

PAGE 1 OF EDITING NOTES FOR: HOWARD CREEK FINAL ALL FLOODS FINAL

SECID	ERROR SEVERITY	FIRST VARIABLE	NO.	ERROR MESSAGE	SECOND VARIABLE	NO.	VALUE ASSUMED
BR-OP	WARNING	STATION	20	IS LESS THAN	STATION	19	
BR-OP	WARNING	STATION	8	IS LESS THAN	STATION	7	

INPUT SUMMARY FOR: HOWARD CREEK FINAL ALL FLOODS FINAL

19 CROSS SECTIONS SPECIFIED (OR ASSUMED)

FOUND 19 TYPE 3 CARDS

KEPT 19 CROSS SECTIONS FOR EDITING

19 " " VALID FOR PROPERTY COMPUTATIONS

19 " " " " PROFILE "

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FINAL ALL FLOODS
 SECID=A AT DISTANCE= 0 FINAL PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3115.0	8	150	1.00	17	17	30	48	30
3124.9	557	52358	1.27	98	101	7	105	6687
3129.6	1060	126061	1.28	116	122	0	116	16078

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FINAL ALL FLOODS
 SECID=B AT DISTANCE= 640 FINAL PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3120.0	2	36	1.00	4	5	101	105	7
3129.9	438	36397	1.17	84	90	38	122	5237
3136.3	1164	127377	1.35	145	159	0	145	16098

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FINAL ALL FLOODS
 SECID=C AT DISTANCE= 1170 FINAL PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3125.0	0	0	1.00	1	1	225	226	0
3134.9	937	72049	1.00	226	231	16	242	10818
3139.9	2130	265557	1.03	250	257	0	250	34772

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FINAL ALL FLOODS
 SECID=D AT DISTANCE= 1875 FINAL PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3128.0	1	8	1.00	8	8	383	391	3
3137.9	618	44540	1.11	156	161	277	433	6634
3145.0	2800	312526	1.04	440	449	0	440	39215

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FINAL ALL FLOODS
 SECID=E-TW AT DISTANCE= 2530 FINAL PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3133.0	25	701	1.00	31	31	590	620	126
3142.9	667	67978	1.41	276	282	460	736	4947
3147.0	2444	248667	1.59	540	547	330	870	23371

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FINAL ALL FLOODS
 SECID=BR.OP AT DISTANCE= 2530 FINAL PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3133.0	16	263	1.00	39	39	19	59	58
3139.2	412	21828	1.00	0	174	0	85	0

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FINAL ALL FLOODS
 SECID=F APP AT DISTANCE= 2674 FINAL PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3134.0	5	59	1.00	16	16	602	618	15
3143.9	1761	167351	1.19	422	428	520	942	18742
3147.7	3710	453066	1.13	537	547	520	1057	52037

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FINAL ALL FLOODS
 SECID=G AT DISTANCE= 3495 FINAL PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3139.0	9	205	1.00	15	15	178	194	39
3148.9	1684	118305	1.51	716	722	15	731	11921
3152.7	4526	559340	1.10	766	773	0	766	59482

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FINAL ALL FLOODS
 SECID=H AT DISTANCE= 4210 FINAL PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3146.0	21	410	1.00	28	29	63	91	100
3155.9	672	73362	1.12	131	136	22	153	8172
3161.0	1457	217213	1.04	166	175	0	166	24062

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FINAL ALL FLOODS
 SECID=J-TW AT DISTANCE= 4337 FINAL PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3148.0	42	1305	1.00	30	30	160	189	286
3157.9	1138	90954	1.53	322	326	21	343	9795
3160.8	2154	211880	1.31	375	380	0	375	25561

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FINAL ALL FLOODS
 SECID=BR-OP AT DISTANCE= 4337 FINAL PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3148.0	29	809	1.00	31	31	3	34	157
3153.5	213	12316	1.00	0	79	0	34	0

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FINAL ALL FLOODS
 SECID=K-APP AT DISTANCE= 4424 FINAL PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3148.0	10	168	1.00	24	25	580	605	36
3157.9	1914	187792	1.19	559	562	34	670	18424
3161.1	4100	540765	1.11	734	738	0	734	52255

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FINAL ALL FLOODS
 SECID=K+2.7 AT DISTANCE= 4686 FINAL PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3151.0	18	414	1.00	26	26	580	605	82
3160.9	2076	205930	1.19	595	598	29	677	20150
3163.8	4085	537371	1.11	734	738	0	734	51946

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FINAL ALL FLOODS
 SECID=L-2.7 AT DISTANCE= 4938 FINAL PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3154.0	38	1293	1.00	30	31	446	476	241
3163.9	4258	520273	1.10	598	606	3	602	61297
3166.9	6063	929328	1.11	605	615	0	605	103343

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FINAL ALL FLOODS
 SECID=L AT DISTANCE= 5200 FINAL PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3156.0	18	392	1.00	27	28	448	475	81
3165.9	3840	439020	1.10	597	604	4	601	52586
3169.6	6063	929417	1.11	605	615	0	605	103351

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FINAL ALL FLOODS
SECID=M AT DISTANCE= 6315

FINAL
PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3164.0	23	568	1.00	30	31	512	542	114
3173.9	3157	334375	1.12	594	598	42	636	39044
3177.3	5260	732579	1.10	643	647	0	643	81315

PAGE 1 OF PROFILE NOTES FOR: HOWARD CREEK FINAL ALL FLOODS FINAL
 PROFILE NUMBER 1. UPSTREAM COMPUTATIONS

SECID; ERROR(WARNING) MESSAGE; INTERMEDIATE RESULTS(IF ANY); ACTION TAKEN

C	; KU/KD < 0.7 OR > 1.4	; ALERTE	USER
F APP	; WSU > BELMX (1)	; CHECKED	QBO (2)
F APP	; MIN QBO > QT (2)	; ASSUMED	QBO (1)
G	; KU/KD < 0.7 OR > 1.4	; ALERTE	USER
H	; WS TOO LOW	; USED	WSMIN = WSC
H	; KU/KD < 0.7 OR > 1.4	; ALERTE	USER
J-TW	; KU/KD < 0.7 OR > 1.4	; ALERTE	USER
K-APP	; KU/KD < 0.7 OR > 1.4	; ALERTE	USER
K-APP	; WSU > BELMX (1)	; CHECKED	QBO (2)
K+2.7	; KU/KD < 0.7 OR > 1.4	; ALERTE	USER
L-2.7	; KU/KD < 0.7 OR > 1.4	; ALERTE	USER
L	; KU/KD < 0.7 OR > 1.4	; ALERTE	USER
M	; WS TOO LOW	; USED	WSMIN = WSC
M	; KU/KD < 0.7 OR > 1.4	; ALERTE	USER

