

F/W  
10/15/16 SUMMARY PRINTOUT

CAPE FEAR RIVER

SECNO	CWSEL	Q	ELMIN	EG	HV	10K+S	DIFWSP	TOPWID	SSTA	ENDST	VCH
113.30	81.40	103000.00	15.90	81.77	.37	2.54	0	1351.13	17051.95	18403.09	5.1
113.30	82.40	103000.00	15.90	82.78	.38	2.51	1.00	600.00	17709.50	18309.50	5.2
113.90	82.23	103000.00	15.90	82.50	.27	1.82	0	1326.94	16543.24	17870.18	4.4
113.90	83.22	103000.00	15.90	83.50	.28	1.80	.99	600.00	17206.00	17806.00	4.4
114.90	83.31	103000.00	18.00	83.62	.30	2.30	0	1341.06	16460.44	17801.50	4.7
114.90	84.28	103000.00	18.00	84.59	.30	2.21	.97	800.00	16912.50	17712.50	4.7
114.90	83.36	103000.00	17.70	83.62	.26	9.31	0	680.51	17000.00	17780.51	4.1
114.90	84.34	103000.00	17.70	84.59	.26	14.74	.98	785.00	17000.00	17785.00	4.0
114.90	83.37	103000.00	17.70	83.63	.26	9.31	0	680.56	17000.00	17780.56	4.1
114.90	84.35	103000.00	17.70	84.61	.26	14.74	.98	785.00	17000.00	17785.00	4.0
114.90	83.46	103000.00	17.70	83.65	.19	2.15	0	782.30	17000.23	17782.53	3.4
114.90	84.44	103000.00	17.70	84.62	.18	1.98	.99	784.08	17000.16	17784.25	3.4
114.90	83.40	103000.00	18.00	83.70	.30	2.28	0	1346.54	16455.63	17802.17	4.7
114.90	84.38	103000.00	18.00	84.68	.30	2.20	.98	800.00	16912.50	17712.50	4.7
115.00	83.48	103000.00	18.00	83.78	.30	2.27	0	1351.45	16451.32	17802.77	4.7
115.00	84.46	103000.00	18.00	84.76	.30	2.19	.98	800.00	16912.50	17712.50	4.7
115.00	83.55	103000.00	19.90	83.80	.25	2.89	0	678.82	17320.63	17999.44	4.0
115.00	84.54	103000.00	19.90	84.78	.24	2.66	.99	679.22	17320.45	17999.67	3.9
115.00	83.55	103000.00	19.90	83.81	.25	2.89	0	678.82	17320.63	17999.44	4.0
115.00	84.54	103000.00	19.90	84.78	.24	2.66	.99	679.22	17320.45	17999.67	3.9
115.00	83.53	103000.00	18.00	83.83	.30	2.26	0	1355.14	16448.08	17803.22	4.7
115.00	84.52	103000.00	18.00	84.81	.30	2.18	.98	800.00	16912.50	17712.50	4.7
115.20	83.71	103000.00	19.00	84.07	.36	2.36	0	1598.18	16780.49	18527.64	5.0
115.20	84.69	103000.00	19.00	85.03	.35	2.23	.98	717.59	17451.41	18169.00	4.9
115.20	83.87	103000.00	19.00	84.10	.22	.29	0	1657.76	16750.07	18549.95	4.0
115.20	84.63	103000.00	19.00	85.06	.23	.28	.96	717.93	17451.07	18169.00	3.9
115.20	83.82	103000.00	19.20	84.14	.32	.89	0	587.14	17484.88	18092.02	4.5
115.20	84.78	103000.00	19.20	85.10	.32	1.40	.96	589.43	17483.76	18093.19	4.3
115.20	83.82	103000.00	19.20	84.14	.32	.89	0	587.15	17484.87	18092.02	4.5
115.20	84.78	103000.00	19.20	85.11	.32	1.40	.96	589.44	17483.75	18093.19	4.3
115.20	83.94	103000.00	19.00	84.16	.22	.29	0	1681.58	16737.91	18558.87	4.0
115.20	84.90	103000.00	19.00	85.13	.23	.28	.96	718.09	17450.91	18169.00	3.9
115.20	83.94	103000.00	19.00	84.16	.22	.29	0	1682.63	16737.37	18559.26	4.0
115.20	84.90	103000.00	19.00	85.13	.23	.28	.96	718.10	17450.90	18169.00	3.9
115.80	84.10	103000.00	17.90	84.37	.28	1.87	0	2130.71	18048.80	20179.51	4.3
115.80	85.04	103000.00	17.90	85.34	.30	1.91	.94	600.00	18147.00	18747.00	4.4

SECNO	CWSEL	Q	ELMIN	EG	HV	10K+S	DIFWSP	TOPWID	SSTA	ENDST	VCH
115.80	84.22	103000.00	17.90	84.40	.18	2.41	0	918.83	18066.48	18985.30	3.4
115.80	85.14	103000.00	17.90	85.36	.23	2.16	.92	600.00	18217.50	18817.50	3.8
115.80	84.22	103000.00	17.90	84.40	.18	2.40	0	918.84	18066.47	18985.31	3.4
115.80	85.14	103000.00	17.90	85.37	.23	2.16	.92	600.00	18217.50	18817.50	3.8
115.80	84.18	103000.00	17.90	84.45	.28	1.86	0	2154.24	18047.81	20202.05	4.3
115.80	85.10	103000.00	17.90	85.40	.30	1.90	.93	600.00	18147.00	18747.00	4.4
116.80	85.20	103000.00	13.20	85.56	.36	2.32	0	1180.93	16995.86	18176.79	5.2
116.80	86.14	103000.00	13.20	86.51	.36	2.27	.94	600.00	17182.50	17782.50	5.2
117.20	85.74	103000.00	17.20	86.11	.38	2.45	0	3660.85	16315.61	19976.46	5.2
117.20	86.66	103000.00	17.20	87.06	.40	2.44	.93	557.46	19424.50	19981.96	5.2
117.30	85.85	103000.00	17.20	86.14	.30	2.88	0	548.36	19450.86	19999.22	4.3
117.30	86.81	103000.00	17.20	87.09	.28	2.68	.96	548.71	19450.67	19999.38	4.2
117.30	85.85	103000.00	17.20	86.15	.30	2.88	0	548.37	19450.86	19999.22	4.3
117.30	86.81	103000.00	17.20	87.10	.28	2.68	.96	548.71	19450.67	19999.38	4.2
117.30	85.81	103000.00	17.20	86.19	.38	2.43	0	3743.81	16233.11	19976.92	5.2
117.30	86.76	103000.00	17.20	87.15	.39	2.43	.94	558.02	19424.50	19982.52	5.2
117.60	86.29	103000.00	17.00	86.65	.35	2.57	0	1635.31	18633.65	20268.95	5.2
117.60	87.22	103000.00	17.00	87.61	.39	2.66	.93	700.00	19500.00	20200.00	5.4
119.10	88.13	103000.00	20.80	88.41	.28	2.05	0	1442.91	20185.56	21628.47	4.7
119.10	89.13	103000.00	20.80	89.43	.30	2.10	.99	850.00	20200.00	21050.00	4.8
120.30	89.56	103000.00	20.20	89.96	.40	2.75	0	2119.45	6971.10	9090.55	5.7
120.30	90.57	103000.00	20.20	90.97	.40	2.68	1.01	850.00	8200.00	9050.00	5.7
120.80	90.27	103000.00	21.00	90.67	.40	2.76	0	2104.33	6984.85	9089.18	5.7
120.80	91.26	103000.00	21.00	91.67	.41	2.70	.99	850.00	8200.00	9050.00	5.7
122.20	92.16	103000.00	23.10	92.52	.36	2.25	0	4313.19	305.65	7560.87	5.2
122.20	93.12	103000.00	23.10	93.49	.37	2.25	.96	850.00	6650.00	7500.00	5.2
122.40	92.38	103000.00	23.40	92.75	.36	2.26	0	4300.13	312.47	7576.82	5.2
122.40	93.34	103000.00	23.40	93.72	.38	2.26	.96	850.00	6650.00	7500.00	5.3

FLOODWAY DATA, CAPE FEAR RIVER  
 PROFILE NO. 2

STATION	----- WIDTH (FT)	FLOODWAY SECTION AREA	----- MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
<i>143.3</i> A 113.300	600.	24720.	4.2	82.4	81.4	1.0
113.900	600.	28282.	3.6	83.2	82.2	1.0
114.900	800.	30182.	3.4	84.3	83.3	1.0
114.900	785.	25239.	4.1	84.3	83.4	1.0
114.900	785.	25239.	4.1	84.3	83.4	1.0
114.900	784.	30307.	3.4	84.4	83.5	1.0
114.900	800.	30258.	3.4	84.4	83.4	1.0
<i>143.4</i> B 115.000	800.	30317.	3.4	84.5	83.5	1.0
115.000	679.	26160.	3.9	84.5	83.5	1.0
115.000	679.	26161.	3.9	84.5	83.6	1.0
115.000	800.	30368.	3.4	84.5	83.5	1.0
115.200	718.	27089.	3.8	84.7	83.7	1.0
<i>143.5</i> 115.200	718.	27195.	3.8	84.8	83.9	1.0
115.200	589.	23124.	4.5	84.8	83.8	1.0
115.200	589.	23125.	4.5	84.8	83.8	1.0
115.200	718.	27244.	3.8	84.9	83.9	1.0
115.200	718.	27247.	3.8	84.9	83.9	1.0
115.800	600.	26473.	3.9	85.0	84.1	.9
<i>143.6</i> 115.800	600.	26952.	3.8	85.1	84.2	.9
115.800	600.	26953.	3.8	85.1	84.2	.9
115.800	600.	26511.	3.9	85.1	84.2	.9
<i>143.7</i> C 116.800	600.	27385.	3.8	86.1	85.2	.9
<i>143.8</i> 117.200	557.	24228.	4.3	86.7	85.7	.9
117.300	549.	24068.	4.3	86.8	85.8	1.0
<i>143.9</i> 117.300	549.	24071.	4.3	86.8	85.9	1.0
117.300	558.	24280.	4.2	86.8	85.8	.9
<i>144.0</i> D 117.600	700.	27561.	3.7	87.2	86.3	.9

199.1	F 119,100	850.	31451.	3.3	89.1	88.1	1.0
190.3	120,300	850.	29186.	3.5	90.6	89.6	1.0
190.8	F 120,800	850.	29100.	3.5	91.3	90.3	1.0
192.2	122,200	850.	27320.	3.8	93.1	92.2	1.0
	122,400	850.	27250.	3.8	93.3	92.4	1.0

STUDY  
 1.10.12 p. 1-151.0

UNITED STATES GOVERNMENT  
 OFFICE OF THE COMPTROLLER OF THE MONETARY SYSTEM  
 WASHINGTON, D. C. 20540  
 1964

\*\*\*\*\*  
INTERACTIVE HEC2 VERSION UPDATED SEPT 1976  
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09,10  
MODIFICATIONS 50,51,52,53,54,55,56,57,58,59  
\*\*\*\*\*

\*\*\*\*\*  
\* AS OF 2 SEPT 1976, THE PROGRAM HAS BEEN UPDATED TO INCLUDE MODIFICATION 59 AND ERROR CORRECTION 10. THE PURPOSE OF  
\* ICATION 59 IS TO

\* (1) PROVIDE A NEW INTERPOLATION SCHEME FOR CALCULATING ENCROACHMENT STATIONS BY METHODS 3 AND 4. PREVIOUSLY, L  
\* INTERPOLATION WAS USED TO CALCULATE ENCROACHMENTS, NOW, THE INTERPOLATION IS BASED ON A PARABOLIC APPROXIM  
\* OF CONVEYANCE VERSUS DISTANCE,

\* (2) FURTHER DEVELOPMENT OF MODIFICATION 54 WHICH PROVIDES FOR THE NH CARD TO VARY #N# VALUES IN THE CHANNEL, T  
\* PROGRAM WILL NOW ALLOW BOTH A CHANGE IN #N# VALUES IN THE CHANNEL (MOD. 54 AS PRESENTLY USED) AND, IF NO #N  
\* VARIATION IS DEFINED IN THE CHANNEL WHEN THE NH CARD IS USED, THE CHANNEL WILL NOT BE SEGMENTED FOR FLOW CO  
\* TATION. THIS MODIFICATION ALLOWS MORE FLEXIBILITY.

\* (3) COMMENT CARDS (C CARDS) ARE NOW PRINTED IN THE DATA LISTING.

\* (4) EXPANDS PRINTOUT OF THE SPECIAL BRIDGE ROUTINE TO INCLUDE TRAPEZOIDAL CALCULATIONS FOR OUTPUT ANALYSIS, STA  
\* TESTS RELATING TO THE SPECIAL BRIDGE ROUTINE WILL BE AFFECTED BY THIS CHANGE, THE PRINTOUT OF CALCULATED CH  
\* AREA IS BASED ON THE DEFINED TRAPEZOID UP TO THE BRIDGE WATER SURFACE ELEVATION, CALCULATED CHANNEL AREA SH  
\* BE CLOSE TO THE VALUE OF THE PREVIOUS SECTION'S CHANNEL AREA, TRAPEZOID/AREA IS THE AREA OF THE TRAPEZOID  
\* ELLC, TRAPEZOID/AREA SHOULD BE CLOSE TO INPUT ITEM BAREA, PLEASE NOTE THAT NUMERICAL RESULTS WILL NOT BE A

\* (5) THE FLOW DISTRIBUTION PRINTOUT MAY NOW BE REQUESTED FOR ANY PARTICULAR SECTION (X2 CARD WITH 15 IN 10TH FIE

\* THE PURPOSE OF ERROR CORRECTION 10 IS TO

\* (1) ALLOW THE USE OF THE EFFECTIVE AREA OPTION WHEN FLOW IS PRESSURE AND WEIR FLOW,

\* (2) CORRECT THE WETTED PERIMETER CALCULATION IN THE NORMAL BRIDGE ROUTINE,

\* (3) ACCOUNT FOR THE VERTICAL WALL AT THE ENCROACHMENT STATION WHEN CALCULATING CONVEYANCE.

\* A FORMAL CHANGE NOTICE CONCERNING THE ABOVE WILL BE MAILED IN APPROXIMATELY ONE MONTH, ANY QUESTIONS ABOUT THESE P  
\* CHANGES CAN BE DIRECTED TO ALLAN OTO (FTS 448-2105 OR 448-3292).

\*\*\*\*\*

T1 FPMS BR FAYETTEVILLE NC FIS  
 T2 100 YR NATURAL  
 T3 CAPE FEAR RIVER

J1	ICHECK	INO	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FO
	-1.	4.	-0	-0	-0	-0	-0	-0	81,400	-0
J2	NPROF	IPLT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIN	ITRACE
	1,000	-0	-1,000	-0	-0	-0	-0	-0	-0	15,000
J3	-2,000	1,000	43,000	42,000	5,000	10,000	5,000	50,000	4,000	53,000
J3	54,000	26,000	0	200,000	-0	-0	-0	-0	-0	-0
OT	6,000	103000,000	103000,000	103000,000	57000,000	88000,000	150000,000	-0	-0	-0
FI	-0	600,200	600,200	-0	-0	-0	-0	-0	-0	-0
NC	.150	.150	.068	.200	.400	-0	-0	-0	-0	-0
X1	113,300	40,000	17864,000	18155,000	-0	-0	-0	-0	-0	-0
GR	110,000	0	100,000	200,000	98,000	8750,000	97,400	10000,000	96,400	12000,000
GR	95,500	14000,000	94,400	16214,000	94,300	16260,000	86,400	16535,000	82,600	16564,000
GR	82,100	17014,000	73,800	17464,000	64,500	17714,000	66,800	17783,000	55,100	17810,000
GR	46,200	17830,000	45,600	17864,000	28,300	17878,000	20,300	17900,000	19,800	17920,000
GR	17,900	17940,000	18,900	17960,000	18,900	18000,000	17,900	18020,000	17,900	18060,000
GR	15,900	18080,000	15,900	18100,000	18,900	18120,000	41,100	18155,000	40,200	18173,000
GR	45,500	18190,000	46,800	18197,000	56,800	18218,000	62,100	18240,000	70,100	18257,000
GR	81,000	18276,000	88,000	20500,000	90,000	24870,000	100,000	25300,000	110,000	25500,000
X1	113,900	34,000	17330,000	17682,000	3300,000	3300,000	3300,000	0	0	-0
GR	110,000	300,000	101,000	500,000	100,900	1050,000	100,500	8300,000	100,200	12000,000
GR	100,000	14700,000	90,000	16000,000	80,000	16700,000	73,500	17032,000	72,200	17232,000
GR	71,500	17250,000	53,200	17279,000	44,500	17330,000	30,900	17340,000	16,900	17380,000
GR	15,900	17400,000	17,400	17420,000	18,400	17460,000	19,400	17500,000	19,900	17520,000
GR	19,900	17560,000	19,400	17580,000	22,400	17600,000	30,900	17631,000	37,500	17682,000
GR	45,000	17732,000	59,000	17762,000	70,700	17832,000	84,300	17877,000	84,000	17930,000
GR	88,000	18200,000	90,000	22100,000	100,000	24400,000	110,000	25400,000	-0	-0
FI	-0	800,200	800,200	-0	-0	-0	-0	-0	-0	-0
X1	114,900	28,000	17155,000	17470,000	5400,000	5400,000	5400,000	0	0	-0
GR	110,000	400,000	100,000	500,000	92,700	11000,000	91,000	13500,000	88,000	16200,000
GR	79,000	16700,000	73,000	16900,000	72,000	16960,000	70,000	16980,000	50,000	17125,000
GR	46,000	17155,000	19,000	17195,000	21,000	17295,000	30,000	17335,000	24,500	17385,000
GR	24,500	17410,000	18,000	17415,000	24,500	17435,000	27,000	17455,000	44,000	17470,000
GR	60,000	17600,000	70,000	17670,000	75,000	17700,000	76,000	17745,000	87,000	17830,000
GR	91,000	18000,000	100,000	18500,000	110,000	19000,000	-0	-0	-0	-0
Y1	114,900	71,000	17000,000	17785,000	1,000	1,000	1,000	-0	-0	-0
X2	-0	-0	-0	83,800	87,000	-0	-0	-0	-0	-0
GR	100,000	1100,000	92,000	11000,000	91,000	12800,000	89,000	15000,000	88,500	15450,000
GR	87,500	16150,000	87,000	17000,000	71,500	17000,000	66,000	17020,000	64,600	17037,000
GR	54,000	17075,000	83,800	17075,000	83,800	17085,000	54,000	17085,000	49,500	17117,000
GR	49,200	17148,000	83,800	17148,000	83,800	17158,000	49,200	17158,000	19,900	17195,000
GR	19,500	17215,000	83,800	17215,000	83,800	17225,000	19,500	17225,000	20,800	17242,000
GR	22,500	17250,000	22,500	17257,000	83,800	17257,000	83,800	17267,000	22,500	17267,000
GR	21,000	17290,000	30,000	17337,000	83,800	17337,000	83,800	17347,000	30,000	17347,000
GR	24,200	17386,000	24,100	17410,000	17,700	17417,000	83,800	17417,000	83,800	17427,000
GR	17,700	17427,000	24,500	17434,000	27,000	17456,000	30,000	17460,000	83,800	17460,000
GR	83,800	17470,000	30,000	17470,000	43,500	17474,000	44,400	17482,000	44,400	17482,000

