THIS RUN EXECUTED 02/28/81 11:50:16

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**********************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53,54
**********************************************************

T1      YANCEY COUNTY NC FEMA STUDY        10/23/80 RAM                                  5
T2      10 YEAR FLOOD                                                                    10
T3      WHITEOAK CREEK                     FLOOD PROFILES                                15
J1  ICHECK     INQ     NINV     IDIR     STRT  METRIC    HVINS      Q      WSEL      FQ
         0.      2.       0.       0. 0.00673      0.      0.0      0.       0.0      0.0      20
J2  NPROF   IPLOT    PRFVS    XSECV    XSECH      FN    ALLDC     IBW   CHNIM ITRACE
         0.      0.      -1.       0.       0.     0.0      0.0      0.      0.       0.      25
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
     150.00     0.0   160.00      0.0      0.0      0.0      0.0      0.0      0.0      0.      30
QT        5.    1005.    1740.    2130.    3285.    2130.       0.       0.       0.       0.   35
NC    0.150    0.150    0.055      0.1      0.5                                              40

X1     0.10       23.    2136.    2230.       0.       0.       0.      0.0      0.0       0.   45
GR  2690.0     1500.    2677.0   1500.    2677.1   2040.    2677.1   2060.    2677.2   2136.   50
GR  2671.3     2153.    2670.5   2175.    2669.9   2180.    2670.7   2208.    2672.7   2214.   55
GR  2677.6     2230.    2677.6   2330.    2677.6   2435.    2677.6   2530.    2677.6   2569.   60
GR  2680.2     2580.    2680.4   2590.    2682.8   2607.    2686.3   2700.    2688.5   2780.   65
GR  2687.6     2880.    2691.5   3000.    2700.0   3000.      0.0       0.      0.0       0.   70
NC    0.0      0.0      0.045      0.0      0.0                                              75

X1     0.10       23.    2180.    2214.     100.     100.     100.      0.0      0.0       0.   80
X3       10.      0.0      0.0      0.       0.0      0.       0.0   2676.9   2677.5            85
GR  2690.0     1500.    2677.0   1500.    2677.1   2040.    2677.1   2060.    2677.2   2136.   90
GR  2671.3     2153.    2670.5   2175.    2669.9   2180.    2670.7   2208.    2672.7   2214.   95
GR  2677.6     2230.    2677.6   2330.    2677.6   2435.    2677.6   2530.    2677.6   2569.  100
GR  2680.2     2580.    2680.4   2590.    2682.8   2607.    2686.3   2700.    2688.5   2780.  105
GR  2687.6     2880.    2691.5   3000.    2700.0   3000.      0.0       0.      0.0       0.  110
SB    1.25     1.60     3.00        0.    34.00     0.01   245.00      0.0   2669.7   2669.7  115

X1     0.10       0.       0.       0.      26.      26.      26.      0.0      0.0       0.  120
X2        0.      0.0      1.    2676.9   2677.4      0.0       0.      0.0      0.0       0.  125
X3       10.      0.0      0.0      0.       0.0      0.       0.0   2677.4   2678.0            130
BT     17.0   1500.0   2690.0      0.0   1500.0   2677.4      0.0   1625.0   2677.4      0.0  135
BT  2115.0   2678.7      0.0   2174.0   2679.2      0.0   2174.0   2680.5      0.0   2215.0  140
BT  2680.8      0.0   2215.0   2679.5      0.0   2571.0   2678.0      0.0   2580.0   2680.2  145
BT     0.0   2590.0   2680.4      0.0   2607.0   2682.8      0.0   2700.0   2686.3      0.0  150
BT  2780.0   2688.5      0.0   2880.0   2687.6      0.0   3000.0   2691.5      0.0   3000.0  155
BT  2700.0      0.0      0.0      0.0      0.0      0.0      0.0      0.0      0.0      0.0  160
NC    0.140    0.140    0.045      0.0      0.0                                              165
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BD1

X1	0.10	23.	2136.	2230.	25.	25.	25.	0.0	0.0	0.	170
GR	2690.0	1500.	2677.0	1500.	2677.1	2040.	2677.1	2060.	2677.2	2136.	175
GR	2671.3	2153.	2670.5	2175.	2669.9	2180.	2670.7	2208.	2672.7	2214.	180
GR	2677.6	2230.	2677.6	2330.	2677.6	2435.	2677.6	2530.	2677.6	2569.	185
GR	2680.2	2580.	2680.4	2590.	2682.8	2607.	2686.3	2700.	2688.5	2780.	190
GR	2687.6	2880.	2691.5	3000.	2700.0	3000.	0.0	0.	0.0	0.	195
QT	5.	900.	1560.	1905.	2935.	1905.	0.	0.	0.	0.	200

X1	0.33	22.	615.	654.	1170.	1170.	1170.	0.0	-16.70	0.	205
GR	2718.5	0.	2715.4	75.	2711.5	195.	2710.0	250.	2708.0	312.	210
GR	2708.2	353.	2704.0	358.	2703.8	381.	2703.5	405.	2703.5	473.	215
GR	2702.4	523.	2703.4	567.	2701.5	615.	2698.3	620.	2698.1	630.	220
GR	[illegible]	638.	2700.1	654.	2700.8	670.	2703.6	673.	2703.7	692.	225
GR	[illegible]	750.	2718.5	757.	0.0	0.	0.0	0.	0.0	0.	230
QT	[illegible]	825.	1425.	1740.	2675.	1740.	0.	0.	0.	0.	235
NC	0.130	0.135	0.045	0.0	0.0						240

X1	0.50	22.	615.	654.	870.	870.	870.	0.0	0.0	0.	245
GR	2718.5	0.	2715.4	75.	2711.5	195.	2710.0	250.	2708.0	312.	250
GR	2708.2	353.	2704.0	358.	2703.8	381.	2703.5	405.	2703.5	473.	255
GR	2702.4	523.	2703.4	567.	2701.5	615.	2698.3	620.	2698.1	630.	260
GR	2697.6	638.	2700.1	654.	2700.8	670.	2703.6	673.	2703.7	692.	265
GR	2715.7	750.	2718.5	757.	0.0	0.	0.0	0.	0.0	0.	270
QT	5.	715.	1225.	1500.	2290.	1500.	0.	0.	0.	0.	275
NC	0.120	0.130	0.055	0.0	0.8						280

X1	0.74	21.	317.	383.	1170.	1170.	1170.	0.0	-1.40	0.	285
GR	2735.8	0.	2725.0	105.	2724.5	115.	2722.5	300.	2721.5	317.	290
GR	2715.8	340.	2715.2	343.	2715.2	345.	2715.5	350.	2717.6	350.	295
GR	2717.5	353.	2714.7	362.	2714.7	365.	2715.5	367.	2716.0	374.	300
GR	2716.5	382.	2718.0	383.	2718.7	393.	2722.8	405.	2722.7	425.	305
GR	2738.0	700.	0.0	0.	0.0	0.	0.0	0.	0.0	0.	310
NC	0.0	0.0	0.045	0.0	0.5						315

X1	0.75	21.	340.	374.	80.	80.	80.	0.0	0.0	0.	320
X3	10.	0.0	0.0	0.	0.0	0.	0.0	2721.5	2722.2		325
GR	2735.8	0.	2725.0	105.	2724.5	115.	2722.5	300.	2721.5	317.	330
GR	2715.8	340.	2715.2	343.	2715.2	345.	2715.5	350.	2717.6	350.	335
GR	2717.5	353.	2714.7	362.	2714.7	365.	2715.5	367.	2716.0	374.	340
GR	2716.5	382.	2718.0	383.	2718.7	393.	2722.8	405.	2722.7	425.	345
GR	2738.0	700.	0.0	0.	0.0	0.	0.0	0.	0.0	0.	350
SB	1.25	1.60	3.00	0.	34.00	0.70	210.00	0.0	2714.7	2714.7	355

X1	0.75	0.	0.	0.	28.	28.	28.	0.0	0.0	0.	360
X2	0.	0.0	1.	2721.0	2722.0	0.0	0.	0.0	0.0	0.	365
X3	10.	0.0	0.0	0.	0.0	0.	0.0	2722.0	2722.7		370
BT	12.0	0.0	2735.8	0.0	105.0	2725.0	0.0	115.0	2724.5	0.0	375
BT	300.0	2722.5	0.0	310.0	2722.0	0.0	345.0	2722.9	0.0	359.0	380
BT	2723.1	0.0	359.0	2724.5	0.0	400.0	2724.7	0.0	400.0	2723.3	385
BT	0.0	426.0	2722.7	0.0	700.0	2738.0	0.0	0.0	0.0	0.0	390
NC	0.140	0.140	0.050	0.0	0.0						395

CD1

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.0	0.0	0.	400

CO1

X1	0.75	21.	317.	383.	20.	20.	20.	0.0	0.0	0.
GR	2735.8	0.	2725.0	105.	2724.5	115.	2722.5	300.	2721.5	317.
GR	2715.8	340.	2715.2	343.	2715.2	345.	2715.5	350.	2717.6	350.
GR	2717.5	353.	2714.7	362.	2714.7	365.	2715.5	367.	2716.0	374.
GR	2716.5	382.	2718.0	383.	2718.7	393.	2722.8	405.	2722.7	425.
GR	2738.0	700.	0.0	0.	0.0	0.	0.0	0.	0.0	0.
QT	5.	680.	1165.	1420.	2170.	1420.	0.	0.	0.	0.
NC	0.150	0.140	0.055	0.0	0.8					

X1	0.82	27.	260.	293.	350.	350.	350.	0.0	-0.30	0.
GR	2745.8	0.	2736.0	130.	2734.4	195.	2734.0	250.	2730.0	260.
GR	2725.0	265.	2723.9	268.	2726.0	280.	2727.5	285.	2730.8	293.
GR	2730.8	305.	2730.8	325.	2730.8	326.	2730.8	348.	2733.6	355.
GR	2733.0	388.	2733.6	423.	2733.6	490.	2733.6	529.	2733.6	544.
GR	2733.6	552.	2733.6	578.	2733.6	597.	2733.6	645.	2735.1	669.
GR	2741.0	881.	2747.0	927.	0.0	0.	0.0	0.	0.0	0.
NC	0.0	0.0	0.045	0.0	0.8					

X1	0.83	27.	265.	280.	40.	40.	40.	0.0	0.0	0.
X3	10.	0.0	0.0	0.	0.0	0.	0.0	2729.8	2729.6	
GR	2745.8	0.	2736.0	130.	2734.4	195.	2734.0	250.	2730.0	260.
GR	2725.0	265.	2723.9	268.	2726.0	280.	2727.5	285.	2730.8	293.
GR	2730.8	305.	2730.8	325.	2730.8	326.	2730.8	348.	2733.6	355.
GR	2733.0	388.	2733.6	423.	2733.6	490.	2733.6	529.	2733.6	544.
GR	2733.6	552.	2733.6	578.	2733.6	597.	2733.6	645.	2735.1	669.
GR	2741.0	881.	2747.0	927.	0.0	0.	0.0	0.	0.0	0.
SB	1.25	1.60	3.00	0.	15.00	0.40	70.00	0.0	2723.9	2723.9
NC	0.0	0.0	0.0	0.0	0.5					

X1	0.83	0.	0.	0.	12.	12.	12.	0.0	0.0	0.
X2	0.	0.0	1.	2728.7	2730.1	0.0	0.	0.0	0.0	0.
X3	10.	0.0	0.0	0.	0.0	0.	0.0	2730.3	2730.1	
BT	24.0	0.0	2745.8	0.0	130.0	2736.0	0.0	195.0	2734.4	0.0
BT	250.0	2734.0	0.0	260.0	2730.3	0.0	291.0	2730.1	0.0	293.0
BT	2730.8	0.0	305.0	2730.8	0.0	325.0	2730.8	0.0	326.0	2730.8
BT	0.0	348.0	2733.8	0.0	355.0	2733.6	0.0	388.0	2733.0	0.0
BT	423.0	2733.6	0.0	490.0	2733.6	0.0	529.0	2733.6	0.0	544.0
BT	2733.6	0.0	552.0	2733.6	0.0	578.0	2733.6	0.0	597.0	2733.6
BT	0.0	645.0	2733.6	0.0	669.0	2735.1	0.0	881.0	2741.0	0.0
BT	927.0	2747.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.120	0.140	0.050	0.0	0.0					

X1	0.83	26.	260.	293.	10.	10.	10.	0.0	0.0	0.
GR	2745.8	0.	2736.0	130.	2734.4	195.	2734.0	250.	2730.0	260.
GR	2726.0	265.	2725.2	268.	2727.5	285.	2730.8	293.	2730.8	305.
GR	2730.8	325.	2730.8	326.	2730.8	348.	2733.6	355.	2733.0	388.
GR	2733.6	423.	2733.6	490.	2733.6	529.	2733.6	544.	2733.6	552.
GR	2733.6	578.	2733.6	597.	2733.6	645.	2735.1	669.	2741.0	881.
GR	2747.0	927.	0.0	0.	0.0	0.	0.0	0.	0.0	0.
QT	5.	600.	1030.	1255.	1910.	1255.	0.	0.	0.	0.
NC	0.150	0.130	0.050	0.0	0.0					

X1	1.00	19.	127.	150.	900.	900.	900.	0.0	0.0	0.
GR	2760.5	0.	2747.4	34.	2746.7	50.	2746.0	75.	2745.5	95.
GR	2744.9	127.	2740.5	130.	2740.2	133.	2739.4	140.	2740.3	145.

D01

GR 2744.9 127. 2740.5 130. 2740.2 133. 2739.4 140. 2740.3 145.

DO1

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GR 2747.2   150.  2746.7   250.  2751.3   273.  2751.3   305.  2752.3   307.   650
GR 2752.3   545.  2754.3   563.  2753.8   593.  2760.7   606.   0.0      0.    655

X1   1.00    19.   130.    145.    40.     40.     40.    0.0    0.0      0.    660
X3     10.   0.0    0.0      0.   0.0      0.     0.0  2744.5 2745.2           665
GR 2760.5      0.  2747.4    34.  2746.7    50.  2746.0    75.  2745.5    95.   670
GR 2744.9    127.  2740.5   130.  2740.2   133.  2739.4   140.  2740.3   145.   675
GR 2747.2    150.  2746.7   250.  2751.3   273.  2751.3   305.  2752.3   307.   680
GR 2752.3    545.  2754.3   563.  2753.8   593.  2760.7   606.   0.0      0.    685
SB   1.25   1.60    3.00     0.   15.00    0.70   67.00   0.0  2739.4 2739.4    690

X1   1.00      0.      0.      0.     12.     12.     12.    0.0    0.0      0.   695
X2     0.    0.0       1.  2744.1  2745.0    0.0      0.    0.0    0.0      0.   700
X3     10.     0.0     0.0      0.     0.0      0.     0.0  2745.0 2745.7         705
BT   17.0    0.0  2760.5     0.0    34.0  2747.4     0.0   50.0  2746.7    0.0   710
BT   75.0 2746.0     0.0    95.0  2745.5     0.0   123.0 2745.0     0.0  145.0  715
BT 2745.7    0.0   149.0  2745.7     0.0   150.0  2747.2    0.0   250.0 2746.7   720
BT    0.0  273.0  2751.3     0.0   306.0  2751.3     0.0  307.0  2752.3    0.0   725
BT  545.0 2752.3     0.0   563.0  2754.3     0.0   593.0 2753.8     0.0  606.0  730
BT 2760.7    0.0     0.0     0.0    0.0      0.0     0.0    0.0     0.0    0.0   735
NC  0.150  0.150   0.050     0.0    0.0                                          740

X1   1.00    19.   127.    150.    10.     10.     10.    0.0    0.0      0.   745
GR 2760.5      0.  2747.4    34.  2746.7    50.  2746.0    75.  2745.5    95.   750
GR 2744.9    127.  2740.5   130.  2740.2   133.  2740.0   140.  2740.3   145.   755
GR 2747.2    150.  2746.7   250.  2751.3   273.  2751.3   305.  2752.3   307.   760
GR 2752.3    545.  2754.3   563.  2753.8   593.  2760.7   606.   0.0      0.    765
QT     5.    525.    895.  1090.  1650.  1090.     0.      0.     0.       0.   770
NC  0.140  0.150   0.055     0.0    0.0                                          775

X1   1.17    14.   278.    312.   850.    850.    850.    0.0    0.0      0.   780
X3     0.    0.0     0.0      0.     0.0      0.     0.0    0.0    0.0           785
GR 2797.2      0.  2787.3    32.  2780.5   108.  2780.5   232.  2780.5   278.   790
GR 2776.9    286.  2776.5   290.  2776.4   295.  2776.8   302.  2782.0   312.   795
GR 2781.8    333.  2796.6   433.  2790.0   532.  2797.4   589.   0.0      0.    800
EJ                                                                             805
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ED1

ED1

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*PROF 1

CCHV=   0.100 CEHV=   0.500
*SECNO .100
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
     WHITEOAK CREEK                      10 YEAR FLOOD         02/28/81
    MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
    ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
    DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
    SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
               ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

      0.10      1005.         0.      1005.         0.       0.32          0        73.
   2674.03       0.0          0.       220.         0.       0.50          0    2677.20
      4.13       0.0         0.0       4.57        0.0       0.0     2674.35    2677.60
  0.006718       0.0       0.150      0.055      0.150       0.0       -0.00    2145.14
              2669.90         0.         0.         0.        38.        35.    2218.34        0.

