



EXPIRES: 12/31/2022

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LEWIS RIVER FLOODWAY BOUNDARY (V2.2)

CLARK COUNTY & COWLITZ COUNTY
(NEAR WOODLAND), WA

Abstract

FIRM Map 53011C 0061D and FIRM Map 53015C 0886G and the Flood Insurance Study (FIS) Number 53011CV001B for Clark County, Washington and Incorporated Areas and FIS 53015CV001A for Cowlitz County, Washington should be modified to appropriately represent the flooding hazards in the corridor.

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ClarkCo-HEC-2_1616095477745
Woodland-HEC-2_1616095494274

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1 INTRODUCTION

The analysis is intended to demonstrate the location of the floodway boundary along the Lewis River in Cowlitz County and Clark County, Washington near Woodland, Washington as shown on FIRM Map 53011C 0061D and FIRM Map 53015C 0886G should be modified to appropriately represent the flooding hazards in the corridor. The Flood Insurance Study (FIS) Number 53011CV001B for Clark County, Washington and Incorporated Areas, Revised January 19, 2018 and 53015CV001A for Cowlitz County, Washington, Effective Date December 16, 2015 were used as the baseline for this analysis.

2 BACKGROUND

After consultation with FEMA it was determined there were two hydraulic models referenced in the Flood Insurance Study studies available for the Lewis River between RM 7.13 and RM 8.61. The two studies used different cross-section locations, different hydrology, and subsequently provided different results. The FIRM Maps show the differing cross-section locations (see figure 1). It was then determined a new study was warranted for the Lewis River between RM 7.69 and RM 8.61 to create one hydraulic model for the entire reach and eliminate the conflicting information published in the two existing studies.

The study area includes four primary cross sections which will be used in updating the Flood Insurance Studies and FIRM maps. Two additional cross sections were added to provide more detailed results at key locations within the study area for use by the local regulatory agencies.

Table 1: Study Area Cross-Section Locations

<u>River Mile (RM)</u>	<u>Clark County Cross Section</u>	<u>Cowlitz County Cross Section</u>	<u>Revised Study Cross Section</u>
7.69	"T"	"S"	"T"
8.13	"U"	"T"	"U"
8.21*			"1"
8.39	"V"	"U"	"V"
8.50*			"2"
8.61	"W"	"V"	"W"

* Additional cross sections added to provide more detailed results

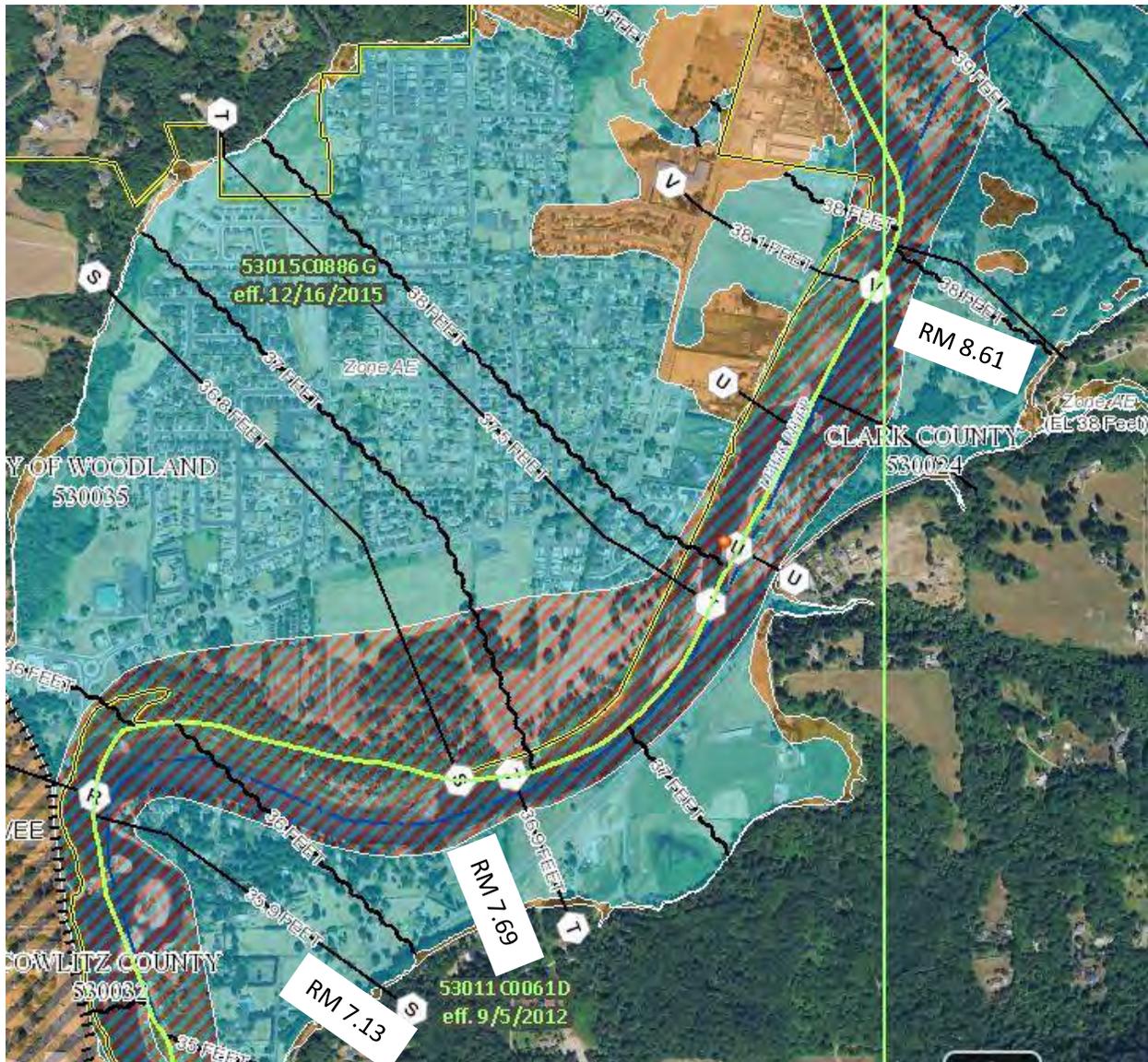


Figure 1: Study Area

3 AREA STUDIED

Stream Name: Lewis River

Limits of Detailed Study: RM 7.13 was used as the control section and was calibrated to match the existing effective model. The study evaluates the Lewis River from RM 7.69 to RM 8.61.

4 DATA / RESEARCH

4.1 FEMA REGULATIONS / GUIDANCE

Guidance for Flood Risk Analysis and Mapping, General Hydraulics Considerations, November 2016

Guidance for Flood Risk Analysis and Mapping, Riverine Mapping and Floodplain Boundaries Guidance, November 2019

Guidance for Flood Risk Analysis and Mapping, Floodway Analysis and Mapping, November 2019

Guidance for Flood Risk Analysis and Mapping, Hydraulics: One-Dimensional Analysis, November 2016

FEMA Policy Standards for Flood Risk Analysis and Mapping FEMA Policy #FP 204-078-1 (Rev 10)

Hazard Mitigation Assistance Technical Review, Job Aide Series, Flood Risk Reduction Technical Review, April 2017, Supplement No. T1.4.

Instructions for completed the application forms for conditional letters of map revision and letter of map revision, August 2018

FEMA Guidance for Flood Risk Analysis and Mapping, Documentation of Endangered Species Act Compliance for Conditional Letters of Map Change, May 2016

4.2 FLOOD HISTORY

The Lewis River originates in the Cascade Range and falls over 12,000 feet before emptying into the Columbia River. Topography of the basin is mountainous, and the watershed divides consist of rugged, well-defined ridges. The highest elevation in the basin is 12,307 feet (Mt. Adams); average elevation is 2,360 feet. High benches of comparatively level land are in the middle and lower sections of the basin. The total fall of Lewis River from its headwaters to its junction with Columbia River is 7,900 feet, an average of 112 feet per mile. In the 20 mile segment between the mouth and Lake Merwin Dam, Lewis River has an average fall of 2 feet per mile, and an average valley width of 1-mile. The average annual runoff is more than 90 inches. Reservoirs have been created along the main stem of the river by dams located approximately at RM 20 (Merwin Lake), RM 34 (Yale Lake), and RM 47 (Swift Reservoir).

On the Lewis River, the largest flood in recorded history occurred in December 1933. During that flood, the river rose at an average rate of 0.2 foot per hour for 48 hours and remained above bankfull stage for 30 hours. During the flood of November 1962, the third largest flood of record, the river rose at an average rate of 1.5 feet per hour for 9 hours as a result of opening the spillway gates at Ariel Dam. A maximum rate of 6 feet per hour was experienced during that rise, and the river remained above bankfull stage for 18 hours.

The construction of Merwin Dam located on the Lewis River near RM 19.23 was completed in 1931. While the available storage in the reservoir is sufficient to capture some storm water from many small to medium-sized events, some floods, especially large floods, exceed the limited available storage capability.

As a result, river releases below Merwin can be forced to high levels due to flooding events within the basin.

The 100 year floodplain within Clark County extends to Hayes Road and overtops Hayes Road in some areas.

4.2.1 Local Knowledge

Eugene (“Phil”) Back: Mr. Back lives at 4503 NW 416th St, Woodland, WA. He was interviewed on September 5, 2020. Mr. Back stated he had lived in the area for over 30 years. His recollection of the 1996 flood included showing a high water mark on his home. It was below the living area of the home but was approximately 7 ft above the ground (observed high water mark on building). He said the water went over Hayes Road. He also mentioned the small island in Lewis River [Cross-Section “V”] used to be the riverbank prior the 1996 flood. The river is very shallow during the summer with bars of sand and gravel this time of year upstream of the bend [Cross-Section “S”] and only boats with jet engines can safely go upstream. There are some locations where it is possible to walk most of the way across.

5 HYDROLOGY

On August 18, 1983, FEMA and the Pacific Power and Light Company agreed to make 70,000 acre-feet available for flood control storage at Merwin Dam on the Lewis River, thus reducing the 1-percent-annual-chance discharge at the City of Woodland from 128,000 cfs to 102,000 cfs.

The hydraulic model supporting the Cowlitz County FIS used the updated design flows. The hydraulic model supporting the Clark County HEC-RAS model use outdated hydrology values.

The hydrology in the Cowlitz County FIS was used for this study. No changes are proposed. FEMA concurred with the use of this hydrology.

Table 2: Lewis River - Hydrology

	Drainage Area (SQ. Miles)	10%-Annual Chance	2%-Annual Chance	1%-Annual Chance	0.2%-Annual Chance
Lewis River At Woodland	820	54,400	86,300	102,000	141,750

6 HYDRAULICS

6.1 MODELING APPROACH

The original effective models were prepared using HEC-2 and scanned copies of these models were obtained from FEMA (Clark County, Jan 1976) (Cowlitz County, September 1978, “J. Larson”) and are provide in Appendix A. A hydraulic model for the Lewis River in HEC-RAS (December 2018, “Star”) was obtained from the Clark County Public Works Department. This model was not considered an official effective model by FEMA. A new effective model was created as part of this study and reviewed by FEMA. HEC-RAS version 5.0.7 was used to evaluate base flood and floodway modeling results within the study area.

6.1.1 Topography

New ground topography was obtained from the Washington FEMA 3DEP 2018 LiDAR Technical Data Report and was prepared by Minister & Glaeser Surveying, Inc. FEMA allowed the use of the hydrography from the original effective model. Great care was applied to adjust this information to the correct datum and horizontally adjust the hydrographic topography to match the 2018 LiDAR data. Additional cross-section locations used extrapolated hydrography from the nearby cross-section that best represented the river geometry. The detailed spreadsheet used to extrapolate and adjust the cross-section information is available upon request. All Hydraulic and floodway modeling results are reported in the NAVD88 datum.

6.2 EXISTING CONDITIONS

Table 3: Lewis River – Clark County FEMA Flood Data (1/19/2018)

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
Cross Section	Distance ⁽¹⁾	Width (FT)	Section Area (Sq Ft)	Mean Velocity (FPS)	Regulatory	Without Floodway	With Floodway	Increase
T	7.69	1,466 / 166 ⁽²⁾	22,075	4.6	36.9	36.9	37.8	0.9
U	8.13	716 / 385 ⁽²⁾	17,283	5.9	37.6	37.6	38.5	0.9
V	8.39	851 / 490 ⁽²⁾	17,418	5.9	38.0	38.0	38.8	0.8
W	8.61	512 / 212 ⁽²⁾	12,213	8.4	38.2	38.2	39.0	0.8

⁽¹⁾Stream distance in miles above mouth

⁽²⁾Width/Width within county limits

Table 4: Lewis River - Cowlitz County FEMA Flood Data (12/16/2015)

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
Cross Section	Distance ⁽¹⁾	Width (FT)	Section Area (Sq Ft)	Mean Velocity (FPS)	Regulatory	Without Floodway	With Floodway	Increase
S	7.69	1,462 / 1,138 ⁽²⁾	21,911	4.7	36.8	36.8	37.6	0.8
T	8.13	716 / 436 ⁽²⁾	17,283	5.9	37.5	37.5	38.4	0.9
U	8.39	851 / 361 ⁽²⁾	17,418	5.9	37.9	37.9	38.7	0.8
V	8.61	512 / 308 ⁽²⁾	12,213	8.4	38.1	38.1	38.9	0.8

⁽¹⁾Stream distance in miles above mouth

⁽²⁾Width/Width within county limits

6.3 BASE FLOOD CALIBRATION

A new effective model was calibrated to the Cowlitz County effective model and flood data starting at RM 7.13. This cross section includes the original topography and hydrography used in the original study and hydraulic model. FEMA concurred with the calibration of the model and the corrected effective model (Table 5 and Appendix B).

6.4 REVISED FLOODPLAIN & FLOODWAY

A new effective floodway model was also created using the corrected effective model. FEMA concurred with the corrected floodway model (Table 5 and Appendix C).

Table 5: Lewis River - Revised Flood Data (5/13/2021)

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
Cross Section	Distance ⁽¹⁾	Width (FT)	Section Area (Sq Ft)	Mean Velocity (FPS)	Regulatory	Without Floodway	With Floodway	Increase
T	7.69	1550	24,697	4.13	36.97	36.97	37.76	0.79
U	8.13	674	15,681	6.50	37.32	37.32	38.20	0.88
1	8.21	725	16,680	6.12	37.49	37.49	38.42	0.93
V	8.39	625	16,897	6.04	37.76	37.76	38.71	0.95
2	8.50	625	15,655	6.52	37.82	37.82	38.82	1.0
W	8.61	600	14,967	6.82	37.99	37.99	38.99	1.0

⁽¹⁾Stream distance in miles above mouth

⁽²⁾See Appendix B & C for Hydraulic Model Output

6.5 REVISED FLOODPLAIN & FLOODWAY WORK MAP

A work map has been developed showing the limits of the revised floodplain and floodway. FEMA has reviewed and concurred with the line work shown on the work map provided in Figure 2.

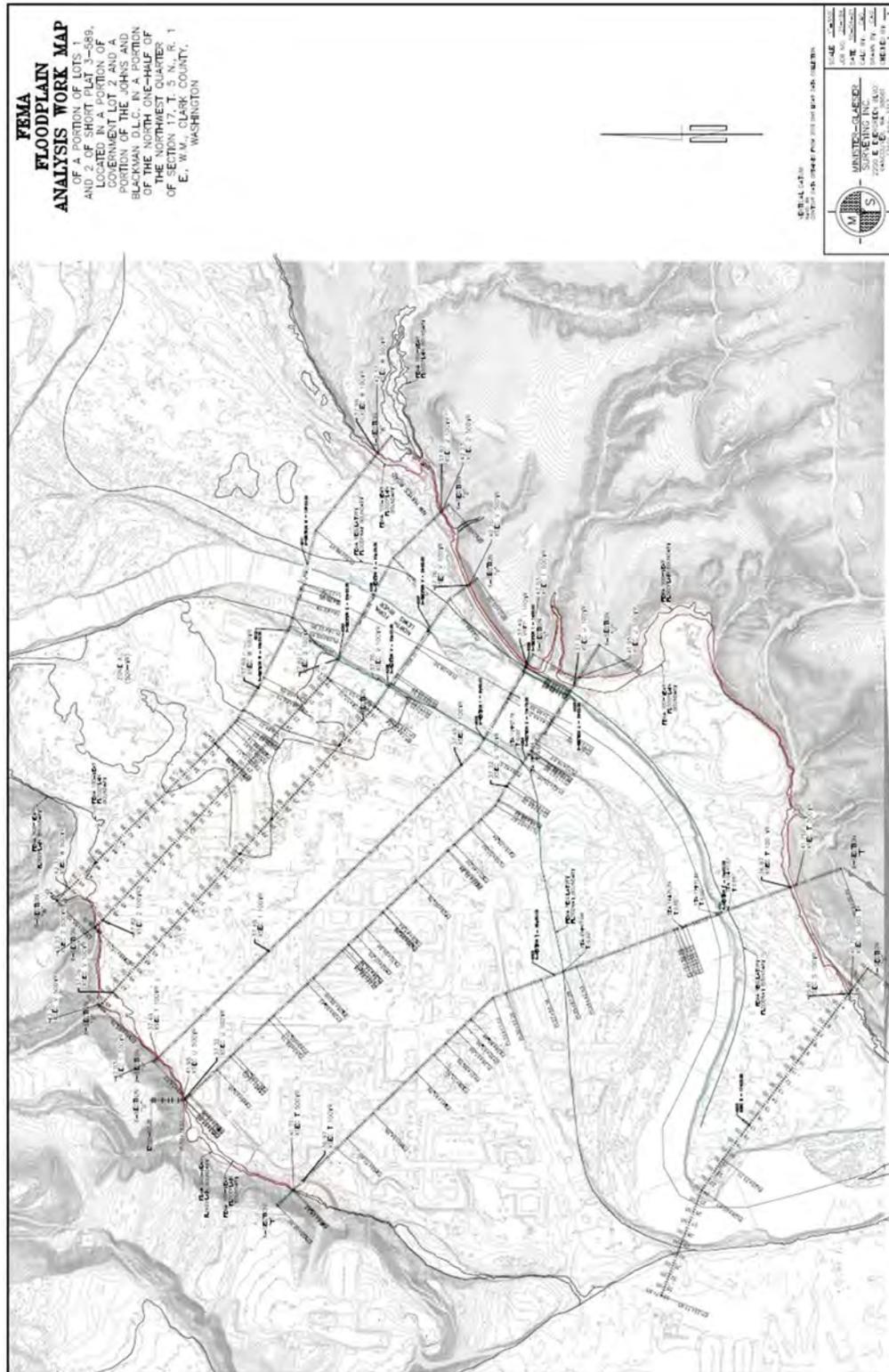


Figure 2: FEMA Floodplain Analysis Work Map

APPENDIX A: HEC-2 EFFECTIVE / FLOODWAY MODEL

ClarkCo-HEC-2_1616095477745 (HEC-2 Print)

Woodland-HEC-2_1616095494274 (HEC-2 Print)

WOODLAND 6.A

 HEC7 VERSION UPDATED JAN 1976
 ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
 MODIFICATIONS 52,53,54,55,56,57,58,99

C 1.730 B.N. AND U.P. RAILROAD BRIDGE
 C 3.700 ABOVE EAST FORK LEWIS RIVER
 C 5.350 I-5 HIGHWAY BRIDGE -SOUTHBOUND
 C 5.390 I-5 HIGHWAY BRIDGE -NORTHBOUND
 C 6.490 WOODLAND HIGHWAY BRIDGE
 C 9.850 UPPER LIMIT OF FLOOD INSURANCE STUDY
 T1 FLOOD PLAIN INFORMATION - WATER SURFACE PROFILES
 T2 FPM5 SECTION
 T3 LEWIS RIVER 100 YR. FLOOD

J1	ICHECK	INO	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	5.	0.	0.	0.0	0.0	-1.0	0.	17.100	0.0
J2	NPROF	I PLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	0.0	-1.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
J3	38.000	26.000	17.000	13.000	14.000	15.000	4.000	42.000	43.000	36.000
NC	0.060	0.040	0.036	0.100	0.300	0.0	0.0	0.0	0.0	0.0
BT	8.000	1400.000	90000.000	133000.000	155000.000	210000.000	155000.000	160000.000	87000.000	0.0
NH	7.000	0.070	600.000	0.050	700.000	0.060	1000.000	0.037	1300.000	0.050
NH	1460.000	0.032	1961.000	0.050	2100.000	0.0	0.0	0.0	0.0	0.0
ET	0.670	0.0	0.0	0.0	0.0	0.0	9.100	0.0	350.000	1985.000
X1	0.670	41.000	1000.000	1985.000	0.0	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	50.000	0.0	20.000	150.000	7.000	250.000	12.000	350.000	15.000	550.000
GR	10.000	600.000	5.000	650.000	5.000	700.000	12.000	750.000	8.000	800.000
GR	12.000	850.000	12.000	950.000	8.000	1000.000	4.000	1100.000	1.000	1150.000
GR	4.000	1250.000	6.000	1300.000	10.000	1400.000	7.800	1460.000	2.400	1480.000
GR	1.000	1500.000	-2.800	1520.000	-4.000	1540.000	-6.000	1580.000	-6.600	1680.000
GR	-7.600	1750.000	-6.500	1800.000	-7.000	1850.000	-8.000	1900.000	-9.000	1910.000
GR	-9.500	1920.000	-7.000	1930.000	6.000	1950.000	13.000	1961.000	29.000	1985.000
GR	29.800	2000.000	28.500	2014.000	23.000	2022.000	18.000	2040.000	17.000	2050.000
GR	16.500	2100.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.060	0.060	0.032	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	1.190	0.0	0.0	0.0	0.0	0.0	9.100	0.0	1050.000	1985.000
X1	1.190	32.000	1150.000	1985.000	2600.000	2800.000	2800.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	19.100	29.600	0.0
GR	12.000	0.0	15.000	900.000	21.000	1060.000	18.000	1150.000	13.000	1200.000
GR	6.000	1230.000	5.000	1280.000	2.600	1350.000	1.500	1400.000	-1.000	1450.000
GR	-0.500	1500.000	-1.500	1530.000	-2.500	1580.000	-3.500	1620.000	-4.500	1650.000
GR	-5.000	1680.000	-4.000	1700.000	-6.500	1740.000	-7.500	1800.000	-7.500	1850.000
GR	-2.000	1900.000	6.000	1915.000	21.000	1974.000	29.000	1985.000	29.600	2000.000
GR	29.000	2015.000	25.500	2020.000	23.000	2035.000	21.000	2056.000	18.500	2069.000
GR	16.500	2105.000	15.500	2150.000	0.0	0.0	0.0	0.0	0.0	0.0
ET	1.700	0.0	0.0	0.0	0.0	0.0	9.100	0.0	100.000	945.000
X1	1.700	42.000	100.000	945.000	2700.000	2700.000	2700.000	0.0	0.0	0.0

GR	19.000	0.0	19.000	60.000	21.000	87.000	21.000	100.000	16.000	125.000
GR	8.000	155.000	4.200	200.000	1.400	210.000	-5.000	225.000	-8.200	240.000
GR	-11.000	200.000	-12.200	270.000	-8.700	285.000	-4.000	300.000	-1.400	320.000
GR	-1.200	340.000	-5.000	350.000	-9.200	360.000	-12.200	380.000	-9.700	400.000
GR	-2.700	435.000	0.500	460.000	-9.700	500.000	-11.200	510.000	-10.200	530.000
GR	-5.200	555.000	-4.700	570.000	-10.700	585.000	-10.700	600.000	-12.700	615.000
GR	-11.200	635.000	-9.700	650.000	-4.700	680.000	-3.200	700.000	-3.100	710.000
GR	-0.200	725.000	8.000	790.000	18.000	850.000	22.000	900.000	29.300	945.000
GR	29.300	960.000	29.300	1030.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.065	0.065	0.035	0.300	0.800	0.0	0.0	0.0	0.0	0.0
ET	1.730	0.0	0.0	0.0	0.0	0.0	9.100	0.0	100.000	907.000

X1	1.730	59.000	100.000	907.000	150.000	150.000	150.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	29.500	29.500	0.0
GR	35.700	0.0	35.700	50.000	35.100	100.000	27.400	100.000	27.400	104.000
GR	18.800	104.000	18.400	127.000	20.900	128.000	13.100	144.000	7.000	153.000
GR	4.500	164.000	2.100	188.000	4.200	215.000	1.800	226.000	-0.900	249.000
GR	1.300	262.000	1.300	278.000	-1.600	300.000	-1.800	320.000	4.100	343.000
GR	2.600	357.000	2.800	368.000	-3.400	389.000	-1.100	400.000	-0.300	417.000
GR	-0.300	437.000	-4.800	460.000	-4.800	475.000	-0.300	509.000	-2.800	526.000
GR	-10.000	544.000	-10.300	564.000	-10.300	588.000	-2.100	600.000	4.900	616.000
GR	1.000	627.000	-5.100	651.000	-4.300	677.000	-4.300	696.000	-5.800	722.000
GR	3.400	744.000	5.700	758.000	-1.500	770.000	-2.000	785.000	-3.700	800.000
GR	0.100	821.000	7.000	839.000	9.200	848.000	16.800	862.000	17.800	878.000
GR	18.100	892.000	20.400	896.000	20.400	902.000	26.900	902.000	26.900	906.900
GR	34.100	907.000	35.600	945.000	35.500	975.000	35.400	1000.000	0.0	0.0
SB	0.950	1.190	2.650	1200.000	800.000	0.0	23120.000	0.0	0.0	0.0
ET	1.740	0.0	0.0	0.0	0.0	0.0	9.100	0.0	100.000	907.000

X1	1.740	0.0	0.0	0.0	32.000	32.000	32.000	1.000	0.0	0.0
X2	0.0	0.0	1.000	29.500	35.800	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	35.800	35.800	0.0
ET	1.750	0.0	0.0	0.0	0.0	0.0	9.100	0.0	100.000	950.000

X1	1.750	44.000	128.000	890.000	50.000	50.000	50.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	100.000	0.0	965.000	0.0	0.0	0.0	0.0
GR	20.000	0.0	19.000	100.000	18.400	127.000	20.900	128.000	13.100	140.000
GR	8.000	156.000	5.200	214.000	-2.600	236.000	-4.700	255.000	2.700	280.000
GR	2.200	298.000	1.700	320.000	0.300	353.000	0.100	378.000	-0.600	403.000
GR	-1.300	423.000	-1.700	443.000	-1.700	463.000	-0.400	483.000	1.400	503.000
GR	-4.800	521.000	-5.000	548.000	-6.400	573.000	-6.600	596.000	-5.800	616.000
GR	-5.300	642.000	-5.200	666.000	-4.800	688.000	-5.700	712.000	-5.300	733.000
GR	-4.900	756.000	-3.800	776.000	-3.000	796.000	-2.800	810.000	-3.200	823.000
GR	-2.200	833.000	5.200	850.000	8.000	858.000	18.000	890.000	20.000	920.000
GR	31.000	965.000	31.000	975.000	20.000	990.000	20.000	1000.000	0.0	0.0
NC	0.070	0.060	0.035	0.010	0.030	0.0	0.0	0.0	0.0	0.0
ET	2.380	0.0	0.0	0.0	0.0	0.0	9.100	0.0	700.000	2490.000

X1	2.380	53.000	1600.000	2490.000	3000.000	3500.000	3300.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	40.000	0.0	15.000	100.000	16.000	1400.000	16.800	1500.000	16.800	1525.000
GR	17.400	1568.000	18.000	1600.000	15.000	1622.000	8.500	1645.000	8.300	1700.000
GR	8.000	1750.000	7.400	1772.000	6.600	1800.000	5.800	1833.000	4.600	1846.000
GR	3.300	1876.000	2.100	1908.000	1.600	1938.000	0.500	1982.000	0.300	2018.000
GR	0.400	2094.000	0.800	2126.000	1.600	2166.000	-0.600	2214.000	-0.600	2230.000
GR	-0.400	2240.000	-0.400	2249.000	-0.600	2268.000	-1.000	2282.000	-0.400	2294.000
GR	-0.400	2315.000	-1.400	2335.000	-1.200	2352.000	-1.900	2375.000	-2.000	2393.000
GR	-3.900	2407.000	-4.700	2417.000	1.800	2427.000	6.600	2434.000	13.300	2443.000
GR	18.000	2454.000	20.500	2465.000	24.600	2477.000	30.400	2490.000	31.000	2500.000
GR	30.700	2513.000	24.800	2527.000	18.800	2555.000	16.300	2575.000	15.600	2600.000
GR	16.000	3100.000	17.000	3499.000	40.000	3500.000	0.0	0.0	0.0	0.0
NC	0.090	0.060	0.035	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	2.980	0.0	0.0	0.0	0.0	0.0	9.100	0.0	240.000	790.000

X1	2.980	54.000	241.000	802.000	2700.000	1000.000	3200.000	0.0	0.0	0.0
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GR	40.000	0.0	40.000	200.000	40.000	225.000	33.300	231.000	15.300	241.000
GR	10.400	255.000	7.000	264.000	5.200	272.000	1.300	292.000	0.100	297.000
GR	-3.200	376.000	-4.000	355.000	-4.600	383.000	-3.700	419.000	-3.500	455.000
GR	-3.000	491.000	-2.300	512.000	-2.000	527.000	-1.800	535.000	-1.800	541.000
GR	-1.400	554.000	-1.200	561.000	-0.100	580.000	0.200	592.000	0.0	602.000
GR	0.300	609.000	0.700	622.000	1.000	635.000	1.700	652.000	2.000	668.000
GR	2.000	680.000	2.300	686.000	2.300	696.000	1.500	708.000	-1.800	715.000
GR	4.400	721.000	7.000	725.000	13.100	740.000	18.900	752.000	20.000	765.000
GR	28.100	785.000	31.500	790.000	32.000	802.000	31.300	813.000	27.000	822.000
GR	27.700	834.000	24.400	845.000	19.700	867.000	18.000	880.000	16.200	887.000
GR	17.500	892.000	17.200	905.000	17.500	1799.000	40.000	1800.000	0.0	0.0
ET	3.180	0.0	0.0	0.0	0.0	0.0	9.100	0.0	240.000	790.000
K1	3.180	0.0	0.0	0.0	1100.000	1100.000	1100.000	1.000	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NH	4.000	0.090	51.000	0.035	520.000	0.070	1100.000	0.060	2150.000	0.0
ET	0.0	0.0	0.0	0.0	0.0	0.0	9.100	0.0	20.000	1132.000
K1	3.380	40.000	51.000	1132.000	1150.000	500.000	1050.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	35.000	0.0	15.300	51.000	10.400	65.000	7.000	74.000	5.200	82.000
GR	1.300	102.000	0.100	107.000	-3.200	136.000	-4.000	165.000	-4.600	193.000
GR	-3.700	229.000	-3.500	265.000	-3.000	300.000	-2.300	322.000	-2.000	337.000
GR	-1.800	345.000	-1.800	351.000	-1.400	364.000	-1.200	371.000	-0.100	390.000
GR	-0.200	402.000	0.0	412.000	0.300	419.000	0.700	432.000	1.000	445.000
GR	3.000	460.000	7.000	480.000	10.000	500.000	15.000	520.000	19.000	550.000
GR	17.000	800.000	20.000	1100.000	24.000	1117.000	31.800	1132.000	31.800	1150.000
GR	19.000	1206.000	18.500	1250.000	16.800	1450.000	19.000	2149.000	40.000	2150.000
GT	8.000	1300.000	71000.000	109000.000	128000.000	178000.000	128000.000	141000.000	80000.000	0.0
NH	4.000	0.070	2000.000	0.035	2670.000	0.090	3090.000	0.060	4150.000	0.0
ET	3.700	0.0	0.0	0.0	0.0	0.0	9.100	0.0	600.000	3140.000
K1	3.700	39.000	1840.000	3140.000	2500.000	450.000	1800.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	600.000	0.0	0.0	0.0	0.0	25.500	0.0
GR	35.000	0.0	30.000	70.000	26.000	100.000	25.200	250.000	25.500	600.000
GR	25.500	800.000	26.000	1600.000	26.200	1840.000	25.000	1850.000	20.000	1870.000
GR	15.000	1890.000	15.000	1930.000	19.000	1970.000	15.000	1980.000	10.000	2000.000
GR	5.000	2020.000	0.0	2060.000	-2.000	2100.000	-3.500	2150.000	-3.500	2200.000
GR	-2.000	2250.000	0.0	2400.000	3.000	2500.000	5.000	2600.000	10.000	2660.000
GR	15.000	2670.000	20.000	2685.000	22.500	2710.000	20.000	2930.000	19.000	3000.000
GR	20.000	3090.000	30.300	3130.000	31.000	3140.000	31.000	3155.000	30.000	3170.000
GR	25.000	3190.000	20.000	3220.000	20.000	4149.000	40.000	4150.000	0.0	0.0
NC	0.065	0.060	0.032	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	3.900	0.0	0.0	0.0	0.0	0.0	9.100	0.0	100.000	2005.000
X1	3.900	35.000	1320.000	2005.000	1400.000	400.000	1150.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	40.000	0.0	20.000	40.000	17.000	60.000	16.000	500.000	17.000	1000.000
GR	18.000	1200.000	20.000	1300.000	24.800	1310.000	24.800	1320.000	20.000	1340.000
GR	19.000	1370.000	21.000	1410.000	20.000	1420.000	10.000	1445.000	5.000	1455.000
GR	2.000	1470.000	1.000	1500.000	0.0	1600.000	-2.000	1660.000	-3.500	1730.000
GR	-2.000	1800.000	0.0	1880.000	2.000	1910.000	5.000	1930.000	10.000	1950.000
GR	20.000	1960.000	25.000	1970.000	28.000	1995.000	32.200	2005.000	32.200	2020.000
GR	27.000	2045.000	23.000	2060.000	20.000	2150.000	23.000	2999.000	40.000	3000.000
NC	0.070	0.060	0.035	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	4.290	0.0	0.0	0.0	0.0	0.0	9.100	0.0	72.000	1735.000
K1	4.290	75.000	1183.000	1735.000	2000.000	1900.000	2000.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	50.000	0.0	40.000	26.000	25.000	50.000	22.200	72.000	19.900	102.000
GR	19.100	140.000	19.300	190.000	19.500	240.000	20.100	290.000	20.100	340.000
GR	20.300	390.000	19.300	440.000	19.800	490.000	18.400	540.000	17.100	590.000
GR	18.300	640.000	18.500	690.000	18.400	706.000	18.700	740.000	19.600	770.000
GR	19.200	802.000	17.300	835.000	17.800	852.000	19.200	925.000	19.300	932.000
GR	15.000	941.000	18.000	948.000	21.900	966.000	21.600	980.000	17.900	946.000

GR	21.500	1140.000	22.000	1163.000	22.700	1183.000	22.500	1185.000	16.300	1201.000
GR	10.600	1204.000	8.300	1215.000	5.100	1219.000	2.700	1235.000	1.700	1250.000
GR	2.100	1275.000	2.800	1310.000	2.600	1375.000	1.800	1390.000	1.800	1457.000
GR	1.100	1468.000	-0.700	1490.000	-1.200	1496.000	-1.900	1510.000	-1.500	1531.000
GR	-2.100	1557.000	-2.200	1579.000	-2.200	1606.000	-2.700	1629.000	-3.500	1651.000
GR	-3.500	1669.000	1.300	1677.000	4.000	1679.000	8.300	1687.000	18.000	1699.000
GR	22.600	1708.000	27.700	1717.000	27.800	1721.000	30.700	1729.000	33.000	1735.000
GR	3.000	1741.000	32.500	1747.000	22.900	1778.000	21.000	2749.000	40.000	2750.000
NC	0.065	0.060	0.032	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	5.010	0.0	0.0	0.0	0.0	0.0	9.100	0.0	200.000	1242.000

X1	5.010	79.000	497.000	1242.000	3700.000	4000.000	4000.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	42.100	0.0	44.700	30.000	44.300	37.000	40.600	44.000	34.600	56.600
GR	28.900	67.000	23.300	76.000	21.800	83.000	21.900	89.000	21.900	90.000
GR	22.200	140.000	22.400	199.000	21.200	247.000	23.100	290.000	23.200	340.000
GR	23.500	364.000	23.600	402.000	23.000	443.000	21.300	472.000	20.900	497.000
GR	18.600	508.000	18.400	523.000	10.700	533.000	6.900	545.000	5.700	556.000
GR	4.300	580.000	4.600	616.000	5.400	643.000	5.400	680.000	4.300	698.000
GR	3.700	717.000	3.300	763.000	3.000	790.000	2.800	832.000	2.500	856.000
GR	2.400	875.000	2.000	879.000	1.700	940.000	1.900	952.000	1.600	963.000
GR	0.600	975.000	0.500	990.000	-0.300	1003.000	-0.500	1015.000	-1.000	1028.000
GR	-1.300	1044.000	-1.600	1056.000	-2.100	1068.000	-1.900	1075.000	-2.600	1085.000
GR	-3.300	1097.000	-5.000	1111.000	-1.100	1121.000	2.600	1125.000	6.900	1132.000
GR	11.800	1140.000	16.300	1148.000	22.500	1162.000	22.900	1182.000	23.400	1192.000
GR	27.400	1208.000	31.200	1217.000	32.000	1226.000	34.500	1242.000	34.500	1254.000
GR	32.500	1290.000	31.200	1329.000	25.200	1347.000	21.500	1360.000	21.000	1384.000
GR	21.000	1413.000	24.900	1422.000	25.400	1431.000	25.100	1451.000	24.200	1459.000
GR	24.000	1465.000	22.400	1490.000	22.000	1750.000	40.000	1755.000	0.0	0.0
ET	5.270	0.0	0.0	0.0	0.0	0.0	9.100	0.0	46.000	668.000

X1	5.270	32.000	160.000	668.000	1200.000	1600.000	1400.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	44.000	0.0	40.000	14.000	30.000	46.000	24.000	62.000	22.000	160.000
GR	20.000	164.000	10.000	184.000	8.000	190.000	6.000	200.000	4.000	225.000
GR	4.000	260.000	5.000	290.000	3.000	325.000	1.000	360.000	0.0	400.000
GR	-2.000	450.000	-3.000	500.000	-2.000	550.000	2.000	590.000	6.000	600.000
GR	10.000	610.000	22.500	630.000	23.000	640.000	27.000	650.000	32.000	666.000
GR	34.800	668.000	34.800	680.000	32.000	690.000	24.000	715.000	20.000	740.000
GR	20.000	1180.000	40.000	1185.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.070	0.070	0.035	0.300	0.800	0.0	0.0	0.0	0.0	0.0

X1	5.350	19.000	200.000	1005.000	500.000	500.000	500.000	0.687	0.0	0.0
X3	0.0	0.0	0.0	70.000	0.0	1200.000	0.0	0.0	0.0	0.0
GR	44.000	0.0	24.000	60.000	24.000	180.000	22.000	200.000	10.000	225.000
GR	8.000	245.000	6.000	280.000	2.000	390.000	2.000	500.000	-2.000	600.000
GR	-2.000	700.000	0.0	770.000	2.000	900.000	4.000	960.000	10.000	980.000
GR	22.000	1005.000	24.000	1050.000	24.000	1250.000	44.000	1310.000	0.0	0.0
ET	5.390	0.0	0.0	0.0	0.0	0.0	9.100	0.0	225.000	1280.000
SB	1.250	1.500	2.500	1300.000	200.000	16.000	24500.000	9.000	-4.000	-4.000

X1	5.390	20.000	328.000	1080.000	133.000	133.000	133.000	0.704	0.0	0.0
X2	0.0	0.0	1.000	40.000	45.600	0.0	0.0	0.0	0.0	0.0
GR	45.600	0.0	40.000	212.000	32.000	231.000	24.000	245.000	22.000	328.000
GR	10.000	360.000	0.0	380.000	-2.000	400.000	-2.000	480.000	0.0	540.000
GR	-2.000	590.000	-5.000	730.000	-4.500	800.000	0.0	870.000	1.700	940.000
GR	2.000	1020.000	10.000	1045.000	22.000	1080.000	25.000	1250.000	40.000	1310.000
ET	5.420	0.0	0.0	0.0	0.0	0.0	9.100	0.0	216.000	1267.000
SB	1.250	1.500	2.500	1300.000	200.000	16.000	24500.000	9.000	-5.000	-5.000

X1	5.420	19.000	380.000	1170.000	108.000	108.000	108.000	0.704	0.0	0.0
X2	0.0	0.0	1.000	40.000	45.600	0.0	0.0	0.0	0.0	0.0
GR	42.000	0.0	42.000	203.000	24.000	250.000	25.000	380.000	20.000	410.000
GR	5.000	445.000	0.0	470.000	-5.000	530.000	-5.000	565.000	0.0	570.000
GR	2.000	600.000	0.0	1030.000	4.000	1090.000	6.000	1115.000	10.000	1125.000
GR	20.000	1160.000	26.000	1170.000	26.000	1220.000	42.000	1280.000	0.0	0.0

NC	0.100	0.070	0.035	0.100	0.300	0.0	0.0	0.0	0.0	0.0	0.0
ET	5.480	0.0	0.0	0.0	0.0	0.0	9.100	0.0	20.000	590.000	0.0
X1	5.480	14.000	60.000	525.000	350.000	350.000	350.000	0.0	0.0	0.0	0.0
GR	50.000	0.0	10.000	60.000	0.0	80.000	-5.000	90.000	-6.000	100.000	0.0
GR	-5.000	200.000	-4.000	300.000	-1.000	400.000	0.0	450.000	5.000	490.000	0.0
GR	15.000	505.000	23.000	525.000	23.000	555.000	42.000	600.000	0.0	0.0	0.0
NC	0.080	0.070	0.035	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	5.940	0.0	0.0	0.0	0.0	0.0	9.100	0.0	200.000	1500.000	0.0
X1	5.940	70.000	562.000	1183.000	2750.000	2150.000	2500.000	0.0	0.0	0.0	0.0
GR	30.300	0.0	30.100	11.000	29.800	22.000	29.100	32.000	20.000	48.000	0.0
GR	20.200	95.000	20.400	117.000	24.300	133.000	24.100	179.000	23.800	209.000	0.0
GR	24.400	288.000	22.200	304.000	22.100	378.000	21.600	406.000	22.400	439.000	0.0
GR	22.700	471.000	22.500	501.000	22.200	540.000	23.800	562.000	21.100	565.000	0.0
GR	12.500	577.000	8.200	598.000	7.400	614.000	6.100	674.000	5.100	808.000	0.0
GR	3.700	859.000	3.400	901.000	2.900	940.000	0.500	959.000	0.0	977.000	0.0
GR	-0.500	989.000	-0.200	1006.000	-1.100	1029.000	-0.500	1041.000	-1.100	1052.000	0.0
GR	-0.900	1064.000	-0.900	1072.000	-0.500	1086.000	-0.200	1107.000	-0.600	1122.000	0.0
GR	0.500	1138.000	3.600	1141.000	7.400	1148.000	13.700	1158.000	21.200	1172.000	0.0
GR	25.900	1183.000	25.100	1193.000	25.200	1201.000	24.900	1220.000	25.000	1248.000	0.0
GR	25.800	1274.000	24.600	1309.000	24.700	1323.000	24.500	1361.000	24.900	1403.000	0.0
GR	24.500	1409.000	23.800	1426.000	24.300	1459.000	24.000	1502.000	26.500	1508.000	0.0
GR	25.800	1521.000	26.000	1556.000	29.600	1570.000	34.000	1587.000	35.200	1596.000	0.0
GR	36.000	1624.000	35.900	1649.000	33.100	1668.000	36.000	1685.000	36.500	1709.000	0.0
NC	0.090	0.070	0.035	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	6.360	0.0	0.0	0.0	0.0	0.0	9.100	0.0	535.000	1400.000	0.0
X1	6.360	26.000	600.000	1180.000	1950.000	2350.000	2150.000	0.0	0.0	0.0	0.0
GR	45.000	0.0	40.000	170.000	35.000	220.000	30.000	250.000	29.000	300.000	0.0
GR	26.000	520.000	25.000	600.000	15.000	620.000	6.000	640.000	0.0	700.000	0.0
GR	-2.000	800.000	-3.000	850.000	-3.000	900.000	-2.000	930.000	6.000	1020.000	0.0
GR	6.000	1120.000	10.000	1140.000	15.000	1160.000	20.000	1170.000	25.000	1180.000	0.0
GR	25.000	1300.000	26.000	1470.000	30.000	1550.000	35.000	1620.000	35.000	1720.000	0.0
GR	38.000	1760.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.300	0.800	0.0	0.0	0.0	0.0	0.0	0.0
ET	6.490	0.0	0.0	0.0	0.0	0.0	9.100	0.0	281.000	836.000	0.0
X1	6.490	59.000	326.000	780.000	700.000	700.000	700.000	0.0	0.0	0.0	0.0
X4	2.000	40.500	265.000	38.700	855.000	0.0	0.0	0.0	0.0	0.0	0.0
GR	56.000	0.0	55.900	14.000	53.300	33.000	51.200	49.000	52.400	76.000	0.0
GR	51.000	100.000	48.900	140.000	48.400	156.000	47.900	200.000	48.900	247.000	0.0
GR	49.500	264.000	37.700	281.000	26.900	299.000	26.600	326.000	14.400	341.000	0.0
GR	9.700	353.000	6.300	363.000	6.500	368.000	6.300	373.000	6.000	385.000	0.0
GR	6.400	398.000	6.000	415.000	2.500	427.000	-1.000	445.000	-1.500	450.000	0.0
GR	-1.800	479.000	-2.000	492.000	-2.000	525.000	-2.300	533.000	-2.300	545.000	0.0
GR	-2.900	550.000	-3.400	568.000	-3.000	576.000	-2.800	593.000	-3.100	621.000	0.0
GR	-1.700	650.000	0.700	670.000	3.700	688.000	8.400	715.000	9.700	732.000	0.0
GR	10.500	747.000	13.700	760.000	26.300	780.000	27.600	816.000	36.800	826.000	0.0
GR	49.500	856.000	48.500	900.000	47.000	950.000	45.000	1000.000	43.000	1050.000	0.0
GR	41.000	1100.000	38.200	1156.000	37.000	1187.000	36.100	1254.000	35.000	1400.000	0.0
GR	34.500	1450.000	35.000	1680.000	48.000	1750.000	48.800	1770.000	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	0.0	9.100	0.0	281.000	836.000	0.0
ET	6.500	0.0	0.0	0.0	0.0	0.0	9.100	0.0	281.000	836.000	0.0
SB	0.950	1.200	3.000	0.0	219.000	16.000	1980.000	4.500	-3.400	-3.400	0.0
X1	6.500	0.0	0.0	0.0	35.000	35.000	35.000	1.000	0.0	0.0	0.0
X2	0.0	0.0	1.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BT	13.000	264.000	49.500	40.900	398.000	52.300	43.500	550.000	52.800	44.700	0.0
BT	638.000	52.400	44.000	856.000	49.500	40.800	1100.000	41.000	41.000	1156.000	0.0
BT	38.200	38.200	1187.000	37.000	37.000	1254.000	36.100	36.100	1400.000	35.000	0.0
BT	35.000	1450.000	34.500	34.500	1680.000	35.000	35.000	1750.000	48.000	48.000	0.0
NC	0.075	0.075	0.038	0.100	0.300	0.0	0.0	0.0	0.0	0.0	0.0
ET	6.560	0.0	0.0	0.0	0.0	0.0	9.100	0.0	220.000	950.000	0.0

GR	56.000	0.0	56.000	25.000	50.000	60.000	50.000	80.000	45.000	120.000
GR	40.300	130.000	35.000	150.000	35.000	200.000	30.000	250.000	27.000	300.000
GR	26.000	310.000	15.000	350.000	10.000	370.000	6.000	380.000	3.000	440.000
GR	-1.000	460.000	-2.000	560.000	-3.000	580.000	-3.000	640.000	-2.000	660.000
GR	8.000	725.000	10.000	760.000	15.000	775.000	26.000	800.000	30.000	1030.000
GR	31.700	1100.000	30.000	1250.000	35.000	1500.000	35.000	1830.000	45.000	1900.000
NH	4.000	0.065	1100.000	0.080	2253.000	0.035	2752.000	0.065	4000.000	0.0
ET	7.130	0.0	0.0	0.0	0.0	0.0	9.100	0.0	465.000	2752.000

XI	7.130	64.000	2240.000	2752.000	2300.000	3150.000	3100.000	0.0	0.0	0.0
GR	50.000	0.0	29.000	90.000	27.000	300.000	28.000	500.000	31.000	800.000
GR	29.000	1100.000	31.000	1300.000	31.000	1900.000	29.400	2010.000	29.300	2060.000
GR	27.500	2113.000	29.000	2167.000	27.400	2240.000	22.100	2253.000	17.300	2280.000
GR	14.200	2289.000	11.100	2304.000	10.300	2323.000	8.700	2343.000	5.500	2349.000
GR	4.700	2358.000	3.500	2381.000	2.200	2397.000	0.200	2408.000	0.900	2417.000
GR	-0.700	2435.000	-3.000	2448.000	-5.600	2463.000	-6.300	2491.000	-5.900	2500.000
GR	-4.100	2520.000	-2.900	2530.000	-1.700	2540.000	-4.300	2556.000	-3.300	2580.000
GR	-2.000	2589.000	-2.000	2590.000	-0.200	2617.000	0.900	2642.000	1.000	2653.000
GR	1.100	2663.000	1.400	2673.000	3.300	2693.000	2.200	2701.000	3.300	2708.000
GR	11.000	2720.000	14.400	2725.000	19.800	2733.000	23.200	2741.000	29.000	2752.000
GR	29.600	2766.000	30.300	2778.000	30.600	2793.000	30.600	2807.000	30.100	2809.000
GR	31.100	2813.000	30.500	2830.000	30.400	2846.000	32.600	2853.000	32.900	2863.000
GR	38.600	2864.000	38.600	3700.000	40.000	3750.000	50.000	4000.000	0.0	0.0
NH	4.000	0.070	765.000	0.038	1167.000	0.080	2100.000	0.065	5600.000	0.0
ET	7.690	0.0	0.0	0.0	0.0	0.0	9.100	0.0	700.000	2200.000

XI	7.690	75.000	765.000	1290.000	1900.000	3000.000	2700.000	0.0	0.0	0.0
GR	45.000	0.0	35.100	28.000	35.700	38.000	36.000	49.000	35.800	57.000
GR	32.000	67.000	31.900	80.000	30.900	120.000	30.800	170.000	30.400	220.000
GR	29.900	270.000	29.300	320.000	29.100	370.000	28.800	420.000	28.000	470.000
GR	28.100	520.000	28.200	570.000	28.100	620.000	28.200	670.000	29.600	741.000
GR	28.500	765.000	22.100	770.000	15.200	784.000	4.200	803.000	-1.800	813.000
GR	-8.200	851.000	-6.000	874.000	-4.800	883.000	-3.200	916.000	-1.100	948.000
GR	1.200	965.000	2.500	978.000	3.600	998.000	4.900	1016.000	5.300	1039.000
GR	7.700	1062.000	7.700	1077.000	10.700	1102.000	12.700	1119.000	13.200	1128.000
GR	13.700	1135.000	15.200	1142.000	17.900	1153.000	18.400	1167.000	17.700	1206.000
GR	19.400	1257.000	23.100	1290.000	23.300	1320.000	23.600	1363.000	24.900	1399.000
GR	27.000	1441.000	27.700	1475.000	28.600	1520.000	25.000	1850.000	23.000	2000.000
GR	26.000	2100.000	26.000	2250.000	24.000	2350.000	25.000	2400.000	26.000	2600.000
GR	30.000	2650.000	35.600	2700.000	33.000	2750.000	30.000	3300.000	30.000	3650.000
GR	28.000	3900.000	31.000	4200.000	30.000	4300.000	26.000	4500.000	30.000	4700.000
GR	30.000	5000.000	25.000	5100.000	26.000	5400.000	30.000	5500.000	50.000	5600.000
NC	0.0	0.0	0.040	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NH	4.000	0.080	55.000	0.040	702.000	0.080	1800.000	0.070	4700.000	0.0
ET	8.130	0.0	0.0	0.0	0.0	0.0	9.100	0.0	55.000	1650.000

XI	8.130	70.000	55.000	771.000	2600.000	1400.000	2350.000	0.0	0.0	0.0
GR	48.500	0.0	33.400	12.000	30.100	18.000	30.400	20.000	31.700	32.000
GR	32.300	45.000	31.800	55.000	23.100	65.000	15.600	73.000	12.000	78.000
GR	8.500	90.000	1.300	102.000	0.700	124.000	8.100	148.000	5.900	169.000
GR	7.600	197.000	7.800	248.000	7.800	300.000	8.600	332.000	8.600	380.000
GR	9.600	410.000	9.200	484.000	9.100	496.000	9.200	509.000	9.600	530.000
GR	10.500	551.000	10.600	565.000	10.400	575.000	10.400	582.000	10.100	597.000
GR	9.600	607.000	8.600	618.000	8.700	632.000	9.100	640.000	10.900	650.000
GR	11.600	660.000	13.300	664.000	15.600	670.000	17.100	671.000	18.500	682.000
GR	21.000	702.000	19.800	724.000	20.800	730.000	27.800	745.000	25.800	754.000
GR	31.700	771.000	30.100	778.000	30.100	830.000	29.700	882.000	29.900	930.000
GR	30.100	965.000	30.000	1001.000	30.900	1030.000	33.100	1072.000	30.500	1114.000
GR	29.700	1149.000	31.700	1195.000	34.800	1206.000	35.000	1210.000	35.100	1215.000
GR	34.200	1230.000	32.000	1600.000	30.000	2200.000	30.000	3000.000	32.000	3300.000
GR	30.000	3350.000	27.500	3400.000	30.000	3450.000	30.000	4650.000	50.000	4700.000
NH	6.000	0.090	1070.000	0.040	1550.000	0.090	1620.000	0.060	2300.000	0.080
NH	3800.000	0.070	4860.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	8.300	0.0	0.0	0.0	0.0	0.0	9.100	0.0	700.000	2300.000

XI	8.300	60.000	1060.000	1620.000	1200.000	1300.000	1350.000	0.0	0.0	0.0
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GR	50.000	0.0	40.000	90.000	35.000	100.000	30.800	220.000	25.000	300.000
GR	26.000	350.000	25.000	425.000	28.000	650.000	25.000	825.000	24.500	900.000
GR	26.300	1000.000	25.000	1040.000	16.000	1070.000	0.0	1180.000	0.0	1240.000
GR	15.500	1370.000	5.000	1440.000	5.000	1500.000	16.000	1550.000	20.000	1580.000
GR	30.000	1600.000	36.000	1620.000	37.000	1650.000	37.000	1850.000	36.000	1900.000
GR	34.300	2100.000	35.000	2280.000	36.200	2300.000	36.200	2325.000	35.000	2350.000
GR	35.000	2700.000	33.000	2800.000	34.000	3050.000	34.500	3200.000	34.000	3500.000
GR	33.500	3600.000	33.500	4400.000	30.800	4760.000	32.000	4800.000	50.000	4860.000
NC	0.0	0.0	0.037	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NH	6.000	0.070	1371.000	0.037	1752.000	0.090	1950.000	0.060	2880.000	0.070
NH	3850.000	0.090	4200.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	8.610	0.0	0.0	0.0	0.0	0.0	9.100	0.0	700.000	2250.000
K1	8.610	65.000	1366.000	1878.000	1200.000	1150.000	1200.000	0.0	0.0	0.0
GR	55.000	0.0	35.000	50.000	31.000	280.000	25.000	300.000	25.000	360.000
GR	31.000	380.000	34.000	1120.000	32.000	1164.000	32.100	1194.000	27.600	1217.000
GR	27.700	1247.000	28.000	1295.000	29.100	1326.000	28.500	1366.000	16.100	1371.000
GR	10.300	1382.000	9.200	1387.000	9.200	1396.000	8.100	1404.000	7.300	1417.000
GR	4.100	1427.000	3.800	1431.000	0.100	1448.000	-2.100	1459.000	-1.400	1467.000
GR	-2.800	1510.000	-1.800	1524.000	0.0	1551.000	1.100	1566.000	1.600	1587.000
GR	5.600	1608.000	7.600	1627.000	8.800	1644.000	10.200	1659.000	11.100	1668.000
GR	12.100	1676.000	13.600	1689.000	14.000	1694.000	16.100	1702.000	17.400	1704.000
GR	20.500	1722.000	23.200	1752.000	22.100	1779.000	26.800	1813.000	27.900	1831.000
GR	30.600	1842.000	31.700	1864.000	35.100	1878.000	35.000	1900.000	34.100	1950.000
GR	33.900	2000.000	35.000	2300.000	37.000	2340.000	38.000	2450.000	38.000	2650.000
GR	37.000	2800.000	36.900	2970.000	35.500	3000.000	37.000	3150.000	36.000	3450.000
GR	34.000	3900.000	32.000	3950.000	32.000	4150.000	40.000	4175.000	50.000	4200.000
NC	0.0	0.0	0.040	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NH	6.000	0.080	1100.000	0.060	1900.000	0.090	3745.000	0.040	4361.000	0.080
NH	4385.000	0.060	4800.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	9.200	0.0	0.0	0.0	0.0	0.0	9.100	0.0	1100.000	4389.000
K1	9.200	88.000	3718.000	4385.000	1700.000	2900.000	3250.000	0.0	0.0	0.0
GR	50.000	0.0	45.000	20.000	39.000	50.000	40.000	80.000	40.000	180.000
GR	34.000	230.000	37.000	250.000	30.000	280.000	28.000	300.000	30.000	320.000
GR	32.000	450.000	34.000	560.000	36.000	600.000	30.000	910.000	30.000	960.000
GR	33.000	1400.000	34.000	1900.000	38.000	2000.000	35.000	2250.000	30.000	2450.000
GR	30.000	2700.000	25.000	2800.000	23.000	2900.000	25.000	3050.000	30.000	3200.000
GR	31.500	3400.000	30.800	3410.000	31.300	3600.000	30.300	3652.000	29.300	3677.000
GR	27.900	3718.000	23.500	3745.000	17.200	3769.000	17.100	3800.000	16.000	3817.000
GR	15.500	3836.000	14.300	3870.000	13.600	3891.000	12.500	3907.000	12.900	3922.000
GR	12.900	3931.000	13.300	3952.000	13.500	3958.000	13.700	3969.000	15.000	3973.000
GR	16.000	3983.000	17.100	3989.000	17.000	3996.000	16.000	4001.000	13.900	4018.000
GR	12.500	4037.000	11.000	4053.000	10.500	4069.000	9.900	4088.000	7.200	4105.000
GR	6.000	4128.000	4.000	4150.000	3.300	4158.000	1.300	4159.000	-0.600	4169.000
GR	-1.700	4184.000	-3.100	4198.000	-4.000	4209.000	-4.700	4224.000	-5.200	4228.000
GR	-6.000	4250.000	-5.000	4259.000	-7.000	4278.000	-8.600	4298.000	-8.000	4311.000
GR	-1.800	4321.000	3.500	4332.000	6.300	4338.000	11.500	4343.000	16.000	4350.000
GR	22.000	4361.000	29.300	4377.000	38.800	4385.000	39.700	4389.000	40.000	4393.000
GR	40.400	4404.000	40.700	4646.000	41.700	4700.000	42.000	4728.000	43.500	4744.000
GR	47.300	4760.000	53.100	4782.000	55.000	4800.000	0.0	0.0	0.0	0.0
NH	6.000	0.070	1200.000	0.090	1885.000	0.040	2145.000	0.070	2410.000	0.042
NH	2865.000	0.070	3800.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	9.850	0.0	0.0	0.0	0.0	0.0	9.100	0.0	1200.000	3250.000
K1	9.850	89.000	1728.000	2910.000	1600.000	3250.000	3550.000	0.0	0.0	0.0
GR	50.000	30.000	40.200	75.000	38.500	100.000	35.000	200.000	30.400	260.000
GR	35.100	300.000	36.600	700.000	36.000	855.000	33.500	875.000	36.300	900.000
GR	37.200	1000.000	39.200	1100.000	40.500	1150.000	40.200	1200.000	35.700	1250.000
GR	31.000	1300.000	23.500	1350.000	22.000	1400.000	27.700	1500.000	31.600	1600.000
GR	28.700	1690.000	26.600	1700.000	27.400	1728.000	20.600	1744.000	17.900	1760.000
GR	17.700	1783.000	14.400	1794.000	13.300	1804.000	14.300	1809.000	18.000	1824.000
GR	19.400	1850.000	21.100	1862.000	20.000	1885.000	16.900	1889.000	10.900	1899.000
GR	8.400	1930.000	11.100	2024.000	11.400	2040.000	10.400	2063.000	13.000	2103.000
GR	12.900	2113.000	15.400	2120.000	16.900	2125.000	22.100	2139.000	27.600	2145.000

GR	19.100	2329.000	17.800	2324.000	18.000	2362.000	21.000	2410.000	17.500	2524.000
GR	16.900	2350.000	14.000	2565.000	13.300	2598.000	12.800	2638.000	12.800	2670.000
GR	11.500	2695.000	12.100	2710.000	9.600	2754.000	9.100	2792.000	9.600	2810.000
GR	9.400	2820.000	11.000	2825.000	11.900	2830.000	13.600	2840.000	14.900	2845.000
GR	15.400	2850.000	17.000	2855.000	17.400	2860.000	19.400	2865.000	21.300	2883.000
GR	23.500	2895.000	26.400	2910.000	32.000	2960.000	33.700	3000.000	30.200	3100.000
GR	18.500	3150.000	22.500	3200.000	22.800	3250.000	32.400	3300.000	41.300	3400.000
GR	45.200	3500.000	45.200	3600.000	45.000	3750.000	51.500	3800.000	0.0	0.0
NH	6.000	0.070	590.000	0.041	900.000	0.075	3000.000	0.080	3950.000	0.041
NH	4305.000	0.090	4650.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	10.690	0.0	0.0	0.0	0.0	0.0	9.100	0.0	590.000	4400.000

KI	10.690	93.000	590.000	900.000	4600.000	3200.000	4488.000	0.0	0.0	0.0
GR	44.000	225.000	44.400	250.000	44.000	255.000	71.600	270.000	41.700	350.000
GR	42.200	450.000	42.400	550.000	41.700	590.000	15.800	640.000	14.900	641.000
GR	12.000	643.000	11.700	662.000	11.300	677.000	10.200	695.000	9.100	710.000
GR	8.700	724.000	9.000	742.000	9.700	760.000	8.500	782.000	8.300	801.000
GR	10.400	821.000	11.700	834.000	13.400	845.000	14.900	857.000	17.000	862.000
GR	24.800	900.000	23.700	935.000	24.500	950.000	33.800	1050.000	33.700	1150.000
GR	34.500	1250.000	34.500	1350.000	33.500	1450.000	29.800	1550.000	33.500	1650.000
GR	32.700	1750.000	32.200	1850.000	29.500	1930.000	29.700	1950.000	31.400	1965.000
GR	30.800	2050.000	29.800	2150.000	29.400	2250.000	28.500	2350.000	27.700	2450.000
GR	29.500	2550.000	34.200	2650.000	34.400	2750.000	36.500	2800.000	34.700	2850.000
GR	34.800	2950.000	34.800	3000.000	41.800	3050.000	42.200	3150.000	41.600	3250.000
GR	39.700	3350.000	39.300	3410.000	40.400	3450.000	39.700	3550.000	39.400	3650.000
GR	39.400	3720.000	29.700	3750.000	30.500	3850.000	31.500	3900.000	29.000	3950.000
GR	15.700	4020.000	13.800	4025.000	12.800	4029.000	12.700	4042.000	12.000	4052.000
GR	10.800	4062.000	10.100	4069.000	9.900	4082.000	9.200	4099.000	9.300	4114.000
GR	9.300	4128.000	9.800	4144.000	10.400	4162.000	11.000	4179.000	11.100	4197.000
GR	10.800	4211.000	10.200	4222.000	11.300	4235.000	12.100	4244.000	13.800	4257.000
GR	15.700	4262.000	22.200	4305.000	23.000	4350.000	19.800	4450.000	16.800	4495.000
GR	16.800	4535.000	22.200	4550.000	72.300	4650.000	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.042	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NH	6.000	0.080	290.000	0.042	660.000	0.080	1750.000	0.095	3878.000	0.043
NH	4137.000	0.085	4226.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	11.050	0.0	0.0	0.0	0.0	0.0	9.100	0.0	265.000	4180.000

KI	11.050	57.000	250.000	720.000	2100.000	1400.000	1900.000	0.0	0.0	0.0
GR	50.000	0.0	45.000	250.000	25.000	290.000	20.000	300.000	17.000	310.000
GR	14.000	320.000	14.000	340.000	17.000	360.000	13.000	425.000	10.000	475.000
GR	12.000	525.000	17.000	570.000	18.000	600.000	20.000	660.000	30.000	690.000
GR	35.000	720.000	35.500	750.000	36.000	1100.000	35.000	1300.000	30.000	1330.000
GR	28.000	1400.000	30.000	1470.000	35.000	1600.000	36.000	1750.000	40.000	1820.000
GR	40.000	1990.000	30.000	2070.000	25.000	2090.000	20.000	2140.000	18.700	2170.000
GR	20.000	2210.000	25.000	2410.000	30.000	2450.000	34.000	2500.000	32.000	2800.000
GR	32.000	3100.000	35.000	3500.000	36.800	3870.000	33.800	3878.000	17.200	3905.000
GR	14.500	3921.000	14.600	3936.000	17.900	3965.000	17.200	3988.000	9.800	4019.000
GR	3.800	4051.000	3.500	4073.000	1.400	4085.000	2.100	4105.000	3.600	4111.000
GR	15.200	4123.000	17.200	4137.000	24.800	4165.000	33.000	4179.000	38.500	4193.000
GR	54.200	4212.000	55.900	4226.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.043	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NH	6.000	0.065	250.000	0.080	1140.000	0.043	1540.000	0.095	3160.000	0.042
NH	3410.000	0.080	3530.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	11.340	0.0	0.0	0.0	0.0	0.0	9.100	0.0	500.000	3430.000

KI	11.340	60.000	1140.000	1540.000	1200.000	1500.000	1530.000	0.0	0.0	0.0
GR	50.000	0.0	45.000	300.000	40.000	350.000	37.000	500.000	40.000	780.000
GR	35.000	820.000	30.000	830.000	25.000	850.000	22.000	880.000	22.000	950.000
GR	22.500	1050.000	23.400	1140.000	17.900	1151.000	16.100	1158.000	13.300	1165.000
GR	14.100	1174.000	13.600	1181.000	16.400	1214.000	19.700	1226.000	20.100	1233.000
GR	17.800	1237.000	12.000	1255.000	11.200	1266.000	12.300	1276.000	13.800	1278.000
GR	19.300	1314.000	20.700	1316.000	20.500	1340.000	20.000	1365.000	17.200	1395.000
GR	16.400	1419.000	16.700	1458.000	16.000	1477.000	13.800	1507.000	14.900	1518.000
GR	16.500	1527.000	18.700	1532.000	31.000	1540.000	33.000	1600.000	33.000	1700.000
GR	31.000	2000.000	35.000	2250.000	36.000	2600.000	36.000	2900.000	35.000	3000.000
GR	20.000	2120.000	25.000	2140.000	20.000	2160.000	17.000	2200.000	18.000	2250.000

