

\*\*\*\*\*  
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977  
 ERROR CORR - 01  
 MODIFICATION - 50,51,52  
 \*\*\*\*\*

T1 SALISBURY-ROWAN CO. STREAM 115AL THOMAS STREET CREEK  
 T2 FLOODPLAIN STUDY AT ROWAN & DAVIDSON COUNTIES M-S JOB NO. 6918  
 T3 10 YEAR FLOOD WATER SURFACE PROFILE

J1 ICHECK INO MINV INIR STRT METRIC HVINS Q WSLR EQ  
 -1. 2. 0. 0. 0.013000 0.0 0.0 0. 700.300 0.0

J2 NPROF IPLOT PRFVS XSECV XSECH FN ALLDC IBW CHNIM ITRACE  
 0.0 0.0 -1.000 0.0 0.0 0.0 0.0 0.0 0.0 0.0

J3 VARIABLE CODES FOR SUMMARY PRINTOUT  
 38.000 39.000 40.000 41.000 43.000 42.000 1.000 2.000 26.000 53.000

54.000 25.000 50.000 0.0 201.000 0.0 0.0 0.0 0.0 0.0

J5 LPRNT NUMSEC \*\*\*\*\*REQUESTED SECTION NUMBERS\*\*\*\*\*

-10.000 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0  
 NC 0.055 0.055 0.055 0.100 0.300 0.0 0.0 0.0 0.0  
 OT 5.000 221.000 428.000 543.000 631.000 543.000 0.0 0.0 0.0  
 ET 5.000 0.0 0.0 0.0 0.0 0.0 -10.400 0.0 0.0 0.0

X1 545.000 21.000 1809.000 1834.000 585.000 585.000 585.000 0.0 0.0 0.0  
 GR 718.200 1000.000 714.600 1100.000 713.800 1200.000 711.000 1300.000 708.900 1400.000  
 GR 707.500 1500.000 707.500 1600.000 703.400 1700.000 702.200 1800.000 702.500 1809.000  
 GR 696.200 1815.000 695.300 1821.000 695.300 1827.000 703.100 1834.000 703.200 1900.000  
 GR 702.900 1954.000 709.800 1988.000 709.900 2000.000 713.000 2100.000 714.500 2200.000  
 GR 717.600 2300.000 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

X1 635.000 0.0 0.0 0.0 50.000 50.000 50.000 0.0 0.800 0.0  
 NC 0.025 0.025 0.025 0.100 0.300 0.0 0.0 0.0 0.0 0.0

X1 645.000 41.000 3096.500 3103.500 50.000 50.000 50.000 0.0 0.0 0.0  
 GR 722.000 1000.000 721.300 1100.000 720.200 1200.000 717.800 1300.000 714.900 1400.000  
 GR 713.200 1500.000 712.800 1600.000 712.300 1700.000 711.200 1800.000 710.400 1900.000  
 GR 709.700 2000.000 709.800 2100.000 710.900 2200.000 712.000 2300.000 712.100 2400.000  
 GR 711.300 2500.000 709.500 2600.000 709.500 2700.000 708.700 2800.000 707.900 2900.000  
 GR 707.100 3000.000 707.000 3068.000 705.600 3082.000 700.800 3096.500 699.000 3097.000  
 GR 697.900 3098.000 697.500 3099.000 697.300 3100.000 697.500 3101.000 697.900 3102.000  
 GR 699.000 3103.000 700.800 3103.500 705.700 3119.000 706.000 3121.000 709.100 3200.000  
 GR 711.500 3300.000 713.700 3400.000 716.000 3500.000 718.200 3600.000 721.000 3700.000  
 GR 722.500 3788.000 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0  
 SB 0.900 1.500 2.500 0.0 7.000 0.010 38.500 0.0 0.0 0.0

X1	766.000	0.0	0.0	0.0	81.000	81.000	81.000	0.0	0.0	0.0
X2	0.0	0.0	1.000	704.300	707.000	0.0	0.0	0.0	0.0	0.0
BT	37.000	1000.000	722.000	0.0	1100.000	721.300	0.0	1200.000	720.200	0.0
BT	1300.500	717.800	0.0	1400.000	714.900	0.0	1500.000	713.200	0.0	1600.000
BT	712.800	0.0	1700.000	712.300	0.0	1800.000	711.500	0.0	1900.000	710.400
BT	0.0	2000.000	709.700	0.0	2100.000	709.800	0.0	2200.000	710.900	0.0
BT	2300.000	712.000	0.0	2400.000	712.100	0.0	2500.000	711.300	0.0	2600.000
BT	709.500	0.0	2700.000	709.500	0.0	2800.000	708.700	0.0	2900.000	707.900
BT	0.0	3000.000	707.100	0.0	3096.500	707.000	700.800	3097.000	707.000	702.600
BT	3098.000	707.000	703.700	3099.000	707.000	704.100	3100.000	707.100	704.300	3101.000
BT	707.000	704.100	3102.500	707.000	703.700	3103.000	707.000	702.600	3103.500	707.000
BT	700.800	3200.000	709.100	0.0	3300.000	711.500	0.0	3400.000	713.700	0.0
BT	3500.000	716.000	0.0	3600.000	718.200	0.0	3700.000	721.000	0.0	3798.000
BT	722.500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.055	0.055	0.035	0.100	0.300	0.0	0.0	0.0	0.0	0.0