WATER-SURFACE PROFILE FOR: HOWARD CREEK FINAL ALL FLOODS FINAL
 PAGE 1 OF 2, PROFILE NUMBER 1, UPSTREAM COMPUTATIONS

10 YEAR

OK

SECID	AT	HW	HF	HE	EG	V	FN	LEW	REW	ACC	ID
WS ELEV											
A	AT	0	0	1520.	233.	16780.	1.08	14.	76.		
3120.94		0.71		3121.65		6.52	0.55				*IS*
B	AT	640	640	1520.	213.	14021.	1.32	44.	119.		
3127.05		1.05	6.28	3128.10		7.15	0.69	-0.005			*XS*
C	AT	1170	530	1520.	379.	21011.	1.03	92.	238.		
3132.01		0.26	4.16	3132.26		4.01	0.36	0.008			*XS*
D	AT	1875	705	1520.	341.	19262.	1.25	298.	429.		
3135.97		0.39	4.02	3136.36		4.46	0.40	0.003			*XS*
E-TW	AT	2530	655	1520.	274.	25579.	1.00	582.	636.		
3139.00		0.48	3.07	3139.47		5.54	0.43	0.001			*XS*
===== BEGIN BRIDGE ANALYSIS =====											
BR-OP	AT	2530		1520.	395.	31916.	1.00	0.	85.		
3139.00		0.23	...	3139.00	(0.065)	3.85	0.31				*R0*
===== END BRIDGE ANALYSIS =====											
EMBANKMENT OVERFLOW (CFS) / LEFT 0. / RIGHT 0. / *RG*											
F APP	AT	2674	144	1520.	543.	33673.	1.30	563.	775.		
3139.70		0.16	0.39	3139.86		2.80	0.30	-0.000			*AS*
M = 0.22 / E = 0.0 / K* = 0.68 / 580. / 36809. / 1.29 / 563. / 777.											
3139.88		0.14		3140.02		2.62	0.27				*AS*
===== END BRIDGE ANALYSIS =====											
G	AT	3495	821	1420.	229.	10150.	1.00	167.	199.		
3143.76		1.88	4.75	3145.64		11.00	0.96	0.004			*XS*
H	AT	4210	715	1420.	263.	21879.	1.04	59.	127.		
3151.69		0.45	6.49	3152.14		5.28	0.42	0.006			*XS*
J-TW	AT	4337	127	1420.	229.	14930.	1.00	136.	194.		
3152.40		0.60	0.78	3153.00		6.20	0.55	0.000			*XS*
===== BEGIN BRIDGE ANALYSIS =====											
BR-OP	AT	4337		1399.	213.	12316.	1.00	0.	34.		
3153.50		0.67	...	3153.50	(-0.001)	6.56	0.46				*R0*
===== END BRIDGE ANALYSIS =====											
EMBANKMENT OVERFLOW (CFS) / LEFT 0. / RIGHT 0. / *RG*											
K-APP	AT	4424	87	1420.	375.	26852.	1.20	443.	613.		
3153.15		0.27	0.44	3153.42		3.79	0.36	-0.018			*AS*
M = **** / E = **** / K* = **** / 594. / 50029. / 1.12 / 412. / 615.											
3154.33		0.10		3154.43		2.39	0.24				*AS*
===== END BRIDGE ANALYSIS =====											
K+2.7	AT	4686	262	1420.	207.	12996.	1.27	486.	611.		
3154.73		0.93	0.81	3155.65		6.85	0.71	-0.002			*XS*

WATER-SURFACE PROFILE FOR: HOWARD CREEK FINAL ALL FLOODS FINAL
 PAGE 2 OF 2, PROFILE NUMBER 1, UPSTREAM COMPUTATIONS

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SECID AT DISTANCE/ LENGTH/DISCHARGE/ AREA /CONVEYANCE/ ALPHA/ LEW / REW
WS ELEV / HV / HF / HE / EG / V / FN / ACC *ID*
=====
L-2.7 AT 4938 / 252 / 1420. / 514. / 22131. / 1.42 / 99. / 594.
3157.26 / 0.17 / 1.77 / 0.0 / 3157.43 / 2.76 / 0.40 / 0.006 *XS*
-----
L AT 5200 / 262 / 1420. / 252. / 10706. / 1.38 / 152. / 594.
3159.24 / 0.68 / 2.23 / 0.26 / 3159.92 / 5.63 / 0.80 / 0.009 *XS*
-----
M AT 6315 / 1115 / 1420. / 445. / 23601. / 1.64 / 206. / 552.
3168.57 / 0.26 / 8.90 / 0.0 / 3168.83 / 3.19 / 0.40 / 0.014 *XS*
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END OF THIS PROFILE

COMPUTED WSC VALUES FOR: HOWARD CREEK FINAL ALL FLOODS
PROFILE NUMBER 1, UPSTREAM COMPUTATIONS FINAL

SECID H M
WSC 3149.31 3167.75

PAGE 1 OF PROFILE NOTES FOR: HOWARD CREEK FINAL ALL FLOODS FINAL
 PROFILE NUMBER 2* UPSTREAM COMPUTATIONS

SECID: ERROR(WARNING) MESSAGE: INTERMEDIATE RESULTS(IF ANY): ACTION TAKEN

C	: KU/KD < 0.7 OR > 1.4	:			
F APP	: KU/KD < 0.7 OR > 1.4	:			ALERTED USER
G	: FRDN FAILURE	:			ALERTED USER
		:	WS = 3144.83 & FR = 1.20		USED HIGHER WS
G	: WS NOT FOUND BETWEEN	:			
		:	WS = 3141.28 & WS = 3152.70		USED DEL = 0.25
G	: FRDN FAILURE	:			
		:	WS = 3144.83 & FR = 1.20		USED HIGHER WS
G	: WS NOT FOUND BETWEEN	:			
		:	WS = 3141.28 & WS = 3152.70		USED WSMIN = WSC
G	: WS NOT FOUND	:			ASSUMED WS = WSC
K-APP	: KU/KD < 0.7 OR > 1.4	:			ALERTED USER
K+2.7	: KU/KD < 0.7 OR > 1.4	:			ALERTED USER
L	: KU/KD < 0.7 OR > 1.4	:			ALERTED USER
M	: WS TOO LOW	:			USED WSMIN = WSC
M	: KU/KD < 0.7 OR > 1.4	:			ALERTED USER

