3
Main Channel	982.*		.1	.3
Main Channel	981.*		.1	.3
Main Channel	980		.1	.3
Main Channel	977.5*		.1	.3
Main Channel	975		.1	.3
Main Channel	974.*		.1	.3
Main Channel	973.*		.1	.3
Main Channel	972.*		.1	.3
Main Channel	971.*		.1	.3
Main Channel	970		.1	.3
Main Channel	967.5*		.1	.3
Main Channel	965		.1	.3
Main Channel	964.166*		.1	.3
Main Channel	963.333*		.1	.3
Main Channel	962.5*		.1	.3
Main Channel	961.666*		.1	.3
Main Channel	960.833*		.1	.3
Main Channel	960		.1	.3
Main Channel	959.*		.1	.3
Main Channel	958.*		.1	.3
Main Channel	957.*		.1	.3
Main Channel	956.*		.1	.3
Main Channel	955		.1	.3

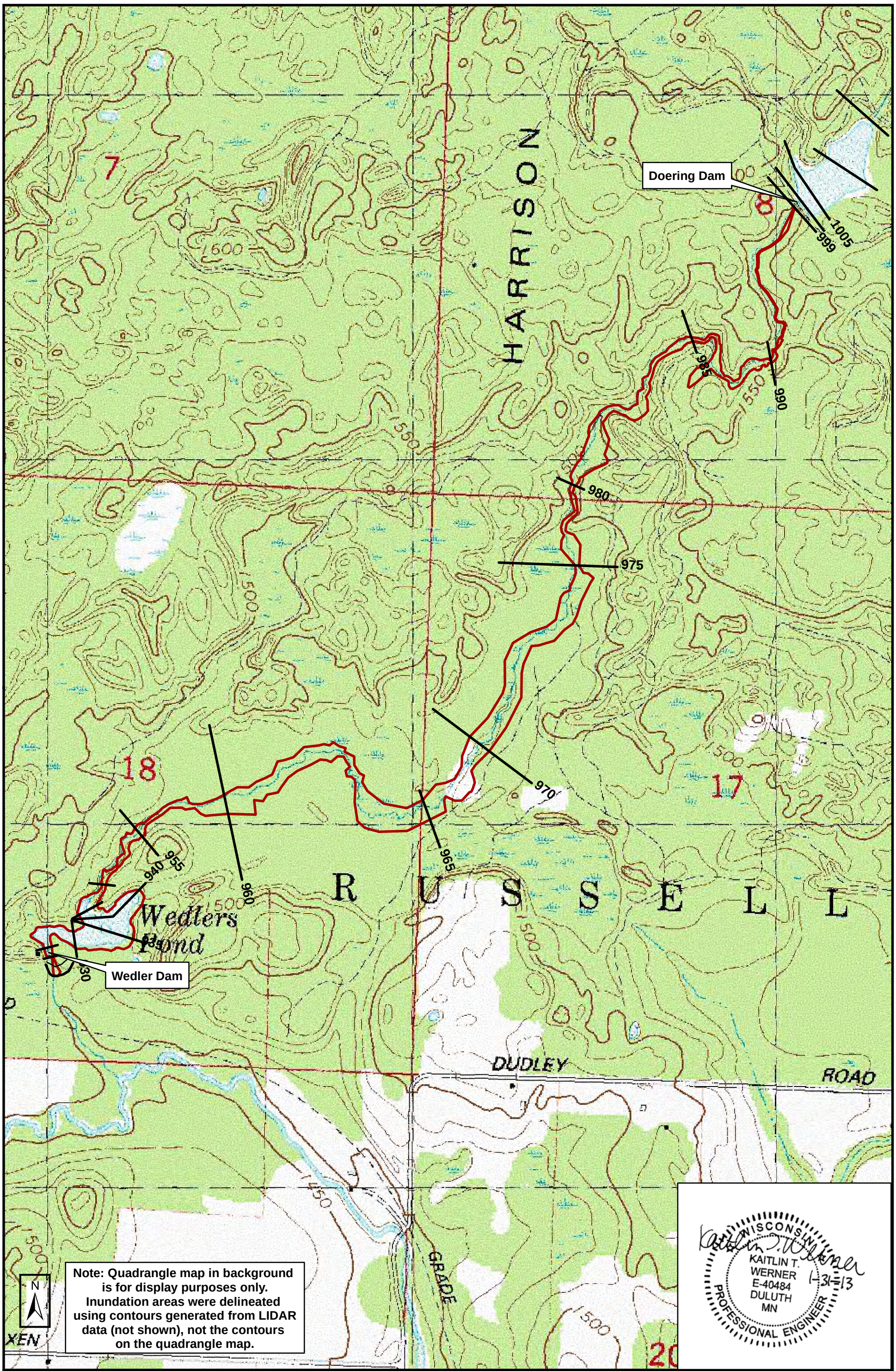
Main Channel	953.75*	.1	.3
Main Channel	952.5*	.1	.3
Main Channel	951.25*	.1	.3
Main Channel	950	.1	.3
Main Channel	945	.1	.3
Main Channel	940	.1	.3
Main Channel	937.5*	.1	.3
Main Channel	935	.1	.3
Main Channel	933.333*	.1	.3
Main Channel	931.666*	.1	.3
Main Channel	930	.1	.3
Main Channel	928.75*	.1	.3
Main Channel	927.5*	.1	.3
Main Channel	926.25*	.1	.3
Main Channel	925	.1	.3
Main Channel	900	Inl Struct	
Main Channel	895	.1	.3
Main Channel	893.75*	.1	.3
Main Channel	892.5*	.1	.3
Main Channel	891.25*	.1	.3
Main Channel	890	.1	.3