GR	50,300	17509,000	51,000	17526,000	83,800	17526,000	83,800	17536,000	51,000	17536,600
GR	55,000	17598,000	83,800	17598,000	83,800	17608,000	55,000	17608,000	60,800	17662,000
GR	60,000	17667,000	83,800	17667,000	83,800	17677,000	60,000	17677,000	69,200	17695,000
GR	77,500	17721,000	83,800	17785,000	87,000	17785,000	91,000	18000,000	100,000	18500,000
GR	110,000	19000,000	-0	-0	-0	-0	-0	-0	-0	-0
X1	114,900	-0	-0	-0	8,000	8,000	8,000	-0	-0	-0
X2	-0	-0	-0	83,800	87,000	-0	-0	-0	-0	-0
X1	114,900	38,000	17000,000	17785,000	1,000	1,000	1,000	-0	-0	-0
GR	110,000	1100,000	92,000	11000,000	91,000	12800,000	89,000	15000,000	88,500	15450,000
GR	87,500	16150,000	87,000	17000,000	71,500	17001,000	66,000	17020,000	64,600	17037,000
GR	54,000	17083,000	49,500	17117,000	49,200	17148,000	19,900	17195,000	19,500	17226,000
GR	20,800	17244,000	22,500	17250,000	21,000	17296,000	30,000	17337,000	24,200	17386,000
GR	24,100	17410,000	17,700	17417,000	24,500	17434,000	27,000	17456,000	31,800	17468,000
GR	43,500	17474,000	44,400	17482,000	50,300	17509,000	55,000	17600,000	60,800	17662,000
GR	59,500	17677,000	69,200	17695,000	77,500	17721,000	83,600	17784,000	87,000	17785,000
GR	91,000	18000,000	100,000	18500,000	110,000	19000,000	-0	-0	-0	-0
X1	114,900	28,000	17155,000	17470,000	40,000	40,000	40,000	0	0	-0
GR	110,000	400,000	100,000	500,000	92,700	11000,000	91,000	13500,000	88,000	16200,000
GR	79,000	16700,000	73,000	16900,000	72,000	16960,000	70,000	16980,000	50,000	17125,000
GR	46,000	17155,000	19,000	17195,000	21,000	17295,000	30,000	17335,000	24,500	17385,000
GR	24,500	17410,000	18,000	17415,000	24,500	17435,000	27,000	17455,000	44,000	17470,000
GR	60,000	17600,000	70,000	17670,000	73,000	17700,000	76,000	17745,000	87,000	17830,000
GR	91,000	18000,000	100,000	18500,000	110,000	19000,000	-0	-0	-0	-0
X1	115,000	0	0	0	350,000	350,000	350,000	1,000	0	-0
X1	115,000	38,000	17320,000	18000,000	50,000	50,000	50,000	0	0	-0
GR	100,000	1100,000	92,000	11000,000	91,000	12800,000	89,000	15800,000	88,500	15950,000
GR	87,500	16300,000	87,400	16635,000	87,300	16800,000	87,200	16930,000	87,100	17250,000
GR	87,000	17320,000	81,500	17321,000	69,000	17341,000	63,600	17371,000	49,500	17432,000
GR	45,000	17490,000	32,300	17500,000	26,700	17525,000	23,900	17575,000	25,800	17591,000
GR	19,900	17600,000	21,800	17700,000	22,900	17722,000	27,500	17750,000	28,300	17770,000
GR	31,400	17785,000	44,700	17800,000	51,800	17821,000	71,900	17853,000	72,600	17900,000
GR	70,800	17947,000	72,300	17972,000	81,600	17999,000	86,000	18000,000	86,500	18100,000
GR	91,000	18000,000	100,000	18500,000	110,000	19000,000	-0	-0	-0	-0
X1	115,000	0	0	0	10,000	10,000	10,000	1,000	0	-0
X1	115,000	28,000	17155,000	17470,000	40,000	40,000	40,000	0	0	-0
GR	110,000	400,000	100,000	500,000	92,700	11000,000	91,000	13500,000	88,000	16200,000
GR	79,000	16700,000	73,000	16900,000	72,000	16960,000	70,000	16980,000	50,000	17125,000
GR	46,000	17155,000	19,000	17195,000	21,000	17295,000	30,000	17335,000	24,500	17385,000
GR	24,500	17410,000	18,000	17415,000	24,500	17435,000	27,000	17455,000	44,000	17470,000
GR	60,000	17600,000	70,000	17670,000	73,000	17700,000	76,000	17745,000	87,000	17830,000
GR	91,000	18000,000	100,000	18500,000	110,000	19000,000	-0	-0	-0	-0
X1	115,200	33,000	17620,000	17918,000	900,000	900,000	900,000	-0	-0	-0
GR	110,000	0	100,000	100,000	93,000	10500,000	91,000	13000,000	88,000	16000,000
GR	82,500	17000,000	81,000	17200,000	87,000	17432,000	85,300	17450,000	73,100	17478,000
GR	69,500	17500,000	60,800	17550,000	54,000	17573,000	52,000	17600,000	42,900	17620,000
GR	30,400	17626,000	24,600	17645,000	22,400	17675,000	20,000	17725,000	21,000	17760,000
GR	21,000	17775,000	21,000	17825,000	19,000	17875,000	22,000	17889,000	30,300	17906,000
GR	38,000	17918,000	54,000	17981,000	56,900	18000,000	74,600	18050,000	82,000	18300,000
GR	91,000	19500,000	100,000	20000,000	110,000	20500,000	-0	-0	-0	-0
NC	,020	,020	,030	,200	,400	-0	-0	-0	-0	-0

X1	115.200	-0	-0	-0	65,000	65,000	65,000	-0	-0	-0
X1	115.200	40,000	17648,000	17952,000	5,000	5,000	5,000	-0	-0	-0
BT	2,000	17478,000	89,700	83,500	18101,000	91,200	85,000	-0	-0	-0
GR	110,000	0	100,000	100,000	93,000	10500,000	91,000	13000,000	88,000	16000,000
GR	88,800	17000,000	89,400	17400,000	89,700	17478,000	82,000	17487,000	72,600	17504,000
GR	71,300	17596,000	85,000	17596,000	85,000	17601,000	71,300	17601,000	43,500	17648,000
GR	28,000	17672,000	19,200	17716,000	85,000	17716,000	85,000	17721,000	19,200	17721,000
GR	21,700	17789,000	21,500	17856,000	85,000	17856,000	85,000	17861,000	21,500	17861,000
GR	23,000	17905,000	36,500	17922,000	46,800	17952,000	47,600	17965,000	53,900	17977,000
GR	85,000	17977,000	85,000	17982,000	53,900	17982,000	60,000	18054,000	83,800	18092,000
GR	91,200	18101,000	91,400	18200,000	91,400	18300,000	100,000	18500,000	110,000	19000,000
X1	115.200	-0	-0	-0	60,000	60,000	60,000	-0	-0	-0
X2	-0	-0	-0	-0	-0	-0	1,000	-0	-0	-0
X1	115.200	33,000	17620,000	17918,000	5,000	5,000	5,000	-0	-0	-0
GR	110,000	0	100,000	100,000	93,000	10500,000	91,000	13000,000	88,000	16000,000
GR	82,500	17000,000	81,000	17200,000	87,000	17432,000	85,300	17450,000	73,100	17478,000
GR	69,500	17500,000	60,800	17550,000	54,000	17573,000	52,000	17600,000	42,900	17620,000
GR	30,400	17626,000	24,600	17645,000	22,400	17675,000	20,000	17725,000	21,000	17760,000
GR	21,000	17775,000	21,000	17825,000	19,000	17875,000	22,000	17889,000	30,300	17906,000
GR	38,000	17918,000	54,000	17981,000	56,900	18000,000	74,600	18050,000	82,000	18300,000
GR	91,000	19500,000	100,000	20000,000	110,000	20500,000	-0	-0	-0	-0
X1	115.200	-0	-0	-0	50,000	50,000	50,000	-0	-0	-0
NC	.150	.150	.068	.200	.400	-0	-0	-0	-0	-0
BT	-0	600,200	600,200	-0	-0	-0	-0	-0	-0	-0
X1	115.800	30,000	18262,000	18632,000	3115,000	3115,000	3115,000	-0	-0	-0
GR	110,000	2100,000	100,000	2500,000	91,000	14500,000	88,000	18000,000	82,000	18075,000
GR	81,500	18144,000	62,100	18226,000	53,400	18262,000	30,500	18304,000	25,400	18318,000
GR	25,300	18345,000	23,800	18362,000	17,900	18393,000	18,500	18450,000	20,000	18513,000
GR	19,400	18553,000	23,700	18577,000	43,100	18618,000	51,700	18632,000	60,200	18662,000
GR	65,600	18690,000	69,200	18720,000	70,100	18759,000	70,500	18800,000	71,500	19000,000
GR	80,600	19192,000	87,000	21000,000	90,000	22000,000	100,000	25000,000	110,000	25500,000
X1	115.800	37,000	18035,000	19000,000	50,000	50,000	50,000	0	0	-0
GR	110,000	2100,000	100,000	2500,000	92,500	14500,000	90,500	17500,000	92,000	17800,000
GR	91,000	18035,000	90,800	18036,000	90,600	18042,000	82,000	18075,000	80,500	18141,000
GR	69,100	18154,000	65,300	18166,000	52,600	18254,000	39,900	18285,000	30,500	18304,000
GR	25,400	18318,000	25,300	18345,000	17,900	18393,000	18,500	18450,000	20,000	18513,000
GR	19,400	18553,000	23,700	18577,000	43,100	18618,000	54,400	18639,000	60,200	18656,000
GR	68,700	18716,000	70,400	18762,000	70,700	18906,000	72,900	18967,000	89,600	18994,000
GR	89,600	18999,000	94,100	19000,000	94,500	19200,000	95,500	20000,000	97,000	22000,000
GR	100,000	25000,000	110,000	25500,000	-0	-0	-0	-0	-0	-0
X1	115.800	0	0	0	10,000	10,000	10,000	1,000	0	-0
X1	115.800	30,000	18262,000	18632,000	40,000	40,000	40,000	0	0	-0
GR	110,000	2100,000	100,000	2500,000	91,000	14500,000	88,000	18000,000	82,000	18075,000
GR	81,500	18144,000	62,100	18226,000	53,400	18262,000	30,500	18304,000	25,400	18318,000
GR	25,300	18345,000	23,800	18362,000	17,900	18393,000	18,500	18450,000	20,000	18513,000
GR	19,400	18553,000	23,700	18577,000	43,100	18618,000	51,700	18632,000	60,200	18662,000
GR	65,600	18690,000	69,200	18720,000	70,100	18759,000	70,500	18800,000	71,500	19000,000
GR	80,600	19192,000	87,000	21000,000	90,000	22000,000	100,000	25000,000	110,000	25500,000



X1	116.800	35.000	17357.000	17608.000	5200.000	5200.000	5200.000	0	0	-0
GR	110.000	0	100.000	2700.000	100.000	7700.000	90.000	15600.000	89.600	16732.000
GR	86.500	16832.000	85.900	16971.000	85.200	16996.000	83.900	17071.000	73.800	17195.000
GR	57.400	17260.000	43.900	17288.000	43.900	17307.000	39.400	17357.000	14.200	17400.000
GR	13.200	17420.000	16.200	17440.000	15.200	17460.000	18.700	17520.000	16.700	17540.000
GR	18.200	17560.000	36.500	17608.000	37.600	17612.000	43.500	17618.000	49.900	17648.000
GR	53.500	17698.000	56.800	17723.000	73.200	17773.000	75.200	17832.000	78.000	17980.000
GR	80.000	18000.000	84.500	18100.000	90.000	18700.000	100.000	23200.000	110.000	24200.000

X1	117.200	35.000	19583.000	19866.000	2290.000	2290.000	2290.000	0	0	-0
GR	110.000	600.000	100.000	800.000	90.000	8100.000	89.000	10000.000	87.000	14000.000
GR	86.500	15500.000	85.000	17100.000	80.000	19400.000	78.900	19408.000	77.900	19464.000
GR	62.300	19497.000	45.800	19583.000	32.500	19598.000	28.900	19613.000	25.400	19626.000
GR	22.400	19657.000	22.100	19670.000	19.300	19679.000	18.200	19743.000	17.200	19754.000
GR	18.000	19771.000	20.600	19800.000	19.600	19810.000	25.100	19825.000	31.000	19853.000
GR	41.300	19866.000	51.500	19891.000	53.800	19908.000	59.400	19924.000	83.300	19962.000
GR	89.700	20000.000	92.500	20200.000	95.000	22000.000	100.000	23100.000	110.000	23500.000

X1	117.300	32.000	19450.000	20000.000	50.000	50.000	50.000	0	0	-0
GR	110.000	0	100.000	4150.000	96.000	11000.000	90.300	19450.000	85.100	19451.000
GR	64.100	19482.000	59.500	19500.000	57.700	19512.000	57.100	19529.000	49.200	19568.000
GR	47.100	19584.000	39.700	19600.000	31.000	19613.000	25.400	19626.000	22.400	19657.000
GR	22.100	19670.000	19.300	19679.000	18.200	19743.000	17.200	19754.000	18.000	19771.000
GR	20.600	19800.000	19.600	19810.000	25.100	19825.000	31.000	19853.000	36.700	19866.000
GR	49.800	19876.000	61.200	19928.000	82.500	19966.000	84.500	19999.000	90.600	20000.000
GR	100.000	23850.000	110.000	24000.000	-0	-0	-0	-0	-0	-0

X1	117.300	0	0	0	20.000	20.000	20.000	1.000	0	-0
----	---------	---	---	---	--------	--------	--------	-------	---	----

X1	117.300	35.000	19583.000	19866.000	30.000	30.000	30.000	0	0	-0
GR	110.000	600.000	100.000	800.000	90.000	8100.000	89.000	10000.000	87.000	14000.000
GR	86.500	15500.000	85.000	17100.000	80.000	19400.000	78.900	19408.000	77.900	19464.000
GR	62.300	19497.000	45.800	19583.000	32.500	19598.000	28.900	19613.000	25.400	19626.000
GR	22.400	19657.000	22.100	19670.000	19.300	19679.000	18.200	19743.000	17.200	19754.000
GR	18.000	19771.000	20.600	19800.000	19.600	19810.000	25.100	19825.000	31.000	19853.000
GR	41.300	19866.000	51.500	19891.000	53.800	19908.000	59.400	19924.000	83.300	19962.000
GR	89.700	20000.000	92.500	20200.000	95.000	22000.000	100.000	23100.000	110.000	23500.000
ET	-0	-0	9.100	-0	-0	-0	-0	-0	19500.000	20200.000

X1	117.600	37.000	19774.000	20029.000	1810.000	1810.000	1810.000	0	0	-0
GR	110.000	0	100.000	300.000	99.500	2700.000	99.000	9000.000	94.000	14000.000
GR	92.000	16000.000	90.000	18300.000	80.000	19200.000	75.800	19334.000	74.600	19428.000
GR	70.600	19441.000	65.000	19457.000	63.700	19716.000	61.100	19732.000	53.000	19747.000
GR	50.100	19764.000	46.800	19774.000	27.000	19793.000	22.000	19813.000	20.000	19873.000
GR	19.000	19893.000	20.000	19913.000	17.000	19953.000	20.100	19973.000	30.700	19993.000
GR	31.600	20013.000	46.500	20029.000	48.700	20067.000	61.400	20089.000	66.500	20134.000
GR	67.000	20201.000	85.900	20252.000	87.800	20334.000	90.000	20800.000	93.000	21100.000
GR	100.000	23100.000	110.000	23300.000	-0	-0	-0	-0	-0	-0
ET	-0	-0	9.100	-0	-0	-0	-0	-0	20200.000	21050.000

X1	119.100	31.000	20685.000	20971.000	7650.000	7650.000	7650.000	0	0	-0
GR	110.000	0	101.000	200.000	100.000	2100.000	99.200	14000.000	99.000	17300.000
GR	93.000	19959.000	92.300	20159.000	83.200	20217.000	77.900	20257.000	75.000	20307.000
GR	64.000	20340.000	63.600	20569.000	65.000	20619.000	51.400	20651.000	49.300	20685.000
GR	21.800	20731.000	20.800	20751.000	22.200	20771.000	22.200	20891.000	28.200	20911.000
GR	31.200	20931.000	32.100	20951.000	47.800	20971.000	51.300	20986.000	56.700	21008.000
GR	65.500	21043.000	66.400	21150.000	77.100	21206.000	90.000	21700.000	100.000	22500.000
GR	110.000	22600.000	-0	-0	-0	-0	-0	-0	-0	-0

ET	-0	-0	9,100	-0	-0	-0	-0	-0	-0	8200,000	9050,000
X1	120,300	41,000	8762,000	8975,000	6340,000	6340,000	6340,000	-0	-0	-0	-0
GR	100,000	0	95,000	1800,000	90,000	1900,000	90,000	2000,000	95,000	2100,000	2100,000
GR	100,000	2150,000	100,000	2400,000	94,000	3100,000	90,000	3200,000	100,000	4100,000	4100,000
GR	100,000	5600,000	95,000	5700,000	90,000	5750,000	90,000	6100,000	100,000	6200,000	6200,000
GR	100,000	6300,000	90,000	6900,000	80,700	8400,000	79,900	8417,000	64,200	8475,000	8475,000
GR	61,500	8500,000	62,600	8556,000	61,700	8671,000	54,700	8700,000	51,100	8732,000	8732,000
GR	41,700	8762,000	28,200	8778,000	25,600	8800,000	22,500	8850,000	22,100	8878,000	8878,000
GR	20,200	8920,000	20,600	8960,000	27,700	8970,000	34,500	8975,000	53,200	9015,000	9015,000
GR	71,800	9050,000	88,900	9080,000	91,900	9128,000	94,400	9160,000	94,400	9170,000	9170,000
GR	100,000	9200,000	-0	-0	-0	-0	-0	-0	-0	-0	-0
ET	-0	-0	9,100	-0	-0	-0	-0	-0	-0	8200,000	9050,000