OK

WATER-SURFACE PROFILE FOR: HOWARD CREEK FINAL ALL FLOODS " FINAL
 PAGE 1 OF 2, PROFILE NUMBER 2, UPSTREAM COMPUTATIONS

50 YEAR

SECID	AT	WS ELEV	HV	HF	HE	EG	V	FN	ACC	REW	ID
A	AT	3122.58	0 / 1.01	0 /	2600. /	349. /	28689. /	1.17 /	11. /	90.	*IS*
B	AT	3128.59	640 / 1.19	640 / 6.09	2600. / 0.09	331. / 3129.77	24745. / 7.86	1.23 / 0.69	41. / 0.000	121.	*XS*
C	AT	3133.32	1170 / 0.31	530 / 3.85	2600. / 0.0	593. / 3133.63	37575. / 4.38	1.02 / 0.47	33. / 0.000	240.	*XS*
D	AT	3137.11	1875 / 0.48	705 / 3.88	2600. / 0.09	500. / 3137.60	32724. / 5.20	1.14 / 0.41	286. / 0.003	431.	*XS*
E-TW	AT	3140.53	2530 / 0.81	655 / 3.57	2600. / 0.16	361. / 3141.33	37858. / 7.20	1.00 / 0.51	580. / 0.001	639.	*XS*
===== BEGIN BRIDGE ANALYSIS =====											
BR-OP	AT	3139.20	2530 / 0.73	/	2634. / ...3... (0.064)	385. /	21828. / 6.83	1.00 / 0.57	0. /	85.	*R0*
===== END BRIDGE ANALYSIS =====											
EMBANKMENT OVERFLOW (CFS) / LEFT 0. / RIGHT 0. / *RG*											
F APP	AT	3141.53	2674 / 0.13	144 / 0.35	2600. / 0.0	969. / 3141.66	74416. / 2.68	1.19 / 0.24	560. / -0.019	833.	*AS*
M = **** / E = **** / K* = **** / 969. / 74416. / 1.19 / 560. / 833. / 3141.53 / 0.13 / / 3141.66 / 2.68 / 0.24 / *AS*											
===== END BRIDGE ANALYSIS =====											
G	AT	3146.90	3495 / 0.83	821 / *****	2440. / *****	492. / 3147.72	31189. / 4.96	2.16 / 0.57	23. / *****	500.	*XS*
H	AT	3152.15	4210 / 1.08	715 / 5.37	2440. / 0.13	301. / 3153.23	25425. / 8.10	1.06 / 0.63	59. / 0.009	133.	*XS*
J-TW	AT	3153.53	4337 / 1.04	127 / 1.34	2440. / 0.0	303. / 3154.57	22231. / 8.04	1.03 / 0.66	118. / 0.004	195.	*XS*
===== BEGIN BRIDGE ANALYSIS =====											
BR-OP	AT	3153.50	4337 / 1.76	/	2266. / ...3... (-.001)	213. /	12316. / 10.63	1.00 / 0.75	0. /	34.	*R0*
===== END BRIDGE ANALYSIS =====											
EMBANKMENT OVERFLOW (CFS) / LEFT 113. / RIGHT 68. / *RG*											
K-APP	AT	3154.74	4424 / 0.22	87 / 0.39	2440. / 0.0	678. / 3154.96	60007. / 3.60	1.11 / 0.36	402. / -0.000	615.	*AS*
M = **** / E = **** / K* = **** / 1130. / 102387. / 1.18 / 263. / 635. / 3156.19 / 0.09 / / 3156.27 / 2.16 / 0.21 / *AS*											
===== END BRIDGE ANALYSIS =====											
K+2.7	AT	3156.41	4686 / 0.48	262 / 0.42	2440. / 0.20	473. / 3156.88	36704. / 5.16	1.16 / 0.55	429. / -0.000	614.	*XS*

3141.53

3152.15

3153.53

WATER-SURFACE PROFILE FOR: HOWARD CREEK FINAL ALL FLOODS FINAL
 PAGE 2 OF 2, PROFILE NUMBER 2, UPSTREAM COMPUTATIONS

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SECID AT DISTANCE/ LENGTH/DISCHARGE/ AREA /CONVEYANCE/ ALPHA/ LEW / REW
  WS ELEV /   HV /   HF /   HE /   EG /   V /   FN /   ACC *ID*
=====
L-2.7 AT  4938 /  252 /  2440. /  788. /  36737. / 1.35 /  53. /  595.
  3157.80 /  0.20 /  1.11 /  0.0 /  3158.00 /  3.09 /  0.45 /  0.005 *XS*
-----
L      AT  5200 /  262 /  2440. /  446. /  18878. / 1.44 /  112. /  594.
  3159.80 /  0.67 /  2.25 /  0.23 /  3160.47 /  5.47 /  0.80 / -0.016 *XS*
-----
M      AT  6315 / 1115 /  2440. /  684. /  38844. / 1.48 /  170. /  567.
  3169.25 /  0.29 /  9.05 /  0.0 /  3169.54 /  3.56 /  0.40 /  0.020 *XS*
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END OF THIS PROFILE

COMPUTED WSC VALUES FOR: HOWARD CREEK FINAL ALL FLOODS FINAL
PROFILE NUMBER 2, UPSTREAM COMPUTATIONS

SECID G M
WSC 3146.90 3168.61

PAGE 1 OF PROFILE NOTES FOR: HOWARD CREEK FINAL ALL FLOODS FINAL
 PROFILE NUMBER 3, UPSTREAM COMPUTATIONS

SECID	ERROR(WARNING) MESSAGE	INTERMEDIATE RESULTS(IF ANY)	ACTION TAKEN
C	KU/KD < 0.7 OR > 1.4		ALERTED USER
F APP	KU/KD < 0.7 OR > 1.4		ALERTED USER
G	FRDN FAILURE		ALERTED USER
G	WS NOT FOUND BETWEEN	WS = 3144.98 & FR = 1.36	USED HIGHER WS
G	FRDN FAILURE		ALERTED USER
G	WS NOT FOUND BETWEEN	WS = 3142.10 & WS = 3152.70	USED DEL = 0.25
G	FRDN FAILURE		ALERTED USER
G	WS NOT FOUND BETWEEN	WS = 3144.98 & FR = 1.36	USED HIGHER WS
G	WS NOT FOUND BETWEEN	WS = 3142.10 & WS = 3152.70	USED WSMIN = WSC
G	WS NOT FOUND		ASSUMED WS = WSC
H	KU/KD < 0.7 OR > 1.4		ALERTED USER
K-APP	KU/KD < 0.7 OR > 1.4		ALERTED USER
K+2.7	KU/KD < 0.7 OR > 1.4		ALERTED USER
L	KU/KD < 0.7 OR > 1.4		ALERTED USER
M	WS TOO LOW		ALERTED USER
M	KU/KD < 0.7 OR > 1.4		USED WSMIN = WSC
			ALERTED USER