GR	17.000	5290.000	12.000	3320.000	10.000	3350.000	12.000	3380.000	17.000	3400.000
GR	20.000	3410.000	25.000	3420.000	50.000	3450.000	60.000	3470.000	65.000	3530.000
NC	0.	0.0	0.042	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NH	4.000	0.075	1500.000	0.090	3920.000	0.042	4645.000	0.080	4790.000	0.0
ET	11.670	0.0	0.0	0.0	0.0	0.0	9.100	0.0	3600.000	4670.000

XI	11.670	55.000	3920.000	4645.000	1200.000	2250.000	1740.000	0.0	0.0	0.0
GR	55.200	0.0	55.200	2650.000	51.000	2700.000	45.000	2800.000	43.800	2835.000
GR	47.000	2900.000	47.600	3000.000	47.200	3100.000	45.500	3200.000	45.300	3300.000
GR	45.500	3400.000	35.400	3500.000	35.500	3600.000	35.100	3700.000	39.000	3800.000
GR	40.400	3900.000	40.200	3920.000	20.300	4000.000	19.800	4003.000	17.800	4027.000
GR	75.600	4043.000	15.800	4066.000	15.800	4084.000	16.000	4095.000	16.000	4117.000
GR	16.900	4135.000	18.000	4152.000	19.800	4195.000	21.000	4270.000	19.400	4300.000
GR	18.500	4334.000	17.500	4365.000	17.000	4397.000	17.400	4418.000	17.600	4438.000
GR	17.600	4457.000	17.400	4480.000	17.100	4492.000	16.600	4503.000	15.600	4515.000
GR	13.700	4529.000	12.800	4545.000	12.900	4559.000	14.000	4568.000	14.500	4571.000
GR	16.700	4586.000	16.700	4601.000	18.500	4605.000	30.500	4645.000	31.200	4665.000
GR	41.800	4690.000	52.400	4691.000	56.000	4700.000	54.300	4735.000	65.800	4800.000
NC	0.090	0.080	0.041	0.100	0.300	0.0	0.0	0.0	0.0	0.0
ET	12.480	0.0	0.0	0.0	0.0	0.0	9.100	0.0	1420.000	1960.000

XI	12.480	50.000	1420.000	1960.000	4100.000	4500.000	4225.000	0.0	0.0	0.0
GR	77.300	0.0	64.300	100.000	61.700	140.000	62.800	300.000	61.600	400.000
GR	53.600	500.000	53.000	640.000	51.200	650.000	53.400	800.000	53.500	900.000
GR	44.700	1000.000	44.800	1100.000	46.700	1200.000	43.900	1300.000	43.100	1420.000
GR	27.600	1470.000	23.800	1474.000	21.700	1475.000	20.300	1478.000	18.200	1512.000
GR	17.500	1595.000	18.200	1640.000	20.000	1690.000	22.200	1715.000	24.000	1765.000
GR	23.400	1800.000	22.200	1810.000	20.000	1830.000	20.000	1860.000	22.200	1870.000
GR	36.400	1900.000	37.100	1930.000	49.900	1960.000	51.200	2000.000	49.900	2045.000
GR	52.000	2100.000	51.800	2200.000	49.800	2300.000	48.000	2400.000	49.600	2500.000
GR	50.400	2600.000	52.300	2700.000	52.300	2800.000	49.600	2820.000	49.800	2880.000
GR	51.600	2900.000	52.800	2935.000	62.800	3000.000	63.500	3100.000	63.500	3600.000
NC	0.085	0.095	0.043	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	12.950	0.0	0.0	0.0	0.0	0.0	9.100	0.0	57.000	500.000

XI	12.950	55.000	57.000	443.000	2250.000	2630.000	2112.000	0.0	0.0	0.0
GR	84.400	0.0	37.400	57.000	28.900	72.000	25.000	85.000	22.400	104.000
GR	20.000	138.000	21.100	167.000	21.300	191.000	20.800	224.000	20.200	241.000
GR	19.800	256.000	19.800	283.000	19.600	308.000	19.900	318.000	20.000	324.000
GR	20.400	335.000	21.900	357.000	23.100	375.000	23.700	386.000	24.700	425.000
GR	27.600	432.000	33.200	440.000	36.800	443.000	36.600	446.000	41.800	450.000
GR	42.700	500.000	41.800	600.000	39.500	700.000	44.200	800.000	45.400	900.000
GR	44.500	1000.000	43.500	1100.000	38.800	1200.000	47.400	1300.000	44.400	1340.000
GR	51.300	1400.000	53.500	1425.000	53.600	1500.000	52.800	1600.000	51.700	1700.000
GR	53.200	1800.000	52.200	1900.000	54.800	2000.000	54.600	2100.000	47.800	2200.000
GR	47.800	2255.000	44.600	2300.000	51.200	2400.000	57.000	2500.000	56.200	2600.000
GR	54.800	2700.000	54.900	2795.000	52.800	2800.000	54.000	2810.000	54.500	2840.000
NC	0.0	0.0	0.045	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NH	5.000	0.070	1370.000	0.090	1700.000	0.045	2240.000	0.090	2850.000	0.070
NH	4250.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	13.500	0.0	0.0	0.0	0.0	0.0	9.100	0.0	1000.000	2550.000

XI	13.500	70.000	1700.000	2240.000	3550.000	2450.000	3168.000	0.0	0.0	0.0
GR	51.800	400.000	52.500	500.000	53.600	600.000	54.500	700.000	56.000	730.000
GR	56.000	810.000	55.000	830.000	50.000	850.000	40.000	910.000	40.000	970.000
GR	42.500	1030.000	40.500	1080.000	45.000	1250.000	47.500	1300.000	44.900	1370.000
GR	47.200	1400.000	46.700	1500.000	39.200	1560.000	39.800	1600.000	39.900	1630.000
GR	32.400	1680.000	33.000	1700.000	31.000	1800.000	28.500	1900.000	25.400	2000.000
GR	24.800	2010.000	24.500	2022.000	23.700	2042.000	23.400	2051.000	22.500	2079.000
GR	21.200	2099.000	20.400	2116.000	20.100	2133.000	20.600	2153.000	21.500	2164.000
GR	24.500	2184.000	24.800	2185.000	29.600	2700.000	51.000	2240.000	51.000	2250.000
GR	50.900	2300.000	49.500	2350.000	52.000	2400.000	52.000	2430.000	50.000	2480.000
GR	40.000	2530.000	39.500	2570.000	42.000	2630.000	45.000	2730.000	55.000	2830.000
GR	55.300	2850.000	55.500	3000.000	57.700	3210.000	59.000	3300.000	59.400	3400.000
GR	58.200	3300.000	58.200	3520.000	47.000	3565.000	53.300	3600.000	56.800	3630.000
GR	56.400	3700.000	56.400	3800.000	51.400	3855.000	51.200	3900.000	46.600	4000.000

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

LEWIS RIVER FLOODWAY

	SECTION	DISCHARGE	CWSEL	XLCH	VCH	K*VNCH	QLOB	QCH	QROB	TOPWID	SSTA	ENDST	PERENC
	SECTION	DISCHARGE	CWSEL										
100 year	0.670	155000.00	17.10	0.0	8.65	36.00	13119.09141880.81	0.0	1794.84	172.31	1967.15	0.0	
Floodway	0.670	155000.00	17.60	0.0	8.50	36.00	11612.50143387.38	0.0	1617.90	350.00	1967.90	1635.00	
	1.190	155000.00	19.19	2800.00	9.43	32.00	11996.57143003.38	0.0	1864.46	0.0	1966.89	0.0	
	1.190	155000.00	19.52	2800.00	10.05	32.00	21.88154978.06	0.0	863.75	1104.43	1968.18	935.00	
	1.700	155000.00	21.18	2700.00	8.94	32.00	154.34154845.63	0.0	889.74	0.0	889.74	0.0	
	1.700	155000.00	21.90	2700.00	8.66	32.00	0.0 155000.00	0.0	798.69	100.00	898.69	845.00	
	1.730	155000.00	21.25	150.00	9.66	35.00	0.0 154999.94	0.0	798.00	104.00	902.00	0.0	
	1.730	155000.00	21.96	150.00	9.23	35.00	0.0 154999.94	0.0	798.00	104.00	902.00	807.00	
	1.740	155000.00	21.47	32.00	9.55	35.00	0.0 154999.94	0.0	798.00	104.00	902.00	0.0	
	1.740	155000.00	22.16	32.00	9.24	35.00	0.0 154999.94	0.0	798.00	104.00	902.00	807.00	
	1.750	155000.00	21.66	50.00	9.17	35.00	105.28154794.81	99.90	826.80	100.00	926.80	865.00	
	1.750	155000.00	22.32	50.00	8.90	35.00	140.43154718.94	140.59	829.51	100.00	929.51	865.00	
	2.380	155000.00	24.30	3300.00	7.08	35.00	25922.41129077.69	0.0	2413.32	62.80	2476.12	0.0	
	2.380	155000.00	24.76	3300.00	7.44	35.00	16481.55138518.44	0.0	1777.36	700.00	2477.36	1790.00	
	2.980	155000.00	25.06	3200.00	12.08	35.00	26.96154973.00	0.0	541.92	235.58	777.49	0.0	
	2.980	155000.00	25.78	3200.00	11.73	35.00	14.60154985.38	0.0	539.27	240.00	779.27	550.00	
	3.180	155000.00	26.52	1100.00	11.38	35.00	35.57154964.38	0.0	546.33	234.77	781.10	0.0	
	3.180	155000.00	27.10	1100.00	11.13	35.00	16.66154983.31	0.0	542.54	240.00	782.54	550.00	
	3.380	155000.00	28.41	1049.99	8.04	35.00	324.04154675.94	0.0	1108.42	17.06	1125.48	0.0	
	3.380	155000.00	28.90	1049.99	7.82	35.00	367.06154632.88	0.0	1106.42	20.00	1126.42	1112.00	
	3.700	128000.00	29.75	1800.00	4.91	35.00	3894.88124105.13	0.0	2529.00	600.00	3129.00	-600.00	
	3.700	128000.00	30.17	1800.00	4.78	35.00	4450.25123549.69	0.0	2531.57	600.00	3131.57	-600.00	
	3.900	128000.00	29.98	1150.00	5.75	32.00	31135.80 96864.13	0.0	1979.67	20.04	1999.71	0.0	
	3.900	128000.00	30.37	1150.00	5.70	32.00	30570.68 97429.31	0.0	1900.63	100.00	2000.63	1905.00	
	4.290	128000.00	30.30	2000.00	7.00	35.00	23766.68104233.38	0.0	1686.36	41.53	1727.89	0.0	
	4.290	128000.00	30.68	2000.00	6.87	35.00	24269.09103730.88	0.0	1656.94	72.00	1728.94	1663.00	
	5.010	128000.00	31.48	3999.99	6.49	32.00	6110.16121889.94	0.0	1158.16	62.02	1220.18	0.0	
	5.010	128000.00	31.80	3999.99	6.50	32.00	4416.50123583.56	0.0	1023.71	200.00	1223.71	1042.00	
	5.270	128000.00	31.30	1400.00	9.27	32.00	1805.60126194.38	0.0	621.94	41.83	663.77	0.0	
	5.270	128000.00	31.65	1400.00	9.15	32.00	1899.39126100.56	0.0	618.89	46.00	664.89	622.00	
	5.350	128000.00	32.07	500.00	7.66	35.00	1213.51124935.56	1851.02	776.31	48.09	824.40	1130.00	
	5.350	128000.00	32.39	500.00	7.56	35.00	1269.08124796.38	1934.60	776.31	48.09	824.40	1130.00	
	5.390	128000.00	32.13	133.00	7.45	35.00	910.81125392.31	1697.01	737.68	152.40	900.08	0.0	
	5.390	128000.00	32.45	133.00	7.37	35.00	950.20125274.63	1775.33	739.12	161.87	900.98	1055.00	
	5.420	128000.00	32.19	108.00	7.78	35.00	1201.56126257.44	540.93	720.74	160.95	881.69	0.0	
	5.420	128000.00	32.51	108.00	7.69	35.00	1263.82126163.50	572.67	721.96	160.36	882.32	1051.00	

SECTION	DISCHARGE	CWSEL	XLCH	VCH	K*VNCH	QLOB	QCH	QROB	TOPWID	SSTA	ENDST	PERENC
12.950	128000.00	48.84	2112.00	11.43	43.00	140.74116787.44	11071.81	1514.97	43.13	2364.22	0.0	
12.950	128000.00	49.08	2112.00	12.32	43.00	0.0 126995.44	1004.50	443.00	57.00	500.00	443.00	
13.500	128000.00	53.04	3168.00	7.33	45.00	21114.28 99752.19	7133.47	2409.01	400.00	4065.68	0.0	
13.500	128000.00	53.99	3168.00	7.55	45.00	19270.79106558.31	2170.83	1550.00	1000.00	2550.00	1550.00	
14.010	128000.00	55.06	2639.99	7.92	46.00	3637.22122781.56	1581.12	857.41	764.80	2633.06	0.0	
14.010	128000.00	56.02	2639.99	7.93	46.00	0.0 127999.88	0.0	662.30	1936.70	2599.00	664.00	
14.440	128000.00	57.07	2640.00	5.83	47.00	11207.74114323.56	2468.62	1488.67	144.28	2040.57	0.0	
14.440	128000.00	58.01	2640.00	5.85	47.00	9027.51118162.06	810.40	1010.00	940.00	1950.00	1010.00	

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
0.670	155000.000	17.100	0.0	0.0	0.0	1794.842	0.0	0.0
0.670	155000.000	17.600	0.500	0.0	0.0	1617.900	176.942	0.0
1.190	155000.000	19.145	0.0	2.095	0.0	1864.457	0.0	2800.000
1.190	155000.000	19.519	0.325	1.919	0.0	863.749	1000.708	2800.000
1.700	155000.000	21.179	0.0	1.965	0.0	889.740	0.0	2699.999
1.700	155000.000	21.895	0.716	2.376	0.0	798.693	91.047	2699.999
1.730	155000.000	21.253	0.0	0.074	0.0	798.000	0.0	150.000
1.730	155000.000	21.963	0.710	0.068	0.0	798.000	0.0	150.000
1.740	155000.000	21.473	0.0	0.220	0.0	798.000	0.0	32.000
1.740	155000.000	22.158	0.685	0.195	0.0	798.000	0.0	32.000
1.750	155000.000	21.662	0.0	0.189	0.0	826.799	0.0	50.000
1.750	155000.000	22.324	0.662	0.166	0.0	829.507	-2.708	50.000
2.380	155000.000	24.300	0.0	2.638	0.0	2413.324	0.0	3299.999
2.380	155000.000	24.760	0.460	2.436	0.0	1777.359	635.966	3299.999
2.980	155000.000	25.059	0.0	0.758	0.0	541.917	0.0	3199.999
2.980	155000.000	25.778	0.720	1.018	0.0	539.268	2.649	3199.999
3.180	155000.000	26.518	0.0	1.460	0.0	546.330	0.0	1099.999
3.180	155000.000	27.002	0.583	1.323	0.0	542.536	3.794	1099.999
3.380	155000.000	28.407	0.0	1.889	0.0	1108.423	0.0	1049.992
3.380	155000.000	28.896	0.488	1.794	0.0	1106.419	2.003	1049.992
3.700	128000.000	29.755	0.0	1.347	0.0	2529.000	0.0	1800.004
3.700	128000.000	30.166	0.411	1.271	0.0	2531.571	-2.570	1800.004
3.900	128000.000	29.980	0.0	0.225	0.0	1979.673	0.0	1149.999
3.900	128000.000	30.365	0.385	0.199	0.0	1900.630	79.042	1149.999
4.290	128000.000	30.296	0.0	0.317	0.0	1686.361	0.0	1999.999
4.290	128000.000	30.678	0.381	0.313	0.0	1656.938	29.422	1999.999
5.010	128000.000	31.482	0.0	1.186	0.0	1158.159	0.0	3999.994
5.010	128000.000	31.796	0.314	1.119	0.0	1023.708	134.451	3999.994
5.270	128000.000	31.302	0.0	-0.180	0.0	621.939	0.0	1399.999
5.270	128000.000	31.652	0.349	-0.145	0.0	618.888	3.051	1399.999
5.250	128000.000	31.030	0.0	0.770	0.0	771.207	0.0	1400.000

5.350	128000.000	32.594	0.323	0.743	0.0	776.307	0.0	499.999
5.390	128000.000	32.133	0.0	0.061	0.0	737.681	0.0	133.000
5.390	128000.000	32.453	0.320	0.058	0.0	739.117	-1.436	133.000
5.420	128000.000	32.188	0.0	0.056	0.0	720.742	0.0	108.000
5.420	128000.000	32.507	0.318	0.054	0.0	721.957	-1.215	108.000
5.480	128000.000	32.253	0.0	0.064	0.0	550.292	0.0	349.999
5.480	128000.000	32.565	0.312	0.058	0.0	551.499	-1.207	349.999
5.940	128000.000	33.493	0.0	1.240	0.0	1590.007	0.0	2499.999
5.940	128000.000	33.742	0.250	1.177	0.0	1299.999	290.008	2499.999
6.360	128000.000	33.989	1.0	0.496	0.0	1379.778	0.0	2149.999
6.360	128000.000	34.250	0.261	0.508	0.0	864.999	-514.779	2149.999
6.490	128000.000	34.122	0.0	0.134	0.0	543.216	0.0	699.999
6.490	128000.000	34.395	0.273	0.145	0.0	544.263	-1.047	699.999
6.500	128000.000	34.234	0.0	0.112	0.0	543.651	0.0	35.000
6.500	128000.000	34.474	0.239	0.078	0.0	544.576	-0.926	35.000
6.540	128000.000	34.558	0.0	0.324	0.0	1273.467	0.0	200.000
6.540	128000.000	34.740	0.182	0.266	0.0	729.999	543.468	200.000
7.130	128000.000	36.052	0.0	1.495	0.0	2803.776	0.0	3100.033
7.130	128000.000	36.236	0.184	1.497	0.0	2286.999	-516.777	3100.033
7.690	128000.000	37.038	0.0	0.986	0.0	5512.668	0.0	2699.994
7.690	128000.000	37.084	0.046	0.847	0.0	1499.999	4012.669	2699.994
8.130	128000.000	37.389	0.0	0.351	0.0	4659.637	0.0	2349.993
8.130	128000.000	37.960	0.571	0.876	0.0	1594.999	3064.638	2349.993
8.390	128000.000	37.633	0.0	0.244	0.0	4724.086	0.0	1349.998
8.390	128000.000	38.365	0.731	0.405	0.0	1599.999	3124.087	1349.998
8.610	128000.000	37.813	0.0	0.179	0.0	3861.567	0.0	1199.992
8.610	128000.000	38.686	0.874	0.322	0.0	1549.999	2311.568	1199.992
9.200	128000.000	39.363	0.0	1.555	0.0	4215.148	0.0	3250.026
9.200	128000.000	40.378	1.009	1.691	0.0	3288.996	926.152	3250.026
9.850	128000.000	40.101	0.0	0.733	0.0	3243.615	0.0	3550.027
9.850	128000.000	41.085	0.984	0.708	0.0	2049.999	1193.615	3550.027
10.690	128000.000	40.950	0.0	0.857	0.0	3756.188	0.0	4487.996
10.690	128000.000	41.894	0.937	0.809	0.0	3682.641	73.548	4487.996
11.050	128000.000	41.345	0.0	0.387	0.0	3939.119	0.0	1900.000
11.050	128000.000	42.266	0.921	0.372	0.0	3914.996	24.123	1900.000
11.340	128000.000	41.755	0.0	0.410	0.0	3107.653	0.0	1529.995
11.340	128000.000	42.612	0.857	0.346	0.0	2929.994	177.659	1529.995
11.670	128000.000	42.232	0.0	0.477	0.0	1257.676	0.0	1739.994
11.670	128000.000	42.996	0.765	0.384	0.0	1069.996	187.680	1739.994
12.480	128000.000	45.606	0.0	3.374	0.0	863.710	0.0	4224.988
12.480	128000.000	46.084	0.478	3.087	0.0	531.059	332.651	4224.988
12.950	128000.000	48.834	0.0	3.234	0.0	1514.971	0.0	2111.998
12.950	128000.000	49.082	0.243	2.998	0.0	442.999	1071.973	2111.998
13.500	128000.000	52.027	0.0	4.128	0.0	2400.005	0.0	2167.006

13.500	128000.000	53.986	0.949	4.904	0.0	1549.999	859.006	3167.906
14.010	128000.000	55.061	0.0	2.023	0.0	857.407	0.0	2639.992
14.010	128000.000	56.025	0.964	2.039	0.0	662.295	195.112	2639.992
14.440	128000.000	57.065	0.0	2.004	0.0	1488.667	0.0	2639.999
14.440	128000.000	58.012	0.947	1.987	0.0	1009.999	478.668	2639.999

DATA FOR LAST CROSS SECTION

PROFILE	TYPE-ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.0	0.0	3315.626	0.0
2	1.000	1010.000	2325.803	-989.823

SECTION	DISCHARGE	CWSEL	XLCH	K*VNCH	VCH	QLOB	QCH	QROB	TOPWID	SSTA	ENDST	ELMIN
SECTION	DISCHARGE	CWSEL										
	6.360	71000.00	26.99	2150.00	35.00	5.15	44.03 70729.19	226.74	1042.98	446.94	1489.92	-3.00
	6.360	109000.00	31.89	2150.00	35.00	6.35	1220.72105196.31	2583.08	1337.83	238.65	1576.48	-3.00
	6.360	128000.00	33.99	2150.00	35.00	6.82	2317.71121315.50	4366.91	1379.78	226.07	1605.84	-3.00
	6.360	178000.00	37.84	2150.00	35.00	8.13	5516.31162788.69	9695.21	1566.23	191.62	1757.84	-3.00
	6.490	71000.00	27.13	700.00	35.00	6.56	1.71 70996.06	2.16	504.47	298.61	803.08	-3.40
	6.490	109000.00	32.03	700.00	35.00	8.33	164.97108575.50	259.51	535.20	290.44	825.64	-3.40
	6.490	128000.00	34.12	700.00	35.00	9.09	309.62127194.00	496.36	543.22	286.96	830.18	-3.40
	6.490	178000.00	37.96	700.00	35.00	11.09	746.82174565.63	2687.77	1101.98	279.50	1695.96	-3.40
	6.500	71000.00	27.17	35.00	35.00	6.55	1.96 70995.63	2.39	505.42	298.56	803.98	-3.40
M	6.500	109000.00	32.09	35.00	35.00	8.31	167.51108568.81	263.68	535.41	290.35	825.76	-3.40
	6.500	128000.00	34.23	35.00	35.00	9.06	316.15127176.56	507.21	543.65	286.77	830.42	-3.40
	6.500	178000.00	37.96	35.00	35.00	11.09	747.56174557.00	2695.65	1102.37	279.45	1696.00	-3.40
	6.540	71000.00	27.28	200.00	38.00	6.37	2.77 70982.88	14.33	578.63	295.25	873.88	-3.00
	6.540	109000.00	32.31	200.00	38.00	7.88	299.72107296.94	1403.30	1138.85	226.86	1365.70	-3.00
	6.540	128000.00	34.56	200.00	38.00	8.41	671.27123705.13	3623.54	1273.47	204.42	1477.89	-3.00
	6.540	178000.00	38.65	200.00	38.00	9.76	2144.61163182.94	12672.64	1720.16	135.40	1855.55	-3.00
	7.130	71000.00	28.35	3100.00	38.00	5.68	85.23 70914.69	0.0	986.75	158.16	2750.77	-6.30
N	7.130	109000.00	33.70	3099.99	38.00	6.64	7757.96100969.00	273.03	2793.27	69.87	2863.14	-6.30
	7.130	128000.00	36.05	3100.03	38.00	6.80	15739.02111594.13	666.81	2803.78	59.78	2863.55	-6.30
	7.130	178000.00	40.48	3100.02	38.00	7.38	37410.05137923.38	2666.52	3721.27	40.79	3762.76	-6.30
	7.690	71000.00	29.10	2699.99	38.00	5.80	71.14 65152.38	5776.46	3249.67	369.93	5477.50	-8.20
	7.690	109000.00	34.70	2699.99	38.00	5.15	3624.57 72937.06	32438.40	5438.25	59.89	5523.50	-8.20
O	7.690	128000.00	37.04	2699.99	38.00	4.85	5945.57 74582.44	47472.01	5512.67	22.52	5535.19	-8.20
	7.690	178000.00	41.50	2700.01	38.00	4.69	11586.00 83263.25	83150.63	5547.64	9.88	5557.52	-8.20
	8.130	71000.00	29.95	2349.99	40.00	5.16	0.0 70944.06	55.90	914.74	57.12	3449.09	0.70
	8.130	109000.00	35.16	2349.99	40.00	5.24	108.26 91550.19	17341.51	4652.29	10.60	4662.89	0.70
P	8.130	128000.00	37.39	2349.99	40.00	5.10	276.54 97200.00	30573.46	4659.64	8.83	4668.47	0.70
	8.130	178000.00	41.76	2350.04	40.00	5.13	540.76113791.81	63667.34	4674.02	5.36	4679.39	0.70
	8.390	71000.00	30.40	1350.00	40.00	5.69	3035.39 67964.56	0.0	1375.71	225.60	1601.31	0.0
	8.390	109000.00	35.46	1350.00	40.00	6.38	11196.07 94625.13	3178.74	4314.73	99.08	4811.54	0.0
	8.390	128000.00	37.63	1350.00	40.00	6.34	15321.39101915.63	10763.01	4724.09	94.72	4818.80	0.0
	8.390	178000.00	41.97	1350.00	40.00	6.32	24608.12117569.75	35822.12	4761.00	72.24	4833.24	0.0
	8.610	71000.00	30.69	1199.99	37.00	7.17	709.51 70290.44	0.0	740.39	281.05	1843.71	-4.40
Q	8.610	109000.00	35.68	1199.99	37.00	8.26	5901.27101697.31	1401.39	2943.00	48.30	4161.50	-4.40
	8.610	128000.00	37.81	1199.99	37.00	8.35	10814.44111875.56	5309.91	3861.57	42.97	4168.16	-4.40
	8.610	178000.00	42.12	1199.99	37.00	8.36	23530.25130389.00	24080.64	4148.12	32.19	4180.31	-4.40
	9.200	71000.00	32.14	3249.99	40.00	4.50	3434.23 67565.69	0.0	2672.98	270.84	4376.58	-8.60
	9.200	109000.00	37.33	3250.00	40.00	4.88	19020.17 89979.81	0.0	4113.53	202.28	4383.14	-8.60
	9.200	128000.00	39.37	3250.03	40.00	4.98	29407.56 98592.25	0.10	4215.15	48.16	4387.52	-8.60
	9.200	178000.00	43.44	3250.00	40.00	5.33	57430.02119955.25	614.77	4715.56	27.80	4743.36	-8.60

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

SECTION	DISCHARGE	CWSEL	XLCH	K*KNCH	VCH	QLOB	QCH	QROB	TOPWID	SSTA	ENDST	ELMIN	
SECTION	DISCHARGE	CWSEL											
3.700	71000.00	23.47	1800.00	35.00	4.10	0.0	70999.94	0.0	1247.77	1856.12	3103.88	-3.50	
3.700	109000.00	27.90	1800.01	35.00	4.70	1324.94	107675.00	0.0	2521.59	600.00	3121.59	-3.50	
3.700	128000.00	29.75	1800.00	35.00	4.91	3894.88	124105.13	0.0	2529.00	600.00	3129.00	-3.50	
3.700	178000.00	33.57	1800.01	35.00	4.69	10949.40	141968.56	25081.98	3549.67	600.00	4149.67	-3.50	
3.900	71000.00	23.50	1150.00	32.00	5.66	0.0	70999.94	0.0	641.60	1325.41	1967.00	-3.50	
3.900	109000.00	28.12	1150.00	32.00	5.46	23966.12	85033.94	0.0	1971.54	23.75	1995.29	-3.50	
3.900	128000.00	29.98	1150.00	32.00	5.75	31135.80	96864.13	0.0	1979.67	20.04	1999.71	-3.50	
3.900	178000.00	33.70	1150.00	32.00	5.84	44007.29	113142.25	20850.50	2987.02	12.61	2999.63	-3.50	
4.290	71000.00	24.13	2000.00	35.00	5.64	5631.66	65368.32	0.0	1653.85	56.84	1710.70	-3.50	
4.290	109000.00	28.45	2000.00	35.00	6.62	17161.09	91838.88	0.0	1678.30	44.48	1722.79	-3.50	
4.290	128000.00	30.30	2000.00	35.00	7.00	23766.68	104233.38	0.0	1686.36	41.53	1727.89	-3.50	
4.290	178000.00	34.01	2000.00	35.00	6.89	35316.63	116628.13	26055.34	2714.09	35.59	2749.68	-3.50	
5.010	71000.00	25.19	4000.00	32.00	4.91	754.67	70245.31	0.0	1126.22	72.95	1199.18	-5.00	
5.010	109000.00	29.61	4000.00	32.00	6.02	4007.87	104992.19	0.0	1147.60	65.63	1213.23	-5.00	
5.010	128000.00	31.48	3999.99	32.00	6.49	6110.16	121889.94	0.0	1158.16	62.02	1220.18	-5.00	
5.010	178000.00	34.93	4000.00	32.00	7.28	11065.66	155255.00	11679.48	1698.25	55.34	1753.59	-5.00	
5.270	71000.00	25.25	1400.00	32.00	6.67	162.05	70837.94	0.0	586.97	58.66	645.63	-3.00	
5.270	109000.00	29.52	1400.00	32.00	8.49	1125.36	107874.63	0.0	610.77	47.29	658.05	-3.00	
5.270	128000.00	31.30	1400.00	32.00	9.27	1805.60	126194.38	0.0	621.94	41.83	663.77	-3.00	
5.270	178000.00	34.89	1400.00	32.00	9.83	3341.60	151636.69	23021.87	1153.38	30.34	1183.72	-3.00	
5.350	71000.00	25.68	500.00	35.00	5.54	86.46	70773.69	139.82	776.31	48.09	824.40	-2.00	
5.350	109000.00	30.17	500.00	35.00	7.01	750.91	107098.00	1151.03	776.31	48.09	824.40	-2.00	
5.350	128000.00	32.07	500.00	35.00	7.66	1213.51	124935.56	1851.02	776.31	48.09	824.40	-2.00	
5.350	178000.00	35.12	500.00	35.00	9.55	2397.27	171962.19	3640.65	776.31	48.09	824.40	-2.00	
5.390	71000.00	25.72	133.00	35.00	5.27	95.97	70764.44	139.55	711.65	170.37	882.01	-5.00	
5.390	109000.00	30.22	133.00	35.00	6.79	579.00	107371.38	1049.59	729.90	164.81	894.71	-5.00	
5.390	128000.00	32.13	133.00	35.00	7.45	910.81	125392.31	1697.01	737.68	162.40	900.08	-5.00	
5.390	178000.00	35.22	133.00	35.00	9.36	1788.67	172807.25	3404.36	751.55	157.23	908.79	-5.00	
5.420	71000.00	25.74	108.00	35.00	5.61	47.56	70941.13	11.26	690.80	172.79	863.59	-5.00	
5.420	109000.00	30.27	108.00	35.00	7.12	706.09	107991.56	302.27	713.42	164.47	877.89	-5.00	
5.420	128000.00	32.19	108.00	35.00	7.78	1201.56	126257.44	540.93	720.74	160.95	881.69	-5.00	
5.420	178000.00	35.32	108.00	35.00	9.70	2514.85	174293.00	1192.33	732.68	155.20	887.88	-5.00	
10-YR	5.480	71000.00	25.83	350.00	35.00	5.60	145.01	70798.06	56.85	525.45	36.25	561.70	-6.00
50-YR	5.480	109000.00	30.35	350.00	35.00	7.35	335.32	108301.69	362.98	542.93	29.48	572.40	-6.00
100-YR	5.480	128000.00	32.25	350.00	35.00	8.13	452.74	126958.88	588.50	550.29	26.62	576.91	-6.00
500-YR	5.480	178000.00	35.35	350.00	35.00	10.32	767.17	176024.88	1208.22	562.28	21.97	584.25	-6.00
5.940	71000.00	26.51	2500.00	35.00	5.09	1543.91	69158.06	298.01	1521.42	36.56	1557.98	-1.10	
5.940	109000.00	31.33	2500.00	35.00	6.02	935.68	100128.25	2936.11	1576.93	0.0	1576.93	-1.10	
5.940	128000.00	33.49	2500.00	35.00	6.39	8591.63	114660.94	4747.55	1590.01	0.0	1670.30	-1.10	
5.940	178000.00	37.27	2500.00	35.00	7.54	15432.39	152863.31	9704.45	1709.00	0.0	1709.00	-1.10	

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

LEWIS RIVER

SECTION	DISCHARGE	CWSEL	XLCH	K*VNCH	VCH	QLOB	QCH	QROB	TOPWID	SSTA	ENDST	ELMIN
SECTION	DISCHARGE	CWSEL										
0.670	90000.00	13.80	0.0	36.00	6.49	4221.09	85778.88	0.0	1672.51	197.69	1962.20	-9.50
0.670	133000.00	16.10	0.0	36.00	7.99	9733.86	123266.06	0.0	1785.65	180.00	1965.65	-9.50
0.670	155000.00	17.10	0.0	36.00	8.65	12119.09	141880.81	0.0	1794.84	172.31	1967.15	-9.50
0.670	210000.00	19.10	0.0	36.00	10.24	22249.33	187750.75	0.0	1813.23	156.92	1970.15	-9.50
1.190	90000.00	15.28	2800.00	32.00	7.48	0.0	89999.94	0.0	774.25	1177.24	1951.49	-7.50
1.190	133000.00	17.99	2800.00	32.00	9.38	0.0	132999.94	0.0	811.98	1150.16	1962.14	-7.50
1.190	155000.00	19.19	2800.00	32.00	9.43	11996.57	143003.38	0.0	1864.46	0.0	1966.89	-7.50
1.190	210000.00	21.66	2800.00	32.00	10.82	23952.17	186047.94	0.0	1974.91	0.0	1974.91	-7.50
1.700	90000.00	16.85	2700.00	32.00	6.40	0.0	89999.94	0.0	722.40	120.73	843.13	-12.70
1.700	133000.00	20.20	2700.00	32.00	8.03	0.0	132999.94	0.0	773.52	103.99	877.52	-12.70
1.700	155000.00	21.18	2700.00	32.00	8.94	154.34	154845.63	0.0	889.74	0.0	889.74	-12.70
1.700	210000.00	23.89	2700.00	32.00	10.73	790.81	209209.38	0.0	911.65	0.0	911.65	-12.70
1.730	90000.00	16.90	150.00	35.00	7.10	0.0	89999.94	0.0	727.34	136.21	863.55	-10.30
1.730	133000.00	20.26	150.00	35.00	8.71	0.0	132999.94	0.0	790.20	104.00	895.76	-10.30
1.730	155000.00	21.25	150.00	35.00	9.66	0.0	154999.94	0.0	798.00	104.00	902.00	-10.30
1.730	210000.00	23.98	150.00	35.00	11.52	0.0	210000.00	0.0	798.00	104.00	902.00	-10.30
1.740	90000.00	16.99	32.00	35.00	7.06	0.0	89999.94	0.0	729.03	136.02	865.05	-10.30
1.740	133000.00	20.43	32.00	35.00	8.64	0.0	132999.94	0.0	796.84	104.00	902.00	-10.30
1.740	155000.00	21.47	32.00	35.00	9.55	0.0	154999.94	0.0	798.00	104.00	902.00	-10.30
1.740	210000.00	24.35	32.00	35.00	11.34	0.0	209999.94	0.0	798.00	104.00	902.00	-10.30
1.750	90000.00	17.12	50.00	35.00	6.70	0.0	89999.94	0.0	753.36	133.82	887.18	-6.60
1.750	133000.00	20.59	50.00	35.00	8.28	46.23	132915.38	38.38	821.81	100.00	922.41	-6.60
1.750	155000.00	21.66	50.00	35.00	9.17	105.28	154794.81	99.90	826.80	100.00	926.80	-6.60
1.750	210000.00	24.58	50.00	35.00	10.95	364.57	209219.38	416.35	838.74	100.00	938.74	-6.60
2.380	90000.00	19.04	3300.00	35.00	6.17	5662.04	84337.94	0.0	2374.74	83.84	2458.58	-4.70
2.380	133000.00	22.89	3300.00	35.00	6.71	19042.63	113957.31	0.0	2403.59	68.42	2472.01	-4.70
2.380	155000.00	24.30	3300.00	35.00	7.08	25922.41	129077.69	0.0	2413.32	62.80	2476.12	-4.70
2.380	210000.00	27.82	3300.00	35.00	7.72	45408.68	164591.38	0.0	2435.52	48.70	2484.23	-4.70
2.980	90000.00	20.50	3200.00	35.00	8.64	4.08	89995.88	0.0	528.14	238.11	766.24	-4.60
2.980	133000.00	23.85	3200.00	35.00	10.92	17.65	132982.31	0.0	538.26	236.25	774.51	-4.60
2.980	155000.00	25.06	3200.00	35.00	12.08	26.96	154973.00	0.0	541.92	235.58	777.49	-4.60
2.980	210000.00	27.81	3200.00	35.00	14.67	59.53	209940.44	0.0	550.24	234.05	784.29	-4.60
3.180	90000.00	21.41	1100.00	35.00	8.26	5.84	89994.13	0.0	530.89	237.60	768.49	-4.60
3.180	133000.00	25.09	1100.00	35.00	10.35	23.30	132976.53	0.0	542.02	235.56	777.58	-4.60
3.180	155000.00	26.52	1100.00	35.00	11.38	35.57	154964.38	0.0	546.33	234.77	781.10	-4.60
3.180	210000.00	29.79	1100.00	35.00	13.63	78.42	209921.56	0.0	554.55	232.95	787.49	-4.60
3.380	90000.00	22.38	1049.99	35.00	7.02	57.83	89942.13	0.0	1077.45	32.67	1110.12	-4.60
3.380	133000.00	26.66	1049.99	35.00	7.64	214.85	132785.06	0.0	1100.51	21.60	1122.11	-4.60
3.380	155000.00	28.41	1049.99	35.00	8.04	324.04	154675.94	0.0	1108.42	17.06	1125.48	-4.60
3.380	210000.00	32.79	1050.00	35.00	6.84	559.88	164070.25	45369.91	2143.94	5.72	2149.66	-4.60

SECTION SECTION	DISCHARGE DISCHARGE	CWSEL CWSEL	XLCH	K* XNCH	VCH	QLOB	QCH	QROB	TOPWID	SSTA	ENDST	ELMIN
9.850	71000.00	33.01	3549.99	40.00	3.21	2104.44	66100.38	2775.12	2048.30	225.99	3306.82	8.40
9.850	109000.00	38.11	3550.03	40.00	3.58	6863.68	95518.00	6618.33	3075.03	111.22	3364.13	8.40
9.850	128000.00	40.10	3550.03	40.00	3.74	10739.55	108604.13	8656.36	3243.61	76.46	3386.53	8.40
9.850	178000.00	44.13	3550.01	40.00	4.18	22766.02	141094.88	14139.13	3415.50	56.97	3472.47	8.40
10.690	71000.00	33.96	4487.99	40.00	4.69	0.0	28349.24	42650.70	2654.22	604.95	4573.46	8.30
10.690	109000.00	38.98	4487.99	40.00	4.91	0.0	37042.83	71957.19	3296.78	595.25	4583.49	8.30
10.690	128000.00	40.96	4488.00	40.00	5.02	0.0	40916.63	87083.31	3756.19	591.43	4587.44	8.30
10.690	178000.00	45.01	4488.00	40.00	5.37	460.64	50587.93	126951.38	4284.93	225.00	4595.53	8.30
11.050	71000.00	34.43	1900.00	42.00	4.38	0.0	33256.80	37743.16	2423.30	271.14	4182.64	1.40
11.050	109000.00	39.39	1900.00	42.00	4.71	0.0	46364.55	62635.36	3746.98	261.24	4194.06	1.40
11.050	128000.00	41.35	1900.00	42.00	4.83	0.0	51853.52	76146.38	3939.12	257.32	4196.44	1.40
11.050	178000.00	45.38	1900.00	42.00	5.20	0.38	65653.25	112346.31	3970.70	230.63	4201.33	1.40
11.340	71000.00	34.93	1530.00	43.00	4.92	7628.12	35463.58	27908.25	1855.28	820.15	3431.91	10.00
11.340	109000.00	39.82	1529.99	43.00	5.41	13028.00	49639.75	46332.18	3060.22	359.11	3437.78	10.00
11.340	128000.00	41.75	1529.99	43.00	5.61	16226.32	55758.73	56014.94	3107.65	332.45	3440.11	10.00
11.340	178000.00	45.77	1529.99	43.00	6.16	25373.54	71156.63	81469.01	3191.12	253.80	3444.92	10.00
11.670	71000.00	35.67	1739.99	42.00	5.96	3.40	70851.50	145.04	867.43	3497.38	4675.53	12.80
11.670	109000.00	40.37	1739.99	42.00	7.01	1472.56	107002.69	524.67	1229.89	3450.83	4686.61	12.80
11.670	128000.00	42.23	1739.99	42.00	7.48	2976.82	124266.25	756.85	1257.68	3432.36	4690.04	12.80
11.670	178000.00	46.12	1739.99	42.00	8.66	8158.68	168383.56	1457.84	1627.49	2781.36	4690.41	12.80
12.480	71000.00	39.06	4224.99	41.00	8.72	0.0	70999.94	0.0	501.56	1433.03	1934.59	17.50
12.480	109000.00	43.73	4224.99	41.00	10.33	9.25	108990.69	0.0	621.48	1324.08	1945.56	17.50
12.480	128000.00	45.61	4224.99	41.00	11.06	361.59	127638.38	0.0	863.71	989.69	1949.94	17.50
12.480	178000.00	49.66	4224.99	41.00	12.66	4271.37	173616.25	112.37	1237.95	943.55	2840.38	17.50
12.950	71000.00	41.96	2112.00	43.00	9.35	12.12	70682.69	305.20	681.88	51.47	1236.76	19.60
12.950	109000.00	46.82	2112.00	43.00	10.93	84.53	103148.19	5767.27	1365.83	45.58	2333.63	19.60
12.950	128000.00	48.84	2112.00	43.00	11.43	140.74	116787.44	11071.81	1514.97	43.13	2364.22	19.60
12.950	178000.00	53.38	2112.00	43.00	12.38	334.71	148234.94	29430.31	2130.38	37.62	2804.86	19.60
13.500	71000.00	46.00	3167.99	45.00	6.60	4980.51	64901.70	1117.75	1404.79	874.01	2739.98	20.10
13.500	109000.00	51.03	3168.00	45.00	7.12	15354.08	89224.19	4421.66	2051.05	845.88	4045.19	20.10
13.500	128000.00	53.04	3168.00	45.00	7.33	21114.28	99752.19	7133.47	2409.01	400.00	4065.68	20.10
13.500	178000.00	57.47	3168.00	45.00	7.60	37612.96	123051.81	17335.29	3511.34	400.00	4245.00	20.10
14.010	71000.00	48.35	2639.99	46.00	6.24	1027.42	69223.69	748.85	750.58	1013.26	2625.41	19.70
14.010	109000.00	53.14	2639.99	46.00	7.38	2629.59	105078.06	1292.26	811.26	783.25	2630.87	19.70
14.010	128000.00	55.06	2639.99	46.00	7.92	3637.22	122781.56	1581.12	857.41	764.80	2633.06	19.70
14.010	178000.00	59.25	2639.99	46.00	9.03	10592.70	165077.56	2329.66	2265.66	372.19	2637.85	19.70
14.440	71000.00	49.94	2640.00	47.00	4.43	2734.75	67316.75	948.42	1208.59	804.20	2012.79	19.30
14.440	109000.00	55.00	2640.00	47.00	5.41	7857.29	99180.19	1922.51	1415.48	154.97	2032.51	19.30
14.440	128000.00	57.07	2640.00	47.00	5.83	11207.74	114323.56	2468.62	1488.67	144.28	2040.57	19.30
14.440	178000.00	61.52	2640.00	47.00	6.81	21792.00	152190.31	4017.84	1957.94	99.95	2057.88	19.30

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
0.670	90000.000	13.800	0.0	0.0	0.0	1672.507	0.0	0.0
0.670	133000.000	16.100	2.300	0.0	0.0	1785.650	-113.142	0.0
0.670	155000.000	17.100	1.000	0.0	0.0	1794.842	-122.335	0.0
0.670	210000.000	19.100	2.000	0.0	0.0	1813.227	-140.719	0.0
1.190	90000.000	15.276	0.0	1.476	0.0	774.245	0.0	2799.999
1.190	133000.000	17.990	2.714	1.890	0.0	811.975	-37.730	2799.999
1.190	155000.000	19.195	1.205	2.095	0.0	1864.457	-1090.217	2799.999

1.190	210000.000	21.661	2.466	2.561	0.0	1974.908	-1200.663	2799.999
1.700	90000.000	16.854	0.0	1.578	0.0	722.397	0.0	2699.999
1.700	133000.000	20.201	3.347	2.211	0.0	773.521	-51.124	2699.999
1.700	155000.000	21.179	0.978	1.985	0.0	889.740	-167.343	2699.999
1.700	210000.000	23.890	2.711	2.229	0.0	911.650	-189.253	2699.999
1.730	90000.000	16.897	0.0	0.043	0.0	727.342	0.0	150.000
1.730	133000.000	20.263	3.366	0.062	0.0	790.202	-62.860	150.000
1.730	155000.000	21.253	0.990	0.074	0.0	798.000	-70.658	150.000
1.730	210000.000	23.978	2.725	0.088	0.0	798.000	-70.658	150.000
1.740	90000.000	16.991	0.0	0.094	0.0	729.032	0.0	32.000
1.740	133000.000	20.426	3.436	0.163	0.0	796.839	-67.807	32.000
1.740	155000.000	21.473	1.047	0.220	0.0	798.000	-68.968	32.000
1.740	210000.000	24.347	2.873	0.368	0.0	798.000	-68.968	32.000
1.750	90000.000	17.119	0.0	0.128	0.0	753.362	0.0	50.000
1.750	133000.000	20.589	3.471	0.163	0.0	821.807	-68.445	50.000
1.750	155000.000	21.662	1.073	0.189	0.0	826.799	-73.438	50.000
1.750	210000.000	24.580	2.918	0.234	0.0	838.738	-85.376	50.000
2.380	90000.000	19.038	0.0	1.919	0.0	2374.742	0.0	3300.000
2.380	133000.000	22.895	3.857	2.305	0.0	2403.586	-28.844	3300.000
2.380	155000.000	24.300	1.406	2.638	0.0	2413.324	-38.583	3300.000
2.380	210000.000	27.824	3.524	3.244	0.0	2435.524	-60.782	3300.000
2.980	90000.000	20.504	0.0	1.466	0.0	528.136	0.0	3199.999
2.980	133000.000	23.851	3.346	0.956	0.0	538.259	-10.123	3199.999
2.980	155000.000	25.059	1.208	0.758	0.0	541.917	-13.781	3199.999
2.980	210000.000	27.812	2.753	-0.013	0.0	550.240	-22.104	3199.999
3.180	90000.000	21.414	0.0	0.910	0.0	530.887	0.0	1099.999
3.180	133000.000	25.094	3.681	1.244	0.0	542.022	-11.135	1099.999
3.180	155000.000	26.518	1.424	1.460	0.0	546.330	-15.443	1099.999
3.180	210000.000	29.793	3.275	1.981	0.0	554.548	-23.661	1099.999
3.380	90000.000	22.380	0.0	0.966	0.0	1077.449	0.0	1049.989
3.380	133000.000	26.655	4.275	1.561	0.0	1100.512	-23.063	1049.989
3.380	155000.000	28.407	1.752	1.889	0.0	1108.423	-30.973	1049.989
3.380	210000.000	32.791	4.383	2.998	0.0	2143.936	-1066.487	1049.989
3.700	71000.000	23.471	0.0	1.091	0.0	1247.766	0.0	1799.995
3.700	109000.000	27.899	4.428	1.243	0.0	2521.594	-1273.828	1799.995
3.700	128000.000	29.755	1.856	1.347	0.0	2529.000	-1281.235	1799.995
3.700	178000.000	33.566	3.811	0.775	0.0	3549.672	-2301.906	1799.995
3.900	71000.000	23.502	0.0	0.031	0.0	641.598	0.0	1149.999
3.900	109000.000	28.123	4.621	0.225	0.0	1971.540	-1329.943	1149.999
3.900	128000.000	29.980	1.856	0.225	0.0	1979.673	-1338.075	1149.999
3.900	178000.000	33.597	3.717	0.131	0.0	2987.023	-2345.426	1149.999
4.290	71000.000	24.129	0.0	0.627	0.0	1653.855	0.0	1999.999
4.290	109000.000	28.448	4.319	0.325	0.0	1678.304	-24.449	1999.999
4.290	128000.000	30.296	1.848	0.317	0.0	1686.361	-32.506	1999.999
4.290	178000.000	34.006	3.710	0.309	0.0	27.4.094	-1060.239	1999.999
5.010	71000.000	25.195	0.0	1.066	0.0	1126.224	0.0	3999.999
5.010	109000.000	29.608	4.414	1.161	0.0	1147.598	-21.373	3999.999
5.010	128000.000	31.482	1.874	1.186	0.0	1158.159	-31.935	3999.999
5.010	178000.000	34.929	3.446	0.923	0.0	1698.248	-572.024	3999.999
5.270	71000.000	25.253	0.0	0.058	0.0	586.973	0.0	1399.999
5.270	109000.000	29.516	4.264	-0.092	0.0	610.766	-23.793	1399.999
5.270	128000.000	31.302	1.786	-0.180	0.0	621.939	-34.966	1399.999
5.270	178000.000	34.892	3.590	-0.031	0.0	1153.378	-566.405	1399.999

5.350	71000.000	25.683	0.0	0.430	0.0	776.307	0.0	499.999
5.350	109000.000	30.173	4.490	0.657	0.0	776.307	0.0	499.999
5.350	128000.000	32.072	1.899	0.770	0.0	776.307	0.0	499.999
5.350	178000.000	35.124	3.052	0.232	0.0	776.307	0.0	499.999
5.390	71000.000	25.716	0.0	0.033	0.0	711.648	0.0	133.000
5.390	109000.000	30.225	4.508	0.052	0.0	729.899	-18.250	133.000
5.390	128000.000	32.133	1.908	0.061	0.0	737.681	-26.033	133.000
5.390	178000.000	35.223	3.091	0.099	0.0	751.552	-39.904	133.000
5.420	71000.000	25.745	0.0	0.029	0.0	690.802	0.0	108.000
5.420	109000.000	30.271	4.526	0.046	0.0	713.422	-22.620	108.000
5.420	128000.000	32.188	1.917	0.056	0.0	720.742	-29.941	108.000
5.420	178000.000	35.316	3.127	0.092	0.0	732.683	-41.882	108.000
5.480	71000.000	25.833	0.0	0.088	0.0	525.450	0.0	350.000
5.480	109000.000	30.348	4.516	0.077	0.0	542.927	-17.477	350.000
5.480	128000.000	32.253	1.904	0.064	0.0	550.292	-24.843	350.000
5.480	178000.000	35.351	3.099	0.036	0.0	562.279	-36.830	350.000
5.940	71000.000	26.509	0.0	0.677	0.0	1521.425	0.0	2499.999
5.940	109000.000	31.395	4.886	1.046	0.0	1576.934	-55.510	2499.999
5.940	128000.000	33.493	2.098	1.240	0.0	1590.007	-68.582	2499.999
5.940	178000.000	37.273	3.781	1.922	0.0	1709.000	-187.575	2499.999
6.360	71000.000	26.990	0.0	0.481	0.0	1042.980	0.0	2150.000
6.360	109000.000	31.892	4.901	0.497	0.0	1337.831	-294.851	2150.000
6.360	128000.000	33.989	2.097	0.496	0.0	1379.778	-336.798	2150.000
6.360	178000.000	37.838	3.849	0.565	0.0	1566.227	-523.247	2150.000
6.490	71000.000	27.133	0.0	0.143	0.0	504.467	0.0	699.999
6.490	109000.000	32.034	4.901	0.143	0.0	535.196	-30.729	699.999
6.490	128000.000	34.122	2.088	0.134	0.0	543.216	-38.750	699.999
6.490	178000.000	37.963	3.841	0.125	0.0	1101.979	-597.512	699.999
6.500	71000.000	27.166	0.0	0.033	0.0	505.421	0.0	35.000
6.500	109000.000	32.090	4.924	0.056	0.0	535.412	-29.991	35.000
6.500	128000.000	34.234	2.144	0.112	0.0	543.651	-38.230	35.000
6.500	178000.000	37.964	3.730	0.001	0.0	1102.371	-596.950	35.000
6.540	71000.000	27.285	0.0	0.119	0.0	578.627	0.0	200.000
6.540	109000.000	32.314	5.029	0.224	0.0	1138.845	-560.218	200.000
6.540	128000.000	34.558	2.244	0.324	0.0	1273.467	-694.839	200.000
6.540	178000.000	38.549	4.091	0.685	0.0	1720.156	-1141.529	200.000
7.130	71000.000	28.351	0.0	1.066	0.0	986.747	0.0	3099.997
7.130	109000.000	33.698	5.347	1.384	0.0	2793.273	-1806.525	3099.997
7.130	128000.000	36.052	2.354	1.495	0.0	2803.776	-1817.028	3099.997
7.130	178000.000	40.482	4.430	1.833	0.0	3721.266	-2734.518	3099.997
7.690	71000.000	29.100	0.0	0.749	0.0	3249.667	0.0	2699.994
7.690	109000.000	34.700	5.600	1.002	0.0	5438.250	-2188.583	2699.994
7.690	128000.000	37.038	2.338	0.986	0.0	5512.668	-2263.001	2699.994
7.690	178000.000	41.497	4.459	1.014	0.0	5547.637	-2297.970	2699.994
8.130	71000.000	29.955	0.0	0.854	0.0	914.742	0.0	2349.990
8.130	109000.000	35.157	5.203	0.457	0.0	4652.285	-3737.543	2349.990
8.130	128000.000	37.389	2.232	0.351	0.0	4659.637	-3744.895	2349.990
8.130	178000.000	41.756	4.367	0.259	0.0	4674.023	-3759.281	2349.990
8.390	71000.000	30.400	0.0	0.445	0.0	1375.714	0.0	1349.998
8.390	109000.000	35.455	5.055	0.298	0.0	4314.734	-2939.021	1349.998
8.390	128000.000	37.533	2.178	0.244	0.0	4724.086	-3348.372	1349.998
8.390	178000.000	41.969	4.335	0.213	0.0	4760.996	-3385.282	1349.998

8.610	71000.000	30.686	0.0	0.286	0.0	740.390	0.0	1199.989
8.610	109000.000	35.681	4.995	0.226	0.0	2942.996	-2202.606	1199.989
8.610	128000.000	37.813	2.132	0.179	0.0	3861.567	-3121.177	1199.989
8.610	178000.000	42.124	4.312	0.156	0.0	4148.117	-3407.728	1199.989
9.200	71000.000	32.138	0.0	1.453	0.0	2672.977	0.0	3249.993
9.200	109000.000	37.327	5.188	1.646	0.0	4113.531	-1440.555	3249.993
9.200	128000.000	39.368	2.042	1.555	0.0	4215.148	-1542.172	3249.993
9.200	178000.000	43.440	4.072	1.316	0.0	4715.563	-2042.586	3249.993
9.850	71000.000	33.007	0.0	0.869	0.0	2048.297	0.0	3549.991
9.850	109000.000	38.107	5.100	0.781	0.0	3075.031	-1026.734	3549.991
9.850	128000.000	40.101	1.993	0.733	0.0	3243.615	-1195.317	3549.991
9.850	178000.000	44.126	4.026	0.686	0.0	3415.503	-1367.206	3549.991
10.690	71000.000	33.957	0.0	0.949	0.0	2654.219	0.0	4487.992
10.690	109000.000	38.979	5.022	0.871	0.0	3296.778	-642.559	4487.992
10.690	128000.000	40.958	1.979	0.857	0.0	3756.188	-1101.969	4487.992
10.690	178000.000	45.010	4.052	0.883	0.0	4284.930	-1630.710	4487.992
11.050	71000.000	34.432	0.0	0.475	0.0	2423.298	0.0	1899.995
11.050	109000.000	39.385	4.953	0.406	0.0	3746.976	-1323.678	1899.995
11.050	128000.000	41.345	1.960	0.387	0.0	3939.119	-1515.821	1899.995
11.050	178000.000	45.380	4.035	0.371	0.0	3970.702	-1547.404	1899.995
11.340	71000.000	34.925	0.0	0.493	0.0	1855.284	0.0	1529.996
11.340	109000.000	39.818	4.893	0.433	0.0	3060.219	-1204.935	1529.996
11.340	128000.000	41.755	1.937	0.410	0.0	3107.653	-1252.369	1529.996
11.340	178000.000	45.770	4.015	0.390	0.0	3191.118	-1335.834	1529.996
11.670	71000.000	35.665	0.0	0.740	0.0	667.428	0.0	1739.991
11.670	109000.000	40.366	4.701	0.548	0.0	1229.892	-362.464	1739.991
11.670	128000.000	42.232	1.866	0.477	0.0	1257.676	-390.248	1739.991
11.670	178000.000	46.118	3.887	0.348	0.0	1627.492	-760.064	1739.991
12.480	71000.000	39.060	0.0	3.395	0.0	501.562	0.0	4224.988
12.480	109000.000	43.733	4.672	3.367	0.0	621.480	-119.918	4224.988
12.480	128000.000	45.606	1.873	3.374	0.0	863.710	-362.148	4224.988
12.480	178000.000	49.664	4.059	3.546	0.0	1237.950	-736.388	4224.988
12.950	71000.000	41.962	0.0	2.902	0.0	681.883	0.0	2111.998
12.950	109000.000	46.819	4.857	3.087	0.0	1365.833	-683.950	2111.998
12.950	128000.000	48.939	2.020	3.234	0.0	1514.971	-833.089	2111.998
12.950	178000.000	53.378	4.539	3.714	0.0	2130.379	-1448.497	2111.998
13.500	71000.000	45.998	0.0	4.036	0.0	1404.793	0.0	3167.994
13.500	109000.000	51.029	5.031	4.210	0.0	2051.054	-646.260	3167.994
13.500	128000.000	53.037	2.008	4.198	0.0	2409.005	-1004.212	3167.994
13.500	178000.000	57.475	4.438	4.097	0.0	3511.336	-2106.542	3167.994
14.010	71000.000	48.354	0.0	2.356	0.0	750.578	0.0	2639.989
14.010	109000.000	53.142	4.788	2.113	0.0	811.263	-60.685	2639.989
14.010	128000.000	55.061	1.918	2.023	0.0	957.407	-106.829	2639.989
14.010	178000.000	59.251	4.190	1.776	0.0	2265.660	-1515.082	2639.989
14.440	71000.000	49.943	0.0	1.589	0.0	1208.588	0.0	2639.999
14.440	109000.000	55.003	5.060	1.861	0.0	1415.475	-206.887	2639.999
14.440	128000.000	57.065	2.062	2.004	0.0	1488.667	-280.078	2639.999
14.440	178000.000	61.518	4.453	2.267	0.0	1957.936	-749.347	2639.999

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
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1	0.0	0.0	2057.836	0.0
2	0.0	0.0	3075.659	1017.823

3	0.0	0.0	3315.626	1257.790
4	0.0	0.0	3915.931	1858.096

HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58,99

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Date of run 15 SEP 76

C
 1 FLOOD PLAIN INFORMATION - WATER SURFACE PROFILES
 T2 FPMS SECTION
 T3 LEWIS RIVER 10 YR. FLOOD

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.0	0.0	0.0	0.	13.800	0.0
J2	NPROF	IPLT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	0.0	-1.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
J3	0.0	17.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.000
NC	0.060	0.040	0.036	0.100	0.300	0.0	0.0	0.0	0.0	0.0
DT	8.000	1400.000	90000.000	133000.000	155000.000	210000.000	155000.000	160000.000	87000.000	0.0
NH	7.000	0.070	600.000	0.050	700.000	0.060	1000.000	0.037	1300.000	0.060
NH	1460.000	0.032	1961.000	0.050	2100.000	0.0	0.0	0.0	0.0	0.0
ET	0.670	0.0	0.0	0.0	0.0	0.0	9.100	0.0	350.000	1985.000
X1	0.670	41.000	1000.000	1985.000	0.0	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	50.000	0.0	20.000	150.000	7.000	250.000	12.000	350.000	15.000	550.000
GR	10.000	600.000	5.000	650.000	5.000	700.000	12.000	750.000	8.000	800.000
GR	12.000	850.000	12.000	950.000	8.000	1000.000	4.000	1100.000	1.000	1150.000
GR	4.000	1250.000	6.000	1300.000	10.000	1400.000	7.800	1460.000	2.400	1480.000
GR	1.000	1500.000	-2.800	1520.000	-4.000	1540.000	-6.000	1580.000	-6.600	1680.000
GR	-7.600	1750.000	-6.500	1800.000	-7.000	1850.000	-8.000	1900.000	-9.000	1910.000
GR	-9.500	1920.000	-7.000	1930.000	6.000	1950.000	13.000	1961.000	29.000	1985.000
GR	29.800	2000.000	28.500	2014.000	23.000	2022.000	18.000	2040.000	17.000	2050.000
GR	16.500	2100.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.060	0.060	0.032	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	1.190	0.0	0.0	0.0	0.0	0.0	9.100	0.0	1050.000	1985.000
X1	1.190	32.000	1150.000	1985.000	2600.000	2800.000	2800.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	19.100	29.600	0.0
GR	12.000	0.0	15.000	70.000	21.000	1060.000	18.000	1150.000	13.000	1200.000
GR	6.000	1230.000	5.000	1280.000	2.600	1350.000	1.500	1400.000	-1.000	1450.000
GR	-0.500	1500.000	-1.500	1520.000	-2.500	1580.000	-3.500	1620.000	-4.500	1650.000
GR	-5.000	1680.000	-4.000	1700.000	-6.500	1740.000	-7.500	1800.000	-7.500	1850.000
GR	-2.000	1900.000	6.000	1915.000	21.000	1974.000	29.000	1985.000	29.600	2000.000
GR	29.000	2015.000	23.500	2020.000	23.000	2035.000	21.000	2056.000	18.500	2069.000
GR	16.500	2105.000	16.500	2150.000	0.0	0.0	0.0	0.0	0.0	0.0
ET	1.700	0.0	0.0	0.0	0.0	0.0	9.100	0.0	100.000	945.000
X1	1.700	42.000	100.000	945.000	2700.000	2700.000	2700.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	21.000	29.500	0.0
GR	19.000	0.0	19.000	60.000	21.000	87.000	21.000	100.000	16.000	125.000
GR	8.000	155.000	4.200	200.000	1.400	210.000	-5.000	225.000	-8.200	240.000
GR	-11.000	260.000	-12.200	270.000	-8.700	285.000	-4.000	300.000	-1.400	320.000
GR	-1.200	330.000	-5.000	350.000	-9.200	360.000	-12.200	380.000	-9.700	400.000
GR	-2.700	435.000	0.500	460.000	-9.700	500.000	-11.200	510.000	-10.200	530.000
GR	-5.200	555.000	-4.700	570.000	-10.700	585.000	-10.700	600.000	-12.700	615.000

GR	-11.200	535.000	-9.700	650.000	-4.700	680.000	-3.200	700.000	-3.100	710.000
GR	-0.200	725.000	8.000	790.000	18.000	850.000	22.000	900.000	29.300	945.000
GR	29.300	960.000	29.300	1030.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.065	0.065	0.035	0.300	0.800	0.0	0.0	0.0	0.0	0.0
ET	1.730	0.0	0.0	0.0	0.0	0.0	9.100	0.0	100.000	907.000
X1	1.730	59.000	100.000	907.000	150.000	150.000	150.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	29.500	29.500	0.0
GR	35.700	0.0	35.700	50.000	35.100	100.000	27.400	100.000	27.400	104.000
GR	18.800	104.000	18.400	127.000	20.900	128.000	13.100	144.000	7.000	153.000
GR	4.500	164.000	2.100	188.000	4.200	215.000	1.800	226.000	-0.900	249.000
GR	1.300	262.000	1.300	278.000	-1.600	300.000	-1.800	320.000	4.100	343.000
GR	2.600	357.000	2.800	368.000	-3.400	389.000	-1.100	400.000	-0.300	417.000
GR	-0.300	437.000	-4.800	460.000	-4.800	475.000	-0.300	509.000	-2.800	526.000
GR	-10.000	544.000	-10.300	564.000	-10.300	588.000	-2.100	600.000	4.900	616.000
GR	1.000	627.000	-5.100	651.000	-4.300	677.000	-4.300	696.000	-5.800	722.000
GR	3.400	744.000	5.700	758.000	-1.500	770.000	-2.000	785.000	-3.700	800.000
GR	0.100	821.000	7.000	839.000	9.200	848.000	16.800	862.000	17.800	878.000
GR	18.100	892.000	20.400	896.000	20.400	902.000	26.900	902.000	26.900	906.900
GR	34.100	907.000	35.600	945.000	35.500	975.000	35.400	1000.000	0.0	0.0
SB	0.950	1.190	2.650	1200.000	800.000	78.000	23120.000	0.0	0.0	0.0
ET	1.740	0.0	0.0	0.0	0.0	0.0	9.100	0.0	100.000	907.000
X1	1.740	0.0	0.0	0.0	32.000	32.000	32.000	1.000	0.0	0.0
X2	0.0	0.0	1.000	29.500	35.800	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	35.800	35.800	0.0
ET	1.750	0.0	0.0	0.0	0.0	0.0	9.100	0.0	100.000	950.000
X1	1.750	44.000	128.000	890.000	50.000	50.000	50.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	100.000	0.0	965.000	0.0	0.0	0.0	0.0
GR	20.000	0.0	19.000	100.000	18.400	127.000	20.900	128.000	13.100	140.000
GR	8.000	156.000	5.200	214.000	-2.600	236.000	-4.700	255.000	2.700	280.000
GR	2.200	298.000	1.700	320.000	0.300	353.000	0.100	378.000	-0.600	403.000
GR	-1.300	423.000	-1.700	443.000	-1.700	463.000	-0.400	483.000	1.400	503.000
GR	-4.800	521.000	-5.000	548.000	-6.400	573.000	-6.600	596.000	-5.800	616.000
GR	-5.300	642.000	-5.200	666.000	-4.800	688.000	-5.700	712.000	-5.300	733.000
GR	-4.900	756.000	-3.800	776.000	-3.000	796.000	-2.800	810.000	-3.200	823.000
GR	-2.200	833.000	5.200	850.000	8.000	858.000	18.000	890.000	20.000	920.000
GR	31.000	965.000	31.000	975.000	20.000	990.000	20.000	1000.000	0.0	0.0
NC	0.070	0.060	0.035	0.010	0.030	0.0	0.0	0.0	0.0	0.0
ET	2.380	0.0	0.0	0.0	0.0	0.0	9.100	0.0	700.000	2490.000
X1	2.380	53.000	1600.000	2490.000	3000.000	3500.000	3300.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	40.000	0.0	15.000	100.000	16.000	1400.000	16.800	1500.000	16.800	1525.000
GR	17.400	1568.000	18.000	1600.000	15.000	1622.000	8.500	1645.000	8.300	1700.000
GR	8.000	1750.000	7.400	1772.000	6.600	1800.000	5.800	1833.000	4.600	1846.000
GR	3.300	1876.000	2.100	1908.000	1.600	1938.000	0.500	1982.000	0.300	2018.000
GR	0.400	2094.000	0.800	2126.000	1.600	2166.000	-0.600	2214.000	-0.600	2230.000
GR	-0.400	2240.000	-0.400	2249.000	-0.600	2268.000	-1.000	2282.000	-0.400	2294.000
GR	-0.400	2315.000	-1.400	2335.000	-1.200	2352.000	-1.900	2375.000	-2.000	2393.000
GR	-3.900	2407.000	-4.700	2417.000	1.800	2427.000	6.600	2434.000	13.300	2443.000
GR	18.000	2454.000	20.500	2465.000	24.600	2477.000	30.400	2490.000	31.000	2500.000
GR	30.700	2513.000	24.800	2527.000	18.800	2555.000	16.300	2575.000	15.600	2600.000
GR	16.000	3100.000	17.000	3499.000	40.000	3500.000	0.0	0.0	0.0	0.0
NC	0.090	0.060	0.035	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	2.980	0.0	0.0	0.0	0.0	0.0	9.100	0.0	240.000	790.000
X1	2.980	54.000	241.000	302.000	2700.000	1000.000	3200.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	40.000	0.0	40.000	200.000	40.000	225.000	33.300	231.000	15.300	241.000
GR	10.400	255.000	7.000	264.000	5.200	272.000	1.300	292.000	0.100	297.000
GR	-3.200	326.000	-4.000	355.000	-4.600	383.000	-3.700	419.000	-3.500	455.000
GR	-3.000	491.000	-2.300	512.000	-2.000	527.000	-1.800	535.000	-1.800	541.000
GR	-1.400	554.000	-1.200	561.000	-0.100	580.000	0.200	592.000	0.0	602.000
GR	0.300	609.000	0.700	622.000	1.000	635.000	1.700	652.000	2.000	668.000