X1	120,800	-0	-0	-0	2600,000	2600,000	2600,000	-0	.800	-0	-0
ET	-0	-0	9,100	-0	-0	-0	-0	-0	6650,000	7500,000	7500,000

X1	122,200	31,000	7088,000	7333,000	7390,000	7390,000	7390,000	-0	-0	-0	-0
GR	100,000	0	95,000	50,000	90,000	500,000	90,000	1900,000	96,000	2000,000	2000,000
GR	100,000	2500,000	100,000	3000,000	100,000	4800,000	92,000	4900,000	90,000	6500,000	6500,000
GR	90,000	6700,000	90,000	6900,000	85,900	7000,000	53,400	7045,000	50,800	7054,000	7054,000
GR	43,300	7066,000	40,700	7088,000	27,100	7100,000	23,100	7150,000	25,000	7200,000	7200,000
GR	24,400	7215,000	23,300	7250,000	24,300	7300,000	29,300	7320,000	39,300	7333,000	7333,000
GR	47,700	7368,000	50,600	7390,000	58,100	7400,000	63,000	7500,000	91,900	7567,000	7567,000
GR	100,000	8000,000	-0	-0	-0	-0	-0	-0	-0	-0	-0
ET	-0	-0	9,100	-0	-0	-0	-0	-0	6650,000	7500,000	7500,000

X1	122,400	-0	-0	-0	1000,000	1000,000	1000,000	-0	.300	-0	-0
FJ	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0

FEDERAL BUREAU OF INVESTIGATION  
 U.S. DEPARTMENT OF JUSTICE  
 WASHINGTON, D.C. 20535

\*\*\*\*\*  
INTERACTIVE HEC2 VERSION UPDATED SEPT 1978  
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09,10  
MODIFICATIONS 50,51,52,53,54,55,56,57,58,59  
\*\*\*\*\*

T1 FPM5 BR FAYETTEVILLE NC FIS  
T2 METHODS #2 - #1  
T3 CAPE FEAR RIVER

```
J1 ICHECK   INO      NINV      IDIR      STRT      METRIC   HVINS    Q      WSEL      FQ
      -10.      S.        -0         =0        -0         =0        -0     82.400     -0

J2 NPROF     IPILOT    PRFVS     XSECV     XSECH     EN       ALLDC    IHW     CHNIM     ITRACE
      15.000     -0      -1.000     -0        -0        -0       -0     -0     -0     15.000
```

\*PROF 2

CCHV= .200 CEHV= .500

\*SECNO 113,300

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	LOSS	BANK ELEV
Q	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=	17709.5	18309.5	TYPE=	2	TARGET=	600.000		
113.30	66.50	82.40	0	81.40	82.78	.38	0	45.60
103000.	4671.	93408.	4921.	3496.	17947.	3277.	0	41.10
0	1.34	5.20	1.50	.150	.068	.150	0	15.90 17709.50
.000251	-0	-0	-0	0	0	1	0	600.00 18309.50

FLOW DISTRIBUTION

STA-	17709.	17864.	18155.	18218.	18309.
PER Q=	4.5	90.7	3.8	.9	
AREA=	3496.3	17946.5	2320.2	957.3	
VEL=	1.3	5.2	1.7	1.0	

\*SECNO 113,900

3470 ENCROACHMENT STATIONS=	17206.0	17806.0	TYPE=	2	TARGET=	600.000			
113.90	67.32	83.22	0	82.23	83.50	.28	.70	.02	44.50
103000.	3273.	94017.	5710.	2849.	21260.	4174.	2008.	45.	37.50
.22	1.15	4.42	1.37	.150	.068	.150	.068	15.90	17206.00
.000180	3300.	3300.	3300.	0	0	1	0	600.00	17806.00

FLOW DISTRIBUTION

STA=	17206.	17232.	17250.	17279.	17330.	17682.	17732.	17782.	17806.
PER Q=	.1	.1	.5	2.4	91.3	3.2	1.9	.3	
AREA=	285.2	204.8	605.4	1753.2	21259.6	2098.9	1561.4	514.0	
VEL=	.5	.7	.9	1.4	4.4	1.6	1.3	.7	

APR 1976

11/15/76

SUMMARY PRINTOUT

CAPE FEAR RIVER

SECNO	CWSEL	Q	ELMIN	EG	HV	10K*S	DIFWSP	TOPWID	SSTA	ENDST	VCH
113.30	65.42	57000.00	15.90	65.68	.26	2.49	0	460.89	17786.18	18247.06	4.1
113.30	77.19	88000.00	15.90	77.54	.34	2.49	11.77	989.39	17279.98	18269.37	4.8
113.30	81.40	103000.00	15.90	81.77	.37	2.54	4.21	1351.13	17051.95	18403.09	5.1
113.30	90.46	150000.00	15.90	90.84	.38	2.51	9.06	8495.87	16395.78	24889.65	5.6
113.90	66.21	57000.00	15.90	66.39	.19	1.80	0	554.41	17258.39	17812.80	3.5
113.90	78.00	88000.00	15.90	78.25	.25	1.79	11.79	1060.38	16795.80	17856.18	4.1
113.90	82.23	103000.00	15.90	82.50	.27	1.82	4.23	1326.94	16543.24	17870.18	4.4
113.90	91.26	150000.00	15.90	91.59	.33	2.01	9.03	6554.16	15836.00	22390.16	5.0
114.90	67.32	57000.00	18.00	67.55	.24	2.51	0	651.77	16999.45	17651.22	4.0
114.90	79.07	88000.00	18.00	79.35	.28	2.31	11.75	1072.62	16696.11	17768.72	4.5
114.90	83.31	103000.00	18.00	83.62	.30	2.30	4.24	1341.06	16460.44	17801.50	4.7
114.90	92.44	150000.00	18.00	92.79	.35	2.42	9.13	6693.20	11386.63	18079.84	5.3
114.90	67.33	57000.00	17.70	67.56	.22	10.17	0	576.15	17015.18	17691.33	3.8
114.90	79.12	88000.00	17.70	79.36	.25	9.01	11.78	637.42	17000.00	17737.42	3.9
114.90	83.36	103000.00	17.70	83.62	.26	9.31	4.24	680.51	17000.00	17780.51	4.1
114.90	92.53	150000.00	17.70	92.80	.28	19.62	9.17	7736.92	10347.91	18084.83	4.4
114.90	67.34	57000.00	17.70	67.57	.22	10.16	0	576.21	17015.14	17691.35	3.8
114.90	79.12	88000.00	17.70	79.37	.25	9.01	11.78	637.47	17000.00	17737.47	3.9
114.90	83.37	103000.00	17.70	83.63	.26	9.31	4.24	680.56	17000.00	17780.56	4.1
114.90	92.54	150000.00	17.70	92.82	.27	19.58	9.18	7748.32	10337.00	18085.32	4.4
114.90	67.42	57000.00	17.70	67.58	.16	2.79	0	676.63	17015.08	17691.70	3.1
114.90	79.21	88000.00	17.70	79.38	.17	2.13	11.79	738.16	17000.50	17738.66	3.3
114.90	83.46	103000.00	17.70	83.65	.19	2.15	4.25	782.30	17000.23	17782.53	3.4
114.90	92.60	150000.00	17.70	92.83	.23	2.07	9.14	7417.74	10671.04	18088.78	3.9
114.90	67.39	57000.00	18.00	67.62	.24	2.50	0	652.76	16998.95	17651.71	4.0
114.90	79.15	88000.00	18.00	79.44	.28	2.29	11.77	1077.90	16691.46	17769.37	4.5
114.90	83.40	103000.00	18.00	83.70	.30	2.28	4.25	1346.54	16455.63	17802.17	4.7
114.90	92.54	150000.00	18.00	92.88	.35	2.40	9.14	6845.45	11239.93	18085.38	5.3
115.00	67.48	57000.00	18.00	67.71	.24	2.48	0	654.08	16998.28	17652.35	4.0
115.00	79.24	88000.00	18.00	79.52	.28	2.28	11.76	1082.80	16687.17	17769.97	4.5
115.00	83.48	103000.00	18.00	83.78	.30	2.27	4.24	1351.45	16451.32	17802.77	4.7
115.00	92.62	150000.00	18.00	92.97	.34	2.38	9.14	6964.79	11124.94	18089.72	5.3
115.00	67.52	57000.00	19.90	67.73	.21	3.01	0	496.81	17349.22	17846.03	3.6
115.00	79.30	88000.00	19.90	79.54	.24	3.05	11.78	667.82	17324.51	17992.33	3.8
115.00	83.55	103000.00	19.90	83.80	.25	2.89	4.25	678.82	17320.63	17999.44	4.0
115.00	92.69	150000.00	19.90	92.99	.30	2.71	9.14	8192.35	10145.22	18337.57	4.5
115.00	67.52	57000.00	19.90	67.73	.21	3.01	0	496.83	17349.20	17846.03	3.6
115.00	79.31	88000.00	19.90	79.54	.23	3.05	11.78	667.83	17324.51	17992.34	3.8
115.00	83.55	103000.00	19.90	83.81	.25	2.89	4.25	678.82	17320.63	17999.44	4.0
115.00	92.69	150000.00	19.90	92.99	.30	2.71	9.14	8195.56	10142.07	18337.63	4.5
115.00	67.52	57000.00	18.00	67.75	.23	2.47	0	654.77	16997.92	17652.69	4.0
115.00	79.29	88000.00	18.00	79.57	.28	2.27	11.77	1086.53	16683.89	17770.42	4.5
115.00	83.53	103000.00	18.00	83.83	.30	2.26	4.24	1355.14	16448.08	17803.22	4.7
115.00	92.68	150000.00	18.00	93.02	.34	2.37	9.14	7060.50	11032.71	18093.21	5.3

SECNO	CWSEL	Q	ELM1N	EG	HV	10K*S	DIFWSP	TOPWID	SSTA	ENDST	VCH
115.20	67.73	57000.00	19.00	67.97	.24	2.24	0	520.40	17510.19	18030.58	4.0
115.20	79.47	88000.00	19.00	79.79	.32	2.28	11.74	751.15	17463.38	18214.53	4.7
115.20	83.71	103000.00	19.00	84.07	.36	2.36	4.24	1598.18	16780.49	18527.64	5.0
115.20	92.88	150000.00	19.00	93.24	.36	2.32	9.17	8948.76	10655.45	19604.20	5.5
115.20	67.79	57000.00	19.00	67.98	.19	.35	0	520.94	17509.82	18030.76	3.6
115.20	79.59	88000.00	19.00	79.81	.22	.31	11.80	755.57	17463.10	18218.67	3.9
115.20	83.87	103000.00	19.00	84.10	.22	.29	4.28	557.76	16750.07	18549.95	4.0
115.20	93.18	150000.00	19.00	93.29	.12	.18	9.30	9383.29	10237.63	19620.92	3.4
115.20	67.76	57000.00	19.20	68.01	.25	.92	0	444.39	17606.99	18066.38	4.0
115.20	79.55	88000.00	19.20	79.84	.29	.86	11.80	573.79	17491.43	18085.22	4.3
115.20	83.82	103000.00	19.20	84.14	.32	.89	4.26	587.14	17484.88	18092.02	4.5
115.20	93.13	150000.00	19.20	93.32	.19	1.77	9.31	8031.93	10308.28	18340.21	4.1
115.20	67.76	57000.00	19.20	68.01	.25	.92	0	444.40	17606.99	18066.39	4.0
115.20	79.56	88000.00	19.20	79.85	.29	.86	11.80	573.80	17491.42	18085.22	4.3
115.20	83.82	103000.00	19.20	84.14	.32	.89	4.26	587.15	17484.87	18092.02	4.5
115.20	93.14	150000.00	19.20	93.33	.19	1.76	9.32	8040.74	10299.60	18340.35	4.1
115.20	67.83	57000.00	19.00	68.02	.19	.35	0	521.30	17509.58	18030.88	3.6
115.20	79.64	88000.00	19.00	79.86	.22	.30	11.81	757.29	17462.99	18220.28	3.9
115.20	83.94	103000.00	19.00	84.16	.22	.29	4.30	1681.58	16737.91	18558.87	4.0
115.20	93.24	150000.00	19.00	93.35	.11	.18	9.30	9476.73	10147.56	19624.29	3.4
115.20	67.83	57000.00	19.00	68.03	.19	.35	0	521.33	17509.56	18030.89	3.6
115.20	79.64	88000.00	19.00	79.86	.22	.30	11.81	757.40	17462.98	18220.38	3.9
115.20	83.94	103000.00	19.00	84.16	.22	.29	4.30	1682.63	16737.37	18559.26	4.0
115.20	93.24	150000.00	19.00	93.35	.11	.18	9.30	9484.21	10140.35	19624.56	3.4
115.80	68.04	57000.00	17.90	68.24	.20	1.93	0	509.49	18200.88	18710.36	3.6
115.80	79.81	88000.00	17.90	80.07	.26	1.87	11.77	1024.27	18151.13	19175.40	4.1
115.80	84.10	103000.00	17.90	84.37	.28	1.87	4.28	2130.71	18048.80	20179.51	4.3
115.80	93.28	150000.00	17.90	93.54	.26	1.72	9.18	11520.04	11463.23	22983.27	4.6
115.80	68.09	57000.00	17.90	68.26	.17	2.42	0	554.51	18157.19	18711.70	3.3
115.80	79.92	88000.00	17.90	80.10	.17	2.43	11.83	836.70	18141.66	18978.36	3.3
115.80	84.22	103000.00	17.90	84.40	.18	2.41	4.30	918.83	18066.48	18985.30	3.4
115.80	93.33	150000.00	17.90	93.55	.23	2.32	9.11	5825.66	13174.17	18999.83	3.8
115.80	68.09	57000.00	17.90	68.26	.17	2.42	0	554.53	18157.18	18711.71	3.3
115.80	79.93	88000.00	17.90	80.10	.17	2.43	11.83	836.70	18141.65	18978.36	3.3
115.80	84.22	103000.00	17.90	84.40	.18	2.40	4.30	918.84	18066.47	18985.31	3.4
115.80	93.33	150000.00	17.90	93.56	.23	2.32	9.11	5828.89	13170.94	18999.83	3.8
115.80	68.08	57000.00	17.90	68.28	.20	1.92	0	510.11	18200.67	18710.77	3.5
115.80	79.89	88000.00	17.90	80.14	.26	1.86	11.80	1026.10	18150.83	19176.92	4.1
115.80	84.18	103000.00	17.90	84.45	.28	1.86	4.29	2154.24	18047.81	20202.05	4.3
115.80	93.32	150000.00	17.90	93.58	.26	1.71	9.14	11588.10	11407.67	22995.77	4.6
116.80	69.12	57000.00	13.20	69.37	.25	2.18	0	546.27	17214.28	17760.55	4.2
116.80	80.90	88000.00	13.20	81.23	.32	2.25	11.79	912.04	17108.07	18020.11	4.9
116.80	85.20	103000.00	13.20	85.56	.36	2.32	4.30	1180.93	16995.86	18176.79	5.2
116.80	94.29	150000.00	13.20	94.69	.39	2.45	9.09	8425.05	12207.43	20632.48	5.8

SECNO	CWSEL	Q	ELMIN	EG	HV	10K*S	DIFWSP	TOPWID	SSTA	ENDST	VCH
117.20	69.63	57000.00	17.20	69.89	.26	2.34	0	458.76	19481.50	19940.26	4.1
117.20	81.42	88000.00	17.20	81.78	.36	2.44	11.80	1213.19	18745.82	19959.01	4.9
117.20	85.74	103000.00	17.20	86.11	.38	2.45	4.31	3660.85	16315.61	19976.46	5.2
117.20	94.97	150000.00	17.20	95.15	.18	1.43	9.24	17513.12	4468.57	21981.69	4.3
117.30	69.70	57000.00	17.20	69.91	.21	2.86	0	469.43	19473.73	19943.16	3.6
117.30	81.54	88000.00	17.20	81.81	.27	2.66	11.84	508.05	19456.25	19964.30	4.1
117.30	85.85	103000.00	17.20	86.14	.30	2.88	4.30	548.36	19450.86	19999.22	4.3
117.30	94.86	150000.00	17.20	95.24	.38	3.05	9.01	9057.38	12687.97	21745.35	5.0
117.30	69.71	57000.00	17.20	69.92	.21	2.86	0	469.45	19473.73	19943.17	3.6
117.30	81.55	88000.00	17.20	81.82	.27	2.66	11.84	508.06	19456.24	19964.30	4.1
117.30	85.85	103000.00	17.20	86.15	.30	2.88	4.30	548.37	19450.86	19999.22	4.3
117.30	94.87	150000.00	17.20	95.25	.38	3.05	9.02	9065.86	12681.32	21747.19	5.0
117.30	69.68	57000.00	17.20	69.94	.26	2.33	0	458.97	19481.38	19940.35	4.1
117.30	81.50	88000.00	17.20	81.86	.36	2.43	11.82	1250.75	18708.40	19959.14	4.9
117.30	85.81	103000.00	17.20	86.19	.38	2.43	4.31	3743.81	16233.11	19976.92	5.2
117.30	95.13	150000.00	17.20	95.30	.17	1.39	9.31	17670.70	4357.25	22027.95	4.3
117.60	70.12	57000.00	17.00	70.43	.30	2.86	0	767.07	19442.36	20209.43	4.5
117.60	81.98	88000.00	17.00	82.32	.34	2.61	11.85	1218.75	19022.65	20241.40	5.0
117.60	86.29	103000.00	17.00	86.65	.35	2.57	4.31	1635.31	18633.65	20268.95	5.2
117.60	95.36	150000.00	17.00	95.69	.34	2.43	9.06	9128.27	12644.68	21772.95	5.6
119.10	72.16	57000.00	20.80	72.39	.24	2.30	0	864.59	20315.53	21180.12	4.0
119.10	83.84	88000.00	20.80	84.11	.27	2.07	11.69	1251.26	20212.91	21464.17	4.5
119.10	88.13	103000.00	20.80	88.41	.28	2.05	4.29	1442.91	20185.56	21628.47	4.7
119.10	97.14	150000.00	20.80	97.47	.33	2.22	9.01	4146.88	18124.31	22271.20	5.3
120.30	73.70	57000.00	20.20	74.02	.31	2.76	0	613.45	8439.89	9053.34	4.7
120.30	85.28	88000.00	20.20	85.67	.38	2.77	11.58	1412.75	7660.91	9073.65	5.4
120.30	89.56	103000.00	20.20	89.96	.40	2.75	4.28	2119.45	6971.10	9090.55	5.7
120.30	98.62	150000.00	20.20	98.97	.35	2.51	9.06	6417.96	499.29	9192.57	5.9
120.80	74.42	57000.00	21.00	74.74	.31	2.78	0	613.00	8440.19	9053.20	4.7
120.80	86.00	88000.00	21.00	86.39	.39	2.78	11.58	1399.70	7673.82	9073.51	5.4
120.80	90.27	103000.00	21.00	90.67	.40	2.76	4.27	2104.33	6984.85	9089.18	5.7
120.80	99.27	150000.00	21.00	99.63	.36	2.55	9.00	6325.13	549.02	9191.83	5.9
122.20	76.24	57000.00	23.10	76.47	.24	1.98	0	517.31	7013.38	7530.69	4.1
122.20	87.88	88000.00	23.10	88.21	.33	2.17	11.64	606.00	6951.69	7557.68	4.9
122.20	92.16	103000.00	23.10	92.52	.36	2.25	4.28	4313.19	305.65	7580.87	5.2
122.20	101.00	150000.00	23.10	101.30	.30	1.97	8.84	8000.00	0	8000.00	5.3
122.40	76.44	57000.00	23.40	76.67	.24	1.99	0	516.93	7013.52	7530.45	4.1
122.40	88.10	88000.00	23.40	88.43	.33	2.18	11.66	603.78	6953.71	7557.49	4.9
122.40	92.38	103000.00	23.40	92.75	.36	2.26	4.29	4300.13	312.47	7576.82	5.2
122.40	101.20	150000.00	23.40	101.50	.30	2.00	8.81	8000.00	0	8000.00	5.3