100 YR

WATER-SURFACE PROFILE FOR: HOWARD CREEK FINAL ALL FLOODS FINAL
 PAGE 1 OF 2, PROFILE NUMBER 3, UPSTREAM COMPUTATIONS

SECID	AT	HW	HF	HE	EG	V	FN	LEW	REW	ACC	ID
A	0	0	3070.	397.	33879.	1.21	10.	95.			
	3123.17	1.12		3124.29	7.73	0.59					*IS*
B	640	640	3070.	376.	29464.	1.20	40.	121.			
	3129.15	1.25	6.04	0.06	3130.40	8.16	0.69	0.001			*XS*
C	1170	530	3070.	696.	45390.	1.03	20.	240.			
	3133.83	0.31	3.74	0.0	3134.14	4.40	0.46	0.003			*XS*
D	1875	705	3070.	560.	38573.	1.12	201.	432.			
	3137.52	0.52	3.80	0.11	3138.04	5.48	0.42	0.004			*XS*
E-TW	2530	655	3070.	393.	42684.	1.00	415	640			
	3141.06	0.95	3.75	0.21	3142.01	7.81	0.54	0.000			*XS*
===== BEGIN BRIDGE ANALYSIS =====											
BR-OP	2530		2934.	385.	21828.	1.00	0.	85.			
	3139.20	0.90	...3...	(0.064)	7.61	0.63					*80*
=====											
EMBANKMENT OVERFLOW (CFS) / LEFT 80. / RIGHT 7. / *RG*											
F APP	2674	144	3070.	1168.	96807.	1.16	558.	863.			
	3142.21	0.12	0.33	0.0	3142.34	2.63	0.22	-0.000			*AS*
=====											
M = **** / E = **** / K* = **** / 1211. / 101948. / 1.16 / 557. / 867.											
	3142.35	0.12			3142.47	2.54	0.21				*AS*
===== END BRIDGE ANALYSIS =====											
G	3495	821	2880.	658.	39707.	2.28	22.	527.			
	3147.27	0.68	*****	*****	3147.95	4.38	0.53	*****			*XS*
H	4210	715	2880.	319.	27438.	1.07	59.	136.			
	3152.39	1.35	5.44	0.34	3153.74	9.02	0.70	0.004			*XS*
J-TW	4337	127	2880.	345.	26256.	1.07	107.	195.			
	3154.04	1.16	1.46	0.0	3155.20	8.34	0.66	-0.001			*XS*
===== BEGIN BRIDGE ANALYSIS =====											
BR-OP	4337		2288.	213.	12316.	1.00	0.	34.			
	3153.50	1.79	...3...	(-0.001)	10.73	0.75					*80*
=====											
EMBANKMENT OVERFLOW (CFS) / LEFT 348. / RIGHT 241. / *RG*											
K-APP	4424	87	2880.	852.	72511.	1.20	315.	619.			
	3155.37	0.21	0.38	0.0	3155.58	3.38	0.34	-0.000			*AS*
=====											
M = **** / E = **** / K* = **** / 1353. / 127237. / 1.18 / 225. / 645.											
	3156.75	0.08			3156.83	2.13	0.20				*AS*
===== END BRIDGE ANALYSIS =====											
K+2.7	4686	262	2880.	573.	47692.	1.13	415.	614.			
	3156.93	0.44	0.36	0.18	3157.37	5.03	0.52	-0.000			*XS*

No Floodway

A VELOCITY

B do

C do

Limit adjusted based on Flood of Nov. 6, 1977.

100 YR LIMITS

100 YR LIMITS

I

WATER-SURFACE PROFILE FOR: HOWARD CREEK FINAL ALL FLOODS FINAL
 PAGE 2 OF 2, PROFILE NUMBER 3, UPSTREAM COMPUTATIONS

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW
WS ELEV	HV	HF	HE	EG	V	FN	ACC	*ID*	
L-2.7	AT	4938	252	2880.	950.	48413.	1.27	49.	595.
3158.10		0.18	0.91	0.0	3158.28	3.03	0.42	0.004	*XS*
K	AT	5200	262	2880.	500.	21467.	1.42	102.	594.
3159.93		0.73	2.09	0.28	3160.66	5.76	0.83	0.013	*XS*
L	AT	6315	1115	2880.	791.	47181.	1.39	159.	628.
3169.51		0.29	9.13	0.0	3169.79	3.64	0.41	0.001	*XS*

END OF THIS PROFILE

COMPUTED WSC VALUES FOR: HOWARD CREEK FINAL ALL FLOODS FINAL
PROFILE NUMBER 3, UPSTREAM COMPUTATIONS

SECID G M
WSC 3147.27 3168.89

PAGE 1 OF PROFILE NOTES FOR: HOWARD CREEK FINAL ALL FLOODS FINAL
 PROFILE NUMBER: 4. UPSTREAM COMPUTATIONS

SECID: ERROR(WARNING) MESSAGE: INTERMEDIATE RESULTS(IF ANY): ACTION TAKEN

C	:	KU/KD < 0.7 OR > 1.4	:		
F APP	:	KU/KD < 0.7 OR > 1.4	:		ALERTED USER
F APP	:	MIN QTC > QT (3)	:		ALERTED USER
G	:	FRDN FAILURE	:		ASSUMED WSU = H1N
			:	WS = 3145.50 & FR = 1.80	
G	:	WS NOT FOUND BETWEEN	:		USED HIGHER WS
			:	WS = 3143.73 & WS = 3152.70	
G	:	FRDN FAILURE	:		USED DEL = 0.25
			:	WS = 3145.50 & FR = 1.80	
G	:	WS NOT FOUND BETWEEN	:		USED HIGHER WS
			:	WS = 3143.73 & WS = 3152.70	
G	:	WS NOT FOUND	:		USED WSMIN = WSC
			:		ASSUMED WS = WSC
K-APP	:	KU/KD < 0.7 OR > 1.4	:		ALERTED USER
K-APP	:	MAX QBO < QT (3)	:		CHECKED QRD
K+2.7	:	KU/KD < 0.7 OR > 1.4	:		ALERTED USER
L	:	KU/KD < 0.7 OR > 1.4	:		ALERTED USER
M	:	WS TOO LOW	:		USED WSMIN = WSC
M	:	KU/KD < 0.7 OR > 1.4	:		ALERTED USER