HEC-RAS Plan: DamFail100 River: Wedlers Creek Reach: Main Channel Profile: Max WS

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
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Main Channel	1015	Max WS	68.47	1557.00	1559.71		1559.72	0.000068	0.54	271.05	204.41	0.06
Main Channel	1010	Max WS	67.35	1552.30	1559.71		1559.71	0.000000	0.03	2056.33	440.58	0.00
Main Channel	1005	Max WS	66.38	1550.40	1559.71		1559.71	0.000000	0.02	3080.82	551.28	0.00
Main Channel	1002	Max WS	64.24	1549.50	1559.71		1559.71	0.000000	0.04	1543.26	278.06	0.00
Main Channel	1001	Max WS	64.08	1546.72	1559.71	1548.52	1559.71	0.000000	0.05	1183.56	278.06	0.00
Main Channel	1000		Inl Struct									
Main Channel	999	Max WS	2063.82	1543.80	1550.48		1551.60	0.010383	13.18	417.95	150.26	0.91
Main Channel	990	Max WS	1935.43	1526.80	1531.97		1532.51	0.010562	10.62	469.19	180.49	0.86
Main Channel	985	Max WS	1850.39	1513.00	1517.54		1518.26	0.012552	10.74	395.15	156.27	0.93
Main Channel	980	Max WS	1641.89	1486.40	1491.98		1492.37	0.007786	10.09	440.11	146.38	0.76
Main Channel	975	Max WS	1493.36	1482.40	1486.14		1486.21	0.003473	5.11	905.80	549.92	0.48
Main Channel	970	Max WS	919.36	1476.30	1478.62		1478.65	0.002242	2.98	783.14	585.59	0.35
Main Channel	965	Max WS	726.77	1473.30	1476.31		1476.33	0.001158	2.49	764.38	445.55	0.26
Main Channel	960	Max WS	395.40	1471.40	1473.45		1473.48	0.001457	2.07	532.47	707.75	0.27
Main Channel	955	Max WS	378.67	1469.30	1471.59		1471.64	0.002770	3.29	266.12	180.16	0.39
Main Channel	950	Max WS	352.75	1464.80	1468.33		1468.55	0.003418	4.84	126.92	50.55	0.47
Main Channel	945	Max WS	326.91	1461.60	1467.78		1467.79	0.000161	1.31	596.93	202.11	0.10
Main Channel	940	Max WS	328.33	1461.10	1467.78		1467.78	0.000016	0.34	2021.46	629.74	0.03
Main Channel	935	Max WS	327.59	1460.10	1467.78		1467.78	0.000027	0.50	1522.24	483.70	0.04
Main Channel	930	Max WS	326.84	1457.80	1467.71		1467.73	0.000167	1.43	306.61	111.56	0.10
Main Channel	925	Max WS	326.73	1454.80	1467.68	1459.22	1467.69	0.000060	1.05	315.22	43.09	0.07
Main Channel	900		Inl Struct									
Main Channel	895	Max WS	326.73	1454.00	1456.89	1457.46	1458.89	0.036924	13.40	39.29	21.05	1.46
Main Channel	890	Max WS	326.69	1451.10	1453.37	1453.24	1453.63	0.012893	6.76	124.32	121.63	0.83