GR	2.000	680.000	2.300	686.000	2.300	696.000	1.500	708.000	-1.800	715.000
GR	4.400	721.000	7.000	725.000	13.100	740.000	18.900	752.000	20.000	765.000
GR	28.100	785.000	31.500	790.000	32.000	802.000	31.300	813.000	27.000	822.000
GR	27.500	834.000	24.400	845.000	19.700	867.000	18.000	880.000	16.200	887.000
GR	17.300	892.000	17.200	905.000	17.500	1799.000	40.000	1800.000	0.0	0.0
ET	3.180	0.0	0.0	0.0	0.0	0.0	9.100	0.0	240.000	790.000
X1	3.180	0.0	0.0	0.0	1100.000	1100.000	1100.000	1.000	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NH	4.000	0.090	51.000	0.035	520.000	0.070	1100.000	0.060	2150.000	0.0
ET	0.0	0.0	0.0	0.0	0.0	0.0	9.100	0.0	20.000	1132.000
X1	3.380	40.000	51.000	1132.000	1150.000	500.000	1050.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	35.000	0.0	15.300	51.000	10.400	65.000	7.000	74.000	5.200	82.000
GR	1.300	102.000	0.100	107.000	-3.200	136.000	-4.000	165.000	-4.600	193.000
GR	-3.700	229.000	-3.500	265.000	-3.000	300.000	-2.300	322.000	-2.000	337.000
GR	-1.800	345.000	-1.800	351.000	-1.400	364.000	-1.200	371.000	-0.100	390.000
GR	-0.200	402.000	0.0	412.000	0.300	419.000	0.700	432.000	1.000	445.000
GR	3.000	460.000	7.000	480.000	10.000	500.000	15.000	520.000	19.000	550.000
GR	17.000	800.000	20.000	1100.000	24.000	1117.000	31.800	1132.000	31.800	1150.000
GR	19.000	1206.000	18.500	1250.000	16.800	1450.000	19.000	2149.000	40.000	2150.000
GT	8.000	1300.000	71000.000	109000.000	128000.000	178000.000	128000.000	141000.000	80000.000	0.0
NH	4.000	0.070	2000.000	0.035	2670.000	0.090	3090.000	0.060	4150.000	0.0
ET	3.700	0.0	0.0	0.0	0.0	0.0	9.100	0.0	600.000	3140.000
X1	3.700	39.000	1840.000	3140.000	2500.000	450.000	1800.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	600.000	0.0	0.0	0.0	0.0	25.500	0.0
GR	35.000	0.0	30.000	70.000	26.000	100.000	25.200	250.000	25.500	600.000
GR	25.600	800.000	26.000	1600.000	26.200	1840.000	25.000	1850.000	20.000	1870.000
GR	15.000	1890.000	15.000	1920.000	19.000	1970.000	15.000	1980.000	10.000	2000.000
GR	5.000	2020.000	0.0	2060.000	-2.000	2100.000	-3.500	2150.000	-3.500	2200.000
GR	-2.000	2250.000	0.0	2400.000	3.000	2500.000	5.000	2600.000	10.000	2660.000
GR	15.000	2670.000	20.000	2685.000	22.500	2710.000	20.000	2930.000	19.000	3000.000
GR	20.000	3090.000	30.000	3130.000	31.000	3140.000	31.000	3155.000	30.000	3170.000
GR	25.000	3190.000	20.000	3220.000	20.000	4149.000	40.000	4150.000	0.0	0.0
NC	0.065	0.060	0.032	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	3.900	0.0	0.0	0.0	0.0	0.0	9.100	0.0	100.000	2005.000
X1	3.900	35.000	1320.000	2005.000	1400.000	400.000	1150.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	40.000	0.0	20.000	40.000	17.000	60.000	16.000	500.000	17.000	1000.000
GR	18.000	1200.000	20.000	1300.000	24.800	1310.000	24.800	1320.000	20.000	1340.000
GR	19.000	1370.000	21.000	1410.000	20.000	1420.000	10.000	1445.000	5.000	1455.000
GR	2.000	1470.000	1.000	1500.000	0.0	1600.000	-2.000	1660.000	-3.500	1730.000
GR	-2.000	1800.000	0.0	1880.000	2.000	1910.000	5.000	1930.000	10.000	1950.000
GR	20.000	1960.000	25.000	1970.000	28.000	1995.000	32.200	2005.000	32.200	2020.000
GR	27.000	2045.000	23.000	2060.000	20.000	2150.000	23.000	2999.000	40.000	3000.000
NC	0.070	0.060	0.035	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	4.290	0.0	0.0	0.0	0.0	0.0	9.100	0.0	72.000	1735.000
X1	4.290	75.000	1183.000	1735.000	2000.000	1900.000	2000.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	50.000	0.0	40.000	26.000	25.000	50.000	22.200	72.000	19.900	102.000
GR	19.100	140.000	19.300	190.000	19.500	240.000	20.100	290.000	20.100	340.000
GR	20.300	390.000	19.300	440.000	19.800	490.000	18.400	540.000	17.100	590.000
GR	18.300	640.000	18.500	690.000	18.400	706.000	18.700	740.000	19.600	770.000
GR	19.200	802.000	17.300	835.000	17.800	852.000	19.200	925.000	19.300	932.000
GR	15.000	941.000	18.900	948.000	21.900	966.000	21.600	980.000	17.900	994.000
GR	18.400	1015.000	17.600	1043.000	20.300	1054.000	21.700	1077.000	22.200	1105.000
GR	21.500	1140.000	22.000	1163.000	22.700	1183.000	22.500	1185.000	16.300	1201.000
GR	10.600	1204.000	8.300	1215.000	5.100	1219.000	2.700	1235.000	1.700	1250.000
GR	2.100	1275.000	2.800	1310.000	2.600	1375.000	1.800	1390.000	1.800	1457.000
GR	1.100	1468.000	-0.700	1490.000	-1.200	1496.000	-1.900	1510.000	-1.500	1531.000
GR	-2.100	1557.000	-2.200	1579.000	-2.200	1606.000	-2.700	1629.000	-3.500	1651.000
GR	-3.500	1669.000	1.300	1677.000	4.000	1679.000	8.300	1687.000	8.000	1699.000

GR	22.600	1708.000	27.700	1717.000	27.800	1721.000	30.700	1729.000	33.000	1735.000
GR	33.000	1741.000	32.500	1747.000	22.900	1778.000	21.000	2749.000	40.000	2750.000
NC	0.065	0.060	0.032	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	5.010	0.0	0.0	0.0	0.0	0.0	9.100	0.0	200.000	1242.000
X1	5.010	79.000	497.000	1242.000	3700.000	4000.000	4000.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	42.100	0.0	44.700	30.000	44.300	37.700	40.600	44.000	34.600	56.000
GR	28.900	67.000	23.300	76.000	21.800	83.000	21.900	89.000	21.900	90.000
GR	22.200	140.000	22.400	199.000	21.200	247.000	23.100	290.000	23.200	340.000
GR	23.500	364.000	23.600	402.000	23.000	443.000	21.300	472.000	20.900	497.000
GR	18.600	508.000	18.400	523.000	10.700	533.000	6.900	548.000	5.700	556.000
GR	4.300	580.000	4.600	616.000	5.400	643.000	5.400	680.000	4.300	698.000
GR	3.700	737.000	3.300	763.000	3.000	790.000	2.800	832.000	2.500	856.000
GR	2.400	875.000	2.000	878.000	1.700	940.000	1.900	952.000	1.600	963.000
GR	0.600	975.000	0.500	990.000	-0.300	1003.000	-0.500	1015.000	-1.000	1028.000
GR	-1.300	1044.000	-1.600	1056.000	-2.100	1068.000	-1.900	1075.000	-2.600	1085.000
GR	-3.300	1097.000	-5.000	1111.000	-1.100	1121.000	2.600	1125.000	6.900	1132.000
GR	11.800	1140.000	16.300	1148.000	22.500	1162.000	22.900	1182.000	23.400	1192.000
GR	27.400	1208.000	31.200	1217.000	32.000	1226.000	34.500	1242.000	34.500	1254.000
GR	32.500	1290.000	31.200	1329.000	25.200	1347.000	21.500	1360.000	21.000	1384.000
GR	21.000	1413.000	24.900	1422.000	25.400	1431.000	25.100	1451.000	24.200	1459.000
GR	24.000	1465.000	22.400	1490.000	22.000	1750.000	40.000	1755.000	0.0	0.0
ET	5.270	0.0	0.0	0.0	0.0	0.0	9.100	0.0	46.000	668.000
X1	5.270	32.000	160.000	668.000	1200.000	1600.000	1400.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	44.000	0.0	40.000	14.000	30.000	46.000	24.000	62.000	22.000	160.000
GR	20.000	164.000	10.000	184.000	8.000	190.000	6.000	200.000	4.000	225.000
GR	4.000	260.000	5.000	290.000	3.000	325.000	1.000	360.000	0.0	400.000
GR	-2.000	450.000	-3.000	500.000	-2.000	550.000	2.000	590.000	6.000	600.000
GR	10.000	610.000	22.500	630.000	23.000	640.000	27.000	650.000	32.000	666.000
GR	34.800	668.000	34.800	680.000	32.000	690.000	24.000	715.000	20.000	740.000
GR	20.000	1180.000	40.000	1185.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.070	0.070	0.035	0.300	0.800	0.0	0.0	0.0	0.0	0.0
X1	5.350	19.000	200.000	1005.000	500.000	500.000	500.000	0.687	0.0	0.0
X3	0.0	0.0	0.0	70.000	0.0	1200.000	0.0	0.0	0.0	0.0
GR	44.000	0.0	24.000	60.000	24.000	180.000	22.000	200.000	10.000	225.000
GR	8.000	245.000	6.000	280.000	2.000	390.000	2.000	500.000	-2.000	600.000
GR	-2.000	700.000	0.0	770.000	2.000	900.000	4.000	960.000	10.000	980.000
GR	22.000	1005.000	24.000	1050.000	24.000	1250.000	44.000	1310.000	0.0	0.0
ET	5.390	0.0	0.0	0.0	0.0	0.0	9.100	0.0	225.000	1280.000
SB	1.250	1.500	2.500	1300.000	200.000	16.000	24500.000	9.000	-4.000	-4.000
X1	5.390	20.000	328.000	1080.000	133.000	133.000	133.000	0.704	0.0	0.0
X2	0.0	0.0	1.000	40.000	45.600	0.0	0.0	0.0	0.0	0.0
GR	45.600	0.0	40.000	212.000	32.000	231.000	24.000	245.000	22.000	328.000
GR	10.000	360.000	0.0	380.000	-2.700	400.000	-2.000	480.000	0.0	540.000
GR	-2.000	590.000	-5.000	730.000	-4.500	800.000	0.0	870.000	1.700	940.000
GR	2.000	1020.000	10.000	1045.000	22.000	1080.000	25.000	1250.000	40.000	1310.000
ET	5.420	0.0	0.0	0.0	0.0	0.0	9.100	0.0	216.000	1267.000
SB	1.250	1.500	2.500	1300.000	200.000	16.000	24500.000	9.000	-5.000	-5.000
X1	5.420	19.000	380.000	1170.000	108.000	108.000	108.000	0.704	0.0	0.0
X2	0.0	0.0	1.000	40.000	45.600	0.0	0.0	0.0	0.0	0.0
GR	42.000	0.0	42.000	203.000	24.000	250.000	25.000	380.000	20.000	410.000
GR	5.000	445.000	0.0	470.000	-5.000	530.000	-5.000	565.000	0.0	570.000
GR	2.000	600.000	0.0	1030.000	4.000	1090.000	6.000	1115.000	10.000	1125.000
GR	20.000	1160.000	24.000	1170.000	26.000	1235.000	42.000	1280.000	0.0	0.0
NC	0.100	0.070	0.035	0.100	0.300	0.0	0.0	0.0	0.0	0.0
ET	5.480	0.0	0.0	0.0	0.0	0.0	9.100	0.0	20.000	590.000
X1	5.480	14.000	60.000	525.000	350.000	350.000	350.000	0.0	0.0	0.0
GR	50.000	0.0	10.000	60.000	0.0	80.000	-5.000	90.000	-6.000	100.000
GR	-5.000	200.000	-4.000	300.000	-1.000	400.000	0.0	450.000	5.000	480.000

GR	15.000	505.000	23.000	525.000	23.000	555.000	42.000	600.000	0.0	0.0
NC	0.080	0.070	0.035	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	5.940	0.0	0.0	0.0	0.0	0.0	9.100	0.0	200.000	1500.000
X1	5.940	70.000	562.000	1183.000	2750.000	2150.000	2500.000	0.0	0.0	0.0
GR	30.300	0.0	30.100	11.000	29.800	22.000	29.100	32.000	20.000	48.000
GR	20.200	95.000	20.400	117.000	24.300	133.000	24.100	179.000	23.800	209.000
GR	24.400	288.000	22.200	304.000	22.100	378.000	21.600	406.000	22.400	439.000
GR	22.700	471.000	22.500	501.000	22.200	540.000	23.800	562.000	21.100	565.000
GR	12.500	577.000	8.200	598.000	7.400	614.000	6.100	674.000	5.100	808.000
GR	3.700	859.000	3.400	901.000	2.900	940.000	0.500	959.000	0.0	977.000
GR	-0.500	989.000	-0.200	1006.000	-1.100	1029.000	-0.500	1041.000	-1.100	1052.000
GR	-0.900	1064.000	-0.900	1072.000	-0.500	1086.000	-0.200	1107.000	-0.600	1122.000
GR	0.500	1138.000	3.600	1141.000	7.400	1148.000	13.700	1158.000	21.200	1172.000
GR	25.900	1183.000	25.100	1193.000	25.200	1201.000	24.900	1220.000	25.000	1248.000
GR	25.800	1274.000	24.600	1309.000	24.700	1323.000	24.500	1361.000	24.900	1403.000
GR	24.500	1409.000	23.800	1426.000	24.300	1459.000	24.000	1502.000	26.500	1508.000
GR	25.800	1531.000	26.000	1556.000	29.600	1570.000	34.000	1587.000	35.200	1596.000
GR	36.000	1624.000	35.900	1649.000	33.100	1668.000	36.000	1685.000	36.500	1709.000
NC	0.090	0.070	0.035	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	6.360	0.0	0.0	0.0	0.0	0.0	9.100	0.0	535.000	1400.000
X1	6.360	26.000	600.000	1180.000	1950.000	2350.000	2150.000	0.0	0.0	0.0
GR	45.000	0.0	40.000	170.000	35.000	220.000	30.000	250.000	29.000	300.000
GR	26.000	520.000	25.000	600.000	15.000	620.000	6.000	640.000	0.0	700.000
GR	-2.000	800.000	-3.000	850.000	-3.000	900.000	-2.000	930.000	6.000	1020.000
GR	6.000	1120.000	10.000	1140.000	15.000	1160.000	20.000	1170.000	25.000	1180.000
GR	25.000	1300.000	26.000	1470.000	30.000	1550.000	35.000	1620.000	35.000	1720.000
GR	38.000	1760.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.300	0.800	0.0	0.0	0.0	0.0	0.0
ET	6.490	0.0	0.0	0.0	0.0	0.0	9.100	0.0	281.000	836.000
X1	6.490	59.000	326.000	780.000	700.000	700.000	700.000	0.0	0.0	0.0
X4	0.000	40.500	265.000	38.700	855.000	0.0	0.0	0.0	0.0	0.0
GR	56.000	0.0	55.900	14.000	53.300	33.000	51.200	49.000	52.400	76.000
GR	51.000	100.000	48.900	140.000	48.400	156.000	47.900	200.000	48.900	247.000
GR	49.500	264.000	37.700	281.000	26.900	299.000	26.600	326.000	14.400	241.000
GR	9.700	355.000	6.300	363.000	6.500	368.000	6.300	373.000	6.000	385.000
GR	6.400	398.000	6.000	415.000	2.500	427.000	-1.000	445.000	-1.500	460.000
GR	-1.800	479.000	-2.000	492.000	-2.000	525.000	-2.300	533.000	-2.300	546.000
GR	-2.900	550.000	-3.400	568.000	-3.000	576.000	-2.800	593.000	-3.100	622.000
GR	-1.700	650.000	0.700	670.000	3.700	688.000	8.400	715.000	9.700	732.000
GR	10.500	747.000	13.700	760.000	26.300	780.000	27.600	816.000	36.800	836.000
GR	49.500	856.000	48.500	900.000	47.000	950.000	45.000	1000.000	43.000	1050.000
GR	41.000	1100.000	38.200	1156.000	37.000	1187.000	36.100	1254.000	35.000	1400.000
GR	34.500	1450.000	35.000	1680.000	48.000	1750.000	48.800	1770.000	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	0.0	9.100	0.0	281.000	836.000
ET	6.500	0.0	0.0	0.0	0.0	0.0	9.100	0.0	281.000	836.000
SB	0.950	1.200	3.000	0.0	219.000	16.000	1980.000	4.500	-3.400	-3.400
X1	6.500	0.0	0.0	0.0	35.000	35.000	35.000	1.000	0.0	0.0
X2	0.0	0.0	1.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BT	13.000	264.000	49.500	40.900	398.000	52.300	43.500	550.000	52.800	44.700
BT	688.000	52.400	44.000	856.000	49.500	40.800	1100.000	41.000	41.000	1156.000
BT	38.200	38.200	1187.000	37.000	37.000	1254.000	36.100	36.100	1400.000	35.000
BT	35.000	1450.000	34.500	34.500	1680.000	35.000	35.000	1750.000	48.000	48.000
NC	0.075	0.075	0.038	0.100	0.300	0.0	0.0	0.0	0.0	0.0
ET	6.540	0.0	0.0	0.0	0.0	0.0	9.100	0.0	220.000	950.000
X1	6.540	30.000	310.000	800.000	200.000	200.000	200.000	0.0	0.0	0.0
GR	56.000	0.0	56.000	25.000	50.000	60.000	50.000	80.000	45.000	120.000
GR	40.000	130.000	35.000	150.000	35.000	200.000	30.000	250.000	27.000	300.000
GR	26.000	310.000	15.000	350.000	10.000	370.000	6.000	380.000	3.000	440.000
GR	-1.000	460.000	-2.000	560.000	-3.000	580.000	-3.000	640.000	-2.000	660.000
GR	8.000	725.000	10.000	760.000	15.000	775.000	26.000	800.000	30.000	1030.000
GR	31.700	1100.000	30.000	1250.000	35.000	1500.000	35.000	1830.000	45.000	1900.000

VH	4.000	0.065	1100.000	0.080	2253.000	0.035	2752.000	0.065	4000.000	0.0
ET	7.130	0.0	0.0	0.0	0.0	0.0	9.100	0.0	465.000	2752.000
XI	7.130	64.000	2240.000	2752.000	2300.000	3150.000	3100.000	0.0	0.0	0.0
GR	50.000	0.0	29.000	90.000	27.000	300.000	28.000	500.000	31.000	800.000
GR	29.000	1100.000	31.000	1300.000	31.000	1900.000	29.400	2010.000	29.300	2060.000
GR	27.500	2113.000	29.000	2167.000	27.400	2240.000	22.100	2253.000	17.300	2280.000
GR	14.200	2289.000	11.100	2304.000	10.300	2323.000	8.700	2343.000	5.500	2349.000
GR	4.700	2358.000	1.500	2381.000	2.200	2397.000	0.200	2408.000	0.900	2417.000
GR	-0.700	2435.000	-2.000	2448.000	-5.600	2463.000	-6.300	2491.000	-5.900	2500.000
GR	-4.100	2520.000	-2.900	2530.000	-1.700	2540.000	-4.300	2556.000	-3.300	2580.000
GR	-2.000	2589.000	-2.000	2590.000	-0.200	2617.000	0.900	2642.000	1.000	2653.000
GR	1.100	2663.000	1.400	2673.000	3.300	2693.000	2.200	2701.000	3.300	2708.000
GR	11.000	2720.000	14.400	2725.000	19.800	2733.000	23.200	2741.000	29.000	2752.000
GR	29.600	2766.000	30.300	2778.000	30.600	2793.000	30.600	2807.000	30.100	2809.000
GR	31.100	2813.000	30.500	2830.000	30.400	2846.000	32.600	2853.000	32.900	2863.000
GR	38.600	2864.000	38.600	3700.000	40.000	3750.000	50.000	4000.000	0.0	0.0
VH	4.000	0.070	765.000	0.038	1167.000	0.080	2100.000	0.065	5600.000	0.0
ET	7.690	0.0	0.0	0.0	0.0	0.0	9.100	0.0	700.000	2200.000
XI	7.690	75.000	765.000	1290.000	1300.000	3000.000	2700.000	0.0	0.0	0.0
GR	45.000	0.0	35.100	28.000	35.700	38.000	36.000	49.000	35.800	57.000
GR	32.000	67.000	31.900	80.000	30.900	120.000	30.800	170.000	30.400	220.000
GR	29.900	270.000	29.300	320.000	29.100	370.000	28.800	420.000	28.800	470.000
GR	28.100	520.000	28.200	570.000	28.100	620.000	28.200	670.000	29.600	741.000
GR	28.500	765.000	22.100	770.000	15.200	784.000	4.200	803.000	-1.800	813.000
GR	-8.200	851.000	-6.000	874.000	-4.800	883.000	-3.200	916.000	-1.100	948.000
GR	1.200	965.000	2.500	978.000	3.600	998.000	4.900	1016.000	5.300	1039.000
GR	7.700	1062.000	7.700	1077.000	10.700	1102.000	12.700	1119.000	13.200	1128.000
GR	13.700	1135.000	15.200	1142.000	17.900	1153.000	18.400	1167.000	17.700	1206.000
GR	19.400	1257.000	23.100	1290.000	23.300	1320.000	23.600	1363.000	24.900	1399.000
GR	27.000	1441.000	27.700	1475.000	28.600	1520.000	25.000	1850.000	23.000	2000.000
GR	26.000	2100.000	26.000	2250.000	24.000	2350.000	25.000	2400.000	26.000	2600.000
GR	30.000	2650.000	35.600	2700.000	33.000	2750.000	30.000	3300.000	30.000	3650.000
GR	28.000	3900.000	31.000	4200.000	30.000	4300.000	26.000	4500.000	30.000	4700.000
GR	30.000	5000.000	25.000	5100.000	26.000	5400.000	30.000	5500.000	50.000	5600.000
VC	0.0	0.0	0.040	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VH	4.000	0.080	55.000	0.040	702.000	0.080	1800.000	0.070	4700.000	0.0
ET	8.130	0.0	0.0	0.0	0.0	0.0	9.100	0.0	55.000	1650.000
XI	8.130	70.000	55.000	771.000	2600.000	1400.000	2350.000	0.0	0.0	0.0
GR	68.500	0.0	33.400	12.000	30.100	18.000	30.400	20.000	31.700	32.000
GR	32.300	45.000	31.800	55.000	23.100	65.000	15.600	73.000	12.000	78.000
GR	8.500	90.000	1.300	102.000	0.700	124.000	8.100	148.000	5.900	169.000
GR	7.600	197.000	7.800	248.000	7.800	300.000	8.600	332.000	8.600	380.000
GR	9.600	410.000	9.200	484.000	9.100	496.000	9.200	509.000	9.600	530.000
GR	10.500	551.000	10.600	565.000	10.400	575.000	10.400	582.000	10.100	597.000
GR	9.600	607.000	8.600	618.000	8.700	632.000	9.100	640.000	10.900	650.000
GR	11.600	660.000	13.300	664.000	15.600	670.000	17.100	671.000	18.500	682.000
GR	21.000	702.000	19.800	724.000	20.800	730.000	27.800	745.000	25.800	754.000
GR	31.700	771.000	30.100	778.000	30.100	830.000	29.700	882.000	29.900	930.000
GR	30.100	965.000	30.000	1001.000	30.900	1030.000	33.100	1072.000	30.500	1114.000
GR	29.700	1149.000	31.700	1195.000	34.800	1206.000	35.000	1210.000	35.100	1215.000
GR	34.200	1230.000	32.000	1600.000	30.000	2200.000	30.000	3000.000	32.000	3300.000
GR	30.000	3350.000	27.500	3400.000	30.000	3450.000	30.000	4650.000	50.000	4700.000
VH	6.000	0.090	1070.000	0.040	1550.000	0.090	1620.000	0.060	2300.000	0.080
VH	3800.000	0.070	4860.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	8.390	0.0	0.0	0.0	0.0	0.0	9.100	0.0	700.000	2300.000
XI	8.390	40.000	1040.000	1620.000	1200.000	1300.000	1350.000	0.0	0.0	0.0
GR	50.000	0.0	40.000	90.000	35.000	100.000	30.800	220.000	25.000	300.000
GR	26.000	350.000	25.000	425.000	28.000	650.000	25.000	825.000	24.500	900.000
GR	26.300	1000.000	25.000	1040.000	16.000	1070.000	0.0	1180.000	0.0	1240.000
GR	15.500	1370.000	5.000	1440.000	5.000	1500.000	16.000	1550.000	20.000	1580.000
GR	30.000	1600.000	16.000	1620.000	17.000	1650.000	17.000	1850.000	16.000	1900.000

GR	35.000	2700.000	33.000	2000.000	34.000	3050.000	34.500	3200.000	34.000	3500.000
GR	33.500	3600.000	33.500	4400.000	30.800	4700.000	32.000	4800.000	50.000	4860.000
NC	0.0	0.0	0.037	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NH	6.000	0.090	1371.000	0.037	1752.000	0.090	1950.000	0.060	2880.000	0.070
NH	3850.000	0.090	4200.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	8.610	0.0	0.0	0.0	0.0	0.0	9.100	0.0	700.000	2750.000

XI	8.610	65.000	1366.000	1878.000	1200.000	1150.000	1200.000	0.0	0.0	0.0
GR	55.000	0.0	35.000	50.000	31.000	280.000	25.000	300.000	25.000	360.000
GR	31.000	380.000	34.000	1120.000	32.000	1164.000	32.100	1194.000	27.600	1217.000
GR	27.700	1247.000	28.000	1295.000	29.100	1326.000	28.500	1366.000	16.100	1371.000
GR	10.300	1382.000	9.200	1387.000	9.200	1396.000	8.100	1404.000	7.300	1417.000
GR	4.100	1427.000	3.800	1431.000	0.100	1448.000	-2.100	1459.000	-4.400	1467.000
GR	-2.800	1510.000	-1.800	1524.000	0.0	1551.000	1.100	1566.000	3.600	1587.000
GR	5.600	1608.000	7.600	1627.000	8.800	1644.000	10.200	1659.000	11.100	1668.000
GR	12.100	1676.000	13.600	1688.000	14.000	1694.000	16.100	1702.000	17.400	1704.000
GR	20.500	1722.000	23.200	1752.000	22.100	1779.000	26.800	1813.000	27.900	1931.000
GR	30.600	1842.000	31.700	1864.000	35.100	1878.000	35.000	1900.000	34.100	1950.000
GR	33.900	2000.000	35.000	2300.000	37.000	2340.000	38.000	2450.000	38.000	2650.000
GR	37.000	2880.000	36.900	2970.000	35.500	3000.000	37.000	3150.000	36.000	3450.000
GR	34.000	3800.000	32.000	3950.000	32.000	4150.000	40.000	4175.000	50.000	4200.000
NC	0.0	0.0	0.040	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NH	6.000	0.080	1100.000	0.060	1900.000	0.090	3745.000	0.040	4361.000	0.080
NH	4385.000	0.060	4800.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	9.200	0.0	0.0	0.0	0.0	0.0	9.100	0.0	1100.000	4389.000

XI	9.200	88.000	3718.000	4385.000	1700.000	2900.000	3250.000	0.0	0.0	0.0
GR	50.000	0.0	45.000	20.000	39.000	50.000	40.000	80.000	40.000	180.000
GR	34.000	230.000	37.000	250.000	30.000	280.000	28.000	300.000	30.000	320.000
GR	32.000	450.000	34.000	560.000	36.000	600.000	30.000	910.000	30.000	960.000
GR	33.000	1400.000	34.000	1900.000	38.000	2100.000	35.000	2250.000	30.000	2450.000
GR	30.000	2700.000	25.000	2800.000	23.000	2900.000	25.000	3050.000	30.000	3200.000
GR	31.500	3400.000	30.800	3410.000	31.300	3600.000	30.300	3652.000	29.300	3677.000
GR	27.900	3718.000	23.500	3745.000	17.200	3769.000	17.100	3800.000	16.000	3817.000
GR	15.500	3836.000	14.300	3870.000	13.600	3891.000	12.500	3907.000	12.900	3922.000
GR	12.900	3931.000	13.300	3952.000	13.500	3958.000	13.700	3969.000	15.000	3973.000
GR	16.000	3983.000	17.100	3989.000	17.000	3996.000	16.000	4061.000	13.900	4018.000
GR	12.500	4037.000	11.000	4053.000	10.500	4069.000	9.900	4088.000	7.200	4105.000
GR	6.000	4128.000	4.000	4150.000	3.300	4158.000	1.300	4159.000	-0.600	4169.000
GR	-1.700	4184.000	-3.100	4198.000	-4.000	4209.000	-4.700	4224.000	-5.200	4228.000
GR	-6.000	4250.000	-5.000	4259.000	-7.000	4278.000	-8.600	4298.000	-8.000	4311.000
GR	-1.800	4321.000	3.500	4332.000	6.300	4338.000	11.500	4343.000	16.000	4350.000
GR	22.000	4361.000	29.300	4373.000	38.800	4385.000	39.700	4389.000	40.000	4393.000
GR	40.400	4404.000	40.700	4646.000	41.700	4700.000	42.000	4728.000	43.500	4744.000
GR	47.300	4760.000	53.100	4782.000	55.000	4800.000	0.0	0.0	0.0	0.0
NH	6.000	0.070	1200.000	0.090	1885.000	0.040	2145.000	0.070	2410.000	0.042
NH	2865.000	0.070	3800.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	9.850	0.0	0.0	0.0	0.0	0.0	9.100	0.0	1200.000	3250.000

XI	9.850	89.000	1728.000	2910.000	1600.000	3250.000	3550.000	0.0	0.0	0.0
GR	50.000	30.000	40.200	75.000	38.500	100.000	35.000	200.000	30.400	260.000
GR	35.100	300.000	36.600	700.000	36.000	855.000	33.500	875.000	36.300	900.000
GR	37.200	1000.000	39.200	1100.000	40.500	1150.000	40.200	1200.000	35.700	1250.000
GR	31.000	1300.000	23.500	1350.000	22.000	1400.000	27.700	1500.000	31.600	1600.000
GR	28.700	1690.000	26.600	1700.000	27.400	1728.000	20.600	1744.000	17.900	1760.000
GR	17.700	1783.000	14.400	1794.000	13.300	1804.000	14.300	1809.000	18.000	1824.000
GR	19.400	1850.000	21.100	1862.000	20.000	1885.000	16.900	1889.000	10.900	1899.000
GR	8.400	1930.000	11.100	2024.000	11.400	2040.000	10.400	2063.000	13.000	2103.000
GR	12.900	2113.000	15.400	2120.000	16.900	2125.000	22.100	2139.000	27.000	2145.000
GR	27.300	2150.000	24.500	2159.000	20.000	2169.000	19.100	2177.000	20.100	2205.000
GR	19.100	2309.000	17.800	2324.000	18.000	2362.000	17.300	2410.000	17.500	2524.000
GR	16.900	2550.000	14.000	2565.000	13.300	2598.000	12.800	2638.000	12.800	2670.000
GR	11.500	2695.000	12.100	2710.000	9.600	2754.000	9.100	2792.000	9.600	2810.000
GR	9.400	2820.000	11.000	2825.000	11.900	2830.000	13.600	2840.000	14.000	2845.000
GR	15.400	2850.000	17.000	2855.000	17.400	2860.000	19.400	2865.000	21.300	2883.000
GR	23.500	2895.000	26.400	2910.000	32.000	2960.000	33.700	3000.000	30.200	3100.000

GR	18.500	3150.000	22.500	3200.000	22.800	3250.000	32.400	3300.000	41.300	3400.000
GR	45.200	3500.000	45.200	3600.000	45.000	3750.000	51.500	3800.000	0.0	0.0
NH	6.000	0.070	590.000	0.041	900.000	0.075	3000.000	0.080	3950.000	0.041
NH	4305.000	0.090	4650.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	10.690	0.0	0.0	0.0	0.0	0.0	9.100	0.0	590.000	4400.000
XI	10.690	93.000	590.000	900.000	4600.000	3200.000	4488.000	0.0	0.0	0.0
GR	44.000	225.000	44.400	250.000	44.000	255.000	71.600	270.000	41.700	350.000
GR	42.200	450.000	42.400	550.000	41.700	590.000	15.800	640.000	14.900	641.000
GR	12.000	643.000	11.700	662.000	11.300	677.000	10.200	695.000	9.100	710.000
GR	8.700	724.000	9.000	742.000	9.700	760.000	8.500	782.000	8.300	801.000
GR	10.400	821.000	11.700	834.000	13.400	845.000	14.900	857.000	17.000	862.000
GR	24.800	900.000	23.700	935.000	24.500	950.000	33.800	1050.000	33.700	1150.000
GR	34.500	1250.000	34.500	1350.000	33.500	1450.000	29.800	1550.000	33.500	1650.000
GR	32.700	1750.000	32.200	1850.000	29.500	1930.000	29.700	1950.000	31.400	1965.000
GR	30.800	2050.000	29.800	2150.000	29.400	2250.000	28.500	2350.000	27.700	2450.000
GR	29.500	2550.000	34.200	2650.000	34.400	2750.000	36.500	2800.000	34.700	2850.000
GR	34.800	2950.000	34.800	3000.000	47.800	3050.000	42.200	3150.000	41.600	3250.000
GR	39.700	3350.000	39.300	3410.000	40.400	3450.000	39.700	3550.000	39.400	3650.000
GR	39.400	3720.000	29.700	3750.000	30.500	3850.000	31.500	3900.000	29.000	3950.000
GR	15.700	4020.000	13.800	4025.000	12.800	4029.000	12.700	4042.000	12.000	4052.000
GR	10.800	4062.000	10.100	4069.000	9.900	4082.000	9.200	4099.000	9.300	4114.000
GR	9.300	4128.000	9.800	4144.000	10.400	4162.000	11.000	4179.000	11.100	4197.000
GR	10.800	4211.000	10.200	4222.000	11.300	4235.000	12.100	4244.000	13.800	4257.000
GR	15.700	4262.000	22.200	4305.000	23.000	4350.000	19.800	4450.000	16.800	4495.000
GR	16.800	4535.000	22.200	4550.000	72.300	4650.000	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.042	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NH	6.000	0.080	290.000	0.042	660.000	0.080	1750.000	0.095	3878.000	0.043
NH	4137.000	0.085	4226.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	11.050	0.0	0.0	0.0	0.0	0.0	9.100	0.0	265.000	4180.000
XI	11.050	57.000	250.000	720.000	2100.000	1400.000	1900.000	0.0	0.0	0.0
GR	50.000	0.0	45.000	250.000	25.000	290.000	20.000	300.000	17.000	310.000
GR	14.000	320.000	14.000	340.000	17.000	360.000	13.000	425.000	10.000	475.000
GR	12.000	525.000	17.000	570.000	18.000	600.000	20.000	660.000	30.000	690.000
GR	35.000	720.000	35.500	750.000	36.000	1100.000	35.000	1300.000	30.000	1330.000
GR	28.000	1400.000	30.000	1470.000	35.000	1600.000	36.000	1750.000	40.000	1820.000
GR	40.000	1990.000	30.000	2070.000	25.000	2090.000	20.000	2140.000	18.700	2170.000
GR	20.000	2210.000	25.000	2410.000	30.000	2450.000	34.000	2500.000	32.000	2800.000
GR	32.000	3100.000	35.000	3500.000	36.800	3870.000	33.800	3878.000	17.200	3905.000
GR	14.500	3921.000	14.600	3936.000	17.900	3965.000	17.200	3988.000	9.800	4019.000
GR	3.800	4051.000	3.500	4073.000	1.400	4085.000	2.100	4105.000	3.600	4111.000
GR	15.200	4123.000	17.200	4137.000	24.800	4165.000	33.000	4179.000	38.500	4193.000
GR	54.200	4212.000	55.900	4226.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.043	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NH	6.000	0.065	250.000	0.080	1140.000	0.043	1540.000	0.095	3160.000	0.042
NH	3410.000	0.080	3530.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	11.340	0.0	0.0	0.0	0.0	0.0	9.100	0.0	500.000	3430.000
XI	11.340	60.000	1140.000	1540.000	1200.000	1500.000	1530.000	0.0	0.0	0.0
GR	50.000	0.0	45.000	300.000	40.000	350.000	37.000	500.000	40.000	780.000
GR	35.000	820.000	30.000	830.000	25.000	850.000	22.000	880.000	22.000	950.000
GR	22.500	1050.000	23.400	1140.000	17.900	1151.000	16.100	1158.000	13.300	1165.000
GR	14.100	1174.000	13.600	1181.000	16.400	1214.000	19.700	1226.000	20.100	1233.000
GR	17.800	1237.000	12.000	1255.000	11.200	1266.000	12.300	1276.000	13.800	1278.000
GR	19.300	1304.000	20.700	1316.000	20.500	1340.000	20.000	1365.000	17.200	1395.000
GR	16.400	1419.000	16.700	1458.000	16.000	1477.000	13.800	1507.000	14.900	1518.000
GR	16.500	1527.000	18.700	1532.000	31.000	1540.000	33.000	1600.000	33.000	1700.000
GR	31.000	2000.000	35.000	2250.000	36.000	2600.000	36.000	2900.000	35.000	3000.000
GR	30.000	3120.000	25.000	3140.000	20.000	3160.000	17.000	3200.000	18.000	3250.000
GR	17.000	3290.000	12.000	3320.000	10.000	3350.000	12.000	3380.000	17.000	3400.000
GR	20.000	3410.000	25.000	3420.000	50.000	3450.000	60.000	3470.000	65.000	3530.000
NC	0.0	0.0	0.042	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NH	4.000	0.075	1500.000	0.090	3920.000	0.042	4645.000	0.080	4790.000	0.0
ET	11.670	0.0	0.0	0.0	0.0	0.0	9.100	0.0	3600.000	4670.000

XI	11.670	55.000	3920.000	4645.000	1200.000	2250.000	1740.000	0.0	0.0	0.0
GR	55.200	0.0	55.200	2650.000	51.000	2700.000	45.000	2800.000	43.800	2835.000
GR	47.000	2900.000	47.600	3000.000	47.200	3100.000	45.500	3200.000	45.300	3300.000
GR	45.500	3400.000	35.400	3500.000	35.500	3600.000	36.100	3700.000	39.000	3800.000
GR	40.400	3900.000	40.200	3920.000	20.300	4000.000	19.800	4003.000	17.800	4027.000
GR	15.600	4043.000	15.800	4066.000	15.800	4084.000	16.000	4095.000	16.000	4117.000
GR	16.900	4135.000	18.000	4152.000	19.800	4195.000	21.000	4270.000	19.400	4300.000
GR	18.500	4339.000	17.500	4365.000	17.000	4397.000	17.400	4418.000	17.600	4438.000
GR	17.600	4457.000	17.400	4480.000	17.100	4492.000	16.600	4503.000	15.600	4515.000
GR	13.700	4529.000	12.800	4545.000	12.900	4559.000	14.000	4568.000	14.500	4571.000
GR	16.700	4586.000	16.700	4601.000	18.500	4605.000	30.500	4645.000	31.200	4665.000
GR	41.800	4690.000	52.400	4691.000	56.000	4700.000	54.300	4735.000	65.800	4800.000
NC	0.090	0.080	0.041	0.100	0.300	0.0	0.0	0.0	0.0	0.0
ET	12.480	0.0	0.0	0.0	0.0	0.0	9.100	0.0	1420.000	1960.000

XI	12.480	50.000	1420.000	1960.000	4100.000	4500.000	4225.000	0.0	0.0	0.0
GR	77.300	0.0	64.300	100.000	61.700	140.000	62.800	300.000	61.600	400.000
GR	53.600	500.000	53.000	640.000	51.200	650.000	53.400	800.000	52.500	900.000
GR	44.700	1000.000	44.800	1100.000	46.700	1200.000	43.900	1300.000	43.100	1420.000
GR	27.600	1470.000	23.800	1474.000	21.700	1475.000	20.300	1478.000	18.200	1512.000
GR	17.500	1595.000	18.200	1640.000	20.000	1690.000	22.200	1715.000	24.000	1765.000
GR	23.400	1800.000	22.200	1810.000	20.000	1830.000	20.000	1860.000	22.200	1870.000
GR	36.400	1900.000	37.100	1930.000	49.900	1960.000	51.200	2000.000	49.900	2045.000
GR	52.000	2100.000	51.800	2200.000	49.800	2300.000	48.000	2400.000	49.600	2500.000
GR	50.400	2600.000	52.300	2700.000	52.300	2800.000	49.600	2820.000	49.800	2880.000
GR	51.600	2900.000	52.800	2935.000	62.800	3000.000	63.500	3100.000	63.500	3600.000
NC	0.085	0.095	0.043	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	12.950	0.0	0.0	0.0	0.0	0.0	9.100	0.0	57.000	300.000

XI	12.950	55.000	57.000	443.000	2250.000	2630.000	2112.000	0.0	0.0	0.0
GR	84.400	0.0	37.400	57.000	28.900	72.000	25.000	85.000	22.400	104.000
GR	20.000	138.000	21.100	167.000	21.300	191.000	20.800	224.000	20.200	241.000
GR	19.800	256.000	19.800	283.000	19.600	308.000	19.900	318.000	20.000	324.000
GR	20.400	335.000	21.900	357.000	23.100	375.000	23.700	386.000	24.700	425.000
GR	27.600	432.000	33.200	440.000	36.800	443.000	36.600	446.000	41.800	450.000
GR	42.700	500.000	41.800	600.000	39.500	700.000	44.200	800.000	45.400	900.000
GR	44.500	1000.000	43.500	1100.000	38.800	1200.000	47.400	1300.000	44.400	1340.000
GR	51.300	1400.000	53.500	1425.000	53.600	1500.000	52.800	1600.000	51.700	1700.000
GR	53.200	1800.000	52.200	1900.000	54.800	2000.000	54.600	2100.000	47.800	2200.000
GR	47.800	2255.000	44.600	2300.000	51.200	2400.000	57.000	2500.000	56.200	2600.000
GR	54.800	2700.000	54.900	2795.000	52.800	2800.000	54.000	2810.000	54.500	2840.000
NC	0.0	0.0	0.045	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VH	5.000	0.070	1370.000	0.090	1700.000	0.045	2240.000	0.090	2850.000	0.070
NH	4250.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	13.500	0.0	0.0	0.0	0.0	0.0	9.100	0.0	1000.000	2550.000

XI	13.500	70.000	1700.000	2240.000	3550.000	2450.000	3168.000	0.0	0.0	0.0
GR	51.800	400.000	52.500	500.000	53.600	600.000	54.500	700.000	56.000	730.000
GR	56.000	810.000	55.000	830.000	50.000	850.000	40.000	910.000	40.000	970.000
GR	42.500	1030.000	40.500	1080.000	45.000	1250.000	47.500	1300.000	44.900	1370.000
GR	47.200	1400.000	46.700	1500.000	39.200	1560.000	39.800	1600.000	39.900	1630.000
GR	32.400	1680.000	33.000	1700.000	31.000	1800.000	28.500	1900.000	25.400	2000.000
GR	24.800	2010.000	24.500	2022.000	23.700	2042.000	23.400	2051.000	22.500	2079.000
GR	21.200	2099.000	20.400	2116.000	20.100	2133.000	20.600	2153.000	21.500	2164.000
GR	24.500	2184.000	24.800	2185.000	29.600	2200.000	51.000	2240.000	51.000	2250.000
GR	50.900	2300.000	49.500	2350.000	52.000	2400.000	52.000	2430.000	50.000	2480.000
GR	40.000	2530.000	39.500	2570.000	42.000	2630.000	45.000	2730.000	55.000	2830.000
GR	55.300	2850.000	55.500	3000.000	57.700	3210.000	59.000	3300.000	59.400	3400.000
GR	58.200	3500.000	58.000	3520.000	47.000	3565.000	53.300	3600.000	56.800	3630.000
GR	56.600	3700.000	56.200	3800.000	51.400	3855.000	51.200	3900.000	46.600	4000.000
GR	56.400	4100.000	56.900	4200.000	56.800	4230.000	54.400	4235.000	56.700	4245.000
NC	0.0	0.0	0.046	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NH	5.000	0.075	1935.000	0.046	2200.000	0.090	2450.000	0.048	2599.000	0.090
NH	2700.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	14.010	0.0	0.0	0.0	0.0	0.0	9.100	0.0	1935.000	2599.000

	SECTION	DISCHARGE	CWSEL	XLCH	VCH	K*VNCH	QLOB	QCH	QROB	TOPWID	SSTA	ENDST	PERENC
	SECTION	DISCHARGE	CWSEL										
100 YEAR	5.480	128000.00	32.25	350.00	8.13	35.00	452.74126958.88	588.50	550.29	26.62	576.91	0.0	
FloodWAY	5.480	128000.00	32.56	350.00	8.05	35.00	462.56126921.63	615.96	551.50	26.15	577.65	570.00	
Sec. L	5.940	128000.00	33.49	2500.00	6.39	35.00	8591.63114660.94	4747.55	1590.01	0.0	1670.30	0.0	
	5.940	128000.00	33.74	2500.00	6.51	35.00	5980.14117644.56	4325.44	1300.00	200.00	1500.00	1300.00	
	6.360	128000.00	33.99	2150.00	6.82	35.00	2317.71121315.50	4366.91	1379.78	226.07	1605.84	0.0	
	6.360	128000.00	34.25	2150.00	6.93	35.00	678.46124215.44	3106.20	865.00	535.00	1400.00	865.00	
	6.490	128000.00	34.12	700.00	9.09	35.00	309.62127194.00	496.36	543.22	286.96	830.18	0.0	
	6.490	128000.00	34.40	700.00	9.01	35.00	325.42127151.94	522.60	544.26	286.51	830.77	555.00	
M	6.500	128000.00	34.23	35.00	9.06	35.00	316.15127176.56	507.21	543.65	286.77	830.42	0.0	
	6.500	128000.00	34.47	35.00	8.98	35.00	330.17127139.31	530.50	544.58	286.37	830.95	555.00	
	6.540	128000.00	34.56	200.00	8.41	38.00	671.27123705.13	3623.54	1273.47	204.42	1477.89	0.0	
	6.540	128000.00	34.71	200.00	8.47	38.00	716.44125385.13	1898.41	730.00	220.00	950.00	730.00	
N	7.130	128000.00	36.05	3100.03	6.80	38.00	15739.02111594.13	666.81	2803.78	59.78	2863.55	0.0	
	7.130	128000.00	36.24	3100.02	7.02	38.00	12065.21115934.75	0.0	2287.00	465.00	2752.00	2287.00	
O	7.690	128000.00	37.04	2699.99	4.85	38.00	5945.5774582.44	47472.01	5512.67	22.52	5535.19	0.0	
	7.690	128000.00	37.08	2700.00	7.01	38.00	827.44108005.25	19167.32	1500.00	700.00	2200.00	1500.00	
P	8.130	128000.00	37.39	2349.99	5.10	40.00	226.5497200.00	30573.46	4659.64	8.83	4668.47	0.0	
	8.130	128000.00	37.96	2349.99	6.25	40.00	0.00121580.69	6419.24	1595.00	55.00	1650.00	1595.00	
	8.390	128000.00	37.63	1350.00	6.34	40.00	15321.39101915.63	10763.01	4724.09	94.72	4818.80	0.0	
	8.390	128000.00	38.36	1350.00	7.14	40.00	8196.10117916.13	1887.67	1600.00	700.00	2300.00	1600.00	
Q	8.610	128000.00	37.81	1199.99	8.35	37.00	10814.44111875.56	5309.91	3861.57	42.97	4168.16	0.0	
	8.610	128000.00	38.69	199.99	8.62	37.00	6406.06119342.31	2251.54	1550.00	700.00	2250.00	1550.00	
	9.200	128000.00	39.37	3250.03	4.98	40.00	29407.5698592.25	0.10	4215.15	48.16	4387.52	0.0	
	9.200	128000.00	40.38	3250.03	4.94	40.00	26777.30101221.13	1.56	3289.00	1100.00	4389.00	3289.00	
	9.850	128000.00	40.10	3550.03	3.74	40.00	10739.55108604.13	8656.36	3243.61	75.46	3386.53	0.0	
	9.850	128000.00	41.09	3550.00	3.71	40.00	8134.46111808.31	8057.20	2050.00	1200.00	3250.00	2050.00	
	10.690	128000.00	40.96	4488.00	5.02	40.00	0.040916.63	87083.31	3756.10	591.43	4587.44	0.0	
	10.690	128000.00	41.89	4488.00	4.98	40.00	0.0042026.00	85973.94	3682.64	590.00	4400.00	3810.00	
	11.050	128000.00	41.35	1900.00	4.83	42.00	0.051853.52	76146.38	3939.12	257.32	4196.44	0.0	
	11.050	128000.00	42.27	1900.00	4.55	42.00	0.050742.94	77257.00	3915.00	265.00	4180.00	3915.00	
	11.340	128000.00	41.75	1529.99	5.61	43.00	16226.3255758.73	56014.94	3107.65	332.45	3440.11	0.0	
	11.340	128000.00	42.61	1529.99	5.34	43.00	16198.8154924.91	56876.31	2929.99	500.00	3430.00	2930.00	
	11.670	128000.00	42.23	1739.99	7.48	42.00	2976.82124266.25	756.85	1257.68	3432.36	4690.04	0.0	
	11.670	128000.00	43.00	1739.99	7.29	42.00	2108.48125193.75	697.69	1070.00	3600.00	4670.00	1070.00	
	12.480	128000.00	45.61	4224.99	11.00	41.00	361.59127638.38	0.0	863.71	989.69	1949.94	0.0	
	12.480	128000.00	46.08	4224.99	10.85	41.00	0.0128000.00	0.0	531.06	1420.00	1951.06	540.00	

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

SECTION	DISCHARGE	CWSEL	XLCH	K*VNCH	VCH	QLOB	QCH	
SECTION	DISCHARGE	CWSEL						
3.700	71000.00	23.47	1800.00	35.00	4.10	0.0	70999.94	
3.700	109000.00	27.90	1800.01	35.00	4.70	1324.94	107675.00	
3.700	128000.00	29.75	1800.00	35.00	4.91	3894.88	124105.13	
3.700	178000.00	33.57	1800.01	35.00	4.69	10949.40	141968.56	
3.900	71000.00	23.50	1150.00	32.00	5.66	0.0	70999.94	
3.900	109000.00	28.12	1150.00	32.00	5.46	23966.12	85033.94	
3.900	128000.00	29.98	1150.00	32.00	5.75	31135.80	96864.13	
3.900	178000.00	33.70	1150.00	32.00	5.84	44007.29	113142.25	
4.290	71000.00	24.13	2000.00	35.00	5.64	5631.66	65368.32	
4.290	109000.00	28.45	2000.00	35.00	6.62	17161.09	91838.88	
4.290	128000.00	30.30	2000.00	35.00	7.00	23766.68	104233.38	
4.290	178000.00	34.01	2000.00	35.00	6.89	35316.63	116628.13	
5.010	71000.00	25.19	4000.00	32.00	4.91	754.67	70245.31	
5.010	109000.00	29.61	4000.00	32.00	6.02	4007.87	104992.19	
5.010	128000.00	31.48	3999.99	32.00	6.49	6110.16	121889.94	
5.010	178000.00	34.93	4000.00	32.00	7.28	11065.66	155255.00	
5.270	71000.00	25.25	1400.00	32.00	6.67	162.05	70837.94	
5.270	109000.00	29.52	1400.00	32.00	8.49	1125.36	107874.63	
5.270	128000.00	31.30	1400.00	32.00	9.27	1805.60	126194.38	
5.270	178000.00	34.89	1400.00	32.00	9.83	3341.60	151636.69	
5.350	71000.00	25.68	500.00	35.00	5.54	86.46	70773.69	
5.350	109000.00	30.17	500.00	35.00	7.01	750.91	107098.00	
5.350	128000.00	32.07	500.00	35.00	7.66	1213.51	124935.56	
5.350	178000.00	35.12	500.00	35.00	9.55	2397.27	171962.19	
5.390	71000.00	25.72	133.00	35.00	5.27	95.97	70764.44	
5.390	109000.00	30.22	133.00	35.00	6.79	579.00	107371.38	
5.390	128000.00	32.13	133.00	35.00	7.45	910.81	125392.31	
5.390	178000.00	35.22	133.00	35.00	9.36	1788.67	172807.25	
5.420	71000.00	25.74	108.00	35.00	5.61	47.56	70941.13	
5.420	109000.00	30.27	108.00	35.00	7.12	706.09	107991.56	
5.420	128000.00	32.19	108.00	35.00	7.78	1201.56	126257.44	
5.420	178000.00	35.32	108.00	35.00	9.70	2514.85	174293.00	
10-YR	5.480	71000.00	25.83	350.00	35.00	5.60	145.01	70798.06
50-YR	5.480	109000.00	30.35	350.00	35.00	7.35	335.32	108301.69
100-YR	5.480	128000.00	32.25	350.00	35.00	8.13	452.74	126958.88
500-YR	5.480	178000.00	35.35	350.00	35.00	10.32	767.17	176024.88
	5.940	71000.00	26.51	2500.00	35.00	5.09	1543.91	69158.06
	5.940	109000.00	31.39	2500.00	35.00	6.02	5935.68	100128.25
L	5.940	128000.00	33.49	2500.00	35.00	6.39	8591.63	114660.94
	5.940	178000.00	37.27	2500.00	35.00	7.54	15432.39	152863.31

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

SECTION	DISCHARGE	CWSEL	XLCH	K*KNCH	VCH	QLOB	QCH	QROB	TOPWID	SSTA	ENDST	ELMIN	
SECTION	DISCHARGE	CWSEL											
3.700	71000.00	23.47	1800.00	35.00	4.10	0.0	70999.94	0.0	1247.77	1856.12	3103.88	-3.50	
3.700	109000.00	27.90	1800.01	35.00	4.70	1324.94	107675.00	0.0	2521.59	600.00	3121.59	-3.50	
3.700	128000.00	29.75	1800.00	35.00	4.91	3894.88	124105.13	0.0	2529.00	600.00	3129.00	-3.50	
3.700	178000.00	33.57	1800.01	35.00	4.69	10949.40	141968.56	25081.98	3549.67	600.00	4149.67	-3.50	
3.900	71000.00	23.50	1150.00	32.00	5.66	0.0	70999.94	0.0	641.60	1325.41	1967.00	-3.50	
3.900	109000.00	28.12	1150.00	32.00	5.46	23966.12	85033.94	0.0	1971.54	23.75	1995.29	-3.50	
3.900	128000.00	29.98	1150.00	32.00	5.75	31135.80	96864.13	0.0	1979.67	20.04	1999.71	-3.50	
3.900	178000.00	33.70	1150.00	32.00	5.84	44007.29	113142.25	20850.50	2987.02	12.61	2999.63	-3.50	
4.290	71000.00	24.13	2000.00	35.00	5.64	5631.66	65368.32	0.0	1653.85	56.84	1710.70	-3.50	
4.290	109000.00	28.45	2000.00	35.00	6.62	17161.09	91838.88	0.0	1678.30	44.48	1722.79	-3.50	
4.290	128000.00	30.30	2000.00	35.00	7.00	23766.68	104233.38	0.0	1686.36	41.53	1727.89	-3.50	
4.290	178000.00	34.01	2000.00	35.00	6.89	35316.63	116628.13	26055.34	2714.09	35.59	2749.68	-3.50	
5.010	71000.00	25.19	4000.00	32.00	4.91	754.67	70245.31	0.0	1126.22	72.95	1199.18	-5.00	
5.010	109000.00	29.61	4000.00	32.00	6.02	4007.87	104992.19	0.0	1147.60	65.63	1213.23	-5.00	
5.010	128000.00	31.48	3999.99	32.00	6.49	6110.16	121889.94	0.0	1158.16	62.02	1220.18	-5.00	
5.010	178000.00	34.93	4000.00	32.00	7.28	11065.66	155255.00	11679.48	1698.25	55.34	1753.59	-5.00	
5.270	71000.00	25.25	1400.00	32.00	6.67	162.05	70837.94	0.0	586.97	58.66	645.63	-3.00	
5.270	109000.00	29.52	1400.00	32.00	8.49	1125.36	107874.63	0.0	610.77	47.29	658.05	-3.00	
5.270	128000.00	31.30	1400.00	32.00	9.27	1805.60	126194.38	0.0	621.94	41.83	663.77	-3.00	
5.270	178000.00	34.89	1400.00	32.00	9.83	3341.60	151636.69	23021.87	1153.38	30.34	1183.72	-3.00	
5.350	71000.00	25.68	500.00	35.00	5.54	86.46	70773.69	139.82	776.31	48.09	824.40	-2.00	
5.350	109000.00	30.17	500.00	35.00	7.01	750.91	107098.00	1151.03	776.31	48.09	824.40	-2.00	
5.350	128000.00	32.07	500.00	35.00	7.66	1213.51	124935.56	1851.02	776.31	48.09	824.40	-2.00	
5.350	178000.00	35.12	500.00	35.00	9.55	2397.27	171962.19	3640.65	776.31	48.09	824.40	-2.00	
5.390	71000.00	25.72	133.00	35.00	5.27	95.97	70764.44	139.55	711.65	170.37	882.01	-5.00	
5.390	109000.00	30.22	133.00	35.00	6.79	579.00	107371.38	1049.59	729.90	164.81	894.71	-5.00	
5.390	128000.00	32.13	133.00	35.00	7.45	910.81	125392.31	1697.01	737.68	162.40	900.08	-5.00	
5.390	178000.00	35.22	133.00	35.00	9.36	1788.67	172807.25	3404.36	751.55	157.23	908.79	-5.00	
5.420	71000.00	25.74	108.00	35.00	5.61	47.56	70941.13	11.26	690.80	172.79	863.59	-5.00	
5.420	109000.00	30.27	108.00	35.00	7.12	706.09	107991.56	302.27	713.42	164.47	877.89	-5.00	
5.420	128000.00	32.19	108.00	35.00	7.78	1201.56	126257.44	540.93	720.74	160.95	881.69	-5.00	
5.420	178000.00	35.32	108.00	35.00	9.70	2514.85	174293.00	1192.33	732.68	155.20	887.88	-5.00	
10-YR	5.480	71000.00	25.83	350.00	35.00	5.60	145.01	70798.06	56.85	525.45	36.25	561.70	-6.00
50-YR	5.480	109000.00	30.35	350.00	35.00	7.35	335.32	108301.69	362.98	542.93	29.48	572.40	-6.00
100-YR	5.480	128000.00	32.25	350.00	35.00	8.13	452.74	126958.88	588.50	550.29	26.62	576.91	-6.00
500-YR	5.480	178000.00	35.35	350.00	35.00	10.32	767.17	176024.88	1208.22	562.28	21.97	584.25	-6.00
L	5.940	71000.00	26.51	2500.00	35.00	5.09	1543.91	69158.06	298.01	1521.42	36.56	1557.98	-1.10
L	5.940	109000.00	31.39	2500.00	35.00	6.02	5935.68	100128.25	2936.11	1576.93	0.0	1576.93	-1.10
L	5.940	128000.00	33.49	2500.00	35.00	6.39	8591.63	114660.94	4747.55	1590.01	0.0	1670.30	-1.10
L	5.940	178000.00	37.27	2500.00	35.00	7.54	15432.39	152863.31	9704.45	1709.00	0.0	1709.00	-1.10

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Fl.