152.2

STATE OF MICHIGAN  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

FLOOD INSURANCE ZONE DATA FOR CAPE FEAR RIVER

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND		
		10'	2'	0.2'
113.300	0	-16.0	-4.2	9.1
113.900	3300.	-16.0	-4.2	9.0
114.900	8700.	-16.0	-4.2	9.1
114.900	8701.	-16.0	-4.2	9.2
114.900	8709.	-16.0	-4.2	9.2
114.900	8710.	-16.0	-4.2	9.1
114.900	8750.	-16.0	-4.2	9.1
115.000	9100.	-16.0	-4.2	9.1
115.000	9150.	-16.0	-4.2	9.1
115.000	9160.	-16.0	-4.2	9.1
115.000	9200.	-16.0	-4.2	9.1
115.200	10100.	-16.0	-4.2	9.2
115.200	10165.	-16.1	-4.3	9.3
115.200	10170.	-16.1	-4.3	9.3
115.200	10230.	-16.1	-4.3	9.3
115.200	10235.	-16.1	-4.3	9.3
115.200	10285.	-16.1	-4.3	9.3
115.800	13400.	-16.1	-4.3	9.2
115.800	13450.	-16.1	-4.3	9.1
115.800	13460.	-16.1	-4.3	9.1
115.800	13500.	-16.1	-4.3	9.1
116.800	18700.	-16.1	-4.3	9.1
117.200	20990.	-16.1	-4.3	9.2
117.300	21040.	-16.1	-4.3	9.0
117.300	21060.	-16.1	-4.3	9.0
117.300	21090.	-16.1	-4.3	9.3
117.600	22900.	-10.2	-4.3	9.1
119.100	30550.	-16.0	-4.3	9.0
120.300	36890.	-15.9	-4.3	9.1
120.800	39490.	-15.9	-4.3	9.0
122.200	46880.	-15.9	-4.3	8.8
122.400	47880.	-15.9	-4.3	8.8
WEIGHTED AVG FOR REACH			4.3	9.1

FHF FOR THE REACH = 100 WITH 100.0% OF THE REACH WITHIN 3.0 FEET  
 ZONE FOR THE REACH = A26

\*\*\*\*\*  
INTERACTIVE HEC2 VERSION UPDATED SEPT 1976  
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09,10  
MODIFICATIONS 50,51,52,53,54,55,56,57,58,59  
\*\*\*\*\*

\*\*\*\*\*

\* AS OF 2 SEPT 1976, THE PROGRAM HAS BEEN UPDATED TO INCLUDE MODIFICATION 59 AND ERROR CORRECTION 10. THE PURPOSE OF  
\* ICATION 59 IS TO

\* (1) PROVIDE A NEW INTERPOLATION SCHEME FOR CALCULATING ENCRoACHMENT STATIONS BY METHODS 3 AND 4. PREVIOUSLY, L  
\* INTERPOLATION WAS USED TO CALCULATE ENCRoACHMENTS. NOW, THE INTERPOLATION IS BASED ON A PARABOLIC APPROXIM  
\* OF CONVEYANCE VERSUS DISTANCE.

\* (2) FURTHER DEVELOPMENT OF MODIFICATION 54 WHICH PROVIDES FOR THE NH CARD TO VARY #N# VALUES IN THE CHANNEL. T  
\* PROGRAM WILL NOW ALLOW BOTH A CHANGE IN #N# VALUES IN THE CHANNEL (MOD, 54 AS PRESENTLY USED) AND, IF NO #N  
\* VARIATION IS DEFINED IN THE CHANNEL WHEN THE NH CARD IS USED, THE CHANNEL WILL NOT BE SEGMENTED FOR FLOW CO  
\* TATION. THIS MODIFICATION ALLOWS MORE FLEXIBILITY.

\* (3) COMMENT CARDS (C CARDS) ARE NOW PRINTED IN THE DATA LISTING.

\* (4) EXPANDS PRINTOUT OF THE SPECIAL BRIDGE ROUTINE TO INCLUDE TRAPEZOIDAL CALCULATIONS FOR OUTPUT ANALYSIS. STA  
\* TESTS RELATING TO THE SPECIAL BRIDGE ROUTINE WILL BE AFFECTED BY THIS CHANGE. THE PRINTOUT OF CALCULATED CH  
\* AREA IS BASED ON THE DEFINED TRAPEZOID UP TO THE BRIDGE WATER SURFACE ELEVATION. CALCULATED CHANNEL AREA SH  
\* BE CLOSE TO THE VALUE OF THE PREVIOUS SECTION'S CHANNEL AREA. TRAPEZOID/AREA IS THE AREA OF THE TRAPEZOID  
\* ELLC. TRAPEZOID/AREA SHOULD BE CLOSE TO INPUT ITEM BAREA. PLEASE NOTE THAT NUMERICAL RESULTS WILL NOT BE A

\* (5) THE FLOW DISTRIBUTION PRINTOUT MAY NOW BE REQUESTED FOR ANY PARTICULAR SECTION (X2 CARD WITH 15 IN 10TH FIE

\* THE PURPOSE OF ERROR CORRECTION 10 IS TO

\* (1) ALLOW THE USE OF THE EFFECTIVE AREA OPTION WHEN FLOW IS PRESSURE AND WEIR FLOW.

\* (2) CORRECT THE WETTED PERIMETER CALCULATION IN THE NORMAL BRIDGE ROUTINE.

\* (3) ACCOUNT FOR THE VERTICAL WALL AT THE ENCRoACHMENT STATION WHEN CALCULATING CONVEYANCE.

\* A FORMAL CHANGE NOTICE CONCERNING THE ABOVE WILL BE MAILED IN APPROXIMATELY ONE MONTH. ANY QUESTIONS ABOUT THESE P  
\* CHANGES CAN BE DIRECTED TO ALLAN OTO (FTS 448-2105 OR 448-3292).

\*\*\*\*\*



T1 FPMS BR FAYETTEVILLE NC FIS  
 T2 10 NATURAL  
 T3 CAPE FEAR RIVER

J1	ICHECK	INO	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FO
	-1.	5.	-0	-0	,000250	-0	-0	-0	69,000	-0
J2	NPROF	IPLDT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1,000	-0	-1,000	-0	-0	-0	-0	-0	-0	0
J3	-2,000	1,000	43,000	42,000	3,000	10,000	5,000	50,000	4,000	53,000
J3	54,000	26,000	0	201,000	0	0	0	0	0	0
QT	6,000	103000,000	103000,000	103000,000	57000,000	88000,000	150000,000	0	0	0
ET	-0	600,200	600,200	0	0	0	0	0	0	0
NC	.150	.150	.068	.200	.400	0	0	0	0	0
X1	113,300	40,000	17864,000	18155,000	0	0	0	0	0	0
GR	110,000	0	100,000	200,000	90,000	8750,000	97,400	10000,000	96,400	12000,000
GR	95,500	14000,000	94,400	16214,000	94,300	16260,000	86,400	16535,000	82,600	16564,000
GR	82,100	17014,000	73,800	17464,000	69,500	17714,000	66,800	17783,000	55,100	17810,000
GR	46,200	17830,000	45,600	17864,000	28,300	17878,000	20,300	17900,000	19,800	17920,000
GR	17,900	17940,000	18,900	17900,000	16,900	18000,000	17,900	18020,000	17,900	18060,000
GR	15,900	18080,000	15,900	18100,000	18,900	18120,000	41,100	18155,000	40,200	18173,000
GR	45,500	18190,000	46,800	18197,000	56,800	18218,000	62,100	18240,000	70,100	18257,000
GR	81,000	18276,000	88,000	20500,000	90,000	24870,000	100,000	25300,000	110,000	25500,000
X1	113,900	34,000	17330,000	17682,000	3300,000	3300,000	3300,000	0	0	0
GR	110,000	300,000	101,000	500,000	100,900	1050,000	100,500	8300,000	100,200	12000,000
GR	100,000	14700,000	90,000	16000,000	80,000	16700,000	73,100	17032,000	72,200	17232,000
GR	71,500	17250,000	53,200	17279,000	44,500	17330,000	30,900	17340,000	16,900	17380,000
GR	15,900	17400,000	17,400	17420,000	18,400	17460,000	19,400	17500,000	19,900	17520,000
GR	19,900	17560,000	19,400	17580,000	22,400	17600,000	30,900	17631,000	37,500	17682,000
GR	45,000	17732,000	59,000	17782,000	70,700	17832,000	84,300	17877,000	84,000	17930,000
GR	88,000	18200,000	90,000	22100,000	100,000	24400,000	110,000	25400,000	0	0
ET	-0	800,200	800,200	0	0	0	0	0	0	0
X1	114,900	28,000	17155,000	17470,000	5400,000	5400,000	5400,000	0	0	0
GR	110,000	400,000	100,000	500,000	92,700	11000,000	91,000	13500,000	88,000	16200,000
GR	79,000	16700,000	73,000	16900,000	72,000	16960,000	70,000	16980,000	50,000	17125,000
GR	46,000	17155,000	19,000	17195,000	21,000	17295,000	30,000	17335,000	24,500	17385,000
GR	24,500	17410,000	18,000	17415,000	24,500	17435,000	27,000	17455,000	44,000	17470,000
GR	60,000	17600,000	70,000	17670,000	73,000	17700,000	76,000	17745,000	87,000	17830,000
GR	91,000	18000,000	100,000	18500,000	110,000	19000,000	0	0	0	0
X1	114,900	71,000	17000,000	17785,000	1,000	1,000	1,000	0	0	0
X2	-0	0	0	83,800	87,000	0	0	0	0	0
GR	100,000	1100,000	92,000	11000,000	91,000	12800,000	89,000	15000,000	88,500	15450,000
GR	87,500	16150,000	87,000	17000,000	71,500	17000,000	66,000	17020,000	64,600	17037,000
GR	54,000	17075,000	83,800	17075,000	83,800	17085,000	54,000	17085,000	49,500	17117,000
GR	49,200	17148,000	83,800	17148,000	83,800	17158,000	49,200	17158,000	19,900	17195,000
GR	19,500	17215,000	83,800	17215,000	83,800	17225,000	19,500	17225,000	20,800	17242,000
GR	22,500	17250,000	22,500	17257,000	83,800	17257,000	83,800	17267,000	22,500	17267,000
GR	21,000	17290,000	30,000	17337,000	83,800	17337,000	83,800	17347,000	30,000	17347,000
GR	24,200	17386,000	24,100	17410,000	17,700	17417,000	83,800	17417,000	83,800	17427,000
GR	17,700	17427,000	24,500	17434,000	27,000	17456,000	30,000	17460,000	83,800	17460,000
GR	83,800	17470,000	30,000	17470,000	43,500	17474,000	44,400	17482,000	44,400	17482,000

GR	50,300	17509,000	51,000	17526,000	83,800	17526,000	83,800	17536,000	51,000	17536,000
GR	55,000	17598,000	83,800	17598,000	83,800	17608,000	55,000	17608,000	60,800	17662,000
GR	60,000	17667,000	83,800	17667,000	83,800	17677,000	60,000	17677,000	69,200	17695,000
GR	77,500	17721,000	83,800	17785,000	87,000	17785,000	91,000	18000,000	100,000	18500,000
GR	110,000	19000,000	-0	-0	-0	-0	-0	-0	-0	-0
X1	114,900	-0	-0	-0	8,000	8,000	8,000	-0	-0	-0
X2	-0	-0	-0	83,800	87,000	-0	-0	-0	-0	-0
X1	114,900	38,000	17000,000	17785,000	1,000	1,000	1,000	-0	-0	-0
GR	110,000	1100,000	92,000	11000,000	91,000	12800,000	89,000	15000,000	88,500	15450,000
GR	87,500	16150,000	87,000	17000,000	71,500	17001,000	66,000	17020,000	64,600	17037,000
GR	54,000	17083,000	49,500	17117,000	49,200	17148,000	19,900	17195,000	19,500	17226,000
GR	20,800	17244,000	22,500	17250,000	21,000	17296,000	30,000	17337,000	24,200	17386,000
GR	24,100	17410,000	17,700	17417,000	24,500	17434,000	27,000	17456,000	31,800	17468,000
GR	43,500	17474,000	44,400	17482,000	50,300	17509,000	55,000	17600,000	60,800	17662,000
GR	59,500	17677,000	69,200	17695,000	77,500	17721,000	83,600	17784,000	87,000	17785,000
GR	91,000	18000,000	100,000	18500,000	110,000	19000,000	-0	-0	-0	-0
X1	114,900	28,000	17155,000	17470,000	40,000	40,000	40,000	0	0	-0
GR	110,000	400,000	100,000	500,000	92,700	11000,000	91,000	13500,000	88,000	16200,000
GR	79,000	16700,000	73,000	16900,000	72,000	16960,000	70,000	16980,000	50,000	17125,000
GR	46,000	17155,000	19,000	17195,000	21,000	17295,000	30,000	17335,000	24,500	17385,000
GR	24,500	17410,000	18,000	17415,000	24,500	17435,000	27,000	17455,000	44,000	17470,000
GR	60,000	17600,000	70,000	17670,000	73,000	17700,000	76,000	17745,000	87,000	17830,000
GR	71,000	18000,000	100,000	18500,000	110,000	19000,000	-0	-0	-0	-0
X1	115,000	0	0	0	350,000	350,000	350,000	1,000	0	-0
X1	115,000	38,000	17320,000	18000,000	50,000	50,000	50,000	0	0	-0
GR	100,000	1100,000	92,000	11000,000	91,000	12800,000	89,000	15800,000	88,500	15950,000
GR	87,500	16300,000	87,400	16635,000	87,300	16800,000	87,200	16930,000	87,100	17250,000
GR	87,000	17320,000	81,500	17321,000	69,000	17341,000	63,600	17371,000	49,500	17432,000
GR	45,000	17490,000	32,300	17500,000	26,700	17525,000	23,900	17575,000	25,800	17591,000
GR	19,900	17600,000	21,800	17700,000	22,900	17722,000	27,500	17750,000	28,300	17770,000
GR	31,400	17785,000	44,700	17800,000	51,800	17821,000	71,900	17853,000	72,600	17900,000
GR	70,800	17947,000	72,300	17972,000	81,600	17999,000	86,000	18000,000	86,500	18100,000
GR	91,000	18300,000	100,000	18500,000	110,000	19000,000	-0	-0	-0	-0
X1	115,000	0	0	0	10,000	10,000	10,000	1,000	0	-0
X1	115,000	28,000	17155,000	17470,000	40,000	40,000	40,000	0	0	-0
GR	110,000	400,000	100,000	500,000	92,700	11000,000	91,000	13500,000	88,000	16200,000
GR	79,000	16700,000	73,000	16900,000	72,000	16960,000	70,000	16980,000	50,000	17125,000
GR	46,000	17155,000	19,000	17195,000	21,000	17295,000	30,000	17335,000	24,500	17385,000
GR	24,500	17410,000	18,000	17415,000	24,500	17435,000	27,000	17455,000	44,000	17470,000
GR	60,000	17600,000	70,000	17670,000	73,000	17700,000	76,000	17745,000	87,000	17830,000
GR	91,000	18000,000	100,000	18500,000	110,000	19000,000	-0	-0	-0	-0
X1	115,200	33,000	17620,000	17918,000	900,000	900,000	900,000	-0	-0	-0
GR	110,000	0	100,000	100,000	93,000	10500,000	91,000	13000,000	88,000	16000,000
GR	82,500	17000,000	81,000	17200,000	87,000	17432,000	85,300	17450,000	73,100	17478,000
GR	69,500	17500,000	60,800	17550,000	54,000	17573,000	52,000	17600,000	42,900	17620,000
GR	30,400	17626,000	24,600	17645,000	22,400	17675,000	20,000	17725,000	21,000	17760,000
GR	21,000	17775,000	21,000	17825,000	19,000	17875,000	22,000	17889,000	30,300	17906,000
GR	38,000	17918,000	54,000	17961,000	50,900	18000,000	74,600	18050,000	82,000	18300,000
GR	91,000	19500,000	100,000	20000,000	110,000	20500,000	-0	-0	-0	-0
NC	,020	,020	,030	,200	,400	-0	-0	-0	-0	-0