*SECNO .100

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=    2676.90 ELREA=    2677.50

      0.10      1005.         0.      1005.         0.       0.87          2        34.
   2674.50       0.0          0.       134.         0.       0.54          0    2669.90
      4.60       0.0         0.0       7.48        0.0       0.74    2675.37    2672.70
  0.008302     0.045       0.150      0.045      0.150       0.27      -0.00    2180.00
              2669.90       100.       100.       100.        17.        17.    2214.00        0.

SPECIAL BRIDGE

SB     HK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS
       1.25       1.60       3.00       0.0       34.00       0.01     245.00       0.0
    ELCHU      ELCHD
   2669.70    2669.70

*SECNO .100

*** GR CARDS REPEATED
CLASS A LOW FLOW

3420 BRIDGE W.S.=   2674.50 BRIDGE VELOCITY=,       6.16
     CALCULATED CHANNEL AREA=,        163.
     EGPRS      EGLWC      H3         QWEIR      QPR        BAREA      TAREA      ELLC
     0.0       2675.37    0.00          0.      1005.       245.       245.    2676.90

     ELTRD
   2677.40

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=    2677.40 ELREA=    2678.00

      0.10      1005.         0.      1005.         0.       0.87          0        34.
```

0.10	1005.	0.	1005.	0.	0.87	0	34.

F01

2674.50	0.0	0.	134.	0.	-0.00	0	2669.90	
4.60	0.0	0.0	7.47	0.0	0.00	2675.37	2672.70	
0.008292	0.044	0.150	0.045	0.150	0.0	-0.00	2180.00	
	2669.90	26.	26.	26.	17.	17.	2214.00	0.

*SECNO .100

3301 HV CHANGED MORE THAN HVINS

0.10	1005.	0.	1005.	0.	0.15	2	81.	
2675.36	0.0	0.	324.	0.	-0.72	0	2677.20	
5.46	0.0	0.0	3.11	0.0	0.07	2675.51	2677.60	
0.001439	0.044	0.140	0.045	0.140	0.07	-0.00	2141.28	
	2669.90	25.	25.	25.	42.	40.	2222.71	1.

*SECNO .330

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK			10 YEAR FLOOD		02/28/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

0.33	900.	0.	886.	14.	1.20	20	55.	
2684.48	2684.48	0.	100.	12.	1.05	14	2684.80	
3.58	0.0	0.0	8.85	1.23	3.96	2685.67	2683.40	
0.020799	0.045	0.140	0.045	0.140	0.52	-0.00	615.51	
	2680.90	1170.	1170.	1170.	19.	36.	670.40	6.

*SECNO .500

0.50	825.	0.	811.	14.	0.99	9	55.	
2701.19	2701.04	0.	101.	12.	-0.20	8	2701.50	
3.59	0.0	0.0	8.07	1.17	16.49	2702.18	2700.10	
0.017212	0.045	0.130	0.045	0.135	0.02	-0.00	615.49	
	2697.60	870.	870.	870.	19.	36.	670.42	9.

CCHV= 0.100 CEHV= 0.800
*SECNO .740

3301 HV CHANGED MORE THAN HVINS

0.74	715.	0.	712.	3.	0.38	6	65.	
2717.41	0.0	0.	144.	5.	-0.62	0	2720.10	
4.11	0.0	0.0	4.95	0.68	15.54	2717.79	2716.60	
0.010218	0.048	0.120	0.055	0.130	0.06	-0.00	327.87	
	2713.30	1170.	1170.	1170.	22.	43.	393.31	12.

CCHV= 0.100 CEHV= 0.500
*SECNO .750

CCHV= 0.700 CEHV= 0.300
*SECNO .750D

GD1

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2721.50 ELREA= 2722.20

0.75	715.	0.	715.	0.	1.15	4	34.	
2718.20	2718.13	0.	83.	0.	0.77	15	2715.80	
3.50	0.0	0.0	8.61	0.0	1.18	2719.35	2716.00	
0.022920	0.048	0.120	0.045	0.130	0.39	-0.00	340.00	
	2714.70	80.	80.	80.	17.	17.	374.00	12.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	34.00	0.70	210.00	0.0

ELCHU	ELCHD
2714.70	2714.70

*SECNO .750

*** GR CARDS REPEATED
CLASS A LOW FLOW

3420 BRIDGE W.S.= 2718.16 BRIDGE VELOCITY= 6.20
CALCULATED CHANNEL AREA= 115.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
0.0	2719.39	0.23	0.	715.	210.	210.	2721.00

ELTRD
2722.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2722.00 ELREA= 2722.70

0.75	715.	0.	715.	0.	0.96	0	34.	
2718.43	0.0	0.	91.	0.	-0.19	0	2715.80	
3.73	0.0	0.0	7.86	0.0	0.04	2719.39	2716.00	
0.016962	0.048	0.120	0.045	0.130	0.0	0.0	340.00	
	2714.70	28.	28.	28.	17.	17.	374.00	12.

*SECNO .750

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK 10 YEAR FLOOD 02/28/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.75	715.	0.	707.	8.	0.25	3	69.	
2719.37	0.0	0.	176.	11.	-0.71	0	2721.50	
4.67	0.0	0.0	4.03	0.70	0.16	2719.62	2718.00	
0.004524	0.048	0.140	0.050	0.140	0.07	-0.00	325.59	

4.67	0.0	0.0					
0.004524	0.048	0.140	0.050	0.140	0.07	-0.00	525.59

HD1

2714.70	20.	20.	20.	24.	45.	394.96	13.

CCHV= 0.100 CEHV= 0.800
*SECNO .820

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK			10 YEAR FLOOD		02/28/81		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST VOL
0.82	680.	0.	680.	0.	1.41	20	26.
2728.21	2728.21	0.	71.	0.	1.16	5	2729.70
4.61	0.0	0.0	9.54	0.0	3.38	2729.63	2730.50
0.036305	0.049	0.150	0.055	0.140	0.93	0.0	261.48
	2723.60	350.	350.	350.	15.	11.	287.46 14.

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CCHV= 0.100 CEHV= 0.800
*SECNO .830

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2729.80 ELREA= 2729.60

0.83	680.	0.	680.	0.	1.79	4	15.
2729.07	0.0	0.	63.	0.	0.38	0	2725.00
5.17	0.0	0.0	10.75	0.0	0.93	2730.86	2726.00
0.016077	0.049	0.150	0.045	0.140	0.30	-0.00	265.00
	2723.90	40.	40.	40.	8.	8.	280.00 14.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	15.00	0.40	70.00	0.0
ELCHU	ELCHD							
2723.90	2723.90							

CCHV= 0.100 CEHV= 0.500
*SECNO .830

**** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2731.41	2731.00	0.49	69.	606.	70.	70.	2728.70

ELTRD
2730.10

ELTRD
2730.10

ID1

*** NOTE: QWEIR IS GREATER THAN 0 AND ELEV IS LESS THAN ELTRD ***

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2730.30 ELREA= 2730.10

0.83	680.	0.	680.	0.	2.52	7	15.	
2728.41	0.0	0.	53.	0.	0.72	0	2725.00	
4.51	0.0	0.0	12.74	0.0	0.07	2730.93	2726.00	
0.028303	0.049	0.150	0.045	0.140	0.0	-0.00	265.00	
	2723.90	12.	12.	12.	8.	8.	280.00	14.

*SECNO .830

3301 HV-CHANGED MORE THAN HVINS

0.83	680.	0.	680.	0.	0.53	10	35.	
2730.73	2729.36	1.	116.	0.	-1.99	11	2730.00	
5.53	0.0	0.54	5.84	0.0	0.13	2731.26	2730.80	
0.007837	0.049	0.120	0.050	0.140	0.20	-0.00	258.16	
	2725.20	10.	10.	10.	18.	16.	292.84	14.

*SECNO 1.000

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK			10 YEAR FLOOD		02/28/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
1.00	600.	0.	600.	0.	1.56	3	19.	
2743.47	2743.47	0.	60.	0.	1.03	15	2744.90	
4.07	0.0	0.0	10.03	0.0	12.01	2745.03	2747.20	
0.031190	0.049	0.150	0.050	0.130	0.52	-0.00	127.97	
	2739.40	900.	900.	900.	11.	9.	147.30	16.

*SECNO 1.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2744.50 ELREA= 2745.20

1.00	600.	7.	593.	0.	1.07	2	18.	
2744.66	0.0	6.	71.	0.	-0.49	0	2740.50	
5.26	0.0	1.10	8.35	0.0	0.65	2745.74	2740.30	
0.010041	0.049	0.150	0.050	0.130	0.05	-0.00	127.16	
	2739.40	40.	40.	40.	10.	8.	145.00	16.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	15.00	0.70	67.00	0.0

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	15.00	0.70	67.00	0.0

J01

ELCHU	ELCHD
2739.40	2739.40

*SECNO 1.000

*** GR CARDS REPEATED
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2746.66	2745.96	0.34	103.	494.	67.	67.	2744.10

ELTRD
2745.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2745.00 ELREA= 2745.70

1.00	600.	8.	592.	0.	0.88	3	30.	
2745.14	0.0	9.	78.	0.	-0.19	0	2740.50	
5.74	0.0	0.91	7.58	0.0	0.28	2746.02	2740.30	
0.007311	0.049	0.150	0.050	0.130	0.0	-0.00	114.72	
	2739.40	12.	12.	12.	23.	8.	145.00	16.

*SECNO 1.000

1.00	600.	5.	595.	0.	0.54	2	57.	
2745.58	0.0	12.	100.	0.	-0.34	0	2744.90	
5.58	0.0	0.43	5.95	0.0	0.07	2746.12	2747.20	
0.006945	0.049	0.150	0.050	0.150	0.03	-0.00	91.75	
	2740.00	10.	10.	10.	47.	10.	148.83	16.

*SECNO 1.170

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK			10 YEAR FLOOD		02/28/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2780.50 ELREA= 2782.00

1.17	525.	0.	525.	0.	1.14	20	27.	
2779.49	2779.49	0.	61.	0.	0.60	11	2780.50	
3.09	0.0	0.0	8.59	0.0	10.83	2780.64	2782.00	
0.035986	0.050	0.140	0.055	0.150	0.30	-0.00	280.23	
	2776.40	850.	850.	850.	15.	12.	307.18	17.

K01

THIS RUN EXECUTED 02/28/81 11:50:26

HEC2 RELEASE DATED NOV 7(UPDATED JULY1979
ERROR CORR - 01,02,03
MODIFICATION - 50,51,52,53,54

T1 YANCEY CO NC FEMA STUDY 810
T2 50 YR FLOOD 815
T3 WHITEOAK CREEK 820

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ	
	0.	3.	0.	0.	0.00673	0.	0.0	0.	0.0	0.0	825

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE	
	2.	0.	-1.	0.	0.	0.0	0.0	0.	0.	0.	830

L01

```
*PROF 2

CCHV=   0.100 CEHV=   0.500
*SECNO .100
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    WHITEOAK CREEK                         50 YR FLOOD           02/28/81
    MILE        Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
    ELEV        CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
    DEPTH       WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
    SLOPE       WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
                ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST      VOL

     0.10       1740.         0.       1740.         0.       0.46          0        81.
  2675.32        0.0          0.        320.         0.       0.50          0     2677.20
     5.42        0.0         0.0        5.45        0.0       0.0      2675.78    2677.60
 0.006686        0.0        0.150      0.055      0.150       0.0        -0.00    2141.42
             2669.90          0.          0.         0.        42.         40.    2222.55        0.

*SECNO .100

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2676.90 ELREA=     2677.50

     0.10       1740.         0.       1740.         0.       1.59          2        34.
  2675.60        0.0          0.        172.         0.       1.13          0     2669.90
     5.70        0.0         0.0       10.13        0.0       0.84     2677.19    2672.70
 0.010988      0.045        0.150      0.045      0.150       0.57       -0.00    2180.00
             2669.90        100.        100.       100.        17.         17.    2214.00        1.

SPECIAL BRIDGE

SB      HK        XKOR        COFQ       RDLEN      BWC        BWP        BAREA       SS
      1.25        1.60        3.00        0.0      34.00       0.01      245.00      0.0
    ELCHU      ELCHD
  2669.70    2669.70

*SECNO .100

*** GR CARDS REPEATED
CLASS A LOW FLOW

3420 BRIDGE W.S.=    2675.59 BRIDGE VELOCITY=,       8.69
     CALCULATED CHANNEL AREA=,        200.
    EGPRS       EGLWC        H3        QWEIR        QPR       BAREA      TAREA       ELLC
  2676.85     2677.19       0.00         0.       1740.       245.       245.     2676.90