SECTION	DISCHARGE	CWSEL	XLCH	K*VNCH	VCH	QLOB	QCH	QROB	TOPWID	SSTA	ENDST	ELMIN	
SECTION	DISCHARGE	CWSEL											
	6.360	71000.00	26.99	2150.00	35.00	5.15	44.03	70729.19	226.74	1042.98	446.94	1489.92	-3.00
	6.360	109000.00	31.89	2150.00	35.00	6.35	1220.72	105196.31	2583.08	1337.83	238.65	1576.48	-3.00
	6.360	128000.00	33.99	2150.00	35.00	6.82	2317.71	121315.50	4366.91	1379.78	226.07	1605.84	-3.00
	6.360	178000.00	37.84	2150.00	35.00	8.13	5516.31	162788.69	9695.21	1566.23	191.62	1757.84	-3.00
	6.490	71000.00	27.13	700.00	35.00	6.56	1.71	70996.06	2.16	504.47	298.61	803.08	-3.40
	6.490	109000.00	32.03	700.00	35.00	8.33	164.97	108575.50	259.51	535.20	290.44	825.64	-3.40
	6.490	128000.00	34.12	700.00	35.00	9.09	309.62	127194.00	496.36	543.22	286.96	830.18	-3.40
	6.490	178000.00	37.96	700.00	35.00	11.09	746.82	174565.63	2687.77	1101.98	279.50	1695.96	-3.40
	6.500	71000.00	27.17	35.00	35.00	6.55	1.96	70995.63	2.39	505.42	298.56	803.98	-3.40
M	6.500	109000.00	32.09	35.00	35.00	8.31	167.51	108568.81	263.68	535.41	290.35	825.76	-3.40
	6.500	128000.00	34.23	35.00	35.00	9.06	316.15	127176.56	507.21	543.65	286.77	830.42	-3.40
	6.500	178000.00	37.96	35.00	35.00	11.09	747.56	174557.00	2695.65	1102.37	279.45	1696.00	-3.40
	6.540	71000.00	27.28	200.00	38.00	6.37	2.77	70982.88	14.33	578.63	295.25	873.88	-3.00
	6.540	109000.00	32.31	200.00	38.00	7.88	299.72	107296.94	1403.30	1138.85	226.86	1365.70	-3.00
	6.540	128000.00	34.56	200.00	38.00	8.41	671.27	123705.13	3623.54	1273.47	204.42	1477.89	-3.00
	6.540	178000.00	38.65	200.00	38.00	9.76	2144.61	163182.94	12672.64	1720.16	135.40	1855.55	-3.00
	7.130	71000.00	28.35	3100.00	38.00	5.68	85.23	70914.69	0.0	986.75	158.16	2750.77	-6.30
N	7.130	109000.00	33.70	3099.99	38.00	6.64	7757.96	100969.00	273.03	2793.27	69.87	2863.14	-6.30
	7.130	128000.00	36.05	3100.03	38.00	6.80	15739.02	111594.13	666.81	2803.78	59.78	2863.55	-6.30
	7.130	178000.00	40.48	3100.02	38.00	7.38	37410.05	137923.38	2666.52	3721.27	40.79	3762.06	-6.30
	7.690	71000.00	29.10	2699.99	38.00	5.80	71.14	65152.38	5776.46	3249.67	369.93	5477.50	-8.20
O	7.690	109000.00	34.70	2699.99	38.00	5.15	3624.57	72937.06	32438.40	5438.25	59.89	5523.50	-8.20
	7.690	128000.00	37.04	2699.99	38.00	4.85	5945.57	74582.44	47472.01	5512.67	22.52	5535.19	-8.20
	7.690	178000.00	41.50	2700.01	38.00	4.69	11586.00	83263.25	83150.63	5547.64	9.88	5557.52	-8.20
	8.130	71000.00	29.95	2349.99	40.00	5.16	0.0	70944.06	55.90	914.74	57.12	3449.09	0.70
P	8.130	109000.00	35.16	2349.99	40.00	5.24	108.26	91550.19	17341.51	4652.29	10.60	4662.89	0.70
	8.130	128000.00	37.39	2349.99	40.00	5.10	226.54	97200.00	30573.46	4659.64	8.83	4668.47	0.70
	8.130	178000.00	41.76	2350.04	40.00	5.13	540.76	113791.81	63667.34	4674.02	5.36	4679.39	0.70
	8.390	71000.00	30.40	1350.00	40.00	5.69	3035.39	67964.56	0.0	1375.71	225.60	1601.31	0.0
	8.390	109000.00	35.46	1350.00	40.00	6.38	11196.07	94625.13	3178.74	4314.73	99.08	4811.54	0.0
	8.390	128000.00	37.63	1350.00	40.00	6.34	15321.39	101915.63	10763.01	4724.09	94.72	4818.80	0.0
	8.390	178000.00	41.97	1350.00	40.00	6.32	24608.12	117569.75	35822.12	4761.00	72.24	4833.24	0.0
	8.610	71000.00	30.69	1199.99	37.00	7.17	709.51	70290.44	0.0	740.39	281.05	1843.71	-4.40
Q	8.610	109000.00	35.68	1199.99	37.00	8.26	5901.27	101697.31	1401.39	2943.00	48.30	4161.50	-4.40
	8.610	128000.00	37.81	1199.99	37.00	8.35	10814.44	111875.56	5309.91	3861.57	42.97	4168.16	-4.40
	8.610	178000.00	42.12	1199.99	37.00	8.36	23530.25	130389.00	24080.64	4148.12	32.19	4180.31	-4.40
	9.200	71000.00	32.14	3249.99	40.00	4.50	3434.23	67565.69	0.0	2672.98	270.84	4376.58	-8.60
	9.200	109000.00	37.33	3250.00	40.00	4.88	19020.17	89979.81	0.0	4113.53	202.28	4383.14	-8.60
	9.200	128000.00	39.37	3250.03	40.00	4.98	29407.56	98592.25	0.10	4215.15	48.16	4387.52	-8.50
	9.200	178000.00	43.44	3250.00	40.00	5.33	57430.02	119955.25	614.77	4715.56	27.80	4743.36	-8.60

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

LEWIS RIVER FLOODWAY

SECTION	DISCHARGE	CWSEL	XLCH	VCH	K*VNCH	QLOB	QCH	GRQB	TOPWID	SSTA	ENDST	PERENC
SECTION	DISCHARGE	CWSEL										
100 year	0.670	155000.00	17.10	0.0	8.65	36.00	13119.09141880.81	0.0	1794.84	172.31	1967.15	0.0
Floodway	0.670	155000.00	17.60	0.0	8.50	36.00	11612.50143387.38	0.0	1617.90	350.00	1967.90	1635.00
	1.190	155000.00	19.19	2800.00	9.43	32.00	11996.57143003.38	0.0	1864.46	0.0	1966.89	0.0
	1.190	155000.00	19.52	2800.00	10.05	32.00	21.88154978.06	0.0	863.75	1104.43	1968.18	935.00
	1.700	155000.00	21.18	2700.00	8.94	32.00	154.34154845.63	0.0	889.74	0.0	889.74	0.0
	1.700	155000.00	21.90	2700.00	8.66	32.00	0.0 155000.00	0.0	798.69	100.00	898.69	845.00
	1.730	155000.00	21.25	150.00	9.66	35.00	0.0 154999.94	0.0	798.00	104.00	902.00	0.0
	1.730	155000.00	21.96	150.00	9.33	35.00	0.0 154999.94	0.0	798.00	104.00	902.00	807.00
	1.740	155000.00	21.47	32.00	9.55	35.00	0.0 154999.94	0.0	798.00	104.00	902.00	0.0
	1.740	155000.00	22.16	32.00	9.24	35.00	0.0 154999.94	0.0	798.00	104.00	902.00	807.00
	1.750	155000.00	21.66	50.00	9.17	35.00	105.28154794.81	99.90	826.80	100.00	926.80	865.00
	1.750	155000.00	22.32	50.00	8.90	35.00	140.43154718.94	140.59	829.51	100.00	929.51	865.00
	2.380	155000.00	24.30	3300.00	7.08	35.00	25922.41129077.69	0.0	2413.32	62.80	2476.12	0.0
	2.380	155000.00	24.76	3300.00	7.44	35.00	16481.55138518.44	0.0	1777.36	700.00	2477.36	1790.00
	2.980	155000.00	25.06	3200.00	12.08	35.00	26.96154973.00	0.0	541.92	235.58	777.49	0.0
	2.980	155000.00	25.78	3200.00	11.73	35.00	14.60154985.38	0.0	539.27	240.00	779.27	550.00
	3.180	155000.00	26.52	1100.00	11.38	35.00	35.57154964.38	0.0	546.33	234.77	781.10	0.0
	3.180	155000.00	27.10	1100.00	11.13	35.00	16.66154983.31	0.0	542.54	240.00	782.54	550.00
	3.380	155000.00	28.41	1049.99	8.04	35.00	324.04154675.94	0.0	1108.42	17.06	1125.48	0.0
	3.380	155000.00	28.90	1049.99	7.82	35.00	367.06154632.88	0.0	1106.42	20.00	1126.42	1112.00
	3.700	128000.00	29.75	1800.00	4.91	35.00	3894.88124105.13	0.0	2529.00	600.00	3129.00	-600.00
	3.700	128000.00	30.17	1800.00	4.78	35.00	4450.25123549.69	0.0	2531.57	600.00	3131.57	-600.00
	3.900	128000.00	29.98	1150.00	5.75	32.00	31135.80 96864.13	0.0	1979.67	20.04	1999.71	0.0
	3.900	128000.00	30.37	1150.00	5.70	32.00	30570.68 97429.31	0.0	1900.63	100.00	2000.63	1905.00
	4.290	128000.00	30.30	2000.00	7.00	35.00	23766.68104233.38	0.0	1686.36	41.53	1727.89	0.0
	4.290	128000.00	30.68	2000.00	6.87	35.00	24269.09103730.88	0.0	1656.94	72.00	1728.94	1663.00
	5.010	128000.00	31.48	3999.99	6.49	32.00	6110.16121889.94	0.0	1158.16	62.02	1220.18	0.0
	5.010	128000.00	31.80	3999.99	6.50	32.00	4416.50123583.56	0.0	1023.71	200.00	1223.71	1042.00
	5.270	128000.00	31.30	1400.00	9.27	32.00	1805.60126194.38	0.0	621.94	41.83	663.77	0.0
	5.270	128000.00	31.65	1400.00	9.15	32.00	1899.39126100.56	0.0	618.89	46.00	664.89	622.00
	5.350	128000.00	32.07	500.00	7.66	35.00	1213.51124935.56	1851.02	776.31	48.09	824.40	1130.00
	5.350	128000.00	32.39	500.00	7.56	35.00	1269.08124796.38	1934.60	776.31	48.09	824.40	1130.00
	5.390	128000.00	32.13	133.00	7.45	35.00	910.81125392.31	1697.01	737.68	162.40	900.08	0.0
	5.390	128000.00	32.45	133.00	7.37	35.00	950.20125274.63	1775.33	739.12	161.87	900.98	1055.00
	5.420	128000.00	32.19	108.00	7.78	35.00	1201.56126257.44	540.93	720.74	160.95	881.69	0.0
	5.420	128000.00	32.51	108.00	7.69	35.00	1263.82126163.50	572.67	721.96	160.36	882.32	1051.00

	SECTION	DISCHARGE	CWSEL	XLCH	VCH	K*VNCH	QLOB	QCH	QROB	TOPWID	SSTA	ENDST	PERENC
	SECTION	DISCHARGE	CWSEL										
100 YEAR	5.480	128000.00	32.25	350.00	8.13	35.00	452.74126958.88		588.50	550.29	26.62	576.91	0.0
FLOODWAY	5.480	128000.00	32.56	350.00	8.05	35.00	462.56126921.63		615.96	551.50	26.15	577.65	570.00
Sec. L	5.940	128000.00	33.49	2500.00	6.39	35.00	8591.63114660.94		4747.55	1590.01	0.0	1670.30	0.0
	5.940	128000.00	33.74	2500.00	6.51	35.00	5980.14117694.56		4325.44	1300.00	200.00	1500.00	1300.00
	6.360	128000.00	33.99	2150.00	6.82	35.00	2317.71121315.50		4366.91	1379.78	226.07	1605.84	0.0
	6.360	128000.00	34.25	2150.00	6.93	35.00	678.46124215.44		3106.20	865.00	535.00	1400.00	865.00
	6.490	128000.00	34.12	700.00	9.09	35.00	309.62127194.00		496.36	543.22	286.96	830.18	0.0
	6.490	128000.00	34.40	700.00	9.01	35.00	325.42127151.94		522.60	544.26	286.51	830.77	555.00
M	6.500	128000.00	34.23	35.00	9.06	35.00	316.15127176.56		507.21	543.65	286.77	830.42	0.0
	6.500	128000.00	34.47	35.00	8.98	35.00	330.17127139.31		530.50	544.58	286.37	830.95	555.00
M	6.540	128000.00	34.56	200.00	8.41	38.00	671.27123705.13		3623.54	1273.47	204.42	1477.89	0.0
	6.540	128000.00	34.74	200.00	8.47	38.00	716.44125385.13		1898.41	730.00	220.00	950.00	730.00
N	7.130	128000.00	36.05	3100.00	6.80	38.00	15739.02111594.13		666.81	2803.78	59.78	2863.55	0.0
	7.130	128000.00	36.24	3100.00	7.02	38.00	12065.21115934.75		0.0	2287.00	465.00	2752.00	2287.00
O	7.690	128000.00	37.04	2699.99	4.85	38.00	5945.57 74582.44		47472.01	5512.67	22.52	5535.19	0.0
	7.690	128000.00	37.08	2700.00	7.01	38.00	827.44108005.25		19167.32	1500.00	700.00	2200.00	1500.00
P	8.130	128000.00	37.39	2349.99	5.10	40.00	226.54 97200.00		30573.46	4659.64	8.83	4668.47	0.0
	8.130	128000.00	37.96	2349.99	6.25	40.00	0.00121580.69		6419.24	1595.00	55.00	1650.00	1595.00
	8.390	128000.00	37.63	1350.00	6.34	40.00	15321.39101915.63		10763.01	4724.09	94.72	4818.80	0.0
	8.390	128000.00	38.36	1350.00	7.14	40.00	8196.10117916.13		1887.67	1600.00	700.00	2300.00	1600.00
Q	8.610	128000.00	37.81	1199.99	8.35	37.00	10814.44111875.56		5309.91	3861.57	42.97	4168.16	0.0
	8.610	128000.00	38.69	1199.99	8.62	37.00	6406.06119342.31		2251.54	1550.00	700.00	2250.00	1550.00
	9.200	128000.00	39.37	3250.00	4.98	40.00	29407.56 98592.25		0.10	4215.15	48.16	4387.52	0.0
	9.200	128000.00	40.38	3250.00	4.94	40.00	26777.30101221.13		1.56	3289.00	1100.00	4389.00	3289.00
	9.850	128000.00	40.10	3550.00	3.74	40.00	10739.55108604.13		8656.36	3243.61	76.46	3386.53	0.0
	9.850	128000.00	41.09	3550.00	3.71	40.00	8134.46111808.31		8057.20	2050.00	1200.00	3250.00	2050.00
	10.690	128000.00	40.96	4488.00	5.02	40.00	0.0 40916.63		87083.31	3756.19	591.43	4587.44	0.0
	10.690	128000.00	41.89	4488.00	4.98	40.00	0.00 42026.00		85973.94	3682.64	590.00	4400.00	3810.00
	11.050	128000.00	41.35	1900.00	4.83	42.00	0.0 51853.52		76146.38	3939.12	257.32	4196.44	0.0
	11.050	128000.00	42.27	1900.00	4.55	42.00	0.0 50742.94		77257.00	3915.00	265.00	4180.00	3915.00
	11.340	128000.00	41.75	1529.99	5.61	43.00	16226.32 55758.73		56014.94	3107.65	332.45	3440.11	0.0
	11.340	128000.00	42.61	1529.99	5.34	43.00	16198.81 54924.91		56876.31	2929.99	500.00	3430.00	2930.00
	11.670	128000.00	42.23	1739.99	7.48	42.00	2976.82124266.25		756.85	1257.68	3432.36	4690.04	0.0
	11.670	128000.00	43.00	1739.99	7.29	42.00	2108.48125193.75		697.69	1070.00	3600.00	4670.00	1070.00
	12.480	128000.00	45.61	4224.99	11.06	41.00	361.59127638.38		0.0	863.71	989.69	1949.94	0.0
	12.480	128000.00	46.08	4224.99	10.85	41.00	0.0 128000.00		0.0	531.06	1420.00	1951.06	540.00

BRIDGE W.S.= 32.35 BRIDGE VELOCITY= 6.89

EGPRS	EGLWC	H3	QWEIR	CPR	BAREA	ELLC	ELTRD	CLASS
0.0	33.28	0.06	0.	128000.	24500.	40.00	45.60	1.00

3470 ENCROACHMENT STATIONS= 158.4 901.1 TYPE= 1 TARGET= 1055.000

C I-5 HIGHWAY BRIDGE -NORTHBOUND

5.390	37.45	32.45	0.0	0.0	33.28	0.83	0.02	0.0	22.00
128000.	950.	125275.	1775.	596.	16998.	1150.	12565.	730.	22.00
0.95	1.59	7.37	1.54	0.070	0.035	0.070	0.034	-5.00	161.87
0.000304	133.	133.	133.	0	0	1	0.0	739.12	900.98

SPECIAL BRIDGE

SB	XK	XKOR	COFO	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.50	1300.00	200.00	16.00	24500.00	9.00	-5.00	-5.00

CLASS A LOW FLOW

BRIDGE W.S.= 32.43 BRIDGE VELOCITY= 6.57

EGPRS	EGLWC	H3	QWEIR	CPR	BAREA	ELLC	ELTRD	CLASS
0.0	33.41	0.05	0.	128000.	24500.	40.00	45.60	1.00

3470 ENCROACHMENT STATIONS= 152.1 892.0 TYPE= 1 TARGET= 1051.000

5.420	37.51	32.51	0.0	0.0	33.41	0.90	0.13	0.0	25.00
128000.	1264.	126164.	573.	799.	16412.	385.	12610.	732.	24.00
0.96	1.58	7.69	1.49	0.070	0.035	0.070	0.034	-5.00	160.36
0.000371	108.	108.	108.	0	0	1	0.0	721.96	882.32

CCHV= 0.100 CFHV= 0.300

3470 ENCROACHMENT STATIONS= 20.0 590.0 TYPE= 1 TARGET= 570.000

5.480	38.56	32.56	0.0	0.0	33.56	1.00	0.12	0.03	10.00
128000.	463.	126922.	616.	382.	15768.	395.	12747.	737.	23.00
0.97	1.21	8.05	1.56	0.100	0.035	0.070	0.034	-6.00	26.15
0.000335	350.	350.	350.	2	J	1	0.0	551.50	577.65

SECNO	DEPTH	CWSEL	CRISW	WSELK	EG	HV	HL	LOSS	BANK ELEV
0	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 200.0 1500.0 TYPE= 1 TARGET= 1300.000

5.940	34.84	33.74	0.0	0.0	34.35	0.61	0.75	0.04	23.80
128000.	5980.	117695.	4325.	3969.	18086.	2863.	13936.	789.	25.90
1.08	1.51	6.51	1.51	0.080	0.035	0.070	0.034	-1.10	200.00
0.000269	2750.	2500.	2150.	2	J	1	0.0	1300.00	1500.00

24,918 = L

6.360	37.25	34.25	0.0	0.0	34.97	0.72	0.59	0.03	25.00
128000.	678.	124215.	3106.	575.	17935.	2006.	15058.	843.	25.60
1.17	1.18	6.93	1.55	0.090	0.035	0.070	0.034	-3.00	535.00
0.000279	1950.	2150.	2350.	2	0	1	0.0	865.00	1400.00

CCHV= 0.300 CEHV= 0.800

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 281.0 836.0 TYPE= 1 TARGET= 555.000

C WOODLAND HIGHWAY BRIDGE

6.490	37.80	34.40	0.0	0.0	35.65	1.25	0.25	0.42	26.60
128000.	325.	127152.	523.	253.	14114.	318.	15341.	854.	26.30
1.19	1.29	9.01	1.64	0.090	0.035	0.070	0.034	-3.40	286.51
0.000476	700.	700.	700.	2	0	1	0.0	544.26	830.77

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.95	1.20	3.00	0.0	219.00	16.00	19800.00	4.50	-3.40	-3.40

6840.FLOW IS BY WEIR AND LOW FLOW
BRIDGE W.S.= 34.46 BRIDGE VELOCITY= 8.99

EGPRS	EGLWC	H3	QWEIR	CPR	BAREA	ELLC	ELTRD	CLASS
48.00	35.72	0.07	865.	127163.	19800.	48.00	34.50	15.00

3470 ENCROACHMENT STATIONS= 281.0 836.0 TYPE= 1 TARGET= 555.000

6.500	37.87	34.47	0.0	0.0	35.72	1.25	0.07	0.0	26.60
128000.	330.	127139.	530.	256.	14151.	322.	15353.	855.	26.30
1.20	1.29	8.98	1.65	0.090	0.035	0.070	0.034	-3.40	286.37
0.000472	35.	35.	35.	2	0	3	0.0	544.58	830.95

CCHV= 0.100 CEHV= 0.300

3470 ENCROACHMENT STATIONS= 220.0 950.0 TYPE= 1 TARGET= 730.000

6.540	37.74	34.74	0.0	0.0	35.83	1.09	0.10	0.02	26.00
128000.	716.	125385.	1898.	492.	14803.	1115.	15424.	858.	26.00
1.20	1.46	8.47	1.70	0.075	0.038	0.075	0.034	-3.00	220.00
0.000509	200.	200.	200.	2	0	1	0.0	730.00	950.00

1490 NH CARD USED

3470 ENCROACHMENT STATIONS= 465.0 2752.0 TYPE= 1 TARGET= 2287.000

7.130	42.54	36.24	0.0	0.0	36.93	0.69	1.06	0.04	27.40
128000.	12065.	115935.	0.	11014.	16513.	0.	16883.	948.	100000.00
1.33	1.10	7.02	0.0	0.073	0.035	0.075	0.034	-6.30	465.00
0.000251	2300.	3100.	3150.	2	0	1	0.0	2287.00	2752.00

1490 NH CARD USED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	CROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

3470 ENCROACHMENT STATIONS= 700.0 2200.0 TYPE= 1 TARGET= 1500.000
 7.690 45.28 37.08 0.0 0.0 37.74 0.65 0.80 0.00 28.50
 128000. 827. 108005. 19167. 516. 15415. 19388. 18481. 1052. 23.10 26,319 = O
 1.45 1.60 7.01 1.85 0.070 0.040 0.078 0.035 -8.20 700.00
 0.000360 1900. 2700. 3000. 2 0 1 0.0 1500.00 2200.00

1490 NH CARD USED

3470 ENCROACHMENT STATIONS= 55.0 1650.0 TYPE= 1 TARGET= 1595.000
 8.130 37.26 37.96 0.0 0.0 38.54 0.58 0.79 0.01 31.80
 128000. 0. 121581. 6419. 0. 19465. 5326. 19691. 1116. 31.70 24,861 = P
 1.56 0.00 6.25 1.19 0.080 0.041 0.080 0.035 0.70 55.00
 0.000344 2600. 2350. 1400. 2 0 1 0.0 1595.00 1650.00

1490 NH CARD USED

3470 ENCROACHMENT STATIONS= 700.0 2300.0 TYPE= 1 TARGET= 1600.000
 8.390 38.36 38.36 0.0 0.0 39.10 0.73 0.52 0.05 25.00
 128000. 8196. 117916. 1888. 4363. 16506. 1789. 20416. 1164. 36.00
 1.61 1.88 7.14 1.06 0.090 0.041 0.060 0.035 0.0 700.00
 0.000430 1200. 1350. 1300. 2 0 1 0.0 1600.00 2300.00

1490 NH CARD USED

3470 ENCROACHMENT STATIONS= 700.0 2250.0 TYPE= 1 TARGET= 1550.000
 8.610 43.09 38.69 0.0 0.0 39.76 1.08 0.56 0.10 28.50
 128000. 6406. 119342. 2252. 4539. 13845. 1603. 21002. 1207. 35.10 19,987 = Q
 1.66 1.41 8.62 1.40 0.090 0.038 0.064 0.035 -4.40 700.00
 0.000514 1200. 1200. 1150. 2 0 1 0.0 1550.00 2250.00

1490 NH CARD USED

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 1100.0 4389.0 TYPE= 1 TARGET= 3289.000
 9.200 48.98 40.38 0.0 0.0 40.68 0.30 0.84 0.08 27.90
 128000. 26777. 101221. 2. 23935. 20472. 5. 22891. 1327. 38.80
 1.86 1.12 4.94 0.35 0.082 0.040 0.060 0.036 -8.60 1100.00
 0.000172 1700. 3250. 2900. 2 0 1 0.0 3289.00 4389.00

1490 NH CARD USED

3470 ENCROACHMENT STATIONS= 1200.0 3250.0 TYPE= 1 TARGET= 2050.000

UPPER LIMIT OF FLOOD INSURANCE STUDY

9.850 32.69 41.09 0.0 0.0 41.28 0.19 0.58 0.01 27.40
 128000. 8134. 111808. 8057. 6432. 30165. 4625. 25685. 1473. 26.40
 2.12 1.26 3.71 1.74 0.090 0.048 0.070 0.036 8.40 1200.00
 0.000185 1600. 3550. 3250. 2 1 1 0.0 2050.00 3250.00

1490 NH CARD USED

3265 DIVIDED FLOW

Final

Floodway
(Methods 1 & 4)

LEWIS RIVER

JJJJJ		L	AAAA	RRRRR	SSSS	0000	N	N
J		L	A A	R R	S	0 0	NN	NN
J		L	AAAAA	RRRRR	SSSS	0 0	N N	N N
J	..	L	A A	R R	S S	0 0	N	NN
JJJ	..	LLLLL	A A	R R	SSSS	0000	N	N

J. LARSON

29 SEP 78 9:57:57

JOB: HEC2

#

ATTACHMENT 3

Rec'd
TR
10-12-78

Final

Floodway

LEWIS RIVER

(Methods 1 & 4)

JJJJJJ

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      J
      J
    J  J
    J  J
      JJJ
  
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AAAA
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A  A
AAAAA
A  A
A  A
  
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RRRRR
R  R
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RRRRR
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N  N
NN N
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N  NN
N  N
  
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J. LARSON

29 SEP 78 10:10:25

JOB: HEC2

Condition: With Regulation for Flood control by PP&L.

 HEC2 RELEASE DATED NOV 76 UPDATED AUG 77
 ERROR CORR - 01,02
 MODIFICATION - 50,51,52,53

C
 T1 FLOOD PLAIN INFORMATION - WATER SURFACE PROFILES --AUG 1978 00
 T2 HYDROLOGY SECTION - PORTLAND DISTRICT - J.LARSON
 T3 LEWIS RIVER FLOODWAY

J1	ICHECK	INW	NINW	IDIR	STRT	METRIC	HVINS	Q	WSEL	FU
	0.	7.	0.	0.	0.000000	0.00	0.0	0.	17.100	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	LDW	CHNIM	ITRACE
	1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	38.000	16.000	17.000	18.000	1.000	43.000	13.000	14.000	15.000	55.000
	26.000	56.000	8.000	0.000	38.000	1.000	3.000	10.000	11.000	12.000
	4.000	53.000	54.000	150.000	200.000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.030	0.100	0.300	0.000	0.000	0.000	0.000	0.000
QT	9.000	66800.000	103000.000	132700.000	132700.000	132700.000	132700.000	132700.000	93000.000	93000.000
NH	7.000	0.100	600.000	0.050	700.000	0.100	1000.000	0.037	1300.000	0.060
NH	1460.000	0.030	1961.000	0.050	1985.000	0.000	0.000	0.000	0.000	0.000
ET	0.670	0.000	0.000	0.000	0.000	0.000	0.000	10.400	0.000	0.000
X1	0.670	35.000	1000.000	1985.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	50.000	0.000	20.000	150.000	7.000	250.000	12.000	350.000	15.000	550.000
GR	10.000	600.000	5.000	650.000	5.000	700.000	12.000	750.000	8.000	800.000
GR	12.000	850.000	12.000	950.000	8.000	1000.000	4.000	1100.000	1.000	1150.000
GR	4.000	1250.000	6.000	1300.000	10.000	1400.000	7.800	1460.000	2.400	1480.000
GR	1.000	1500.000	-2.800	1520.000	-4.000	1540.000	-6.000	1580.000	-6.600	1680.000
GR	-7.600	1750.000	-6.500	1800.000	-7.000	1850.000	-8.000	1900.000	-9.000	1910.000
GR	-9.500	1920.000	-7.000	1930.000	6.000	1950.000	13.000	1961.000	29.000	1985.000
NC	0.060	0.060	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1.190	25.000	1150.000	1985.000	2700.000	2700.000	2700.000	0.000	0.000	0.000
GR	21.000	0.000	21.000	900.000	21.000	1060.000	18.000	1150.000	13.000	1200.000
GR	6.000	1230.000	5.000	1280.000	2.600	1350.000	1.500	1400.000	-1.000	1450.000
GR	-0.500	1500.000	-1.500	1530.000	-2.500	1580.000	-3.500	1620.000	-4.500	1650.000
GR	-5.000	1680.000	-4.000	1700.000	-6.500	1740.000	-7.500	1800.000	-7.500	1850.000
GR	-2.000	1900.000	6.000	1915.000	21.000	1974.000	29.000	1985.000	29.600	2000.000
X1	1.700	42.000	100.000	945.000	2700.000	2700.000	2700.000	0.000	0.000	0.000

X1	2.700	47.000	140.000	802.000	2100.000	3200.000	3200.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	40.000	0.000	30.000	70.000	20.000	140.000	10.000	180.000	5.000	200.000
GR	0.100	297.000	-3.200	326.000	-4.600	383.000	-3.700	419.000	-3.500	455.000
GR	-3.000	491.000	-2.300	512.000	-2.000	527.000	-1.800	535.000	-1.800	541.000
GR	-1.400	554.000	-1.200	561.000	-0.100	580.000	0.200	592.000	0.000	602.000
GR	0.300	609.000	0.700	622.000	1.000	635.000	1.700	652.000	2.000	668.000
GR	2.000	680.000	2.300	686.000	2.300	696.000	1.500	708.000	-1.800	715.000
GR	4.400	721.000	7.000	725.000	13.100	740.000	18.900	752.000	20.000	765.000
GR	28.100	785.000	31.500	790.000	32.000	802.000	31.300	813.000	27.000	822.000
GR	27.500	834.000	24.400	845.000	19.700	867.000	18.000	880.000	16.200	887.000
GR	17.300	892.000	17.200	905.000	17.500	1799.000	40.000	1800.000	0.000	0.000

X1	3.180	54.000	241.000	802.000	1100.000	1100.000	1100.000	1.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	40.000	0.000	40.000	200.000	40.000	225.000	33.300	231.000	15.300	241.000
GR	10.400	255.000	7.000	264.000	5.200	272.000	1.300	292.000	0.100	297.000
GR	-3.200	326.000	-4.000	355.000	-4.600	383.000	-3.700	419.000	-3.500	455.000
GR	-3.000	491.000	-2.300	512.000	-2.000	527.000	-1.800	535.000	-1.800	541.000
GR	-1.400	554.000	-1.200	561.000	-0.100	580.000	0.200	592.000	0.000	602.000
GR	0.300	609.000	0.700	622.000	1.000	635.000	1.700	652.000	2.000	668.000
GR	2.000	680.000	2.300	686.000	2.300	696.000	1.500	708.000	-1.800	715.000
GR	4.400	721.000	7.000	725.000	13.100	740.000	18.900	752.000	20.000	765.000
GR	28.100	785.000	31.500	790.000	32.000	802.000	31.300	813.000	27.000	822.000
GR	27.500	834.000	24.400	845.000	19.700	867.000	18.000	880.000	16.200	887.000
GR	17.300	892.000	17.200	905.000	17.500	1799.000	40.000	1800.000	0.000	0.000
NC	0.000	0.075	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	3.380	0.000	0.000	0.000	0.000	0.000	0.000	9.100	30.000	1120.000

X1	3.380	35.000	30.000	550.000	1150.000	750.000	1050.000	0.000	0.000	0.000
GR	35.000	0.000	23.500	30.000	10.400	65.000	7.000	74.000	5.200	82.000
GR	1.300	102.000	0.100	107.000	-3.200	136.000	-4.000	165.000	-4.600	193.000
GR	-3.700	229.000	-3.500	265.000	-3.000	300.000	-2.300	322.000	-2.000	337.000
GR	-1.800	345.000	-1.800	351.000	-1.400	364.000	-1.200	371.000	-0.100	390.000
GR	-0.200	402.000	0.000	412.000	0.300	419.000	0.700	432.000	1.000	445.000
GR	3.000	460.000	7.000	480.000	10.000	500.000	15.000	520.000	19.000	550.000
GR	17.000	800.000	20.000	1100.000	24.000	1117.000	31.800	1132.000	31.800	1150.000
QT	9.000	54400.000	86300.000	102000.000	102000.000	102000.000	102000.000	102000.000	78000.000	78000.000
ET	3.660	0.000	0.000	0.000	0.000	0.000	0.000	9.100	570.000	1900.000

X1	3.660	24.000	600.000	1400.000	2350.000	600.000	1450.000	0.000	0.000	0.000
GR	30.000	0.000	30.000	60.000	30.000	120.000	30.000	180.000	30.000	249.900
GR	11.000	300.000	11.000	450.000	15.000	570.000	15.000	600.000	10.000	620.000
GR	5.000	640.000	0.000	680.000	-2.000	720.000	-3.500	770.000	-3.500	820.000
GR	0.000	870.000	1.000	1020.000	10.000	1270.000	10.000	1365.000	20.000	1400.000
GR	20.000	1920.000	30.000	1960.000	30.000	1995.000	30.000	2040.000	0.000	0.000
NC	0.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	9.000	54400.000	86300.000	102000.000	102000.000	102000.000	102000.000	102000.000	0.000	0.000
ET	3.700	0.000	0.000	0.000	0.000	0.000	0.000	9.100	1970.000	3100.000

ABOVE EAST FORK LEWIS RIVER

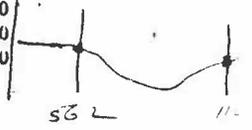
X1	3.700	35.000	1970.000	2670.000	250.000	150.000	200.000	0.000	0.000	0.000
GR	35.000	0.000	30.000	70.000	30.000	100.000	30.000	250.000	30.000	1049.900
GR	25.700	1050.000	26.000	1600.000	26.200	1840.000	25.000	1850.000	20.000	1870.000
GR	15.000	1890.000	15.000	1930.000	19.000	1970.000	15.000	1980.000	10.000	2000.000
GR	5.000	2020.000	0.000	2060.000	-2.000	2100.000	-3.500	2150.000	-3.500	2200.000
GR	-2.000	2250.000	0.000	2295.000	3.000	2355.000	5.000	2395.000	10.000	2600.000
GR	10.000	2630.000	22.500	2670.000	22.500	2710.000	20.000	2930.000	19.000	3000.000

X1	3.900	32.000	1410.000	2005.000	1500.000	880.000	1050.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	40.000	0.000	23.000	35.000	23.000	60.000	23.000	500.000	23.000	1000.000
GR	23.000	1200.000	23.000	1300.000	24.800	1310.000	24.800	1320.000	20.000	1340.000
GR	19.000	1570.000	21.000	1410.000	20.000	1420.000	10.000	1445.000	5.000	1455.000
GR	2.000	1470.000	1.000	1500.000	0.000	1600.000	-2.000	1660.000	-3.500	1730.000
GR	-2.000	1800.000	0.000	1880.000	2.000	1910.000	5.000	1930.000	10.000	1950.000
GR	20.000	1960.000	25.000	1970.000	28.000	1995.000	32.200	2005.000	31.000	2020.000
GR	31.000	5000.000	40.000	5005.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	9.000	54400.000	86300.000	102000.000	102000.000	102000.000	102000.000	102000.000	0.000	0.000

X1	4.290	73.000	1183.000	1735.000	2000.000	1900.000	2000.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	50.000	0.000	40.000	26.000	25.000	50.000	22.200	72.000	19.900	102.000
GR	19.100	140.000	19.300	190.000	19.500	240.000	20.100	290.000	20.100	340.000
GR	20.300	390.000	19.300	440.000	19.800	490.000	18.400	540.000	17.100	590.000
GR	18.300	640.000	18.500	690.000	18.400	706.000	18.700	740.000	19.600	770.000
GR	19.200	802.000	17.300	835.000	17.800	852.000	19.200	925.000	19.300	932.000
GR	15.000	941.000	18.900	948.000	21.900	966.000	21.600	980.000	17.900	994.000
GR	18.400	1015.000	17.600	1043.000	20.300	1054.000	21.700	1077.000	22.200	1105.000
GR	21.500	1140.000	22.000	1163.000	22.700	1183.000	22.500	1185.000	16.300	1201.000
GR	10.600	1204.000	8.300	1215.000	5.100	1219.000	2.700	1235.000	1.700	1250.000
GR	2.100	1275.000	2.800	1310.000	2.600	1375.000	1.800	1390.000	1.800	1457.000
GR	1.100	1468.000	-0.700	1490.000	-1.200	1496.000	-1.900	1510.000	-1.500	1531.000
GR	-2.100	1557.000	-2.200	1579.000	-2.200	1606.000	-2.700	1629.000	-3.500	1651.000
GR	-3.500	1669.000	1.300	1677.000	4.000	1679.000	8.300	1687.000	18.000	1699.000
GR	22.600	1708.000	27.700	1717.000	27.800	1721.000	30.700	1729.000	33.000	1735.000
GR	32.000	1741.000	32.000	2749.000	40.000	2750.000	0.000	0.000	0.000	0.000
NC	0.070	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	5.010	68.000	497.000	1242.000	3850.000	5500.000	3850.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	42.100	0.000	44.700	30.000	44.300	57.000	40.600	44.000	34.600	56.000
GR	28.900	67.000	23.300	76.000	21.800	83.000	21.900	89.000	21.900	90.000
GR	22.200	140.000	22.400	199.000	21.200	247.000	23.100	290.000	23.200	340.000
GR	23.500	364.000	23.600	402.000	23.000	443.000	21.300	472.000	20.900	497.000
GR	18.600	508.000	18.400	523.000	10.700	533.000	6.900	548.000	5.700	556.000
GR	4.300	580.000	4.600	616.000	5.400	643.000	5.400	680.000	4.300	698.000
GR	3.700	737.000	3.300	763.000	3.000	790.000	2.800	832.000	2.500	856.000
GR	2.400	875.000	2.000	878.000	1.700	940.000	1.900	952.000	1.600	963.000
GR	0.600	975.000	0.500	990.000	-0.300	1003.000	-0.500	1015.000	-1.000	1028.000
GR	-1.300	1044.000	-1.600	1056.000	-2.100	1068.000	-1.900	1075.000	-2.600	1085.000
GR	-3.300	1097.000	-5.000	1111.000	-1.100	1121.000	2.600	1125.000	6.900	1132.000
GR	11.800	1140.000	16.300	1148.000	22.500	1162.000	22.900	1182.000	23.400	1192.000
GR	27.400	1208.000	31.200	1217.000	32.000	1226.000	34.500	1242.000	34.500	1254.000
GR	33.000	1290.000	33.000	2240.000	40.000	2250.000	0.000	0.000	0.000	0.000
ET	5.270	0.000	0.000	0.000	0.000	0.000	0.000	9.100	110.000	657.000

X1	5.270	30.000	160.000	668.000	1200.000	1600.000	1400.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	44.000	0.000	40.000	14.000	30.000	46.000	24.000	62.000	22.000	160.000
GR	20.000	164.000	10.000	184.000	8.000	190.000	6.000	200.000	4.000	225.000
GR	4.000	260.000	5.000	290.000	3.000	325.000	1.000	360.000	0.000	400.000
GR	-2.000	450.000	-3.000	500.000	-2.000	550.000	2.000	590.000	6.000	600.000
GR	10.000	610.000	22.500	630.000	23.000	640.000	27.000	650.000	32.000	666.000
GR	34.800	668.000	34.800	680.000	32.000	690.000	32.000	1180.000	40.000	1185.000
NC	0.000	0.000	0.000	0.300	0.800	0.000	0.000	0.000	0.000	0.000
ET	5.350	0.000	0.000	0.000	0.000	0.000	0.000	9.100	120.000	1080.000



532

GR	45,000	0,000	35,100	28,000	35,700	38,000	36,000	49,000	35,800	57,000
GR	32,000	67,000	31,900	80,000	30,900	120,000	30,800	170,000	30,400	220,000
GR	29,900	270,000	29,300	320,000	29,100	370,000	28,800	420,000	28,800	470,000
GR	28,100	520,000	28,200	570,000	28,100	620,000	28,200	670,000	29,600	741,000
GR	28,500	765,000	22,100	770,000	15,200	784,000	4,200	803,000	-1,800	813,000
GR	-8,200	851,000	-6,000	874,000	-4,800	883,000	-3,200	916,000	-1,100	948,000
GR	1,200	965,000	2,500	978,000	3,600	998,000	4,900	1016,000	5,300	1039,000
GR	7,700	1062,000	7,700	1077,000	10,700	1102,000	12,700	1119,000	13,200	1128,000
GR	13,700	1135,000	15,200	1142,000	17,900	1153,000	18,400	1167,000	17,700	1206,000
GR	19,400	1257,000	23,100	1290,000	23,300	1320,000	23,600	1363,000	24,900	1399,000
GR	27,000	1441,000	27,700	1475,000	28,600	1520,000	25,000	1850,000	23,000	2000,000
GR	26,000	2100,000	26,000	2250,000	24,000	2350,000	25,000	2400,000	26,000	2600,000
GR	30,000	2650,000	35,600	2700,000	37,000	2700,100	37,000	3300,000	37,000	3650,000

X1	8,130	60,000	55,000	771,000	2750,000	1850,000	2350,000	0,000	0,000	0,000
GR	48,500	0,000	33,400	12,000	30,100	18,000	30,400	20,000	31,700	32,000
GR	32,300	45,000	31,800	55,000	23,100	65,000	15,600	73,000	12,000	78,000
GR	8,500	90,000	1,300	102,000	0,700	124,000	8,100	148,000	5,900	169,000
GR	7,600	197,000	7,800	248,000	7,800	300,000	8,600	332,000	8,600	380,000
GR	9,600	410,000	9,200	484,000	9,100	496,000	9,200	509,000	9,600	530,000
GR	10,500	551,000	10,600	565,000	10,400	575,000	10,400	582,000	10,100	597,000
GR	9,600	607,000	8,600	618,000	8,700	632,000	9,100	640,000	10,900	650,000
GR	11,600	660,000	13,300	664,000	15,600	670,000	17,100	671,000	18,500	682,000
GR	21,000	702,000	19,800	724,000	20,800	730,000	27,800	745,000	25,800	754,000
GR	31,700	771,000	30,100	778,000	30,100	830,000	29,700	882,000	29,900	930,000
GR	30,100	965,000	30,000	1001,000	30,900	1030,000	33,100	1072,000	30,500	1114,000
GR	29,700	1149,000	31,700	1195,000	34,800	1206,000	37,000	1206,100	37,000	1215,000

X1	8,390	23,000	1040,000	1620,000	1300,000	1300,000	1300,000	0,000	0,000	0,000
GR	50,000	0,000	40,000	90,000	35,000	100,000	30,800	220,000	25,000	300,000
GR	26,000	350,000	25,000	425,000	28,000	650,000	25,000	825,000	24,500	900,000
GR	26,300	1000,000	25,000	1040,000	16,000	1070,000	0,000	1180,000	0,000	1240,000
GR	15,500	1370,000	5,000	1440,000	5,000	1500,000	16,000	1550,000	20,000	1580,000
GR	30,000	1600,000	36,000	1620,000	37,000	1650,000	0,000	0,000	0,000	0,000
NC	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000

X1	8,610	65,000	1366,000	1878,000	1300,000	1300,000	1300,000	0,000	0,000	0,000
GR	55,000	0,000	35,000	50,000	31,000	280,000	31,000	300,000	31,000	360,000
GR	31,000	380,000	34,000	1120,000	32,000	1164,000	32,100	1194,000	27,600	1217,000
GR	27,700	1247,000	28,000	1295,000	29,100	1326,000	28,500	1366,000	16,100	1371,000
GR	10,300	1382,000	9,200	1387,000	9,200	1396,000	8,100	1404,000	7,300	1417,000
GR	4,100	1427,000	3,800	1431,000	0,100	1448,000	-2,100	1459,000	-4,400	1467,000
GR	-2,800	1510,000	-1,800	1524,000	0,000	1551,000	1,100	1566,000	3,600	1587,000
GR	5,600	1608,000	7,600	1627,000	8,800	1644,000	10,200	1659,000	11,100	1668,000
GR	12,100	1676,000	13,600	1688,000	14,000	1694,000	16,100	1702,000	17,400	1704,000
GR	20,500	1722,000	23,200	1752,000	22,100	1779,000	26,800	1813,000	27,900	1831,000
GR	30,600	1842,000	31,700	1864,000	35,100	1878,000	35,000	1900,000	34,100	1950,000
GR	33,900	2000,000	35,000	2300,000	37,000	2340,000	38,000	2450,000	38,000	2650,000
GR	37,000	2880,000	36,900	2970,000	35,500	3000,000	37,000	3150,000	36,000	3450,000
GR	34,500	3800,000	40,000	3800,100	40,000	4150,000	40,000	4175,000	50,000	4200,000
NH	4,000	0,060	1900,000	0,090	3745,000	0,035	4361,000	0,060	4800,000	0,000

X1	9,200	88,000	5718,000	4385,000	1900,000	2900,000	3100,000	0,000	0,000	0,000
GR	50,000	0,000	45,000	20,000	39,000	50,000	40,000	80,000	40,000	180,000
GR	34,000	230,000	37,000	250,000	30,000	280,000	28,000	300,000	30,000	320,000
GR	32,000	450,000	34,000	560,000	36,000	600,000	30,000	910,000	30,000	960,000
GR	33,000	1400,000	34,000	1900,000	38,000	2100,000	35,000	2250,000	30,000	2450,000
GR	30,000	2700,000	25,000	2800,000	23,000	2900,000	25,000	3050,000	30,000	3200,000
GR	31,500	3400,000	30,800	3410,000	31,300	3600,000	30,300	3652,000	29,300	3677,000

GR	15.500	3836.000	14.500	3870.000	13.600	3891.000	12.500	3907.000	12.900	3922.000
GR	12.900	3931.000	13.500	3952.000	13.500	3958.000	13.700	3969.000	15.000	3973.000
GR	16.000	3983.000	17.100	3989.000	17.000	3996.000	16.000	4001.000	13.900	4018.000
GR	12.500	4037.000	11.000	4053.000	10.500	4069.000	9.900	4088.000	7.200	4105.000
GR	6.000	4128.000	4.000	4150.000	3.300	4158.000	1.300	4159.000	-0.600	4169.000
GR	-1.700	4184.000	-3.100	4198.000	-4.000	4209.000	-4.700	4224.000	-5.200	4228.000
GR	-6.000	4250.000	-5.000	4259.000	-7.000	4278.000	-8.600	4298.000	-8.000	4311.000
GR	-1.800	4321.000	3.500	4332.000	6.300	4338.000	11.500	4343.000	16.000	4350.000
GR	22.000	4361.000	29.300	4373.000	38.800	4385.000	39.700	4389.000	40.000	4393.000
GR	40.400	4404.000	40.700	4646.000	41.700	4700.000	42.000	4728.000	43.500	4744.000
GR	47.300	4760.000	53.100	4782.000	55.000	4800.000	0.000	0.000	0.000	0.000
NH	5.000	0.070	1885.000	0.040	2145.000	0.060	2410.000	0.040	2865.000	0.060
NH	3800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

UPPER LIMIT OF FLOOD INSURANCE STUDY IN 1972

X1	9.850	89.000	1728.000	2910.000	2100.000	3350.000	3450.000	0.000	0.000	0.000
GR	50.000	30.000	40.200	75.000	38.500	100.000	35.000	200.000	30.400	260.000
GR	35.100	500.000	36.600	700.000	36.000	855.000	33.500	875.000	36.300	900.000
GR	37.200	1000.000	39.200	1100.000	40.500	1150.000	40.200	1200.000	35.700	1250.000
GR	31.000	1300.000	23.500	1350.000	22.000	1400.000	27.700	1500.000	31.600	1600.000
GR	28.700	1690.000	26.600	1700.000	27.400	1728.000	20.600	1744.000	17.900	1760.000
GR	17.700	1783.000	14.400	1794.000	13.300	1804.000	14.300	1809.000	18.000	1824.000
GR	19.400	1850.000	21.100	1862.000	20.000	1885.000	16.900	1889.000	10.900	1899.000
GR	8.400	1930.000	11.100	2024.000	11.400	2040.000	10.400	2063.000	13.000	2103.000
GR	12.900	2113.000	15.400	2120.000	16.900	2125.000	22.100	2139.000	27.000	2145.000
GR	27.300	2150.000	24.500	2159.000	20.000	2169.000	19.100	2177.000	20.100	2205.000
GR	19.100	2309.000	17.800	2324.000	18.000	2362.000	17.300	2410.000	17.500	2524.000
GR	16.900	2550.000	14.000	2565.000	13.300	2598.000	12.800	2638.000	12.800	2670.000
GR	11.500	2695.000	12.100	2710.000	9.600	2754.000	9.100	2792.000	9.600	2810.000
GR	9.400	2820.000	11.000	2825.000	11.900	2830.000	13.600	2840.000	14.900	2845.000
GR	15.400	2850.000	17.000	2855.000	17.400	2860.000	19.400	2865.000	21.300	2883.000
GR	23.500	2895.000	26.400	2910.000	32.000	2960.000	33.700	3000.000	30.200	3100.000
GR	30.200	3150.000	30.200	3200.000	30.200	3250.000	32.400	3300.000	41.300	3400.000
GR	45.200	3500.000	45.200	3600.000	45.000	3750.000	51.500	3800.000	0.000	0.000
NH	5.000	0.070	590.000	0.040	900.000	0.075	3950.000	0.040	4305.000	0.080
NH	4650.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	10.690	93.000	590.000	900.000	4300.000	3200.000	4488.000	0.000	0.000	0.000
GR	44.000	225.000	44.400	250.000	44.000	255.000	71.600	270.000	41.700	350.000
GR	42.200	450.000	42.400	550.000	41.700	590.000	15.800	640.000	14.900	641.000
GR	12.000	643.000	11.700	662.000	11.300	677.000	10.200	695.000	9.100	710.000
GR	8.700	724.000	9.000	742.000	9.700	760.000	8.500	782.000	8.300	801.000
GR	10.400	821.000	11.700	834.000	13.400	845.000	14.900	857.000	17.000	862.000
GR	24.800	900.000	23.700	935.000	24.500	950.000	33.800	1050.000	33.700	1150.000
GR	34.500	1250.000	34.500	1350.000	33.500	1450.000	29.800	1550.000	33.500	1650.000
GR	32.700	1750.000	32.200	1850.000	29.500	1930.000	29.700	1950.000	31.400	1965.000
GR	30.800	2050.000	29.800	2150.000	29.400	2250.000	28.500	2350.000	27.700	2450.000
GR	29.500	2550.000	34.200	2650.000	34.400	2750.000	36.500	2800.000	34.700	2850.000
GR	34.800	2950.000	34.800	3000.000	41.800	3050.000	42.200	3150.000	41.600	3250.000
GR	39.700	3350.000	39.300	3410.000	40.400	3450.000	39.700	3550.000	39.400	3650.000
GR	39.400	3720.000	29.700	3750.000	30.500	3850.000	31.500	3900.000	29.000	3950.000
GR	15.700	4020.000	13.800	4025.000	12.800	4029.000	12.700	4042.000	12.000	4052.000
GR	10.800	4062.000	10.100	4069.000	9.900	4082.000	9.200	4099.000	9.300	4114.000
GR	9.300	4128.000	9.800	4144.000	10.400	4162.000	11.000	4179.000	11.100	4197.000
GR	10.800	4211.000	10.200	4222.000	11.300	4235.000	12.100	4244.000	15.800	4257.000
GR	15.700	4262.000	22.200	4305.000	23.000	4350.000	19.800	4450.000	16.800	4495.000
GR	16.800	4535.000	22.200	4550.000	72.300	4650.000	0.000	0.000	0.000	0.000
NH	5.000	0.070	290.000	0.040	660.000	0.075	3878.000	0.040	4137.000	0.080
NH	4226.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	11.050	0.000	0.000	0.000	0.000	0.000	0.000	9.100	261.000	4180.000

GR	50.000	0.000	45.000	250.000	25.000	290.000	20.000	500.000	17.000	510.000
GR	14.000	520.000	14.000	340.000	17.000	560.000	15.000	425.000	10.000	475.000
GR	12.000	525.000	17.000	570.000	18.000	600.000	20.000	660.000	50.000	690.000
GR	35.000	720.000	35.500	750.000	36.000	1100.000	35.000	1500.000	30.000	1530.000
GR	28.000	1400.000	30.000	1470.000	35.000	1600.000	36.000	1750.000	40.000	1820.000
GR	40.000	1990.000	30.000	2070.000	25.000	2090.000	20.000	2140.000	18.700	2170.000
GR	20.000	2210.000	25.000	2410.000	30.000	2450.000	34.000	2500.000	32.000	2800.000
GR	32.000	3100.000	35.000	3500.000	36.800	3870.000	33.800	3878.000	17.200	3905.000
GR	14.500	3921.000	14.600	3936.000	17.900	3965.000	17.200	3988.000	9.800	4019.000
GR	3.800	4051.000	3.500	4073.000	1.400	4085.000	2.100	4105.000	3.600	4111.000
GR	15.200	4123.000	17.200	4137.000	24.800	4165.000	33.000	4179.000	38.500	4193.000
GR	54.200	4212.000	55.900	4226.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.000	1140.000	0.000	1540.000	0.100	3160.000	0.000	5410.000	0.000
NH	3530.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	11.340	0.000	0.000	0.000	0.000	0.000	0.000	9.100	820.000	3420.000

X1	11.340	60.000	1140.000	1540.000	1200.000	1500.000	1580.000	0.000	0.000	0.000
GR	50.000	0.000	45.000	300.000	40.000	350.000	37.000	500.000	40.000	780.000
GR	35.000	820.000	30.000	830.000	25.000	850.000	22.000	880.000	22.000	950.000
GR	22.500	1050.000	23.400	1140.000	17.900	1151.000	16.100	1158.000	13.300	1165.000
GR	14.100	1174.000	13.600	1181.000	16.400	1214.000	19.700	1226.000	20.100	1233.000
GR	17.800	1237.000	12.000	1255.000	11.200	1266.000	12.300	1276.000	13.800	1278.000
GR	19.300	1304.000	20.700	1316.000	20.500	1340.000	20.000	1365.000	17.200	1395.000
GR	16.400	1419.000	16.700	1458.000	16.000	1477.000	13.800	1507.000	14.900	1518.000
GR	16.500	1527.000	18.700	1532.000	31.000	1540.000	33.000	1600.000	33.000	1700.000
GR	31.000	2000.000	35.000	2250.000	36.000	2600.000	36.000	2900.000	35.000	3000.000
GR	30.000	3120.000	25.000	3140.000	20.000	3160.000	17.000	3200.000	18.000	3250.000
GR	17.000	3290.000	12.000	3320.000	10.000	3350.000	12.000	3380.000	17.000	3400.000
GR	20.000	3410.000	25.000	3420.000	50.000	3450.000	60.000	3470.000	65.000	3530.000
NC	0.070	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	11.670	0.000	0.000	0.000	0.000	0.000	0.000	10.400	0.000	0.000

X1	11.670	55.000	3920.000	4645.000	1200.000	2250.000	1690.000	0.000	0.000	0.000
GR	55.200	0.000	55.200	2650.000	51.000	2700.000	45.000	2800.000	43.800	2835.000
GR	47.000	2900.000	47.600	3000.000	47.200	3100.000	45.500	3200.000	45.300	3300.000
GR	45.500	3400.000	35.400	3500.000	35.500	3600.000	36.100	3700.000	39.000	3800.000
GR	40.400	3900.000	40.200	3920.000	20.300	4000.000	19.800	4003.000	17.800	4027.000
GR	15.600	4043.000	15.800	4066.000	15.800	4084.000	16.000	4095.000	16.000	4117.000
GR	16.900	4135.000	18.000	4152.000	19.800	4195.000	21.000	4270.000	19.400	4300.000
GR	18.500	4339.000	17.500	4365.000	17.000	4397.000	17.400	4418.000	17.600	4438.000
GR	17.600	4457.000	17.400	4480.000	17.100	4492.000	16.600	4503.000	15.600	4515.000
GR	13.700	4529.000	12.800	4545.000	12.900	4559.000	14.000	4568.000	14.500	4571.000
GR	16.700	4586.000	16.700	4601.000	18.500	4605.000	30.500	4645.000	31.200	4665.000
GR	41.800	4690.000	52.400	4691.000	56.000	4700.000	54.300	4735.000	65.800	4800.000
ET	12.480	0.000	0.000	0.000	0.000	0.000	0.000	9.100	1420.000	1900.000

X1	12.480	50.000	1420.000	1846.000	3900.000	4300.000	4300.000	0.000	0.000	0.000
GR	77.300	0.000	64.500	100.000	61.700	140.000	62.800	300.000	61.600	400.000
GR	53.600	500.000	53.000	640.000	51.200	650.000	53.400	800.000	53.500	900.000
GR	44.700	1000.000	44.800	1100.000	46.700	1200.000	43.900	1300.000	43.100	1420.000
GR	27.600	1470.000	23.800	1474.000	21.700	1475.000	20.300	1478.000	18.200	1512.000
GR	17.500	1595.000	18.200	1640.000	20.000	1690.000	18.300	1715.000	18.000	1739.000
GR	19.500	1777.000	20.600	1786.000	21.200	1803.000	28.300	1815.000	33.500	1826.000
GR	39.600	1836.000	49.500	1846.000	49.500	1858.000	51.200	2000.000	49.900	2045.000
GR	52.000	2100.000	51.800	2200.000	49.800	2300.000	48.000	2400.000	49.600	2500.000
GR	50.400	2600.000	52.300	2700.000	52.300	2800.000	49.600	2820.000	49.800	2880.000
GR	51.600	2900.000	52.800	2935.000	62.800	3000.000	63.500	3100.000	63.500	3600.000
ET	12.950	0.000	0.000	0.000	0.000	0.000	0.000	10.400	0.000	0.000

X1	12.950	55.000	57.000	444.000	3250.000	3250.000	3500.000	0.000	0.000	0.000
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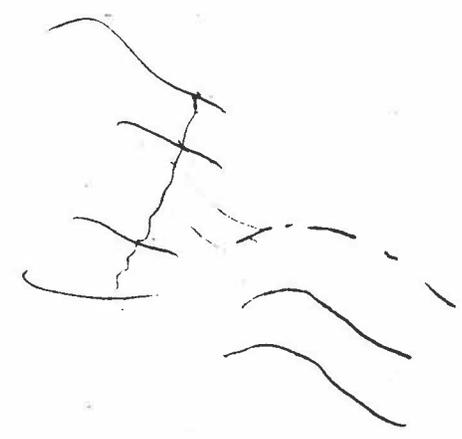
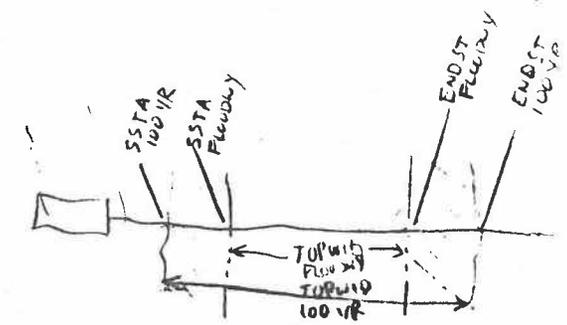


SECNO	K*XL	K*XLCH	K*XLNR	CWSEL	Q	QLOB	QCH	QROB	VLOB	VCH	VROB	DEPTH
4.290	55.00	30.00	60.00	27.66	102000.00	15804.17	86195.83	0.00	1.70	6.40	0.00	31.16
4.290	55.00	30.00	60.00	28.17	102000.00	10160.95	91839.05	0.00	1.86	6.69	0.00	31.67
5.010	70.00	30.00	60.00	28.55	102000.00	2712.19	99287.81	0.00	1.05	5.95	0.00	33.55
5.010	70.00	30.00	60.00	29.16	102000.00	0.00	102000.00	0.00	0.00	5.96	0.00	34.16
5.270	70.00	30.00	60.00	28.59	102000.00	749.55	101250.45	0.00	1.30	8.26	0.00	31.59
5.270	70.00	30.00	60.00	29.23	102000.00	450.56	101549.44	0.00	1.34	8.08	0.00	32.23
5.350	70.00	30.00	60.00	29.19	102000.00	420.38	100498.05	1081.57	1.00	6.83	1.30	31.19
5.350	70.00	30.00	60.00	29.78	102000.00	333.05	101168.02	498.95	1.00	6.72	1.31	31.78
5.390	70.00	30.00	60.00	29.24	102000.00	383.83	100821.01	795.17	1.01	6.59	1.12	34.24
5.390	70.00	30.00	60.00	29.83	102000.00	135.81	101283.69	580.49	0.92	6.49	1.19	34.83
5.420	70.00	30.00	60.00	29.28	102000.00	439.20	101349.76	211.04	0.95	6.93	1.02	34.28
5.420	70.00	30.00	60.00	29.87	102000.00	0.00	101743.28	256.72	0.00	6.92	1.08	34.87
5.480	70.00	30.00	60.00	29.34	102000.00	354.16	101371.22	274.62	1.26	7.10	1.16	35.34
5.480	70.00	30.00	60.00	29.94	102000.00	0.00	101676.84	323.16	0.00	6.99	1.22	35.94
5.950	70.00	35.00	60.00	30.24	102000.00	5426.68	94074.64	2498.69	1.34	5.91	1.23	31.34
5.950	70.00	35.00	60.00	30.75	102000.00	1630.77	100369.23	0.00	1.41	6.19	0.00	31.85
6.320	70.00	35.00	60.00	30.70	102000.00	986.63	98427.92	2585.45	0.82	6.20	1.18	33.70
6.320	70.00	35.00	60.00	31.26	102000.00	0.00	101856.62	143.38	0.00	6.29	1.15	34.26
6.450	70.00	35.00	60.00	30.66	102000.00	118.76	101386.77	494.47	1.08	7.94	1.30	33.66
6.450	70.00	35.00	60.00	31.26	102000.00	0.00	102000.00	0.00	0.00	7.80	0.00	34.26
6.490	70.00	35.00	60.00	30.76	102000.00	0.00	102000.00	0.00	0.00	8.01	0.00	34.16
6.490	70.00	35.00	60.00	31.36	102000.00	0.00	102000.00	0.00	0.00	7.82	0.00	34.76
6.500	70.00	35.00	60.00	30.81	102000.00	0.00	102000.00	0.00	0.00	8.00	0.00	34.21
6.500	70.00	35.00	60.00	31.81	102000.00	0.00	102000.00	0.00	0.00	7.68	0.00	35.21
6.540	70.00	35.00	60.00	30.96	102000.00	154.50	101116.86	728.64	0.90	7.81	1.07	33.96
6.540	70.00	35.00	60.00	31.91	102000.00	0.00	102000.00	0.00	0.00	7.60	0.00	34.91
7.130	70.00	35.00	60.00	32.37	102000.00	4621.55	97239.52	138.94	0.79	6.69	0.70	38.67
7.130	70.00	35.00	60.00	33.20	102000.00	1612.44	100387.56	0.00	0.87	6.71	0.00	39.50
7.690	70.00	35.00	65.00	33.42	102000.00	2713.08	83020.98	16265.94	0.95	6.15	1.53	41.62
7.690	70.00	35.00	65.00	34.22	102000.00	0.00	88677.95	13322.05	0.00	6.38	1.67	42.42
8.130	70.00	35.00	65.00	34.06	102000.00	71.44	100461.49	1467.07	0.68	6.03	0.96	33.36
8.130	70.00	35.00	65.00	34.91	102000.00	0.00	102000.00	0.00	0.00	5.90	0.00	34.21
8.390	70.00	35.00	65.00	34.46	102000.00	10787.37	91212.63	0.00	1.54	6.41	0.00	34.46
8.390	70.00	35.00	65.00	35.24	102000.00	4780.03	97219.97	0.00	1.75	6.62	0.00	35.24
8.610	80.00	35.00	65.00	34.69	102000.00	3721.55	98234.59	43.86	1.03	8.33	0.33	39.09
8.610	80.00	35.00	65.00	35.50	102000.00	0.00	102000.00	0.00	0.00	8.35	0.00	39.90
9.200	80.00	35.00	65.00	36.34	102000.00	14504.05	87495.95	0.00	0.84	4.92	0.00	44.94
9.200	80.00	35.00	65.00	37.17	102000.00	9037.38	92962.61	0.00	0.97	5.07	0.00	45.77

SECNO	K*XL	K*XLCH	K*XLH	CWSEL	U	ULOB	UCH	URUB	VLOB	VCH	VRUB	DEPTH
9.850	80.00	35.00	65.00	37.09	102000.00	6650.86	92426.84	2922.30	1.18	3.63	1.16	28.69
9.850	80.00	35.00	65.00	37.97	102000.00	2552.55	99447.45	0.00	1.25	3.76	0.00	29.57
10.690	80.00	35.00	65.00	37.98	102000.00	0.00	34425.57	67574.43	0.00	4.75	2.43	29.68
10.690	80.00	35.00	65.00	38.89	102000.00	0.00	36629.07	65370.93	0.00	4.87	2.55	30.59
11.050	80.00	35.00	65.00	38.37	102000.00	0.00	42425.42	59574.58	0.00	4.52	2.41	36.97
11.050	80.00	35.00	65.00	39.30	102000.00	0.00	41418.12	60581.88	0.00	4.22	2.19	37.90
11.340	80.00	35.00	65.00	38.77	102000.00	11468.83	48357.83	42173.34	2.17	5.53	2.98	28.77
11.340	80.00	35.00	65.00	39.62	102000.00	11489.22	47803.88	42706.90	2.18	5.26	2.73	29.62
11.670	70.00	40.00	80.00	39.31	102000.00	1146.94	100434.85	418.21	1.16	6.93	1.70	26.51
11.670	70.00	40.00	80.00	40.07	102000.00	0.00	102000.00	0.00	0.00	6.78	0.00	27.27
12.480	70.00	40.00	80.00	42.66	102000.00	0.00	102000.00	0.00	0.00	11.67	0.00	25.16
12.480	70.00	40.00	80.00	43.17	102000.00	0.00	102000.00	0.00	0.00	11.39	0.00	25.67
12.950	70.00	40.00	80.00	46.75	102000.00	87.59	96107.58	5804.84	1.65	10.21	1.64	27.15
12.950	70.00	40.00	80.00	47.03	102000.00	0.00	102000.00	0.00	0.00	10.72	0.00	27.43
13.500	70.00	45.00	80.00	50.24	102000.00	14958.44	82945.04	4096.52	2.36	6.86	1.75	30.14
13.500	70.00	45.00	80.00	51.00	102000.00	9424.54	92575.46	0.00	2.68	7.40	0.00	30.90
14.010	70.00	45.00	80.00	52.32	102000.00	2571.39	98127.42	1301.19	3.32	7.17	3.18	32.62
14.010	70.00	45.00	80.00	53.28	102000.00	0.00	102000.00	0.00	0.00	7.12	0.00	33.58
14.440	80.00	45.00	80.00	53.84	102000.00	6932.83	93443.55	1623.62	1.52	5.31	1.60	34.54
14.440	80.00	45.00	80.00	54.79	102000.00	3050.85	98949.15	0.00	2.27	5.44	0.00	35.49

SECNO	CWSEL	EG	HV	HL	ULUSS	TOPWID	SSTA	ENDST
5.420	29.28	30.02	0.74	0.12	0.00	709.65	166.29	815.94
5.420	29.87	30.61	0.74	0.13	0.00	581.42	295.68	817.10
5.480	29.34	30.12	0.78	0.08	0.01	539.02	30.99	570.01
5.480	29.94	30.70	0.76	0.08	0.00	511.45	60.00	571.45
5.950	30.24	30.75	0.50	0.60	0.03	1569.36	3.13	1572.48
5.950	30.75	31.33	0.59	0.62	0.02	761.77	+ 421.23 =>	1183.00
6.320	30.70	31.28	0.58	0.51	0.02	1436.14	282.85	1718.99
6.320	31.26	31.87	0.61	0.53	0.01	600.00	690.00	1290.00
6.450	30.66	31.63	0.97	0.24	0.12	620.08	279.96	900.04
6.450	31.26	32.21	0.95	0.24	0.10	490.00	310.00	800.00
6.490	30.76	31.75	1.00	0.10	0.02	530.28	292.57	822.86
6.490	31.36	32.31	0.95	0.09	0.00	532.59	291.57	824.16
6.500	30.81	31.80	0.99	0.05	0.00	530.49	292.49	822.97
6.500	31.81	32.72	0.91	0.42	0.00	534.33	290.82	825.15
6.540	30.96	31.90	0.94	0.10	0.01	789.65	240.37	1030.02
6.540	31.91	32.81	0.90	0.09	0.00	490.00	310.00	800.00
7.130	32.37	33.03	0.66	1.10	0.03	2776.60	75.62	2852.22
7.130	33.20	33.89	0.69	1.06	0.02	1052.00	1700.00	2752.00
7.690	33.42	33.90	0.48	0.85	0.02	2617.22	63.27	2680.50
7.690	34.22	34.77	0.55	0.87	0.01	1461.91	765.00	2226.91
8.130	34.06	34.61	0.56	0.69	0.02	1191.88	11.46	1203.36
8.130	34.91	35.45	0.54	0.68	0.00	716.00	55.00	771.00
8.390	34.46	35.03	0.57	0.41	0.01	1499.10	115.73	1614.83
8.390	35.24	35.89	0.65	0.40	0.03	851.12	766.34	1617.46
8.610	34.69	35.73	1.04	0.56	0.14	2151.13	67.82	3800.00
8.610	35.50	36.58	1.08	0.57	0.13	512.00	1366.00	1878.00
9.200	36.34	36.66	0.32	0.86	0.07	3997.76	210.53	4381.89
9.200	37.17	37.54	0.37	0.89	0.07	1709.00	2673.94	4382.95
9.850	37.09	37.27	0.19	0.60	0.01	2965.08	140.38	3352.66
9.850	37.97	38.18	0.21	0.63	0.02	1419.78	1490.22	2910.00
10.690	37.98	38.16	0.18	0.89	0.00	3282.66	597.18	4581.50
10.690	38.89	39.09	0.20	0.91	0.00	3020.72	595.42	4308.48
11.050	38.37	38.56	0.18	0.40	0.00	3718.15	263.24	4192.69
11.050	39.30	39.46	0.16	0.36	0.00	3730.67	261.41	4180.00
11.340	38.77	39.06	0.29	0.46	0.03	2899.68	411.73	3436.52
11.340	39.62	39.88	0.26	0.39	0.03	2600.00	820.00	3420.00
11.670	39.31	40.05	0.73	0.86	0.13	1121.02	3461.33	4684.12
11.670	40.07	40.78	0.71	0.77	0.14	724.48	3920.52	4645.00

4.11
 Use 420 & 1260 on S
 Use 30 & 600 on E



(Island)