500 YR

WATER-SURFACE PROFILE FOR: HOWARD CREEK FINAL ALL FLOODS FINAL
 PAGE 1 OF 2, PROFILE NUMBER 4, UPSTREAM COMPUTATIONS

=====										
SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW	
WS ELEV	HV	HF	HE	EG	V	FN	ACC	*ID*		
=====										
A	AT	0	0	4630.	547.	51138.	1.27	8.	105.	
3124.80	1.41			3126.21	8.46	0.61				*IS*

B	AT	640	640	4630.	509.	45072.	1.15	36.	127.	
3130.72	1.48	5.95	0.04	3132.20	9.10	0.70	0.003			*XS*

C	AT	1170	530	4630.	984.	77771.	1.00	15.	243.	
3135.10	0.34	3.24	0.0	3135.45	4.71	0.43	0.004			*XS*

D	AT	1875	705	4630.	710.	54587.	1.10	271.	434.	
3138.48	0.72	3.56	0.19	3139.20	6.52	0.67	0.003			*XS*

E-TW	AT	2530	655	4630.	559.	59733.	1.24	473.	706.	
3142.48	1.32	4.31	0.30	3143.80	8.28	0.60	-0.008			*XS*
===== BEGIN BRIDGE ANALYSIS =====										
BR-OP	AT	2530		3152.	385.	21828.	1.00	0.	85.	
3139.20	1.04	...	3...	(0.064)	8.18	0.68				*R0*

EMBANKMENT OVERFLOW (CFS)		LEFT	1392.	RIGHT	738.					*RG*

F APP	AT	2674	144	4630.	1794.	171218.	1.19	520.	948.	
3143.98	0.12	0.30	0.0	3144.10	2.58	0.20	-0.000			*AS*

M = ****		E = ****	K* = ****	1794.	171218.	1.19	520.	948.		
3143.98	0.12			3144.10	2.58	0.20				*AS*
===== END BRIDGE ANALYSIS =====										
G	AT	3495	821	4370.	924.	55658.	(2.15)	20.	583.	
3147.80	0.75	*****	*****	3148.55	4.73	0.58	*****			*XS*

H	AT	4210	715	4370.	415.	38965.	1.08	56.	143.	
3153.54	1.86	6.30	0.56	3155.40	10.54	0.76	-0.000			*XS*

J-TW	AT	4337	127	4370.	567.	43855.	1.33	69.	252.	
3155.59	1.23	1.42	0.0	3156.82	7.70	0.63	-0.001			*XS*
===== BEGIN BRIDGE ANALYSIS =====										
BR-OP	AT	4337		2097.	213.	12316.	1.00	0.	34.	
3153.50	1.50	...	3...	(-.001)	9.83	0.69				*R0*

EMBANKMENT OVERFLOW (CFS)		LEFT	1241.	RIGHT	965.					*RG*

K-APP	AT	4424	87	4370.	1428.	135659.	1.18	50.	649.	
3156.93	0.17	0.28	0.0	3157.10	3.06	0.29	0.000			*AS*

M = ****		E = ****	K* = ****	1880.	183921.	1.19	35.	669.		
3157.84	0.10			3157.94	2.32	0.22				*AS*
===== END BRIDGE ANALYSIS =====										
K+2.7	AT	4686	262	4370.	835.	71441.	1.19	324.	618.	
3158.02	0.51	0.38	0.20	3158.52	5.23	0.53	-0.001			*XS*

WATER-SURFACE PROFILE FOR: HOWARD CREEK FINAL ALL FLOODS FINAL
 PAGE 2 OF 2, PROFILE NUMBER 4, UPSTREAM COMPUTATIONS

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=====
SECID AT DISTANCE/ LENGTH/DISCHARGE/ AREA /CONVEYANCE/ ALPHA/ LEW / REW
WS-ELEV / HV / HF / HE / EG / V / FN / ACC *ID*
=====
L-2.7 AT 4938 / 252 / 4370. / 1479. / 96834. / 1.15 / 46. / 596.
3159.06 / 0.16 / 0.70 / 0.0 / 3159.22 / 2.95 / 0.34 / 0.001 *XS*
-----
L AT 5200 / 262 / 4370. / 710. / 31725. / 1.41 / 59. / 595.
3160.36 / 0.83 / 1.63 / 0.34 / 3161.18 / 6.15 / 0.92 / 0.001 *XS*
-----
M AT 6315 / 1115 / 4370. / 1087. / 72517. / 1.27 / 136. / 629.
3170.13 / 0.32 / 9.26 / 0.0 / 3170.44 / 4.02 / 0.45 / 0.004 *XS*
=====
    