    ELTRD
  2677.40

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2677.40 ELREA=     2678.00

     0.10       1740.         0.       1740.         0.       1.59          0        34.
```

0.10	1740.	0.	1740.	0.	1.59	0	34.

M01

2675.60	0.0	0.	172.	0.	-0.00	0	2669.90	
5.70	0.0	0.0	10.13	0.0	0.00	2677.19	2672.70	
0.010987	0.044	0.150	0.045	0.150	0.0	-0.00	2180.00	
	2669.90	26.	26.	26.	17.	17.	2214.00	1.

*SECNO .100

3301 HV CHANGED MORE THAN HVINS

0.10	1740.	10.	1730.	0.	0.20	3	729.	
2677.21	0.0	92.	484.	0.	-1.40	0	2677.20	
7.31	0.0	0.11	3.58	0.0	0.07	2677.40	2677.60	
0.001334	0.044	0.140	0.045	0.140	0.14	-0.00	1500.00	
	2669.90	25.	25.	25.	683.	46.	2228.72	1.

*SECNO .330

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK			50 YR FLOOD		02/28/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 2D TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

0.33	1560.	6.	1490.	64.	1.62	20	76.	
2685.57	2685.57	8.	143.	30.	1.42	14	2684.80	
4.68	0.0	0.77	10.43	2.10	3.64	2687.19	2683.40	
0.018357	0.045	0.140	0.045	0.140	0.71	-0.00	595.42	
	2680.90	1170.	1170.	1170.	39.	37.	671.58	11.

*SECNO .500

WHITEOAK CREEK			50 YR FLOOD		02/28/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

0.50	1425.	3.	1367.	55.	1.53	5	71.	
2702.07	2702.07	4.	135.	27.	-0.08	11	2701.50	
4.47	0.0	0.68	10.13	2.04	16.11	2703.60	2700.10	
0.018692	0.045	0.130	0.045	0.155	0.01	-0.00	530.53	
	2697.60	870.	870.	870.	34.	37.	671.36	15.

CCHV= 0.100 CEHV= 0.800
*SECNO .740

3301 HV CHANGED MORE THAN HVINS

0.74	1225.	0.	1199.	26.	0.50	4	73.	
2718.54	0.0	0.	209.	18.	-1.03	0	2720.10	
5.24	0.0	0.0	5.74	1.41	15.33	2719.04	2716.60	
0.009264	0.048	0.120	0.055	0.130	0.10	-0.00	323.29	
	2713.30	1170.	1170.	1170.	27.	47.	396.63	20.

CCHV= 0.100 CEHV= 0.500
*SECNO .750

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK 50 YR FLOOD 02/28/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2721.50 ELREA= 2722.20

0.75	1225.	0.	1225.	0.	1.74	3	34.	
2719.16	2719.16	0.	116.	0.	1.24	15	2715.80	
4.46	0.0	0.0	10.58	0.0	1.09	2720.90	2716.00	
0.022216	0.048	0.120	0.045	0.130	0.62	0.0	340.00	
	2714.70	80.	80.	80.	17.	17.	374.00	20.

SPECIAL BRIDGE

SB	HK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	34.00	0.70	210.00	0.0

ELCHU	ELCHD
2714.70	2714.70

*SECNO .750

**** GR CARDS REPEATED
CLASS A LOW FLOW

3420 BRIDGE W.S.= 2719.08 BRIDGE VELOCITY=, 8.41
CALCULATED CHANNEL AREA=, 146.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
0.0	2720.96	0.41	0.	1225.	210.	210.	2721.00

ELTRD
2722.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2722.00 ELREA= 2722.70

0.75	1225.	0.	1225.	0.	1.39	0	34.
2719.57	0.0	0.	130.	0.	-0.35	0	2715.80
4.87	0.0	0.0	9.45	0.0	0.06	2720.96	2716.00
0.015264	0.048	0.120	0.045	0.130	0.0	0.0	340.00

17 17 374.00 20.

2714.70	28.	28.	28.	17.	17.	374.00	20.

*SECNO .750

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK			50 YR FLOOD		02/28/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.75	1225.	0.	1190.	35.	0.30	3	80.	
2720.90	0.0	0.	268.	33.	-1.09	0	2721.50	
6.20	0.0	0.0	4.44	1.07	0.13	2721.19	2718.00	
0.003574	0.048	0.140	0.050	0.140	0.11	-0.00	319.44	
	2714.70	20.	20.	20.	31.	49.	399.43	20.

CCHV= 0.100 CEHV= 0.800
*SECNO .820

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK			50 YR FLOOD		02/28/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

0.82	1165.	0.	1165.	0.	1.78	20	31.	
2729.55	2729.55	0.	109.	0.	1.48	8	2729.70	
5.95	0.0	0.0	10.70	0.0	2.76	2731.32	2730.50	
0.032724	0.049	0.150	0.055	0.140	1.18	-0.00	260.15	
	2723.60	350.	350.	350.	16.	14.	290.69	22.

CCHV= 0.100 CEHV= 0.800
*SECNO .830

3301 HV CHANGED MORE THAN HVINS

0.83	1165.	29.	1065.	71.	2.40	4	33.	
2730.33	2730.29	14.	82.	28.	0.62	9	2725.00	
6.43	0.0	2.00	12.97	2.58	0.90	2732.72	2726.00	
0.016531	0.049	0.150	0.045	0.140	0.50	-0.00	259.19	
	2723.90	40.	40.	40.	13.	19.	291.85	22.

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2728.93 NOT 2730.33
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

C02

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	15.00	0.40	70.00	0.0

ELCHU	ELCHD
2723.90	2723.90

CCHV= 0.100 CEHV= 0.500
*SECNO .830

*** GR CARDS REPEATED
6870 D.S. ENERGY OF 2732.72 HIGHER THAN COMPUTED ENERGY OF 2732.18
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2737.21	2733.18	0.0	562.	605.	70.	70.	2728.70

ELTRD
2730.10

0.83	1165.	30.	1060.	75.	2.18	4	34.	
2730.54	0.0	16.	85.	30.	-0.21	0	2725.00	
6.64	0.0	1.94	12.41	2.48	0.0	2732.72	2725.00	
0.014356	0.049	0.150	0.045	0.140	0.0	-0.00	258.64	
	2723.90	12.	12.	12.	14.	20.	292.38	22.

*SECNO .830

3301 HV CHANGED MORE THAN HVINS

0.83	1165.	7.	1060.	98.	0.54	5	98.	
2732.43	0.0	7.	172.	93.	-1.65	0	2730.00	
7.23	0.0	0.97	6.15	1.04	0.08	2732.97	2730.80	
0.005164	0.049	0.120	0.050	0.140	0.16	-0.00	253.91	
	2725.20	10.	10.	10.	23.	76.	352.09	22.

*SECNO 1.000

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK			50 YR FLOOD		02/28/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.00	1030.	0.	1030.	0.	2.08	20	21.	
2744.90	2744.90	0.	89.	0.	1.55	12	2744.90	
5.50	0.0	0.0	11.59	0.0	8.81	2746.99	2747.20	
0.029723	0.049	0.150	0.050	0.130	0.77	-0.00	126.95	
	2739.40	900.	900.	900.	12.	10.	148.33	26.

*SECNO 1.000

*SECNO 1.000

D02

3301 HV CHANGED MORE THAN HVINS

1.00	1030.	56.	953.	21.	1.46	4	82.
2746.22	2745.36	54.	95.	13.	-0.62	12	2740.50
6.83	0.0	1.03	10.09	1.66	0.64	2747.69	2740.30
0.010022	0.049	0.150	0.050	0.130	0.06	-0.00	66.92
	2739.40	40.	40.	40.	71.	12.	149.29 26.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	15.00	0.70	67.00	0.0
	ELCHU	ELCHD						
	2739.40	2739.40						

*SECNO 1.000

*** GR CARDS REPEATED
6870 D.S. ENERGY OF 2747.69 HIGHER THAN COMPUTED ENERGY OF 2747.20
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2752.10	2748.17	0.48	611.	419.	67.	67.	2744.10

ELTRD
2745.00

1.00	1030.	56.	953.	21.	1.46	4	82.
2746.22	0.0	54.	94.	13.	0.00	0	2740.50
6.82	0.0	1.03	10.09	1.66	0.0	2747.69	2740.30
0.010024	0.049	0.150	0.050	0.130	0.0	-0.00	66.94
	2739.40	12.	12.	12.	71.	12.	149.29 26.

*SECNO 1.000

3301 HV CHANGED MORE THAN HVINS

1.00	1030.	133.	883.	14.	0.54	4	217.
2747.31	0.0	127.	139.	37.	-0.92	0	2744.90
7.31	0.0	1.05	6.36	0.38	0.07	2747.85	2747.20
0.005632	0.049	0.150	0.050	0.150	0.09	-0.00	35.97
	2740.00	10.	10.	10.	103.	115.	253.07 26.

*SECNO 1.170
WHITEOAK CREEK 50 YR FLOOD 02/28/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3693 PROBABLE [illegible]
3720 CRITICAL DEPTH ASSUMED

EO2

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2780.50 ELREA= 2782.00

1.17	895.	90.	805.	0.	0.78	20	209.	
2781.06	2781.06	98.	108.	0.	0.24	15	2780.50	
4.66	0.0	0.92	7.44	0.0	7.32	2781.84	2782.00	
0.016252	0.050	0.140	0.055	0.150	0.12	-0.00	101.70	
	2776.40	850.	850.	850.	193.	15.	310.20	31.

THIS RUN EXECUTED 02/28/81 11:50:30

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**********************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53,54
**********************************************************

T1      YANCEY CO NC FEMA STUDY                                          835
T2      100 YR FLOOD                                                     840
T3      WHITEOAK CREEK                                                   845

J1  ICHECK     INQ    NINV    IDIR    STRT  METRIC   HVINS     Q      WSEL     FQ
         0.      4.      0.      0. 0.00673      0.    0.0      0.     0.0    0.0   850
J2  NPROF   IPLOT   PRFVS   XSECV   XSECH      FN   ALLDC     IBW  CHNIM ITRACE
         3.      0.     -1.      0.      0.     0.0     0.0      0.      0.      0.   855
```

*PROF 3

CCHV= 0.100 CEHV= 0.500

*SECNO .100

2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

WHITEOAK CREEK 100 YR FLOOD 02/28/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.10	2130.	0.	2130.	0.	0.52	0	85.	
2675.89	0.0	0.	367.	0.	0.50	0	2677.20	
5.99	0.0	0.0	5.81	0.0	0.0	2676.41	2677.60	
0.006709	0.0	0.150	0.055	0.150	0.0	-0.00	2139.78	
	2669.90	0.	0.	0.	43.	41.	2224.41	0.

*SECNO .100

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2676.90 ELREA= 2677.50

0.10	2130.	0.	2130.	0.	2.02	2	34.	
2676.03	0.0	0.	187.	0.	1.49	0	2669.90	
6.13	0.0	0.0	11.40	0.0	0.89	2678.05	2672.70	
0.012458	0.045	0.150	0.045	0.150	0.75	-0.00	2180.00	
	2669.90	100.	100.	100.	17.	17.	2214.00	1.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	34.00	0.01	245.00	0.0

ELCHU	ELCHD
2669.70	2669.70

*SECNO .100

*** GR CARDS REPEATED

6870 D.S. ENERGY OF 2678.05 HIGHER THAN COMPUTED ENERGY OF 2677.72

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2677.72	2677.53	0.01	94.	2022.	245.	245.	2676.90

ELTRD
2677.40

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2677.40 ELREA= 2678.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= .2677.40 ELREA= 2678.00

HO2

0.10	2130.	525.	1605.	0.	0.54	2	714.
2677.51	0.0	525.	237.	0.	-1.48	0	2669.90
7.61	0.0	1.00	6.77	0.0	0.0	2678.05	2672.70
0.003203	0.044	0.150	0.045	0.150	0.0	-0.00	1500.00
	2669.90	26.	26.	26.	697.	17.	2214.00 1.

*SECNO .100

0.10	2130.	185.	1923.	22.	0.17	2	1071.
2677.96	0.0	574.	555.	124.	-0.37	0	2677.20
8.06	0.0	0.32	3.47	0.18	0.04	2678.13	2677.60
0.001064	0.044	0.140	0.045	0.140	0.04	-0.00	1500.00
	2669.90	25.	25.	25.	683.	388.	2570.54 1.

*SECNO .330

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK			100 YR FLOOD		02/28/81		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

0.33	1905.	32.	1776.	97.	1.63	20	138.
2686.21	2685.21	37.	167.	42.	1.46	14	2684.80
5.31	0.0	0.88	10.60	2.32	2.93	2687.84	2683.40
0.015355	0.045	0.140	0.045	0.140	0.73	-0.00	500.00
	2680.90	1170.	1170.	1170.	135.	38.	672.26 22.

*SECNO .500

3265 DIVIDED FLOW

WHITEOAK CREEK			100 YR FLOOD		02/28/81		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

0.50	1740.	16.	1641.	83.	1.64	4	102.
2702.59	2702.59	17.	155.	36.	0.01	11	2701.50
4.99	0.0	0.92	10.56	2.31	13.96	2704.23	2700.10
0.016850	0.045	0.130	0.045	0.135	0.00	-0.00	514.13
	2697.60	870.	870.	870.	120.	37.	671.92 26.

2697.00 0.0. 0.0. 0.0.

CCHV= 0.100 CEHV= 0.800
*SECNO .740

3301 HV CHANGED MORE THAN HVINS

0.74	1500.	0.	1461.	39.	0.60	5	76.
2718.93	0.0	0.	233.	24.	-1.04	0	2720.10
5.63	0.0	0.0	6.28	1.66	15.19	2719.52	2716.60
0.009953	0.048	0.120	0.055	0.130	0.10	-0.00	321.72
	2713.30	1170.	1170.	1170.	28.	48.	397.77 32.

CCHV= 0.100 CEHV= 0.500
*SECNO .750

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK 100 YR FLOOD 02/28/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2721.50 ELREA= 2722.20

0.75	1500.	0.	1500.	0.	1.98	3	34.
2719.67	2719.67	0.	133.	0.	1.38	11	2715.80
4.97	0.0	0.0	11.28	0.0	1.12	2721.64	2716.00
0.021014	0.048	0.120	0.045	0.130	0.69	0.0	340.00
	2714.70	80.	80.	80.	17.	17.	374.00 33.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RVLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	34.00	0.70	210.00	0.0

ELCHU	ELCHD
2714.70	2714.70

*SECNO .750

**** GR CARDS REPEATED
CLASS A LOW FLOW

3420 BRIDGE W.S.= 2719.55 BRIDGE VELOCITY= 9.28
CALCULATED CHANNEL AREA= 162.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2720.94	2721.71	0.47	0.	1500.	210.	210.	2721.00

ELTRD
2722.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2722.00 ELREA= 2722.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2722.00 ELREA= 2722.70

0.75	1500.	0.	1500.	0.	1.57	0	34.	
2720.14	0.0	0.	149.	0.	-0.40	0	2715.80	
5.44	0.0	0.0	10.07	0.0	0.07	2721.71	2716.00	
0.014390	0.048	0.120	0.045	0.130	0.0	0.0	340.00	
	2714.70	28.	28.	28.	17.	17.	374.00	33.

*SECNO .750

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK			100 YR FLOOD		02/28/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.75	1500.	0.	1447.	53.	0.31	3	87.	
2721.64	0.0	0.	316.	46.	-1.26	0	2721.50	
6.94	0.0	0.10	4.57	1.16	0.12	2721.96	2718.00	
0.003186	0.048	0.140	0.050	0.140	0.13	-0.00	314.61	
	2714.70	20.	20.	20.	35.	52.	401.61	33.

CCHV= 0.100 CEHV= 0.800
*SECNO .820

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK			100 YR FLOOD		02/28/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

0.82	1420.	0.	1420.	0.	2.07	20	33.	
2730.00	2730.00	0.	123.	0.	1.75	8	2729.70	
6.40	0.0	0.49	11.54	0.0	2.54	2732.07	2730.50	
0.034119	0.049	0.150	0.055	0.140	1.40	0.0	259.25	
	2723.60	350.	350.	350.	17.	15.	291.79	35.

CCHV= 0.100 CEHV= 0.800
*SECNO .830

WHITEOAK CREEK			100 YR FLOOD		02/28/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

0.83	1420.	46.	1216.	158.	1.90	2	94.	

2731.64	2731.64	24.	102.	92.	-0.16	11	2725.00
7.74	0.0	1.91	11.94	1.72	0.70	2733.54	2726.00
0.010509	0.049	0.150	0.045	0.140	0.02	-0.00	255.90
	2723.90	40.	40.	40.	17.	78.	350.10 35.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	15.00	0.40	70.00	0.0

ELCHU	ELCHD
2723.90	2723.90

CCHV= 0.100 CEHV= 0.500
*SECNO .830

*** GR CARDS REPEATED
6870 D.S. ENERGY OF 2733.54 HIGHER THAN COMPUTED ENERGY OF 2732.87
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2741.86	2733.94	0.39	940.	492.	70.	70.	2728.70

ELTRD
2730.10

0.83	1420.	47.	1195.	177.	1.70	4	95.
2731.84	0.0	26.	105.	107.	-0.20	0	2725.00
7.94	0.0	1.82	11.38	1.66	0.0	2733.54	2726.00
0.009151	0.049	0.150	0.045	0.140	0.0	-0.00	255.36
	2723.90	12.	12.	12.	17.	78.	350.64 35.

*SECNO .830

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

0.83	1420.	14.	1234.	173.	0.53	4	124.
2733.19	0.0	13.	197.	141.	-1.17	0	2730.00
7.99	0.0	1.08	6.25	1.23	0.06	2733.72	2730.80
0.004462	0.049	0.120	0.050	0.140	0.12	-0.00	252.02
	2725.20	10.	10.	10.	24.	123.	399.10 35.

*SECNO 1.000

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK			100 YR FLOOD		02/28/81		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST VOL

```
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
      1.00      1255.       34.      1221.        0.      1.78        20        74.
   2745.99   2745.99       30.       113.        0.      1.25        11   2744.90
      6.59       0.0      1.11     10.84       0.0      7.12   2747.77   2747.20
 0.020307     0.049     0.150     0.050     0.130     0.62     -0.00     75.25
              2739.40       900.      900.      900.       63.       11.    149.13       40.

*SECNO 1.000
      1.00      1255.      101.      1127.       27.      1.76         4        96.
   2746.61   2746.49       81.       100.       14.     -0.01         9   2740.50
      7.21       0.0      1.25     11.24       1.85      0.60   2748.37   2740.30
 0.011492     0.049     0.150     0.050     0.130     0.00     -0.00     53.15
              2739.40       40.       40.       40.       84.       12.    149.57       40.


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS   2744.47  NOT   2746.61
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB      HK       XKOR      COFQ      RDLEN      BWC       BWP      BAREA       SS
        1.25     1.60      3.00        0.0     15.00      0.70      67.00      0.0
     ELCHU    ELCHD
   2739.40  2739.40

*SECNO 1.000

**** GR CARDS REPEATED
6870 D.S. ENERGY OF 2748.37 HIGHER THAN COMPUTED ENERGY OF 2747.49
PRESSURE AND WEIR FLOW

     EGPRS     EGLWC        H3     QWEIR       QPR     BAREA     TAREA      ELLC
   2755.32   2748.84       0.0      858.      400.       67.       67.   2744.10

     ELTRD
   2745.00


      1.00      1255.      102.      1127.       27.      1.76         4        97.
   2746.61   2746.49       81.       100.       14.     -0.00         0   2740.50
      7.21       0.0      1.25     11.23       1.85       0.0   2748.37   2740.30
 0.011465     0.049     0.150     0.050     0.130       0.0     -0.00     53.03
              2739.40       12.       12.       12.       84.       12.    149.58       41.

*SECNO 1.000

3301 HV CHANGED MORE THAN HVINS

      1.00      1255.      234.      931.       91.      0.40         5       225.
   2748.17       0.0      208.      159.      128.     -1.36         0   2744.90
      8.17       0.0      1.12      5.87      0.71      0.06   2748.57   2747.20
 0.004021     0.049     0.150     0.050     0.150      0.14     -0.00     32.00
              2740.00       10.       10.       10.      107.      119.    257.36       41.
```

MD2

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*SECNO 1.170
   WHITEOAK CREEK                    100 YR FLOOD          02/28/81
  MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
  ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
  DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
  SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
             ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST      VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2780.50 ELREA=     2782.00

     1.17      1090.       182.       908.         0.      0.77         20       212.
  2781.37   2781.37       152.       118.         0.      0.37         22    2780.50
     4.97       0.0       1.20       7.69        0.0      5.77    2782.14    2782.00
 0.015843     0.050      0.140      0.055      0.150      0.18      -0.00      98.31
            2776.40       850.       850.       850.      197.        16.     310.78       48.
```

A03

THIS RUN EXECUTED 02/28/81 11:50:34

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53,54
**************************************************

T1      YANCEY CO NC FEMA STUDY                                          860
T2      500 YR FLOOD                                                     865
T3      WHITEOAK CREEK                                                   870

J1  ICHECK     INQ    NINV    IDIR    STRT  METRIC   HVINS      Q     WSEL    FQ
        0.      5.      0.      0. 0.00673      0.     0.0      0.     0.0   0.0   875
J2  NPROF   IPLOT   PRFVS   XSECV  XSECH      FN   ALLDC     IBW  CHNIM ITRACE
       15.      0.      -1.     0.     0.     0.0     0.0      0.     0.     0.    880
```

B03

*PROF 4

CCHV= 0.100 CEHV= 0.500

*SECNO .100

2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

WHITEOAK CREEK 500 YR FLOOD 02/28/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.10	3285.	43.	3242.	0.	0.67	0	729.	
2677.28	2675.04	142.	491.	0.	0.50	11	2677.20	
7.39	0.0	0.30	6.60	0.0	0.0	2677.95	2677.60	
0.006689	0.0	0.150	0.055	0.150	0.0	-0.00	1500.00	
	2669.90	0.	0.	0.	683.	46.	2228.97	0.