Appendix E

Inundation Maps



0 230 460 920 1,380 1,840 Feet

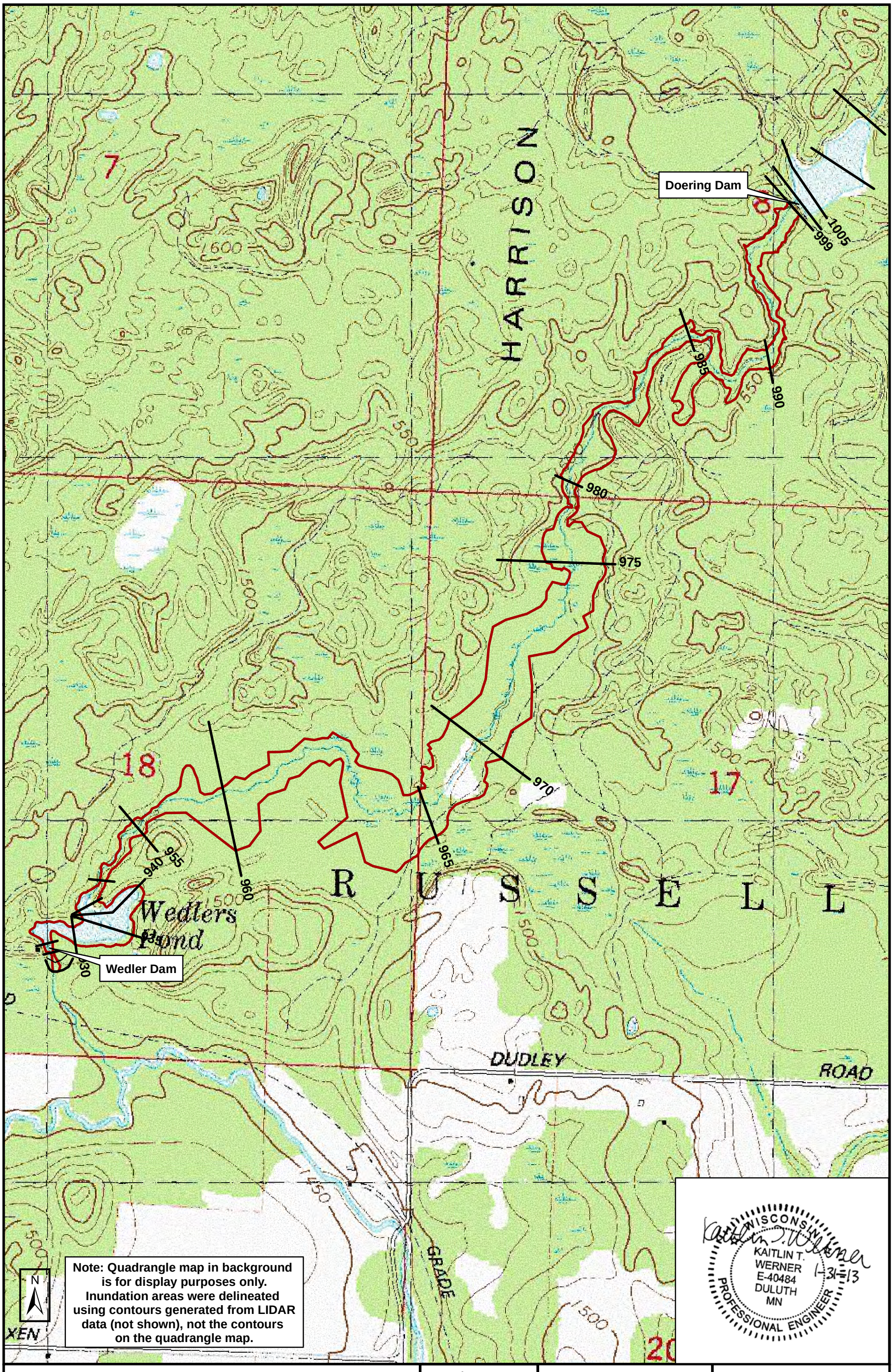
1 inch = 800 feet

Legend

- CrossSections
- NoDamNoFailure

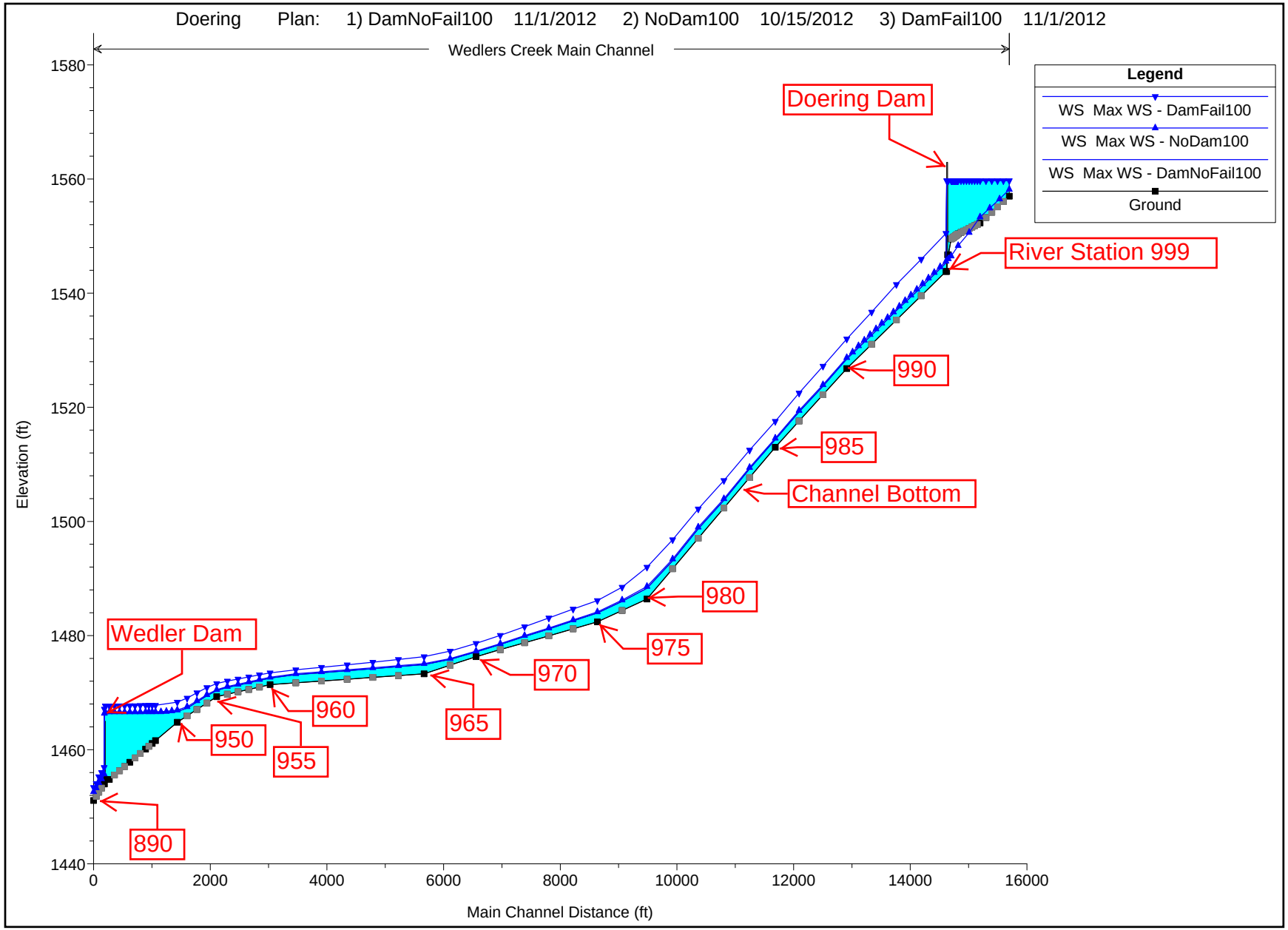
AYRES ASSOCIATES

Doering Dam
No Dam/Dam No Failure Map
November 2012


Doering Dam
Wedler Dam
Wedlers Pond
HARRISON
RUSSELL
DUDLEY
ROAD
GRADE
7
18
17
1005
999
990
985
980
975
970
965
960
955
940
930
Note: Quadrangle map in background is for display purposes only. Inundation areas were delineated using contours generated from LIDAR data (not shown), not the contours on the quadrangle map.
N
WISCONSIN
KAITLIN T. WERNER
E-40484
DULUTH
MN
PROFESSIONAL ENGINEER
1-31-13
0 230 460 920 1,380 1,840
Feet
1 inch = 800 feet
Legend
CrossSections
HydraulicShadow
AYRES ASSOCIATES
Doering Dam
Hydraulic Shadow Map
November 2012

Appendix F

Flood Profile


Doering Plan: 1) DamNoFail100 11/1/2012 2) NoDam100 10/15/2012 3) DamFail100 11/1/2012
Wedlers Creek Main Channel
Legend
WS Max WS - DamFail100
WS Max WS - NoDam100
WS Max WS - DamNoFail100
Ground
Doering Dam
River Station 999
990
985
Channel Bottom
980
975
970
965
960
955
950
Wedler Dam
890
Elevation (ft)
1440
1460
1480
1500
1520
1540
1560
1580
0
2000
4000
6000
8000
10000
12000
14000
16000
Main Channel Distance (ft)