SECNO	CWSEL	EG	HV	HL	OLOSS	TOPWID	SSTA	ENDST
12.480	42.66	44.77	2.12	4.31	0.41	417.75	1421.42	1839.15
12.480	43.17	45.19	2.02	4.01	0.39	419.69	1420.00	1839.69
12.950	46.75	48.28	1.53	3.44	0.06	1361.21	45.66	2532.54
12.950	47.03	48.81	1.78	3.60	0.02	386.00	57.00	443.00
13.500	50.24	50.84	0.61	2.48	0.09	1686.04	849.06	4037.09
13.500	51.00	51.78	0.78	2.86	0.10	989.99	1250.00	2239.99
14.010	52.32	53.09	0.77	2.20	0.05	775.13	1007.18	2629.93
14.010	53.28	54.07	0.79	2.29	0.00	658.32	1940.68	2599.00
14.440	53.84	54.24	0.40	1.11	0.04	1245.52	782.44	2027.96
14.440	54.79	55.24	0.45	1.14	0.03	691.22	1247.78	1939.00

12.480 12.950 13.500 14.010 14.440

LEWIS RIVER FLOODWAY

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10K*S	VCH	AREA	.01K
0.670	0.00	0.00	0.00	-9.50	132700.00	17.10	0.00	17.94	5.51	7.58	21586.55	56551.41
0.670	0.00	0.00	0.00	-9.50	132700.00	18.10	0.00	19.01	5.34	7.64	17362.11	57422.71
1.190	2700.00	0.00	0.00	-7.50	132700.00	18.48	0.00	19.77	7.26	9.10	14587.52	49252.92
1.190	2700.00	0.00	0.00	-7.50	132700.00	19.47	0.00	20.62	6.13	8.62	15387.15	53613.57
1.700	2700.00	0.00	0.00	-12.70	132700.00	20.32	0.00	21.31	4.44	7.97	16650.28	62994.04
1.700	2700.00	0.00	0.00	-12.70	132700.00	21.06	0.00	21.98	4.05	7.70	17223.42	65935.87
1.730	150.00	0.00	0.00	-10.30	132700.00	20.37	0.00	21.53	6.10	8.65	15342.44	53709.62
1.730	150.00	0.00	0.00	-10.30	132700.00	21.10	0.00	22.17	5.47	8.33	15924.01	56716.32
1.740	32.00	35.80	29.50	-10.30	132700.00	20.59	0.00	21.73	5.94	8.55	15521.73	54438.43
1.740	32.00	35.80	29.50	-10.30	132700.00	21.59	0.00	22.62	5.05	8.13	16319.61	59036.89
1.750	50.00	0.00	0.00	-6.60	132700.00	20.72	0.00	21.76	4.98	8.18	16213.93	59437.66
1.750	50.00	0.00	0.00	-6.60	132700.00	21.70	0.00	22.65	4.30	7.81	16994.69	64000.87
2.380	3300.00	0.00	0.00	-4.70	132700.00	22.55	0.00	23.31	4.31	7.32	27116.18	63913.68
2.380	3300.00	0.00	0.00	-4.70	132700.00	23.20	0.00	24.11	4.56	7.69	17318.26	62113.13
2.980	3200.00	0.00	0.00	-4.60	132700.00	23.72	0.00	25.14	6.20	9.55	13933.43	53500.05
2.980	3200.00	0.00	0.00	-4.60	132700.00	24.52	0.00	25.84	5.58	9.22	14394.66	56193.88
3.180	1100.00	0.00	0.00	-4.60	132700.00	24.20	0.00	25.99	7.29	10.73	12391.33	49161.24
3.180	1100.00	0.00	0.00	-4.60	132700.00	24.95	0.00	26.62	6.74	10.39	12768.59	51095.58
3.380	1050.00	0.00	0.00	-4.60	132700.00	25.14	0.00	26.74	6.84	10.44	15862.25	50755.18
3.380	1050.00	0.00	0.00	-4.60	132700.00	25.83	0.00	27.31	6.15	10.07	16614.56	53503.02
3.660	1450.00	0.00	0.00	-3.50	102000.00	26.96	0.00	27.31	1.53	4.98	26732.89	62388.56
3.660	1450.00	0.00	0.00	-3.50	102000.00	27.46	0.00	27.86	1.61	5.17	23082.12	60508.66
3.700	200.00	0.00	0.00	-3.50	102000.00	26.87	0.00	27.41	2.35	6.07	20515.47	66551.14
3.700	200.00	0.00	0.00	-3.50	102000.00	27.39	0.00	27.94	2.31	6.07	19165.10	67049.50
3.900	1050.00	0.00	0.00	-3.50	102000.00	27.05	0.00	27.70	2.59	6.68	20068.41	63436.57
3.900	1050.00	0.00	0.00	-3.50	102000.00	27.52	0.00	28.26	2.75	6.95	15104.03	61478.09
4.290	2000.00	0.00	0.00	-3.50	102000.00	27.66	0.00	28.21	2.35	6.40	22735.03	66503.11
4.290	2000.00	0.00	0.00	-3.50	102000.00	28.17	0.00	28.80	2.53	6.69	19206.80	64135.54
5.010	3850.00	0.00	0.00	-5.00	102000.00	28.55	0.00	29.09	2.21	5.95	19249.00	68585.52
5.010	3850.00	0.00	0.00	-5.00	102000.00	29.16	0.00	29.71	2.18	5.96	17107.93	69060.97
5.270	1400.00	0.00	0.00	-3.00	102000.00	28.59	0.00	29.65	3.96	8.26	12830.92	51254.44
5.270	1400.00	0.00	0.00	-3.00	102000.00	29.23	0.00	30.24	3.68	8.08	12905.52	53165.18
5.350	500.00	0.00	0.00	-2.00	102000.00	29.19	0.00	29.90	2.44	6.83	15972.50	65269.99
5.350	500.00	0.00	0.00	-2.00	102000.00	29.76	0.00	30.48	2.30	6.72	15762.93	67254.62
5.390	133.00	45.60	40.00	-5.00	102000.00	29.24	0.00	29.90	2.05	6.59	16389.27	71180.13
5.390	133.00	45.60	40.00	-5.00	102000.00	29.83	0.00	30.48	1.94	6.49	16244.26	73278.76

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10K*S	VCH	AREA	.01K
5.420	108.00	45.60	40.00	-5.00	102000.00	29.28	0.00	30.02	2.58	6.93	15288.65	63459.20
5.420	108.00	45.60	40.00	-5.00	102000.00	29.87	0.00	30.61	2.46	6.92	14942.62	65045.72
5.480	350.00	0.00	0.00	-6.00	102000.00	29.34	0.00	30.12	2.19	7.10	14785.85	68862.41
5.480	350.00	0.00	0.00	-6.00	102000.00	29.94	0.00	30.70	2.19	6.99	14815.34	68999.97
5.950	2500.00	0.00	0.00	-1.10	102000.00	30.24	0.00	30.75	2.63	5.91	21983.57	62904.19
5.950	2500.00	0.00	0.00	-1.10	102000.00	30.75	0.00	31.33	2.83	6.19	17383.62	60591.55
6.320	1930.00	0.00	0.00	-3.00	102000.00	30.70	0.00	31.28	2.63	6.20	19280.82	62875.79
6.320	1930.00	0.00	0.00	-3.00	102000.00	31.26	0.00	31.87	2.68	6.29	16319.64	62328.96
6.450	700.00	0.00	0.00	-3.00	102000.00	30.66	0.00	31.63	4.61	7.94	13265.10	47506.46
6.450	700.00	0.00	0.00	-3.00	102000.00	31.26	0.00	32.21	4.45	7.80	13069.57	48362.61
6.490	200.00	0.00	0.00	-3.40	102000.00	30.76	0.00	31.75	5.32	8.01	12729.74	44235.45
6.490	200.00	0.00	0.00	-3.40	102000.00	31.36	0.00	32.31	4.93	7.82	13048.87	45952.57
6.500	35.00	34.50	44.70	-3.40	102000.00	30.81	0.00	31.80	5.28	8.00	12757.46	44383.77
6.500	35.00	34.50	44.70	-3.40	102000.00	31.81	0.00	32.72	4.66	7.68	13289.86	47262.81
6.540	200.00	0.00	0.00	-3.00	102000.00	30.96	0.00	31.90	4.38	7.81	13805.86	48740.93
6.540	200.00	0.00	0.00	-3.00	102000.00	31.91	0.00	32.81	4.09	7.60	13417.74	50439.89
7.130	3100.00	0.00	0.00	-6.30	102000.00	32.37	0.00	33.03	2.96	6.69	20605.45	59266.04
7.130	3100.00	0.00	0.00	-6.30	102000.00	33.20	0.00	33.89	2.89	6.71	16807.97	59963.04
7.690	2950.00	0.00	0.00	-8.20	102000.00	33.42	0.00	33.90	2.85	6.15	26957.37	60383.27
7.690	2950.00	0.00	0.00	-8.20	102000.00	34.22	0.00	34.77	2.98	6.38	21911.29	59076.14
8.130	2350.00	0.00	0.00	0.70	102000.00	34.06	0.00	34.61	3.12	6.03	18296.71	57728.94
8.130	2350.00	0.00	0.00	0.70	102000.00	34.91	0.00	35.45	2.89	5.90	17282.55	60029.27
8.390	1300.00	0.00	0.00	0.00	102000.00	34.46	0.00	35.03	3.21	6.41	21236.88	56888.40
8.390	1300.00	0.00	0.00	0.00	102000.00	35.24	0.00	35.89	3.31	6.62	17417.96	56061.29
8.610	1300.00	0.00	0.00	-4.40	102000.00	34.69	0.00	35.73	6.06	8.33	15544.11	41441.63
8.610	1300.00	0.00	0.00	-4.40	102000.00	35.50	0.00	36.58	5.96	8.35	12212.84	41777.90
9.200	3100.00	0.00	0.00	-8.60	102000.00	36.34	0.00	36.66	1.68	4.92	34981.60	78745.48
9.200	3100.00	0.00	0.00	-8.60	102000.00	37.17	0.00	37.54	1.72	5.07	27612.76	77864.68
9.850	3450.00	0.00	0.00	8.40	102000.00	37.09	0.00	37.27	1.97	3.63	33587.41	72757.28
9.850	3450.00	0.00	0.00	8.40	102000.00	37.97	0.00	38.18	2.01	3.76	28526.48	71939.70
10.690	4488.00	0.00	0.00	8.30	102000.00	37.98	0.00	38.16	2.46	4.75	35007.44	64975.15
10.690	4488.00	0.00	0.00	8.30	102000.00	38.89	0.00	39.09	2.48	4.87	33200.89	64728.49
11.050	1900.00	0.00	0.00	1.40	102000.00	38.37	0.00	38.56	2.53	4.52	34112.45	64105.42
11.050	1900.00	0.00	0.00	1.40	102000.00	39.30	0.00	39.46	2.11	4.22	37490.40	70185.16
11.340	1580.00	0.00	0.00	10.00	102000.00	38.77	0.00	39.06	3.78	5.53	28161.71	52495.00
11.340	1580.00	0.00	0.00	10.00	102000.00	39.62	0.00	39.88	3.24	5.26	30011.74	56640.96
11.670	1690.00	0.00	0.00	12.80	102000.00	39.31	0.00	40.05	6.43	6.93	15734.55	40232.96
11.670	1690.00	0.00	0.00	12.80	102000.00	40.07	0.00	40.78	5.99	6.78	15050.35	41676.40

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10K*S	VCH	AREA	.01K
12.480	4300.00	0.00	0.00	17.50	102000.00	42.66	0.00	44.77	17.77	11.67	8758.21	24194.36
12.480	4300.00	0.00	0.00	17.50	102000.00	43.17	0.00	45.19	16.51	11.39	8953.91	25103.46
12.950	2500.00	0.00	0.00	19.60	102000.00	46.75	0.00	48.20	10.96	10.21	13000.68	30803.59
12.950	2500.00	0.00	0.00	19.60	102000.00	47.03	0.00	48.81	12.70	10.72	9518.04	28622.72
13.500	2900.00	0.00	0.00	20.10	102000.00	50.24	0.00	50.84	6.91	6.86	20779.96	38797.05
13.500	2900.00	0.00	0.00	20.10	102000.00	51.00	0.00	51.78	7.73	7.40	16017.45	36675.34
14.010	2640.00	0.00	0.00	19.70	102000.00	52.32	0.00	53.09	10.58	7.17	14878.45	31364.95
14.010	2640.00	0.00	0.00	19.70	102000.00	53.28	0.00	54.07	9.94	7.12	14326.53	32350.58
14.440	2200.00	0.00	0.00	19.30	102000.00	53.84	0.00	54.24	3.00	5.31	23187.91	58842.34
14.440	2200.00	0.00	0.00	19.30	102000.00	54.79	0.00	55.24	3.17	5.44	19542.43	57254.61

FLOODWAY DATA, LEWIS RIVER FLOODWAY
 PROFILE NO. 2

STATION	FLOODWAY		MEAN VELOCITY	WATER SURFACE ELEVATION		DIFFERENCE
	WIDTH (FT)	SECTION AREA		WITH FLOODWAY	WITHOUT FLOODWAY	
A 0.670	969.	17362.	7.6	18.1	17.1	1.0
B 1.190	818.	15387.	8.6	19.5	18.5	1.0
C 1.700	788.	17223.	7.7	21.0	20.3	0.7
1.730	798.	15924.	8.3	21.1	20.4	0.7
1.740	798.	16320.	8.1	21.6	20.6	1.0
P 1.750	799.	16995.	7.8	21.7	20.7	1.0
E 2.380	884.	17318.	7.7	23.1	22.5	0.6
F 2.980	636.	14395.	9.2	24.5	23.7	0.8
G 3.180	536.	12769.	10.4	24.9	24.2	0.7
H 3.380	1090.	16615.	8.0	25.8	25.1	0.7
3.660	1330.	23082.	4.4	27.5	27.0	0.5
I 3.700	1130.	19165.	5.3	27.4	26.9	0.5
J 3.900	655.	15104.	6.8	27.6	27.1	0.5
K 4.290	1151.	19207.	5.3	28.2	27.7	0.5
L 5.010	715.	17108.	6.0	29.2	28.6	0.6
M 5.270	547.	12906.	7.9	29.2	28.6	0.6
N 5.350	660.	15763.	6.5	29.8	29.2	0.6
5.390	620.	16244.	6.3	29.8	29.2	0.6
O 5.420	581.	14943.	6.8	29.9	29.3	0.6
P 5.480	511.	14815.	6.9	29.9	29.3	0.6
Q 5.950	762.	17384.	5.9	30.7	30.2	0.5
6.320	600.	16320.	6.3	31.3	30.7	0.6
6.450	490.	13070.	7.8	31.3	30.7	0.6
6.490	533.	13049.	7.8	31.4	30.8	0.6
6.500	534.	13290.	7.7	31.8	30.8	1.0
AR 6.540	490.	13418.	7.6	32.0	31.0	1.0
BS 7.130	1052.	16808.	6.1	33.2	32.4	0.8
CT 7.690	1462.	21911.	4.7	34.2	33.4	0.8
DV 8.130	716.	17283.	5.9	35.0	34.1	0.9
V 8.390	851.	17418.	5.9	35.3	34.5	0.8
V 8.610	512.	12213.	8.4	35.5	34.7	0.8
X 9.200	1709.	27613.	3.7	37.1	36.3	0.8
Y 9.850	1420.	28526.	3.6	38.0	37.1	0.9
Z 10.690	3021.	33201.	3.1	38.9	38.0	0.9
11.050	3731.	37490.	2.7	39.3	38.4	0.9
AA 11.340	2600.	30012.	3.4	39.7	38.8	0.9
AB 11.670	724.	15050.	6.8	40.1	39.3	0.8
AC 12.480	420.	8954.	11.4	43.2	42.7	0.5
AD 12.950	386.	9518.	10.7	47.0	46.7	0.3
AE 13.500	990.	16017.	6.4	51.0	50.2	0.8
AF 14.010	658.	14327.	7.1	53.3	52.3	1.0
AG 14.440	691.	19542.	5.2	54.8	53.8	1.0

X

REGULATED
FLOWS

(File - JACK LR)

Final

LEWIS RIVER - REGULATED FLOWS

JJJJJ	L	AAAA	RRRR	SSSS	OOOO	N	N
J	L	A A	R R	S	O U	NN	N
J	L	A A	R R	SSSS	O U	N N	N
J J	L	AAAAA	RRRR	S	O U	N N	N
J J	L	A A	R R	S S	O U	N NN	N
JJJ	LLLLL	A A	R R	SSSS	OOOO	N	N

Regulated Q's

(Using Q's from DF 6 July '78)

J.LARSON

13 SEP 78 10:00:55

JOB: HEC2

#

ATTACHMENT 2

10-13-78
1/14
10/13/78

 HEC2 RELEASE DATED NOV 76 UPDATED AUG 77
 ERROR CORR - 01,02
 MODIFICATION - 50,51,52,53

C
 T1 FLOOD PLAIN INFORMATION - WATER SURFACE PROFILES --AUG 1978 00
 T2 HYDROLOGY SECTION - PORTLAND DISTRICT - J.LARSON
 T3 LEWIS RIVER 10 YR FLOOD

J1	ICHECK	INQ	NINV	IDIR	STRI	METRIC	HVINS	Q	WSEL	FW
	0.	2.	0.	0.	0.00000	0.00	0.0	0.	13.800	0.000

J2	NPROF	IPLUT	PRFVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

J3 VARIABLE CODES FOR SUMMARY PRINTOUT

150.000	38.000	16.000	17.000	18.000	1.000	43.000	13.000	14.000	15.000
55.000	26.000	56.000	8.000	0.000	38.000	1.000	3.000	10.000	11.000
12.000	4.000	53.000	54.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.060	0.060	0.030	0.100	0.300	0.000	0.000	0.000	0.000	0.000
QT	9.000	13000.000	144100.000	252200.000	481000.000	180000.000	145000.000	160000.000	93000.000	93000.000
NH	7.000	0.100	600.000	0.050	700.000	0.100	1000.000	0.037	1300.000	0.060
NH	1460.000	0.030	1961.000	0.050	2100.000	0.000	0.000	0.000	0.000	0.000
ET	0.670	0.000	0.000	0.000	0.000	0.000	9.100	0.000	350.000	1985.000

X1	0.670	41.000	1000.000	1985.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1985.000	0.000	0.000	0.000	0.000
GR	50.000	0.000	20.000	150.000	7.000	250.000	12.000	350.000	15.000	550.000
GR	10.000	600.000	5.000	650.000	5.000	700.000	12.000	750.000	8.000	800.000
GR	12.000	850.000	12.000	950.000	8.000	1000.000	4.000	1100.000	1.000	1150.000
GR	4.000	1250.000	6.000	1300.000	10.000	1400.000	7.800	1460.000	2.400	1480.000
GR	1.000	1500.000	-2.800	1520.000	-4.000	1540.000	-6.000	1580.000	-6.600	1680.000
GR	-7.600	1750.000	-6.500	1800.000	-7.000	1850.000	-8.000	1900.000	-9.000	1910.000
GR	-9.500	1920.000	-7.000	1930.000	6.000	1950.000	13.000	1961.000	29.000	1985.000
GR	29.800	2000.000	28.500	2014.000	23.000	2022.000	18.000	2040.000	17.000	2050.000
GR	16.500	2100.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	1.190	0.000	0.000	0.000	0.000	0.000	9.100	0.000	1050.000	1985.000

X1	1.190	32.000	1150.000	1985.000	2700.000	2700.000	2700.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1060.000	0.000	1985.000	0.000	0.000	0.000	0.000
GR	12.000	0.000	15.000	900.000	21.000	1060.000	18.000	1150.000	13.000	1200.000
GR	6.000	1230.000	5.000	1280.000	2.600	1350.000	1.500	1400.000	-1.000	1450.000
GR	-0.500	1500.000	-1.500	1530.000	-2.500	1580.000	-3.500	1620.000	-4.500	1650.000
GR	-5.000	1680.000	-2.000	1700.000	-4.500	1700.000	-7.500	1800.000	-7.500	1800.000

5.500	1876.000	2.100	1908.000	1.600	1938.000	0.500	1962.000	0.300	2018.000
0.400	2094.000	0.800	2126.000	1.600	2166.000	-0.600	2214.000	-0.600	2230.000
-0.400	2240.000	-0.400	2249.000	-0.600	2268.000	-1.000	2262.000	-0.400	2294.000
-0.400	2315.000	-1.400	2335.000	-1.200	2352.000	-1.900	2375.000	-2.000	2393.000
-3.900	2407.000	-4.700	2417.000	1.800	2427.000	6.600	2454.000	15.300	2443.000
18.000	2454.000	20.500	2465.000	24.600	2477.000	30.400	2490.000	31.000	2500.000
30.700	2513.000	24.800	2527.000	18.800	2555.000	16.300	2575.000	15.600	2600.000
16.000	3100.000	17.000	3499.000	40.000	3500.000	0.000	0.000	0.000	0.000
0.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2.980	0.000	0.000	0.000	0.000	0.000	9.100	0.000	180.000	790.000

2.980	49.000	140.000	802.000	2700.000	3200.000	3200.000	0.000	0.000	0.000
10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40.000	0.000	30.000	70.000	20.000	140.000	10.000	180.000	5.000	200.000
0.100	297.000	-3.200	326.000	-4.600	383.000	-3.700	419.000	-3.500	455.000
-3.000	491.000	-2.300	512.000	-2.000	527.000	-1.800	555.000	-1.800	541.000
-1.400	554.000	-1.200	561.000	-0.100	580.000	0.200	592.000	0.000	602.000
0.300	609.000	0.700	622.000	1.000	635.000	1.700	652.000	2.000	668.000
2.000	680.000	2.300	686.000	2.300	696.000	1.500	708.000	-1.800	715.000
4.400	721.000	7.000	725.000	13.100	740.000	18.900	752.000	20.000	765.000
28.100	785.000	31.500	790.000	32.000	802.000	31.300	813.000	27.000	822.000
27.500	834.000	24.400	845.000	19.700	867.000	18.000	880.000	16.200	887.000
17.300	892.000	17.200	905.000	17.500	1799.000	40.000	1800.000	0.000	0.000
3.180	0.000	0.000	0.000	0.000	0.000	9.100	0.000	240.000	790.000

3.180	54.000	241.000	802.000	1100.000	1100.000	1100.000	1.000	0.000	0.000
10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40.000	0.000	40.000	200.000	40.000	225.000	33.300	231.000	15.300	241.000
10.400	255.000	7.000	264.000	5.200	272.000	1.300	292.000	0.100	297.000
-3.200	326.000	-4.000	355.000	-4.600	383.000	-3.700	419.000	-3.500	455.000
-3.000	491.000	-2.300	512.000	-2.000	527.000	-1.800	555.000	-1.800	541.000
-1.400	554.000	-1.200	561.000	-0.100	580.000	0.200	592.000	0.000	602.000
0.300	609.000	0.700	622.000	1.000	635.000	1.700	652.000	2.000	668.000
2.000	680.000	2.300	686.000	2.300	696.000	1.500	708.000	-1.800	715.000
4.400	721.000	7.000	725.000	13.100	740.000	18.900	752.000	20.000	765.000
28.100	785.000	31.500	790.000	32.000	802.000	31.300	813.000	27.000	822.000
27.500	834.000	24.400	845.000	19.700	867.000	18.000	880.000	16.200	887.000
17.300	892.000	17.200	905.000	17.500	1799.000	40.000	1800.000	0.000	0.000
0.000	0.075	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	9.100	0.000	20.000	1132.000

3.380	40.000	30.000	550.000	1150.000	750.000	1050.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	1132.000	0.000	0.000	0.000	0.000
35.000	0.000	23.500	30.000	10.400	65.000	7.000	74.000	5.200	82.000
1.500	102.000	0.100	107.000	-3.200	136.000	-4.000	165.000	-4.600	193.000
-3.700	229.000	-3.500	265.000	-3.000	300.000	-2.300	322.000	-2.000	337.000
-1.800	345.000	-1.800	351.000	-1.400	364.000	-1.200	371.000	-0.100	390.000
-0.200	402.000	0.000	412.000	0.300	419.000	0.700	432.000	1.000	445.000
3.000	460.000	7.000	480.000	10.000	500.000	15.000	520.000	19.000	550.000
17.000	800.000	20.000	1100.000	24.000	1117.000	31.800	1132.000	31.800	1150.000
19.000	1206.000	18.500	1250.000	16.800	1450.000	19.000	2149.000	40.000	2150.000
9.000	54400.000	86300.000	102000.000	142070.000	0.000	0.000	0.000	78000.000	78000.000

3.660	24.000	600.000	1400.000	2350.000	600.000	1450.000	0.000	0.000	0.000
0.000	0.000	0.000	300.000	0.000	1960.000	0.000	0.000	0.000	0.000
11.000	0.000	11.000	60.000	11.000	120.000	11.000	180.000	11.000	240.000
11.000	500.000	11.000	450.000	15.000	570.000	15.000	600.000	10.000	620.000
5.000	640.000	0.000	680.000	-2.000	720.000	-3.500	770.000	-3.500	820.000
0.000	870.000	1.000	1020.000	10.000	1270.000	10.000	1365.000	20.000	1400.000
20.000	1920.000	30.000	1960.000	30.000	1945.000	20.000	2000.000	0.000	0.000

A large grid of numerical data with multiple rows and columns. The rows are labeled with alphanumeric codes such as GK, GR, NC, ET, X1, X3, XS, and T. The data consists of various numerical values, some of which are bolded or larger than others. The grid is arranged in a staggered, overlapping pattern across the page.

GR	5.300	1876,000	2.100	1908,000	1,600	1938,000	0,500	1962,000	0,500	2018,000
GR	0.400	2094,000	0.800	2126,000	1,600	2166,000	-0,600	2214,000	-0,600	2230,000
GR	-0.400	2240,000	-0,400	2249,000	-0,600	2268,000	-1,000	2282,000	-0,400	2294,000
GR	-0.400	2315,000	-1,400	2335,000	-1,200	2352,000	-1,900	2375,000	-2,000	2393,000
GR	-3.900	2407,000	-4,700	2417,000	1,800	2427,000	6,600	2434,000	13,300	2443,000
GR	18.000	2454,000	20,500	2465,000	24,600	2477,000	30,400	2490,000	31,000	2500,000
GR	30.700	2513,000	24,800	2527,000	18,800	2535,000	16,300	2575,000	15,600	2600,000
GR	16.000	3100,000	17,000	3499,000	40,000	3500,000	0,000	0,000	0,000	0,000
NC	0.080	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
ET	2.980	0,000	0,000	0,000	0,000	0,000	9,100	0,000	180,000	790,000

X1	2.980	49,000	140,000	802,000	2700,000	3200,000	3200,000	0,000	0,000	0,000
X3	10.000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
GR	40.000	0,000	30,000	70,000	20,000	140,000	10,000	180,000	5,000	200,000
GR	0.100	297,000	-3,200	326,000	-4,600	383,000	-3,700	419,000	-3,500	455,000
GR	-3.000	491,000	-2,300	512,000	-2,000	527,000	-1,800	535,000	-1,800	541,000
GR	-1.400	554,000	-1,200	561,000	-0,100	580,000	0,200	592,000	0,000	602,000
GR	0.300	609,000	0,700	622,000	1,000	635,000	1,700	652,000	2,000	668,000
GR	2.000	680,000	2,300	686,000	2,300	696,000	1,500	708,000	-1,800	715,000
GR	4.400	721,000	7,000	725,000	13,100	740,000	18,900	752,000	20,000	765,000
GR	28.100	785,000	31,500	790,000	32,000	802,000	31,300	813,000	27,000	822,000
GR	27.500	834,000	24,400	845,000	19,700	867,000	18,000	880,000	16,200	887,000
GR	17.300	892,000	17,200	905,000	17,500	1799,000	40,000	1800,000	0,000	0,000
ET	3.180	0,000	0,000	0,000	0,000	0,000	9,100	0,000	240,000	790,000

X1	3.180	54,000	241,000	802,000	1100,000	1100,000	1100,000	1,000	0,000	0,000
X3	10.000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
GR	40.000	0,000	40,000	200,000	40,000	225,000	33,300	231,000	15,300	241,000
GR	10.400	255,000	7,000	264,000	5,200	272,000	1,300	292,000	0,100	297,000
GR	-3.200	326,000	-4,000	355,000	-4,600	383,000	-3,700	419,000	-3,500	455,000
GR	-3.000	491,000	-2,300	512,000	-2,000	527,000	-1,800	535,000	-1,800	541,000
GR	-1.400	554,000	-1,200	561,000	-0,100	580,000	0,200	592,000	0,000	602,000
GR	0.300	609,000	0,700	622,000	1,000	635,000	1,700	652,000	2,000	668,000
GR	2.000	680,000	2,300	686,000	2,300	696,000	1,500	708,000	-1,800	715,000
GR	4.400	721,000	7,000	725,000	13,100	740,000	18,900	752,000	20,000	765,000
GR	28.100	785,000	31,500	790,000	32,000	802,000	31,300	813,000	27,000	822,000
GR	27.500	834,000	24,400	845,000	19,700	867,000	18,000	880,000	16,200	887,000
GR	17.300	892,000	17,200	905,000	17,500	1799,000	40,000	1800,000	0,000	0,000
VC	0.000	0,075	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
ET	0.000	0,000	0,000	0,000	0,000	0,000	9,100	0,000	20,000	1132,000

X1	3.380	40,000	30,000	550,000	1150,000	750,000	1050,000	0,000	0,000	0,000
X3	0.000	0,000	0,000	0,000	0,000	1132,000	0,000	0,000	0,000	0,000
GR	35.000	0,000	23,500	30,000	10,400	65,000	7,000	74,000	5,200	82,000
GR	1.500	102,000	0,100	107,000	-3,200	136,000	-4,000	165,000	-4,600	193,000
GR	-3.700	229,000	-3,500	265,000	-3,000	300,000	-2,300	322,000	-2,000	337,000
GR	-1.800	345,000	-1,800	351,000	-1,400	364,000	-1,200	371,000	-0,100	390,000
GR	-0.200	402,000	0,000	412,000	0,300	419,000	0,700	432,000	1,000	445,000
GR	3.000	460,000	7,000	480,000	10,000	500,000	15,000	520,000	19,000	550,000
GR	17.000	800,000	20,000	1100,000	24,000	1117,000	31,800	1132,000	31,800	1150,000
GR	19.000	1206,000	18,500	1250,000	16,800	1450,000	19,000	2149,000	40,000	2150,000
QT	9.000	54400,000	86300,000	102000,000	142070,000	0,000	0,000	0,000	78000,000	78000,000

X1	3.660	24,000	600,000	1400,000	2350,000	600,000	1450,000	0,000	0,000	0,000
X3	0.000	0,000	0,000	300,000	0,000	1960,000	0,000	0,000	0,000	0,000
GR	11.000	0,000	11,000	60,000	11,000	120,000	-11,000	180,000	11,000	240,000
GR	11.000	300,000	11,000	450,000	15,000	570,000	15,000	600,000	10,000	620,000
GR	5.000	640,000	0,000	680,000	-2,000	720,000	-3,500	770,000	-3,500	820,000
GR	0.000	870,000	1,000	1020,000	10,000	1270,000	10,000	1365,000	20,000	1400,000
GR	20.000	1920,000	30,000	1960,000	30,000	1995,000	20,000	2040,000	0,000	0,000

9.000 54400.000 86300.000 102000.000 141810.000 0.000 0.000 0.000 0.000 0.000

ABOVE EAST FORK LEWIS RIVER

3.700	35.000	1970.000	2670.000	250.000	150.000	200.000	0.000	0.000	0.000
10.000	0.000	0.000	1050.000	0.000	3140.000	0.000	0.000	0.000	0.000
35.000	0.000	30.000	70.000	26.000	100.000	25.200	250.000	25.500	600.000
25.700	1050.000	26.000	1600.000	26.200	1840.000	25.000	1850.000	20.000	1870.000
15.000	1890.000	15.000	1930.000	19.000	1970.000	15.000	1980.000	10.000	2000.000
5.000	2020.000	0.000	2060.000	-2.000	2100.000	-3.500	2150.000	-3.500	2200.000
-2.000	2250.000	0.000	2295.000	3.000	2355.000	5.000	2395.000	10.000	2600.000
10.000	2630.000	22.500	2670.000	22.500	2710.000	20.000	2950.000	19.000	3000.000
20.000	3090.000	30.000	3130.000	31.000	3140.000	30.000	3170.000	30.000	4170.000
0.000	0.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3.900	0.000	0.000	0.000	0.000	0.000	9.100	0.000	100.000	2005.000

3.900	32.000	1410.000	2005.000	1500.000	880.000	1050.000	0.000	0.000	0.000
10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40.000	0.000	23.000	35.000	23.000	60.000	23.000	500.000	23.000	1000.000
23.000	1200.000	23.000	1300.000	24.800	1310.000	24.800	1320.000	20.000	1340.000
19.000	1370.000	21.000	1410.000	20.000	1420.000	10.000	1445.000	5.000	1455.000
2.000	1470.000	1.000	1500.000	0.000	1600.000	-2.000	1660.000	-3.500	1730.000
-2.000	1800.000	0.000	1880.000	2.000	1910.000	5.000	1930.000	10.000	1950.000
20.000	1960.000	25.000	1970.000	28.000	1995.000	32.200	2005.000	31.000	2020.000
31.000	3000.000	40.000	3005.000	0.000	0.000	0.000	0.000	0.000	0.000
4.290	0.000	0.000	0.000	0.000	0.000	9.100	0.000	72.000	1735.000
9.000	54400.000	86300.000	102000.000	141750.000	0.000	0.000	0.000	0.000	0.000

4.290	73.000	1183.000	1735.000	2000.000	1900.000	2000.000	0.000	0.000	0.000
10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50.000	0.000	40.000	26.000	25.000	50.000	22.200	72.000	19.900	102.000
19.100	140.000	19.300	190.000	19.500	240.000	20.100	290.000	20.100	340.000
20.300	390.000	19.300	440.000	19.800	490.000	18.400	540.000	17.100	590.000
18.300	640.000	18.500	690.000	18.400	706.000	18.700	740.000	19.600	770.000
19.200	802.000	17.300	835.000	17.800	852.000	19.200	925.000	19.300	932.000
15.000	941.000	18.900	948.000	21.900	966.000	21.600	980.000	17.900	994.000
18.400	1015.000	17.600	1043.000	20.300	1054.000	21.700	1077.000	22.200	1105.000
21.500	1140.000	22.000	1163.000	22.700	1183.000	22.500	1185.000	16.300	1201.000
10.600	1204.000	8.300	1215.000	5.100	1219.000	2.700	1235.000	1.700	1250.000
2.100	1275.000	2.800	1310.000	2.600	1375.000	1.800	1390.000	1.800	1457.000
1.100	1468.000	-0.700	1490.000	-1.200	1496.000	-1.900	1510.000	-1.500	1531.000
-2.100	1557.000	-2.200	1579.000	-2.200	1606.000	-2.700	1629.000	-3.500	1651.000
-3.500	1669.000	1.300	1677.000	4.000	1679.000	8.300	1687.000	18.000	1699.000
22.600	1708.000	27.700	1717.000	27.800	1721.000	30.700	1729.000	33.000	1735.000
32.000	1741.000	32.000	2749.000	40.000	2750.000	0.000	0.000	0.000	0.000
0.070	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5.010	0.000	0.000	0.000	0.000	0.000	9.100	0.000	200.000	1242.000

5.010	68.000	497.000	1242.000	5850.000	3500.000	3850.000	0.000	0.000	0.000
10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42.100	0.000	44.700	50.000	44.300	57.000	40.600	44.000	34.600	56.000
28.900	67.000	23.300	76.000	21.800	83.000	21.900	89.000	21.900	90.000
22.200	140.000	22.400	199.000	21.200	247.000	23.100	290.000	23.200	340.000
23.500	364.000	23.600	402.000	23.000	443.000	21.300	472.000	20.900	497.000
18.600	508.000	18.400	523.000	10.700	533.000	6.900	548.000	5.700	556.000
4.300	580.000	4.600	616.000	5.400	643.000	5.400	660.000	4.300	698.000
3.700	737.000	3.300	763.000	3.000	790.000	2.800	832.000	2.500	856.000
2.400	875.000	2.000	878.000	1.700	940.000	1.900	952.000	1.600	963.000
0.600	975.000	0.500	990.000	-0.300	1003.000	-0.500	1015.000	-1.000	1028.000
-1.300	1044.000	-1.600	1056.000	-2.100	1068.000	-1.900	1075.000	-2.600	1085.000

GR	11.000	110.000	10.000	110.000	12.000	110.000	11.000	110.000	12.000	110.000
GR	27.400	1200.000	31.200	1217.000	32.000	1226.000	34.500	1242.000	34.500	1254.000
GR	33.000	1290.000	33.000	1240.000	40.000	1250.000	0.000	0.000	0.000	0.000
ET	5.270	0.000	0.000	0.000	0.000	0.000	9.100	0.000	46.000	668.000

X1	5.270	30.000	160.000	668.000	1200.000	1600.000	1400.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	44.000	0.000	40.000	14.000	50.000	46.000	24.000	62.000	22.000	160.000
GR	20.000	164.000	10.000	184.000	8.000	190.000	6.000	200.000	4.000	225.000
GR	4.000	260.000	5.000	290.000	3.000	325.000	1.000	360.000	0.000	400.000
GR	-2.000	450.000	-3.000	500.000	-2.000	550.000	2.000	590.000	6.000	600.000
GR	10.000	610.000	22.500	630.000	23.000	640.000	27.000	650.000	32.000	666.000
GR	34.800	668.000	34.800	680.000	32.000	690.000	32.000	1180.000	40.000	1185.000
NC	0.000	0.000	0.000	0.300	0.800	0.000	0.000	0.000	0.000	0.000

I-5 HIGHWAY BRIDGE -SOUTHBOUND

X1	5.350	19.000	200.000	1005.000	500.000	500.000	500.000	0.687	0.000	0.000
X3	0.000	0.000	0.000	60.000	0.000	1200.000	0.000	0.000	0.000	0.000
GR	44.000	0.000	24.000	60.000	24.000	180.000	22.000	200.000	10.000	225.000
GR	8.000	245.000	6.000	280.000	2.000	390.000	2.000	500.000	-2.000	600.000
GR	-2.000	700.000	0.000	770.000	2.000	900.000	4.000	960.000	10.000	980.000
GR	22.000	1005.000	24.000	1200.000	24.000	1250.000	44.000	1310.000	0.000	0.000
ET	5.390	0.000	0.000	0.000	0.000	0.000	9.100	0.000	225.000	1280.000
SB	1.250	1.500	2.500	1300.000	200.000	16.000	24500.000	9.000	-4.000	-4.000

I-5 HIGHWAY BRIDGE -NORTHBOUND

X1	5.390	20.000	328.000	1080.000	133.000	133.000	133.000	0.704	0.000	0.000
X2	0.000	0.000	1.000	40.000	45.600	0.000	0.000	0.000	0.000	0.000
GR	45.600	0.000	40.000	212.000	32.000	231.000	24.000	245.000	22.000	328.000
GR	10.000	560.000	0.000	380.000	-2.000	400.000	-2.000	480.000	0.000	540.000
GR	-2.000	590.000	-5.000	730.000	-4.500	800.000	0.000	870.000	1.700	940.000
GR	2.000	1020.000	10.000	1045.000	22.000	1080.000	25.000	1250.000	40.000	1310.000
ET	5.420	0.000	0.000	0.000	0.000	0.000	9.100	0.000	216.000	1267.000
SB	1.250	1.500	2.500	1300.000	200.000	16.000	24500.000	9.000	-5.000	-5.000

X1	5.420	19.000	380.000	1170.000	108.000	108.000	108.000	0.704	0.000	0.000
X2	0.000	0.000	1.000	40.000	45.600	0.000	0.000	0.000	0.000	0.000
GR	42.000	0.000	42.000	203.000	24.000	250.000	25.000	380.000	20.000	410.000
GR	5.000	445.000	0.000	470.000	-5.000	530.000	-5.000	565.000	0.000	570.000
GR	2.000	600.000	0.000	1050.000	4.000	1090.000	6.000	1115.000	10.000	1125.000
GR	20.000	1160.000	24.000	1170.000	26.000	1235.000	42.000	1280.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	5.480	0.000	0.000	0.000	0.000	0.000	9.100	0.000	20.000	590.000

X1	5.480	14.000	60.000	525.000	350.000	350.000	350.000	0.000	0.000	0.000
GR	50.000	0.000	10.000	60.000	0.000	80.000	-5.000	90.000	-6.000	100.000
GR	-5.000	200.000	-4.000	300.000	-1.000	400.000	0.000	450.000	5.000	490.000
GR	15.000	505.000	23.000	525.000	23.000	555.000	42.000	600.000	0.000	0.000
ET	5.940	0.000	0.000	0.000	0.000	0.000	9.100	0.000	200.000	1500.000
NC	0.000	0.000	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	5.950	70.000	562.000	1183.000	2750.000	2150.000	2500.000	0.000	0.000	0.000
GR	30.300	0.000	30.100	11.000	29.800	22.000	29.100	32.000	20.000	48.000
GR	20.200	95.000	20.400	117.000	24.300	133.000	24.100	179.000	23.800	209.000
GR	24.400	288.000	22.200	304.000	22.100	378.000	21.600	406.000	22.400	439.000
GR	22.700	471.000	22.500	501.000	22.200	540.000	23.800	562.000	21.100	565.000
GR	12.500	577.000	8.200	598.000	7.400	614.000	6.100	674.000	5.100	688.000

RK	-0.900	1064.000	-0.900	1072.000	-0.500	1086.000	-0.200	1107.000	-0.600	1122.000
RK	0.500	1130.000	3.600	1141.000	7.400	1148.000	13.700	1158.000	21.200	1172.000
RK	25.900	1183.000	25.100	1193.000	25.200	1201.000	24.900	1220.000	25.000	1248.000
RK	25.800	1274.000	24.600	1309.000	24.700	1323.000	24.500	1361.000	24.900	1403.000
RK	24.500	1409.000	23.800	1426.000	24.300	1454.000	24.000	1502.000	26.500	1508.000
RK	25.800	1531.000	26.000	1556.000	29.600	1570.000	34.000	1587.000	35.200	1596.000
RK	36.000	1624.000	35.900	1649.000	53.100	1668.000	36.000	1685.000	36.500	1709.000

I	6.320	26.000	690.000	1270.000	1800.000	2150.000	1930.000	0.000	0.000	0.000
S	0.000	0.000	0.000	130.000	0.000	0.000	0.000	0.000	0.000	0.000
R	45.400	0.000	33.500	60.000	32.600	130.000	30.000	340.000	29.000	390.000
R	26.000	610.000	25.000	690.000	15.000	710.000	6.000	730.000	0.000	790.000
R	-2.000	890.000	-3.000	940.000	-3.000	990.000	-2.000	1020.000	6.000	1110.000
R	6.000	1210.000	10.000	1230.000	15.000	1250.000	20.000	1260.000	25.000	1270.000
R	25.000	1390.000	26.000	1560.000	26.700	1640.000	27.200	1710.000	35.000	1730.000
K	45.000	1750.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

I	6.450	23.000	310.000	800.000	700.000	700.000	700.000	0.000	0.000	0.000
S	0.000	0.000	0.000	280.000	0.000	900.000	0.000	0.000	0.000	0.000
R	45.000	120.000	40.000	130.000	35.000	150.000	35.000	200.000	28.000	280.000
R	26.000	310.000	10.000	370.000	6.000	380.000	3.000	440.000	-1.000	460.000
R	-2.000	560.000	-3.000	580.000	-3.000	640.000	-2.000	660.000	8.000	725.000
R	10.000	760.000	26.000	800.000	27.700	900.000	31.700	1100.000	30.000	1250.000
R	35.000	1500.000	35.000	1830.000	45.000	1900.000	0.000	0.000	0.000	0.000
C	0.000	0.000	0.000	0.300	0.800	0.000	0.000	0.000	0.000	0.000
T	6.490	0.000	0.000	0.000	0.000	0.000	9.100	0.000	281.000	836.000

WOODLAND HIGHWAY BRIDGE

I	6.490	59.000	264.000	856.000	200.000	200.000	200.000	0.000	0.000	0.000
S	10.000	0.000	0.000	0.000	0.000	0.000	0.000	43.500	43.500	0.000
R	56.000	0.000	55.900	14.000	53.300	53.000	51.200	49.000	52.400	76.000
R	51.000	100.000	48.900	140.000	48.400	156.000	47.900	200.000	48.900	247.000
R	49.500	264.000	37.700	281.000	26.900	299.000	26.600	326.000	14.400	341.000
R	9.700	355.000	6.300	363.000	6.500	368.000	6.300	373.000	6.000	385.000
R	6.400	398.000	6.000	415.000	2.500	427.000	-1.000	445.000	-1.500	460.000
R	-1.800	479.000	-2.000	492.000	-2.000	525.000	-2.300	533.000	-2.300	546.000
R	-2.900	550.000	-3.400	568.000	-3.000	576.000	-2.800	593.000	-3.100	622.000
R	-1.700	650.000	0.700	670.000	3.700	688.000	8.400	715.000	9.700	732.000
R	10.500	747.000	13.700	760.000	26.300	780.000	27.600	816.000	36.800	836.000
R	49.500	856.000	48.500	900.000	47.000	950.000	45.000	1000.000	43.000	1050.000
R	41.000	1100.000	38.200	1156.000	37.000	1187.000	36.100	1254.000	35.000	1400.000
R	34.500	1450.000	35.000	1680.000	48.000	1750.000	48.800	1770.000	0.000	0.000
T	6.500	0.000	0.000	0.000	0.000	0.000	9.100	0.000	281.000	836.000
B	0.950	1.200	3.000	0.000	219.000	16.000	1980.000	4.500	-3.400	-3.400

I	6.500	0.000	0.000	0.000	35.000	35.000	35.000	1.000	0.000	0.000
S	0.000	0.000	1.000	44.700	34.500	0.000	0.000	0.000	0.000	0.000
S	10.000	0.000	0.000	0.000	0.000	0.000	0.000	43.500	43.500	0.000
T	13.000	264.000	49.500	40.900	398.000	52.300	43.500	550.000	52.800	44.700
T	688.000	52.400	44.000	856.000	49.500	40.800	1100.000	41.000	41.000	1156.000
T	38.200	38.200	1187.000	37.000	37.000	1254.000	36.100	36.100	1400.000	35.000
T	35.000	1450.000	34.500	34.500	1680.000	35.000	35.000	1750.000	48.000	48.000
C	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
T	6.540	0.000	0.000	0.000	0.000	0.000	9.100	0.000	220.000	950.000

I	6.540	30.000	310.000	800.000	200.000	200.000	200.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	1030.000	0.000	0.000	0.000	0.000
R	56.000	0.000	56.000	25.000	50.000	60.000	50.000	80.000	45.000	120.000

GR	21,000	310,000	22,700	331,000	23,000	352,000	23,000	373,000	23,000	394,000
GR	-1,000	460,000	-2,000	500,000	-3,000	580,000	-3,000	640,000	-2,000	660,000
GR	8,000	725,000	10,000	760,000	15,000	775,000	26,000	800,000	30,000	1050,000
GR	31,700	1100,000	30,000	1250,000	35,000	1500,000	35,000	1850,000	45,000	1900,000
ET	7.130	0.000	0.000	0.000	0.000	0.000	9.100	0.000	465.000	2752.000

X1	7,130	64,000	2240,000	2752,000	2400,000	3150,000	3100,000	0,000	0,000	0,000
GR	50,000	0,000	29,000	90,000	27,000	300,000	28,000	500,000	31,000	800,000
GR	29,000	1100,000	31,000	1300,000	31,000	1900,000	29,400	2010,000	29,500	2060,000
GR	27,500	2113,000	29,000	2167,000	27,400	2240,000	22,100	2253,000	17,300	2280,000
GR	14,200	2289,000	11,100	2304,000	10,300	2325,000	8,700	2343,000	5,500	2349,000
GR	4,700	2358,000	3,500	2381,000	2,200	2397,000	0,200	2408,000	0,900	2417,000
GR	-0,700	2435,000	-3,000	2448,000	-5,600	2463,000	-6,300	2491,000	-5,900	2500,000
GR	-4,100	2520,000	-2,900	2530,000	-1,700	2540,000	-4,300	2556,000	-3,300	2580,000
GR	-2,000	2589,000	-2,000	2590,000	-0,200	2617,000	0,900	2642,000	1,000	2653,000
GR	1,100	2663,000	1,400	2673,000	3,300	2693,000	2,200	2701,000	3,300	2708,000
GR	11,000	2720,000	14,400	2725,000	19,800	2753,000	23,200	2741,000	29,000	2752,000
GR	29,600	2766,000	30,300	2778,000	30,600	2793,000	30,600	2807,000	30,100	2809,000
GR	31,100	2813,000	30,500	2830,000	30,400	2846,000	32,600	2853,000	32,900	2863,000
GR	38,600	2864,000	38,600	3700,000	40,000	3750,000	50,000	4000,000	0,000	0,000
NC	0,000	0,065	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
ET	7.690	0.000	0.000	0.000	0.000	0.000	9.100	0.000	700.000	2200.000

X1	7,690	75,000	765,000	1290,000	1900,000	3250,000	2950,000	0,000	0,000	0,000
X3	0,000	0,000	0,000	0,000	0,000	2700,000	0,000	0,000	0,000	0,000
GR	45,000	0,000	35,100	28,000	35,700	38,000	36,000	49,000	35,800	57,000
GR	32,000	67,000	31,900	80,000	30,900	120,000	30,800	170,000	30,400	220,000
GR	29,900	270,000	29,300	320,000	29,100	370,000	28,800	420,000	28,800	470,000
GR	28,100	520,000	28,200	570,000	28,100	620,000	28,200	670,000	29,600	741,000
GR	28,500	765,000	22,100	770,000	15,200	784,000	4,200	803,000	-1,800	813,000
GR	-8,200	851,000	-6,000	874,000	-4,800	883,000	-3,200	916,000	-1,100	948,000
GR	1,200	965,000	2,500	978,000	3,600	998,000	4,900	1016,000	5,300	1039,000
GR	7,700	1062,000	7,700	1077,000	10,700	1102,000	12,700	1119,000	13,200	1128,000
GR	13,700	1135,000	15,200	1142,000	17,900	1153,000	18,400	1167,000	17,700	1206,000
GR	19,400	1257,000	23,100	1290,000	23,300	1320,000	23,600	1363,000	24,900	1399,000
GR	27,000	1441,000	27,700	1475,000	28,600	1520,000	25,000	1850,000	23,000	2000,000
GR	26,000	2100,000	26,000	2250,000	24,000	2350,000	25,000	2400,000	26,000	2600,000
GR	30,000	2650,000	35,600	2700,000	33,000	2750,000	30,000	3300,000	30,000	3650,000
GR	28,000	3900,000	31,000	4200,000	30,000	4300,000	26,000	4500,000	30,000	4700,000
GR	30,000	5000,000	25,000	5100,000	26,000	5400,000	30,000	5500,000	50,000	5600,000
ET	8.130	0.000	0.000	0.000	0.000	0.000	9.100	0.000	55.000	1650.000

X1	8,130	70,000	55,000	771,000	2750,000	1850,000	2350,000	0,000	0,000	0,000
X3	0,000	0,000	0,000	0,000	0,000	1206,000	0,000	0,000	0,000	0,000
GR	48,500	0,000	33,400	12,000	30,100	18,000	30,400	20,000	31,700	32,000
GR	32,300	45,000	31,800	55,000	23,100	65,000	15,600	73,000	12,000	78,000
GR	8,500	90,000	1,300	102,000	0,700	124,000	8,100	148,000	5,900	169,000
GR	7,600	197,000	7,800	248,000	7,800	300,000	8,600	332,000	8,600	380,000
GR	9,600	410,000	9,200	484,000	9,100	496,000	9,200	509,000	9,600	530,000
GR	10,500	551,000	10,600	565,000	10,400	575,000	10,400	582,000	10,100	597,000
GR	9,600	607,000	8,600	618,000	8,700	632,000	9,100	640,000	10,900	650,000
GR	11,600	660,000	13,300	664,000	15,600	670,000	17,100	671,000	18,500	682,000
GR	21,000	702,000	19,800	724,000	20,800	730,000	27,800	745,000	25,800	754,000
GR	31,700	771,000	30,100	778,000	30,100	830,000	29,700	882,000	29,900	930,000
GR	30,100	965,000	30,000	1001,000	30,900	1050,000	33,100	1072,000	30,500	1114,000
GR	29,700	1149,000	31,700	1195,000	34,800	1206,000	35,000	1210,000	35,100	1215,000
GR	34,200	1230,000	32,000	1600,000	30,000	2200,000	30,000	3000,000	32,000	3300,000
GR	30,000	3350,000	27,500	3400,000	30,000	3450,000	30,000	4650,000	50,000	4700,000

X1	8,390	40,000	1040,000	1620,000	1300,000	1300,000	1300,000	0,000	0,000	0,000
X3	0,000	0,000	0,000	0,000	0,000	1650,000	0,000	0,000	0,000	0,000

GR	26,500	1000,000	25,000	1040,000	16,000	1070,000	0,000	1100,000	0,000	1240,000
GR	15,500	1370,000	5,000	1440,000	5,000	1500,000	16,000	1550,000	20,000	1580,000
GR	30,000	1600,000	36,000	1620,000	37,000	1650,000	37,000	1850,000	36,000	1900,000
GR	34,300	2100,000	35,000	2280,000	36,200	2300,000	36,200	2325,000	35,000	2350,000
GR	35,000	2700,000	33,000	2800,000	34,000	3050,000	34,500	3200,000	34,000	3500,000
GR	33,500	3600,000	33,500	4400,000	30,800	4700,000	32,000	4800,000	50,000	4860,000
NC	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
ET	8,610	0,000	0,000	0,000	0,000	0,000	9,100	0,000	700,000	2250,000

X1	8,610	65,000	1366,000	1878,000	1300,000	1300,000	1300,000	0,000	0,000	0,000
X3	0,000	0,000	0,000	0,000	0,000	3800,000	0,000	0,000	0,000	0,000
GR	55,000	0,000	35,000	50,000	31,000	280,000	31,000	300,000	31,000	360,000
GR	31,000	380,000	34,000	1120,000	32,000	1164,000	32,100	1194,000	27,600	1217,000
GR	27,700	1247,000	28,000	1295,000	29,100	1326,000	28,500	1366,000	16,100	1371,000
GR	10,300	1382,000	9,200	1387,000	9,200	1396,000	8,100	1404,000	7,300	1417,000
GR	4,100	1427,000	3,800	1431,000	0,100	1448,000	-2,100	1459,000	-4,400	1467,000
GR	-2,800	1510,000	-1,800	1524,000	0,000	1551,000	1,100	1566,000	3,600	1587,000
GR	5,600	1608,000	7,600	1627,000	8,800	1644,000	10,200	1659,000	11,100	1668,000
GR	12,100	1676,000	13,600	1688,000	14,000	1694,000	16,100	1702,000	17,400	1704,000
GR	20,500	1722,000	23,200	1752,000	22,100	1779,000	26,800	1813,000	27,900	1831,000
GR	30,600	1842,000	31,700	1864,000	35,100	1878,000	35,000	1900,000	34,100	1950,000
GR	33,900	2000,000	35,000	2300,000	37,000	2340,000	38,000	2450,000	38,000	2650,000
GR	37,000	2880,000	36,900	2970,000	35,500	3000,000	37,000	3150,000	36,000	3450,000
GR	34,500	3800,000	34,500	3950,000	34,500	4150,000	40,000	4175,000	50,000	4200,000
NH	4,000	0,060	1900,000	0,090	3745,000	0,035	4361,000	0,060	4800,000	0,000
ET	9,200	0,000	0,000	0,000	0,000	0,000	9,100	0,000	1100,000	4389,000

X1	9,200	88,000	3718,000	4385,000	1900,000	2900,000	3100,000	0,000	0,000	0,000
GR	50,000	0,000	45,000	20,000	39,000	50,000	40,000	80,000	40,000	160,000
GR	34,000	230,000	37,000	250,000	30,000	280,000	28,000	300,000	30,000	320,000
GR	32,000	450,000	34,000	560,000	36,000	600,000	30,000	910,000	30,000	960,000
GR	33,000	1400,000	34,000	1900,000	38,000	2100,000	35,000	2250,000	30,000	2450,000
GR	30,000	2700,000	25,000	2800,000	23,000	2900,000	25,000	3050,000	30,000	3200,000
GR	31,500	3400,000	30,800	3410,000	31,300	3600,000	30,300	3652,000	29,300	3677,000
GR	27,900	3718,000	23,500	3745,000	17,200	3769,000	17,100	3800,000	16,000	3817,000
GR	15,500	3836,000	14,300	3870,000	13,600	3891,000	12,500	3907,000	12,900	3922,000
GR	12,900	3931,000	13,300	3952,000	13,500	3958,000	13,700	3969,000	15,000	3973,000
GR	16,000	3983,000	17,100	3989,000	17,000	3996,000	16,000	4001,000	13,900	4018,000
GR	12,500	4037,000	11,000	4053,000	10,500	4069,000	9,900	4088,000	7,200	4105,000
GR	6,000	4128,000	4,000	4150,000	3,300	4158,000	1,300	4159,000	-0,600	4169,000
GR	-1,700	4184,000	-3,100	4198,000	-4,000	4209,000	-4,700	4224,000	-5,200	4228,000
GR	-6,000	4250,000	-5,000	4259,000	-7,000	4278,000	-8,600	4298,000	-8,000	4311,000
GR	-1,800	4321,000	3,500	4332,000	6,300	4338,000	11,500	4343,000	16,000	4350,000
GR	22,000	4361,000	29,300	4373,000	38,800	4385,000	39,700	4389,000	40,000	4393,000
GR	40,400	4404,000	40,700	4646,000	41,700	4700,000	42,000	4728,000	43,500	4744,000
GR	47,300	4760,000	53,100	4782,000	55,000	4800,000	0,000	0,000	0,000	0,000
NH	5,000	0,070	1885,000	0,040	2145,000	0,060	2410,000	0,040	2865,000	0,060
NH	3800,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
ET	9,850	0,000	0,000	0,000	0,000	0,000	9,100	0,000	1200,000	3250,000

UPPER LIMIT OF FLOOD INSURANCE STUDY IN 1972

X1	9,850	89,000	1728,000	2910,000	2100,000	3350,000	3450,000	0,000	0,000	0,000
GR	50,000	30,000	40,200	75,000	38,500	100,000	35,000	200,000	50,400	260,000
GR	35,100	300,000	56,600	700,000	36,000	855,000	33,500	875,000	36,300	900,000
GR	37,200	1000,000	39,200	1100,000	40,500	1150,000	40,200	1200,000	35,700	1250,000
GR	31,000	1300,000	23,500	1350,000	22,000	1400,000	27,700	1500,000	31,600	1600,000
GR	28,700	1690,000	26,600	1700,000	27,400	1728,000	20,600	1744,000	17,900	1760,000
GR	17,700	1783,000	14,400	1794,000	13,300	1804,000	14,300	1809,000	18,000	1824,000
GR	19,400	1850,000	21,100	1862,000	20,000	1885,000	16,900	1889,000	10,900	1899,000
GR	8,400	1930,000	11,100	2024,000	11,400	2040,000	10,400	2063,000	13,000	2103,000

GR	19.100	2309.000	17.800	2324.000	18.000	2362.000	17.300	2410.000	17.500	2524.000
GR	16.900	2550.000	14.000	2565.000	13.300	2598.000	12.800	2638.000	12.800	2670.000
GR	11.500	2695.000	12.100	2710.000	9.600	2754.000	9.100	2792.000	9.600	2810.000
GR	9.400	2820.000	11.000	2825.000	11.900	2830.000	13.600	2840.000	14.900	2845.000
GR	15.400	2850.000	17.000	2855.000	17.400	2860.000	19.400	2865.000	21.300	2863.000
GR	23.500	2895.000	26.400	2910.000	32.000	2960.000	33.700	3000.000	30.200	3100.000
GR	30.200	3150.000	30.200	3200.000	30.200	3250.000	32.400	3300.000	41.300	3400.000
GR	45.200	3500.000	45.200	3600.000	45.000	3750.000	51.500	3800.000	0.000	0.000
NH	5.000	0.070	590.000	0.040	900.000	0.075	3950.000	0.040	4305.000	0.080
NH	4650.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	10.690	0.000	0.000	0.000	0.000	0.000	9.100	0.000	590.000	4400.000

X1	10.690	93.000	590.000	900.000	4300.000	3200.000	4488.000	0.000	0.000	0.000
GR	44.000	225.000	44.400	250.000	44.000	255.000	71.600	270.000	41.700	350.000
GR	42.200	450.000	42.400	550.000	41.700	590.000	15.800	640.000	14.900	641.000
GR	12.000	643.000	11.700	662.000	11.300	677.000	10.200	695.000	9.100	710.000
GR	8.700	724.000	9.000	742.000	9.700	760.000	8.500	782.000	8.300	801.000
GR	10.400	821.000	11.700	834.000	13.400	845.000	14.900	857.000	17.000	862.000
GR	24.800	900.000	23.700	935.000	24.500	950.000	33.800	1050.000	33.700	1150.000
GR	34.500	1250.000	34.500	1350.000	33.500	1450.000	29.800	1550.000	33.500	1650.000
GR	32.700	1750.000	32.200	1850.000	29.500	1930.000	29.700	1950.000	31.400	1965.000
GR	30.800	2050.000	29.800	2150.000	29.400	2250.000	28.500	2350.000	27.700	2450.000
GR	29.500	2550.000	34.200	2650.000	34.400	2750.000	36.500	2800.000	34.700	2850.000
GR	34.800	2950.000	34.800	3000.000	41.800	3050.000	42.200	3150.000	41.600	3250.000
GR	39.700	3350.000	39.300	3410.000	40.400	3450.000	39.700	3550.000	39.400	3650.000
GR	39.400	3720.000	39.700	3750.000	30.500	3850.000	31.500	3900.000	29.000	3950.000
GR	15.700	4020.000	13.800	4025.000	12.800	4029.000	12.700	4042.000	12.000	4052.000
GR	10.800	4062.000	10.100	4069.000	9.900	4082.000	9.200	4099.000	9.300	4114.000
GR	9.300	4128.000	9.800	4144.000	10.400	4162.000	11.000	4179.000	11.100	4197.000
GR	10.800	4211.000	10.200	4222.000	11.300	4235.000	12.100	4244.000	13.800	4257.000
GR	15.700	4262.000	22.200	4305.000	23.000	4350.000	19.800	4450.000	16.800	4495.000
GR	16.800	4535.000	22.200	4550.000	72.300	4650.000	0.000	0.000	0.000	0.000
NH	5.000	0.070	290.000	0.040	660.000	0.075	3878.000	0.040	4137.000	0.080
NH	4226.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	11.050	0.000	0.000	0.000	0.000	0.000	9.100	0.000	265.000	4180.000

X1	11.050	57.000	250.000	720.000	2100.000	1400.000	1900.000	0.000	0.000	0.000
GR	50.000	0.000	45.000	250.000	25.000	290.000	20.000	300.000	17.000	310.000
GR	14.000	320.000	14.000	340.000	17.000	360.000	13.000	425.000	10.000	475.000
GR	12.000	525.000	17.000	570.000	18.000	600.000	20.000	660.000	30.000	690.000
GR	35.000	720.000	35.500	750.000	36.000	1100.000	35.000	1300.000	30.000	1330.000
GR	28.000	1400.000	30.000	1470.000	35.000	1600.000	36.000	1750.000	40.000	1820.000
GR	40.000	1990.000	30.000	2070.000	25.000	2090.000	20.000	2140.000	18.700	2170.000
GR	20.000	2210.000	25.000	2410.000	30.000	2450.000	34.000	2500.000	32.000	2800.000
GR	32.000	3100.000	35.000	3500.000	56.800	3870.000	33.800	3878.000	17.200	3905.000
GR	14.500	3921.000	14.600	3936.000	17.900	3965.000	17.200	3988.000	9.800	4019.000
GR	3.800	4051.000	3.500	4073.000	1.400	4085.000	2.100	4105.000	3.600	4111.000
GR	15.200	4123.000	17.200	4137.000	24.800	4165.000	33.000	4179.000	38.500	4193.000
GR	54.200	4212.000	55.900	4226.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.080	1140.000	0.040	1540.000	0.100	3160.000	0.040	3410.000	0.080
NH	3530.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	11.340	0.000	0.000	0.000	0.000	0.000	9.100	0.000	500.000	3430.000

X1	11.340	60.000	1140.000	1540.000	1200.000	1500.000	1580.000	0.000	0.000	0.000
GR	50.000	0.000	45.000	300.000	40.000	350.000	37.000	500.000	40.000	760.000
GR	35.000	820.000	50.000	830.000	25.000	850.000	22.000	880.000	22.000	950.000
GR	22.500	1050.000	23.400	1140.000	17.900	1151.000	16.100	1158.000	13.300	1165.000
GR	14.100	1174.000	13.600	1181.000	16.400	1214.000	19.700	1226.000	20.100	1233.000
GR	17.800	1237.000	12.000	1255.000	11.200	1266.000	12.300	1276.000	13.800	1278.000
GR	19.300	1304.000	20.700	1316.000	20.500	1340.000	20.000	1365.000	17.200	1395.000
GR	16.400	1419.000	16.700	1458.000	16.000	1477.000	13.800	1507.000	14.000	1518.000

GR	50.000	5120.000	25.000	5140.000	20.000	5160.000	17.000	5200.000	18.000	5250.000
GR	17.000	3290.000	12.000	3320.000	10.000	3350.000	12.000	3380.000	17.000	3400.000
GR	20.000	3410.000	25.000	3420.000	50.000	3450.000	60.000	3470.000	65.000	3530.000
NC	0.070	0.080	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	11.670	0.000	0.000	0.000	0.000	0.000	9.100	0.000	3600.000	4670.000

X1	11.670	55.000	3920.000	4645.000	1200.000	2250.000	1690.000	0.000	0.000	0.000
GR	55.200	0.000	55.200	2650.000	51.000	2700.000	45.000	2800.000	43.800	2835.000
GR	47.000	2900.000	47.600	3000.000	47.200	3100.000	45.500	3200.000	45.300	3300.000
GR	45.500	3400.000	35.400	3500.000	35.500	3600.000	36.100	3700.000	39.000	3800.000
GR	40.400	3900.000	40.200	3920.000	20.300	4000.000	19.800	4003.000	17.800	4027.000
GR	15.600	4043.000	15.800	4066.000	15.800	4064.000	16.000	4095.000	16.000	4117.000
GR	16.900	4135.000	18.000	4152.000	19.800	4195.000	21.000	4270.000	19.400	4300.000
GR	18.500	4339.000	17.500	4365.000	17.000	4397.000	17.400	4418.000	17.600	4438.000
GR	17.600	4457.000	17.400	4480.000	17.100	4492.000	16.600	4503.000	15.600	4515.000
GR	13.700	4529.000	12.800	4545.000	12.900	4559.000	14.000	4568.000	14.500	4571.000
GR	16.700	4586.000	16.700	4601.000	18.500	4605.000	30.500	4645.000	31.200	4665.000
GR	41.800	4690.000	52.400	4691.000	56.000	4700.000	54.300	4735.000	65.800	4800.000
ET	12.480	0.000	0.000	0.000	0.000	0.000	9.100	0.000	1420.000	1960.000