X1	115.200	-0	-0	-0	65,000	65,000	65,000	-0	-0	-0
X1	115,200	40,000	17648,000	17952,000	5,000	5,000	5,000	-0	-0	-0
BT	2,000	17478,000	89,700	83,500	18101,000	91,200	85,000	-0	-0	-0
GR	110,000	0	100,000	100,000	93,000	10500,000	91,000	13000,000	88,000	16000,000
GR	88,000	17000,000	89,400	17400,000	89,700	17478,000	82,000	17487,000	72,600	17504,000
GR	71,300	17596,000	85,000	17596,000	85,000	17601,000	71,300	17601,000	43,500	17648,000
GR	28,000	17672,000	19,200	17716,000	85,000	17716,000	85,000	17721,000	19,200	17721,000
GR	21,700	17789,000	21,500	17856,000	85,000	17856,000	85,000	17861,000	21,500	17861,000
GR	23,000	17905,000	36,500	17922,000	46,800	17952,000	47,600	17965,000	53,900	17977,000
GR	85,000	17977,000	85,000	17982,000	55,900	17982,000	60,000	18054,000	83,800	18052,000
GR	91,200	18101,000	91,400	18200,000	91,400	18300,000	100,000	18500,000	110,000	19000,000
X1	115,200	-0	-0	-0	60,000	60,000	60,000	-0	-0	-0
X2	-0	-0	-0	-0	0	-0	1,000	-0	-0	-0
X1	115,200	33,000	17620,000	17918,000	5,000	5,000	5,000	-0	-0	-0
GR	110,000	0	100,000	100,000	93,000	10500,000	91,000	13000,000	88,000	16000,000
GR	82,500	17000,000	81,000	17200,000	87,000	17432,000	85,300	17450,000	73,100	17478,000
GR	69,500	17500,000	60,800	17550,000	54,000	17573,000	52,000	17600,000	42,900	17620,000
GR	30,400	17626,000	24,800	17645,000	22,400	17675,000	20,000	17725,000	21,000	17760,000
GR	21,000	17775,000	21,000	17825,000	19,000	17875,000	22,000	17889,000	30,300	17906,000
GR	38,000	17918,000	54,000	17961,000	56,900	18000,000	74,600	18050,000	82,000	18300,000
GR	91,000	19500,000	100,000	20000,000	110,000	20500,000	-0	-0	-0	-0
X1	115,200	-0	-0	-0	50,000	50,000	50,000	-0	-0	-0
NC	.150	.150	.068	.200	.400	-0	-0	-0	-0	-0
BT	-0	600,200	600,200	-0	0	-0	-0	-0	-0	-0
X1	115,800	30,000	18262,000	18632,000	3115,000	3115,000	3115,000	-0	-0	-0
GR	110,000	2100,000	100,000	2500,000	91,000	14500,000	88,000	18000,000	82,000	18075,000
GR	81,500	18144,000	62,100	18226,000	53,400	18262,000	30,500	18304,000	25,400	18318,000
GR	25,300	18345,000	23,800	18362,000	17,900	18393,000	18,500	18450,000	20,000	18513,000
GR	19,400	18553,000	23,700	18577,000	43,100	18616,000	51,700	18632,000	60,200	18662,000
GR	65,600	18690,000	69,200	18720,000	70,100	18759,000	70,500	18800,000	71,500	19000,000
GR	80,600	19192,000	87,000	21000,000	90,000	22000,000	100,000	25000,000	110,000	25500,000
X1	115,800	37,000	18035,000	19000,000	50,000	50,000	50,000	0	0	-0
GR	110,000	2100,000	100,000	2500,000	92,500	14500,000	90,500	17500,000	92,000	17800,000
GR	91,000	18035,000	90,800	18036,000	90,600	18042,000	82,000	18075,000	80,500	18141,000
GR	69,100	18154,000	65,300	18166,000	52,600	18254,000	39,900	18285,000	30,500	18304,000
GR	25,400	18316,000	25,300	18345,000	17,900	18393,000	18,500	18450,000	20,000	18513,000
GR	19,400	18553,000	23,700	18577,000	43,100	18616,000	54,400	18639,000	60,200	18656,000
GR	68,700	18716,000	70,400	18762,000	70,700	18906,000	72,900	18967,000	89,600	18994,000
GR	89,600	18999,000	94,100	19000,000	94,500	19200,000	95,500	20000,000	97,000	22000,000
GR	100,000	25000,000	110,000	25500,000	0	-0	-0	-0	-0	-0
X1	115,800	0	0	0	10,000	10,000	10,000	1,000	0	-0
X1	115,800	30,000	18262,000	18632,000	40,000	40,000	40,000	0	0	-0
GR	110,000	2100,000	100,000	2500,000	91,000	14500,000	88,000	18000,000	82,000	18075,000
GR	81,500	18144,000	62,100	18226,000	53,400	18262,000	30,500	18304,000	25,400	18318,000
GR	25,300	18345,000	23,800	18362,000	17,900	18393,000	18,500	18450,000	20,000	18513,000
GR	19,400	18553,000	23,700	18577,000	43,100	18616,000	51,700	18632,000	60,200	18662,000
GR	65,600	18690,000	69,200	18720,000	70,100	18759,000	70,500	18800,000	71,500	19000,000
GR	80,600	19192,000	87,000	21000,000	90,000	22000,000	100,000	25000,000	110,000	25500,000

X1	116.800	35.000	17357.000	17608.000	5200.000	5200.000	5200.000	0	0	-0
GR	110.000	0	100.000	2700.000	100.000	7700.000	90.000	15600.000	89.600	16732.000
GR	86.500	16832.000	85.900	16971.000	85.200	16996.000	83.900	17071.000	73.800	17196.000
GR	57.400	17260.000	43.900	17288.000	43.900	17307.000	39.400	17357.000	14.200	17400.000
GR	13.200	17420.000	16.200	17440.000	15.200	17460.000	18.700	17520.000	16.700	17540.000
GR	18.200	17560.000	36.500	17608.000	37.600	17612.000	43.500	17618.000	49.900	17648.000
GR	53.500	17698.000	56.800	17723.000	73.200	17773.000	75.200	17832.000	78.000	17980.000
GR	80.000	18000.000	84.500	18100.000	90.000	18700.000	100.000	23200.000	110.000	24200.000

X1	117.200	35.000	19583.000	19866.000	2290.000	2290.000	2290.000	0	0	-0
GR	110.000	600.000	100.000	800.000	90.000	8100.000	89.000	10000.000	87.000	14000.000
GR	86.500	15500.000	85.000	17100.000	80.000	19400.000	78.900	19408.000	77.900	19464.000
GR	62.300	19497.000	45.800	19583.000	32.500	19598.000	28.900	19613.000	25.400	19626.000
GR	22.400	19657.000	22.100	19670.000	19.300	19679.000	18.200	19743.000	17.200	19754.000
GR	18.000	19771.000	20.600	19800.000	19.600	19810.000	25.100	19825.000	31.000	19853.000
GR	41.300	19866.000	51.500	19891.000	53.800	19908.000	59.400	19924.000	83.300	19962.000
GR	89.700	20000.000	92.500	20200.000	95.000	22000.000	100.000	23100.000	110.000	23500.000

Y1	117.300	32.000	19450.000	20000.000	50.000	50.000	50.000	0	0	-0
GR	110.000	0	100.000	4150.000	96.000	11000.000	90.300	19450.000	85.100	19451.000
GR	64.100	19482.000	59.500	19500.000	57.700	19512.000	57.100	19529.000	49.200	19568.000
GR	47.100	19584.000	39.700	19600.000	31.000	19613.000	25.400	19626.000	22.400	19657.000
GR	22.100	19670.000	19.300	19679.000	18.200	19743.000	17.200	19754.000	18.000	19771.000
GR	20.600	19800.000	19.600	19810.000	25.100	19825.000	31.000	19853.000	36.700	19866.000
GR	49.800	19876.000	61.200	19928.000	82.500	19966.000	84.500	19999.000	90.600	20000.000
GR	100.000	23850.000	110.000	24000.000	0	0	0	0	0	0

X1	117.300	0	0	0	20.000	20.000	20.000	1.000	0	-0
----	---------	---	---	---	--------	--------	--------	-------	---	----

X1	117.300	35.000	19583.000	19866.000	30.000	30.000	30.000	0	0	-0
GR	110.000	600.000	100.000	800.000	90.000	8100.000	89.000	10000.000	87.000	14000.000
GR	86.500	15500.000	85.000	17100.000	80.000	19400.000	78.900	19408.000	77.900	19464.000
GR	62.300	19497.000	45.800	19583.000	32.500	19598.000	28.900	19613.000	25.400	19626.000
GR	22.400	19657.000	22.100	19670.000	19.300	19679.000	18.200	19743.000	17.200	19754.000
GR	18.000	19771.000	20.600	19800.000	19.600	19810.000	25.100	19825.000	31.000	19853.000
GR	41.300	19866.000	51.500	19891.000	53.800	19908.000	59.400	19924.000	83.300	19962.000
GR	89.700	20000.000	92.500	20200.000	95.000	22000.000	100.000	23100.000	110.000	23500.000
ET	-0	-0	9.100	-0	0	0	0	0	19500.000	20200.000

X1	117.600	37.000	19774.000	20029.000	1810.000	1810.000	1810.000	0	0	-0
GR	110.000	0	100.000	300.000	99.500	2700.000	99.000	9000.000	94.000	14000.000
GR	92.000	16000.000	90.000	18300.000	80.000	19200.000	75.800	19334.000	74.600	19428.000
GR	70.600	19441.000	65.000	19457.000	63.700	19716.000	61.100	19732.000	53.000	19747.000
GR	50.100	19764.000	46.800	19774.000	27.000	19793.000	22.000	19813.000	20.000	19873.000
GR	19.000	19893.000	20.000	19913.000	17.000	19953.000	20.100	19973.000	30.700	19993.000
GR	31.600	20013.000	46.500	20029.000	48.700	20067.000	61.400	20089.000	66.500	20134.000
GR	67.000	20201.000	85.900	20252.000	87.600	20334.000	90.000	20800.000	93.000	21100.000
GR	100.000	23100.000	110.000	23300.000	0	0	0	0	0	0
ET	-0	-0	9.100	-0	0	0	0	0	20200.000	21050.000

X1	119.100	31.000	20685.000	20971.000	7650.000	7650.000	7650.000	0	0	-0
GR	110.000	0	101.000	200.000	100.000	2100.000	99.200	14000.000	99.000	17300.000
GR	93.000	19959.000	92.300	20159.000	83.200	20217.000	77.900	20257.000	75.000	20307.000
GR	64.000	20340.000	63.600	20569.000	63.000	20619.000	51.400	20651.000	49.300	20685.000
GR	21.800	20731.000	20.800	20751.000	22.200	20771.000	22.200	20891.000	28.200	20911.000
GR	31.200	20931.000	32.100	20951.000	47.800	20971.000	51.300	20986.000	56.700	21008.000
GR	65.500	21043.000	66.400	21150.000	77.100	21206.000	90.000	21700.000	100.000	22500.000
GR	110.000	22600.000	0	0	0	0	0	0	0	0

ET	-0	9,100	-0	-0	-0	-0	-0	-0	-0	8200,000	9050,000
X1	120,300	8762,000	8975,000	6340,000	6340,000	6340,000	6340,000	6340,000	-0	-0	-0
GR	100,000	95,000	1800,000	90,000	1900,000	1900,000	90,000	90,000	2000,000	95,000	2100,000
GR	100,000	100,000	2400,000	94,000	3100,000	3100,000	90,000	90,000	3200,000	100,000	4100,000
GR	100,000	95,000	5700,000	90,000	5750,000	5750,000	90,000	90,000	6100,000	100,000	6200,000
GR	100,000	90,000	6900,000	80,700	8400,000	8400,000	79,900	79,900	8417,000	64,200	8475,000
GR	61,500	62,600	8556,000	61,700	8671,000	8671,000	54,700	54,700	8700,000	51,100	8732,000
GR	41,700	28,200	8778,000	25,600	8800,000	8800,000	22,500	22,500	8850,000	22,100	8878,000
GR	20,200	20,600	8960,000	27,700	8970,000	8970,000	34,500	34,500	8975,000	53,200	9015,000
GR	71,800	88,900	9080,000	91,900	9128,000	9128,000	94,400	94,400	9160,000	94,400	9170,000
GR	100,000	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
ET	-0	9,100	-0	-0	-0	-0	-0	-0	-0	8200,000	9050,000

X1	120,800	-0	-0	2600,000	2600,000	2600,000	2600,000	2600,000	-0	-0	-0
ET	-0	9,100	-0	-0	-0	-0	-0	-0	-0	6650,000	7500,000

X1	122,200	7088,000	7333,000	7390,000	7390,000	7390,000	7390,000	7390,000	-0	-0	-0
GR	100,000	95,000	50,000	90,000	500,000	500,000	90,000	90,000	1900,000	96,000	2000,000
GR	100,000	100,000	3000,000	100,000	4800,000	4800,000	92,000	92,000	4900,000	90,000	6500,000
GR	90,000	90,000	6900,000	85,900	7000,000	7000,000	53,400	53,400	7045,000	50,800	7054,000
GR	43,300	40,700	7088,000	27,100	7100,000	7100,000	23,100	23,100	7150,000	25,000	7200,000
GR	24,400	23,300	7250,000	24,300	7300,000	7300,000	29,300	29,300	7320,000	39,300	7333,000
GR	47,700	50,600	7390,000	58,100	7400,000	7400,000	63,000	63,000	7500,000	91,900	7567,000
GR	100,000	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
ET	-0	9,100	-0	-0	-0	-0	-0	-0	-0	6650,000	7500,000

X1	122,400	-0	-0	1000,000	1000,000	1000,000	1000,000	1000,000	-0	-0	-0
EJ	-0	-0	-0	-0	-0	-0	-0	-0	-0	.300	-0

\*\*\*\*\*  
 INTERACTIVE HEC2 VERSION UPDATED SEPT 1976  
 ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09,10  
 MODIFICATIONS 50,51,52,53,54,55,56,57,58,59  
 \*\*\*\*\*

T1 FPMS BR FAYETTEVILLE NC FIS  
 T2 50 YR NATURAL  
 T3 CAPE FEAR RIVER

J1	ICHECK	ING	NINV	IDIR	STRT	METRIC	HVINS	0	WSEL	FO
	-10.	6.	-0	-0	.000250	=0	-0	-0	80.000	-0
J2	NPROF	IPL0T	PRFVS	XSECV	XSECH	FN	ALLDC	IHW	CHNIM	ITRACE
	2.000	-0	-1.000	-0	-0	-0	-0	-0	-0	0

\*PROF 2

CCHV= .200 CEHV= .400

\*SECNO 1 3,300

SECNO	DEPTH	WSEL	CRWS	WSELK	EG	HV	HL	ULOSS	BANK ELEV
Q	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
113.30	61.29	77.19	0	80.00	77.54	.34	0	0	45.60
88000.	3937.	80430.	3633.	4356.	16432.	2615.	0	0	41.10
0	.90	4.89	1.39	.150	.068	.150	0	15.90	17279.98
.000249	-0	-0	-0	0	0	3	0	989.39	18269.37

\*SECNO 113,900

113.90	62.10	78.00	0	0	78.25	.25	.69	.02	44.50
88000.	2808.	80542.	4649.	3704.	19423.	3885.	1910.	78.	37.50
.24	.76	4.15	1.20	.150	.068	.150	.068	15.90	16795.80
.000179	3300.	3300.	3300.	1	0	1	0	1060.38	17856.18

\*SECNO 114,900

114.90	61.07	79.07	0	0	79.35	.28	1.09	.02	46.00
88000.	4829.	77339.	5831.	4867.	17033.	4973.	5250.	210.	44.00
.60	.99	4.54	1.17	.150	.068	.150	.068	18.00	16696.11
.000231	5400.	5400.	5400.	2	0	1	0	1072.62	17768.72

\*SECNO 114,900

3265 DIVIDED FLOW

NORMAL BRIDGE, NRD= 0 MIN ELTRD= 87.00 MAX ELLC= 83.80

114.90	61.42	79.12	0	0	79.36	.25	.00	.01	87.00
88000.	0	88000.	0	0	22142.	0	5250.	210.	87.00
.60	0	3.97	0	.150	.068	.150	.068	17.70	17000.00

\*\*\*\*\*  
 INTERACTIVE HEC2 VERSION UPDATED SEPT 1976  
 ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09,10  
 MODIFICATIONS 50,51,52,53,54,55,56,57,58,59  
 \*\*\*\*\*

T1 FPMS HR FAYETTEVILLE NC FIS  
 T2 100 YR NATURAL  
 T3 CAPE FEAR RIVER

J1	ICHECK	ING	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	4.	-0	=0	-0	=0	-0	-0	81,400	-0
J2	NPROF	IPLT	PRFVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	3,000	-0	-1,000	-0	-0	-0	-0	-0	-0	-0

\*PROF 3

CCHV= .200 CEHV= .400  
 \*SECNO 113,300

SECNO	DEPTH	WSEL	CRIS	WSELK	EG	HV	HL	LOSS	BANK ELEV
Q	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
113.30	65.50	81.40	0	81.40	81.77	.37	0	0	45.60
103000.	6743.	91570.	4687.	7292.	17656.	3137.	0	0	41.10
0	.92	5.19	1.49	.150	.068	.150	0	15.90	17051.95
.000254	-0	-0	-0	0	0	1	0	1351.13	18403.09

\*SECNO 113,900

113.90	66.33	82.23	0	0	82.50	.27	.71	.02	44.50
103000.	4954.	92036.	6010.	6449.	20912.	4651.	2276.	101.	37.50
.23	.77	4.40	1.29	.150	.068	.150	.068	15.90	16543.24
.000162	3300.	3300.	3300.	0	0	1	0	1326.94	17870.18

\*SECNO 114,900

114.90	65.31	83.31	0	0	83.62	.30	1.10	.01	46.00
103000.	7450.	87574.	7975.	7313.	18370.	6310.	6244.	267.	44.00
.58	1.02	4.77	1.26	.150	.068	.150	.068	18.00	16460.44
.000230	5400.	5400.	5400.	2	0	1	0	1341.06	17801.50

\*SECNO 114,900

3265 DIVIDED FLOW

NORMAL BRIDGE, NRD= 0 MIN ELTRD= 87.00 MAX ELLC= 83.80

114.90	65.66	83.36	0	0	83.62	.26	.00	.01	87.00
103000.	0	103000.	0	0	24938.	0	6244.	267.	87.00
.58	0	4.13	0	.150	.068	.150	.068	17.70	17000.00

\*\*\*\*\*  
 INTERACTIVE HEC2 VERSION UPDATED SEPT 1976  
 ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09,10  
 MODIFICATIONS 50,51,52,53,54,55,56,57,58,59  
 \*\*\*\*\*

T1 FPMS BR FAYETTEVILLE NC FIS  
 T2 500 YR NATURAL  
 T3 CAPE FEAR RIVER

J1	ICHECK	INO	RINV	IDIR	STRT	METRIC	HVINS	0	WSEL	FO
	-10.	7.	-0.	0	.000250	0	-0	-0	92.000	-0
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	EN	ALLDC	18W	CHNIM	ITRACE
	15.000	-0	-1.000	-0	-0	-0	-0	-0	-0	-0