```

END OF THIS PROFILE

COMPUTED WSC VALUES FOR: HOWARD CREEK FINAL ALL FLOODS FINAL
PROFILE NUMBER 4. UPSTREAM COMPUTATIONS

SECID G M
WSC 3147.80 3169.44

FLOODWAY COMPUTATIONS

*** INPUT CARD PRINTOUT ***

	1	2	3	4	5	6	7	8
5	1535	609 4	31534	616 4	31579	650 4	31597	700 4 31619 734 4 31638
6	1536	1 2 035 035	1 2 035 035	1 2 050 050	1 2 050 050			
3	1560	L-2.7 0 27	3 3154	4938 99	99			
5	1561	0 1	31666	7 1	31610	11 1	31626	35 1 31610 45 1 31599
5	1562	47 1	31582	55 1	31577	105 1	31572	155 1 31565 205 1 31555
5	1563	255 1	31554	305 1	31565	355 1	31566	405 1 31576 438 2 31573
5	1564	447 2	31535	451 2	31527	462 2	31524	475 2 31529 476 2 31548
5	1565	490 3	31568	505 3	31571	525 3	31567	555 3 31569 580 3 31562
5	1566	593 3	31560	605 3	31669			
6	1567	1 2 040 040	1 2 050 050	1 2 075 075				
3	1600	L 0 27	3 3156	5200 99	99			
5	1605	0 1	31693	7 1	31637	11 1	31653	35 1 31637 45 1 31626
5	1606	47 1	31609	55 1	31604	105 1	31599	155 1 31592 205 1 31582
5	1607	255 1	31581	305 1	31592	355 1	31593	405 1 31603 438 2 31600
5	1608	447 2	31562	451 2	31554	462 2	31551	475 2 31556 476 2 31575
5	1609	490 3	31595	505 3	31598	525 3	31594	555 3 31596 580 3 31589
5	1610	593 3	31587	605 3	31696			
6	1615	1 2 040 040	1 2 050 050	1 2 075 075				
3	1700	M 0 22	3 3164	6315 99	99			
5	1705	0 1	31773	43 1	31738	93 1	31715	143 1 31699 193 1 31687
5	1706	243 1	31682	293 1	31679	343 1	31692	393 1 31670 443 1 31669
5	1707	500 1	31672	508 2	31663	512 2	31638	526 2 31629 533 2 31628
5	1708	542 2	31639	549 3	31683	558 3	31691	593 3 31697 628 3 31693
5	1709	637 3	31745	643 3	31773			
6	1715	1 2 045 040	1 2 050 050	1 2 080 080				

SECID	ERROR SEVERITY	FIRST VARIABLE	NO.	ERROR MESSAGE	SECOND VARIABLE	NO.	VALUE ASSUMED
BR.OP	WARNING	STATION	20	IS LESS THAN	STATION	19	
BR-OP	WARNING	STATION	8	IS LESS THAN	STATION	7	

INPUT SUMMARY FOR: HOWARD CREEK FLOODWAY 1ST TRY

19 CROSS SECTIONS SPECIFIED (OR ASSUMED)

FOUND 19 TYPE 3 CARDS

KEPT 19 CROSS SECTIONS FOR EDITING

19 " " VALID FOR PROPERTY COMPUTATIONS

19 " " " " PROFILE "

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=A AT DISTANCE= 0 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3115.0	8	150	1.00	17	17	30	48	30
3124.9	557	52358	1.27	98	101	7	105	6687
3129.6	1060	126061	1.28	116	122	0	116	16078

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=B AT DISTANCE= 640 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3126.0	2	36	1.00	4	5	101	105	7
3129.9	438	36397	1.17	84	90	38	122	5237
3136.3	1164	127377	1.35	145	159	0	145	16098

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=C AT DISTANCE= 1170 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3125.0	0	0	1.00	1	1	225	226	0
3134.9	937	72049	1.00	226	231	16	242	10818
3139.9	2130	265557	1.03	250	257	0	250	34772

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=D AT DISTANCE= 1875 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3128.0	1	8	1.00	8	8	383	391	3
3137.9	618	44540	1.1	156	161	277	433	6634
3145.0	2800	312526	1.04	440	449	0	440	39215

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=E-TW AT DISTANCE= 2530 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3133.0	25	701	1.00	31	31	590	620	126
3142.9	667	67978	1.41	276	282	460	735	4947
3147.0	2444	248667	1.59	540	547	330	870	23371

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECIQ=BR.OP AT DISTANCE= 2530 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3133.0	16	263	1.00	39	39	19	59	58
3139.2	412	21828	1.00	0	174	0	85	0

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=F APP AT DISTANCE= 2674 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3134.0	5	59	1.00	15	16	602	618	15
3143.9	1761	167351	1.19	422	428	520	942	18742
3147.7	3710	453066	1.13	537	547	520	1057	52037

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=G AT DISTANCE= 3495 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3139.0	9	205	1.00	15	15	178	194	39
3148.9	1684	118305	1.51	716	722	15	731	11921
3152.7	4526	559340	1.10	766	773	0	766	59482

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=H AT DISTANCE= 4210 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3146.0	21	410	1.00	28	29	63	91	100
3155.9	672	73362	1.12	131	136	22	153	8172
3161.0	1457	217213	1.04	166	175	0	166	24062

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=J-TW AT DISTANCE= 4337 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3148.0	42	1305	1.00	30	30	160	189	286
3157.9	1138	90954	1.53	322	326	21	343	9795
3160.8	2154	211880	1.31	375	380	0	375	25561

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=8R-0P AT DISTANCE= 4337 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3148.0	29	809	1.00	31	31	3	34	157
3153.5	213	12316	1.00	0	79	0	34	0

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=K-APP AT DISTANCE= 4424 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3148.0	10	168	1.00	24	25	580	605	36
3157.9	1914	187792	1.19	559	562	34	670	18424
3161.1	4100	540765	1.11	734	738	0	734	52255

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=K+2.7 AT DISTANCE= 4686 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3151.0	18	414	1.00	26	26	580	605	82