*SECNO .100

0.10	3285.	895.	2319.	71.	0.99	4	1070.	
2677.76	2677.70	691.	245.	96.	0.32	8	2669.90	
7.86	0.0	1.29	9.46	0.74	0.63	2678.74	2672.70	
0.005960	0.045	0.150	0.045	0.150	0.16	-0.00	1500.00	
	2669.90	100.	100.	100.	697.	373.	2569.67	2.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	34.00	0.01	245.00	0.0

ELCHU	ELCHD
2669.70	2669.70

*SECNO .100

**** GR CARDS REPEATED
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2682.22	2678.74	0.00	1703.	1584.	245.	245.	2676.90

ELTRD
2677.40

0.10	3285.	1024.	2131.	130.	0.70	4	1071.	
2678.09	0.0	921.	257.	216.	-0.29	0	2669.90	
8.19	0.0	1.11	8.30	0.60	0.05	2678.79	2672.70	
0.004320	0.044	0.150	0.045	0.150	0.0	-0.00	1500.00	
	2669.90	26.	26.	26.	697.	374.	2571.10	3.

*SECNO .100

0.10	3285.	547.	2588.	150.	0.21	3	1074.	
2678.68	0.0	1031.	622.	370.	-0.49	0	2677.20	
8.78	0.0	0.53	4.16	0.41	0.05	2678.90	2677.60	
0.001314	0.044	0.140	0.045	0.140	0.05	-0.00	1500.00	

2669.90 25. 25. 25. 683. 391. 2573.59 4.

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0.001314     0.044     0.140
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C03

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             2669.90       25.        25.        25.       683.      391.   2573.59        4.

*SECNO .330

3301 HV CHANGED MORE THAN HVINS

    WHITEOAK CREEK                    500 YR FLOOD          02/28/81
  MILE      Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
  ELEV      CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
  DEPTH     WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
  SLOPE     WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
            ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST        VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     0.33      2935.       425.      2322.       188.       1.31         20       338.
  2687.70   2687.70       324.       226.        85.       1.09         19    2684.80
     6.80       0.0       1.31      10.28       2.20       3.12    2689.01    2683.40
 0.009678     0.045      0.140      0.045      0.140       0.55        0.0     357.52
            2680.90      1170.      1170.      1170.       277.        61.     695.40        39.

*SECNO .500
    WHITEOAK CREEK                    500 YR FLOOD          02/28/81
  MILE      Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
  ELEV      CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
  DEPTH     WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
  SLOPE     WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
            ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST        VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     0.50      2675.       355.      2149.       171.       1.21         15       337.
  2704.23   2704.23       278.       219.        78.      -0.10          8    2701.50
     6.63       0.0       1.28       9.81       2.19       8.22    2705.44    2700.10
 0.009198     0.045      0.130      0.045      0.135       0.01        0.0     357.73
            2697.60       870.       870.       870.       277.        60.     694.54        51.

CCHV=   0.100 CEHV=    0.800
*SECNO .740
     0.74      2290.         0.      2225.        65.       1.26         14        77.
  2719.10   2718.60         0.       243.        26.       0.06         15    2720.10
     5.80       0.0        0.0       9.14       2.48      14.89    2720.37    2716.60
 0.020167     0.048      0.120      0.055      0.130       0.04      -0.00     321.02
            2713.30      1170.      1170.      1170.        29.        48.     398.28        63.

CCHV=   0.100 CEHV=    0.500
*SECNO .750

3301 HV CHANGED MORE THAN HVINS

    WHITEOAK CREEK                    500 YR FLOOD          02/28/81
  MILE      Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
  ELEV      CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
  DEPTH     WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
  SLOPE     WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
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D03

SLOPE WTN NL

D03

	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=			2721.50	ELREA=		2722.20		
0.75	2290.	0.	2290.	0.	2.69	3	34.	
2720.88	2720.88	0.	174.	0.	1.42	11	2715.80	
6.18	0.0	0.0	13.16	0.0	1.61	2723.56	2716.00	
0.019978	0.048	0.120	0.045	0.130	0.71	0.0	340.00	
	2714.70	80.	80.	80.	17.	17.	374.00	63.
SPECIAL BRIDGE								
SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	34.00	0.70	210.00	0.0
ELCHU	ELCHD							
2714.70	2714.70							
*SECNO .750								
*** GR CARDS REPEATED								
6870 D.S. ENERGY OF 2723.56 HIGHER THAN COMPUTED ENERGY OF 2723.31								
3301 HV CHANGED MORE THAN HVINS								
PRESSURE AND WEIR FLOW								
EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC	
2723.83	2723.65	0.69	200.	2078.	210.	210.	2721.00	
ELTRD								
2722.00								
0.75	2290.	211.	1811.	268.	0.70	2	162.	
2722.86	0.0	118.	242.	132.	-1.99	0	2715.80	
8.16	0.0	1.79	7.49	2.03	0.0	2723.56	2716.00	
0.004176	0.048	0.120	0.045	0.130	0.0	-0.00	265.96	
	2714.70	28.	28.	28.	91.	71.	428.02	63.
*SECNO .750								
WHITEOAK CREEK			500 YR FLOOD		02/28/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.75	2290.	22.	2155.	112.	0.38	2	208.	
2723.28	0.0	50.	425.	94.	-0.32	0	2721.50	
8.58	0.0	0.45	5.07	1.20	0.07	2723.66	2718.00	
0.002644	0.048	0.140	0.050	0.140	0.03	-0.00	227.38	
	2714.70	20.	20.	20.	123.	86.	435.52	64.

CCHV= 0.100 CEHV= 0.800
*SECNO .820

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK			500 YR FLOOD		02/28/81		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST VOL
0.82	2170.	7.	2040.	123.	1.87	20	96.
2731.74	2731.74	5.	180.	70.	1.50	11	2729.70
8.14	0.0	1.38	11.32	1.75	1.96	2733.62	2730.50
0.020753	0.049	0.150	0.055	0.140	1.20	-0.00	254.90
	2723.60	35D.	35D.	35D.	22.	75.	351.10 67.

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CCHV= 0.100 CEHV= 0.800
*SECNO .830

WHITEOAK CREEK			500 YR FLOOD		02/28/81		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST VOL
0.83	2170.	84.	1668.	418.	2.27	2	101.
2732.96	2732.96	38.	122.	186.	0.39	10	2725.00
9.06	0.0	2.19	13.72	2.25	0.59	2735.22	2726.00
0.010956	0.049	0.150	0.045	0.140	0.31	-0.00	252.61
	2723.90	40.	40.	40.	20.	81.	353.39 67.

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2731.52 ,NOT 2732.96
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	15.00	0.40	70.00	0.0
ELCHU	ELCHD							
2723.90	2723.90							

CCHV= 0.100 CEHV= 0.500
*SECNO .830

*** GR CARDS REPEATED
6870 D.S. ENERGY OF 2735.22 HIGHER THAN COMPUTED ENERGY OF 2733.88

3265 DIVIDED FLOW

PRESSURE AND WEIR FLOW

PRESSURE AND WEIR FLOW

F03

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC	
2756.83	2736.58	0.0	1758.	427.	70.	70.	2728.70	
ELTRD								
2730.10								
0.83	2170.	85.	1649.	436.	2.11	6	113.	
2733.11	0.0	40.	124.	197.	-0.15	0	2725.00	
9.21	0.0	2.12	13.32	2.21	0.0	2735.22	2726.00	
0.010080	0.049	0.150	0.045	0.140	0.0	-0.00	252.24	
	2723.90	12.	12.	12.	20.	122.	394.01	67.

*SECNO .830

3301 HV CHANGED MORE THAN HVINS

0.83	2170.	71.	1421.	678.	0.30	4	505.	
2735.14	0.0	93.	261.	742.	-1.81	0	2730.00	
9.94	0.0	0.75	5.44	0.91	0.04	2735.44	2730.80	
0.002320	0.049	0.120	0.050	0.140	0.18	-0.00	165.31	
	2725.20	10.	10.	10.	111.	394.	670.10	67.

*SECNO 1.000

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK			500 YR FLOOD		02/28/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3685 20 TRIALS ATTEMPTED WSEL,CWSEL								
3693 PROBABLE MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
1.00	1910.	290.	1536.	84.	1.29	20	222.	
2747.71	2747.71	164.	152.	78.	0.99	9	2744.90	
8.31	0.0	1.77	10.14	1.07	3.91	2749.00	2747.20	
0.012824	0.049	0.150	0.050	0.130	0.49	-0.00	33.20	
	2739.40	900.	900.	900.	105.	117.	255.03	83.

*SECNO 1.000

WHITEOAK CREEK			500 YR FLOOD		02/28/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
1.00	1910.	363.	1357.	190.	1.35	3	225.	
2748.15	2748.15	222.	123.	148.	0.05	8	2740.50	
8.75	0.0	1.63	11.00	1.29	0.41	2749.50	2740.30	

8.75	0.0	1.63	11.00	1.29	0.41		

G03

0.008354	0.049	0.150	0.050	0.130	0.03	-0.00	32.05	
	2739.40	40.	40.	40.	105.	120.	257.26	83.

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2746.11 NOT 2748.15
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	15.00	0.70	67.00	0.0

ELCHU	ELCHD
2739.40	2739.40

*SECNO 1.000

*** GR CARDS REPEATED
6870 D.S. ENERGY OF 2749.50 HIGHER THAN COMPUTED ENERGY OF 2748.53
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2768.34	2750.91	0.0	1652.	261.	67.	67.	2744.10

ELTRD
2745.00

1.00	1910.	386.	1302.	223.	1.13	2	227.	
2748.37	0.0	244.	127.	173.	-0.22	0	2740.50	
8.97	0.0	1.58	10.27	1.29	0.0	2749.50	2740.30	
0.007023	0.049	0.150	0.050	0.130	0.0	-0.00	31.46	
	2739.40	12.	12.	12.	106.	121.	258.39	83.

*SECNO 1.000

3301 HV CHANGED MORE THAN HVINS

1.00	1910.	440.	1212.	258.	0.45	4	233.	
2749.17	0.0	304.	182.	237.	-0.68	0	2744.90	
9.17	0.0	1.45	6.67	1.09	0.05	2749.62	2747.20	
0.004343	0.049	0.150	0.050	0.150	0.07	-0.00	29.41	
	2740.00	10.	10.	10.	109.	124.	262.35	84.

*SECNO 1.170

3265 DIVIDED FLOW

WHITEOAK CREEK 500 YR FLOOD 02/28/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3720 CRITICAL DEPTH ASSUMED

H03

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2780.50 ELREA= 2782.00

1.17	1650.	435.	1215.	0.	0.94	20	219.	
2781.88	2781.88	245.	135.	0.	0.49	14	2780.50	
5.48	0.0	1.78	8.99	0.0	6.41	2782.82	2782.00	
0.016874	0.050	0.140	0.055	0.150	0.24	-0.00	92.59	
	2776.40	850.	850.	850.	202.	17.	311.77	94.

THIS RUN EXECUTED 02/28/81 11:50:39

****
HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
ERROR CORR - 01,02,03
MODIFICATION - 50,51,52,53,54
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER
INDICATES MESSAGE IN SUMMARY OF ERRORS LIST/

WHITEOAK CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	TOK*S	VCH	AREA	.01K
	0.100	0.	0.0	0.0	2669.9	1005.0	2674.03	0.0	2674.35	67.18	4.57	219.98	122.62
	0.100	0.	0.0	0.0	2669.9	1740.0	2675.32	0.0	2675.78	66.86	5.45	319.55	212.80
	0.100	0.	0.0	0.0	2669.9	2130.0	2675.89	0.0	2676.41	67.09	5.81	366.74	260.05
	0.100	0.	0.0	0.0	2669.9	3285.0	2677.28	2675.04	2677.95	66.89	6.60	632.54	401.65
	0.100	100.	0.0	0.0	2669.9	1005.0	2674.50	0.0	2675.37	83.02	7.48	134.45	110.30
	0.100	100.	0.0	0.0	2669.9	1740.0	2675.60	0.0	2677.19	109.88	10.13	171.81	165.99
	0.100	100.	0.0	0.0	2669.9	2130.0	2676.03	0.0	2678.05	124.58	11.40	186.81	190.83
	0.100	100.	0.0	0.0	2669.9	3285.0	2677.76	2677.70	2678.74	59.60	9.46	1032.38	425.50
	0.100	26.	2677.4	2676.9	2669.9	1005.0	2674.50	0.0	2675.37	82.92	7.47	134.50	110.37
	0.100	26.	2677.4	2676.9	2669.9	1740.0	2675.60	0.0	2677.19	109.87	10.13	171.82	166.00
	0.100	26.	2677.4	2676.9	2669.9	2130.0	2677.51	0.0	2678.05	32.03	6.77	761.58	376.34
	0.100	26.	2677.4	2676.9	2669.9	3285.0	2678.09	0.0	2678.79	43.20	8.30	1393.80	499.78
	0.100	25.	0.0	0.0	2669.9	1005.0	2675.36	0.0	2675.51	14.39	3.11	323.57	264.89
	0.100	25.	0.0	0.0	2669.9	1740.0	2677.21	0.0	2677.40	13.34	3.58	576.02	476.42
	0.100	25.	0.0	0.0	2669.9	2130.0	2677.96	0.0	2678.13	10.64	3.47	1252.51	652.98
	0.100	25.	0.0	0.0	2669.9	3285.0	2678.68	0.0	2678.90	13.14	4.16	2023.79	906.21
*	0.330	1170.	0.0	0.0	2680.9	900.0	2684.48	2684.48	2685.67	207.99	8.85	111.84	62.41
*	0.330	1170.	0.0	0.0	2680.9	1560.0	2685.57	2685.57	2687.19	183.57	10.43	180.91	115.14
*	0.330	1170.	0.0	0.0	2680.9	1905.0	2686.21	2686.21	2687.84	153.55	10.60	245.72	153.74
*	0.330	1170.	0.0	0.0	2680.9	2935.0	2687.70	2687.70	2689.01	96.78	10.28	635.67	298.35
	0.500	870.	0.0	0.0	2697.6	825.0	2701.19	2701.04	2702.18	172.12	8.07	112.45	62.88
*	0.500	870.	0.0	0.0	2697.6	1425.0	2702.07	2702.07	2703.60	186.92	10.13	165.97	104.23
*	0.500	870.	0.0	0.0	2697.6	1740.0	2702.59	2702.59	2704.23	168.50	10.56	208.28	134.05
*	0.500	870.	0.0	0.0	2697.6	2675.0	2704.23	2704.23	2705.44	91.98	9.81	575.53	278.92
	0.740	1170.	0.0	0.0	2713.3	715.0	2717.41	0.0	2717.79	102.18	4.95	148.54	70.73
	0.740	1170.	0.0	0.0	2713.3	1225.0	2718.54	0.0	2719.04	92.64	5.74	227.22	127.27
	0.740	1170.	0.0	0.0	2713.3	1500.0	2718.93	0.0	2719.52	99.53	6.28	256.30	150.35
	0.740	1170.	0.0	0.0	2713.3	2290.0	2719.10	2718.60	2720.37	201.67	9.14	269.60	161.25
	0.750	80.	0.0	0.0	2714.7	715.0	2718.20	2718.13	2719.35	229.20	8.61	83.06	47.23
*	0.750	80.	0.0	0.0	2714.7	1225.0	2719.16	2719.16	2720.90	222.16	10.58	115.82	82.19
*	0.750	80.	0.0	0.0	2714.7	1500.0	2719.67	2719.67	2721.64	210.14	11.28	132.98	103.48
*	0.750	80.	0.0	0.0	2714.7	2290.0	2720.88	2720.88	2723.56	199.78	13.16	174.03	162.02

*	0.750	80.	0.0	0.0	2714.7	1500.0	2719.87	2719.87	2723.56	199.78	13.16	174.03	162.02
*	0.750	80.	0.0	0.0	2714.7	2290.0	2720.88	2720.88	2723.56	199.78	13.16	174.03	162.02