\*PROF 4

CCHV= .200 CEHV= .400

\*SECNO 113.300

SECNO	DEPTH	WSEL	CRWS	WSELK	EG	HV	HL	PLOSS	BANK ELEV
0	QLOB	QCH	OROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VRQB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
113.30	74.56	90.46	0	92.00	90.84	.38	0	0	45.60
150000.	19858.	114741.	15401.	19084.	20291.	23827.	0	0	41.10
0	1.04	5.65	.65	.150	.068	.150	0	15.90	16393.78
.000251	-0	-0	-0	0	0	3	0	8495.87	24889.65

\*SECNO 113.900

113.90	75.36	91.26	0	0	91.59	.33	.74	.01	44.50
150000.	14890.	122225.	12885.	16444.	24088.	17204.	4581.	570.	37.50
.21	.91	5.07	.75	.150	.068	.150	.068	15.90	15836.00
.000201	3300.	3300.	3300.	2	0	1	0	6554.16	22390.16

\*SECNO 114.900

114.90	74.44	92.44	0	0	92.79	.35	1.19	.01	46.00
150000.	20709.	114005.	14686.	24866.	21244.	10184.	11649.	1391.	44.00
.56	.83	5.39	1.44	.150	.068	.150	.068	18.00	11386.63
.000242	5400.	5400.	5400.	2	0	1	0	6693.20	18079.84

\*SECNO 114.900

NORMAL BRIDGE, NRD= 0 MIN ELTRD= 87.00 MAX ELLC= 83.80

114.90	74.83	92.53	0	0	92.80	.28	.00	.01	87.00
150000.	16962.	132243.	7950	16933.	29578.	823.	11650.	1391.	87.00
.56	1.00	4.47	.97	.150	.068	.150	.068	17.70	10347.91
.001962	1.	1.	1.	2	0	1	-2512.00	7736.92	18084.83



NATURAL S

SUMMARY PRINTOUT

9/25/76 CROSS CR. GREEN ST TO CO

SECNO	CWSEL	Q	ELMIN	EG	HV	10K+S	DIFWSP	TOPWID	SSTA	ENDST	VCH
68,00	80.40	1800.00	75.70	82.23	1.83	121.33	0	44.54	79.63	124.17	10.8
68,00	82.40	3350.00	75.70	84.92	2.52	114.09	2.00	52.43	76.49	128.92	12.7
68,00	83.40	4250.00	75.70	86.19	2.79	108.61	1.00	56.38	74.92	131.30	13.4
68,00	87.00	7300.00	75.70	89.73	2.73	66.62	3.60	143.94	70.72	214.66	13.3
* 118,00	81.44	1800.00	75.00	83.57	2.13	124.56	0	36.44	544.22	580.65	11.7
* 118,00	84.64	3350.00	75.00	86.41	1.77	63.54	3.20	261.54	323.62	585.16	11.0
* 118,00	85.42	4250.00	75.00	87.24	1.83	62.59	.78	270.41	315.84	586.26	11.5
118,00	89.49	7300.00	75.00	90.29	.81	23.60	4.07	512.90	139.70	664.60	8.9
200,00	83.40	1800.00	75.00	84.33	.93	39.19	0	59.00	714.40	773.41	7.7
200,00	85.73	3350.00	75.00	86.92	1.19	37.30	2.33	202.85	573.84	776.69	9.1
200,00	86.22	4250.00	75.00	87.74	1.52	46.15	.49	215.34	562.06	777.40	10.5
200,00	89.45	7300.00	75.00	90.69	1.25	31.87	3.23	314.92	527.42	854.93	10.4
300,00	83.95	1800.00	75.00	84.70	.75	28.58	0	146.58	602.61	749.20	6.9
300,00	86.50	3350.00	75.00	87.29	.79	24.02	2.55	242.87	509.93	752.80	7.7
300,00	87.32	4250.00	75.00	88.21	.89	25.72	.82	252.13	501.81	753.94	8.3
300,00	90.18	7300.00	75.00	91.04	.86	22.13	2.85	657.76	208.13	860.19	8.9
400,00	84.82	1800.00	76.20	85.02	.20	15.60	0	238.17	541.39	779.57	3.8
400,00	87.37	3350.00	76.20	87.56	.21	11.87	2.55	349.54	493.44	842.98	4.2
400,00	88.28	4250.00	76.20	88.51	.23	12.12	.91	395.20	479.97	875.18	4.5
400,00	91.08	7300.00	76.20	91.31	.23	10.32	2.80	819.09	100.60	919.69	5.0
450,00	84.89	1800.00	76.50	85.11	.23	18.42	0	229.41	547.33	776.73	4.0
450,00	87.42	3350.00	76.50	87.65	.23	13.57	2.53	335.90	496.89	832.78	4.4
450,00	88.33	4250.00	76.50	88.58	.25	13.72	.91	384.39	484.43	868.82	4.7
450,00	91.12	7300.00	76.50	91.37	.25	11.60	2.79	812.69	106.58	919.27	5.2
500,00	84.97	1800.00	76.80	85.22	.26	21.52	0	221.47	552.70	774.17	4.3
500,00	87.48	3350.00	76.80	87.73	.25	15.41	2.51	323.25	500.08	823.33	4.6
500,00	88.39	4250.00	76.80	88.67	.28	15.41	.91	372.15	487.74	859.89	5.0
500,00	91.16	7300.00	76.80	91.44	.26	12.93	2.77	806.80	112.10	918.89	5.1
550,00	85.07	1800.00	77.10	85.35	.29	24.96	0	214.07	557.70	771.77	4.5
550,00	87.54	3350.00	77.10	87.82	.26	17.53	2.48	310.72	503.24	813.96	4.8
550,00	88.45	4250.00	77.10	88.76	.31	17.34	.91	359.00	490.90	850.50	5.2
550,00	91.21	7300.00	77.10	91.53	.31	14.56	2.76	800.54	117.95	918.49	5.7
555,00	85.08	1800.00	77.10	85.37	.29	24.76	0	214.50	557.41	771.91	4.5
555,00	87.55	3350.00	77.10	87.83	.28	17.45	2.47	311.16	503.13	814.29	4.8
555,00	88.46	4250.00	77.10	88.77	.30	17.27	.91	360.04	490.79	850.83	5.2
555,00	91.22	7300.00	77.10	91.53	.31	14.46	2.76	800.70	117.79	918.50	5.7
556,00	85.08	1800.00	77.10	85.37	.28	24.72	0	214.59	557.35	771.94	4.5
556,00	87.55	3350.00	77.10	87.84	.28	17.44	2.47	311.25	503.10	814.36	4.8
556,00	88.47	4250.00	77.10	88.77	.30	17.25	.91	360.13	490.77	850.90	5.2
556,00	91.22	7300.00	77.10	91.53	.31	14.45	2.76	800.74	117.76	918.50	5.6
557,00	85.09	1800.00	77.10	85.37	.20	24.67	0	214.68	557.29	771.97	4.5
557,00	87.56	3350.00	77.10	87.84	.26	17.42	2.47	311.35	503.08	814.43	4.8
557,00	88.47	4250.00	77.10	88.77	.30	17.24	.91	360.22	490.75	850.97	5.2
557,00	91.23	7300.00	77.10	91.54	.31	14.44	2.75	800.77	117.73	918.50	5.6

SECNO	CWSEL	Q	ELMIN	EG	HV	10K*S	DIFWSP	TOPWID	SSTA	ENDST	VCH
570.00	84.94	1800.00	77.00	85.53	.59	36.06	0	43.46	754.98	798.44	6.1
570.00	87.04	3350.00	77.00	88.24	1.20	54.62	2.10	80.82	718.43	799.25	8.8
570.00	87.71	4250.00	77.00	89.34	1.63	67.99	.67	135.16	664.35	799.51	10.3
570.00	90.10	7300.00	77.00	92.35	2.24	77.51	2.39	335.14	472.76	807.90	12.7
580.00	84.98	1800.00	77.00	85.57	.59	36.01	0	42.79	755.38	798.17	6.1
580.00	87.09	3350.00	77.00	88.30	1.21	55.62	2.11	44.62	754.27	798.89	8.8
580.00	87.75	4250.00	77.00	89.43	1.68	71.40	.66	59.52	739.62	799.14	10.4
580.00	89.69	7300.00	77.00	92.77	3.07	106.06	1.94	234.42	565.46	799.88	14.3
600.00	86.37	1800.00	77.00	86.43	.06	4.29	0	483.03	322.53	805.56	2.4
600.00	89.89	3350.00	77.00	89.93	.04	2.18	3.51	725.44	93.89	819.33	2.1
600.00	90.65	4250.00	77.00	90.69	.04	2.50	.76	738.10	83.52	821.62	2.4
600.00	92.70	7300.00	77.00	92.77	.06	3.32	2.06	777.88	52.40	830.28	3.1
605.00	86.38	1800.00	77.00	86.44	.06	4.26	0	484.05	321.52	805.58	2.4
605.00	89.89	3350.00	77.00	89.93	.04	2.17	3.51	725.77	93.61	819.38	2.1
605.00	90.65	4250.00	77.00	90.69	.04	2.49	.76	738.22	83.42	821.64	2.4
605.00	92.71	7300.00	77.00	92.77	.06	3.32	2.06	777.93	52.36	830.29	3.1
610.00	86.38	1800.00	77.10	86.44	.06	4.54	0	474.12	331.31	805.43	2.4
610.00	89.89	3350.00	77.10	89.93	.04	2.27	3.51	721.71	97.08	818.79	2.2
610.00	90.65	4250.00	77.10	90.69	.04	2.60	.76	736.99	84.41	821.40	2.4
610.00	92.71	7300.00	77.10	92.77	.07	3.44	2.06	774.73	54.82	829.55	3.1
620.00	86.38	1800.00	77.20	86.45	.07	4.86	0	463.83	341.44	805.28	2.5
620.00	89.89	3350.00	77.20	89.93	.04	2.38	3.51	717.70	100.50	818.20	2.2
620.00	90.65	4250.00	77.20	90.70	.05	2.72	.76	735.70	85.44	821.14	2.5
620.00	92.71	7300.00	77.20	92.78	.07	3.56	2.06	771.59	57.24	828.83	3.2
800.00	86.47	1800.00	75.30	86.55	.07	6.18	0	477.80	396.25	874.06	2.9
800.00	89.94	3350.00	75.30	89.98	.03	2.79	3.47	838.18	58.44	896.62	2.4
800.00	90.71	4250.00	75.30	90.75	.04	3.08	.77	847.69	50.37	898.06	2.7
800.00	92.80	7300.00	75.30	92.85	.05	3.74	2.08	872.34	32.84	905.17	3.3
1000.00	86.53	1800.00	78.20	86.87	.34	22.88	0	254.97	237.67	492.64	5.0
1000.00	89.95	3350.00	78.20	90.13	.18	10.33	3.47	415.78	97.88	513.66	4.4
1000.00	90.72	4250.00	78.20	90.93	.21	11.35	.77	424.72	92.69	517.41	4.8
1000.00	92.79	7300.00	78.20	93.06	.27	13.71	2.07	458.87	68.40	527.27	5.9
1200.00	87.17	1800.00	78.90	87.26	.09	13.07	0	382.30	94.17	476.46	3.5
1200.00	90.26	3350.00	78.90	90.32	.06	6.62	3.09	412.87	67.83	480.71	3.2
1200.00	91.06	4250.00	78.90	91.13	.08	7.37	.80	417.56	64.24	481.80	3.6
1200.00	93.20	7300.00	78.90	93.32	.12	9.39	2.15	445.78	38.97	484.75	4.6
1330.00	87.34	1800.00	79.20	87.44	.10	14.51	0	361.49	94.80	476.29	3.6
1330.00	90.35	3350.00	79.20	90.42	.07	7.36	3.01	411.63	68.79	480.42	3.3
1330.00	91.15	4250.00	79.20	91.24	.08	8.07	.61	416.37	65.16	481.52	3.7
1330.00	93.32	7300.00	79.20	93.45	.12	10.00	2.17	442.43	42.07	484.50	4.7
1440.00	87.51	1800.00	79.60	87.65	.14	22.06	0	354.86	202.31	557.16	3.1
1440.00	90.42	3350.00	79.60	90.50	.08	7.16	2.90	540.98	111.07	652.05	2.6
1440.00	91.23	4250.00	79.60	91.32	.09	7.06	.81	572.24	97.15	669.39	2.9
1440.00	93.42	7300.00	79.60	93.54	.12	7.06	2.19	657.51	59.82	717.33	3.4

SECNO	CWSEL	Q	ELMIN	FG	HV	10K*S	DJFWSP	TOPWID	SSTA	ENDST	VCH
1441.00	87.52	1800.00	79.60	87.65	.14	22.02	0	354.92	202.24	557.17	3.1
1441.00	90.42	3350.00	79.60	90.50	.08	7.15	2.90	541.01	111.05	652.06	2.6
1441.00	91.23	4250.00	79.60	91.32	.09	7.06	.81	572.27	97.14	669.41	2.9
1441.00	93.42	7300.00	79.60	93.54	.12	7.06	2.19	657.55	59.80	717.35	3.4
1442.00	87.52	1800.00	79.60	87.65	.14	21.96	0	355.00	202.17	557.17	3.1
1442.00	90.42	3350.00	79.60	90.50	.08	7.15	2.90	541.04	111.04	652.08	2.6
1442.00	91.23	4250.00	79.60	91.32	.09	7.05	.81	572.30	97.12	669.42	2.9
1442.00	93.42	7300.00	79.60	93.54	.12	7.05	2.19	657.58	59.79	717.37	3.4
1460.00	87.56	1800.00	79.60	87.69	.13	21.05	0	356.43	200.80	557.23	3.1
1460.00	90.43	3350.00	79.60	90.52	.08	7.09	2.87	541.53	110.82	652.35	2.6
1460.00	91.24	4250.00	79.60	91.34	.09	7.00	.81	572.79	96.91	669.69	2.8
1460.00	93.43	7300.00	79.60	93.55	.12	7.01	2.19	658.12	59.57	717.70	3.4
1470.00	87.40	1800.00	79.60	87.84	.44	37.81	0	312.71	346.20	715.00	5.6
1470.00	90.40	3350.00	79.60	90.55	.16	15.10	2.99	705.72	105.62	811.34	4.2
1470.00	91.23	4250.00	79.60	91.36	.14	13.77	.83	737.77	92.38	830.14	4.2
1470.00	93.45	7300.00	79.60	93.56	.12	11.48	2.22	824.30	56.86	881.16	4.4
1500.00	87.41	1800.00	79.60	87.84	.44	37.66	0	313.14	345.93	715.00	5.5
1500.00	90.40	3350.00	79.60	90.55	.16	15.09	2.99	705.74	105.61	811.35	4.2
1500.00	91.23	4250.00	79.60	91.37	.14	13.72	.83	738.00	92.28	830.28	4.2
1500.00	93.52	7300.00	79.60	93.63	.11	11.08	2.29	827.24	55.71	882.95	4.3
1501.00	87.87	1800.00	79.10	87.92	.05	7.69	0	532.20	206.12	738.32	2.8
1501.00	90.54	3350.00	79.10	90.58	.04	4.44	2.67	728.87	99.22	828.09	2.6
1501.00	91.35	4250.00	79.10	91.39	.04	4.63	.81	757.11	83.08	840.19	2.8
1501.00	93.59	7300.00	79.10	93.64	.05	4.94	2.24	827.64	46.18	873.82	3.4
1505.00	87.87	1800.00	79.10	87.93	.05	7.63	0	532.75	205.69	738.44	2.8
1505.00	90.54	3350.00	79.10	90.58	.04	4.43	2.67	729.00	99.14	828.14	2.6
1505.00	91.35	4250.00	79.10	91.39	.04	4.62	.81	757.24	83.00	840.25	2.8
1505.00	93.59	7300.00	79.10	93.64	.05	4.93	2.24	827.74	46.13	873.87	3.4
1515.00	87.88	1800.00	79.10	87.93	.05	7.59	0	533.21	205.33	738.54	2.8
1515.00	90.55	3350.00	79.10	90.58	.04	4.42	2.67	729.16	99.05	828.21	2.6
1515.00	91.35	4250.00	79.10	91.40	.04	4.61	.81	757.40	82.91	840.32	2.8
1515.00	93.60	7300.00	79.10	93.65	.05	4.92	2.24	827.88	46.06	873.94	3.4
1530.00	87.92	1800.00	79.10	87.95	.03	5.58	0	436.28	201.38	637.67	2.2
1530.00	90.56	3350.00	79.10	90.59	.03	4.02	2.65	735.53	21.40	756.93	2.4
1530.00	91.37	4250.00	79.10	91.40	.03	4.28	.81	750.87	16.15	767.02	2.6
1530.00	93.61	7300.00	79.10	93.66	.05	4.73	2.24	848.79	10.40	876.04	3.1
1800.00	87.96	1800.00	79.70	88.45	.49	39.82	0	240.50	100.51	341.01	6.5
1800.00	90.66	3350.00	79.70	90.86	.28	16.61	2.69	612.48	67.45	679.93	5.2
1800.00	91.48	4250.00	79.70	91.66	.18	14.93	.82	644.03	48.19	692.22	5.2
1800.00	93.74	7300.00	79.70	93.89	.14	11.62	2.26	679.65	30.78	710.44	5.2
2000.00	88.80	1800.00	79.90	89.07	.27	22.03	0	338.88	45.35	384.22	5.1
2000.00	91.00	3350.00	79.90	91.17	.17	14.16	2.20	626.44	27.01	724.99	4.8
2000.00	91.79	4250.00	79.90	91.94	.16	13.14	.79	660.69	21.50	728.93	4.9
2000.00	93.98	7300.00	79.90	94.11	.13	10.62	2.20	725.46	10.09	735.55	4.9