X1	12.480	50.000	1420.000	1846.000	3900.000	4300.000	4300.000	0.000	0.000	0.000
GR	77.300	0.000	64.300	100.000	61.700	140.000	62.800	300.000	61.600	400.000
GR	53.600	500.000	53.000	640.000	51.200	650.000	53.400	800.000	53.500	900.000
GR	44.700	1000.000	44.800	1100.000	46.700	1200.000	43.900	1300.000	43.100	1420.000
GR	27.600	1470.000	23.800	1474.000	21.700	1475.000	20.300	1478.000	18.200	1512.000
GR	17.500	1595.000	18.200	1640.000	20.000	1690.000	18.300	1715.000	18.000	1739.000
GR	19.500	1777.000	20.600	1786.000	21.200	1803.000	28.300	1815.000	33.300	1826.000
GR	39.600	1836.000	49.300	1846.000	49.500	1858.000	51.200	2000.000	49.900	2045.000
GR	52.000	2100.000	51.800	2200.000	49.800	2300.000	48.000	2400.000	49.600	2500.000
GR	50.400	2600.000	52.300	2700.000	52.300	2800.000	49.600	2820.000	49.800	2880.000
GR	51.600	2900.000	52.800	2935.000	62.800	3000.000	63.500	3100.000	63.500	3600.000
ET	12.950	0.000	0.000	0.000	0.000	0.000	9.100	0.000	57.000	800.000

X1	12.950	55.000	57.000	443.000	2350.000	2630.000	2500.000	0.000	0.000	0.000
GR	84.400	0.000	37.400	57.000	28.900	72.000	25.000	85.000	22.400	104.000
GR	20.000	138.000	21.100	167.000	21.300	191.000	20.800	224.000	20.200	241.000
GR	19.800	256.000	19.800	283.000	19.600	308.000	19.900	318.000	20.000	324.000
GR	20.400	335.000	21.900	357.000	23.100	375.000	23.700	386.000	24.700	425.000
GR	27.600	432.000	33.200	440.000	36.800	443.000	36.600	446.000	41.800	450.000
GR	42.700	500.000	41.800	600.000	59.500	700.000	44.200	800.000	45.400	900.000
GR	44.500	1000.000	43.500	1100.000	38.800	1200.000	47.400	1300.000	44.400	1340.000
GR	51.300	1400.000	53.500	1425.000	53.600	1500.000	52.800	1600.000	51.700	1700.000
GR	53.200	1800.000	52.200	1900.000	54.800	2000.000	54.600	2100.000	47.800	2200.000
GR	47.800	2255.000	44.600	2300.000	51.200	2400.000	57.000	2500.000	56.200	2600.000
GR	54.800	2700.000	54.900	2795.000	52.800	2800.000	54.000	2810.000	54.500	2840.000
NC	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	13.500	0.000	0.000	0.000	0.000	0.000	9.100	0.000	1060.000	2550.000

X1	13.500	70.000	1700.000	2240.000	3650.000	1400.000	2900.000	0.000	0.000	0.000
GR	51.800	400.000	52.500	500.000	53.600	600.000	54.500	700.000	56.000	730.000
GR	56.000	810.000	55.000	830.000	50.000	850.000	40.000	910.000	40.000	970.000
GR	42.500	1030.000	40.500	1080.000	45.000	1250.000	47.500	1300.000	44.900	1370.000
GR	47.200	1400.000	46.700	1500.000	39.200	1560.000	39.800	1600.000	39.900	1630.000
GR	32.400	1680.000	33.000	1700.000	31.000	1800.000	28.500	1900.000	25.400	2000.000
GR	24.800	2010.000	24.500	2022.000	23.700	2042.000	23.400	2051.000	22.500	2079.000
GR	21.200	2099.000	20.400	2116.000	20.100	2133.000	20.600	2153.000	21.500	2164.000
GR	24.500	2184.000	24.800	2185.000	29.600	2200.000	51.000	2240.000	51.000	2250.000
GR	50.900	2300.000	49.500	2350.000	52.000	2400.000	52.000	2430.000	50.000	2480.000
GR	40.000	2530.000	39.500	2570.000	42.000	2630.000	45.000	2730.000	55.000	2830.000
GR	55.300	2850.000	55.500	3000.000	57.700	3210.000	59.000	3300.000	59.400	3400.000

LEWIS RIVER 10 YR FLOOD

SUMMARY PRINTOUT

SECNO	CWSEL	EG	HV	HL	LOSS	TOPWID	SSTA	ENDST
0.670	13.80	14.25	0.45	0.00	0.00	1672.51	197.69	1962.20
0.670	16.10	16.82	0.72	0.00	0.00	1785.65	180.00	1965.65
0.670	17.10	17.94	0.84	0.00	0.00	1794.84	172.31	1967.15
0.670	19.10	20.29	1.19	0.00	0.00	1813.23	156.92	1970.15
1.190	14.73	15.38	0.65	1.07	0.06	766.79	1182.59	1949.38
1.190	17.37	18.45	1.08	1.53	0.11	803.46	1156.27	1959.73
1.190	18.48	19.77	1.29	1.70	0.13	828.65	1135.45	1964.11
1.190	20.79	22.66	1.87	2.17	0.21	906.80	1066.37	1973.17
1.700	15.83	16.32	0.49	0.92	0.02	711.24	125.68	836.91
1.700	18.99	19.82	0.83	1.34	0.03	752.29	110.06	862.35
1.700	20.32	21.31	0.99	1.51	0.03	775.66	103.38	879.04
1.700	23.21	24.62	1.42	1.92	0.05	807.43	100.00	907.43
1.730	15.85	16.46	0.61	0.05	0.10	721.89	138.36	860.25
1.730	19.03	20.02	0.99	0.07	0.13	785.01	104.00	893.61
1.730	20.37	21.53	1.16	0.08	0.14	790.63	104.00	895.94
1.730	23.26	24.89	1.63	0.10	0.17	798.00	104.00	902.00
1.740	15.95	16.55	0.61	0.09	0.00	722.27	138.16	860.43
1.740	19.21	20.18	0.97	0.16	0.00	785.78	104.00	893.93
1.740	20.59	21.73	1.13	0.20	0.00	797.24	104.00	902.00
1.740	23.62	25.20	1.58	0.31	0.00	798.00	104.00	902.00
1.750	16.03	16.58	0.55	0.02	0.01	748.20	135.49	883.69
1.750	19.33	20.21	0.89	0.02	0.01	779.48	130.42	909.90
1.750	20.72	21.76	1.04	0.03	0.01	794.68	128.27	922.96
1.750	23.78	25.24	1.46	0.03	0.01	807.47	128.00	935.47
2.380	17.28	17.87	0.59	1.28	0.01	847.06	1605.26	2490.00
2.380	20.98	21.70	0.71	1.47	0.02	2390.34	76.07	2490.00
2.380	22.55	23.31	0.77	1.52	0.03	2401.18	69.81	2490.00
2.380	26.04	26.95	0.90	1.65	0.06	2424.41	55.83	2490.00
2.980	18.60	19.36	0.77	1.43	0.05	605.75	145.62	802.00
2.980	22.23	23.43	1.21	1.59	0.15	646.09	124.41	802.00
2.980	25.72	25.14	1.42	1.63	0.20	660.25	113.94	802.00
2.980	27.03	29.01	1.98	1.74	0.32	691.61	90.76	802.00
3.180	18.99	19.94	0.94	0.52	0.05	514.17	238.95	802.00
3.180	22.69	24.21	1.51	0.68	0.09	534.76	236.89	802.00
3.180	24.20	25.99	1.79	0.74	0.11	539.32	236.05	802.00
3.180	27.53	30.08	2.54	0.88	0.17	549.38	234.21	802.00
3.380	19.50	20.54	1.03	0.57	0.03	1009.71	40.68	1050.38
3.380	23.47	24.91	1.44	0.70	0.01	1084.65	30.09	1114.73
3.380	25.14	26.74	1.60	0.74	0.02	1093.46	25.73	1119.19
3.380	28.94	30.94	1.99	0.82	0.05	1110.72	15.79	1126.51
3.660	20.81	21.02	0.22	0.41	0.08	1623.24	300.00	1923.24
3.660	25.15	25.46	0.31	0.44	0.11	1640.61	300.00	1940.61
3.660	26.96	27.32	0.35	0.45	0.13	1647.85	300.00	1947.85

3.660	26.96	27.32	0.35	0.45	0.11	1640.81	300.00	1940.61
3.660	31.10	31.56	0.45	0.46	0.15	1647.85	300.00	1947.85
					0.15	1660.00	300.00	1960.00

SECNO	CWSEL	EG	HV	HL	OLUSS	TOPWID	SSTA	ENDST
3.700	20.76	21.09	0.33	0.03	0.03	797.49	1866.95	2670.00
3.700	25.07	25.55	0.48	0.04	0.05	1260.87	1849.42	3110.28
3.700	26.87	27.41	0.54	0.04	0.06	2067.46	1050.00	3117.46
3.700	31.02	31.65	0.63	0.04	0.05	2090.00	1050.00	3140.00
3.900	20.93	21.32	0.39	0.21	0.02	551.17	1410.69	1961.86
3.900	25.24	25.84	0.60	0.25	0.04	1941.58	30.39	1971.98
3.900	27.06	27.70	0.65	0.26	0.03	1960.48	26.65	1987.13
3.900	31.23	31.93	0.70	0.26	0.02	1984.66	18.04	2005.00
4.290	21.32	21.77	0.45	0.43	0.02	517.48	1188.03	1705.51
4.290	25.82	26.33	0.51	0.48	0.01	1664.99	48.69	1713.68
4.290	27.66	28.21	0.55	0.49	0.01	1671.20	45.74	1716.93
4.290	31.82	32.44	0.61	0.49	0.01	1692.84	39.09	1731.93
5.010	22.23	22.54	0.31	0.76	0.01	838.39	80.98	1161.39
5.010	26.72	27.18	0.47	0.85	0.00	1134.75	70.51	1205.26
5.010	28.55	29.09	0.54	0.88	0.00	1143.16	67.56	1210.72
5.010	32.69	33.39	0.70	0.93	0.03	1170.76	59.68	1230.44
5.270	22.37	22.90	0.54	0.30	0.07	487.67	142.12	629.78
5.270	26.80	27.69	0.88	0.38	0.13	594.96	54.53	649.51
5.270	28.59	29.65	1.05	0.40	0.15	605.35	49.75	655.10
5.270	32.62	34.08	1.47	0.46	0.23	628.81	37.63	668.00
5.350	22.69	23.07	0.37	0.11	0.05	604.36	132.63	736.98
5.350	27.31	27.91	0.60	0.14	0.08	783.18	41.22	824.40
5.350	29.19	29.90	0.71	0.15	0.10	783.18	41.22	824.40
5.350	33.42	34.40	0.98	0.18	0.14	783.18	41.22	824.40
5.390	22.72	23.07	0.33	0.00	0.00	579.27	209.83	789.10
5.390	27.35	27.91	0.55	0.00	0.00	718.27	168.35	886.62
5.390	29.24	29.91	0.67	0.00	0.00	725.91	166.03	891.94
5.390	33.49	34.43	0.95	0.03	0.00	743.76	160.14	903.90
5.420	22.74	23.12	0.38	0.06	0.00	544.42	277.05	821.47
5.420	27.39	28.01	0.62	0.11	0.00	702.42	169.77	872.19
5.420	29.28	30.03	0.74	0.12	0.00	709.65	166.29	875.94
5.420	33.55	34.58	1.03	0.15	0.00	725.94	158.45	884.39
5.480	22.82	23.18	0.36	0.06	0.00	483.74	40.78	524.53
5.480	27.46	28.09	0.64	0.08	0.00	531.77	33.80	565.57
5.480	29.34	30.12	0.78	0.08	0.01	539.03	30.99	570.02
5.480	33.57	34.72	1.15	0.10	0.03	555.38	24.65	580.03
5.950	23.30	23.64	0.34	0.45	0.00	960.25	42.19	1176.92
5.950	28.21	28.67	0.46	0.56	0.02	1531.03	33.57	1564.59
5.950	30.24	30.75	0.50	0.60	0.03	1569.44	3.05	1572.49
5.950	34.86	35.44	0.58	0.66	0.06	1615.62	0.00	1678.29
6.320	23.75	24.08	0.33	0.44	0.00	575.00	692.50	1267.50
6.320	28.67	29.18	0.51	0.50	0.01	1299.21	414.55	1713.76
6.320	30.70	31.28	0.58	0.51	0.02	1436.25	282.75	1719.00
6.320	35.29	35.98	0.69	0.51	0.03	1600.58	130.00	1730.58

SECNO	K*XL	K*XNCH	K*XNR	CWSEL	W	QLOB	QCH	QROB	VLOB	VCH	VROB	DEPTH
3.180	80.00	30.00	60.00	18.99	75000.00	1.47	74998.52	0.00	0.39	7.79	0.00	23.59
3.180	80.00	30.00	60.00	22.69	114100.00	10.77	114089.25	0.00	0.71	9.86	0.00	27.29
3.180	80.00	30.00	60.00	24.20	132700.00	18.45	132681.55	0.00	0.84	10.73	0.00	28.80
3.180	80.00	30.00	60.00	27.55	181000.00	47.33	180952.67	0.00	1.14	12.78	0.00	32.13
3.380	80.00	30.00	75.00	19.50	75000.00	0.00	74587.51	412.49	0.00	8.18	0.60	24.10
3.380	80.00	30.00	75.00	23.47	114100.00	0.00	109683.30	4416.70	0.00	9.83	1.53	28.07
3.380	80.00	30.00	75.00	25.14	132700.00	1.42	125569.36	7129.22	0.41	10.44	1.86	29.74
3.380	80.00	30.00	75.00	28.94	181000.00	35.81	165631.04	15333.15	0.93	11.82	2.55	33.54
3.660	80.00	30.00	75.00	20.81	54400.00	2312.33	52003.38	84.29	0.90	3.81	0.20	24.31
3.660	80.00	30.00	75.00	25.15	86300.00	4718.57	79626.12	1955.31	1.21	4.65	0.72	28.65
3.660	80.00	30.00	75.00	26.96	102000.00	5942.12	92758.86	3299.02	1.34	4.99	0.89	30.46
3.660	80.00	30.00	75.00	31.10	142070.00	9144.75	125457.12	7468.13	1.61	5.73	1.24	34.60
3.700	55.00	30.00	75.00	20.76	54400.00	480.53	53919.47	0.00	1.07	4.62	0.00	24.26
3.700	55.00	30.00	75.00	25.07	86300.00	1567.93	83192.61	1539.46	1.69	5.67	0.82	28.57
3.700	55.00	30.00	75.00	26.87	102000.00	2507.65	96746.52	2745.82	1.32	6.07	1.02	30.37
3.700	55.00	30.00	75.00	31.02	141810.00	8825.22	126548.61	6436.17	1.54	6.72	1.41	34.52
3.900	55.00	30.00	60.00	20.93	54400.00	0.00	54400.00	0.00	0.00	5.02	0.00	24.43
3.900	55.00	30.00	60.00	25.24	86300.00	2616.69	83683.31	0.00	0.80	6.32	0.00	28.74
3.900	55.00	30.00	60.00	27.06	102000.00	6664.54	95335.46	0.00	1.15	6.68	0.00	30.56
3.900	55.00	30.00	60.00	31.23	141810.00	20693.85	121116.15	0.00	1.78	7.24	0.00	34.73
4.290	55.00	30.00	60.00	21.32	54400.00	0.00	54400.00	0.00	0.00	5.38	0.00	24.82
4.290	55.00	30.00	60.00	25.82	86300.00	10376.97	75923.03	0.00	1.45	6.08	0.00	29.32
4.290	55.00	30.00	60.00	27.66	102000.00	15804.50	86195.50	0.00	1.70	6.40	0.00	31.16
4.290	55.00	30.00	60.00	31.82	141750.00	31350.68	110399.32	0.00	2.24	7.02	0.00	35.32
5.010	70.00	30.00	60.00	22.23	54400.00	16.84	54383.16	0.00	0.21	4.44	0.00	27.23
5.010	70.00	30.00	60.00	26.72	86300.00	1456.98	84843.02	0.00	0.81	5.52	0.00	31.72
5.010	70.00	30.00	60.00	28.55	102000.00	2712.27	99287.73	0.00	1.05	5.95	0.00	33.55
5.010	70.00	30.00	60.00	32.69	141750.00	6801.59	134948.41	0.00	1.56	6.86	0.00	37.69
5.270	70.00	30.00	60.00	22.37	54400.00	0.37	54399.63	0.00	0.11	5.89	0.00	25.37
5.270	70.00	30.00	60.00	26.80	86300.00	370.88	85929.12	0.00	0.97	7.56	0.00	29.80
5.270	70.00	30.00	60.00	28.59	102000.00	749.58	101250.42	0.00	1.30	8.26	0.00	31.59
5.270	70.00	30.00	60.00	32.62	141750.00	2087.69	139662.31	0.00	2.00	9.79	0.00	35.62
5.350	70.00	30.00	60.00	22.69	54400.00	0.23	54397.10	2.67	0.14	4.89	0.16	24.69
5.350	70.00	30.00	60.00	27.31	86300.00	237.96	85502.30	559.74	0.72	6.25	0.97	29.31
5.350	70.00	30.00	60.00	29.19	102000.00	502.71	100443.00	1054.29	0.98	6.82	1.27	31.19
5.350	70.00	30.00	60.00	33.42	141750.00	1387.30	137722.36	2640.34	1.51	8.07	1.89	35.42
5.390	70.00	30.00	60.00	22.72	54400.00	0.97	54397.49	1.54	0.13	4.59	0.15	27.72
5.390	70.00	30.00	60.00	27.35	86300.00	198.52	85716.19	385.30	0.76	6.00	0.82	32.35
5.390	70.00	30.00	60.00	29.24	102000.00	383.95	100820.59	795.46	1.01	6.59	1.12	34.24
5.390	70.00	30.00	60.00	33.49	141750.00	1023.35	138478.10	2248.55	1.53	7.89	1.73	38.49
5.420	70.00	30.00	60.00	22.74	54400.00	0.00	54400.00	0.00	0.00	4.95	0.00	27.74
5.420	70.00	30.00	60.00	27.39	86300.00	180.52	86044.19	75.29	0.66	6.34	0.68	32.39
5.420	70.00	30.00	60.00	29.28	102000.00	439.40	101349.46	211.15	0.95	6.93	1.02	34.28
5.420	70.00	30.00	60.00	33.55	141750.00	1395.27	139602.99	751.74	1.53	8.22	1.68	38.55

SECNO	K*XL	K*LNCH	K*XR	CNSEL	U	VLOB	UCH	URUB	VLOB	VCH	VKOB	DEPTH
5.480	70.00	30.00	60.00	22.82	54400.00	94.18	54305.82	0.00	0.77	4.84	0.00	28.82
5.480	70.00	30.00	60.00	27.46	86300.00	254.00	85907.45	138.55	1.11	6.41	0.88	33.46
5.480	70.00	30.00	60.00	29.34	102000.00	354.20	101371.08	274.72	1.26	7.10	1.16	35.34
5.480	70.00	30.00	60.00	33.57	141750.00	669.77	140299.54	780.69	1.61	8.64	1.74	39.57
5.950	70.00	35.00	60.00	23.30	54400.00	258.10	54141.90	0.00	0.51	4.66	0.00	24.40
5.950	70.00	35.00	60.00	28.21	86300.00	3272.09	81894.78	1133.13	1.11	5.59	0.91	29.31
5.950	70.00	35.00	60.00	30.24	102000.00	5427.73	94072.76	2499.51	1.34	5.91	1.23	31.34
5.950	70.00	35.00	60.00	34.86	141750.00	11883.50	122810.59	7055.91	1.79	6.54	1.81	35.96
6.320	70.00	35.00	60.00	23.75	54400.00	0.00	54400.00	0.00	0.00	4.59	0.00	26.75
6.320	70.00	35.00	60.00	28.67	86300.00	291.27	84941.89	1066.84	0.57	5.78	0.83	31.67
6.320	70.00	35.00	60.00	30.70	102000.00	987.14	98426.53	2586.33	0.82	6.20	1.18	33.70
6.320	70.00	35.00	60.00	35.29	141750.00	4662.59	129280.22	7807.19	1.29	6.97	1.82	38.29
6.450	70.00	35.00	60.00	23.80	54400.00	0.00	54400.00	0.00	0.00	5.77	0.00	29.80
6.450	70.00	35.00	60.00	28.68	86300.00	30.98	86128.73	140.29	0.61	7.30	0.77	31.68
6.450	70.00	35.00	60.00	30.66	102000.00	112.28	101402.52	485.19	1.02	7.94	1.27	33.66
6.450	70.00	35.00	60.00	35.10	141750.00	409.94	139532.34	1807.72	1.69	9.33	2.19	38.10
6.490	70.00	35.00	60.00	23.87	54400.00	0.00	54400.00	0.00	0.00	5.82	0.00	27.27
6.490	70.00	35.00	60.00	28.77	86300.00	0.00	86300.00	0.00	0.00	7.39	0.00	32.17
6.490	70.00	35.00	60.00	30.76	102000.00	0.00	102000.00	0.00	0.00	8.01	0.00	34.16
6.490	70.00	35.00	60.00	35.20	141750.00	0.00	141750.00	0.00	0.00	9.37	0.00	38.60
6.500	70.00	35.00	60.00	23.90	54400.00	0.00	54400.00	0.00	0.00	5.81	0.00	27.30
6.500	70.00	35.00	60.00	28.81	86300.00	0.00	86300.00	0.00	0.00	7.37	0.00	32.21
6.500	70.00	35.00	60.00	30.81	102000.00	0.00	102000.00	0.00	0.00	7.99	0.00	34.21
6.500	70.00	35.00	60.00	35.33	141750.00	0.00	141750.00	0.00	0.00	9.33	0.00	38.73
6.540	70.00	35.00	60.00	23.99	54400.00	0.00	54400.00	0.00	0.00	5.70	0.00	26.99
6.540	70.00	35.00	60.00	28.95	86300.00	32.54	86104.43	163.03	0.58	7.20	0.65	31.95
6.540	70.00	35.00	60.00	30.96	102000.00	154.58	101118.43	726.98	0.90	7.81	1.07	33.96
6.540	70.00	35.00	60.00	35.57	141750.00	939.50	137255.43	3555.07	1.50	9.02	2.04	38.57
7.130	70.00	35.00	60.00	24.99	54400.00	0.00	54400.00	0.00	0.00	5.05	0.00	31.29
7.130	70.00	35.00	60.00	30.23	86300.00	1045.81	85248.29	5.90	0.56	6.34	0.36	36.53
7.130	70.00	35.00	60.00	32.37	102000.00	4623.31	97237.67	139.02	0.79	6.69	0.70	38.67
7.130	70.00	35.00	60.00	37.26	141750.00	22128.53	118571.40	1050.07	1.34	6.96	1.42	43.56
7.690	70.00	35.00	65.00	25.80	54400.00	0.00	53873.20	526.80	0.00	5.67	0.60	34.00
7.690	70.00	35.00	65.00	31.25	86300.00	922.02	75346.02	10031.96	0.68	6.10	1.32	39.45
7.690	70.00	35.00	65.00	33.42	102000.00	2713.70	83018.91	16267.39	0.95	6.15	1.53	41.62
7.690	70.00	35.00	65.00	38.18	141750.00	8766.00	100241.31	32742.69	1.39	6.27	1.89	46.38
8.130	70.00	35.00	65.00	26.76	54400.00	0.00	54400.00	0.00	0.00	4.73	0.00	26.06
8.130	70.00	35.00	65.00	31.99	86300.00	7.10	85895.57	397.32	0.37	5.65	0.60	31.29
8.130	70.00	35.00	65.00	34.06	102000.00	71.47	100461.09	1467.44	0.68	6.03	0.96	33.36
8.130	70.00	35.00	65.00	38.63	141750.00	414.69	135603.85	5731.46	1.33	6.80	1.63	37.93
8.390	70.00	35.00	65.00	27.10	54400.00	482.80	53917.20	0.00	0.52	5.34	0.00	27.10
8.390	70.00	35.00	65.00	32.37	86300.00	6656.19	79643.81	0.00	1.30	6.10	0.00	32.37
8.390	70.00	35.00	65.00	34.46	102000.00	10788.22	91211.78	0.00	1.54	6.41	0.00	34.46
8.390	70.00	35.00	65.00	39.07	141750.00	22844.44	118849.68	55.88	2.01	7.03	0.72	39.07

SECNO	K*XL	K*XLCH	K*XLNR	CWSEL	Q	QLOB	UCH	QKOB	VLOB	VCH	VRUB	DEPTH
8.610	80.00	35.00	65.00	27.48	54400.00	0.00	54400.00	0.00	0.00	6.56	0.00	31.88
8.610	80.00	35.00	65.00	32.64	86300.00	1147.75	85152.25	0.00	0.87	7.91	0.00	37.04
8.610	80.00	35.00	65.00	34.69	102000.00	3722.49	98233.57	43.94	1.03	8.33	0.33	39.09
8.610	80.00	35.00	65.00	39.38	141750.00	15503.90	118859.22	7366.88	1.58	8.37	1.18	43.78
9.200	80.00	35.00	65.00	28.80	54400.00	880.01	53519.99	0.00	0.56	4.18	0.00	37.40
9.200	80.00	35.00	65.00	34.24	86300.00	7557.18	78742.82	0.00	0.72	4.80	0.00	42.84
9.200	80.00	35.00	65.00	36.34	102000.00	14505.33	87494.67	0.00	0.84	4.92	0.00	44.94
9.200	80.00	35.00	65.00	40.77	141750.00	36479.84	105259.78	10.37	1.11	5.08	0.15	49.37
9.850	80.00	35.00	65.00	29.64	54400.00	1038.82	53335.98	25.20	0.94	3.21	0.54	21.24
9.850	80.00	35.00	65.00	35.04	86300.00	4323.89	80446.34	1529.77	1.19	3.50	0.93	26.64
9.850	80.00	35.00	65.00	37.09	102000.00	6651.22	92426.27	2922.51	1.18	3.63	1.16	28.69
9.850	80.00	35.00	65.00	41.40	141750.00	15785.82	119000.80	6963.38	1.29	3.90	1.53	33.00
10.690	80.00	35.00	65.00	30.75	54400.00	0.00	22513.22	31886.78	0.00	4.41	3.15	22.45
10.690	80.00	35.00	65.00	35.97	86300.00	0.00	31134.07	55165.93	0.00	4.69	2.53	27.67
10.690	80.00	35.00	65.00	37.98	102000.00	0.00	34425.20	67574.80	0.00	4.75	2.43	29.68
10.690	80.00	35.00	65.00	42.22	141750.00	4.68	41989.62	99755.69	0.13	4.91	2.40	33.92
11.050	80.00	35.00	65.00	31.26	54400.00	0.00	24859.26	29540.74	0.00	3.99	3.34	29.86
11.050	80.00	35.00	65.00	36.39	86300.00	0.00	37675.79	48624.21	0.00	4.44	2.65	34.99
11.050	80.00	35.00	65.00	38.37	102000.00	0.00	42425.08	59574.92	0.00	4.52	2.41	36.97
11.050	80.00	35.00	65.00	42.57	141750.00	0.00	52736.26	89013.74	0.00	4.66	2.28	41.17
11.340	80.00	35.00	65.00	31.74	54400.00	4783.03	28093.12	21523.84	1.73	4.73	4.74	21.74
11.340	80.00	35.00	65.00	36.82	86300.00	9355.50	42377.65	34566.85	2.13	5.32	3.31	26.82
11.340	80.00	35.00	65.00	38.77	102000.00	11468.90	48357.57	42173.54	2.17	5.53	2.98	28.77
11.340	80.00	35.00	65.00	42.89	141750.00	18007.13	61764.51	61978.36	2.13	5.94	2.82	32.89
11.670	70.00	40.00	80.00	32.61	54400.00	0.00	54374.46	25.54	0.00	5.57	0.68	19.81
11.670	70.00	40.00	80.00	37.45	86300.00	316.50	85722.47	261.03	0.76	6.51	1.47	24.65
11.670	70.00	40.00	80.00	39.31	102000.00	1147.07	100434.71	418.22	1.16	6.93	1.70	26.51
11.670	70.00	40.00	80.00	43.29	141750.00	5136.30	135712.34	901.36	1.81	7.81	2.15	30.49
12.480	70.00	40.00	80.00	36.21	54400.00	0.00	54400.00	0.00	0.00	8.87	0.00	18.71
12.480	70.00	40.00	80.00	40.82	86300.00	0.00	86300.00	0.00	0.00	10.82	0.00	23.32
12.480	70.00	40.00	80.00	42.66	102000.00	0.00	102000.00	0.00	0.00	11.67	0.00	25.16
12.480	70.00	40.00	80.00	46.41	141750.00	1088.80	140661.20	0.00	1.53	13.63	0.00	28.91
12.950	70.00	40.00	80.00	39.61	54400.00	1.88	54381.47	16.65	0.64	8.18	0.72	20.01
12.950	70.00	40.00	80.00	44.64	86300.00	45.09	84001.71	2253.20	1.42	9.77	1.32	25.04
12.950	70.00	40.00	80.00	46.75	102000.00	87.59	96107.48	5804.93	1.65	10.21	1.64	27.15
12.950	70.00	40.00	80.00	51.23	141750.00	238.17	121714.75	19797.07	2.05	10.92	2.33	31.63
13.500	70.00	45.00	80.00	43.05	54400.00	2364.43	51712.99	322.59	1.73	6.25	1.04	22.95
13.500	70.00	45.00	80.00	48.20	86300.00	9966.50	73824.42	2509.08	2.16	6.71	1.65	28.10
13.500	70.00	45.00	80.00	50.24	102000.00	14958.48	82944.98	4096.54	2.36	6.86	1.75	30.14
13.500	70.00	45.00	80.00	54.48	141750.00	28214.72	103200.98	10334.30	2.71	7.17	1.83	34.38
14.010	70.00	45.00	80.00	45.65	54400.00	539.76	53269.53	590.71	1.97	5.70	2.59	25.95
14.010	70.00	45.00	80.00	50.41	86300.00	1818.16	83427.09	1054.74	2.95	6.70	2.99	30.71
14.010	70.00	45.00	80.00	52.32	102000.00	2571.40	98127.41	1301.19	3.32	7.17	3.18	32.62
14.010	70.00	45.00	80.00	56.30	141750.00	4937.15	134851.96	1960.90	3.55	8.26	3.62	36.60

SECNO	K*XL	K*LNCH	K*LNK	CASEL	U	QLOB	QCH	QROB	VLOB	VCH	VROB	DEPTH
14.440	80.00	45.00	80.00	46.89	54400.00	1431.73	52416.25	552.02	1.11	3.94	1.12	27.59
14.440	80.00	45.00	80.00	51.83	86300.00	4667.45	80397.46	1235.08	1.33	4.91	1.46	32.53
14.440	80.00	45.00	80.00	53.84	102000.00	6932.84	93443.54	1623.62	1.52	5.31	1.60	34.54
14.440	80.00	45.00	80.00	58.07	141750.00	13909.53	125126.38	2714.09	1.87	6.19	1.90	38.77

LEWIS RIVER 10 YR FLOOD

SUMMARY PRINTOUT

SECNO	CASEL	EG	HV	HL	OLOSS	TOPWID	SSTA	ENDST
0.670	13.80	14.25	0.45	0.00	0.00	1672.51	197.69	1962.20
0.670	16.10	16.82	0.72	0.00	0.00	1785.65	180.00	1965.65
0.670	17.10	17.94	0.84	0.00	0.00	1794.84	172.31	1967.15
0.670	19.10	20.29	1.19	0.00	0.00	1813.23	156.92	1970.15
1.190	14.73	15.38	0.65	1.07	0.06	766.79	1182.59	1949.38
1.190	17.37	18.45	1.08	1.53	0.11	803.46	1156.27	1959.73
1.190	18.48	19.77	1.29	1.70	0.13	828.65	1135.45	1964.11
1.190	20.79	22.66	1.87	2.17	0.21	906.80	1066.37	1973.17
1.700	15.83	16.32	0.49	0.92	0.02	711.24	125.68	836.91
1.700	18.99	19.82	0.83	1.34	0.03	752.29	110.06	862.35
1.700	20.32	21.31	0.99	1.51	0.05	775.66	103.38	879.04
1.700	23.21	24.62	1.42	1.92	0.05	807.43	100.00	907.43
1.730	15.85	16.46	0.61	0.05	0.10	721.89	138.36	860.25
1.730	19.03	20.02	0.99	0.07	0.13	785.01	104.00	893.61
1.730	20.37	21.53	1.16	0.08	0.14	790.63	104.00	895.94
1.730	23.26	24.89	1.63	0.10	0.17	798.00	104.00	902.00
1.740	15.95	16.55	0.61	0.09	0.00	722.27	138.16	860.43
1.740	19.21	20.18	0.97	0.16	0.00	785.78	104.00	893.93
1.740	20.59	21.73	1.13	0.20	0.00	797.24	104.00	902.00
1.740	23.62	25.20	1.58	0.31	0.00	798.00	104.00	902.00
1.750	16.03	16.58	0.55	0.02	0.01	748.20	135.49	883.69
1.750	19.33	20.21	0.89	0.02	0.01	779.48	130.42	909.90
1.750	20.72	21.76	1.04	0.03	0.01	794.68	128.27	922.96
1.750	23.78	25.24	1.46	0.03	0.01	807.47	128.00	935.47
2.380	17.28	17.87	0.59	1.28	0.01	847.06	1605.26	2490.00
2.380	20.98	21.70	0.71	1.47	0.02	2390.34	76.07	2490.00
2.380	22.55	23.31	0.77	1.52	0.03	2401.18	69.81	2490.00
2.380	26.04	26.95	0.90	1.65	0.06	2424.41	55.83	2490.00
2.980	18.60	19.36	0.77	1.43	0.05	605.75	145.62	802.00
2.980	22.23	23.43	1.21	1.59	0.15	646.09	124.41	802.00
2.980	23.72	25.14	1.42	1.63	0.20	660.25	113.94	802.00
2.980	27.03	29.01	1.98	1.74	0.32	691.61	90.76	802.00
3.180	18.99	19.94	0.94	0.52	0.05	514.17	238.95	802.00
3.180	22.69	24.21	1.51	0.68	0.09	534.76	236.89	802.00
3.180	24.20	25.99	1.79	0.74	0.11	559.32	236.05	802.00
3.180	27.53	30.06	2.54	0.88	0.17	549.38	234.21	802.00
3.380	19.50	20.54	1.03	0.57	0.03	1009.71	40.68	1050.38
3.380	23.47	24.91	1.44	0.70	0.01	1084.65	30.09	1114.73
3.380	25.14	26.74	1.60	0.74	0.02	1093.46	25.73	1119.19
3.380	28.94	30.94	1.99	0.82	0.05	1110.72	15.79	1126.51
3.660	20.81	21.02	0.22	0.41	0.08	1623.24	300.00	1923.24
3.660	25.15	25.46	0.31	0.44	0.11	1640.61	300.00	1940.61
3.660	26.96	27.32	0.35	0.45	0.14	1647.85	300.00	1947.85

3.060	26.96	27.32	0.35	0.45	0.11	1640.61	300.00	1940.61
3.660	31.10	31.56	0.45	0.46	0.15	1647.85	300.00	1947.85
						1660.00	300.00	1960.00

SECNO	CWSEL	EG	HV	HL	OLUSS	TOPWID	SSTA	ENDST
3.700	20.76	21.09	0.33	0.03	0.03	797.49	1866.95	2670.00
3.700	25.07	25.55	0.48	0.04	0.05	1260.87	1849.42	3110.28
3.700	26.87	27.41	0.54	0.04	0.06	2067.46	1050.00	3117.46
3.700	31.02	31.65	0.63	0.04	0.05	2090.00	1050.00	3140.00
3.900	20.93	21.32	0.39	0.21	0.02	551.17	1410.69	1961.86
3.900	25.24	25.84	0.60	0.25	0.04	1941.58	30.39	1971.98
3.900	27.06	27.70	0.65	0.26	0.05	1960.48	26.65	1987.13
3.900	31.23	31.93	0.70	0.26	0.02	1984.66	18.04	2005.00
4.290	21.32	21.77	0.45	0.43	0.02	517.48	1168.03	1705.51
4.290	25.82	26.33	0.51	0.48	0.01	1664.99	48.69	1713.68
4.290	27.66	28.21	0.55	0.49	0.01	1671.20	45.74	1716.93
4.290	31.82	32.44	0.61	0.49	0.01	1692.84	39.09	1731.93
5.010	22.23	22.54	0.31	0.76	0.01	838.39	80.98	1161.39
5.010	26.72	27.18	0.47	0.85	0.00	1134.75	70.51	1205.26
5.010	28.55	29.09	0.54	0.88	0.00	1143.16	67.56	1210.72
5.010	32.69	33.39	0.70	0.93	0.03	1170.76	59.68	1230.44
5.270	22.37	22.90	0.54	0.30	0.07	487.67	142.12	629.78
5.270	26.80	27.69	0.88	0.38	0.13	594.96	54.53	649.51
5.270	28.59	29.65	1.05	0.40	0.15	605.35	49.75	655.10
5.270	32.62	34.08	1.47	0.46	0.23	628.81	37.63	668.00
5.350	22.69	23.07	0.37	0.11	0.05	604.36	132.65	736.98
5.350	27.31	27.91	0.60	0.14	0.08	783.18	41.22	824.40
5.350	29.19	29.90	0.71	0.15	0.10	783.18	41.22	824.40
5.350	33.42	34.40	0.98	0.18	0.14	783.18	41.22	824.40
5.390	22.72	23.07	0.33	0.00	0.00	579.27	209.83	789.10
5.390	27.35	27.91	0.55	0.00	0.00	718.27	168.35	886.62
5.390	29.24	29.91	0.67	0.00	0.00	725.91	166.03	891.94
5.390	33.49	34.43	0.95	0.03	0.00	743.76	160.14	903.90
5.420	22.74	23.12	0.38	0.06	0.00	544.42	277.05	821.47
5.420	27.39	28.01	0.62	0.11	0.00	702.42	169.77	872.19
5.420	29.28	30.03	0.74	0.12	0.00	709.65	166.29	875.94
5.420	33.55	34.58	1.03	0.15	0.00	725.94	158.45	884.39
5.480	22.82	23.18	0.36	0.06	0.00	483.74	40.78	524.53
5.480	27.46	28.09	0.64	0.08	0.00	531.77	33.80	565.57
5.480	29.34	30.12	0.78	0.08	0.01	539.03	30.99	570.02
5.480	33.57	34.72	1.15	0.10	0.03	555.38	24.65	580.03
5.950	23.30	23.64	0.34	0.45	0.00	960.25	42.19	1176.92
5.950	28.21	28.67	0.46	0.56	0.02	1531.03	33.57	1564.59
5.950	30.24	30.75	0.50	0.60	0.03	1569.44	3.05	1572.49
5.950	34.86	35.44	0.58	0.66	0.06	1615.62	0.00	1678.29
6.320	23.75	24.06	0.33	0.44	0.00	575.00	692.50	1267.50
6.320	28.67	29.18	0.51	0.50	0.01	1299.21	414.55	1713.76
6.320	30.70	31.28	0.58	0.51	0.02	1436.25	282.75	1719.00
6.320	35.29	35.98	0.69	0.51	0.03	1600.58	130.00	1730.58

SECNO	CWSEL	EG	HV	HL	OLUSS	TOPWID	SSTA	ENDST
6.450	23.80	24.32	0.52	0.19	0.06	476.28	318.23	794.51
6.450	28.68	29.51	0.83	0.23	0.09	620.00	280.00	900.00
6.450	30.66	31.64	0.97	0.24	0.12	620.00	280.00	900.00
6.450	35.10	36.43	1.33	0.26	0.19	620.00	280.00	900.00
6.490	23.87	24.40	0.53	0.07	0.01	446.77	329.36	776.14
6.490	28.77	29.62	0.85	0.09	0.02	522.62	295.90	818.52
6.490	30.76	31.75	1.00	0.10	0.02	530.29	292.57	822.86
6.490	35.20	36.57	1.36	0.11	0.02	547.36	285.16	856.00
6.500	23.90	24.42	0.52	0.02	0.00	446.86	329.32	776.19
6.500	28.81	29.66	0.84	0.04	0.00	522.82	295.81	818.64
6.500	30.81	31.80	0.99	0.05	0.00	530.49	292.49	822.98
6.500	35.33	36.68	1.35	0.11	0.00	547.86	284.95	856.00
6.540	23.99	24.49	0.50	0.07	0.00	478.10	317.32	795.42
6.540	28.95	29.75	0.80	0.09	0.00	702.00	267.53	969.53
6.540	30.96	31.90	0.94	0.10	0.01	789.64	240.36	1030.00
6.540	35.57	36.80	1.23	0.11	0.01	882.27	147.72	1030.00
7.130	24.99	25.38	0.40	0.88	0.01	498.47	2245.92	2744.39
7.130	30.23	30.84	0.62	1.07	0.02	1768.82	84.75	2809.50
7.130	32.37	33.03	0.66	1.10	0.03	2776.61	75.61	2852.23
7.130	37.26	37.90	0.63	1.04	0.06	2809.17	54.59	2863.77
7.690	25.80	26.30	0.50	0.89	0.03	1267.81	767.11	2560.63
7.690	31.25	31.76	0.51	0.90	0.01	2555.07	106.07	2661.14
7.690	33.42	33.90	0.48	0.85	0.02	2617.23	63.27	2680.50
7.690	38.18	38.62	0.45	0.71	0.02	2680.70	19.30	2700.00
8.130	26.76	27.10	0.35	0.79	0.01	689.03	60.80	756.76
8.130	31.99	32.48	0.49	0.73	0.00	1129.45	14.56	1196.03
8.130	34.06	34.61	0.56	0.69	0.02	1191.88	11.48	1203.36
8.130	38.63	39.32	0.69	0.62	0.07	1198.15	7.85	1206.00
8.390	27.10	27.54	0.44	0.41	0.03	1203.84	270.97	1594.21
8.390	32.37	32.91	0.54	0.41	0.01	1432.85	175.06	1607.91
8.390	34.46	35.03	0.57	0.41	0.01	1499.12	115.71	1614.83
8.390	39.07	39.73	0.65	0.41	0.00	1558.14	91.85	1650.00
8.610	27.48	28.15	0.67	0.54	0.07	457.72	1366.41	1824.13
8.610	32.64	33.60	0.96	0.56	0.13	1315.43	185.94	1867.85
8.610	34.69	35.73	1.04	0.56	0.14	2151.50	67.78	3800.00
8.610	39.38	40.30	0.92	0.50	0.08	3760.96	39.04	3800.00
9.200	28.80	29.07	0.27	0.88	0.04	1136.71	291.98	4372.18
9.200	34.24	34.56	0.33	0.90	0.06	3625.70	228.04	4379.23
9.200	36.34	36.66	0.32	0.86	0.07	3997.82	210.52	4381.89
9.200	40.77	41.07	0.30	0.70	0.06	4608.39	41.17	4649.56
9.850	29.64	29.80	0.16	0.72	0.01	1518.89	1309.06	2938.94
9.850	35.04	35.22	0.18	0.64	0.01	2199.14	198.93	3329.63
9.850	37.09	37.27	0.19	0.60	0.01	2965.14	140.37	3352.66
9.850	41.40	41.60	0.20	0.52	0.01	3333.03	69.50	3402.53

SECNO	CWSEL	EG	HV	HL	ULOSS	TWPWID	SSTA	ENDST
10.690	30.75	30.90	0.22					
10.690	35.97	36.16	0.19	1.15	0.02	1812.82	611.14	4567.00
10.690	37.98	38.10	0.18	0.94	0.00	5226.99	601.06	4577.49
10.690	42.22	42.40	0.17	0.89	0.00	3282.66	597.18	4581.50
				0.79	0.00	4143.20	348.60	4589.97
11.050	31.26	31.46	0.21	0.50	0.00	1299.96	277.49	4176.02
11.050	36.39	36.59	0.20	0.43	0.00	3574.11	207.21	4187.64
11.050	38.37	38.56	0.18	0.40	0.00	3718.10	263.24	4192.70
11.050	42.57	42.74	0.18	0.34	0.00	3943.00	254.85	4197.93
11.340	31.74	32.06	0.32	0.56	0.03	1243.25	826.52	3428.09
11.340	36.82	37.11	0.29	0.49	0.03	2628.76	805.43	3434.19
11.340	38.77	39.06	0.29	0.46	0.03	2899.73	411.72	3436.52
11.340	42.89	43.19	0.30	0.41	0.04	3120.32	321.14	3441.46
11.670	32.61	33.09	0.48	0.98	0.05	717.82	3950.50	4668.33
11.670	37.45	38.10	0.65	0.88	0.11	1015.32	3479.74	4679.73
11.670	39.31	40.05	0.73	0.86	0.13	1121.05	3461.33	4684.12
11.670	43.29	44.19	0.91	0.82	0.18	1268.22	3421.92	4690.14
12.480	36.21	37.43	1.22	4.11	0.22	388.39	1442.23	1830.62
12.480	40.82	42.64	1.82	4.19	0.35	409.93	1427.34	1837.20
12.480	42.66	44.77	2.12	4.31	0.41	417.73	1421.42	1839.15
12.480	46.41	49.27	2.86	4.49	0.59	837.08	980.54	1843.02
12.950	39.61	40.64	1.04	3.20	0.02	427.26	54.33	1209.36
12.950	44.64	46.09	1.44	3.41	0.04	1079.50	48.21	2300.67
12.950	46.75	48.28	1.53	3.44	0.06	1361.22	45.66	2332.54
12.950	51.23	52.83	1.60	3.43	0.13	1610.40	40.22	2400.63
13.500	43.05	43.63	0.58	2.94	0.05	1130.29	891.73	2664.81
13.500	48.20	48.80	0.61	2.63	0.08	1709.44	860.82	4016.29
13.500	50.24	50.84	0.61	2.48	0.09	1886.05	849.06	4037.09
13.500	54.48	55.08	0.61	2.15	0.10	2626.81	400.00	4235.33
14.010	45.65	46.15	0.50	2.51	0.01	733.85	1017.40	2622.32
14.010	50.41	51.09	0.68	2.26	0.02	763.31	1010.11	2627.75
14.010	52.32	53.09	0.77	2.20	0.05	775.13	1007.18	2629.93
14.010	56.30	57.31	1.02	2.11	0.12	1098.46	754.22	2634.47
14.440	46.89	47.12	0.23	0.95	0.03	973.29	827.26	2000.89
14.440	51.83	52.18	0.35	1.06	0.03	1227.17	792.99	2020.15
14.440	53.84	54.24	0.40	1.11	0.04	1245.52	782.44	2027.96
14.440	58.07	58.60	0.53	1.24	0.05	1498.72	149.14	2044.41

APPENDIX B: CORRECTED EFFECTIVE BASE FLOOD HYDRAULIC MODEL

Model Info – Corrected Effective

Corrected Effective Model.TableE1

Corrected Effective Model.TableE3

Corrected Effective Model.TableS1

Corrected Effective Model.TableS2

Corrected Effective Model.XSectionDetail

Corrected Effective Model.XSPlot

LEWIS RIVER: Corrected Effective Base Flood Hydraulic Model

Project: Lewis River 7.69 to 8.61

Plan: Lewis River 7.69 to 8.61 GeoRef

Geometry: Lewis River 7.69 to 8.61 – 2018 Lidar 2

Steady Flow: Lewis River 7.13 to 8.61

May 2021

Paul R. Wirfs, P.E.

Ground Topo from Washington FEMA 3DEP 2018 LiDAR

Technical Data Report data set and extracted by Minister & Glaeser Surveying, Inc.

Bathymetry from 1978 HEC-2 Model with Datum conversion.

Boundary conditions from 1978 HEC-2 Model water surface elevations with Datum conversions.

Datum was converted from NGV29 to NAVD88 by adding 3.439ft factor as mentioned in the FIS.

HEC-RAS Plan: Lewis River CE GR River: RIVER-1 Reach: Reach-1

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach-1	8.61	PF#1	54400.00	-0.96	30.84		31.26	0.000361	5.27	11125.56	791.01	0.23
Reach-1	8.61	PF#2	86300.00	-0.96	36.00		36.57	0.000357	6.22	17872.15	1706.63	0.23
Reach-1	8.61	PF 3	102000.00	-0.96	37.99		38.60	0.000349	6.51	22140.17	3125.27	0.23
Reach-1	8.61	PF 4	141750.00	-0.96	42.37		42.91	0.000288	6.61	40769.50	4714.58	0.22
Reach-1	8.50	PF#1	54400.00	1.29	30.64		31.04	0.000339	5.12	11178.75	885.72	0.22
Reach-1	8.50	PF#2	86300.00	1.29	35.82		36.35	0.000327	5.98	18038.69	1731.68	0.22
Reach-1	8.50	PF 3	102000.00	1.29	37.82		38.39	0.000321	6.28	22568.79	2902.05	0.23
Reach-1	8.50	PF 4	141750.00	1.29	42.23		42.74	0.000264	6.37	41539.01	4682.87	0.21
Reach-1	8.39	PF#1	54400.00	3.44	30.56		30.86	0.000216	4.44	13950.31	1073.10	0.18
Reach-1	8.39	PF#2	86300.00	3.44	35.76		36.16	0.000227	5.29	20261.88	2040.97	0.19
Reach-1	8.39	PF 3	102000.00	3.44	37.76		38.19	0.000226	5.55	26907.23	3750.61	0.19
Reach-1	8.39	PF 4	141750.00	3.44	42.20		42.58	0.000188	5.62	47711.34	4840.94	0.18
Reach-1	8.21	PF#1	54400.00	3.92	30.21		30.60	0.000357	5.01	10864.51	685.79	0.22
Reach-1	8.21	PF#2	86300.00	3.92	35.44		35.91	0.000318	5.65	20082.19	3022.48	0.22
Reach-1	8.21	PF 3	102000.00	3.92	37.49		37.95	0.000290	5.74	27612.83	4289.57	0.21
Reach-1	8.21	PF 4	141750.00	3.92	42.03		42.38	0.000208	5.49	48654.17	4706.35	0.19
Reach-1	8.13	PF#1	54400.00	4.14	29.99		30.43	0.000396	5.31	10272.22	672.39	0.23
Reach-1	8.13	PF#2	86300.00	4.14	35.24		35.76	0.000361	5.94	19505.20	3145.74	0.23
Reach-1	8.13	PF 3	102000.00	4.14	37.32		37.82	0.000325	5.99	27816.32	4618.89	0.22
Reach-1	8.13	PF 4	141750.00	4.14	41.95		42.29	0.000214	5.49	50864.42	5061.38	0.19
Reach-1	7.69	PF#1	54400.00	-4.76	29.33		29.62	0.000295	4.45	14644.70	1925.39	0.20
Reach-1	7.69	PF#2	86300.00	-4.76	34.81		35.07	0.000216	4.43	30281.25	4250.14	0.18
Reach-1	7.69	PF 3	102000.00	-4.76	36.97		37.21	0.000187	4.42	40045.10	4865.14	0.17
Reach-1	7.69	PF 4	141750.00	-4.76	41.71		41.90	0.000129	4.19	64184.39	5189.52	0.15
Reach-1	7.13	PF#1	54400.00	-2.86	28.43	11.44	28.82	0.000241	5.05	10777.10	498.48	0.19
Reach-1	7.13	PF#2	86300.00	-2.86	33.67	14.93	34.29	0.000296	6.35	15327.91	1770.23	0.22
Reach-1	7.13	PF 3	102000.00	-2.86	35.81	16.31	36.48	0.000298	6.72	20642.35	2776.70	0.22
Reach-1	7.13	PF 4	141750.00	-2.86	40.70	19.40	41.34	0.000260	6.98	34321.95	2809.16	0.21

HEC-RAS Plan: Lewis River CE GR River: RIVER-1 Reach: Reach-1

Reach	River Sta	Profile	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
Reach-1	8.61	PF#1	31.26	30.84	0.42	0.21	0.01	1253.82	53146.18		791.01
Reach-1	8.61	PF#2	36.57	36.00	0.57	0.21	0.01	4370.02	81919.45	10.53	1706.63
Reach-1	8.61	PF 3	38.60	37.99	0.61	0.20	0.01	8114.17	93613.73	272.10	3125.27
Reach-1	8.61	PF 4	42.91	42.37	0.54	0.16	0.01	17831.73	112423.10	11495.14	4714.58
Reach-1	8.50	PF#1	31.04	30.64	0.40	0.15	0.03	389.54	54010.46		885.72
Reach-1	8.50	PF#2	36.35	35.82	0.53	0.15	0.04	3828.79	82443.63	27.57	1731.68
Reach-1	8.50	PF 3	38.39	37.82	0.57	0.15	0.04	6897.80	94390.47	711.73	2902.05
Reach-1	8.50	PF 4	42.74	42.23	0.51	0.12	0.04	14887.57	113365.80	13496.61	4682.87
Reach-1	8.39	PF#1	30.86	30.56	0.30	0.25	0.01	1801.30	52598.70		1073.10
Reach-1	8.39	PF#2	36.16	35.76	0.40	0.25	0.01	6434.26	79669.73	196.01	2040.97
Reach-1	8.39	PF 3	38.19	37.76	0.43	0.24	0.00	8717.49	90518.30	2764.22	3750.61
Reach-1	8.39	PF 4	42.58	42.20	0.38	0.18	0.01	13771.98	107259.10	20718.88	4840.94
Reach-1	8.21	PF#1	30.60	30.21	0.39	0.16	0.00		54400.00		685.79
Reach-1	8.21	PF#2	35.91	35.44	0.47	0.15	0.00	9.97	81925.41	4364.61	3022.48
Reach-1	8.21	PF 3	37.95	37.49	0.46	0.13	0.00	58.06	91470.23	10471.70	4289.57
Reach-1	8.21	PF 4	42.38	42.03	0.35	0.09	0.00	247.40	104921.50	36581.11	4706.35
Reach-1	8.13	PF#1	30.43	29.99	0.44	0.76	0.04		54384.54	15.46	672.39
Reach-1	8.13	PF#2	35.76	35.24	0.52	0.61	0.08		81338.29	4961.72	3145.74
Reach-1	8.13	PF 3	37.82	37.32	0.49	0.53	0.08	24.84	90342.81	11632.35	4618.89
Reach-1	8.13	PF 4	42.29	41.95	0.34	0.35	0.05	643.22	100054.20	41052.61	5061.38
Reach-1	7.69	PF#1	29.62	29.33	0.29	0.79	0.01	1.65	52036.59	2361.76	1925.39
Reach-1	7.69	PF#2	35.07	34.81	0.26	0.74	0.04	956.04	71873.20	13470.77	4250.14
Reach-1	7.69	PF 3	37.21	36.97	0.24	0.69	0.04	2415.25	79803.56	19781.19	4865.14
Reach-1	7.69	PF 4	41.90	41.71	0.19	0.51	0.05	6261.67	92638.12	42850.21	5189.52
Reach-1	7.13	PF#1	28.82	28.43	0.40				54400.00		498.48
Reach-1	7.13	PF#2	34.29	33.67	0.62			976.13	85318.55	5.30	1770.23
Reach-1	7.13	PF 3	36.48	35.81	0.67			4230.50	97634.21	135.29	2776.70
Reach-1	7.13	PF 4	41.34	40.70	0.64			21840.51	118890.60	1018.89	2809.16

HEC-RAS Plan: Lewis River CE GR River: RIVER-1 Reach: Reach-1

Reach	River Sta	Profile	W.S. Elev (ft)	Prof Delta WS (ft)	E.G. Elev (ft)	Top Wdth Act (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Enc Sta L (ft)	Ch Sta L (ft)	Ch Sta R (ft)	Enc Sta R (ft)
Reach-1	8.61	PF#1	30.84		31.26	791.01	1253.82	53146.18			1350.00	1950.00	
Reach-1	8.61	PF#2	36.00	5.16	36.57	1706.63	4370.02	81919.45	10.53		1350.00	1950.00	
Reach-1	8.61	PF 3	37.99	7.15	38.60	3125.27	8114.17	93613.73	272.10		1350.00	1950.00	
Reach-1	8.61	PF 4	42.37	11.53	42.91	4714.58	17831.73	112423.10	11495.14		1350.00	1950.00	
Reach-1	8.50	PF#1	30.64		31.04	885.72	389.54	54010.46			1025.00	1650.00	
Reach-1	8.50	PF#2	35.82	5.18	36.35	1731.68	3828.79	82443.63	27.57		1025.00	1650.00	
Reach-1	8.50	PF 3	37.82	7.18	38.39	2902.05	6897.80	94390.47	711.73		1025.00	1650.00	
Reach-1	8.50	PF 4	42.23	11.59	42.74	4682.87	14887.57	113365.80	13496.61		1025.00	1650.00	
Reach-1	8.39	PF#1	30.56		30.86	1073.10	1801.30	52598.70			600.00	1225.00	
Reach-1	8.39	PF#2	35.76	5.19	36.16	2040.97	6434.26	79669.73	196.01		600.00	1225.00	
Reach-1	8.39	PF 3	37.76	7.20	38.19	3750.61	8717.49	90518.30	2764.22		600.00	1225.00	
Reach-1	8.39	PF 4	42.20	11.64	42.58	4840.94	13771.98	107259.10	20718.88		600.00	1225.00	
Reach-1	8.21	PF#1	30.21		30.60	685.79		54400.00			150.00	850.00	
Reach-1	8.21	PF#2	35.44	5.23	35.91	3022.48	9.97	81925.41	4364.61		150.00	850.00	
Reach-1	8.21	PF 3	37.49	7.28	37.95	4289.57	58.06	91470.23	10471.70		150.00	850.00	
Reach-1	8.21	PF 4	42.03	11.83	42.38	4706.35	247.40	104921.50	36581.11		150.00	850.00	
Reach-1	8.13	PF#1	29.99		30.43	672.39		54384.54	15.46		500.00	1175.00	
Reach-1	8.13	PF#2	35.24	5.25	35.76	3145.74		81338.29	4961.72		500.00	1175.00	
Reach-1	8.13	PF 3	37.32	7.33	37.82	4618.89	24.84	90342.81	11632.35		500.00	1175.00	
Reach-1	8.13	PF 4	41.95	11.96	42.29	5061.38	643.22	100054.20	41052.61		500.00	1175.00	
Reach-1	7.69	PF#1	29.33		29.62	1925.39	1.65	52036.59	2361.76		1100.00	1950.00	
Reach-1	7.69	PF#2	34.81	5.49	35.07	4250.14	956.04	71873.20	13470.77		1100.00	1950.00	
Reach-1	7.69	PF 3	36.97	7.64	37.21	4865.14	2415.25	79803.56	19781.19		1100.00	1950.00	
Reach-1	7.69	PF 4	41.71	12.38	41.90	5189.52	6261.67	92638.12	42850.21		1100.00	1950.00	
Reach-1	7.13	PF#1	28.43		28.82	498.48		54400.00			2240.00	2752.00	
Reach-1	7.13	PF#2	33.67	5.24	34.29	1770.23	976.13	85318.55	5.30		2240.00	2752.00	
Reach-1	7.13	PF 3	35.81	7.38	36.48	2776.70	4230.50	97634.21	135.29		2240.00	2752.00	
Reach-1	7.13	PF 4	40.70	12.27	41.34	2809.16	21840.51	118890.60	1018.89		2240.00	2752.00	

HEC-RAS Plan: Lewis River CE GR River: RIVER-1 Reach: Reach-1

Reach	River Sta	Profile	Top Width Act (ft)	Area (sq ft)	Vel Total (ft/s)	W.S. Elev (ft)	Base WS (ft)	Prof Delta WS (ft)
Reach-1	8.61	PF#1	791.01	11125.56	4.89	30.84	30.84	
Reach-1	8.61	PF#2	1706.63	17872.15	4.83	36.00	30.84	5.16
Reach-1	8.61	PF 3	3125.27	22140.17	4.61	37.99	30.84	7.15
Reach-1	8.61	PF 4	4714.58	40769.50	3.48	42.37	30.84	11.53
Reach-1	8.50	PF#1	885.72	11178.75	4.87	30.64	30.64	
Reach-1	8.50	PF#2	1731.68	18038.69	4.78	35.82	30.64	5.18
Reach-1	8.50	PF 3	2902.05	22568.79	4.52	37.82	30.64	7.18
Reach-1	8.50	PF 4	4682.87	41539.01	3.41	42.23	30.64	11.59
Reach-1	8.39	PF#1	1073.10	13950.31	3.90	30.56	30.56	
Reach-1	8.39	PF#2	2040.97	20261.88	4.26	35.76	30.56	5.19
Reach-1	8.39	PF 3	3750.61	26907.23	3.79	37.76	30.56	7.20
Reach-1	8.39	PF 4	4840.94	47711.34	2.97	42.20	30.56	11.64
Reach-1	8.21	PF#1	685.79	10864.51	5.01	30.21	30.21	
Reach-1	8.21	PF#2	3022.48	20082.19	4.30	35.44	30.21	5.23
Reach-1	8.21	PF 3	4289.57	27612.83	3.69	37.49	30.21	7.28
Reach-1	8.21	PF 4	4706.35	48654.17	2.91	42.03	30.21	11.83
Reach-1	8.13	PF#1	672.39	10272.22	5.30	29.99	29.99	
Reach-1	8.13	PF#2	3145.74	19505.20	4.42	35.24	29.99	5.25
Reach-1	8.13	PF 3	4618.89	27816.32	3.67	37.32	29.99	7.33
Reach-1	8.13	PF 4	5061.38	50864.42	2.79	41.95	29.99	11.96
Reach-1	7.69	PF#1	1925.39	14644.70	3.71	29.33	29.33	
Reach-1	7.69	PF#2	4250.14	30281.25	2.85	34.81	29.33	5.49
Reach-1	7.69	PF 3	4865.14	40045.10	2.55	36.97	29.33	7.64
Reach-1	7.69	PF 4	5189.52	64184.39	2.21	41.71	29.33	12.38
Reach-1	7.13	PF#1	498.48	10777.10	5.05	28.43	28.43	
Reach-1	7.13	PF#2	1770.23	15327.91	5.63	33.67	28.43	5.24
Reach-1	7.13	PF 3	2776.70	20642.35	4.94	35.81	28.43	7.38
Reach-1	7.13	PF 4	2809.16	34321.95	4.13	40.70	28.43	12.27

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 8.61 Profile: PF#1

E.G. Elev (ft)	31.26	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.42	Wt. n-Val.	0.080	0.035	
W.S. Elev (ft)	30.84	Reach Len. (ft)	629.00	602.00	499.00
Crit W.S. (ft)		Flow Area (sq ft)	1040.89	10084.67	
E.G. Slope (ft/ft)	0.000361	Area (sq ft)	1040.89	10084.67	
Q Total (cfs)	54400.00	Flow (cfs)	1253.82	53146.18	
Top Width (ft)	791.01	Top Width (ft)	197.23	593.78	
Vel Total (ft/s)	4.89	Avg. Vel. (ft/s)	1.20	5.27	
Max Chl Dpth (ft)	31.80	Hydr. Depth (ft)	5.28	16.98	
Conv. Total (cfs)	2863919.0	Conv. (cfs)	66007.9	2797911.0	
Length Wtd. (ft)	602.41	Wetted Per. (ft)	199.29	603.66	
Min Ch El (ft)	-0.96	Shear (lb/sq ft)	0.12	0.38	
Alpha	1.14	Stream Power (lb/ft s)	0.14	1.98	
Frctn Loss (ft)	0.21	Cum Volume (acre-ft)	52.11	1964.84	172.97
C & E Loss (ft)	0.01	Cum SA (acres)	14.90	116.08	66.31

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 8.61 Profile: PF#2

E.G. Elev (ft)	36.57	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.	0.080	0.035	0.065
W.S. Elev (ft)	36.00	Reach Len. (ft)	629.00	602.00	499.00
Crit W.S. (ft)		Flow Area (sq ft)	4676.54	13174.17	21.44
E.G. Slope (ft/ft)	0.000357	Area (sq ft)	4676.54	13174.17	21.44
Q Total (cfs)	86300.00	Flow (cfs)	4370.02	81919.45	10.53
Top Width (ft)	1706.63	Top Width (ft)	1089.13	600.00	17.50
Vel Total (ft/s)	4.83	Avg. Vel. (ft/s)	0.93	6.22	0.49
Max Chl Dpth (ft)	36.96	Hydr. Depth (ft)	4.29	21.96	1.23
Conv. Total (cfs)	4567292.0	Conv. (cfs)	231276.3	4335458.0	557.5
Length Wtd. (ft)	603.26	Wetted Per. (ft)	1092.63	610.45	17.67
Min Ch El (ft)	-0.96	Shear (lb/sq ft)	0.10	0.48	0.03
Alpha	1.58	Stream Power (lb/ft s)	0.09	2.99	0.01
Frctn Loss (ft)	0.21	Cum Volume (acre-ft)	286.88	2608.68	978.81
C & E Loss (ft)	0.01	Cum SA (acres)	85.92	122.95	281.34

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 8.61 Profile: PF 3

E.G. Elev (ft)	38.60	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.61	Wt. n-Val.	0.080	0.035	0.065
W.S. Elev (ft)	37.99	Reach Len. (ft)	629.00	602.00	499.00
Crit W.S. (ft)		Flow Area (sq ft)	6919.88	14369.07	851.22
E.G. Slope (ft/ft)	0.000349	Area (sq ft)	6919.88	14369.07	851.22
Q Total (cfs)	102000.00	Flow (cfs)	8114.17	93613.73	272.10
Top Width (ft)	3125.27	Top Width (ft)	1152.41	600.00	1372.86
Vel Total (ft/s)	4.61	Avg. Vel. (ft/s)	1.17	6.51	0.32
Max Chl Dpth (ft)	38.95	Hydr. Depth (ft)	6.00	23.95	0.62
Conv. Total (cfs)	5459311.0	Conv. (cfs)	434292.1	5010456.0	14563.5
Length Wtd. (ft)	603.49	Wetted Per. (ft)	1156.56	610.45	1373.21
Min Ch El (ft)	-0.96	Shear (lb/sq ft)	0.13	0.51	0.01
Alpha	1.84	Stream Power (lb/ft s)	0.15	3.34	0.00
Frctn Loss (ft)	0.20	Cum Volume (acre-ft)	501.54	2867.36	1736.26
C & E Loss (ft)	0.01	Cum SA (acres)	109.94	123.11	424.34

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 8.61 Profile: PF 4

E.G. Elev (ft)	42.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.54	Wt. n-Val.	0.080	0.035	0.065
W.S. Elev (ft)	42.37	Reach Len. (ft)	629.00	602.00	499.00
Crit W.S. (ft)		Flow Area (sq ft)	11993.63	16996.13	11779.74
E.G. Slope (ft/ft)	0.000288	Area (sq ft)	11993.63	16996.13	11779.74
Q Total (cfs)	141750.00	Flow (cfs)	17831.73	112423.10	11495.14
Top Width (ft)	4714.58	Top Width (ft)	1164.87	600.00	2949.71
Vel Total (ft/s)	3.48	Avg. Vel. (ft/s)	1.49	6.61	0.98
Max Chl Dpth (ft)	43.33	Hydr. Depth (ft)	10.30	28.33	3.99
Conv. Total (cfs)	8357574.0	Conv. (cfs)	1051358.0	6628463.0	677753.0
Length Wtd. (ft)	596.04	Wetted Per. (ft)	1169.79	610.45	2950.23
Min Ch El (ft)	-0.96	Shear (lb/sq ft)	0.18	0.50	0.07
Alpha	2.90	Stream Power (lb/ft s)	0.27	3.31	0.07
Frctn Loss (ft)	0.16	Cum Volume (acre-ft)	1039.41	3441.97	3987.83
C & E Loss (ft)	0.01	Cum SA (acres)	116.81	123.18	502.96