J03

K03

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	TOK*S	VCH	AREA	.01K
	0.750	28.	2722.0	2721.0	2714.7	715.0	2718.43	0.0	2719.39	169.62	7.86	90.91	54.90
	0.750	28.	2722.0	2721.0	2714.7	1225.0	2719.57	0.0	2720.96	152.64	9.45	129.62	99.15
	0.750	28.	2722.0	2721.0	2714.7	1500.0	2720.14	0.0	2721.71	143.90	10.07	148.98	125.04
	0.750	28.	2722.0	2721.0	2714.7	2290.0	2722.86	0.0	2723.56	41.76	7.49	491.63	354.38
	0.750	20.	0.0	0.0	2714.7	715.0	2719.37	0.0	2719.62	45.24	4.03	186.51	106.30
	0.750	20.	0.0	0.0	2714.7	1225.0	2720.90	0.0	2721.19	35.74	4.44	300.44	204.90
	0.750	20.	0.0	0.0	2714.7	1500.0	2721.64	0.0	2721.96	31.86	4.57	362.10	265.74
	0.750	20.	0.0	0.0	2714.7	2290.0	2723.28	0.0	2723.66	26.44	5.07	568.96	445.34
*	0.820	350.	0.0	0.0	2723.6	680.0	2728.21	2728.21	2729.63	363.05	9.54	71.25	35.69
*	0.820	350.	0.0	0.0	2723.6	1165.0	2729.55	2729.55	2731.32	327.24	10.70	108.86	64.40
*	0.820	350.	0.0	0.0	2723.6	1420.0	2730.00	2730.00	2732.07	341.19	11.54	123.18	76.88
*	0.820	350.	0.0	0.0	2723.6	2170.0	2731.74	2731.74	2733.62	207.53	11.32	255.61	150.63
	0.830	40.	0.0	0.0	2723.9	680.0	2729.07	0.0	2730.86	160.77	10.75	63.26	53.63
	0.830	40.	0.0	0.0	2723.9	1165.0	2730.33	2730.29	2732.72	165.31	12.97	123.91	90.61
*	0.830	40.	0.0	0.0	2723.9	1420.0	2731.64	2731.64	2733.54	105.09	11.94	217.50	138.52
*	0.830	40.	0.0	0.0	2723.9	2170.0	2732.96	2732.96	2735.22	109.56	13.72	345.77	207.32
	0.830	12.	2730.1	2728.7	2723.9	680.0	2728.41	0.0	2730.93	283.03	12.74	53.38	40.42
*	0.830	12.	2730.1	2728.7	2723.9	1165.0	2730.54	0.0	2732.72	143.56	12.41	131.19	97.23
	0.830	12.	2730.1	2728.7	2723.9	1420.0	2731.84	0.0	2733.54	91.51	11.38	237.80	148.44
*	0.830	12.	2730.1	2728.7	2723.9	2170.0	2733.11	0.0	2735.22	100.80	13.32	361.23	216.13
	0.830	10.	0.0	0.0	2725.2	680.0	2730.73	2729.33	2731.26	78.37	5.84	116.99	76.81
	0.830	10.	0.0	0.0	2725.2	1165.0	2732.43	0.0	2732.97	51.64	6.15	273.30	162.12
	0.830	10.	0.0	0.0	2725.2	1420.0	2733.19	0.0	2733.72	44.62	6.25	350.86	212.59
	0.830	10.	0.0	0.0	2725.2	2170.0	2735.14	0.0	2735.44	23.20	5.44	1096.88	450.56
*	1.000	900.	0.0	0.0	2739.4	600.0	2743.47	2743.47	2745.03	311.90	10.03	59.83	33.97
*	1.000	900.	0.0	0.0	2739.4	1030.0	2744.90	2744.90	2746.99	297.23	11.59	88.90	59.74
*	1.000	900.	0.0	0.0	2739.4	1255.0	2745.99	2745.99	2747.77	203.07	10.84	142.96	88.07
*	1.000	900.	0.0	0.0	2739.4	1910.0	2747.71	2747.71	2749.00	128.24	10.14	393.77	168.66
	1.000	40.	0.0	0.0	2739.4	600.0	2744.66	0.0	2745.74	100.41	8.35	76.99	59.88
	1.000	40.	0.0	0.0	2739.4	1030.0	2746.22	2745.36	2747.69	100.22	10.09	161.12	102.89
	1.000	40.	0.0	0.0	2739.4	1255.0	2746.61	2746.49	2748.37	114.92	11.24	195.60	117.07
*	1.000	40.	0.0	0.0	2739.4	1910.0	2748.15	2748.15	2749.50	83.54	11.00	493.15	208.97
	1.000	12.	2745.0	2744.1	2739.4	600.0	2745.14	0.0	2746.02	73.11	7.58	86.79	70.17
	1.000	12.	2745.0	2744.1	2739.4	1030.0	2746.22	0.0	2747.69	100.24	10.09	161.09	102.38
*	1.000	12.	2745.0	2744.1	2739.4	1255.0	2746.61	0.0	2748.37	114.65	11.23	195.94	117.21
*	1.000	12.	2745.0	2744.1	2739.4	1910.0	2748.37	0.0	2749.50	70.23	10.27	544.22	227.92
	1.000	10.	0.0	0.0	2740.0	600.0	2745.58	0.0	2746.12	69.45	5.95	112.35	72.00
	1.000	10.	0.0	0.0	2740.0	1030.0	2747.31	0.0	2747.85	56.32	6.36	303.68	137.25
	1.000	10.	0.0	0.0	2740.0	1255.0	2748.17	0.0	2748.57	40.21	5.87	494.22	197.91
	1.000	10.	0.0	0.0	2740.0	1910.0	2749.17	0.0	2749.62	43.43	6.67	722.95	289.84
*	1.170	850.	0.0	0.0	2776.4	525.0	2779.49	2779.49	2780.64	359.86	8.59	61.14	27.68
*	1.170	850.	0.0	0.0	2776.4	895.0	2781.06	2781.06	2781.84	162.52	7.44	205.84	70.21
*	1.170	850.	0.0	0.0	2776.4	1090.0	2781.37	2781.37	2782.14	158.43	7.69	269.58	86.60
*	1.170	850.	0.0	0.0	2776.4	1650.0	2781.88	2781.88	2782.82	188.74	8.99	380.03	120.10

L03

L03

WHITEOAK CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	0.100	1005.	2674.0	0.0	0.0	0.0	73.19	0.0
	0.100	1740.	2675.3	1.3	0.0	0.0	81.13	0.0
	0.100	2130.	2675.9	0.6	0.0	0.0	84.63	0.0
	0.100	3285.	2677.3	1.4	0.0	0.0	728.97	0.0
	0.100	1005.	2674.5	0.0	0.5	0.0	34.00	100.00
	0.100	1740.	2675.6	1.1	0.3	0.0	34.00	100.00
	0.100	2130.	2676.0	0.4	0.1	0.0	34.00	100.00
	0.100	3285.	2677.8	1.7	0.5	0.0	1069.67	100.00
	0.100	1005.	2674.5	0.0	0.0	0.0	34.00	26.00
	0.100	1740.	2675.6	1.1	0.0	0.0	34.00	26.00
	0.100	2130.	2677.5	1.9	1.5	0.0	714.00	26.00
	0.100	3285.	2678.1	0.6	0.3	0.0	1071.10	26.00
	0.100	1005.	2675.4	0.0	0.9	0.0	81.43	25.00
	0.100	1740.	2677.2	1.8	1.6	0.0	728.72	25.00
	0.100	2130.	2678.0	0.8	0.5	0.0	1070.54	25.00
	0.100	3285.	2678.7	0.7	0.6	0.0	1073.59	25.00
*	0.330	900.	2684.5	0.0	9.1	0.0	54.90	1170.00
*	0.330	1560.	2685.6	1.1	8.4	0.0	76.16	1170.00
*	0.330	1905.	2686.2	0.6	8.2	0.0	138.05	1170.00
*	0.330	2935.	2687.7	1.5	9.0	0.0	337.89	1170.00
	0.500	825.	2701.2	0.0	16.7	0.0	54.93	870.00
*	0.500	1425.	2702.1	0.9	16.5	0.0	70.83	870.00
*	0.500	1740.	2702.6	0.5	16.4	0.0	102.04	870.00
*	0.500	2675.	2704.2	1.6	16.5	0.0	336.81	870.00
	0.740	715.	2717.4	0.0	16.2	0.0	65.44	1170.00
	0.740	1225.	2718.5	1.1	16.5	0.0	73.34	1170.00
	0.740	1500.	2718.9	0.4	16.3	0.0	76.05	1170.00
	0.740	2290.	2719.1	0.2	14.9	0.0	77.25	1170.00
	0.750	715.	2718.2	0.0	0.8	0.0	34.00	80.00
*	0.750	1225.	2719.2	1.0	0.6	0.0	34.00	80.00
*	0.750	1500.	2719.7	0.5	0.7	0.0	34.00	80.00
*	0.750	2290.	2720.9	1.2	1.8	0.0	34.00	80.00
	0.750	715.	2718.4	0.0	0.2	0.0	34.00	28.00
	0.750	1225.	2719.6	1.1	0.4	0.0	34.00	28.00
	0.750	1500.	2720.1	0.6	0.5	0.0	34.00	28.00
	0.750	2290.	2722.9	2.7	2.0	0.0	162.06	28.00
	0.750	715.	2719.4	0.0	0.9	0.0	69.37	20.00
	0.750	1225.	2720.9	1.5	1.3	0.0	79.98	20.00
	0.750	1500.	2721.6	0.7	1.5	0.0	86.99	20.00
	0.750	2290.	2723.3	1.6	0.4	0.0	208.13	20.00
*	0.820	680.	2728.2	0.0	8.8	0.0	25.98	350.00
*	0.820	1165.	2729.5	1.3	8.6	0.0	30.53	350.00

M03

0.0 32.54 350.00

*	0.820	1165.	2729.5	1.3	8.6	0.0	36.33	350.00

M03

*	0.820	1420.	2730.0	0.5	8.4	0.0	32.54	350.00
*	0.820	2170.	2731.7	1.7	8.5	0.0	96.21	350.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFXWS	TOPWID	XLCH
	0.830	680.	2729.1	0.0	0.9	0.0	15.00	40.00
	0.830	1165.	2730.3	1.3	0.8	0.0	32.65	40.00
*	0.830	1420.	2731.6	1.3	1.6	0.0	94.20	40.00
*	0.830	2170.	2733.0	1.3	1.2	0.0	100.78	40.00
	0.830	680.	2728.4	0.0	-0.7	0.0	15.00	12.00
*	0.830	1165.	2730.5	2.1	0.2	0.0	33.73	12.00
	0.830	1420.	2731.8	1.3	0.2	0.0	95.27	12.00
*	0.830	2170.	2733.1	1.3	0.2	0.0	113.19	12.00
	0.830	680.	2730.7	0.0	2.3	0.0	34.68	10.00
	0.830	1165.	2732.4	1.7	1.9	0.0	98.18	10.00
	0.830	1420.	2733.2	0.8	1.3	0.0	123.53	10.00
	0.830	2170.	2735.1	1.9	2.0	0.0	504.79	10.00
*	1.000	600.	2743.5	0.0	12.7	0.0	19.32	900.00
*	1.000	1030.	2744.9	1.4	12.5	0.0	21.39	900.00
*	1.000	1255.	2746.0	1.1	12.8	0.0	73.87	900.00
*	1.000	1910.	2747.7	1.7	12.6	0.0	221.83	900.00
	1.000	600.	2744.7	0.0	1.2	0.0	17.84	40.00
	1.000	1030.	2746.2	1.6	1.3	0.0	82.37	40.00
	1.000	1255.	2746.6	0.4	0.6	0.0	96.42	40.00
*	1.000	1910.	2748.2	1.5	0.4	0.0	225.21	40.00
	1.000	600.	2745.1	0.0	0.5	0.0	30.28	12.00
	1.000	1030.	2746.2	1.1	-0.0	0.0	82.36	12.00
*	1.000	1255.	2746.6	0.4	0.0	0.0	96.55	12.00
*	1.000	1910.	2748.4	1.8	0.2	0.0	226.92	12.00
	1.000	600.	2745.6	0.0	0.4	0.0	57.08	10.00
	1.000	1030.	2747.3	1.7	1.1	0.0	217.10	10.00
	1.000	1255.	2748.2	0.9	1.6	0.0	225.36	10.00
	1.000	1910.	2749.2	1.0	0.8	0.0	232.95	10.00
*	1.170	525.	2779.5	0.0	33.9	0.0	26.95	850.00
*	1.170	895.	2781.1	1.6	33.7	0.0	208.50	850.00
*	1.170	1090.	2781.4	0.3	33.2	0.0	212.47	850.00
*	1.170	1650.	2781.9	0.5	32.7	0.0	219.17	850.00

SUMMARY OF ERRORS

CAUTION SECNO= 0.330 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.330 PROFILE= 1
PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 0.330 PROFILE= 1
20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 0.330 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.330 PROFILE= 2
PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 0.330 PROFILE= 2
20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 0.330 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.330 PROFILE= 3

PROBABLE MINIMUM SPECIFIC ENERGY

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 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    0.330  PROFILE= 3
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    0.330  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    0.330  PROFILE= 4
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    0.330  PROFILE= 4
 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    0.500  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    0.500  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    0.500  PROFILE= 4  CRITICAL DEPTH ASSUMED

CAUTION  SECNO=    0.750  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    0.750  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    0.750  PROFILE= 4  CRITICAL DEPTH ASSUMED

CAUTION  SECNO=    0.820  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    0.820  PROFILE= 1
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    0.820  PROFILE= 1
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    0.820  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    0.820  PROFILE= 2
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    0.820  PROFILE= 2
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    0.820  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    0.820  PROFILE= 3
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    0.820  PROFILE= 3
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    0.820  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    0.820  PROFILE= 4
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    0.820  PROFILE= 4
 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    0.830  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    0.830  PROFILE= 4  CRITICAL DEPTH ASSUMED

CAUTION  SECNO=    0.830  PROFILE= 2  HYDRAULIC JUMP D.S.
CAUTION  SECNO=    0.830  PROFILE= 4  HYDRAULIC JUMP D.S.

CAUTION  SECNO=    1.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    1.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    1.000  PROFILE= 2
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    1.000  PROFILE= 2
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    1.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    1.000  PROFILE= 3
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    1.000  PROFILE= 3
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    1.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    1.000  PROFILE= 4
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    1.000  PROFILE= 4
 20 TRIALS ATTEMPTED TO BALANCE WSEL
```

20 TRIALS ATTEMPTED TO BALANCE WSEL

C04

CAUTION SECNO= 1.000 PROFILE= 4 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.000 PROFILE= 3 HYDRAULIC JUMP D.S.
CAUTION SECNO= 1.000 PROFILE= 4 HYDRAULIC JUMP D.S.

CAUTION SECNO= 1.170 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.170 PROFILE= 1
PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 1.170 PROFILE= 1
20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 1.170 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.170 PROFILE= 2
PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 1.170 PROFILE= 2
20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 1.170 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.170 PROFILE= 3
PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 1.170 PROFILE= 3
20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 1.170 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.170 PROFILE= 4
PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 1.170 PROFILE= 4
20 TRIALS ATTEMPTED TO BALANCE WSEL

D04

D04

WHITEOAK CREEK

YANCEY COUNTY NC FEMA ST

	500 YR FLOOD		100 YR FLOOD		50 YR FLOOD		10 YEAR FLOOD	
MILE	Q	ELEV	Q	ELEV	Q	ELEV	Q	ELEV
0.100	3285.	2677.3	2130.	2675.9	1740.	2675.3	1005.	2674.0
0.100	3285.	2678.7	2130.	2678.0	1740.	2677.2	1005.	2675.4
0.330	2935.	2687.7	1905.	2686.2	1560.	2685.6	900.	2684.5
0.500	2675.	2704.2	1740.	2702.6	1425.	2702.1	825.	2701.2
0.740	2290.	2719.1	1500.	2718.9	1225.	2718.5	715.	2717.4
0.750	2290.	2720.9	1500.	2719.7	1225.	2719.2	715.	2718.2
0.750	2290.	2723.3	1500.	2721.6	1225.	2720.9	715.	2719.4
0.820	2170.	2731.7	1420.	2730.0	1165.	2729.5	680.	2728.2
0.830	2170.	2733.0	1420.	2731.6	1165.	2730.3	680.	2729.1
0.830	2170.	2735.1	1420.	2733.2	1165.	2732.4	680.	2730.7
1.000	1910.	2747.7	1255.	2746.0	1030.	2744.9	600.	2743.5
1.000	1910.	2749.2	1255.	2748.2	1030.	2747.3	600.	2745.6
1.170	1650.	2781.9	1090.	2781.4	895.	2781.1	525.	2779.5

THIS RUN EXECUTED 02/28/81 11:50:43

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**********************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53,54
**********************************************************

T1      YANCEY COUNTY NC FEMA STUDY        RAM 1-30-81 WHIOAKF1                    5
T2      100 YR FLOOD                                                               10
T3      WHITEOAK CREEK                     100 YR FLOODWAY                         15

J1  ICHECK     INQ     NINV     IDIR     STRT  METRIC   HVINS      Q      WSEL     FQ
         0.      4.       0.       0. 0.00673       0.     0.0       0.     0.0     0.0     20

J2  NPROF   IPLOT   PRFVS   XSECV   XSECH      FN   ALLDC     IBW   CHNIM ITRACE
         0.      0.      -1.      0.      0.    0.0     0.0      0.      0.      0.     25

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     110.00     0.0  200.00     0.0     0.0     0.0     0.0     0.0     0.0     0.0     30

QT       5.  1005.  1740.  2130.  3285.  2130.      0.      0.      0.      0.     35
NC   0.150  0.150  0.055    0.1    0.5                                             40
ET       0.     0.     0.     0.     0.    7.11 2135.00 2230.00     0.0     0.0     45

X1    0.10     23.  2136.  2230.     0.     0.     0.     0.0     0.0      0.     50
GR 2690.0  1500.  2677.0  1500.  2677.1  2040.  2677.1  2060.  2677.2  2136.     55
GR 2671.3  2153.  2670.5  2175.  2669.9  2180.  2670.7  2208.  2672.7  2214.     60
GR 2677.6  2230.  2677.6  2330.  2677.6  2435.  2677.6  2530.  2677.6  2569.     65
GR 2680.2  2580.  2680.4  2590.  2682.8  2607.  2686.3  2700.  2688.5  2780.     70
GR 2687.6  2880.  2691.5  3000.  2700.0  3000.     0.0     0.     0.0     0.     75
NC     0.0     0.0   0.045     0.0     0.0                                       80
ET       0.     0.0     0.0     0.0     0.    7.11 2135.00 2230.00     0.0     0.0     85

X1    0.10     23.  2180.  2214.   100.   100.   100.     0.0     0.0      0.     90
X3      10.     0.0     0.0     0.     0.0     0.     0.0  2676.9  2677.5           95
GR 2690.0  1500.  2677.0  1500.  2677.1  2040.  2677.1  2060.  2677.2  2136.    100
GR 2671.3  2153.  2670.5  2175.  2669.9  2180.  2670.7  2208.  2672.7  2214.    105
GR 2677.6  2230.  2677.6  2330.  2677.6  2435.  2677.6  2530.  2677.6  2569.    110
GR 2680.2  2580.  2680.4  2590.  2682.8  2607.  2686.3  2700.  2688.5  2780.    115
GR 2687.6  2880.  2691.5  3000.  2700.0  3000.     0.0     0.     0.0     0.    120
SB    1.25    1.60    3.00     0.   34.00    0.01  245.00     0.0  2669.7  2669.7   125
ET       0.     0.0     0.0     0.     0.    7.11 2135.00 2230.00     0.0     0.0    130

X1    0.10      0.      0.      0.     26.     26.     26.     0.0     0.0      0.    135
X2       0.     0.0      1.  2676.9  2677.4     0.0     0.     0.0     0.0      0.    140
X3      10.     0.0     0.0     0.     0.0     0.     0.0  2677.4  2678.0           145
BT    17.0  1500.0  2690.0     0.0  1500.0  2677.4     0.0  1625.0  2677.4     0.0   150
BT  2115.0  2678.7     0.0  2174.0  2679.2     0.0  2174.0  2680.5     0.0  2215.0   155
BT  2680.8     0.0  2215.0  2679.5     0.0  2571.0  2678.0     0.0  2580.0  2680.2   160
BT     0.0  2590.0  2680.4     0.0  2607.0  2682.8     0.0  2700.0  2686.3     0.0   165
```