3160.9	2076	205930	1.19	595	598	29	677	20150
3163.8	4085	537371	1.11	734	738	0	734	51946

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=L-2.7 AT DISTANCE= 4938 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3154.0	38	1293	1.00	30	31	446	476	241
3163.9	4258	520273	1.10	598	606	3	602	61297
3166.9	6063	929328	1.11	605	615	0	605	103343

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=L AT DISTANCE= 5200 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3156.0	18	392	1.00	27	28	448	475	81
3165.9	3840	439020	1.10	597	604	4	601	52586
3169.6	6063	929417	1.11	605	615	0	605	103351

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
SECID=M AT DISTANCE= 6315

1ST TRY
PART 1 OF 1

WS.	A	K	ALPHA	B	P	LEW	RFW	QC
3164.0	23	568	1.00	30	31	512	542	114
3173.9	3157	334375	1.12	594	598	42	636	39044
3177.3	5260	732579	1.10	643	647	0	643	81315

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=A AT DISTANCE= 170
 *** FLOODWAY ANALYSIS *** LAST TRY I HOPE
 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3115.0	8	150	1.00	17	17	30	48	30
3124.9	544	52377	1.22	85	91	10	95	7079
3129.6	943	118264	1.21	85	100	10	95	16207

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=B AT DISTANCE= 640
 *** FLOODWAY ANALYSIS *** LAST TRY I HOPE
 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3120.0	2	36	1.00	4	5	101	105	7
3129.9	437	36684	1.17	81	88	40	121	5317
3136.3	955	116915	1.05	81	100	40	121	18139

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=C AT DISTANCE= 1170
 *** FLOODWAY ANALYSIS *** LAST TRY I HOPE
 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3125.0	0	0	1.00	1	1	225	226	0
3134.9	540	45758	1.01	90	99	150	240	7458
3139.9	990	119603	1.05	90	109	150	240	18187

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=D AT DISTANCE= 1875
 *** FLOODWAY ANALYSIS *** LAST TRY I HOPE
 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3128.0	1	8	1.00	8	8	383	391	3
3137.9	479	36090	1.13	90	99	342	432	5896
3145.0	1118	135876	1.16	90	113	342	432	20774

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=E-TW AT DISTANCE= 2530
 *** FLOODWAY ANALYSIS *** LAST TRY I HOPE
 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3133.0	25	701	1.00	31	31	590	620	126
3142.9	505	62625	1.00	61	70	579	640	8251
3147.0	756	113657	1.00	61	78	579	640	15081

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=F APP AT DISTANCE= 2674
 *** FLOODWAY ANALYSIS *** LAST TRY I HOPE
 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3134.0	5	59	1.00	16	16	602	618	15
3143.9	1048	115736	1.03	142	152	558	700	15885
3147.7	1588	226208	1.03	142	160	558	700	29658

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=G AT DISTANCE= 3495
 *** FLOODWAY ANALYSIS *** LAST TRY I HOPE
 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3139.0	9	205	1.00	15	15	178	194	39
3148.9	591	54789	1.42	150	159	100	250	5589
3152.7	1161	145529	1.22	150	167	100	250	16578

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=H AT DISTANCE= 4210
 *** FLOODWAY ANALYSIS *** LAST TRY I HOPE
 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3146.0	21	410	1.00	28	29	63	91	100
3155.9	590	67218	1.02	77	89	59	136	9156
3161.0	983	145304	1.00	77	99	59	136	19874

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=J-TW AT DISTANCE= 4337
 *** FLOODWAY ANALYSIS *** LAST TRY I HOPE
 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3148.0	42	1305	1.00	30	30	160	189	286
3157.9	685	63064	1.14	88	100	107	195	10164
3160.8	940	108290	1.13	88	105	107	195	16370

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=K-APP AT DISTANCE= 4424
 *** FLOODWAY ANALYSIS *** LAST TRY I HOPE
 1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3148.0	10	168	1.00	24	25	580	605	36
3157.9	777	108645	1.05	100	112	516	616	12004
3161.1	1097	187975	1.06	100	119	516	616	20030

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=K+2.7 AT DISTANCE= 4686
 *** FLOODWAY ANALYSIS *** LAST TRY I HOPE

1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3151.0	18	414	1.00	26	26	580	605	82
3160.9	813	116879	1.04	100	114	514	614	12874
3163.8	1103	190378	1.05	100	119	514	614	20252

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=L-2.7 AT DISTANCE= 4938
 *** FLOODWAY ANALYSIS *** LAST TRY I HOPE

1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3154.0	38	1293	1.00	30	31	446	476	241
3163.9	2266	253102	1.19	300	317	295	595	32429
3166.9	3166	435458	1.19	300	323	295	595	53541

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=L AT DISTANCE= 5200
 *** FLOODWAY ANALYSIS *** LAST TRY I HOPE

1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3156.0	18	392	1.00	27	28	448	475	81
3165.9	2056	216169	1.19	300	315	295	595	28013
3169.6	3166	435478	1.19	300	323	295	595	53543

CROSS-SECTION PROPERTIES FOR: HOWARD CREEK FLOODWAY
 SECID=M AT DISTANCE= 6315
 *** FLOODWAY ANALYSIS *** LAST TRY I HOPE

1ST TRY
 PART 1 OF 1

WS	A	K	ALPHA	B	P	LEW	REW	QC
3164.0	23	568	1.00	30	31	512	542	114
3173.9	1148	146227	1.05	150	164	408	558	17622
3177.3	1658	263771	1.05	150	171	408	558	30469

PAGE 1 OF PROFILE NOTES FOR: HOWARD CREEK FLOODWAY 1ST TRY
PROFILE NUMBER 1, UPSTREAM COMPUTATIONS