SECNO	CWSEL	Q	ELMIN	EG	HV	10K+S	DIFWSP	TOPWID	SSTA	ENDST	VCH
2200.00	89.28	1800.00	80.10	89.31	.03	5.40	0	637.01	21.14	658.15	2.3
2200.00	91.30	3350.00	80.10	91.33	.03	4.12	2.03	724.35	13.04	737.39	2.4
2200.00	92.07	4250.00	80.10	92.10	.03	4.23	.77	741.40	11.87	753.27	2.6
2200.00	94.21	7300.00	80.10	94.26	.05	4.42	2.15	754.33	7.49	761.82	3.0
2400.00	89.27	1800.00	80.80	89.60	.33	14.55	0	399.24	68.27	467.51	5.6
2400.00	91.29	3350.00	80.80	91.55	.26	11.00	2.03	467.47	40.30	507.76	5.7
2400.00	92.06	4250.00	80.80	92.33	.27	11.06	.76	478.11	34.41	512.53	6.1
2400.00	94.20	7300.00	80.80	94.49	.29	11.03	2.14	517.96	14.01	531.98	6.9
2440.00	88.98	1800.00	80.80	89.93	.94	32.08	0	82.72	139.67	222.38	8.0
2440.00	90.40	3350.00	80.80	92.29	1.89	52.45	1.41	118.73	121.23	239.96	11.7
2440.00	90.74	4250.00	80.80	93.42	2.68	71.32	.34	133.84	114.61	248.45	14.0
2440.00	93.49	7300.00	80.80	96.25	2.76	59.06	2.75	227.13	67.72	294.85	15.4
2445.00	89.32	1800.00	80.90	89.99	.68	25.35	0	38.00	200.00	238.00	6.5
2445.00	90.74	3350.00	80.90	92.37	1.63	51.73	1.42	38.00	200.00	238.00	10.2
2445.00	91.08	4250.00	80.90	93.50	2.43	74.40	.34	38.00	200.00	238.00	12.5
2445.00	92.56	7300.00	80.90	97.84	5.28	141.89	1.48	38.00	200.00	238.00	18.4
2510.00	89.73	1800.00	80.90	90.33	.60	21.55	0	38.00	200.00	238.00	6.2
2510.00	92.43	3350.00	80.90	93.57	1.14	30.92	2.70	38.00	200.00	238.00	8.5
2510.00	94.33	4250.00	80.90	95.63	1.31	30.88	1.90	38.00	200.00	238.00	9.1
2510.00	99.89	7300.00	80.90	101.71	1.82	32.61	5.56	38.00	200.00	238.00	10.8
2511.00	89.73	1800.00	80.90	90.34	.60	21.54	0	38.00	200.00	238.00	6.2
2511.00	92.43	3350.00	80.90	93.57	1.14	30.88	2.70	38.00	200.00	238.00	8.5
2511.00	94.33	4250.00	80.90	95.64	1.31	30.85	1.90	38.00	200.00	238.00	9.1
2511.00	99.90	7300.00	80.90	101.71	1.82	32.57	5.56	38.00	200.00	238.00	10.8
2515.00	90.28	1800.00	82.20	90.43	.15	7.32	0	522.43	45.69	568.13	4.2
2515.00	93.73	3350.00	82.20	93.79	.06	2.60	3.45	669.92	26.74	696.66	3.2
2515.00	95.85	4250.00	82.20	95.89	.04	1.57	2.12	684.30	15.70	700.00	2.8
2515.00	102.05	7300.00	82.20	102.07	.02	.69	6.19	700.00	0	700.00	2.4
2540.00	90.28	1800.00	82.20	90.47	.19	6.28	0	282.18	70.32	352.50	3.9
2540.00	93.70	3350.00	82.20	93.83	.13	3.48	3.42	455.15	43.03	498.18	3.8
2540.00	95.82	4250.00	82.20	95.92	.10	2.30	2.13	498.72	29.06	527.78	3.5
2540.00	102.03	7300.00	82.20	102.09	.06	1.03	6.21	600.00	0	600.00	3.0
2560.00	90.19	1800.00	82.60	90.55	.36	10.07	0	160.65	70.85	231.50	5.0
2560.00	93.60	3350.00	82.60	93.91	.31	6.39	3.41	346.38	44.01	390.38	5.2
2560.00	95.75	4250.00	82.60	95.98	.22	4.13	2.15	412.12	29.47	441.59	4.7
2560.00	102.00	7300.00	82.60	102.11	.12	1.69	6.24	519.96	.01	519.97	3.9
2565.00	90.12	1800.00	82.60	90.61	.49	18.31	0	44.00	1200.00	1244.00	5.6
2565.00	93.30	3350.00	82.60	94.12	.83	21.69	3.18	44.00	1200.00	1244.00	7.3
2565.00	95.33	4250.00	82.60	96.26	.93	20.89	2.04	44.00	1200.00	1244.00	7.7
2565.00	101.32	7300.00	82.60	102.57	1.25	20.68	5.98	44.00	1200.00	1244.00	8.9
2615.00	90.15	1800.00	82.60	90.64	.49	18.05	0	44.00	1200.00	1244.00	5.6
2615.00	93.36	3350.00	82.60	94.18	.82	21.31	3.21	44.00	1200.00	1244.00	7.2
2615.00	95.77	4250.00	82.60	96.64	.87	18.93	2.41	44.00	1200.00	1244.00	7.4
2615.00	101.50	7300.00	82.60	102.73	1.23	20.14	5.73	44.00	1200.00	1244.00	8.9

SFCNO	CWSEL	Q	ELMIN	EG	HV	10K+S	DIFWSP	TOPWID	SSTA	ENDST	VCH
2616.00	90.16	1800.00	82.60	90.64	.49	18.03	0	44.00	1200.00	1244.00	5.6
2616.00	93.36	3350.00	82.60	94.18	.82	21.29	3.21	44.00	1200.00	1244.00	7.2
2616.00	95.77	4250.00	82.60	96.64	.87	18.92	2.41	44.00	1200.00	1244.00	7.4
2616.00	101.50	7300.00	82.60	102.73	1.23	20.14	5.73	44.00	1200.00	1244.00	8.9
2620.00	90.48	1800.00	82.50	90.70	.22	8.55	0	638.56	665.12	1397.56	4.1
2620.00	94.28	3350.00	82.50	94.33	.06	1.99	3.79	812.70	611.94	1479.22	2.7
2620.00	96.78	4250.00	82.50	96.81	.03	.97	2.50	939.12	570.32	1545.54	2.2
2620.00	102.96	7300.00	82.50	102.97	.01	.35	6.18	2107.61	129.99	2237.60	1.7
2630.00	90.50	1800.00	82.50	90.71	.22	8.45	0	639.31	664.99	1398.04	4.1
2630.00	94.28	3350.00	82.50	94.34	.06	1.98	3.78	812.89	611.88	1479.33	2.7
2630.00	96.78	4250.00	82.50	96.81	.03	.97	2.50	939.28	570.25	1545.60	2.2
2630.00	102.96	7300.00	82.50	102.97	.01	.35	6.18	2108.52	129.38	2237.90	1.7
2800.00	90.74	1800.00	82.50	90.84	.10	4.53	0	712.90	613.41	1402.66	3.1
2800.00	94.33	3350.00	82.50	94.37	.03	1.39	3.59	906.01	557.39	1512.41	2.3
2800.00	96.81	4250.00	82.50	96.83	.02	.73	2.47	1012.19	518.72	1561.05	1.9
2800.00	102.97	7300.00	82.50	102.98	.01	.27	6.16	2162.78	51.45	2214.23	1.5
2920.00	90.76	1800.00	82.50	90.94	.19	7.46	0	679.35	1063.46	1742.81	3.9
2920.00	94.34	3350.00	82.50	94.39	.05	1.84	3.59	907.83	1041.92	1949.75	2.6
2920.00	96.81	4250.00	82.50	96.84	.03	.88	2.47	1044.53	942.97	2044.35	2.1
2920.00	102.97	7300.00	82.50	102.98	.01	.31	6.16	1995.82	621.90	2617.72	1.6
2950.00	90.80	1800.00	83.00	90.97	.17	6.60	0	681.86	1063.19	1745.06	3.9
2950.00	94.35	3350.00	83.00	94.40	.05	1.87	3.55	908.07	1041.89	1949.96	2.7
2950.00	96.82	4250.00	83.00	96.84	.02	.91	2.47	1044.64	942.96	2044.43	2.2
2950.00	102.97	7300.00	83.00	102.98	.01	.32	6.16	1995.97	621.83	2617.80	1.6
2951.00	90.49	1800.00	83.00	91.20	.71	27.92	0	37.00	1550.00	1587.00	6.7
2951.00	94.07	3350.00	83.00	94.59	.52	16.77	3.58	750.40	1339.15	2089.55	6.5
2951.00	96.77	4250.00	83.00	96.88	.11	4.20	2.70	1020.17	1232.99	2253.17	3.8
2951.00	102.97	7300.00	83.00	102.99	.01	.62	6.20	2549.86	312.50	2862.36	1.8
3010.00	91.52	1800.00	83.00	92.06	.54	18.84	0	37.00	1550.00	1587.00	5.9
3010.00	94.07	3350.00	83.00	94.59	.52	16.75	2.55	750.50	1339.10	2089.60	6.5
3010.00	96.77	4250.00	83.00	96.88	.11	4.20	2.70	1020.19	1232.99	2253.18	3.8
3010.00	103.02	7300.00	83.00	103.04	.01	.61	6.25	2564.82	301.23	2866.05	1.8
3011.00	91.52	1800.00	83.00	92.06	.54	18.82	0	37.00	1550.00	1587.00	5.9
3011.00	94.07	3350.00	83.00	94.59	.52	16.73	2.55	750.64	1339.04	2089.68	6.5
3011.00	96.77	4250.00	83.00	96.88	.11	4.20	2.70	1020.25	1232.97	2253.22	3.8
3011.00	103.02	7300.00	83.00	103.04	.01	.61	6.25	2564.84	301.22	2866.06	1.8
3015.00	91.64	1800.00	82.80	92.09	.45	11.47	0	214.12	1289.70	1503.81	5.8
3015.00	94.31	3350.00	82.80	94.64	.32	7.99	2.68	842.45	1169.29	2011.74	5.9
3015.00	96.78	4250.00	82.80	96.88	.10	2.78	2.47	1044.64	1118.31	2162.95	3.9
3015.00	103.02	7300.00	82.80	103.04	.02	.52	6.24	2256.52	480.88	2737.40	2.2
3025.00	91.70	1800.00	82.80	92.11	.41	10.59	0	228.26	1206.70	1489.12	5.6
3025.00	94.30	3350.00	82.80	94.66	.36	8.64	2.60	639.19	1167.74	1806.93	6.1
3025.00	96.76	4250.00	82.80	96.90	.14	3.53	2.46	909.57	1118.55	2185.27	4.4
3025.00	103.02	7300.00	82.80	103.04	.02	.67	6.26	1981.78	481.65	2463.43	2.5

SECNO	CWSEL	Q	ELMIN	FG	HV	10K+S	DIFWSP	TOPWID	SSTA	ENDST	VCH
3100.00	91.80	1800.00	82.80	92.19	.39	10.11	0	235.93	1204.71	1489.36	5.5
3100.00	94.39	3350.00	82.80	94.73	.34	8.21	2.59	643.51	1167.10	1810.61	5.9
3100.00	96.79	4250.00	82.80	96.92	.14	3.48	2.40	915.26	1117.42	2186.82	4.4
3100.00	103.02	7300.00	82.80	103.05	.02	.67	6.24	1982.55	481.04	2463.60	2.5
3200.00	92.06	1800.00	82.80	92.30	.24	6.44	0	439.34	1219.72	1696.07	4.5
3200.00	94.65	3350.00	82.80	94.82	.18	4.64	2.59	683.07	1011.74	1849.96	4.5
3200.00	96.87	4250.00	82.80	96.96	.09	2.37	2.23	760.33	1001.33	1903.36	3.6
3200.00	103.03	7300.00	82.80	103.06	.03	.72	6.15	1614.45	480.14	2212.99	2.6
3400.00	92.24	1800.00	82.80	92.44	.20	7.01	0	237.19	983.59	1443.09	3.7
3400.00	94.73	3350.00	82.80	94.94	.21	6.21	2.49	653.21	961.71	1798.51	4.2
3400.00	96.91	4250.00	82.80	97.02	.11	3.07	2.18	769.40	954.16	1871.81	3.3
3400.00	103.04	7300.00	82.80	103.07	.03	.73	6.13	1370.26	481.35	1964.40	2.2
3600.00	92.35	1800.00	83.60	92.66	.31	11.89	0	270.11	1047.61	1663.61	4.6
3600.00	94.85	3350.00	83.60	95.12	.27	10.09	2.50	450.54	1031.03	1675.23	4.8
3600.00	96.97	4250.00	83.60	97.12	.15	5.07	2.11	648.04	886.93	1682.47	4.0
3600.00	103.05	7300.00	83.60	103.09	.04	1.16	6.09	1230.52	477.00	1707.52	2.6
3730.00	92.75	1800.00	83.60	93.08	.32	12.00	0	279.11	1044.97	1665.39	4.8
3730.00	95.51	3350.00	83.60	95.74	.23	9.04	2.76	485.41	1026.61	1678.54	4.8
3730.00	97.35	4250.00	83.60	97.49	.14	5.48	1.84	688.22	879.99	1683.03	4.1
3730.00	103.15	7300.00	83.60	103.19	.03	1.36	5.80	1243.90	464.13	1708.03	2.6
3731.00	92.96	1800.00	83.60	93.11	.15	5.75	0	519.10	1085.61	1661.47	3.5
3731.00	95.66	3350.00	83.60	95.76	.10	3.37	2.70	607.04	1064.19	1671.23	3.3
3731.00	97.43	4250.00	83.60	97.50	.07	2.17	1.77	830.52	847.12	1677.63	3.0
3731.00	103.16	7300.00	83.60	103.19	.03	.74	5.73	1234.21	464.12	1698.33	2.3
3735.00	92.96	1800.00	83.60	93.11	.15	5.74	0	519.28	1085.56	1661.48	3.5
3735.00	95.66	3350.00	83.60	95.76	.10	3.36	2.70	607.05	1064.18	1671.24	3.3
3735.00	97.43	4250.00	83.60	97.50	.07	2.17	1.77	830.54	847.10	1677.64	3.0
3735.00	103.16	7300.00	83.60	103.19	.03	.74	5.73	1234.27	464.06	1698.33	2.3
3745.00	92.97	1800.00	83.60	93.12	.15	5.72	0	519.58	1085.48	1661.50	3.5
3745.00	95.66	3350.00	83.60	95.77	.10	3.36	2.70	607.08	1064.17	1671.25	3.3
3745.00	97.43	4250.00	83.60	97.50	.07	2.17	1.77	830.58	847.07	1677.65	3.0
3745.00	103.16	7300.00	83.60	103.19	.03	.74	5.73	1234.37	463.96	1698.33	2.3
3765.00	92.98	1800.00	83.60	93.13	.15	5.67	0	520.16	1085.30	1661.54	3.5
3765.00	95.67	3350.00	83.60	95.77	.10	3.34	2.69	607.13	1064.15	1671.28	3.3
3765.00	97.44	4250.00	83.60	97.51	.07	2.16	1.77	830.64	847.02	1677.66	3.0
3765.00	103.16	7300.00	83.60	103.19	.03	.74	5.72	1234.58	463.76	1698.34	2.3
3800.00	93.00	1800.00	83.60	93.15	.15	5.59	0	521.17	1085.00	1661.61	3.4
3800.00	95.68	3350.00	83.60	95.78	.10	3.32	2.68	607.21	1064.11	1671.32	3.3
3800.00	97.45	4250.00	83.60	97.52	.07	2.16	1.76	830.77	846.92	1677.69	3.0
3800.00	103.16	7300.00	83.60	103.19	.03	.74	5.72	1234.93	463.41	1698.35	2.3
4000.00	93.15	1800.00	83.80	93.32	.17	12.27	0	416.86	828.40	1298.04	3.7
4000.00	95.79	3350.00	83.80	95.88	.09	6.71	2.64	801.98	507.62	1309.60	3.3
4000.00	97.53	4250.00	83.80	97.58	.05	3.67	1.74	1016.64	300.59	1317.23	2.7
4000.00	103.20	7300.00	83.80	103.21	.01	.90	5.67	1160.28	181.82	1342.10	1.7

SECNO	CWSEL	Q	ELMIN	EG	HV	10K*S	DIFWSP	TOPWID	SSTA	ENDST	VCH
4225,00	93,43	1800,00	84,60	93,72	,29	20,57	0	563,67	601,52	1248,06	4,7
4225,00	95,96	3350,00	84,60	96,03	,07	6,44	2,53	1099,87	397,88	1497,75	3,1
4225,00	97,62	4250,00	84,60	97,66	,03	3,04	1,66	1124,12	379,57	1503,69	2,4
4225,00	103,22	7300,00	84,60	103,23	,01	,69	5,60	1358,63	181,39	1540,02	1,4
4230,00	93,33	1800,00	84,00	93,81	,48	32,96	0	161,33	611,16	1020,00	5,5
4230,00	95,87	3350,00	84,00	96,10	,22	18,65	2,55	961,72	404,52	1366,24	4,8
4230,00	97,60	4250,00	84,00	97,68	,08	7,72	1,72	1046,16	379,81	1425,97	3,4
4230,00	103,22	7300,00	84,00	103,23	,01	1,34	5,62	1372,58	181,38	1553,96	1,8
4300,00	93,64	1800,00	84,00	94,07	,43	28,94	0	224,72	581,57	1228,42	5,3
4300,00	95,87	3350,00	84,00	96,10	,22	18,63	2,23	961,83	404,44	1366,27	4,8
4300,00	97,63	4250,00	84,00	97,70	,08	7,57	1,75	1047,42	379,54	1426,96	3,4
4300,00	103,30	7300,00	84,00	103,31	,01	1,29	5,67	1375,41	179,33	1554,75	1,8
4301,00	93,98	1800,00	84,60	94,13	,15	19,94	0	489,31	466,21	955,53	4,1
4301,00	96,03	3350,00	84,60	96,13	,09	12,78	2,05	833,22	269,20	1102,41	3,9
4301,00	97,66	4250,00	84,60	97,71	,05	6,62	1,63	995,78	228,56	1224,33	3,1
4301,00	103,30	7300,00	84,60	103,31	,01	1,39	5,64	1219,15	127,16	1346,31	1,9
4305,00	93,99	1800,00	84,60	94,14	,15	19,77	0	490,53	465,02	955,55	4,1
4305,00	96,04	3350,00	84,60	96,13	,09	12,71	2,05	833,85	269,04	1102,89	3,9
4305,00	97,66	4250,00	84,60	97,71	,05	6,61	1,62	996,06	228,48	1224,55	3,1
4305,00	103,30	7300,00	84,60	103,31	,01	1,39	5,64	1219,17	127,15	1346,32	1,9
4310,00	93,99	1800,00	84,70	94,15	,16	21,54	0	478,36	477,01	955,37	4,3
4310,00	96,04	3350,00	84,70	96,14	,10	13,65	2,05	821,18	275,38	1096,55	4,0
4310,00	97,66	4250,00	84,70	97,72	,05	7,02	1,62	986,39	230,90	1217,29	3,2
4310,00	103,30	7300,00	84,70	103,31	,01	1,43	5,64	1216,19	120,89	1345,08	1,9
4320,00	94,01	1800,00	84,80	94,18	,17	23,25	0	467,60	487,61	955,21	4,4
4320,00	96,05	3350,00	84,80	96,16	,11	14,58	2,04	807,28	283,84	1091,13	4,1
4320,00	97,67	4250,00	84,80	97,72	,06	7,46	1,62	977,07	235,23	1210,31	3,3
4320,00	103,30	7300,00	84,80	103,32	,02	1,48	5,63	1213,23	130,61	1343,85	2,0
4340,00	94,05	1800,00	84,90	94,23	,19	24,54	0	460,08	495,02	955,10	4,5
4340,00	96,08	3350,00	84,90	96,19	,11	15,41	2,03	795,80	290,84	1086,64	4,2
4340,00	97,68	4250,00	84,90	97,74	,06	7,08	1,60	968,52	235,37	1203,89	3,3
4340,00	103,30	7300,00	84,90	103,32	,02	1,54	5,62	1210,32	132,31	1342,63	2,0
4600,00	94,46	1800,00	84,80	94,50	,04	4,61	0	751,55	246,92	998,47	2,4
4600,00	96,36	3350,00	84,80	96,39	,03	4,12	1,90	867,71	213,74	1081,46	2,6
4600,00	97,84	4250,00	84,80	97,86	,02	2,90	1,48	982,56	187,81	1170,37	2,4
4600,00	103,34	7300,00	84,80	103,35	,01	1,00	5,50	1208,70	54,75	1263,45	1,8
4750,00	94,53	1800,00	85,10	94,57	,04	4,68	0	655,25	285,38	940,63	2,2
4750,00	96,42	3350,00	85,10	96,46	,04	4,46	1,89	738,59	235,59	974,18	2,6
4750,00	97,88	4250,00	85,10	97,91	,03	3,29	1,46	786,14	202,67	988,81	2,4
4750,00	103,35	7300,00	85,10	103,37	,02	1,23	5,47	1069,87	54,82	1124,68	2,0
5000,00	94,66	1800,00	85,30	94,75	,29	9,41	0	479,10	377,27	856,37	2,9
5000,00	96,54	3350,00	85,30	96,63	,09	8,54	1,87	595,91	304,70	900,61	3,3
5000,00	97,95	4250,00	85,30	98,04	,06	6,04	1,43	638,76	290,41	929,17	3,1
5000,00	103,38	7300,00	85,30	103,42	,04	2,09	5,41	831,61	116,85	948,46	2,5