BT 0.0 2590.0 2680.4 0.0 2687.0 2682.0

BD1

BT	2780.0	2688.5	0.0	2880.0	2687.6	0.0	3000.0	2691.5	0.0	3000.0	170
BT	2700.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	175
NC	0.140	0.140	0.045	0.0	0.0						180
ET	0.	0.0	0.0	0.0	0.0	7.11	2135.00	2230.00	0.0	0.0	185
X1	0.10	23.	2136.	2230.	25.	25.	25.	0.0	0.0	0.	190
GR	2690.0	1500.	2677.0	1500.	2677.1	2040.	2677.1	2060.	2677.2	2136.	195
GR	2671.3	2153.	2670.5	2175.	2669.9	2180.	2670.7	2208.	2672.7	2214.	200
GR	2677.6	2230.	2677.6	2330.	2677.6	2435.	2677.6	2530.	2677.6	2569.	205
GR	2680.2	2580.	2680.4	2590.	2682.8	2607.	2686.3	2700.	2688.5	2780.	210
GR	2687.6	2880.	2691.5	3000.	2700.0	3000.	0.0	0.	0.0	0.	215
QT	5.	900.	1560.	1905.	2935.	1905.	0.	0.	0.	0.	220
ET	0.	0.0	0.0	0.0	0.0	7.11	615.00	655.00	0.0	0.0	225
X1	0.33	22.	615.	654.	1170.	1170.	1170.	0.0	-16.70	0.	230
GR	2718.5	0.	2715.4	75.	2711.5	195.	2710.0	250.	2708.0	312.	235
GR	2708.2	353.	2704.0	358.	2703.8	381.	2703.5	405.	2703.5	473.	240
GR	2702.4	523.	2703.4	567.	2701.5	615.	2698.3	620.	2698.1	630.	245
GR	2697.6	638.	2700.1	654.	2700.8	670.	2703.6	673.	2703.7	692.	250
GR	2715.7	750.	2718.5	757.	0.0	0.	0.0	0.	0.0	0.	255
QT	5.	825.	1425.	1740.	2675.	1740.	0.	0.	0.	0.	260
NC	0.130	0.135	0.045	0.0	0.0						265
ET	0.	0.0	0.0	0.0	0.0	7.11	615.00	655.00	0.0	0.0	270
X1	0.50	22.	615.	654.	870.	870.	870.	0.0	0.0	0.	275
GR	2718.5	0.	2715.4	75.	2711.5	195.	2710.0	250.	2708.0	312.	280
GR	2708.2	353.	2704.0	358.	2703.8	381.	2703.5	405.	2703.5	473.	285
GR	2702.4	523.	2703.4	567.	2701.5	615.	2698.3	620.	2698.1	630.	290
GR	2697.6	638.	2700.1	654.	2700.8	670.	2703.6	673.	2703.7	692.	295
GR	2715.7	750.	2718.5	757.	0.0	0.	0.0	0.	0.0	0.	300
QT	5.	715.	1225.	1500.	2290.	1500.	0.	0.	0.	0.	305
NC	0.120	0.130	0.055	0.0	0.8						310
ET	0.	0.0	0.0	0.0	0.0	7.11	315.00	395.00	0.0	0.0	315
X1	0.74	21.	317.	383.	1170.	1170.	1170.	0.0	-1.40	0.	320
GR	2735.8	0.	2725.0	105.	2724.5	115.	2722.5	300.	2721.5	317.	325
GR	2715.8	340.	2715.2	343.	2715.2	345.	2715.5	350.	2717.6	350.	330
GR	2717.5	353.	2714.7	362.	2714.7	365.	2715.5	367.	2716.0	374.	335
GR	2716.5	382.	2718.0	383.	2718.7	393.	2722.8	405.	2722.7	425.	340
GR	2738.0	700.	0.0	0.	0.0	0.	0.0	0.	0.0	0.	345
NC	0.0	0.0	0.045	0.0	0.5						350
ET	0.	0.0	0.0	0.0	0.0	7.11	315.00	395.00	0.0	0.0	355
X1	0.75	21.	340.	374.	80.	80.	80.	0.0	0.0	0.	360
X3	10.	0.0	0.0	0.	0.0	0.	0.0	2721.5	2722.2		365
GR	2735.8	0.	2725.0	105.	2724.5	115.	2722.5	300.	2721.5	317.	370
GR	2715.8	340.	2715.2	343.	2715.2	345.	2715.5	350.	2717.6	350.	375
GR	2717.5	353.	2714.7	362.	2714.7	365.	2715.5	367.	2716.0	374.	380
GR	2716.5	382.	2718.0	383.	2718.7	393.	2722.8	405.	2722.7	425.	385
GR	2738.0	700.	0.0	0.	0.0	0.	0.0	0.	0.0	0.	390
SB	1.25	1.60	3.00	0.	34.00	0.70	210.00	0.0	2714.7	2714.7	395
ET	0.	0.0	0.0	0.0	0.0	7.11	315.00	395.00	0.0	0.0	400
X1	0.75	0.	0.	0.	28.	28.	28.	0.0	0.0	0.	405

CD1

C01

X2	0.	0.0	1.	2721.0	2722.0	0.0	0.	0.0	0.0	0.	410
X3	10.	0.0	0.0	0.	0.0	0.	0.0	2722.0	2722.7		415
BT	12.0	0.0	2735.8	0.0	105.0	2725.0	0.0	115.0	2724.5	0.0	420
BT	300.0	2722.5	0.0	310.0	2722.0	0.0	345.0	2722.9	0.0	359.0	425
BT	2723.1	0.0	359.0	2724.5	0.0	400.0	2724.7	0.0	400.0	2723.3	430
BT	0.0	426.0	2722.7	0.0	700.0	2738.0	0.0	0.0	0.0	0.0	435
NC	0.140	0.140	0.050	0.0	0.0						440
ET	0.	0.0	0.0	0.0	0.0	7.11	315.00	395.00	0.0	0.0	445
X1	0.75	21.	317.	383.	20.	20.	20.	0.0	0.0	0.	450
GR	2735.8	0.	2725.0	105.	2724.5	115.	2722.5	300.	2721.5	317.	455
GR	2715.8	340.	2715.2	343.	2715.2	345.	2715.5	350.	2717.6	350.	460
GR	2717.5	353.	2714.7	362.	2714.7	365.	2715.5	367.	2716.0	374.	465
GR	2716.5	382.	2718.0	383.	2718.7	393.	2722.8	405.	2722.7	425.	470
GR	2738.0	700.	0.0	0.	0.0	0.	0.0	0.	0.0	0.	475
QT	5.	680.	1165.	1420.	2170.	1420.	0.	0.	0.	0.	480
NC	0.150	0.140	0.055	0.0	0.8						485
ET	0.	0.0	0.0	0.0	0.0	7.11	260.00	295.00	0.0	0.0	490
X1	0.82	27.	260.	293.	350.	350.	350.	0.0	-0.30	0.	495
GR	2745.8	0.	2736.0	130.	2734.4	195.	2734.0	250.	2730.0	260.	500
GR	2725.0	265.	2723.9	268.	2726.0	280.	2727.5	285.	2730.8	293.	505
GR	2730.8	305.	2730.8	325.	2730.8	326.	2730.8	348.	2733.6	355.	510
GR	2733.0	388.	2733.6	423.	2733.6	490.	2733.6	529.	2733.6	544.	515
GR	2733.6	552.	2733.6	578.	2733.6	597.	2733.6	645.	2735.1	669.	520
GR	2741.0	881.	2747.0	927.	0.0	0.	0.0	0.	0.0	0.	525
NC	0.0	0.0	0.045	0.0	0.8						530
ET	0.	0.0	0.0	0.0	0.0	7.11	260.00	295.00	0.0	0.0	535
X1	0.83	27.	265.	280.	40.	40.	40.	0.0	0.0	0.	540
X3	10.	0.0	0.0	0.	0.0	0.	0.0	2729.8	2729.6		545
GR	2745.8	0.	2736.0	130.	2734.4	195.	2734.0	250.	2730.0	260.	550
GR	2725.0	265.	2723.9	268.	2726.0	280.	2727.5	285.	2730.8	293.	555
GR	2730.8	305.	2730.8	325.	2730.8	326.	2730.8	348.	2733.6	355.	560
GR	2733.0	388.	2733.6	423.	2733.6	490.	2733.6	529.	2733.6	544.	565
GR	2733.6	552.	2733.6	578.	2733.6	597.	2733.6	645.	2735.1	669.	570
GR	2741.0	881.	2747.0	927.	0.0	0.	0.0	0.	0.0	0.	575
SB	1.25	1.60	3.00	0.	15.00	0.40	70.00	0.0	2723.9	2723.9	580
NC	0.0	0.0	0.0	0.0	0.5						585
ET	0.	0.0	0.0	0.0	0.0	7.11	260.00	295.00	0.0	0.0	590
X1	0.83	0.	0.	0.	12.	12.	12.	0.0	0.0	0.	595
X2	0.	0.0	1.	2728.7	2730.1	0.0	0.	0.0	0.0	0.	600
X3	10.	0.0	0.0	0.	0.0	0.	0.0	2730.3	2730.1		605
BT	24.0	0.0	2745.8	0.0	130.0	2736.0	0.0	195.0	2734.4	0.0	610
BT	250.0	2734.0	0.0	260.0	2730.3	0.0	291.0	2730.1	0.0	293.0	615
BT	2730.8	0.0	305.0	2730.8	0.0	325.0	2730.8	0.0	326.0	2730.8	620
BT	0.0	348.0	2730.8	0.0	355.0	2733.6	0.0	388.0	2733.0	0.0	625
BT	423.0	2733.6	0.0	490.0	2733.6	0.0	529.0	2733.6	0.0	544.0	630
BT	2733.6	0.0	552.0	2733.6	0.0	578.0	2733.6	0.0	597.0	2733.6	635
BT	0.0	645.0	2733.6	0.0	669.0	2735.1	0.0	881.0	2741.0	0.0	640
BT	927.0	2747.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	645
NC	0.120	0.140	0.050	0.0	0.0						650
ET	0.	0.0	0.0	0.0	0.0	7.11	260.00	295.00	0.0	0.0	655

D01

DD1

```
X1   0.83      26.     260.     293.      10.      10.      10.     0.0     0.0      0.    660
GR 2745.8       0.  2736.0     130.  2734.4     195.  2734.0     250.  2730.0     260.    665
GR 2726.0     265.  2725.2     268.  2727.5     285.  2730.8     293.  2730.8     305.    670
GR 2730.8     325.  2730.8     326.  2730.8     348.  2733.6     355.  2733.0     388.    675
GR 2733.6     423.  2733.6     490.  2733.6     529.  2733.6     544.  2733.6     552.    680
GR 2733.6     578.  2733.6     597.  2733.6     645.  2735.1     569.  2741.0     881.    685
GR 2747.0     927.     0.0       0.     0.0       0.     0.0       0.     0.0       0.    690
QT     5.     600.    1030.    1255.    1910.    1255.      0.       0.      0.       0.    695
NC 0.150   0.130   0.050      0.0      0.0                                                 700
ET     0.     0.0     0.0      0.0      0.0     7.11   125.00   150.00     0.0      0.0    705

X1   1.00      19.     127.     150.     900.     900.     900.     0.0     0.0      0.    710
GR 2760.5       0.  2747.4      34.  2746.7      50.  2746.0      75.  2745.5      95.    715
GR 2744.9     127.  2740.5     130.  2740.2     133.  2739.4     140.  2740.3     145.    720
GR 2747.2     150.  2746.7     250.  2751.3     273.  2751.3     305.  2752.3     307.    725
GR 2752.3     545.  2754.3     563.  2753.8     593.  2760.7     606.     0.0       0.    730
ET     0.     0.0     0.0      0.0      0.0     7.11   125.00   150.00     0.0      0.0    735

X1   1.00      19.     130.     145.      40.      40.      40.     0.0     0.0      0.    740
X3     10.     0.0     0.0       0.     0.0       0.     0.0  2744.5  2745.2               745
GR 2760.5       0.  2747.4      34.  2746.7      50.  2746.0      75.  2745.5      95.    750
GR 2744.9     127.  2740.5     130.  2740.2     133.  2739.4     140.  2740.3     145.    755
GR 2747.2     150.  2746.7     250.  2751.3     273.  2751.3     305.  2752.3     307.    760
GR 2752.3     545.  2754.3     563.  2753.8     593.  2760.7     606.     0.0       0.    765
SB   1.25    1.60    3.00       0.    15.00     0.70    67.00     0.0  2739.4  2739.4     770
ET     0.     0.0     0.0      0.0      0.0     7.11   125.00   150.00     0.0      0.0    775

X1   1.00       0.      0.       0.      12.      12.      12.     0.0     0.0      0.    780
X2     0.     0.0      1.  2744.1  2745.0      0.0       0.     0.0     0.0      0.    785
X3     10.     0.0     0.0       0.     0.0       0.     0.0  2745.0  2745.7               790
BT   17.0     0.0  2760.5      0.0     34.0  2747.4      0.0     50.0  2746.7      0.0    795
BT   75.0  2746.0     0.0     95.0  2745.5      0.0    123.0  2745.0     0.0    145.0    800
BT 2745.7     0.0   149.0  2745.7      0.0    150.0  2747.2      0.0   250.0  2746.7      805
BT    0.0   273.0  2751.3      0.0    306.0  2751.3      0.0    307.0  2752.3      0.0    810
BT  575.0  2752.3     0.0    563.0  2753.3      0.0    593.0  2753.8     0.0    606.0    815
BT 2760.7     0.0     0.0      0.0      0.0      0.0      0.0     0.0     0.0      0.0    820
NC 0.150   0.150   0.050      0.0      0.0                                                 825
ET     0.     0.0     0.0      0.0      0.0     7.11   125.00   150.00     0.0      0.0    830

X1   1.00      17.     127.     150.      10.      10.      10.     0.0     0.0      0.    835
GR 2760.5       0.  2747.4      34.  2746.7      50.  2746.0      75.  2745.5      95.    840
GR 2744.9     127.  2740.5     130.  2740.2     133.  2740.0     140.  2740.3     145.    845
GR 2747.2     150.  2746.7     250.  2751.3     273.  2751.3     305.  2752.3     307.    850
GR 2752.3     545.  2754.3     563.  2753.8     593.  2760.7     606.     0.0       0.    855
QT     5.     525.     895.    1090.    1650.    1090.      0.       0.      0.       0.    860
NC 0.140   0.150   0.055      0.0      0.0                                                 865
ET     0.     0.0     0.0      0.0      0.0     7.11   275.00   315.00     0.0      0.0    870

X1   1.17      14.     278.     312.     850.     850.     850.     0.0     0.0      0.    875
X3     10.     0.0     0.0       0.     0.0       0.     0.0     0.0     0.0               880
GR 2797.2       0.  2787.3      32.  2780.5     108.  2780.5     232.  2780.5     278.    885
GR 2776.9     286.  2776.5     290.  2776.4     295.  2776.8     302.  2782.0     312.    890
GR 2781.8     333.  2786.6     433.  2790.0     532.  2797.4     589.     0.0       0.    895
EJ                                                                                        900
```

EO1

EJ

E01

*PROF 1

CCHV= 0.100 CEHV= 0.500

*SECNO .100

2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

WHITEOAK CREEK 100 YR FLOOD 02/28/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.10	2130.	0.	2130.	0.	0.52	0	85.	
2675.89	0.0	0.	367.	0.	0.50	0	2677.20	
5.99	0.0	0.0	5.81	0.0	0.0	2676.41	2677.60	
0.006709	0.0	0.150	0.055	0.150	0.0	-0.00	2139.78	
	2669.90	0.	0.	0.	43.	41.	2224.41	0.