SECID; ERROR (WARNING) MESSAGE; INTERMEDIATE RESULTS (IF ANY); ACTION TAKEN

SECID	ERROR (WARNING) MESSAGE	INTERMEDIATE RESULTS (IF ANY)	ACTION TAKEN
F APP	KU/KD < 0.7 OR > 1.4		ALERTED USER
G	FRDN FAILURE	WS = 3145.74 & FR = 1.11	USED HIGHER WS
G	WS NOT FOUND BETWEEN	WS = 3142.29 & WS = 3152.70	USED DEL = 0.25
G	FRDN FAILURE	WS = 3145.74 & FR = 1.11	USED HIGHER WS
G	WS NOT FOUND BETWEEN	WS = 3142.29 & WS = 3152.70	USED WSMIN = WSC
G	WS NOT FOUND		ASSUMED WS = WSC
K-APP	KU/KD < 0.7 OR > 1.4		ALERTED USER
K+2.7	KU/KD < 0.7 OR > 1.4		ALERTED USER
L	KU/KD < 0.7 OR > 1.4		ALERTED USER
M	WS TOO LOW		USED WSMIN = WSC
M	KU/KD < 0.7 OR > 1.4		ALERTED USER

WATER-SURFACE PROFILE FOR: HOWARD CREEK FLOODWAY 1ST TRY
 PAGE 1 OF 2, PROFILE NUMBER 1, UPSTREAM COMPUTATIONS
 *** FLOODWAY ANALYSIS *** LAST TRY I HOPE

SECID	AT	WS ELEV	HV	HF	HE	EG	V	FN	ACC	REW	ID
A	AT	3123.17	0 / 1.12	0 /	3070. /	397. /	33879. /	1.21 /	10. /	95.	*IS*
B	AT	3129.15	640 / 1.25	640 / 6.04	3070. / 0.07	376. / 3130.40	29484. / 8.17	1.21 / 0.69	40. / 0.001	121.	*XS*
C	AT	3134.23	1170 / 0.64	530 / 4.47	3070. / 0.0	480. / 3134.87	37881. / 6.40	1.01 / 0.42	150. / 0.004	240.	*XS*
D	AT	3138.45	1875 / 0.59	705 / 4.17	3070. / 0.0	529. / 3139.04	42096. / 5.81	1.13 / 0.39	342. / 0.001	432.	*XS*
E-TW	AT	3141.45	2530 / 0.84	655 / 3.14	3070. / 0.13	417. / 3142.29	46763. / 7.36	1.00 / 0.50	579. / -0.011	640.	*XS*
===== BEGIN BRIDGE ANALYSIS =====											
HR-OP	AT	3139.20	2530 / 0.83	/	2815. / ...3... (0.064)	385. /	21828. / 7.30	1.00 / 0.60	0. /	85.	*R0*
===== EMBANKMENT OVERFLOW (CFS) / LEFT 197. / RIGHT 37. / *RG* =====											
F APP	AT	3142.45	2674 / 0.21	144 / 0.36	3070. / 0.0	842. / 3142.67	81402. / 3.64	1.04 / 0.27	558. / 0.015	700.	*AS*
M = **** / F = **** / K* = **** / 855. / 83305. / 1.04 / 558. / 700. / 3142.54 / 0.21 / / 3142.75 / 3.59 / 0.26 / *AS*											
===== END BRIDGE ANALYSIS =====											
G	100 → AT 21	3147.24	3495 / 1.55	821 / *****	2880. / *****	346. / 3148.79	29701. / 8.33	1.44 / 0.71	100. / *****	236.	*XS*
H	AT	3153.34	4210 / 0.89	715 / 5.44	2880. / 0.0	393. / 3154.23	36722. / 7.33	1.06 / 0.53	59. / 0.003	136.	*XS*
I	J-TW	3154.27	4337 / 1.05	127 / 1.01	2880. / 0.08	366. / 3155.32	28315. / 7.88	1.09 / 0.62	107. / -0.000	195.	*XS*
===== BEGIN BRIDGE ANALYSIS =====											
HR-OP	AT	3153.50	4337 / 1.70	/	2227. / ...3... (-.001)	213. /	12316. / 10.44	1.00 / 0.73	0. /	34.	*R0*
===== EMBANKMENT OVERFLOW (CFS) / LEFT 371. / RIGHT 258. / *RG* =====											
K APP	AT 21	3155.27	4424 / 0.51	87 / 0.45	2880. / 0.0	514. / 3155.78	56317. / 5.60	1.04 / 0.47	516. / 0.006	616.	*AS*
M = **** / E = **** / K* = **** / 647. / 81081. / 1.04 / 516. / 616. / 3156.50 / 0.32 / / 3156.92 / 4.45 / 0.34 / *AS*											
===== END BRIDGE ANALYSIS =====											
K+2.7	AT	3157.03	4686 / 0.74	262 / 0.65	2880. / 0.21	427. / 3157.77	41547. / 6.75	1.04 / 0.62	514. / -0.000	614.	*XS*

100 YR

100 YR

ENC

ENC

100 YR Limits

100 YR

100 YR

same

same as 100

WATER-SURFACE PROFILE FOR: HOWARD CREEK FLOODWAY 1ST TRY
PAGE 2 OF 2, PROFILE NUMBER 1, UPSTREAM COMPUTATIONS
*** FLOODWAY ANALYSIS *** LAST TRY I HOPE

SECID	AT	DISTANCE	LENGTH	DISCHARGE	AREA	CONVEYANCE	ALPHA	LEW	REW
WS ELEV	HV	HF	HE	EG	V	FN	ACC	ID	
L-2.7	AT	4938	252	2880.	702.	39551.	1.38	295.	595.
3158.68		0.36	1.27	0.0	3159.05	4.10	0.48	0.002	*XS*
K	AT	5200	262	2880.	500.	24430.	1.58	295.	595.
3160.71		0.81	2.25	0.23	3161.52	5.76	0.76	0.002	*XS*
L*	AT	6315	1115	2880.	532.	43301.	1.08	408.	558.
3169.79		0.49	8.74	0.0	3170.28	5.41	0.45	0.013	*XS*

END OF THIS PROFILE

COMPUTED WSC VALUES FOR: HOWARD CREEK FLOODWAY
PROFILE NUMBER 1, UPSTREAM COMPUTATIONS

1ST TRY

SECID G M
WSC 3147.24 3168.72

SUMMARY OF ENCROACHMENTS FOR: HOWARD CREEK FLOODWAY 1ST TRY
 RESULTS OF THE FLOODWAY ANALYSIS ENTITLED LAST TRY I HOPE (PROFILE
 NUMBER 1, UPSTREAM COMPUTATIONS) ARE COMPARED TO THE RESULTS OF THE
 BASE PROFILE (PROFILE NUMBER 1, UPSTREAM COMPUTATIONS). PAGE 1 OF 1

SECID	CARD 3 SEQUENCE	TYPE	FW OPTION	ENCROACHMENT		SURCHARGE		CHANNEL WIDTH		
				LEFT	RIGHT	IDEAL	ACTUAL	NATURAL	FLOODWAY	
<i>100YR limits</i> → A	100	1	HOR	YES	YES	*****	0.0	*****	84	<i>No enc. vel. to high 100 YR</i>
B	200	0	HOR	YES	YES	*****	-0.00	*****	81	<i>do</i>
C	300	0	HOR	YES	YES	*****	0.41	*****	90	
D	400	0	HOR	YES	YES	*****	0.93	*****	90	
E-TW	500	0	HOR	YES	YES	*****	0.39	*****	61	<i>do</i>
BR.OP	600	2	N.A.	N.A.	N.A.	*****	-1.86	*****	85	
PIERS	700	3	N.A.	N.A.	N.A.	*****	*****	*****	*****	
ROAD	800	4	N.A.	N.A.	N.A.	*****	*****	*****	*****	
F APP	900	5	VHD	CONS	YES	1.00	0.19	*****	142	
G	1000	1	HOR	YES	YES	*****	-0.03	*****	136	
H	1100	0	HOR	YES	YES	*****	0.95	*****	-77	<i>No Enc vel. to high</i>
I J-TW	1200	0	HOR	YES	YES	*****	0.23	*****	-88	<i>do</i>
BR-OP	1300	2	N.A.	N.A.	N.A.	*****	-0.54	*****	34	
ROAD	1400	4	N.A.	N.A.	N.A.	*****	*****	*****	*****	
J K-APP	1500	5	HOR	YES	YES	*****	-0.15	*****	100	
K+2.7	1530	0	HOR	YES	YES	*****	0.10	*****	100	
L-2.7	1560	0	HOR	YES	YES	*****	0.58	*****	300	<i>Width necessary</i>
K +	1600	0	HOR	YES	YES	*****	0.78	*****	300	<i>to hold surcharge to less than 10 ft.</i>
L +	1700	0	HOR	YES	YES	*****	0.28	*****	150	