SECNO	CWSEL	Q	ELMIN	EG	HV	10K+S	DIFWSP	TOPWID	SSTA	ENDST	VCH
5200.00	94.70	1800.00	86.00	95.34	.63	51.77	0	223.44	397.71	621.15	7.0
5200.00	96.57	3350.00	86.00	97.16	.60	45.60	1.86	383.95	284.56	668.51	7.7
5200.00	98.01	4250.00	86.00	98.36	.37	28.06	1.45	495.16	194.97	690.13	6.7
5200.00	103.41	7300.00	86.00	103.51	.10	6.45	5.40	597.01	123.24	720.26	4.3
5400.00	95.74	1800.00	85.80	95.05	.31	21.94	0	344.69	386.32	731.01	4.9
5400.00	97.52	3350.00	85.80	97.81	.29	20.34	1.78	584.95	260.32	845.77	5.5
5400.00	98.60	4250.00	85.80	98.83	.22	15.76	1.08	658.70	205.83	864.53	5.2
5400.00	103.55	7300.00	85.80	103.82	.06	4.04	4.95	836.49	62.26	898.74	3.4
5430.00	95.91	1800.00	81.10	96.09	.19	4.19	0	35.00	570.00	605.00	3.4
5430.00	97.42	3350.00	81.10	97.95	.53	10.73	1.51	35.00	570.00	605.00	5.8
5430.00	98.32	4250.00	81.10	99.09	.77	14.63	.90	35.00	570.00	605.00	7.0
5430.00	102.75	7300.00	81.10	104.19	1.44	21.60	4.43	35.00	570.00	605.00	9.6
5570.00	96.04	1800.00	81.10	96.22	.18	4.08	0	35.00	570.00	605.00	3.4
5570.00	98.01	3350.00	81.10	98.51	.50	9.60	1.97	35.00	570.00	605.00	5.6
5570.00	99.40	4250.00	81.10	100.08	.68	12.15	1.38	35.00	570.00	605.00	6.6
5570.00	100.93	7300.00	81.10	107.94	1.01	12.91	7.54	35.00	570.00	605.00	8.0
5600.00	96.03	1800.00	84.50	96.26	.23	13.61	0	490.95	609.12	1100.07	4.3
5600.00	98.44	3350.00	84.50	98.61	.16	9.93	2.41	766.70	339.41	1106.12	4.3
5600.00	100.13	4250.00	84.50	100.22	.39	5.90	1.69	792.40	317.94	1110.34	3.7
5600.00	108.14	7300.00	84.50	108.15	.02	.85	8.01	1182.72	0	1182.72	1.9
5800.00	96.31	1800.00	84.70	96.53	.22	12.98	0	493.43	606.83	1100.26	4.3
5800.00	98.64	3350.00	84.70	98.81	.16	9.96	2.33	766.63	339.47	1106.11	4.3
5800.00	100.25	4250.00	84.70	100.34	.10	6.19	1.61	790.84	319.28	1110.12	3.7
5800.00	108.15	7300.00	84.70	108.17	.02	.90	7.90	1178.93	.12	1179.85	1.9
5875.00	96.35	1800.00	86.10	96.71	.36	22.62	0	202.19	1103.74	1305.93	5.4
5875.00	98.64	3350.00	86.10	98.98	.33	20.17	2.29	662.88	591.39	1413.25	6.0
5875.00	100.27	4250.00	86.10	100.43	.16	10.96	1.63	1268.70	184.30	1453.00	4.8
5875.00	108.17	7300.00	86.10	108.18	.01	.61	7.90	1617.04	6.14	1623.18	1.5
5928.00	96.39	1800.00	86.10	96.91	.53	29.13	0	39.00	1162.60	1201.00	5.8
5928.00	98.82	3350.00	86.10	99.08	.26	14.90	2.43	716.09	568.70	1417.51	5.1
5928.00	100.34	4250.00	86.10	100.48	.14	8.74	1.52	1273.42	181.21	1454.63	4.3
5928.00	108.17	7300.00	86.10	108.18	.01	.58	7.83	1617.13	6.12	1623.26	1.5
5993.00	96.44	1800.00	86.10	96.96	.52	28.56	0	39.00	1162.00	1201.00	5.7
5993.00	98.82	3350.00	86.10	99.08	.26	14.90	2.38	716.31	569.60	1417.53	5.1
5993.00	100.34	4250.00	86.10	100.48	.14	8.74	1.52	1273.44	181.19	1454.63	4.3
5993.00	108.23	7300.00	86.10	108.24	.01	.57	7.89	1618.94	5.87	1624.80	1.5
6050.00	96.86	1800.00	86.10	97.13	.27	16.71	0	241.70	1091.56	1333.26	4.8
6050.00	98.90	3350.00	86.10	99.18	.28	17.11	2.04	742.20	557.56	1419.60	5.6
6050.00	100.39	4250.00	86.10	100.54	.14	9.78	1.49	1276.96	178.89	1455.85	4.6
6050.00	108.24	7300.00	86.10	108.24	.01	.60	7.84	1619.01	5.86	1624.87	1.5
6200.00	97.12	1800.00	87.20	97.41	.25	19.86	0	182.79	624.08	806.87	4.6
6200.00	99.13	3350.00	87.20	99.52	.39	22.70	2.00	327.86	531.88	859.74	5.6
6200.00	100.47	4250.00	87.20	100.81	.34	18.37	1.35	439.56	470.54	910.10	5.7
6200.00	108.24	7300.00	87.20	108.27	.03	1.64	7.76	1108.30	6.58	1114.88	2.4



SECNO	CHSEL	Q	ELMIN	EG	HV	10K+S	DIFWSP	TOPWID	SSTA	ENDST	VCH
6600.00	97.97	1800.00	88.00	98.14	.17	15.92	0	374.34	420.50	794.83	4.2
6600.00	100.09	3350.00	88.00	100.24	.15	13.05	2.12	417.84	388.25	806.09	4.5
6600.00	101.27	4250.00	88.00	101.41	.14	11.13	1.18	455.35	364.56	820.90	4.4
6600.00	108.31	7300.00	88.00	108.34	.03	2.13	7.04	906.34	19.85	926.19	2.7

FLOOD INSURANCE ZONE DATA FOR CROSS CR, GREEN ST TO CO

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND		
		1.0'	2.0'	0.2'
68,000	0	-3.0	-1.0	3.6
118,000	50	-4.0	-.8	4.1
200,000	132	-2.8	-.5	3.2
300,000	232	-3.4	-.8	2.9
400,000	332	-3.5	-.9	2.8
450,000	382	-3.4	-.9	2.8
500,000	432	-3.4	-.9	2.8
550,000	482	-3.4	-.9	2.8
555,000	487	-3.4	-.9	2.8
556,000	488	-3.4	-.9	2.8
557,000	489	-3.4	-.9	2.8
570,000	502	-2.8	-.7	2.4
580,000	512	-2.8	-.7	1.9
600,000	513	-4.3	-.8	2.1
605,000	518	-4.3	-.8	2.1
610,000	523	-4.3	-.8	2.1
620,000	533	-4.3	-.8	2.1
800,000	713	-4.2	-.8	2.1
1000,000	913	-4.2	-.8	2.1
1200,000	1113	-3.9	-.8	2.1
1330,000	1243	-3.8	-.8	2.2
1440,000	1353	-3.7	-.8	2.2
1441,000	1354	-3.7	-.8	2.2
1442,000	1355	-3.7	-.8	2.2
1460,000	1373	-3.7	-.8	2.2
1470,000	1383	-3.8	-.8	2.2
1500,000	1384	-3.8	-.8	2.3
1501,000	1385	-3.5	-.8	2.2
1505,000	1389	-3.5	-.8	2.2
1515,000	1399	-3.5	-.8	2.2
1530,000	1414	-3.5	-.8	2.2
1800,000	1684	-3.5	-.8	2.3
2000,000	1884	-3.0	-.8	2.2
2200,000	2084	-2.8	-.8	2.1
2400,000	2284	-2.8	-.8	2.1
2440,000	2324	-1.8	-.3	2.7
2445,000	2329	-1.8	-.3	1.5
2510,000	2330	-4.6	-1.9	5.6
2511,000	2331	-4.6	-1.9	5.6
2515,000	2335	-5.6	-2.1	6.2
2540,000	2365	-5.5	-2.1	6.2
2560,000	2385	-5.6	-2.2	6.2
2565,000	2390	-5.2	-2.0	6.0
2615,000	2391	-5.6	-2.4	5.7
2616,000	2392	-5.6	-2.4	5.7
2620,000	2396	-6.3	-2.5	6.2
2630,000	2406	-6.3	-2.5	6.2
2800,000	2576	-6.1	-2.5	6.2
2920,000	2696	-6.1	-2.5	6.2
2950,000	2726	-6.0	-2.5	6.2
2951,000	2737	-6.3	-2.7	6.2
3010,000	2738	-5.2	-2.7	6.3

3011.000	2739,	-5.2	-2.7	6.3
3015.000	2743,	-5.1	-2.5	6.2
3025.000	2753,	-5.1	-2.5	6.3
3100.000	2828,	-5.0	-2.4	6.2
3200.000	2928,	-4.8	-2.2	6.2
3400.000	3128,	-4.7	-2.2	6.1
3600.000	3328,	-4.6	-2.1	6.1
3730.000	3329,	-4.6	-1.8	5.8
3731.000	3330,	-4.5	-1.8	5.7
3735.000	3334,	-4.5	-1.8	5.7
3745.000	3344,	-4.5	-1.8	5.7
3765.000	3364,	-4.5	-1.8	5.7
3800.000	3399,	-4.4	-1.8	5.7
4000.000	3599,	-4.4	-1.7	5.7
4225.000	3824,	-4.2	-1.7	5.6
4230.000	3829,	-4.3	-1.7	5.6
4300.000	3830,	-4.0	-1.8	5.7
4301.000	3831,	-3.7	-1.6	5.6
4305.000	3835,	-3.7	-1.6	5.6
4310.000	3840,	-3.7	-1.6	5.6
4320.000	3850,	-3.7	-1.6	5.6
4340.000	3870,	-3.6	-1.6	5.6
4600.000	4130,	-3.4	-1.5	5.5
4750.000	4280,	-3.3	-1.5	5.5
5000.000	4530,	-3.3	-1.4	5.4
5200.000	4730,	-3.3	-1.4	5.4
5400.000	4930,	-2.9	-1.1	5.0
5430.000	4960,	-2.4	0.9	4.4
5570.000	5100,	-3.4	-1.4	7.5
5600.000	5130,	-4.1	-1.7	8.0
5800.000	5330,	-3.9	-1.6	7.9
5875.000	5405,	-3.9	-1.6	7.9
5928.000	5458,	-4.0	-1.5	7.8
5993.000	5523,	-3.9	-1.5	7.9
6050.000	5580,	-3.5	-1.5	7.8
6200.000	5730,	-3.3	-1.3	7.8
6600.000	6130,	-3.3	-1.2	7.0

-----  
WEIGHTED AVG FOR REACH    -3.8        -1.3        4.8

FHF FOR THE REACH = 0.90 WITH 85.6% OF THE REACH WITHIN 1.0 FEET  
ZONE FOR THE REACH = A 8  
-----  
-----

- POSSIBLE ERROR SECNO= 118.00 PROFILE= 1 CRITICAL DEPTH ASSUMED
- POSSIBLE ERROR SECNO= 118.00 PROFILE= 1 20 TRIALS REQUIRED TO BALANCE WSEL
- POSSIBLE ERROR SECNO= 118.00 PROFILE= 2 CRITICAL DEPTH ASSUMED
- POSSIBLE ERROR SECNO= 118.00 PROFILE= 2 20 TRIALS REQUIRED TO BALANCE WSEL
- POSSIBLE ERROR SECNO= 118.00 PROFILE= 3 CRITICAL DEPTH ASSUMED
- POSSIBLE ERROR SECNO= 118.00 PROFILE= 3 20 TRIALS REQUIRED TO BALANCE WSEL
- POSSIBLE ERROR SECNO= 2440.00 PROFILE= 3 CRITICAL DEPTH ASSUMED
- POSSIBLE ERROR SECNO= 2440.00 PROFILE= 4 CRITICAL DEPTH ASSUMED
- POSSIBLE ERROR SECNO= 2440.00 PROFILE= 4 20 TRIALS REQUIRED TO BALANCE WSEL
- POSSIBLE ERROR SECNO= 2445.00 PROFILE= 4 CRITICAL DEPTH ASSUMED

\*\*\*\*\*  
INTERACTIVE HEC2 VERSION UPDATED SEPT 1976  
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09,10  
MODIFICATIONS 50,51,52,53,54,55,56,57,58,59  
\*\*\*\*\*

\*\*\*\*\*

\* AS OF 2 SEPT 1976, THE PROGRAM HAS BEEN UPDATED TO INCLUDE MODIFICATION 59 AND ERROR CORRECTION 10. THE PURPOSE OF  
\* MODIFICATION 59 IS TO

\* (1) PROVIDE A NEW INTERPOLATION SCHEME FOR CALCULATING ENCROACHMENT STATIONS BY METHODS 3 AND 4. PREVIOUSLY, L  
\* INTERPOLATION WAS USED TO CALCULATE ENCROACHMENTS. NOW, THE INTERPOLATION IS BASED ON A PARABOLIC APPROXIM  
\* OF CONVEYANCE VERSUS DISTANCE.

\* (2) FURTHER DEVELOPMENT OF MODIFICATION 54 WHICH PROVIDES FOR THE NH CARD TO VARY #N# VALUES IN THE CHANNEL. T  
\* PROGRAM WILL NOW ALLOW BOTH A CHANGE IN #N# VALUES IN THE CHANNEL (MOD. 54 AS PRESENTLY USED) AND, IF NO AN  
\* VARIATION IS DEFINED IN THE CHANNEL WHEN THE NH CARD IS USED, THE CHANNEL WILL NOT BE SEGMENTED FOR FLOW CO  
\* TATION. THIS MODIFICATION ALLOWS MORE FLEXIBILITY.

\* (3) COMMENT CARDS (C CARDS) ARE NOW PRINTED IN THE DATA LISTING.

\* (4) EXPANDS PRINTOUT OF THE SPECIAL BRIDGE ROUTINE TO INCLUDE TRAPEZOIDAL CALCULATIONS FOR OUTPUT ANALYSIS. STA  
\* TESTS RELATING TO THE SPECIAL BRIDGE ROUTINE WILL BE AFFECTED BY THIS CHANGE. THE PRINTOUT OF CALCULATED CH  
\* AREA IS BASED ON THE DEFINED TRAPEZOID UP TO THE BRIDGE WATER SURFACE ELEVATION. CALCULATED CHANNEL AREA SH  
\* BE CLOSE TO THE VALUE OF THE PREVIOUS SECTION'S CHANNEL AREA. TRAPEZOID/AREA IS THE AREA OF THE TRAPEZOID  
\* ELLC. TRAPEZOID/AREA SHOULD BE CLOSE TO INPUT ITH BAREA. PLEASE NOTE THAT NUMERICAL RESULTS WILL NOT BE A

\* (5) THE FLOW DISTRIBUTION PRINTOUT MAY NOW BE REQUESTED FOR ANY PARTICULAR SECTION (X2 CARD WITH 15 IN 10TH FIE

\* THE PURPOSE OF ERROR CORRECTION 10 IS TO

\* (1) ALLOW THE USE OF THE EFFECTIVE AREA OPTION WHEN FLOW IS PRESSURE AND WEIR FLOW.

\* (2) CORRECT THE WETTED PERIMETER CALCULATION IN THE NORMAL BRIDGE ROUTINE.

\* (3) ACCOUNT FOR THE VERTICAL WALL AT THE ENCROACHMENT STATION WHEN CALCULATING CONVEYANCE.

\* A FORMAL CHANGE NOTICE CONCERNING THE ABOVE WILL BE MAILED IN APPROXIMATELY ONE MONTH. ANY QUESTIONS ABOUT THESE P  
\* CHANGES CAN BE DIRECTED TO ALLAN OTO (FTS 448-2105 OR 448-3292).

\*\*\*\*\*