*SECNO .100

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2676.90 ELREA= 2677.50

0.10	2130.	0.	2130.	0.	2.02	2	34.
2676.03	0.0	0.	187.	0.	1.49	0	2669.90
6.13	0.0	0.0	11.40	0.0	0.89	2678.05	2672.70
0.012458	0.045	0.150	0.045	0.150	0.75	-0.00	2180.00
	2669.90	100.	100.	100.	17.	17.	2214.00 1.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	34.00	0.01	245.00	0.0
ELCHU	ELCHD							
2669.70	2669.70							

*SECNO .100

*** GR CARDS REPEATED

6870 D.S. ENERGY OF 2678.05 HIGHER THAN COMPUTED ENERGY OF 2677.72

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2677.72	2677.53	0.01	94.	2022.	245.	245.	2676.90

ELTRD
2677.40

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2677.40 ELREA= 2678.00

E01

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2677.40 ELREA= 2678.00

0.10	2130.	525.	1605.	0.	0.54	2	714.	
2677.51	0.0	525.	237.	0.	-1.48	0	2669.90	
7.61	0.0	1.00	6.77	0.0	0.0	2678.05	2672.70	
0.003203	0.044	0.150	0.045	0.150	0.0	-0.00	1500.00	
	2669.90	26.	26.	26.	697.	17.	2214.00	1.

*SECNO .100

0.10	2130.	185.	1923.	22.	0.17	2	1071.	
2677.96	0.0	574.	555.	124.	-0.37	0	2677.20	
8.06	0.0	0.32	3.47	0.18	0.04	2678.13	2677.60	
0.001064	0.044	0.140	0.045	0.140	0.04	-0.00	1500.00	
	2669.90	25.	25.	25.	683.	388.	2570.54	1.

*SECNO .330

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK			100 YR FLOOD		02/28/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

0.33	1905.	32.	1776.	97.	1.63	20	138.	
2686.21	2686.21	37.	167.	42.	1.46	14	2684.80	
5.31	0.0	0.88	10.60	2.32	2.93	2687.84	2683.40	
0.015355	0.045	0.140	0.045	0.140	0.73	-0.00	500.00	
	2680.90	1170.	1170.	1170.	135.	38.	672.26	22.

*SECNO .500

3265 DIVIDED FLOW

WHITEOAK CREEK			100 YR FLOOD		02/28/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

0.50	1740.	16.	1641.	83.	1.64	4	102.	
2702.59	2702.59	17.	155.	36.	0.01	11	2701.50	
4.99	0.0	0.92	10.56	2.31	13.96	2704.23	2700.10	
0.016850	0.045	0.130	0.045	0.135	0.00	-0.00	514.13	
	2697.60	870.	870.	870.	120.	37.	671.92	26.

CCHV= 0.100 CEHV= 0.800
*SECNO .740

3301 HV CHANGED MORE THAN HVINS

0.74	1500.	0.	1461.	39.	0.60	5	76.
2718.93	0.0	0.	233.	24.	-1.04	0	2720.10
5.63	0.0	0.0	6.28	1.66	15.19	2719.52	2716.60
0.009953	0.048	0.120	0.055	0.130	0.10	-0.00	321.72
	2713.30	1170.	1170.	1170.	28.	48.	397.77

32.

CCHV= 0.100 CEHV= 0.500
*SECNO .750

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK 100 YR FLOOD 02/28/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST

VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2721.50 ELREA= 2722.20

0.75	1500.	0.	1500.	0.	1.98	3	34.
2719.67	2719.67	0.	133.	0.	1.38	11	2715.80
4.97	0.0	0.0	11.28	0.0	1.12	2721.64	2716.00
0.021014	0.048	0.120	0.045	0.130	0.69	0.0	340.00
	2714.70	80.	80.	80.	17.	17.	374.00

33.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	34.00	0.70	210.00	0.0

ELCHU	ELCHD
2714.70	2714.70

*SECNO .750

**** GR CARDS REPEATED
CLASS A LOW FLOW

3420 BRIDGE W.S.= 2719.55 BRIDGE VELOCITY= 9.28
CALCULATED CHANNEL AREA= 162.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2720.94	2721.71	0.47	0.	1500.	210.	210.	2721.00

ELTRD
2722.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2722.00 ELREA= 2722.70

0.75	1500.	0.	1500.	0.	1.57	0	34.	
2720.14	0.0	0.	149.	0.	-0.40	0	2715.80	
5.44	0.0	0.0	10.07	0.0	0.07	2721.71	2716.00	
0.014390	0.048	0.120	0.045	0.130	0.0	0.0	340.00	
	2714.70	28.	28.	28.	17.	17.	374.00	33.

*SECNO .750

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK 100 YR FLOOD 02/28/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.75	1500.	0.	1447.	53.	0.31	3	87.	
2721.64	0.0	0.	316.	46.	-1.26	0	2721.50	
6.94	0.0	0.10	4.57	1.16	0.12	2721.96	2718.00	
0.003186	0.048	0.140	0.050	0.140	0.13	-0.00	314.61	
	2714.70	20.	20.	20.	35.	52.	401.61	33.

CCHV= 0.100 CEHV= 0.800
*SECNO .820

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK 100 YR FLOOD 02/28/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

0.82	1420.	0.	1420.	0.	2.07	20	33.	
2730.00	2730.00	0.	123.	0.	1.75	8	2729.70	
6.40	0.0	0.49	11.54	0.0	2.54	2732.07	2730.50	
0.034119	0.049	0.150	0.055	0.140	1.40	0.0	259.25	
	2723.60	350.	350.	350.	17.	15.	291.79	35.

CCHV= 0.100 CEHV= 0.800
*SECNO .830
WHITEOAK CREEK 100 YR FLOOD 02/28/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

0.83	1420.	46.	1216.	158.	1.90	2	94.	

				92.	-0.16	11	2725.00	

3720 CRITICAL DEPTH ASSUMED

0.83	1420.	46.	1216.	158.	1.90	2	94.

101

2731.64	2731.64	24.	102.	92.	-0.16	11	2725.00	
7.74	0.0	1.91	11.94	1.72	0.70	2733.54	2726.00	
0.010509	0.049	0.150	0.045	0.140	0.02	-0.00	255.90	
	2723.90	40.	40.	40.	17.	78.	350.10	35.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	15.00	0.40	70.00	0.0

ELCHU	ELCHD
2723.90	2723.90

CCHV= 0.100 CEHV= 0.500
*SECNO .830

*** GR CARDS REPEATED
6870 D.S. ENERGY OF 2733.54 HIGHER THAN COMPUTED ENERGY OF 2732.87
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2741.86	2733.94	0.39	940.	492.	70.	70.	2728.70

ELTRD
2730.10

0.83	1420.	47.	1195.	177.	1.70	4	95.	
2731.84	0.0	26.	105.	107.	-0.20	0	2725.00	
7.94	0.0	1.82	11.38	1.66	0.0	2733.54	2726.00	
0.009151	0.049	0.150	0.045	0.140	0.0	-0.00	255.36	
	2723.90	12.	12.	12.	17.	78.	350.64	35.

*SECNO .830

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

0.83	1420.	14.	1234.	173.	0.53	4	124.	
2733.19	0.0	13.	197.	141.	-1.17	0	2730.00	
7.99	0.0	1.08	6.25	1.23	0.06	2733.72	2730.80	
0.004462	0.049	0.120	0.050	0.140	0.12	-0.00	252.02	
	2725.20	10.	10.	10.	24.	123.	399.10	35.

*SECNO 1.000

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK			100 YR FLOOD		02/28/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

ELMIN XLOBL XLCH XLOBR WOBL

JO1

3685 2D TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.00	1255.	34.	1221.	0.	1.78	20	74.	
2745.99	2745.99	30.	113.	0.	1.25	11	2744.90	
6.59	0.0	1.11	10.84	0.0	7.12	2747.77	2747.20	
0.020307	0.049	0.150	0.050	0.130	0.62	-0.00	75.25	
	2739.40	900.	900.	900.	63.	11.	149.13	40.

*SECNO 1.000

1.00	1255.	101.	1127.	27.	1.76	4	96.	
2746.61	2746.49	81.	100.	14.	-0.01	9	2740.50	
7.21	0.0	1.25	11.24	1.85	0.60	2748.37	2740.30	
0.011492	0.049	0.150	0.050	0.130	0.00	-0.00	53.15	
	2739.40	40.	40.	40.	84.	12.	149.57	40.

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2744.47 ,NOT 2746.61
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	15.00	0.70	67.00	0.0

ELCHU	ELCHD
2739.40	2739.40

*SECNO 1.000

**** GR CARDS REPEATED
6870 D.S. ENERGY OF 2748.37 HIGHER THAN COMPUTED ENERGY OF 2747.49
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2755.32	2748.84	0.0	858.	400.	67.	67.	2744.10

ELTRD
2745.00

1.00	1255.	102.	1127.	27.	1.76	4	97.	
2746.61	0.0	81.	100.	14.	-0.00	0	2740.50	
7.21	0.0	1.25	11.23	1.85	0.0	2748.37	2740.30	
0.011465	0.049	0.150	0.050	0.130	0.0	-0.00	53.03	
	2739.40	12.	12.	12.	84.	12.	149.58	41.

*SECNO 1.000

3301 HV CHANGED MORE THAN HVINS

1.00	1255.	234.	931.	91.	0.40	5	225.	
2748.17	0.0	208.	159.	128.	-1.36	0	2744.90	
8.17	0.0	1.12	5.87	0.71	0.06	2748.57	2747.20	
0.004021	0.049	0.150	0.050	0.150	0.14	-0.00	32.00	
	2740.00	10.	10.	10.	107.	119.	257.36	41.

KD1

*SECNO 1.170

WHITEOAK CREEK		100 YR FLOOD		02/28/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST VOL
1.17	1090.	182.	908.	0.	0.77	20	212.
2781.37	2781.37	152.	118.	0.	0.37	22	2780.50
4.97	0.0	1.20	7.69	0.0	5.77	2782.14	2782.00
0.015843	0.050	0.140	0.055	0.150	0.18	-0.00	98.31
	2776.40	850.	850.	850.	197.	16.	310.78 48.

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2780.50 ELREA= 2782.00

L01

THIS RUN EXECUTED 02/28/81 11:50:54

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HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
ERROR CORR - 01,02,03
MODIFICATION - 50,51,52,53,54
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T1      YANCEY CO NC FEMA STUDY                                        905
T2      100 YR FLOODWAY                                                910
T3      WHITEOAK CREEK                                                 915

J1  ICHECK    INQ    NINV    IDIR    STRT  METRIC   HVINS    Q    WSEL    FQ
         0.     6.      0.      0. 0.0        0.     0.0    0. 2676.89   0.0  920

J2  NPROF   IPLOT   PRFVS   XSECV   XSECH     FN    ALLDC   IBW   CHNIM ITRACE
       15.     0.     -1.      0.      0.    0.0     0.0    0.     0.     0.  925
```

M01

```
*PROF 2

CCHV=    0.100 CEHV=    0.500
*SECNO .100
    WHITEOAK CREEK                         100 YR FLOODWAY       02/28/81
   MILE        Q          QLOB      QCH        QROB       HV         ITRIAL    TOPWID
   ELEV        CRIWS      ALOB      ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH       WSELK      VLOB      VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE       WTN        XNL       XNCH       XNR        OLOSS      CORAR      SSTA
               ELMIN      XLOBL     XLCH       XLOBR      WSDL       WSDR       ENDST        VOL


3470 ENCROACHMENT STATIONS=    2135.0    2230.0  TYPE=      1  TARGET=       95.000
     0.10      2130.        0.      2130.         0.       0.34         0        91.
  2676.89       0.0         0.       455.         0.       0.50         0   2677.20
     6.99   2675.89        0.0       4.68        0.0       0.0    2677.23 100000.00
 0.003610       0.0      0.150      0.055      0.150       0.0      -0.00   2136.89
            2669.90         0.         0.         0.       46.        45.   2227.68          0.

*SECNO .100

3470 ENCROACHMENT STATIONS=    2135.0    2230.0  TYPE=      1  TARGET=       95.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2676.90 ELREA=     2677.50

     0.10      2130.      444.      1686.         0.       0.72         2        78.
  2677.10       0.0       219.       223.         0.       0.38         0   2669.90
     7.20   2676.03       2.02       7.57        0.0       0.40   2677.81    2672.70
 0.004347     0.045      0.150      0.045      0.150       0.19     -0.00    2136.30
            2669.90       100.       100.       100.       61.        17.   2214.00          1.


SPECIAL BRIDGE

SB     HK         XKOR       COFQ      RDLEN       BWC        BWP        BAREA       SS
     1.25        1.60       3.00       0.0       34.00       0.01      245.00       0.0
   ELCHU      ELCHD
  2669.70    2669.70

*SECNO .100
     3700.    BRIDGE STENCL=    2135.00    STENCR=    2230.00

*** GR CARDS REPEATED
**ERROR** ELTRD.LT.MIN ROAD ELEV, ELTRD SET EQUAL TO MIN ROAD ELEV
PRESSURE AND WEIR FLOW

    EGPRS      EGLWC        H3      QWEIR        QPR       BAREA      TAREA      ELLC
  2678.97    2678.52      0.00        0.       2127.       245.       245.    2676.90

    ELTRD
  2678.87

*** NOTE: QWEIR IS GREATER THAN 0 AND ELEV IS LESS THAN ELTRD ***

3470 ENCROACHMENT STATIONS=    2135.0    2230.0  TYPE=      1  TARGET=       95.000
```

```
   0.10    2130.     455.    1623.     52.    0.43       2      95.
2678.54     0.0      284.     272.     54.   -0.29       0  2669.90
   8.64  2677.51     1.60     5.97    0.95    1.15 2678.97  2672.70
0.002072   0.044    0.150    0.045   0.150    0.0    -0.00  2135.00
         2669.90      26.      26.     26.     62.     33.  2230.00      1.

*SECNO .100

3470 ENCROACHMENT STATIONS=    2135.0   2230.0  TYPE=    1  TARGET=     95.000
   0.10    2130.       0.    2130.      0.    0.17       2      95.
2678.85     0.0        2.     638.      0.   -0.26       0  2677.20
   8.95  2677.96     0.22     3.34     0.0    0.03 2679.03 100000.00
0.000832   0.044    0.140    0.045   0.140    0.03   -0.00  2135.00
         2669.90      25.      25.     25.     48.     47.  2230.00      2.

*SECNO .330

3301 HV CHANGED MORE THAN HVINS

    WHITEOAK CREEK                 100 YR FLOODWAY    02/28/81
  MILE      Q        QLOB      QCH      QROB     HV      ITRIAL   TOPWID
  ELEV      CRIWS    ALOB      ACH      AROB     DHV     IDC      BANK ELEV
  DEPTH     WSELK    VLOB      VCH      VROB     HL      EG     LEFT/RIGHT
  SLOPE     WTN      XNL       XNCH     XNR      OLOSS   CORAR    SSTA
            ELMIN    XLOBL     XLCH     XLOBR    WSDL    WSDR     ENDST      VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     615.0    655.0  TYPE=    1  TARGET=     40.000
   0.33    1905.       0.    1902.      3.    2.10      20      40.
2686.10  2686.10       0.     164.      3.    1.92      11  2684.80
   5.20  2686.21     0.0     11.63    1.22    2.50 2688.20  2683.40
0.019899   0.045    0.140    0.045   0.140    0.96   -0.00   615.00
         2680.90    1170.    1170.   1170.     20.     20.   655.00     13.