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 8.50 Profile: PF#1

E.G. Elev (ft)	31.04	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.	0.080	0.035	
W.S. Elev (ft)	30.64	Reach Len. (ft)	570.00	566.00	502.00
Crit W.S. (ft)		Flow Area (sq ft)	628.85	10549.90	
E.G. Slope (ft/ft)	0.000339	Area (sq ft)	628.85	10549.90	
Q Total (cfs)	54400.00	Flow (cfs)	389.54	54010.46	
Top Width (ft)	885.72	Top Width (ft)	265.21	620.51	
Vel Total (ft/s)	4.87	Avg. Vel. (ft/s)	0.62	5.12	
Max Chl Dpth (ft)	29.35	Hydr. Depth (ft)	2.37	17.00	
Conv. Total (cfs)	2956483.0	Conv. (cfs)	21170.4	2935312.0	
Length Wtd. (ft)	566.08	Wetted Per. (ft)	267.43	628.83	
Min Ch El (ft)	1.29	Shear (lb/sq ft)	0.05	0.35	
Alpha	1.10	Stream Power (lb/ft s)	0.03	1.82	
Frctn Loss (ft)	0.15	Cum Volume (acre-ft)	40.05	1822.25	172.97
C & E Loss (ft)	0.03	Cum SA (acres)	11.56	107.69	66.31

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 8.50 Profile: PF#2

E.G. Elev (ft)	36.35	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.53	Wt. n-Val.	0.080	0.035	0.065
W.S. Elev (ft)	35.82	Reach Len. (ft)	570.00	566.00	502.00
Crit W.S. (ft)		Flow Area (sq ft)	4157.53	13783.29	97.87
E.G. Slope (ft/ft)	0.000327	Area (sq ft)	4157.53	13783.29	97.87
Q Total (cfs)	86300.00	Flow (cfs)	3828.79	82443.63	27.57
Top Width (ft)	1731.68	Top Width (ft)	916.38	625.00	190.31
Vel Total (ft/s)	4.78	Avg. Vel. (ft/s)	0.92	5.98	0.28
Max Chl Dpth (ft)	34.53	Hydr. Depth (ft)	4.54	22.05	0.51
Conv. Total (cfs)	4771173.0	Conv. (cfs)	211678.0	4557971.0	1524.3
Length Wtd. (ft)	566.15	Wetted Per. (ft)	921.15	634.04	190.64
Min Ch El (ft)	1.29	Shear (lb/sq ft)	0.09	0.44	0.01
Alpha	1.49	Stream Power (lb/ft s)	0.08	2.66	0.00
Frctn Loss (ft)	0.15	Cum Volume (acre-ft)	223.10	2422.40	978.13
C & E Loss (ft)	0.04	Cum SA (acres)	71.44	114.48	280.15

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 8.50 Profile: PF 3

E.G. Elev (ft)	38.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.	0.080	0.035	0.065
W.S. Elev (ft)	37.82	Reach Len. (ft)	570.00	566.00	502.00
Crit W.S. (ft)		Flow Area (sq ft)	6010.51	15030.16	1528.11
E.G. Slope (ft/ft)	0.000321	Area (sq ft)	6010.51	15030.16	1528.11
Q Total (cfs)	102000.00	Flow (cfs)	6897.80	94390.47	711.73
Top Width (ft)	2902.05	Top Width (ft)	933.75	625.00	1343.30
Vel Total (ft/s)	4.52	Avg. Vel. (ft/s)	1.15	6.28	0.47
Max Chl Dpth (ft)	36.53	Hydr. Depth (ft)	6.44	24.05	1.14
Conv. Total (cfs)	5690208.0	Conv. (cfs)	384802.8	5265700.0	39704.8
Length Wtd. (ft)	565.22	Wetted Per. (ft)	939.25	634.04	1344.02
Min Ch El (ft)	1.29	Shear (lb/sq ft)	0.13	0.48	0.02
Alpha	1.79	Stream Power (lb/ft s)	0.15	2.99	0.01
Frctn Loss (ft)	0.15	Cum Volume (acre-ft)	408.18	2664.22	1722.63
C & E Loss (ft)	0.04	Cum SA (acres)	94.88	114.64	408.78

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 8.50 Profile: PF 4

E.G. Elev (ft)	42.74	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.51	Wt. n-Val.	0.080	0.035	0.065
W.S. Elev (ft)	42.23	Reach Len. (ft)	570.00	566.00	502.00
Crit W.S. (ft)		Flow Area (sq ft)	10147.57	17788.86	13602.58
E.G. Slope (ft/ft)	0.000264	Area (sq ft)	10147.57	17788.86	13602.58
Q Total (cfs)	141750.00	Flow (cfs)	14887.57	113365.80	13496.61
Top Width (ft)	4682.87	Top Width (ft)	940.80	625.00	3117.07
Vel Total (ft/s)	3.41	Avg. Vel. (ft/s)	1.47	6.37	0.99
Max Chl Dpth (ft)	40.94	Hydr. Depth (ft)	10.79	28.46	4.36
Conv. Total (cfs)	8719087.0	Conv. (cfs)	915738.9	6973167.0	830180.6
Length Wtd. (ft)	558.68	Wetted Per. (ft)	947.56	634.04	3118.30
Min Ch El (ft)	1.29	Shear (lb/sq ft)	0.18	0.46	0.07
Alpha	2.82	Stream Power (lb/ft s)	0.26	2.95	0.07
Frctn Loss (ft)	0.12	Cum Volume (acre-ft)	879.55	3201.61	3842.45
C & E Loss (ft)	0.04	Cum SA (acres)	101.61	114.72	468.21

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 8.39 Profile: PF#1

E.G. Elev (ft)	30.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.30	Wt. n-Val.	0.070	0.035	
W.S. Elev (ft)	30.56	Reach Len. (ft)	895.00	932.00	940.00
Crit W.S. (ft)		Flow Area (sq ft)	2104.79	11845.52	
E.G. Slope (ft/ft)	0.000216	Area (sq ft)	2104.79	11845.52	
Q Total (cfs)	54400.00	Flow (cfs)	1801.30	52598.70	
Top Width (ft)	1073.10	Top Width (ft)	459.36	613.73	
Vel Total (ft/s)	3.90	Avg. Vel. (ft/s)	0.86	4.44	
Max Chl Dpth (ft)	27.12	Hydr. Depth (ft)	4.58	19.30	
Conv. Total (cfs)	3705189.0	Conv. (cfs)	122686.7	3582502.0	
Length Wtd. (ft)	931.39	Wetted Per. (ft)	462.57	623.01	
Min Ch El (ft)	3.44	Shear (lb/sq ft)	0.06	0.26	
Alpha	1.26	Stream Power (lb/ft s)	0.05	1.14	
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	22.16	1676.76	172.97
C & E Loss (ft)	0.01	Cum SA (acres)	6.82	99.67	66.31

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 8.39 Profile: PF#2

E.G. Elev (ft)	36.16	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.	0.070	0.035	0.065
W.S. Elev (ft)	35.76	Reach Len. (ft)	895.00	932.00	940.00
Crit W.S. (ft)		Flow Area (sq ft)	4543.91	15053.94	664.04
E.G. Slope (ft/ft)	0.000227	Area (sq ft)	4543.91	15053.94	664.04
Q Total (cfs)	86300.00	Flow (cfs)	6434.26	79669.73	196.01
Top Width (ft)	2040.97	Top Width (ft)	483.79	621.51	935.68
Vel Total (ft/s)	4.26	Avg. Vel. (ft/s)	1.42	5.29	0.30
Max Chl Dpth (ft)	32.32	Hydr. Depth (ft)	9.39	24.22	0.71
Conv. Total (cfs)	5729064.0	Conv. (cfs)	427141.3	5288911.0	13012.0
Length Wtd. (ft)	930.83	Wetted Per. (ft)	487.60	632.36	935.87
Min Ch El (ft)	3.44	Shear (lb/sq ft)	0.13	0.34	0.01
Alpha	1.43	Stream Power (lb/ft s)	0.19	1.78	0.00
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	166.16	2235.05	973.74
C & E Loss (ft)	0.01	Cum SA (acres)	62.28	106.38	273.66

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 8.39 Profile: PF 3

E.G. Elev (ft)	38.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.43	Wt. n-Val.	0.070	0.035	0.065
W.S. Elev (ft)	37.76	Reach Len. (ft)	895.00	932.00	940.00
Crit W.S. (ft)		Flow Area (sq ft)	5531.74	16303.34	5072.16
E.G. Slope (ft/ft)	0.000226	Area (sq ft)	5531.74	16303.34	5072.16
Q Total (cfs)	102000.00	Flow (cfs)	8717.49	90518.30	2764.22
Top Width (ft)	3750.61	Top Width (ft)	500.58	624.51	2625.52
Vel Total (ft/s)	3.79	Avg. Vel. (ft/s)	1.58	5.55	0.54
Max Chl Dpth (ft)	34.32	Hydr. Depth (ft)	11.05	26.11	1.93
Conv. Total (cfs)	6780982.0	Conv. (cfs)	579540.3	6017676.0	183765.6
Length Wtd. (ft)	930.93	Wetted Per. (ft)	504.52	635.97	2626.04
Min Ch El (ft)	3.44	Shear (lb/sq ft)	0.15	0.36	0.03
Alpha	1.92	Stream Power (lb/ft s)	0.24	2.01	0.01
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	332.67	2460.65	1684.60
C & E Loss (ft)	0.00	Cum SA (acres)	85.50	106.53	385.91

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 8.39 Profile: PF 4

E.G. Elev (ft)	42.58	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.38	Wt. n-Val.	0.070	0.035	0.065
W.S. Elev (ft)	42.20	Reach Len. (ft)	895.00	932.00	940.00
Crit W.S. (ft)		Flow Area (sq ft)	7786.42	19075.14	20849.78
E.G. Slope (ft/ft)	0.000188	Area (sq ft)	7786.42	19075.14	20849.78
Q Total (cfs)	141750.00	Flow (cfs)	13771.98	107259.10	20718.88
Top Width (ft)	4840.94	Top Width (ft)	516.19	625.00	3699.74
Vel Total (ft/s)	2.97	Avg. Vel. (ft/s)	1.77	5.62	0.99
Max Chl Dpth (ft)	38.76	Hydr. Depth (ft)	15.08	30.52	5.64
Conv. Total (cfs)	10325280.0	Conv. (cfs)	1003172.0	7812917.0	1509195.0
Length Wtd. (ft)	931.79	Wetted Per. (ft)	520.75	636.56	3700.49
Min Ch El (ft)	3.44	Shear (lb/sq ft)	0.18	0.35	0.07
Alpha	2.76	Stream Power (lb/ft s)	0.31	1.98	0.07
Frctn Loss (ft)	0.18	Cum Volume (acre-ft)	762.22	2962.11	3643.93
C & E Loss (ft)	0.01	Cum SA (acres)	92.07	106.60	428.93

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 8.21 Profile: PF#1

E.G. Elev (ft)	30.60	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.39	Wt. n-Val.		0.035	
W.S. Elev (ft)	30.21	Reach Len. (ft)	438.00	436.00	400.00
Crit W.S. (ft)		Flow Area (sq ft)		10864.51	
E.G. Slope (ft/ft)	0.000357	Area (sq ft)		10864.51	
Q Total (cfs)	54400.00	Flow (cfs)		54400.00	
Top Width (ft)	685.79	Top Width (ft)		685.79	
Vel Total (ft/s)	5.01	Avg. Vel. (ft/s)		5.01	
Max Chl Dpth (ft)	26.29	Hydr. Depth (ft)		15.84	
Conv. Total (cfs)	2878998.0	Conv. (cfs)		2878998.0	
Length Wtd. (ft)	435.99	Wetted Per. (ft)		696.71	
Min Ch El (ft)	3.92	Shear (lb/sq ft)		0.35	
Alpha	1.00	Stream Power (lb/ft s)		1.74	
Frctn Loss (ft)	0.16	Cum Volume (acre-ft)	0.54	1433.81	172.97
C & E Loss (ft)	0.00	Cum SA (acres)	2.10	85.77	66.31

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 8.21 Profile: PF#2

E.G. Elev (ft)	35.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.47	Wt. n-Val.	0.070	0.035	0.065
W.S. Elev (ft)	35.44	Reach Len. (ft)	438.00	436.00	400.00
Crit W.S. (ft)		Flow Area (sq ft)	25.91	14504.27	5552.00
E.G. Slope (ft/ft)	0.000318	Area (sq ft)	25.91	14504.27	5552.00
Q Total (cfs)	86300.00	Flow (cfs)	9.97	81925.41	4364.61
Top Width (ft)	3022.48	Top Width (ft)	25.23	700.00	2297.26
Vel Total (ft/s)	4.30	Avg. Vel. (ft/s)	0.38	5.65	0.79
Max Chl Dpth (ft)	31.52	Hydr. Depth (ft)	1.03	20.72	2.42
Conv. Total (cfs)	4837026.0	Conv. (cfs)	558.8	4591835.0	244632.1
Length Wtd. (ft)	434.05	Wetted Per. (ft)	25.31	712.28	2298.43
Min Ch El (ft)	3.92	Shear (lb/sq ft)	0.02	0.40	0.05
Alpha	1.64	Stream Power (lb/ft s)	0.01	2.29	0.04
Frctn Loss (ft)	0.15	Cum Volume (acre-ft)	119.22	1918.84	906.67
C & E Loss (ft)	0.00	Cum SA (acres)	57.05	92.25	238.78

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 8.21 Profile: PF 3

E.G. Elev (ft)	37.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.	0.070	0.035	0.065
W.S. Elev (ft)	37.49	Reach Len. (ft)	438.00	436.00	400.00
Crit W.S. (ft)		Flow Area (sq ft)	84.00	15942.84	11585.99
E.G. Slope (ft/ft)	0.000290	Area (sq ft)	84.00	15942.84	11585.99
Q Total (cfs)	102000.00	Flow (cfs)	58.06	91470.23	10471.70
Top Width (ft)	4289.57	Top Width (ft)	31.31	700.00	3558.26
Vel Total (ft/s)	3.69	Avg. Vel. (ft/s)	0.69	5.74	0.90
Max Chl Dpth (ft)	33.57	Hydr. Depth (ft)	2.68	22.78	3.26
Conv. Total (cfs)	5994540.0	Conv. (cfs)	3412.5	5375706.0	615421.6
Length Wtd. (ft)	432.10	Wetted Per. (ft)	31.73	712.28	3560.53
Min Ch El (ft)	3.92	Shear (lb/sq ft)	0.05	0.40	0.06
Alpha	2.17	Stream Power (lb/ft s)	0.03	2.32	0.05
Frctn Loss (ft)	0.13	Cum Volume (acre-ft)	274.97	2115.68	1504.86
C & E Loss (ft)	0.00	Cum SA (acres)	80.03	92.36	319.19

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 8.21 Profile: PF 4

E.G. Elev (ft)	42.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.35	Wt. n-Val.	0.070	0.035	0.065
W.S. Elev (ft)	42.03	Reach Len. (ft)	438.00	436.00	400.00
Crit W.S. (ft)		Flow Area (sq ft)	256.66	19121.52	29275.99
E.G. Slope (ft/ft)	0.000208	Area (sq ft)	256.66	19121.52	29275.99
Q Total (cfs)	141750.00	Flow (cfs)	247.40	104921.50	36581.11
Top Width (ft)	4706.35	Top Width (ft)	44.74	700.00	3961.60
Vel Total (ft/s)	2.91	Avg. Vel. (ft/s)	0.96	5.49	1.25
Max Chl Dpth (ft)	38.11	Hydr. Depth (ft)	5.74	27.32	7.39
Conv. Total (cfs)	9833063.0	Conv. (cfs)	17161.7	7278305.0	2537597.0
Length Wtd. (ft)	426.15	Wetted Per. (ft)	45.91	712.28	3965.23
Min Ch El (ft)	3.92	Shear (lb/sq ft)	0.07	0.35	0.10
Alpha	2.67	Stream Power (lb/ft s)	0.07	1.91	0.12
Frctn Loss (ft)	0.09	Cum Volume (acre-ft)	679.59	2553.49	3103.08
C & E Loss (ft)	0.00	Cum SA (acres)	86.31	92.42	346.27

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 8.13 Profile: PF#1

E.G. Elev (ft)	30.43	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.		0.035	0.065
W.S. Elev (ft)	29.99	Reach Len. (ft)	2310.00	2252.00	1861.00
Crit W.S. (ft)		Flow Area (sq ft)		10236.68	35.55
E.G. Slope (ft/ft)	0.000396	Area (sq ft)		10236.68	35.55
Q Total (cfs)	54400.00	Flow (cfs)		54384.54	15.46
Top Width (ft)	672.39	Top Width (ft)		634.56	37.83
Vel Total (ft/s)	5.30	Avg. Vel. (ft/s)		5.31	0.44
Max Chl Dpth (ft)	25.85	Hydr. Depth (ft)		16.13	0.94
Conv. Total (cfs)	2732490.0	Conv. (cfs)		2731713.0	776.7
Length Wtd. (ft)	2243.46	Wetted Per. (ft)		649.59	38.04
Min Ch El (ft)	4.14	Shear (lb/sq ft)		0.39	0.02
Alpha	1.01	Stream Power (lb/ft s)		2.07	0.01
Frctn Loss (ft)	0.76	Cum Volume (acre-ft)	0.54	1328.20	172.81
C & E Loss (ft)	0.04	Cum SA (acres)	2.10	79.16	66.13

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 8.13 Profile: PF#2

E.G. Elev (ft)	35.76	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.52	Wt. n-Val.		0.035	0.065
W.S. Elev (ft)	35.24	Reach Len. (ft)	2310.00	2252.00	1861.00
Crit W.S. (ft)		Flow Area (sq ft)		13693.77	5811.43
E.G. Slope (ft/ft)	0.000361	Area (sq ft)		13693.77	5811.43
Q Total (cfs)	86300.00	Flow (cfs)		81338.29	4961.72
Top Width (ft)	3145.74	Top Width (ft)		669.39	2476.36
Vel Total (ft/s)	4.42	Avg. Vel. (ft/s)		5.94	0.85
Max Chl Dpth (ft)	31.10	Hydr. Depth (ft)		20.46	2.35
Conv. Total (cfs)	4539124.0	Conv. (cfs)		4278152.0	260971.7
Length Wtd. (ft)	2210.57	Wetted Per. (ft)		685.98	2478.80
Min Ch El (ft)	4.14	Shear (lb/sq ft)		0.45	0.05
Alpha	1.70	Stream Power (lb/ft s)		2.68	0.05
Frctn Loss (ft)	0.61	Cum Volume (acre-ft)	119.09	1777.72	854.50
C & E Loss (ft)	0.08	Cum SA (acres)	56.92	85.39	216.86

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 8.13 Profile: PF 3

E.G. Elev (ft)	37.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.49	Wt. n-Val.	0.070	0.035	0.065
W.S. Elev (ft)	37.32	Reach Len. (ft)	2310.00	2252.00	1861.00
Crit W.S. (ft)		Flow Area (sq ft)	65.35	15091.38	12659.59
E.G. Slope (ft/ft)	0.000325	Area (sq ft)	65.35	15091.38	12659.59
Q Total (cfs)	102000.00	Flow (cfs)	24.84	90342.81	11632.35
Top Width (ft)	4618.89	Top Width (ft)	65.93	672.91	3880.06
Vel Total (ft/s)	3.67	Avg. Vel. (ft/s)	0.38	5.99	0.92
Max Chl Dpth (ft)	33.18	Hydr. Depth (ft)	0.99	22.43	3.26
Conv. Total (cfs)	5656982.0	Conv. (cfs)	1377.4	5010467.0	645136.9
Length Wtd. (ft)	2192.48	Wetted Per. (ft)	66.05	690.07	3883.54
Min Ch El (ft)	4.14	Shear (lb/sq ft)	0.02	0.44	0.07
Alpha	2.37	Stream Power (lb/ft s)	0.01	2.66	0.06
Frctn Loss (ft)	0.53	Cum Volume (acre-ft)	274.22	1960.37	1393.54
C & E Loss (ft)	0.08	Cum SA (acres)	79.54	85.49	285.04

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 8.13 Profile: PF 4

E.G. Elev (ft)	42.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.34	Wt. n-Val.	0.070	0.035	0.065
W.S. Elev (ft)	41.95	Reach Len. (ft)	2310.00	2252.00	1861.00
Crit W.S. (ft)		Flow Area (sq ft)	768.09	18216.70	31879.63
E.G. Slope (ft/ft)	0.000214	Area (sq ft)	768.09	18216.70	31879.63
Q Total (cfs)	141750.00	Flow (cfs)	643.22	100054.20	41052.61
Top Width (ft)	5061.38	Top Width (ft)	172.90	675.00	4213.48
Vel Total (ft/s)	2.79	Avg. Vel. (ft/s)	0.84	5.49	1.29
Max Chl Dpth (ft)	37.81	Hydr. Depth (ft)	4.44	26.99	7.57
Conv. Total (cfs)	9691289.0	Conv. (cfs)	43976.1	6840592.0	2806721.0
Length Wtd. (ft)	2137.70	Wetted Per. (ft)	173.40	692.51	4218.01
Min Ch El (ft)	4.14	Shear (lb/sq ft)	0.06	0.35	0.10
Alpha	2.80	Stream Power (lb/ft s)	0.05	1.93	0.13
Frctn Loss (ft)	0.35	Cum Volume (acre-ft)	674.44	2366.62	2822.29
C & E Loss (ft)	0.05	Cum SA (acres)	85.22	85.54	308.73

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 7.69 Profile: PF#1

E.G. Elev (ft)	29.62	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.29	Wt. n-Val.	0.070	0.035	0.065
W.S. Elev (ft)	29.33	Reach Len. (ft)	1900.00	2950.00	3250.00
Crit W.S. (ft)		Flow Area (sq ft)	11.21	11700.82	2932.67
E.G. Slope (ft/ft)	0.000295	Area (sq ft)	11.21	11700.82	2932.67
Q Total (cfs)	54400.00	Flow (cfs)	1.65	52036.59	2361.76
Top Width (ft)	1925.39	Top Width (ft)	43.49	768.39	1113.50
Vel Total (ft/s)	3.71	Avg. Vel. (ft/s)	0.15	4.45	0.81
Max Chl Dpth (ft)	34.09	Hydr. Depth (ft)	0.26	15.23	2.63
Conv. Total (cfs)	3168423.0	Conv. (cfs)	96.3	3030770.0	137556.0
Length Wtd. (ft)	2956.50	Wetted Per. (ft)	43.51	776.43	1115.82
Min Ch El (ft)	-4.76	Shear (lb/sq ft)	0.00	0.28	0.05
Alpha	1.37	Stream Power (lb/ft s)	0.00	1.23	0.04
Frctn Loss (ft)	0.79	Cum Volume (acre-ft)	0.24	761.13	109.40
C & E Loss (ft)	0.01	Cum SA (acres)	0.95	42.90	41.54

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 7.69 Profile: PF#2

E.G. Elev (ft)	35.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.26	Wt. n-Val.	0.070	0.035	0.065
W.S. Elev (ft)	34.81	Reach Len. (ft)	1900.00	2950.00	3250.00
Crit W.S. (ft)		Flow Area (sq ft)	1618.67	16223.70	12438.87
E.G. Slope (ft/ft)	0.000216	Area (sq ft)	1618.67	16223.70	12438.87
Q Total (cfs)	86300.00	Flow (cfs)	956.04	71873.20	13470.77
Top Width (ft)	4250.14	Top Width (ft)	621.68	850.00	2778.45
Vel Total (ft/s)	2.85	Avg. Vel. (ft/s)	0.59	4.43	1.08
Max Chl Dpth (ft)	39.57	Hydr. Depth (ft)	2.60	19.09	4.48
Conv. Total (cfs)	5866752.0	Conv. (cfs)	64992.2	4886005.0	915755.1
Length Wtd. (ft)	2961.67	Wetted Per. (ft)	622.23	858.69	2784.62
Min Ch El (ft)	-4.76	Shear (lb/sq ft)	0.04	0.26	0.06
Alpha	2.04	Stream Power (lb/ft s)	0.02	1.13	0.07
Frctn Loss (ft)	0.74	Cum Volume (acre-ft)	76.17	1004.37	464.64
C & E Loss (ft)	0.04	Cum SA (acres)	40.44	46.12	104.61

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 7.69 Profile: PF 3

E.G. Elev (ft)	37.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.	0.070	0.035	0.065
W.S. Elev (ft)	36.97	Reach Len. (ft)	1900.00	2950.00	3250.00
Crit W.S. (ft)		Flow Area (sq ft)	2972.09	18056.21	19016.81
E.G. Slope (ft/ft)	0.000187	Area (sq ft)	2972.09	18056.21	19016.81
Q Total (cfs)	102000.00	Flow (cfs)	2415.25	79803.56	19781.19
Top Width (ft)	4865.14	Top Width (ft)	633.07	850.00	3382.07
Vel Total (ft/s)	2.55	Avg. Vel. (ft/s)	0.81	4.42	1.04
Max Chl Dpth (ft)	41.73	Hydr. Depth (ft)	4.69	21.24	5.62
Conv. Total (cfs)	7464360.0	Conv. (cfs)	176747.7	5840025.0	1447587.0
Length Wtd. (ft)	2945.08	Wetted Per. (ft)	633.82	858.69	3389.41
Min Ch El (ft)	-4.76	Shear (lb/sq ft)	0.05	0.25	0.07
Alpha	2.39	Stream Power (lb/ft s)	0.04	1.08	0.07
Frctn Loss (ft)	0.69	Cum Volume (acre-ft)	193.68	1103.52	716.89
C & E Loss (ft)	0.04	Cum SA (acres)	61.01	46.12	129.91

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 7.69 Profile: PF 4

E.G. Elev (ft)	41.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.19	Wt. n-Val.	0.070	0.035	0.065
W.S. Elev (ft)	41.71	Reach Len. (ft)	1900.00	2950.00	3250.00
Crit W.S. (ft)		Flow Area (sq ft)	6068.55	22087.12	36028.72
E.G. Slope (ft/ft)	0.000129	Area (sq ft)	6068.55	22087.12	36028.72
Q Total (cfs)	141750.00	Flow (cfs)	6261.67	92638.12	42850.21
Top Width (ft)	5189.52	Top Width (ft)	682.27	850.00	3657.25
Vel Total (ft/s)	2.21	Avg. Vel. (ft/s)	1.03	4.19	1.19
Max Chl Dpth (ft)	46.47	Hydr. Depth (ft)	8.89	25.98	9.85
Conv. Total (cfs)	12502660.0	Conv. (cfs)	552293.1	8170882.0	3779482.0
Length Wtd. (ft)	2892.34	Wetted Per. (ft)	683.60	858.69	3665.19
Min Ch El (ft)	-4.76	Shear (lb/sq ft)	0.07	0.21	0.08
Alpha	2.45	Stream Power (lb/ft s)	0.07	0.87	0.09
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)	493.16	1324.79	1371.68
C & E Loss (ft)	0.05	Cum SA (acres)	62.54	46.12	140.60

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 7.13 Profile: PF#1

E.G. Elev (ft)	28.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.		0.035	
W.S. Elev (ft)	28.43	Reach Len. (ft)			
Crit W.S. (ft)	11.44	Flow Area (sq ft)		10777.10	
E.G. Slope (ft/ft)	0.000241	Area (sq ft)		10777.10	
Q Total (cfs)	54400.00	Flow (cfs)		54400.00	
Top Width (ft)	498.48	Top Width (ft)		498.48	
Vel Total (ft/s)	5.05	Avg. Vel. (ft/s)		5.05	
Max Chl Dpth (ft)	31.29	Hydr. Depth (ft)		21.62	
Conv. Total (cfs)	3501720.0	Conv. (cfs)		3501720.0	
Length Wtd. (ft)		Wetted Per. (ft)		509.01	
Min Ch El (ft)	-2.86	Shear (lb/sq ft)		0.32	
Alpha	1.00	Stream Power (lb/ft s)		1.61	
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 7.13 Profile: PF#2

E.G. Elev (ft)	34.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.62	Wt. n-Val.	0.070	0.035	0.060
W.S. Elev (ft)	33.67	Reach Len. (ft)			
Crit W.S. (ft)	14.93	Flow Area (sq ft)	1873.85	13437.60	16.46
E.G. Slope (ft/ft)	0.000296	Area (sq ft)	1873.85	13437.60	16.46
Q Total (cfs)	86300.00	Flow (cfs)	976.13	85318.55	5.30
Top Width (ft)	1770.23	Top Width (ft)	1232.41	512.00	25.81
Vel Total (ft/s)	5.63	Avg. Vel. (ft/s)	0.52	6.35	0.32
Max Chl Dpth (ft)	36.53	Hydr. Depth (ft)	1.52	26.25	0.64
Conv. Total (cfs)	5018186.0	Conv. (cfs)	56760.3	4961117.0	308.3
Length Wtd. (ft)		Wetted Per. (ft)	1232.66	523.99	25.88
Min Ch El (ft)	-2.86	Shear (lb/sq ft)	0.03	0.47	0.01
Alpha	1.26	Stream Power (lb/ft s)	0.01	3.01	0.00
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 7.13 Profile: PF 3

E.G. Elev (ft)	36.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.67	Wt. n-Val.	0.070	0.035	0.060
W.S. Elev (ft)	35.81	Reach Len. (ft)			
Crit W.S. (ft)	16.31	Flow Area (sq ft)	5908.87	14533.28	200.20
E.G. Slope (ft/ft)	0.000298	Area (sq ft)	5908.87	14533.28	200.20
Q Total (cfs)	102000.00	Flow (cfs)	4230.50	97634.21	135.29
Top Width (ft)	2776.70	Top Width (ft)	2164.44	512.00	100.26
Vel Total (ft/s)	4.94	Avg. Vel. (ft/s)	0.72	6.72	0.68
Max Chl Dpth (ft)	38.67	Hydr. Depth (ft)	2.73	28.39	2.00
Conv. Total (cfs)	5906283.0	Conv. (cfs)	244966.1	5653483.0	7834.2
Length Wtd. (ft)		Wetted Per. (ft)	2164.95	523.99	100.80
Min Ch El (ft)	-2.86	Shear (lb/sq ft)	0.05	0.52	0.04
Alpha	1.77	Stream Power (lb/ft s)	0.04	3.47	0.02
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

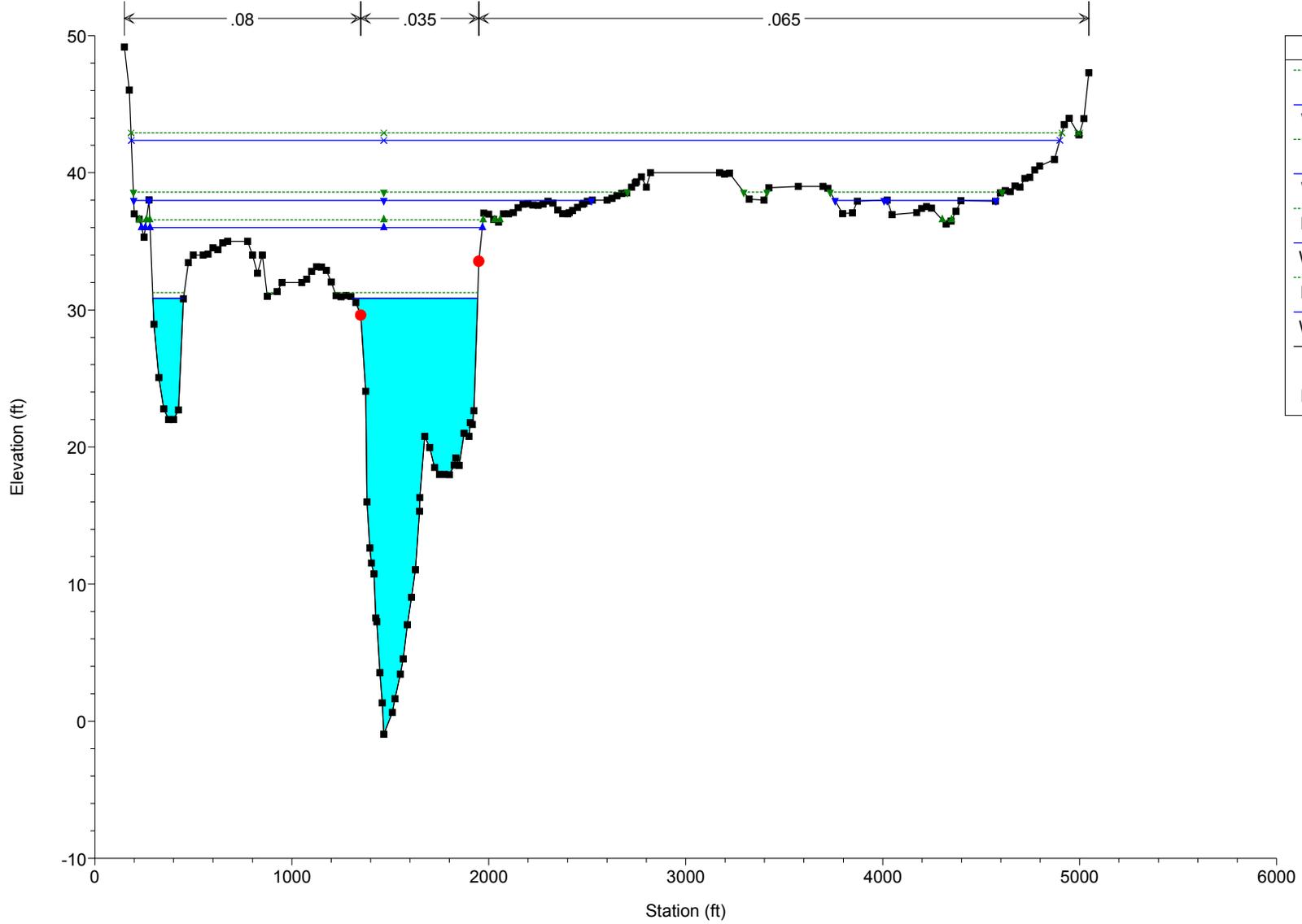
Plan: Lewis River CE GR RIVER-1 Reach-1 RS: 7.13 Profile: PF 4

E.G. Elev (ft)	41.34	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.64	Wt. n-Val.	0.070	0.035	0.060
W.S. Elev (ft)	40.70	Reach Len. (ft)			
Crit W.S. (ft)	19.40	Flow Area (sq ft)	16544.22	17036.96	740.77
E.G. Slope (ft/ft)	0.000260	Area (sq ft)	16544.22	17036.96	740.77
Q Total (cfs)	141750.00	Flow (cfs)	21840.51	118890.60	1018.89
Top Width (ft)	2809.16	Top Width (ft)	2185.40	512.00	111.76
Vel Total (ft/s)	4.13	Avg. Vel. (ft/s)	1.32	6.98	1.38
Max Chl Dpth (ft)	43.56	Hydr. Depth (ft)	7.57	33.28	6.63
Conv. Total (cfs)	8784945.0	Conv. (cfs)	1353564.0	7368235.0	63145.6
Length Wtd. (ft)		Wetted Per. (ft)	2186.47	523.99	116.00
Min Ch El (ft)	-2.86	Shear (lb/sq ft)	0.12	0.53	0.10
Alpha	2.41	Stream Power (lb/ft s)	0.16	3.69	0.14
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

Lewis River 7.69 to 8.61 Plan: Lewis River 7.69 to 8.61 GeoRef 5/7/2021

Flow: Lewis River 7.13 to 8.61

RS = 8.61 Section "W"

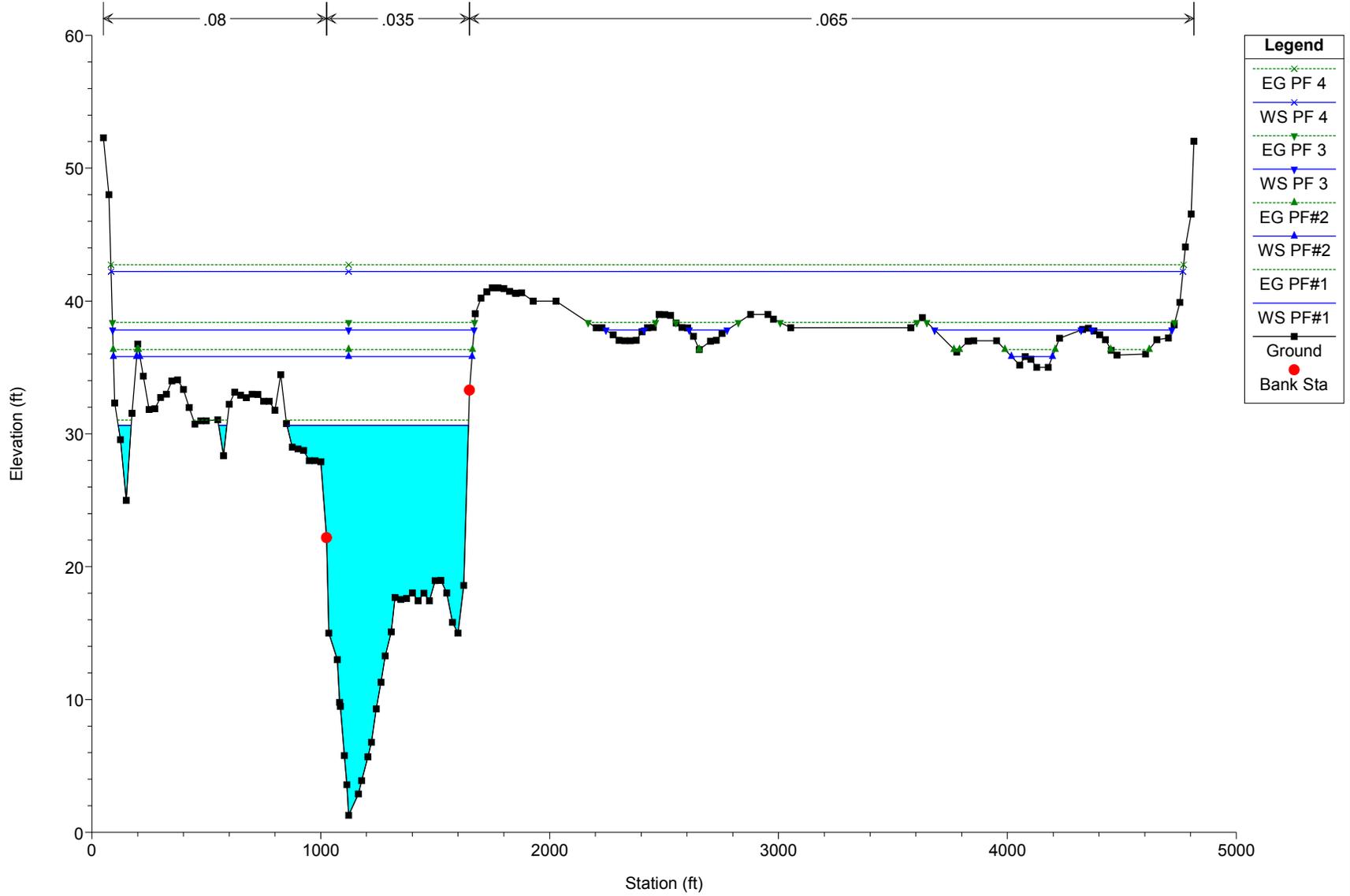


Legend	
EG PF 4	Green dashed line with 'x' markers
WS PF 4	Blue solid line with 'x' markers
EG PF 3	Green dashed line with 'v' markers
WS PF 3	Blue solid line with 'v' markers
EG PF#2	Green dashed line with '^' markers
WS PF#2	Blue solid line with '^' markers
EG PF#1	Green dashed line with 'x' markers
WS PF#1	Blue solid line with 'x' markers
Ground	Black line with square markers
Bank Sta	Red circle

Lewis River 7.69 to 8.61 Plan: Lewis River 7.69 to 8.61 GeoRef 5/7/2021

Flow: Lewis River 7.13 to 8.61

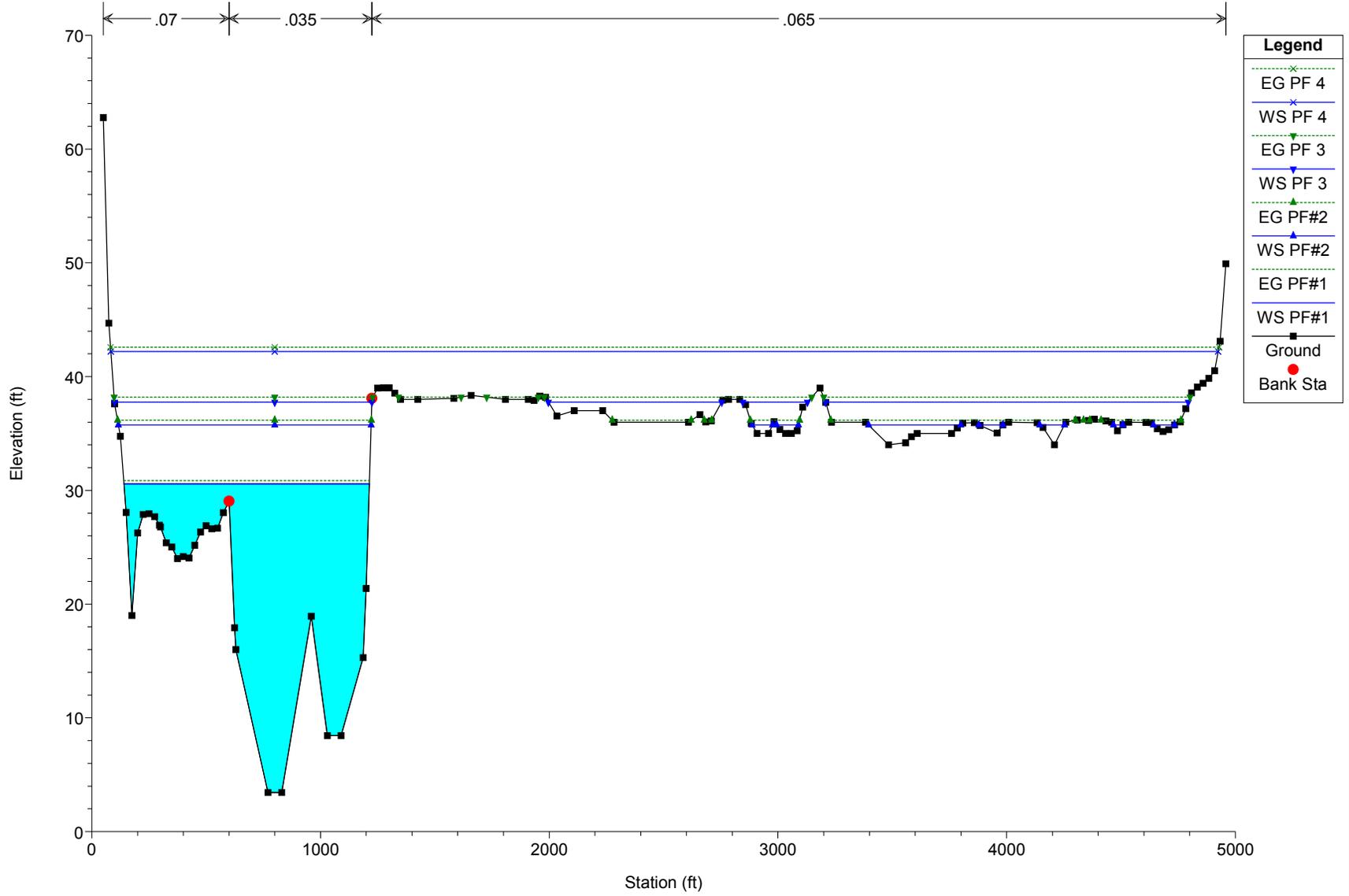
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Lewis River 7.69 to 8.61 Plan: Lewis River 7.69 to 8.61 GeoRef 5/7/2021

Flow: Lewis River 7.13 to 8.61

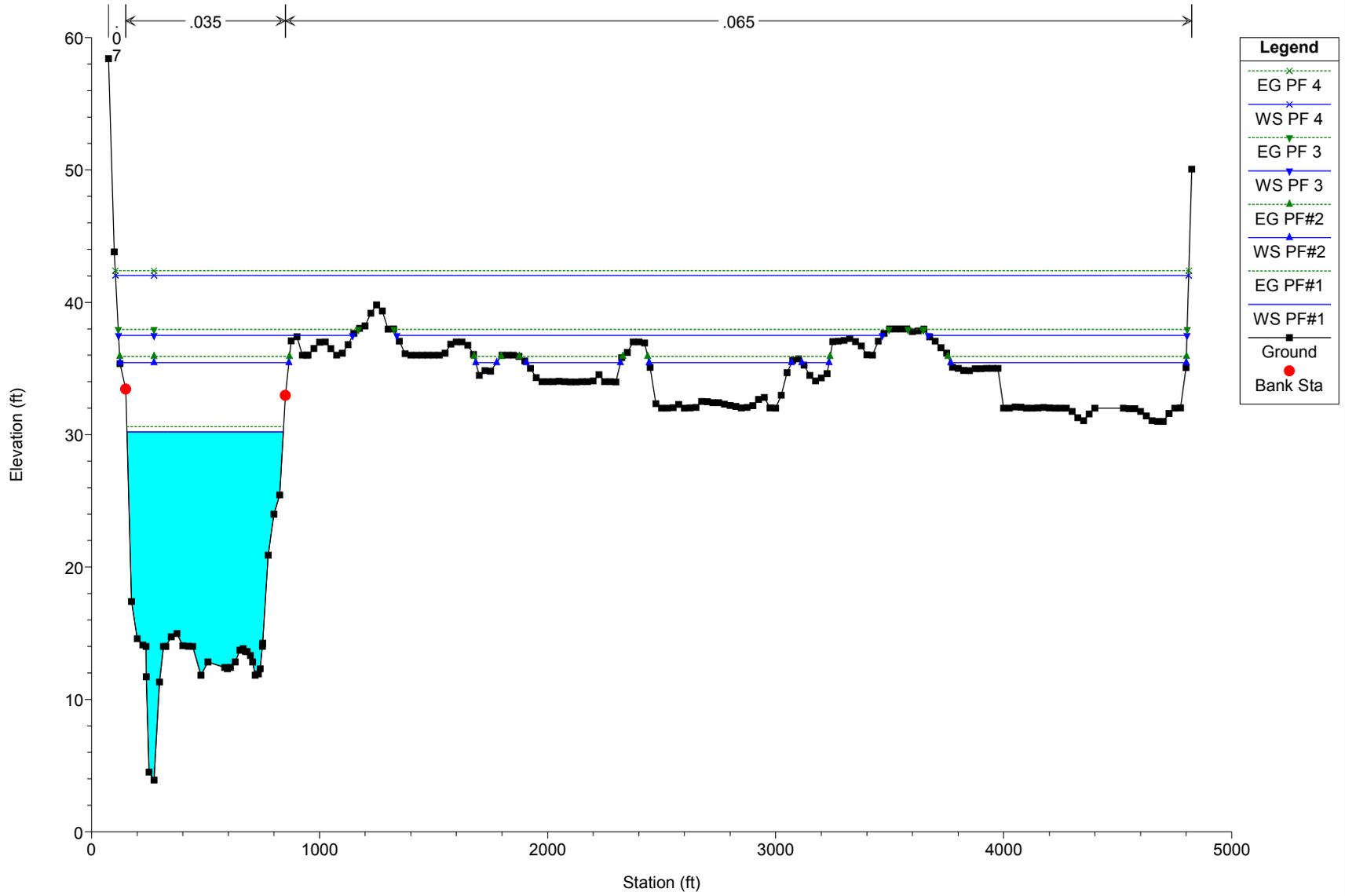
RS = 8.39 Section "V"



Lewis River 7.69 to 8.61 Plan: Lewis River 7.69 to 8.61 GeoRef 5/7/2021

Flow: Lewis River 7.13 to 8.61

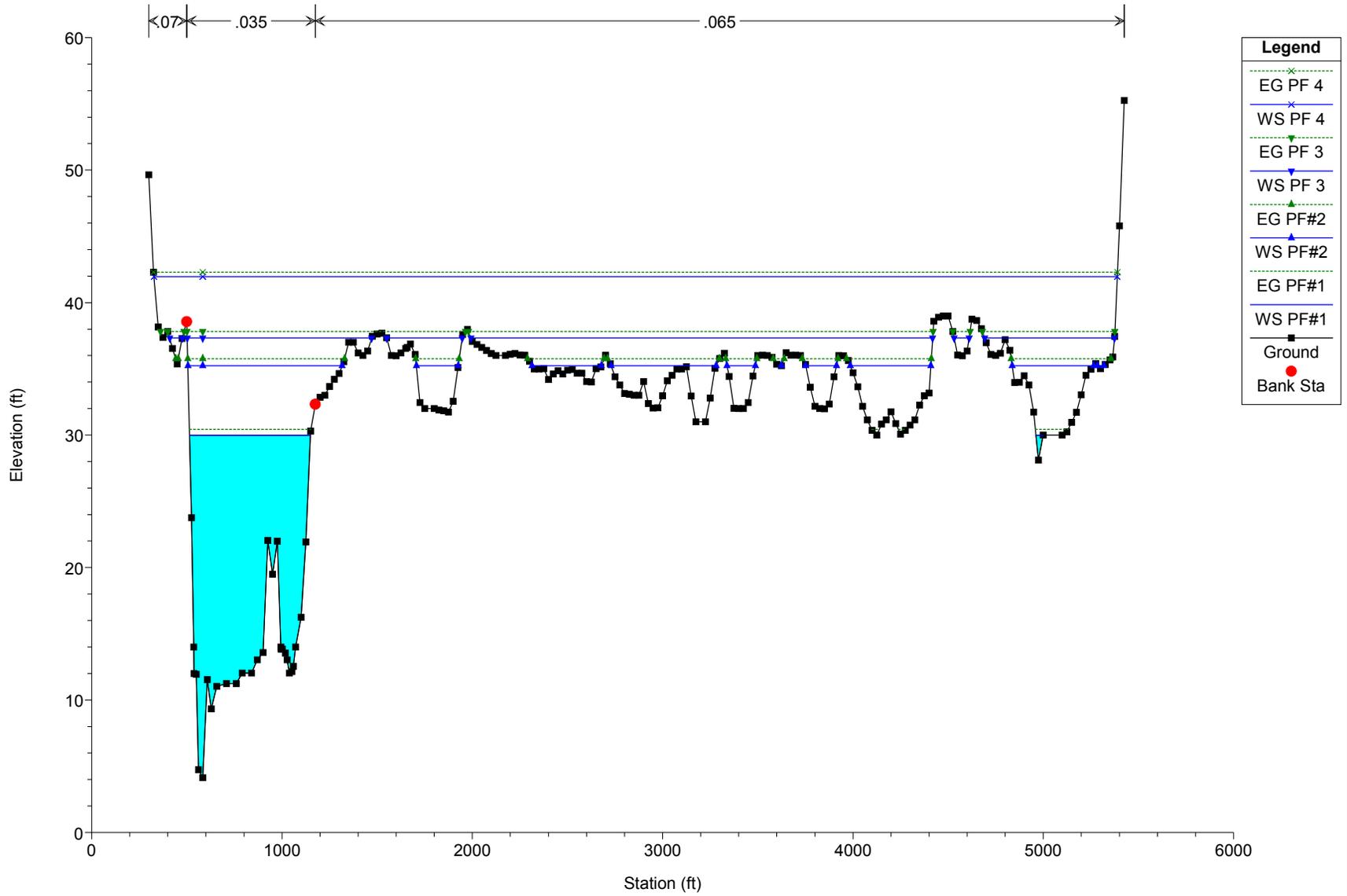
RS = 8.21 Section "1"



Lewis River 7.69 to 8.61 Plan: Lewis River 7.69 to 8.61 GeoRef 5/7/2021

Flow: Lewis River 7.13 to 8.61

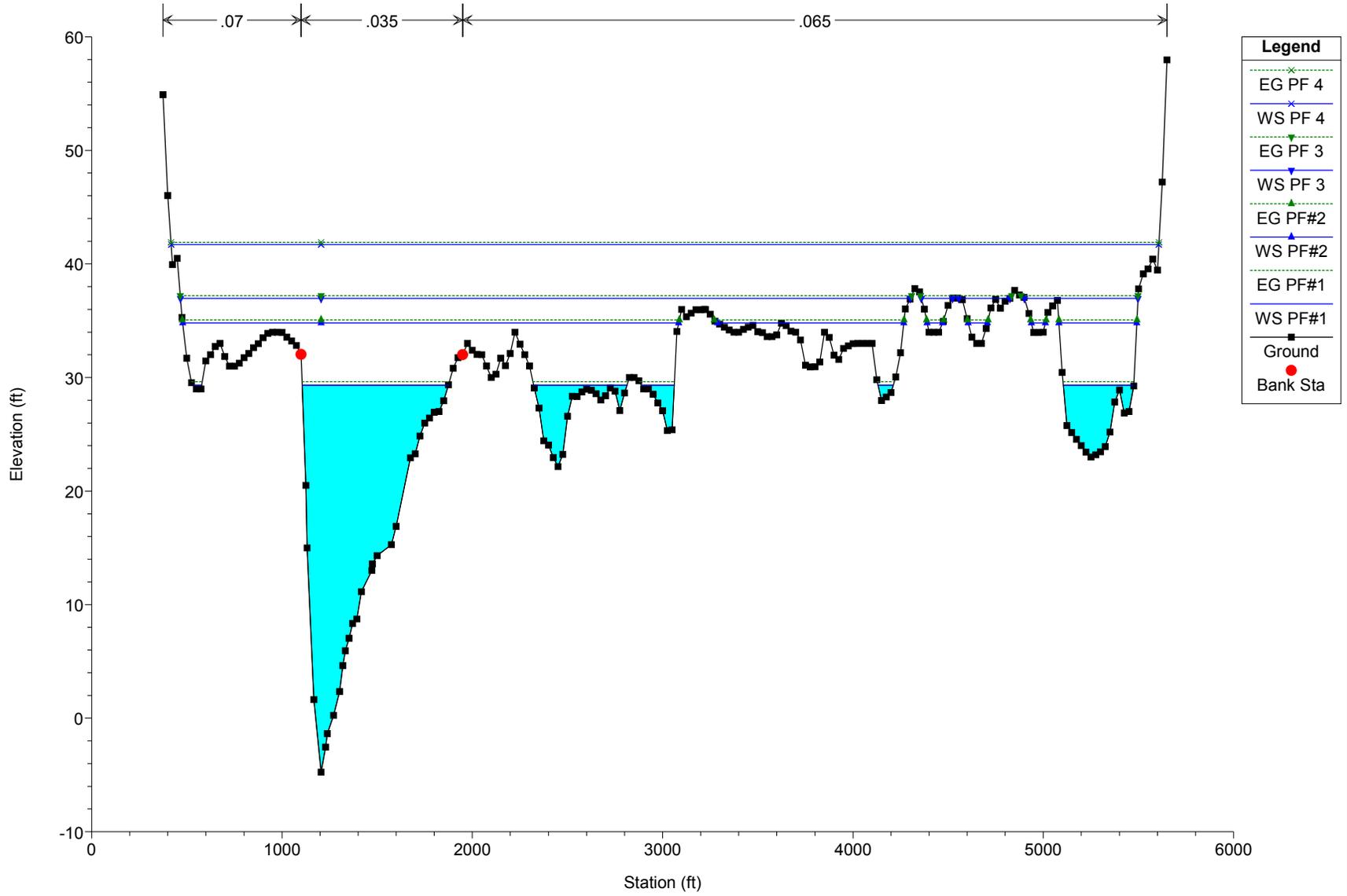
RS = 8.13 Section "U"



Lewis River 7.69 to 8.61 Plan: Lewis River 7.69 to 8.61 GeoRef 5/7/2021

Flow: Lewis River 7.13 to 8.61

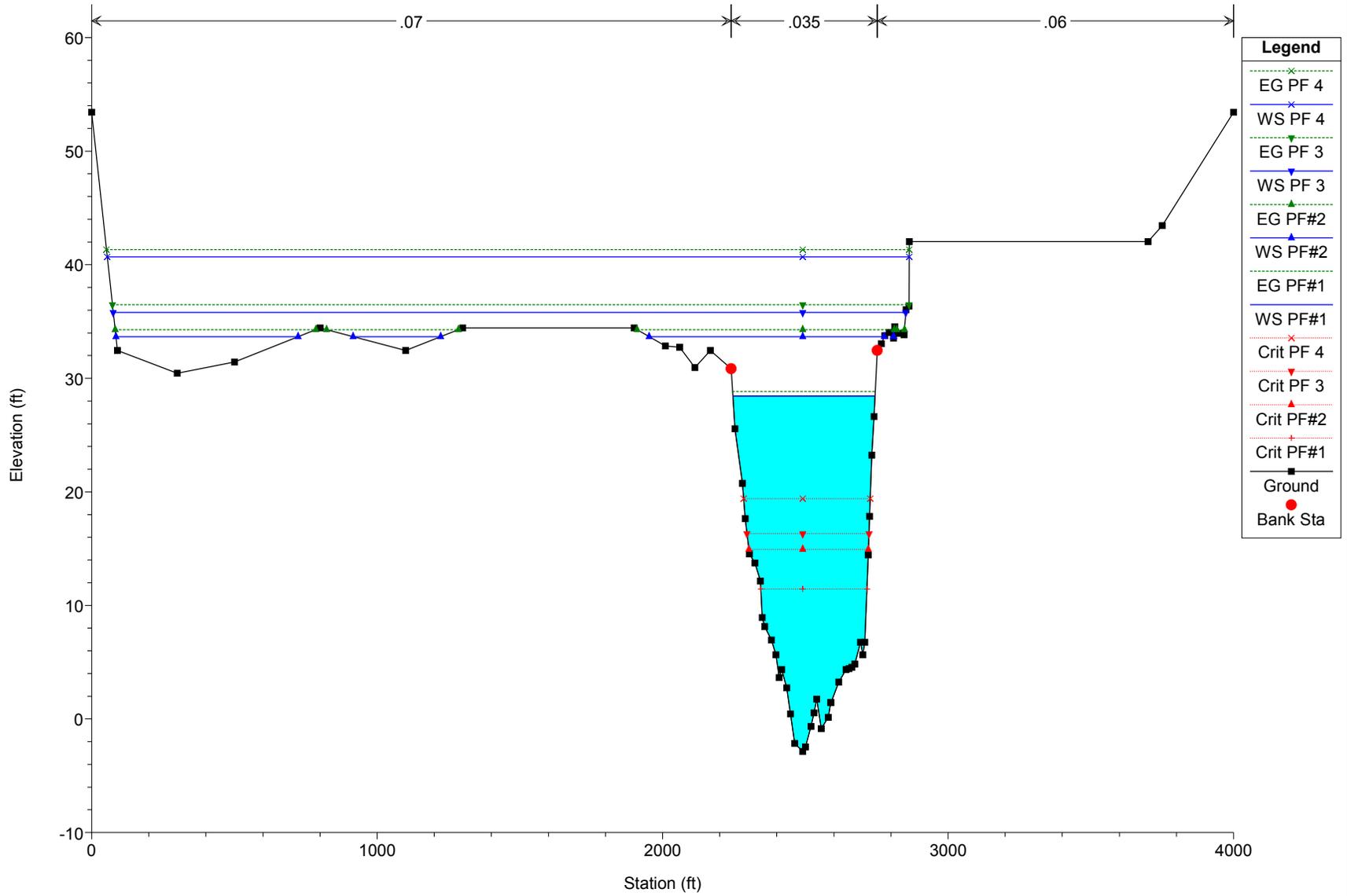
RS = 7.69 Section "T"



Lewis River 7.69 to 8.61 Plan: Lewis River 7.69 to 8.61 GeoRef 5/7/2021

Flow: Lewis River 7.13 to 8.61

RS = 7.13 Section "S"



APPENDIX C: CORRECTED FLOODWAY HYDRAULIC MODEL

Model Info – Corrected Floodway

Corrected Floodway.TableE1

Corrected Floodway.TableE2

Corrected Floodway.TableE3

Corrected Floodway.TableS1

Corrected Floodway.TableS2

Corrected Floodway.TableXSDetail

Corrected Floodway.XSPlot

LEWIS RIVER: CORRECTED FLOODWAY Hydraulic Model

Project: Lewis River 7.69 to 8.61
Plan: Lewis River Floodway 7.69 to 8.61 GR
Geometry: Lewis River 7.69 to 8.61 – 2018 Lidar2
Steady Flow: Lewis River 7.13 to 8.61 Floodway

May 13, 2021

Paul R. Wirfs, P.E.

Ground Topo from Washington FEMA 3DEP 2018 LiDAR

Technical Data Report data set and extracted by Minister & Glaeser Surveying, Inc.

Bathymetry from 1978 HEC-2 Model with Datum conversion.

Boundary conditions from 1978 HEC-2 Model water surface elevations with Datum conversions.

Datum was converted from NGV29 to NAVD88 by adding 3.439ft factor as mentioned in the FIS.