*SECNO .500

3470 ENCROACHMENT STATIONS=     615.0    655.0  TYPE=    1  TARGET=     40.000
   0.50    1740.       0.    1737.      3.    1.82       4      40.
2702.73     0.0        0.     160.      3.   -0.28       0  2701.50
   5.13  2702.59     0.0     10.82    1.18   16.32 2704.55  2700.10
0.017621   0.045    0.130    0.045   0.135    0.03   -0.00   615.00
         2697.60     870.     870.    870.     20.     20.   655.00     16.

CCHV=   0.100 CEHV=   0.800
*SECNO .740

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     315.0    395.0  TYPE=    1  TARGET=     80.000
   0.74    1500.       0.    1460.     40.    0.57       3      74.
2719.02     0.0        0.     238.     23.   -1.25       0  2720.10
   5.72  2718.93     0.0      6.13    1.69   14.91 2719.59  2716.60
```

5.72 2718.93 0.0 0.15

B02

0.009259 0.048 0.120 0.055 0.130 0.12 -0.00 321.36
2713.30 1170. 1170. 1170. 29. 45. 395.00 22.

CCHV= 0.100 CEHV= 0.500
*SECNO .750

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK 100 YR FLOODWAY 02/28/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 315.0 395.0 TYPE= 1 TARGET= 80.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2721.50 ELREA= 2722.20

0.75 1500. 0. 1500. 0. 1.99 3 34.
2719.66 2719.66 0. 133. 0. 1.42 15 2715.80
4.96 2719.67 0.0 11.32 0.0 1.08 2721.64 2716.00
0.021247 0.048 0.120 0.045 0.130 0.71 0.0 340.00
2714.70 80. 80. 80. 17. 17. 374.00 22.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	34.00	0.70	210.00	0.0

ELCHU 2714.70 ELCHD 2714.70

*SECNO .750
3700. BRIDGE STENCL= 315.00 STENCR= 395.00

**** GR CARDS REPEATED
CLASS A LOW FLOW

3420 BRIDGE W.S.= 2719.54 BRIDGE VELOCITY=, 9.31
CALCULATED CHANNEL AREA=, 161.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2720.92	2721.71	0.48	0.	1500.	210.	210.	2721.00

ELTRD 2722.00

3470 ENCROACHMENT STATIONS= 315.0 395.0 TYPE= 1 TARGET= 80.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2722.00 ELREA= 2722.70

0.75 1500. 0. 1500. 0. 1.58 0 34.
2720.13 0.0 0. 149. 0. -0.41 0 2715.80

C02

2720.73 0.0

C02

5.43	2720.14	0.0	10.08	0.0	0.07	2721.71	2716.00
0.014457	0.048	0.120	0.045	0.130	0.0	0.0	340.00
	2714.70	28.	28.	28.	17.	17.	374.00 22.

*SECNO .750

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK			100 YR FLOODWAY		02/28/81		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST VOL

3470 ENCROACHMENT STATIONS= 315.0 395.0 TYPE= 1 TARGET= 80.000

0.75	1500.	0.	1453.	47.	0.32	3	80.
2721.64	0.0	0.	316.	38.	-1.26	0	2721.50
6.94	2721.64	0.11	4.60	1.24	0.12	2721.96	2718.00
0.003223	0.048	0.140	0.050	0.140	0.13	-0.00	315.00
	2714.70	20.	20.	20.	35.	45.	395.00 22.

CCHV= 0.100 CEHV= 0.800
*SECNO .820

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK			100 YR FLOODWAY		02/28/81		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST VOL

3685 20 TRIALS ATTEMPTED WSEL CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 260.0 295.0 TYPE= 1 TARGET= 35.000

0.82	1420.	0.	1420.	0.	2.00	20	32.
2730.06	2730.06	0.	125.	0.	1.69	11	2729.70
6.46	2730.00	0.0	11.36	0.0	2.55	2732.07	2730.50
0.033048	0.049	0.150	0.055	0.140	1.35	-0.00	260.00
	2723.60	350.	350.	350.	17.	15.	291.94 24.

CCHV= 0.100 CEHV= 0.800
*SECNO .830

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK			100 YR FLOODWAY		02/28/81		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=			260.0	295.0	TYPE=	1	TARGET=	35.000
	0.83	1420.	37.	1278.	105.	2.61	2	35.
	2731.10	2731.10	18.	94.	38.	0.61	8	2725.00
	7.20	2731.64	2.08	13.64	2.76	0.87	2733.71	2726.00
	0.015330	0.049	0.150	0.045	0.140	0.49	0.0	260.00
		2723.90	40.	40.	40.	13.	22.	295.00 24.

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2729.65 ,NOT 2731.10
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	15.00	0.40	70.00	0.0

ELCHU	ELCHD
2723.90	2723.90

CCHV= 0.100 CEHV= 0.500
*SECNO .830
3700. BRIDGE STENCL= 260.00 STENCR= 295.00

**** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2741.32	2734.36	0.0	697.	729.	70.	70.	2728.70

ELTRD
2730.10

3470 ENCROACHMENT STATIONS=			260.0	295.0	TYPE=	1	TARGET=	35.000
	0.83	1420.	39.	1261.	120.	2.06	4	35.
	2731.73	0.0	21.	103.	48.	-0.55	0	2725.00
	7.83	2731.84	1.84	12.19	2.53	0.09	2733.79	2726.00
	0.010743	0.049	0.150	0.045	0.140	0.0	-0.00	260.00
		2723.90	12.	12.	12.	13.	22.	295.00 24.

*SECNO .830
3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=			260.0	295.0	TYPE=	1	TARGET=	35.000
	0.83	1420.	0.	1416.	4.	0.79	4	35.
	2733.21	0.0	0.	198.	5.	-1.27	0	2730.00
	8.01	2733.19	0.0	7.15	0.91	0.08	2734.00	2730.80
	0.006529	0.049	0.120	0.050	0.140	0.13	-0.00	260.00
		2725.20	10.	10.	10.	17.	18.	295.00 24.

0.000529	0.049							
	2725.20	10.	10.	10.	17.	18.	295.00	24.

EQ2

*SECNO 1.000

3301 HV CHANGED MORE THAN HVINS

WHITEOAK CREEK 100 YR FLOODWAY 02/28/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
3470 ENCROACHMENT STATIONS=			125.0	150.0	TYPE= 1	TARGET=	25.000	
1.00	1255.	1.	1254.	0.	2.34	12	24.	
2745.51	2745.51	1.	102.	0.	1.55	15	2744.90	
6.11	2745.99	1.01	12.28	0.0	10.33	2747.85	100000.00	
0.028827	0.049	0.150	0.050	0.130	0.77	-0.00	125.00	
	2739.40	900.	900.	900.	14.	10.	148.78	27.

*SECNO 1.000

3470 ENCROACHMENT STATIONS=			125.0	150.0	TYPE= 1	TARGET=	25.000	
1.00	1255.	24.	1204.	27.	2.34	3	24.	
2746.33	0.0	14.	96.	13.	0.00	0	2740.50	
6.93	2746.61	1.78	12.54	2.06	0.82	2748.67	2740.30	
0.015171	0.049	0.150	0.050	0.130	0.00	-0.00	125.00	
	2739.40	40.	40.	40.	13.	12.	149.36	27.

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2744.47 NOT 2746.33
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	15.00	0.70	67.00	0.0
ELCHU	ELCHD							
2739.40	2739.40							

*SECNO 1.000
3700. BRIDGE STENCL= 125.00 STENCR= 150.00

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2755.04	2749.42	0.0	536.	720.	67.	67.	2744.10

ELTRD
2745.00

```
3470 ENCROACHMENT STATIONS=      125.0     150.0  TYPE=      1  TARGET=       25.000
     1.00      1255.       31.      1190.       33.      1.56         3          25.
  2747.64       0.0       20.       116.       19.     -0.78         0     2740.50
     8.24    2746.61      1.54     10.28      1.71      0.53   2749.20     2740.30
 0.007942      0.049     0.150     0.050     0.130       0.0     -0.00      125.00
               2739.40       12.       12.       12.       13.       12.     150.00       28.

*SECNO 1.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      125.0     150.0  TYPE=      1  TARGET=       25.000
     1.00      1255.        7.      1248.        0.      0.88         3          25.
  2748.45       0.0        7.       165.        0.     -0.68         0     2744.90
     8.45    2748.17      0.96      7.56       0.0      0.07   2749.34   100000.00
 0.006706      0.049     0.150     0.050     0.150      0.07     -0.00      125.00
               2740.00       10.       10.       10.       14.       11.     150.00       28.

*SECNO 1.170

3301 HV CHANGED MORE THAN HVINS

    WHITEOAK CREEK                  100 YR FLOODWAY      02/28/81
  MILE        Q          QLOB        QCH         QROB        HV          ITRIAL      TOPWID
  ELEV        CRIWS      ALOB        ACH         AROB        DHV         IDC         BANK ELEV
  DEPTH       WSELK      VLOB        VCH         VROB        HL          EG       LEFT/RIGHT
  SLOPE       WTN        XNL         XNCH        XNR         OLOSS       CORAR       SSTA
              ELMIN      XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      275.0     315.0  TYPE=      1  TARGET=       40.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2780.50 ELREA=     2782.00

     1.17      1090.        2.      1088.        0.      1.64        20          35.
  2780.99    2780.99        1.       106.        0.      0.76        11     2780.50
     4.59    2781.37      1.06     10.30       0.0     10.18   2782.63     2782.00
 0.031851      0.050     0.140     0.055     0.150      0.38     -0.00      275.00
               2776.40       850.      850.      850.       20.       15.     310.05       30.
```

G02

THIS RUN EXECUTED 02/28/81 11:51:01

****
HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
ERROR CORR - 01,02,03
MODIFICATION - 50,51,52,53,54
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER
INDICATES MESSAGE IN SUMMARY OF ERRORS LIST/

WHITEOAK CREEK

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	PERENC	STENCL	STENCR	STCHL	STCHR	QLOB	QCH	QROB
	0.100	2675.89	0.0	2676.41	85.	0.	0.	0.	2136.	2230.	0.	2130.	0.
	0.100	2676.89	1.00	2677.23	91.	95.	2135.	2230.	2136.	2230.	0.	2130.	0.
	0.100	2676.03	0.0	2678.05	34.	0.	0.	0.	2180.	2214.	0.	2130.	0.
	0.100	2677.10	1.06	2677.81	78.	95.	2135.	2230.	2180.	2214.	444.	1686.	0.
	0.100	2677.51	0.0	2678.05	714.	0.	0.	0.	2180.	2214.	525.	1605.	0.
	0.100	2678.54	1.03	2678.97	95.	95.	2135.	2230.	2180.	2214.	455.	1623.	52.
	0.100	2677.96	0.0	2678.13	1071.	0.	0.	0.	2136.	2230.	185.	1923.	22.
	0.100	2678.85	0.89	2679.03	95.	95.	2135.	2230.	2136.	2230.	0.	2130.	0.
*	0.330	2686.21	0.0	2687.84	138.	0.	0.	0.	615.	654.	32.	1776.	97.
*	0.330	2686.10	-0.10	2688.20	40.	40.	615.	655.	615.	654.	0.	1902.	3.
*	0.500	2702.59	0.0	2704.23	102.	0.	0.	0.	615.	654.	16.	1641.	83.
	0.500	2702.73	0.14	2704.55	40.	40.	615.	655.	615.	654.	0.	1737.	3.
	0.740	2718.93	0.0	2719.52	76.	0.	0.	0.	317.	383.	0.	1461.	39.
	0.740	2719.02	0.09	2719.59	74.	80.	315.	395.	317.	383.	0.	1460.	40.
*	0.750	2719.67	0.0	2721.64	34.	0.	0.	0.	340.	374.	0.	1500.	0.
*	0.750	2719.66	-0.01	2721.64	34.	80.	315.	395.	340.	374.	0.	1500.	0.
	0.750	2720.14	0.0	2721.71	34.	0.	0.	0.	340.	374.	0.	1500.	0.
	0.750	2720.13	-0.01	2721.71	34.	80.	315.	395.	340.	374.	0.	1500.	0.
	0.750	2721.64	0.0	2721.96	87.	0.	0.	0.	317.	383.	0.	1447.	53.
	0.750	2721.64	-0.00	2721.96	80.	80.	315.	395.	317.	383.	0.	1453.	47.
*	0.820	2730.00	0.0	2732.07	33.	0.	0.	0.	260.	293.	0.	1420.	0.
*	0.820	2730.06	0.06	2732.07	32.	35.	260.	295.	260.	293.	0.	1420.	0.
*	0.830	2731.64	0.0	2733.54	94.	0.	0.	0.	265.	280.	46.	1216.	158.
*	0.830	2731.10	-0.54	2733.71	35.	35.	260.	295.	265.	280.	37.	1278.	105.
	0.830	2731.84	0.0	2733.54	95.	0.	0.	0.	265.	280.	47.	1195.	177.
*	0.830	2731.73	-0.11	2733.79	35.	35.	260.	295.	265.	280.	39.	1261.	120.

H02

HD2

	SECNO	CWSEL	DIFKWS	EG	TOPWID	PERENC	STENCL	STENCR	STCHL	STCHR	QLOB	QCH	QROB
	0.830	2733.19	0.0	2733.72	124.	0.	0.	0.	260.	293.	14.	1234.	173.
	0.830	2733.21	0.02	2734.00	35.	35.	260.	295.	260.	293.	0.	1416.	4.
*	1.000	2745.99	0.0	2747.77	74.	0.	0.	0.	127.	150.	34.	1221.	0.
*	1.000	2745.51	-0.48	2747.85	24.	25.	125.	150.	127.	150.	1.	1254.	0.
	1.000	2746.61	0.0	2748.37	96.	0.	0.	0.	130.	145.	101.	1127.	27.
	1.000	2746.33	-0.28	2748.67	24.	25.	125.	150.	130.	145.	24.	1204.	27.
*	1.000	2746.61	0.0	2748.37	97.	0.	0.	0.	130.	145.	102.	1127.	27.
*	1.000	2747.64	1.03	2749.20	25.	25.	125.	150.	130.	145.	31.	1190.	33.
	1.000	2748.17	0.0	2748.57	225.	0.	0.	0.	127.	150.	234.	931.	91.
	1.000	2748.45	0.28	2749.34	25.	25.	125.	150.	127.	150.	7.	1248.	0.
*	1.170	2781.37	0.0	2782.14	212.	0.	0.	0.	278.	312.	182.	908.	0.
*	1.170	2780.99	-0.38	2782.63	35.	40.	275.	315.	278.	312.	2.	1088.	0.

SUMMARY OF ERRORS

CAUTION SECNO= 0.330 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.330 PROFILE= 1
PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 0.330 PROFILE= 1
20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 0.330 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.330 PROFILE= 2
PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 0.330 PROFILE= 2
20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 0.500 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 0.750 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.750 PROFILE= 2 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 0.820 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.820 PROFILE= 1
PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 0.820 PROFILE= 1
20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 0.820 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.820 PROFILE= 2
PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 0.820 PROFILE= 2
20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 0.830 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.830 PROFILE= 2 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 0.830 PROFILE= 2 HYDRAULIC JUMP D.S.

CAUTION SECNO= 1.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 1

CAUTION SECNO= 1.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 1

PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 1.000 PROFILE= 1
20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 1.000 PROFILE= 2 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 1.000 PROFILE= 1 HYDRAULIC JUMP D.S.
CAUTION SECNO= 1.000 PROFILE= 2 HYDRAULIC JUMP D.S.

CAUTION SECNO= 1.170 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.170 PROFILE= 1
PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 1.170 PROFILE= 1
20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 1.170 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.170 PROFILE= 2
PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 1.170 PROFILE= 2
20 TRIALS ATTEMPTED TO BALANCE WSEL

FLOODWAY DATA, WHITEOAK CREEK
PROFILE NO. 2

STATION	FLOODWAY WIDTH (FT)	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
0.100	95.	455.	4.7	2676.9	2675.9	1.0
0.100	95.	442.	4.8	2677.1	2676.0	1.1
0.100	95.	610.	3.5	2678.5	2677.5	1.0
0.100	95.	640.	3.3	2678.9	2678.0	0.9
0.330	40.	166.	11.5	2686.2	2686.2	0.0
0.500	40.	163.	10.7	2702.7	2702.6	0.1
0.740	80.	262.	5.7	2719.0	2718.9	0.1
0.750	80.	133.	11.3	2719.7	2719.7	0.0
0.750	80.	149.	10.1	2720.1	2720.1	0.0
0.750	80.	354.	4.2	2721.6	2721.6	0.0
0.820	35.	125.	11.4	2730.1	2730.0	0.1
0.830	35.	150.	9.5	2731.6	2731.6	0.0
0.830	35.	172.	8.2	2731.8	2731.8	0.0
0.830	35.	203.	7.0	2733.2	2733.2	0.0
1.000	25.	103.	12.1	2746.0	2746.0	0.0
1.000	25.	123.	10.2	2746.6	2746.6	0.0
1.000	25.	156.	8.1	2747.6	2746.6	1.0
1.000	25.	172.	7.3	2748.5	2748.2	0.3
1.170	40.	107.	10.2	2781.4	2781.4	0.0

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