HEC-RAS Plan: Floodway GR River: RIVER-1 Reach: Reach-1

Reach	River Sta	Profile	W.S. Elev (ft)	Prof Delta WS (ft)	E.G. Elev (ft)	Top Width Act (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Enc Sta L (ft)	Ch Sta L (ft)	Ch Sta R (ft)	Enc Sta R (ft)
Reach-1	8.61	PF#1	37.99		38.60	3125.27	8114.17	93613.73	272.10		1350.00	1950.00	
Reach-1	8.61	PF#2	38.99	1.00	39.71	600.00		102000.00		1350.00	1350.00	1950.00	1950.00
Reach-1	8.50	PF#1	37.82		38.39	2902.05	6897.80	94390.47	711.73		1025.00	1650.00	
Reach-1	8.50	PF#2	38.82	1.00	39.48	625.00		102000.00		1025.00	1025.00	1650.00	1650.00
Reach-1	8.39	PF#1	37.76		38.19	3750.60	8717.48	90518.31	2764.21		600.00	1225.00	
Reach-1	8.39	PF#2	38.71	0.95	39.28	625.00		102000.00		600.00	600.00	1225.00	1225.00
Reach-1	8.21	PF#1	37.49		37.95	4289.57	58.06	91470.25	10471.68		150.00	850.00	
Reach-1	8.21	PF#2	38.42	0.93	39.01	725.00		101925.30	74.74	150.00	150.00	850.00	875.00
Reach-1	8.13	PF#1	37.32		37.82	4618.89	24.84	90342.83	11632.33		500.00	1175.00	
Reach-1	8.13	PF#2	38.20	0.87	38.85	674.38		102000.00		500.00	500.00	1175.00	1175.00
Reach-1	7.69	PF#1	36.97		37.21	4865.14	2415.25	79803.62	19781.13		1100.00	1950.00	
Reach-1	7.69	PF#2	37.76	0.80	38.12	1550.00		93482.09	8517.91	1100.00	1100.00	1950.00	2650.00
Reach-1	7.13	PF#1	35.81		36.48	2776.70	4230.50	97634.21	135.29		2240.00	2752.00	
Reach-1	7.13	PF#2	36.64	0.83	37.33	1052.00	1513.85	100486.10		1700.00	2240.00	2752.00	2752.00

HEC-RAS Plan: Floodway GR River: RIVER-1 Reach: Reach-1

Reach	River Sta	Profile	Prof Delta WS (ft)	Top Wdth Act (ft)	K Perc L	Enc Sta L (ft)	Dist Center L (ft)	Center Station (ft)	Dist Center R (ft)	Enc Sta R (ft)	K Perc R	Enc WD (ft)
Reach-1	8.61	PF#1		3125.27				1650.00				
Reach-1	8.61	PF#2	1.00	600.00	9.13	1350.00	300.00	1650.00	300.00	1950.00	1.19	600.00
Reach-1	8.50	PF#1		2902.05				1337.50				
Reach-1	8.50	PF#2	1.00	625.00	7.84	1025.00	312.50	1337.50	312.50	1650.00	1.76	625.00
Reach-1	8.39	PF#1		3750.60				912.50				
Reach-1	8.39	PF#2	0.95	625.00	8.96	600.00	312.50	912.50	312.50	1225.00	4.62	625.00
Reach-1	8.21	PF#1		4289.57				500.00				
Reach-1	8.21	PF#2	0.93	725.00	0.08	150.00	350.00	500.00	375.00	875.00	13.04	725.00
Reach-1	8.13	PF#1		4618.89				837.50				
Reach-1	8.13	PF#2	0.87	674.38	0.06	500.00	337.50	837.50	337.50	1175.00	14.89	675.00
Reach-1	7.69	PF#1		4865.14				1525.00				
Reach-1	7.69	PF#2	0.80	1550.00	2.82	1100.00	425.00	1525.00	1125.00	2650.00	13.70	1550.00
Reach-1	7.13	PF#1		2776.70				2496.00				
Reach-1	7.13	PF#2	0.83	1052.00	4.62	1700.00	796.00	2496.00	256.00	2752.00	0.21	1052.00

HEC-RAS Plan: Floodway GR River: RIVER-1 Reach: Reach-1

Reach	River Sta	Profile	Top Width Act (ft)	Area (sq ft)	Vel Total (ft/s)	W.S. Elev (ft)	Base WS (ft)	Prof Delta WS (ft)
Reach-1	8.61	PF#1	3125.27	22140.17	4.61	37.99	37.99	
Reach-1	8.61	PF#2	600.00	14966.88	6.82	38.99	37.99	1.00
Reach-1	8.50	PF#1	2902.05	22568.79	4.52	37.82	37.82	
Reach-1	8.50	PF#2	625.00	15654.60	6.52	38.82	37.82	1.00
Reach-1	8.39	PF#1	3750.60	26907.22	3.79	37.76	37.76	
Reach-1	8.39	PF#2	625.00	16896.51	6.04	38.71	37.76	0.95
Reach-1	8.21	PF#1	4289.57	27612.81	3.69	37.49	37.49	
Reach-1	8.21	PF#2	725.00	16680.21	6.12	38.42	37.49	0.93
Reach-1	8.13	PF#1	4618.89	27816.30	3.67	37.32	37.32	
Reach-1	8.13	PF#2	674.38	15680.58	6.50	38.20	37.32	0.87
Reach-1	7.69	PF#1	4865.14	40045.05	2.55	36.97	36.97	
Reach-1	7.69	PF#2	1550.00	24696.60	4.13	37.76	36.97	0.80
Reach-1	7.13	PF#1	2776.70	20642.35	4.94	35.81	35.81	
Reach-1	7.13	PF#2	1052.00	16806.90	6.07	36.64	35.81	0.83

HEC-RAS Plan: Floodway GR River: RIVER-1 Reach: Reach-1

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach-1	8.61	PF#1	102000.00	-0.96	37.99		38.60	0.000349	6.51	22140.17	3125.27	0.23
Reach-1	8.61	PF#2	102000.00	-0.96	38.99		39.71	0.000374	6.82	14966.88	600.00	0.24
Reach-1	8.50	PF#1	102000.00	1.29	37.82		38.39	0.000321	6.28	22568.79	2902.05	0.23
Reach-1	8.50	PF#2	102000.00	1.29	38.82		39.48	0.000343	6.52	15654.60	625.00	0.23
Reach-1	8.39	PF#1	102000.00	3.44	37.76		38.19	0.000226	5.55	26907.22	3750.60	0.19
Reach-1	8.39	PF#2	102000.00	3.44	38.71		39.28	0.000261	6.04	16896.51	625.00	0.20
Reach-1	8.21	PF#1	102000.00	3.92	37.49		37.95	0.000290	5.74	27612.81	4289.57	0.21
Reach-1	8.21	PF#2	102000.00	3.92	38.42		39.01	0.000317	6.14	16680.21	725.00	0.22
Reach-1	8.13	PF#1	102000.00	4.14	37.32		37.82	0.000325	5.99	27816.30	4618.89	0.22
Reach-1	8.13	PF#2	102000.00	4.14	38.20		38.85	0.000370	6.50	15680.58	674.38	0.24
Reach-1	7.69	PF#1	102000.00	-4.76	36.97		37.21	0.000187	4.42	40045.05	4865.14	0.17
Reach-1	7.69	PF#2	102000.00	-4.76	37.76		38.12	0.000229	4.99	24696.60	1550.00	0.19
Reach-1	7.13	PF#1	102000.00	-2.86	35.81	16.29	36.48	0.000298	6.72	20642.35	2776.70	0.22
Reach-1	7.13	PF#2	102000.00	-2.86	36.64	16.29	37.33	0.000290	6.72	16806.90	1052.00	0.22

HEC-RAS Plan: Floodway GR River: RIVER-1 Reach: Reach-1

Reach	River Sta	Profile	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
Reach-1	8.61	PF#1	38.60	37.99	0.61	0.20	0.01	8114.17	93613.73	272.10	3125.27
Reach-1	8.61	PF#2	39.71	38.99	0.72	0.22	0.02		102000.00		600.00
Reach-1	8.50	PF#1	38.39	37.82	0.57	0.15	0.04	6897.80	94390.47	711.73	2902.05
Reach-1	8.50	PF#2	39.48	38.82	0.66	0.17	0.03		102000.00		625.00
Reach-1	8.39	PF#1	38.19	37.76	0.43	0.24	0.00	8717.48	90518.31	2764.21	3750.60
Reach-1	8.39	PF#2	39.28	38.71	0.57	0.27	0.00		102000.00		625.00
Reach-1	8.21	PF#1	37.95	37.49	0.46	0.13	0.00	58.06	91470.25	10471.68	4289.57
Reach-1	8.21	PF#2	39.01	38.42	0.59	0.15	0.01		101925.30	74.74	725.00
Reach-1	8.13	PF#1	37.82	37.32	0.49	0.53	0.08	24.84	90342.83	11632.33	4618.89
Reach-1	8.13	PF#2	38.85	38.20	0.66	0.64	0.09		102000.00		674.38
Reach-1	7.69	PF#1	37.21	36.97	0.24	0.69	0.04	2415.25	79803.62	19781.13	4865.14
Reach-1	7.69	PF#2	38.12	37.76	0.36	0.76	0.03		93482.09	8517.91	1550.00
Reach-1	7.13	PF#1	36.48	35.81	0.67			4230.50	97634.21	135.29	2776.70
Reach-1	7.13	PF#2	37.33	36.64	0.69			1513.85	100486.10		1052.00

Plan: Floodway GR RIVER-1 Reach-1 RS: 8.61 Profile: PF#1

E.G. Elev (ft)	38.60	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.61	Wt. n-Val.	0.080	0.035	0.065
W.S. Elev (ft)	37.99	Reach Len. (ft)	629.00	602.00	499.00
Crit W.S. (ft)		Flow Area (sq ft)	6919.88	14369.07	851.22
E.G. Slope (ft/ft)	0.000349	Area (sq ft)	6919.88	14369.07	851.22
Q Total (cfs)	102000.00	Flow (cfs)	8114.17	93613.73	272.10
Top Width (ft)	3125.27	Top Width (ft)	1152.41	600.00	1372.86
Vel Total (ft/s)	4.61	Avg. Vel. (ft/s)	1.17	6.51	0.32
Max Chl Dpth (ft)	38.95	Hydr. Depth (ft)	6.00	23.95	0.62
Conv. Total (cfs)	5459311.0	Conv. (cfs)	434292.1	5010456.0	14563.5
Length Wtd. (ft)	603.49	Wetted Per. (ft)	1156.56	610.45	1373.21
Min Ch El (ft)	-0.96	Shear (lb/sq ft)	0.13	0.51	0.01
Alpha	1.84	Stream Power (lb/ft s)	0.15	3.34	0.00
Frctn Loss (ft)	0.20	Cum Volume (acre-ft)	501.54	2867.36	1736.25
C & E Loss (ft)	0.01	Cum SA (acres)	109.94	123.11	424.34

Plan: Floodway GR RIVER-1 Reach-1 RS: 8.61 Profile: PF#2

E.G. Elev (ft)	39.71	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.72	Wt. n-Val.		0.035	
W.S. Elev (ft)	38.99	Reach Len. (ft)	629.00	602.00	499.00
Crit W.S. (ft)		Flow Area (sq ft)		14966.88	
E.G. Slope (ft/ft)	0.000374	Area (sq ft)		14966.88	
Q Total (cfs)	102000.00	Flow (cfs)		102000.00	
Top Width (ft)	600.00	Top Width (ft)		600.00	
Vel Total (ft/s)	6.82	Avg. Vel. (ft/s)		6.82	
Max Chl Dpth (ft)	39.95	Hydr. Depth (ft)		24.94	
Conv. Total (cfs)	5277625.0	Conv. (cfs)		5277625.0	
Length Wtd. (ft)	602.00	Wetted Per. (ft)		625.26	
Min Ch El (ft)	-0.96	Shear (lb/sq ft)		0.56	
Alpha	1.00	Stream Power (lb/ft s)		3.80	
Frctn Loss (ft)	0.22	Cum Volume (acre-ft)	40.32	2973.29	351.17
C & E Loss (ft)	0.02	Cum SA (acres)	11.78	123.16	41.45

Plan: Floodway GR RIVER-1 Reach-1 RS: 8.50 Profile: PF#1

E.G. Elev (ft)	38.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.	0.080	0.035	0.065
W.S. Elev (ft)	37.82	Reach Len. (ft)	570.00	566.00	502.00
Crit W.S. (ft)		Flow Area (sq ft)	6010.51	15030.16	1528.11
E.G. Slope (ft/ft)	0.000321	Area (sq ft)	6010.51	15030.16	1528.11
Q Total (cfs)	102000.00	Flow (cfs)	6897.80	94390.47	711.73
Top Width (ft)	2902.05	Top Width (ft)	933.75	625.00	1343.30
Vel Total (ft/s)	4.52	Avg. Vel. (ft/s)	1.15	6.28	0.47
Max Chl Dpth (ft)	36.53	Hydr. Depth (ft)	6.44	24.05	1.14
Conv. Total (cfs)	5690208.0	Conv. (cfs)	384802.8	5265700.0	39704.8
Length Wtd. (ft)	565.22	Wetted Per. (ft)	939.25	634.04	1344.02
Min Ch El (ft)	1.29	Shear (lb/sq ft)	0.13	0.48	0.02
Alpha	1.79	Stream Power (lb/ft s)	0.15	2.99	0.01
Frctn Loss (ft)	0.15	Cum Volume (acre-ft)	408.18	2664.22	1722.62
C & E Loss (ft)	0.04	Cum SA (acres)	94.88	114.64	408.78

Plan: Floodway GR RIVER-1 Reach-1 RS: 8.50 Profile: PF#2

E.G. Elev (ft)	39.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.66	Wt. n-Val.		0.035	
W.S. Elev (ft)	38.82	Reach Len. (ft)	570.00	566.00	502.00
Crit W.S. (ft)		Flow Area (sq ft)		15654.60	
E.G. Slope (ft/ft)	0.000343	Area (sq ft)		15654.60	
Q Total (cfs)	102000.00	Flow (cfs)		102000.00	
Top Width (ft)	625.00	Top Width (ft)		625.00	
Vel Total (ft/s)	6.52	Avg. Vel. (ft/s)		6.52	
Max Chl Dpth (ft)	37.53	Hydr. Depth (ft)		25.05	
Conv. Total (cfs)	5507675.0	Conv. (cfs)		5507675.0	
Length Wtd. (ft)	566.00	Wetted Per. (ft)		656.21	
Min Ch El (ft)	1.29	Shear (lb/sq ft)		0.51	
Alpha	1.00	Stream Power (lb/ft s)		3.33	
Frctn Loss (ft)	0.17	Cum Volume (acre-ft)	40.32	2761.69	351.17
C & E Loss (ft)	0.03	Cum SA (acres)	11.78	114.70	41.45

Plan: Floodway GR RIVER-1 Reach-1 RS: 8.39 Profile: PF#1

E.G. Elev (ft)	38.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.43	Wt. n-Val.	0.070	0.035	0.065
W.S. Elev (ft)	37.76	Reach Len. (ft)	895.00	932.00	940.00
Crit W.S. (ft)		Flow Area (sq ft)	5531.73	16303.34	5072.14
E.G. Slope (ft/ft)	0.000226	Area (sq ft)	5531.73	16303.34	5072.14
Q Total (cfs)	102000.00	Flow (cfs)	8717.48	90518.31	2764.21
Top Width (ft)	3750.60	Top Width (ft)	500.58	624.51	2625.52
Vel Total (ft/s)	3.79	Avg. Vel. (ft/s)	1.58	5.55	0.54
Max Chl Dpth (ft)	34.32	Hydr. Depth (ft)	11.05	26.11	1.93
Conv. Total (cfs)	6780979.0	Conv. (cfs)	579540.0	6017674.0	183764.9
Length Wtd. (ft)	930.93	Wetted Per. (ft)	504.52	635.97	2626.04
Min Ch El (ft)	3.44	Shear (lb/sq ft)	0.15	0.36	0.03
Alpha	1.92	Stream Power (lb/ft s)	0.24	2.01	0.01
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	332.67	2460.65	1684.59
C & E Loss (ft)	0.00	Cum SA (acres)	85.50	106.53	385.91

Plan: Floodway GR RIVER-1 Reach-1 RS: 8.39 Profile: PF#2

E.G. Elev (ft)	39.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.		0.035	
W.S. Elev (ft)	38.71	Reach Len. (ft)	895.00	932.00	940.00
Crit W.S. (ft)		Flow Area (sq ft)		16896.51	
E.G. Slope (ft/ft)	0.000261	Area (sq ft)		16896.51	
Q Total (cfs)	102000.00	Flow (cfs)		102000.00	
Top Width (ft)	625.00	Top Width (ft)		625.00	
Vel Total (ft/s)	6.04	Avg. Vel. (ft/s)		6.04	
Max Chl Dpth (ft)	35.27	Hydr. Depth (ft)		27.03	
Conv. Total (cfs)	6315207.0	Conv. (cfs)		6315207.0	
Length Wtd. (ft)	932.00	Wetted Per. (ft)		646.85	
Min Ch El (ft)	3.44	Shear (lb/sq ft)		0.43	
Alpha	1.00	Stream Power (lb/ft s)		2.57	
Frctn Loss (ft)	0.27	Cum Volume (acre-ft)	40.32	2550.22	351.17
C & E Loss (ft)	0.00	Cum SA (acres)	11.78	106.58	41.45

Plan: Floodway GR RIVER-1 Reach-1 RS: 8.21 Profile: PF#1

E.G. Elev (ft)	37.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.	0.070	0.035	0.065
W.S. Elev (ft)	37.49	Reach Len. (ft)	438.00	436.00	400.00
Crit W.S. (ft)		Flow Area (sq ft)	84.00	15942.83	11585.98
E.G. Slope (ft/ft)	0.000290	Area (sq ft)	84.00	15942.83	11585.98
Q Total (cfs)	102000.00	Flow (cfs)	58.06	91470.25	10471.68
Top Width (ft)	4289.57	Top Width (ft)	31.31	700.00	3558.26
Vel Total (ft/s)	3.69	Avg. Vel. (ft/s)	0.69	5.74	0.90
Max Chl Dpth (ft)	33.57	Hydr. Depth (ft)	2.68	22.78	3.26
Conv. Total (cfs)	5994537.0	Conv. (cfs)	3412.5	5375704.0	615420.4
Length Wtd. (ft)	432.10	Wetted Per. (ft)	31.73	712.28	3560.53
Min Ch El (ft)	3.92	Shear (lb/sq ft)	0.05	0.40	0.06
Alpha	2.17	Stream Power (lb/ft s)	0.03	2.32	0.05
Frctn Loss (ft)	0.13	Cum Volume (acre-ft)	274.97	2115.68	1504.86
C & E Loss (ft)	0.00	Cum SA (acres)	80.03	92.36	319.19

Plan: Floodway GR RIVER-1 Reach-1 RS: 8.21 Profile: PF#2

E.G. Elev (ft)	39.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.		0.035	0.065
W.S. Elev (ft)	38.42	Reach Len. (ft)	438.00	436.00	400.00
Crit W.S. (ft)		Flow Area (sq ft)		16595.38	84.84
E.G. Slope (ft/ft)	0.000317	Area (sq ft)		16595.38	84.84
Q Total (cfs)	102000.00	Flow (cfs)		101925.30	74.74
Top Width (ft)	725.00	Top Width (ft)		700.00	25.00
Vel Total (ft/s)	6.12	Avg. Vel. (ft/s)		6.14	0.88
Max Chl Dpth (ft)	34.50	Hydr. Depth (ft)		23.71	3.39
Conv. Total (cfs)	5724941.0	Conv. (cfs)		5720747.0	4194.7
Length Wtd. (ft)	435.99	Wetted Per. (ft)		717.27	26.67
Min Ch El (ft)	3.92	Shear (lb/sq ft)		0.46	0.06
Alpha	1.01	Stream Power (lb/ft s)		2.82	0.06
Frctn Loss (ft)	0.15	Cum Volume (acre-ft)	40.32	2191.92	350.26
C & E Loss (ft)	0.01	Cum SA (acres)	11.78	92.40	41.18

Plan: Floodway GR RIVER-1 Reach-1 RS: 8.13 Profile: PF#1

E.G. Elev (ft)	37.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.49	Wt. n-Val.	0.070	0.035	0.065
W.S. Elev (ft)	37.32	Reach Len. (ft)	2310.00	2252.00	1861.00
Crit W.S. (ft)		Flow Area (sq ft)	65.35	15091.37	12659.58
E.G. Slope (ft/ft)	0.000325	Area (sq ft)	65.35	15091.37	12659.58
Q Total (cfs)	102000.00	Flow (cfs)	24.84	90342.83	11632.33
Top Width (ft)	4618.89	Top Width (ft)	65.93	672.91	3880.06
Vel Total (ft/s)	3.67	Avg. Vel. (ft/s)	0.38	5.99	0.92
Max Chl Dpth (ft)	33.18	Hydr. Depth (ft)	0.99	22.43	3.26
Conv. Total (cfs)	5656979.0	Conv. (cfs)	1377.4	5010466.0	645135.8
Length Wtd. (ft)	2192.49	Wetted Per. (ft)	66.05	690.07	3883.54
Min Ch El (ft)	4.14	Shear (lb/sq ft)	0.02	0.44	0.07
Alpha	2.37	Stream Power (lb/ft s)	0.01	2.66	0.06
Frctn Loss (ft)	0.53	Cum Volume (acre-ft)	274.22	1960.37	1393.54
C & E Loss (ft)	0.08	Cum SA (acres)	79.54	85.49	285.04

Plan: Floodway GR RIVER-1 Reach-1 RS: 8.13 Profile: PF#2

E.G. Elev (ft)	38.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.66	Wt. n-Val.		0.035	
W.S. Elev (ft)	38.20	Reach Len. (ft)	2310.00	2252.00	1861.00
Crit W.S. (ft)		Flow Area (sq ft)		15680.58	
E.G. Slope (ft/ft)	0.000370	Area (sq ft)		15680.58	
Q Total (cfs)	102000.00	Flow (cfs)		102000.00	
Top Width (ft)	674.38	Top Width (ft)		674.38	
Vel Total (ft/s)	6.50	Avg. Vel. (ft/s)		6.50	
Max Chl Dpth (ft)	34.06	Hydr. Depth (ft)		23.25	
Conv. Total (cfs)	5301908.0	Conv. (cfs)		5301908.0	
Length Wtd. (ft)	2235.67	Wetted Per. (ft)		697.67	
Min Ch El (ft)	4.14	Shear (lb/sq ft)		0.52	
Alpha	1.00	Stream Power (lb/ft s)		3.38	
Frctn Loss (ft)	0.64	Cum Volume (acre-ft)	40.32	2030.39	349.87
C & E Loss (ft)	0.09	Cum SA (acres)	11.78	85.52	41.07

Plan: Floodway GR RIVER-1 Reach-1 RS: 7.69 Profile: PF#1

E.G. Elev (ft)	37.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.	0.070	0.035	0.065
W.S. Elev (ft)	36.97	Reach Len. (ft)	1900.00	2950.00	3250.00
Crit W.S. (ft)		Flow Area (sq ft)	2972.08	18056.20	19016.76
E.G. Slope (ft/ft)	0.000187	Area (sq ft)	2972.08	18056.20	19016.76
Q Total (cfs)	102000.00	Flow (cfs)	2415.25	79803.62	19781.13
Top Width (ft)	4865.14	Top Width (ft)	633.07	850.00	3382.07
Vel Total (ft/s)	2.55	Avg. Vel. (ft/s)	0.81	4.42	1.04
Max Chl Dpth (ft)	41.73	Hydr. Depth (ft)	4.69	21.24	5.62
Conv. Total (cfs)	7464351.0	Conv. (cfs)	176747.6	5840022.0	1447581.0
Length Wtd. (ft)	2945.08	Wetted Per. (ft)	633.82	858.69	3389.41
Min Ch El (ft)	-4.76	Shear (lb/sq ft)	0.05	0.25	0.07
Alpha	2.39	Stream Power (lb/ft s)	0.04	1.08	0.07
Frctn Loss (ft)	0.69	Cum Volume (acre-ft)	193.68	1103.52	716.89
C & E Loss (ft)	0.04	Cum SA (acres)	61.01	46.12	129.91

Plan: Floodway GR RIVER-1 Reach-1 RS: 7.69 Profile: PF#2

E.G. Elev (ft)	38.12	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.36	Wt. n-Val.		0.035	0.065
W.S. Elev (ft)	37.76	Reach Len. (ft)	1900.00	2950.00	3250.00
Crit W.S. (ft)		Flow Area (sq ft)		18732.89	5963.71
E.G. Slope (ft/ft)	0.000229	Area (sq ft)		18732.89	5963.71
Q Total (cfs)	102000.00	Flow (cfs)		93482.09	8517.91
Top Width (ft)	1550.00	Top Width (ft)		850.00	700.00
Vel Total (ft/s)	4.13	Avg. Vel. (ft/s)		4.99	1.43
Max Chl Dpth (ft)	42.52	Hydr. Depth (ft)		22.04	8.52
Conv. Total (cfs)	6745070.0	Conv. (cfs)		6181796.0	563273.5
Length Wtd. (ft)	2954.73	Wetted Per. (ft)		864.43	710.13
Min Ch El (ft)	-4.76	Shear (lb/sq ft)		0.31	0.12
Alpha	1.35	Stream Power (lb/ft s)		1.54	0.17
Frctn Loss (ft)	0.76	Cum Volume (acre-ft)	40.32	1140.83	222.48
C & E Loss (ft)	0.03	Cum SA (acres)	11.78	46.12	26.11

Plan: Floodway GR RIVER-1 Reach-1 RS: 7.13 Profile: PF#1

E.G. Elev (ft)	36.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.67	Wt. n-Val.	0.070	0.035	0.060
W.S. Elev (ft)	35.81	Reach Len. (ft)			
Crit W.S. (ft)	16.29	Flow Area (sq ft)	5908.87	14533.28	200.20
E.G. Slope (ft/ft)	0.000298	Area (sq ft)	5908.87	14533.28	200.20
Q Total (cfs)	102000.00	Flow (cfs)	4230.50	97634.21	135.29
Top Width (ft)	2776.70	Top Width (ft)	2164.44	512.00	100.26
Vel Total (ft/s)	4.94	Avg. Vel. (ft/s)	0.72	6.72	0.68
Max Chl Dpth (ft)	38.67	Hydr. Depth (ft)	2.73	28.39	2.00
Conv. Total (cfs)	5906283.0	Conv. (cfs)	244966.1	5653483.0	7834.2
Length Wtd. (ft)		Wetted Per. (ft)	2164.95	523.99	100.80
Min Ch El (ft)	-2.86	Shear (lb/sq ft)	0.05	0.52	0.04
Alpha	1.77	Stream Power (lb/ft s)	0.04	3.47	0.02
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

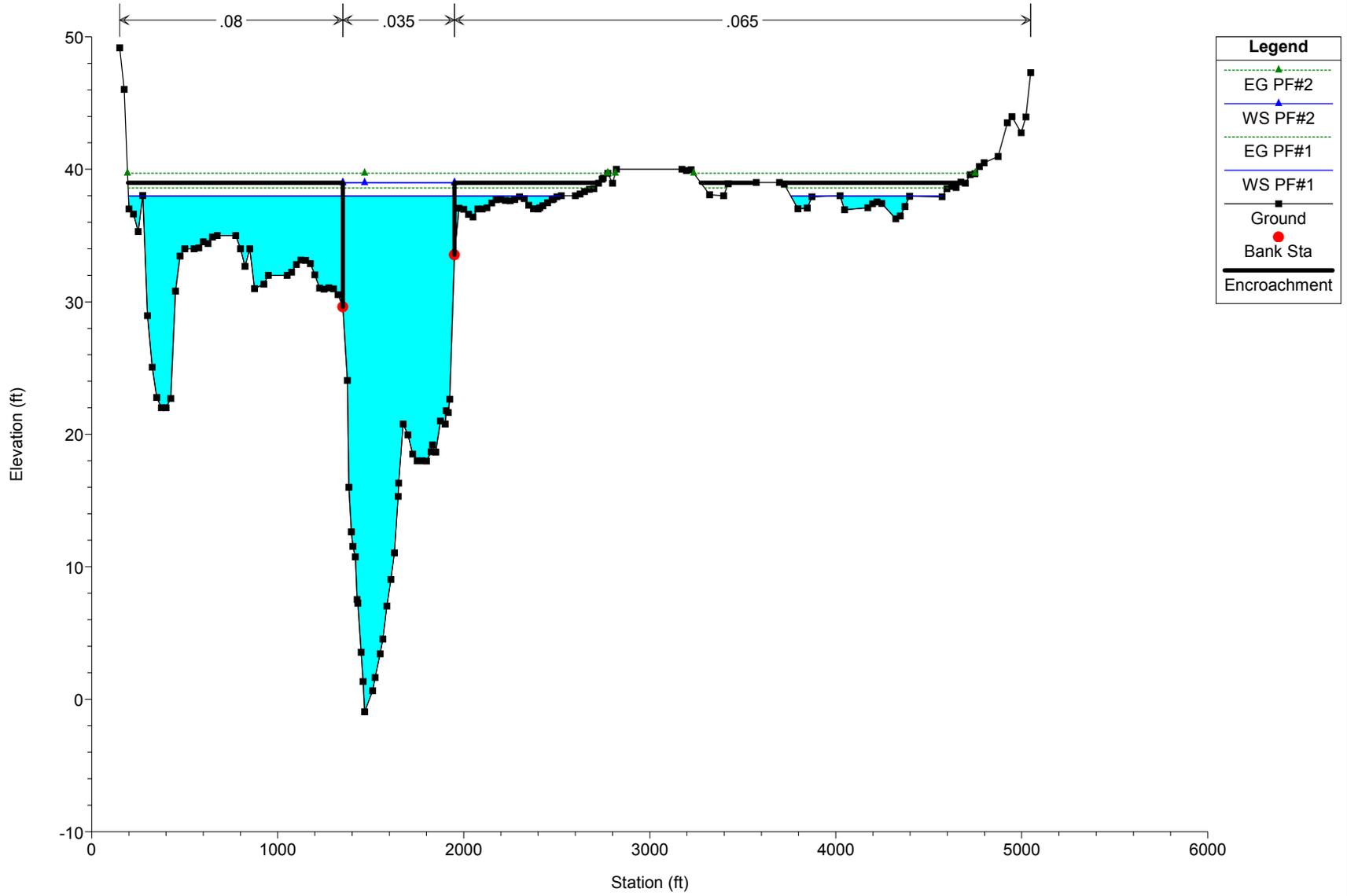
Plan: Floodway GR RIVER-1 Reach-1 RS: 7.13 Profile: PF#2

E.G. Elev (ft)	37.33	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.	0.070	0.035	
W.S. Elev (ft)	36.64	Reach Len. (ft)			
Crit W.S. (ft)	16.29	Flow Area (sq ft)	1848.66	14958.24	
E.G. Slope (ft/ft)	0.000290	Area (sq ft)	1848.66	14958.24	
Q Total (cfs)	102000.00	Flow (cfs)	1513.85	100486.10	
Top Width (ft)	1052.00	Top Width (ft)	540.00	512.00	
Vel Total (ft/s)	6.07	Avg. Vel. (ft/s)	0.82	6.72	
Max Chl Dpth (ft)	39.50	Hydr. Depth (ft)	3.42	29.22	
Conv. Total (cfs)	5989086.0	Conv. (cfs)	88888.1	5900198.0	
Length Wtd. (ft)		Wetted Per. (ft)	542.28	528.19	
Min Ch El (ft)	-2.86	Shear (lb/sq ft)	0.06	0.51	
Alpha	1.21	Stream Power (lb/ft s)	0.05	3.44	
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

Lewis River 7.69 to 8.61 Plan: Lewis River Floodway 7.69 to 8.61 GR 8/19/2021

Flow: Lewis River 7.13 to 8.61 Floodway

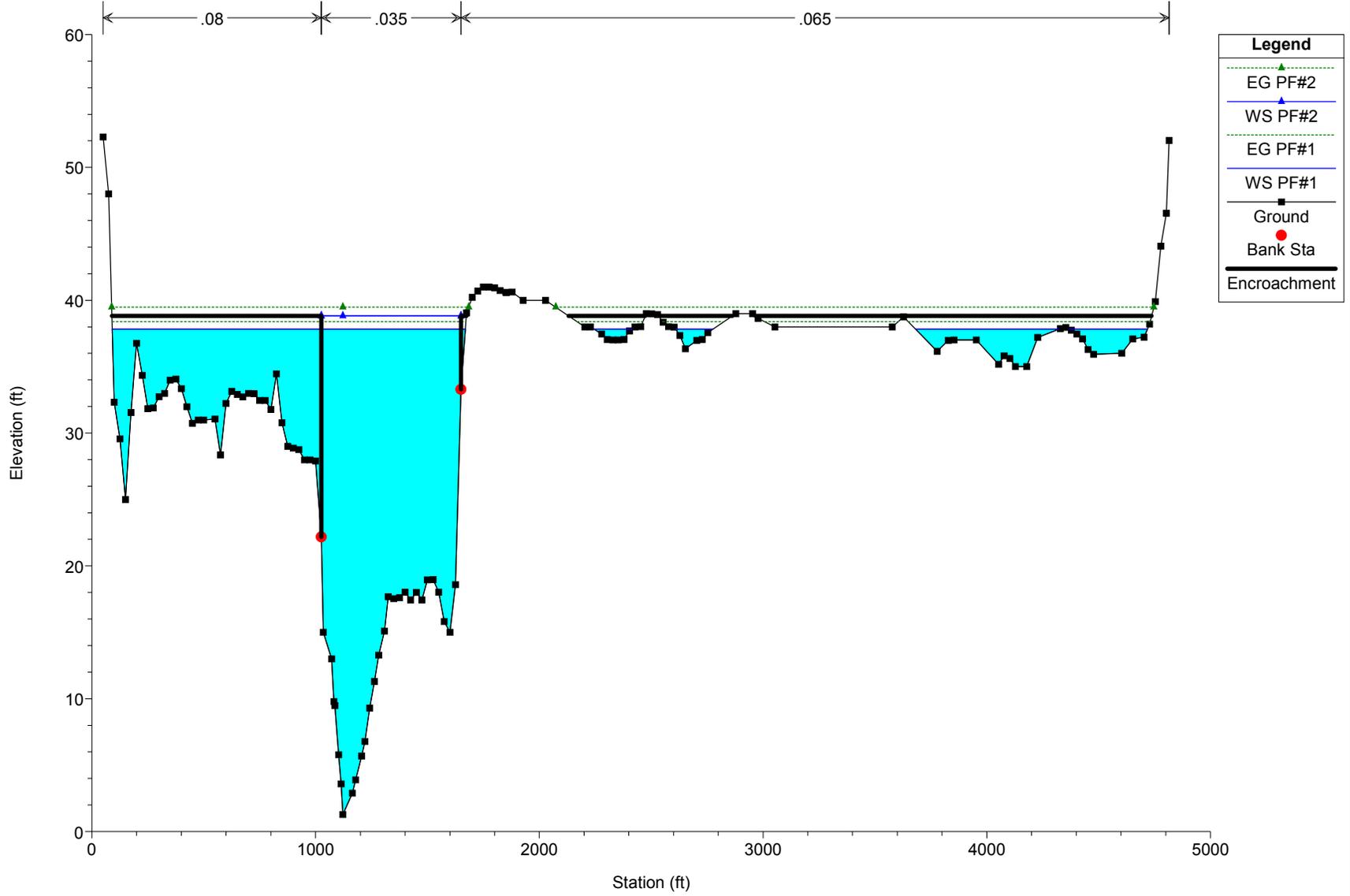
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Lewis River 7.69 to 8.61 Plan: Lewis River Floodway 7.69 to 8.61 GR 8/19/2021

Flow: Lewis River 7.13 to 8.61 Floodway

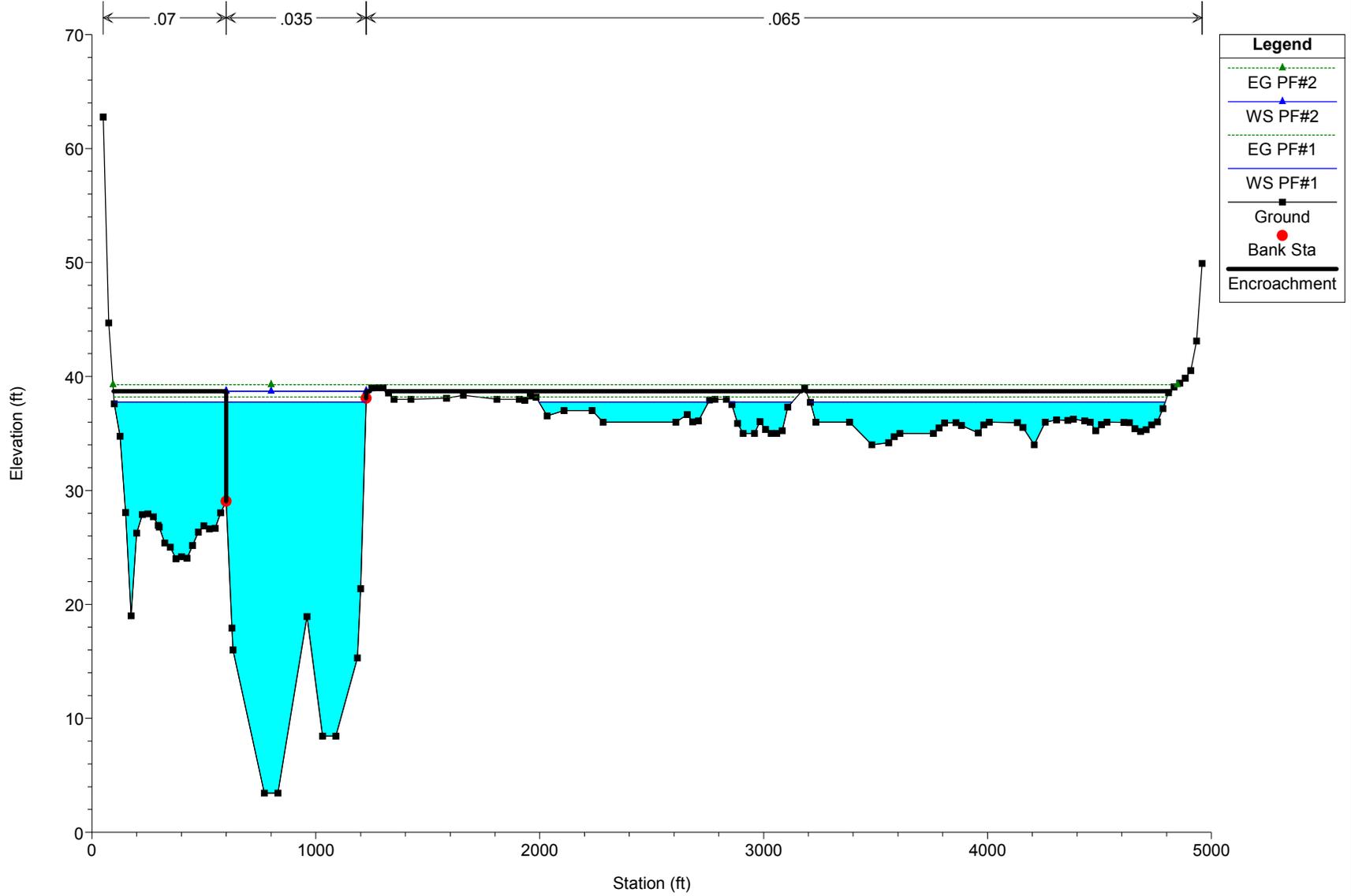
RS = 8.50 Section "2"



Lewis River 7.69 to 8.61 Plan: Lewis River Floodway 7.69 to 8.61 GR 8/19/2021

Flow: Lewis River 7.13 to 8.61 Floodway

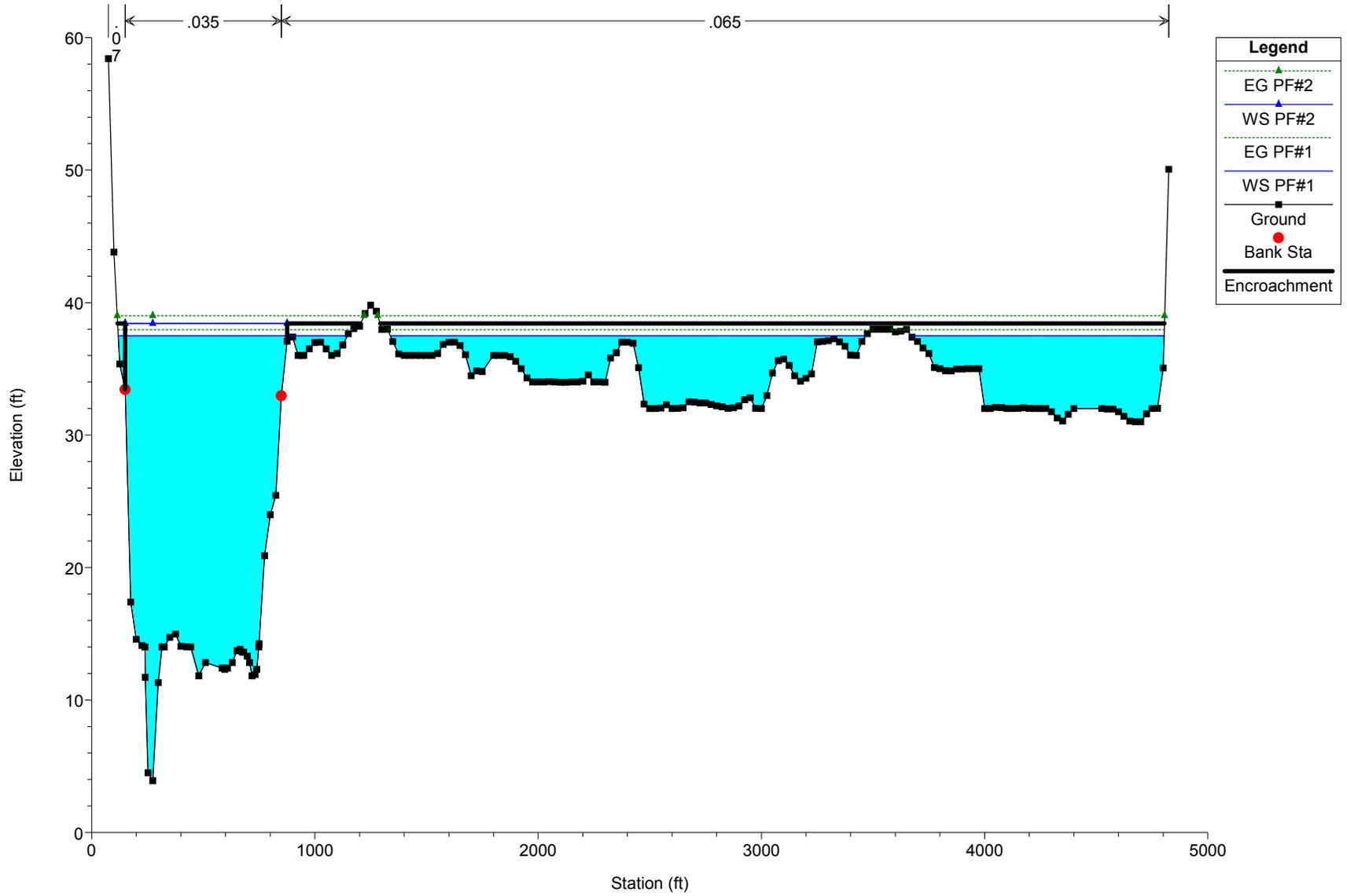
RS = 8.39 Section "V"



Lewis River 7.69 to 8.61 Plan: Lewis River Floodway 7.69 to 8.61 GR 8/19/2021

Flow: Lewis River 7.13 to 8.61 Floodway

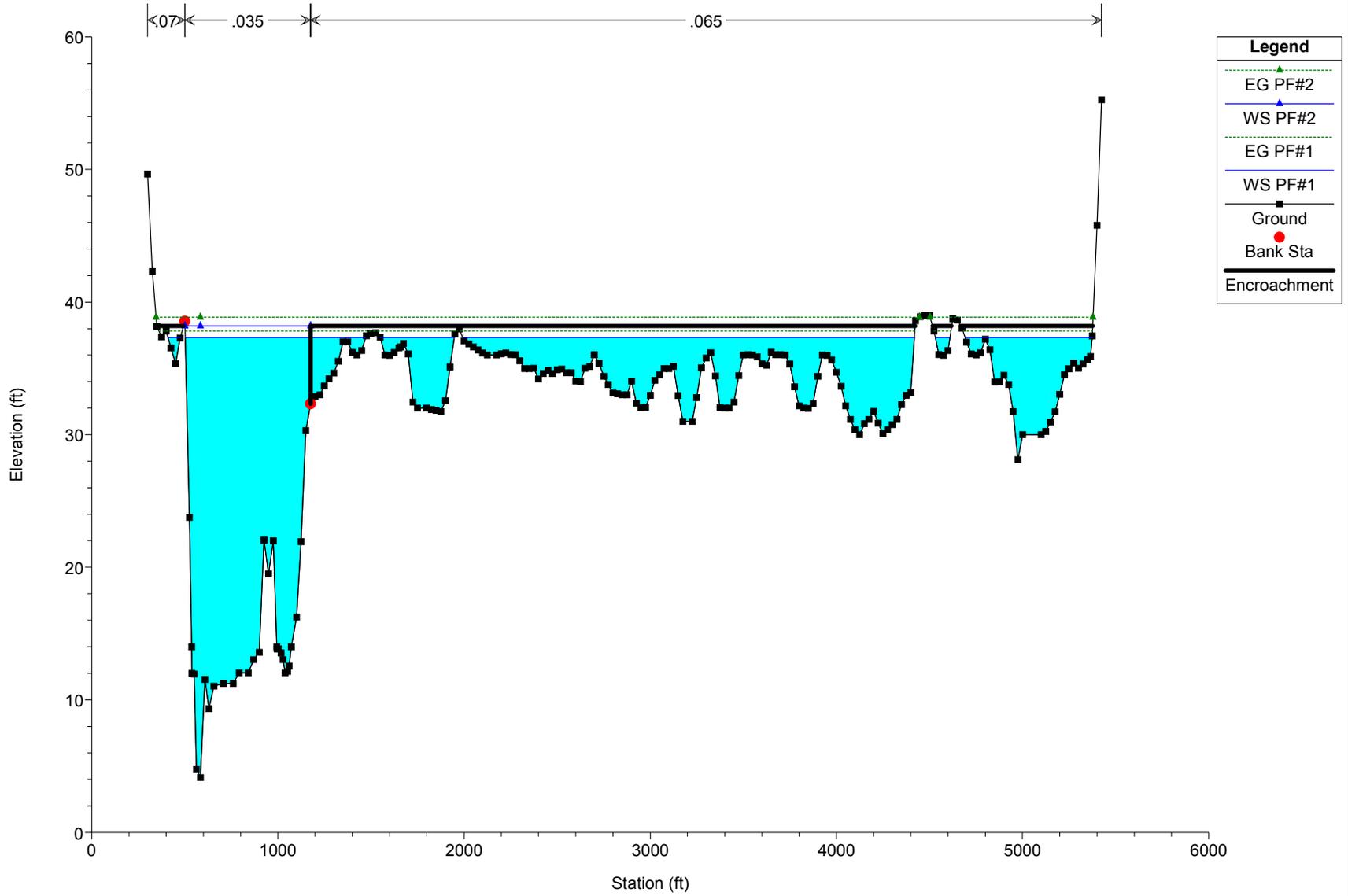
RS = 8.21 Section "1"



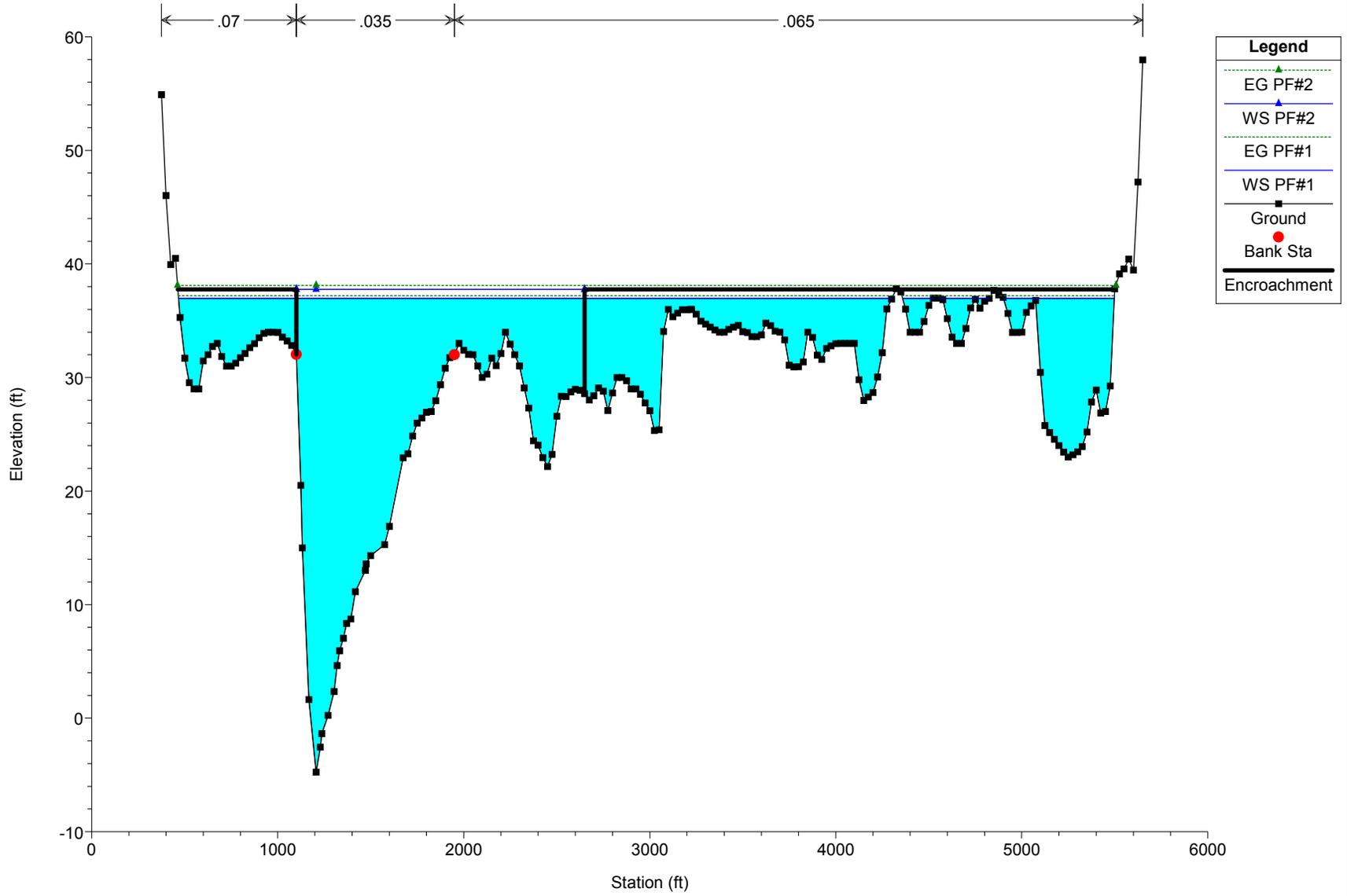
Lewis River 7.69 to 8.61 Plan: Lewis River Floodway 7.69 to 8.61 GR 8/19/2021

Flow: Lewis River 7.13 to 8.61 Floodway

RS = 8.13 Section "U"



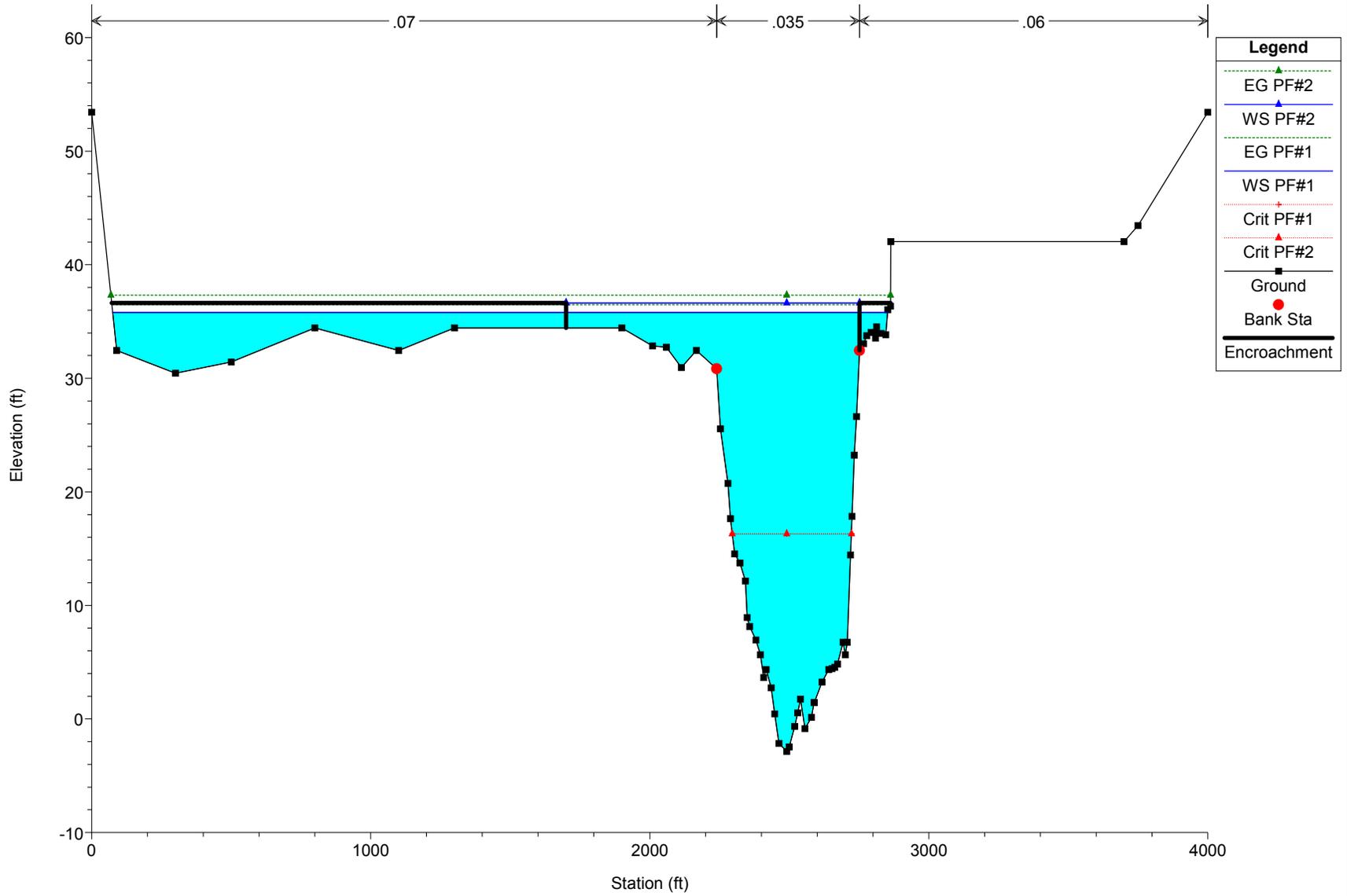
Lewis River 7.69 to 8.61 Plan: Lewis River Floodway 7.69 to 8.61 GR 8/19/2021
Flow: Lewis River 7.13 to 8.61 Floodway
RS = 7.69 Section "T"



Lewis River 7.69 to 8.61 Plan: Lewis River Floodway 7.69 to 8.61 GR 8/19/2021

Flow: Lewis River 7.13 to 8.61 Floodway

RS = 7.13 Section "S"



APPENDIX D:

CLARK COUNTY SITE DEVELOPMENT IMPACTS

This portion of the report is in support of the site development for a single family home located on parcel 254377005 (4410 NW Hayes Rd). The analysis is intended to demonstrate the location of the floodway boundary along the Lewis River in Clark County, Washington near Woodland, Washington as shown on FIRM Map 53011C 0061D should be modified to appropriately represent the flooding hazards on parcel 254377005 (4410 NW Hayes Rd).

Property ID	(Common Name)	RM	Clark Co FIS Cross Section
254780000	(4418 NW Hayes Rd)	8.30	"1"
254377005	(4410 NW Hayes Rd)	8.39	"V"
254369010	(4503 NW 416 th St)	8.50	"2"
254366000	(4404 NW 419th St)	8.61	"W"



Figure D1: Lewis River Study Area



Figure D2: Parcel of Primary Interest

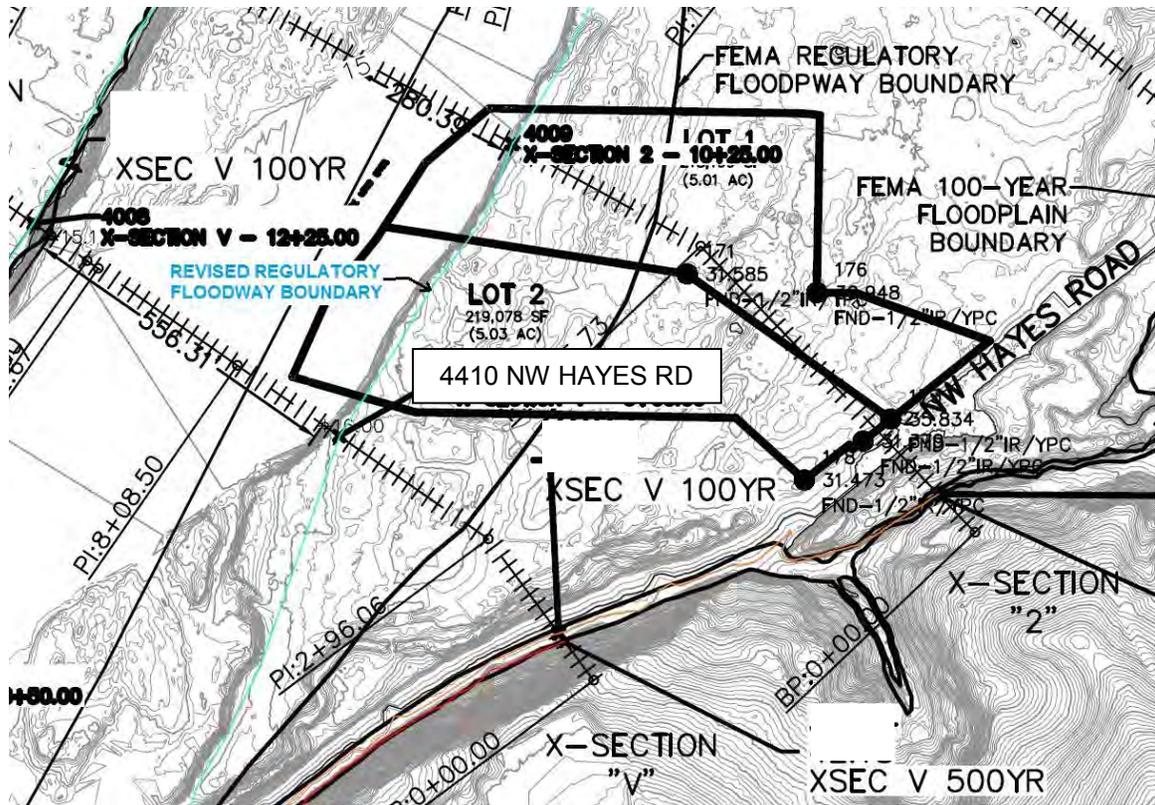


Figure D3: Revised Regulatory Floodway

Table D1: Lewis River – Revised Flood Data (5/13/2021)

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
Cross Section	Distance ⁽¹⁾	Width (FT)	Section Area (Sq Ft)	Mean Velocity (FPS)	Regulatory	Without Floodway	With Floodway	Increase
V	8.39	625	16,897	6.04	37.76	37.76	38.71	0.95
2	8.50	625	15,655	6.52	37.82	37.82	38.82	1.0

⁽¹⁾Stream distance in miles above mouth

⁽²⁾See Appendix B for Hydraulic Model Output

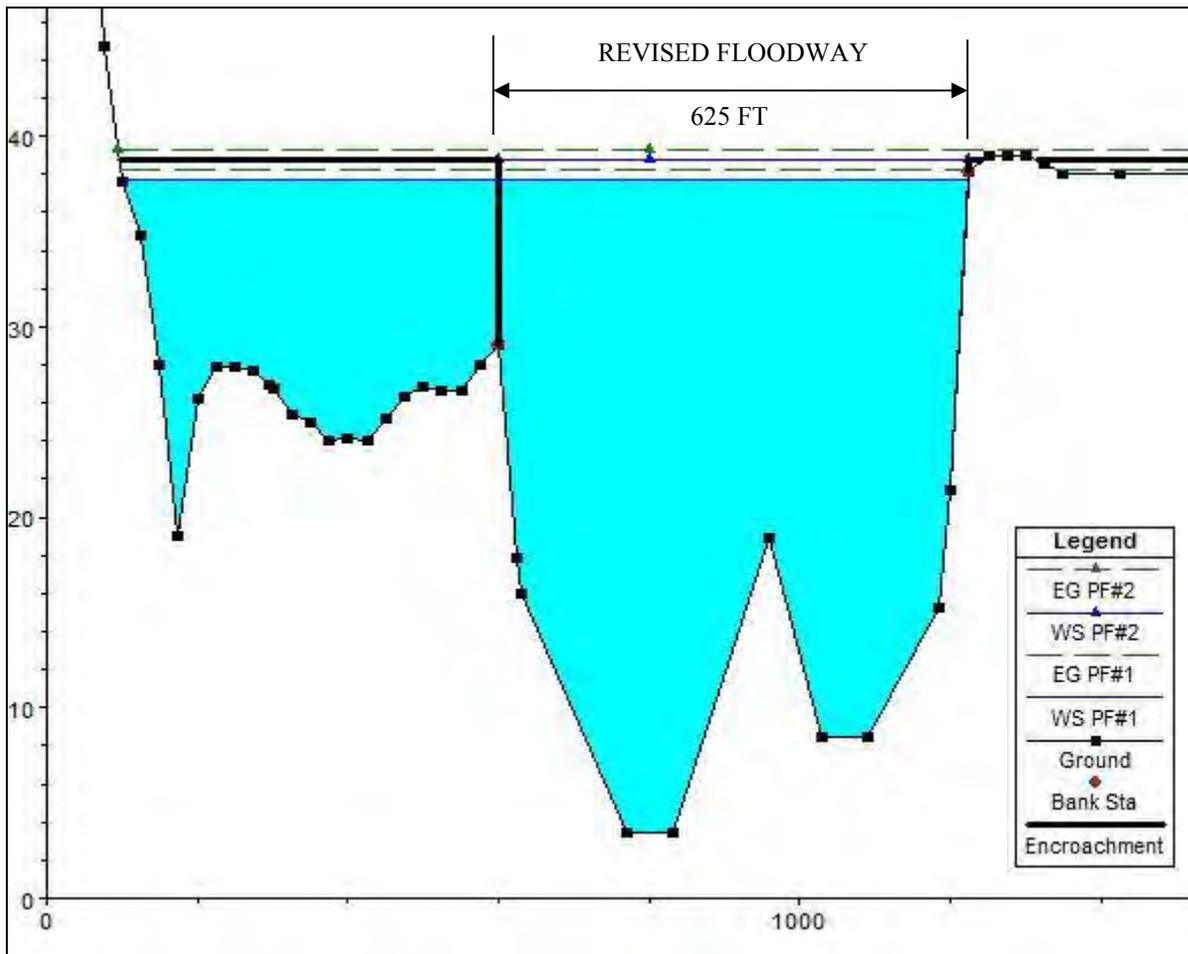


Figure D4: HEC-RAS Cross-Section Plot - Floodway

Lewis River 7.69 to 8.61 Plan: Lewis River Floodway 7.69 to 8.61 GR
 Flow: Lewis River 7.13 to 8.61 Floodway
 RS = 8.39 Section "V"

Lewis River Sinuosity Analysis

The Lewis River has a history of meandering throughout the study area. Nineteen (19) aerial photographs obtained from the Clark County MapsOnline were evaluated from 1955 to 2019 to document the extents of the south streambank sinuosity at section "V"; RM 8.39 (Figure D3). The most critical streambank location appeared to have occurred in 1968 (Figures D5 & D6). The north bank of the Lewis River appears to be stable and has not meandered beyond the existing regulatory floodway boundary. When river systems expand in width the energy available to transport sediment is reduced and subsequently leads to deposition. It is unlikely the south streambank will migrate further south beyond its current location.

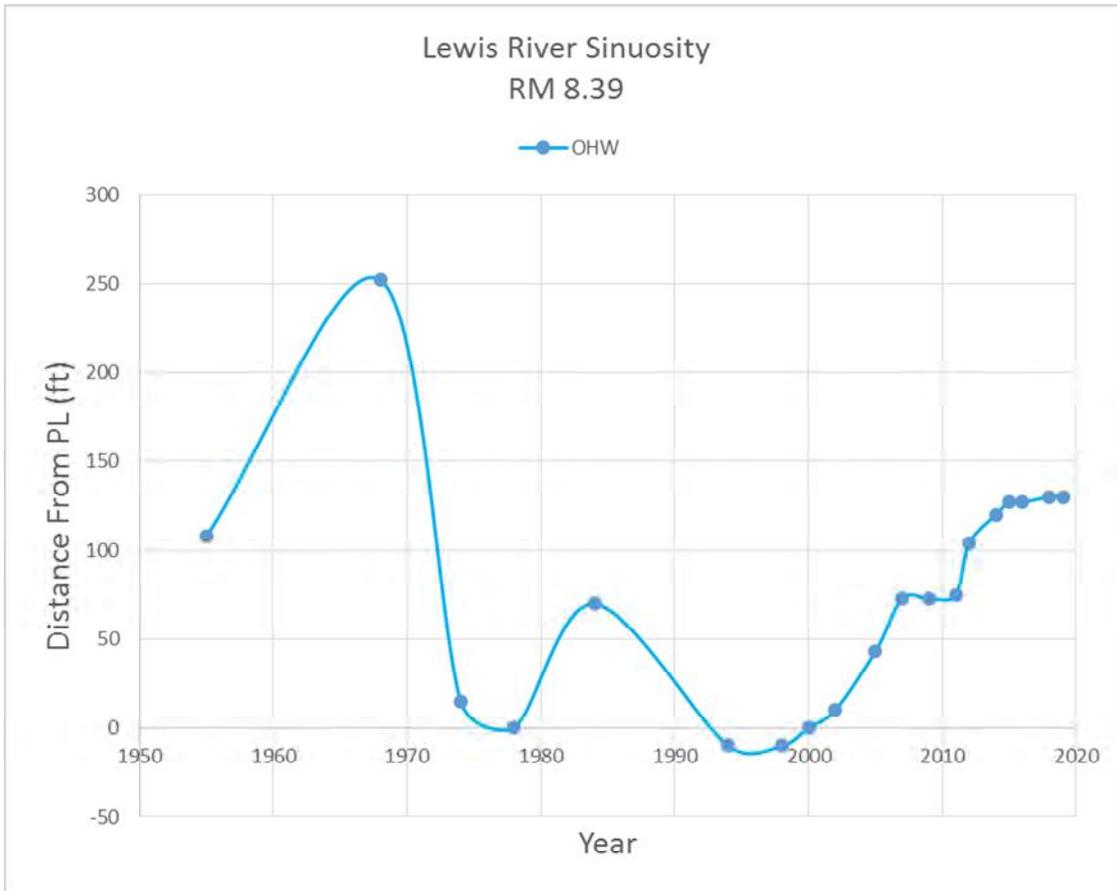


Figure D5: Lewis River Sinuosity Graph

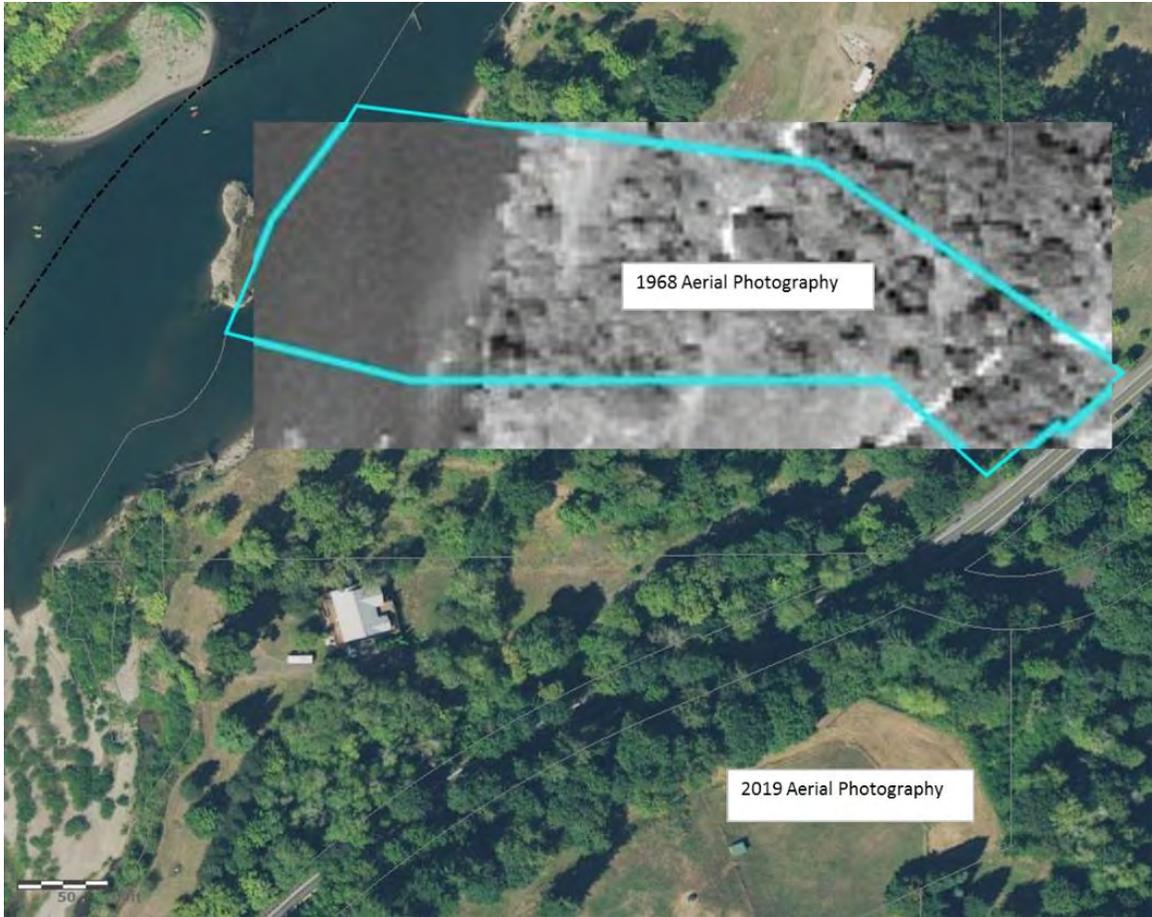


Figure D6: Lewis River Sinuosity; 2019/1968 Aerial Photography

REFERENCES

CLARK COUNTY CODE

40.420 (FLOODPLAIN)

Development in the floodplain is not allowed to increase the base flood elevation.

2. Prohibited Uses in Special Flood Hazard Areas.

a. Construction or reconstruction of residential structures is prohibited in the floodway except, in accordance with Chapter 86.16 RCW, for repairs, reconstruction, or improvements to a lawfully established structure:

- (1) Which do not increase the ground floor area; and*
- (2) That are not a substantial improvement.*

b. Floodway encroachments are prohibited unless certification by a licensed professional engineer registered in the state of Washington is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge. If it has been adequately demonstrated through calculations that the encroachment will not result in increased flood levels, all new nonresidential construction and nonresidential substantial improvements shall comply with all applicable flood hazard reduction provisions of this chapter [40.420].

40.440 (HABITAT CONSERVATION)

The Lewis River watercourse requires a 250 foot riparian Habitat Conservation Zone (HCZ) in order to protect fish and wildlife habitat. The HCZ extends horizontally outward from the ordinary high water mark.

40.460 (SHORELINE MASTER PROGRAM)

The county aims to ensure that existing shoreline ecological functions are protected with the proposed pattern and intensity of development. The majority of the study area is designated as "Rural Conservancy Residential" with a few areas designated as "Natural".

40.210.020 (DEVELOPMENT – RURAL DISTRICTS)

The zoning for the floodplain and surrounding area is R-5 which allows development of one single family residence in each 5 acre parcel.