X1	816.000	17.000	1461.000	1498.000	50.000	50.000	50.000	0.0	-1.000	0.0
GR	720.800	1400.000	715.300	1100.000	710.200	1200.000	710.000	1300.000	709.800	1400.000
GR	709.200	1444.000	707.300	1461.000	699.100	1477.000	699.000	1479.000	699.000	1484.000
GR	707.400	1498.000	707.700	1500.000	711.400	1600.000	714.400	1700.000	717.600	1800.000
GR	721.300	1900.000	724.200	2000.000	0.0	0.0	0.0	0.0	0.0	0.0

X1	891.000	0.0	0.0	0.0	75.000	75.000	75.000	0.0	1.000	0.0
BT	5.000	220.000	427.000	540.000	825.000	540.000	0.0	0.0	0.0	0.0

X1	1030.000	18.000	1697.000	1704.000	139.000	139.000	139.000	0.0	-2.900	0.0
GR	725.000	1000.000	722.900	1100.000	718.700	1200.000	716.300	1300.000	717.400	1400.000
GR	716.900	1500.000	715.100	1600.000	712.900	1681.000	704.400	1697.000	703.300	1698.000
GR	703.200	1700.000	703.300	1703.000	703.800	1704.000	712.500	1724.000	712.800	1800.000
GR	715.400	1900.000	720.400	2000.000	725.500	2093.000	0.0	0.0	0.0	0.0
NC	0.025	0.025	0.025	0.100	0.300	0.0	0.0	0.0	0.0	0.0

X1	1030.000	0.0	0.0	0.0	50.000	50.000	50.000	0.0	0.600	0.0
----	----------	-----	-----	-----	--------	--------	--------	-----	-------	-----

X1	1130.000	22.000	1696.500	1703.500	50.000	50.000	50.000	0.0	0.0	0.0
GR	725.300	1000.000	721.700	1100.000	717.700	1200.000	715.700	1300.000	716.000	1400.000
GR	715.600	1500.000	713.900	1600.000	711.700	1681.000	705.500	1696.500	703.700	1697.000
GR	702.600	1698.000	702.100	1699.000	702.000	1700.000	702.100	1701.000	702.600	1702.000
GR	703.700	1703.000	705.500	1703.500	711.300	1724.000	711.600	1800.000	714.300	1900.000
GR	719.600	2000.000	725.500	2100.000	0.0	0.0	0.0	0.0	0.0	0.0
GR	0.900	1.500	2.500	0.0	7.000	0.010	30.500	0.0	0.0	0.0

X1	1130.000	0.0	0.0	0.0	50.000	50.000	50.000	0.0	0.0	0.0
X2	0.0	0.0	1.000	709.000	711.800	0.0	0.0	0.0	0.0	0.0
BT	20.000	1000.000	725.300	0.0	1100.000	721.700	0.0	1200.000	717.700	0.0
BT	1300.000	715.700	0.0	1400.000	716.000	0.0	1500.000	715.600	0.0	1600.000
BT	714.300	0.0	1696.500	711.900	705.500	1697.000	711.900	707.300	1692.000	711.900
BT	700.400	1699.000	711.900	708.900	1700.000	711.900	709.000	1701.000	711.900	708.900
BT	1702.000	711.900	708.400	1703.000	711.900	707.300	1703.500	711.900	705.500	1800.000
BT	711.800	0.0	1900.000	714.300	0.0	2000.000	719.600	0.0	2100.000	725.500
BT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.055	0.055	0.035	0.100	0.300	0.0	0.0	0.0	0.0	0.0

X1	1230.000	18.000	1697.000	1704.000	50.000	50.000	50.000	0.0	-0.800	0.0
GR	725.000	1000.000	722.900	1100.000	718.700	1200.000	716.300	1300.000	717.400	1400.000
GR	716.900	1500.000	715.100	1600.000	712.900	1681.000	704.400	1697.000	703.300	1698.000
GR	703.200	1700.000	703.300	1703.000	703.800	1704.000	712.500	1724.000	712.800	1800.000
GR	715.400	1900.000	720.400	2000.000	725.500	2093.000	0.0	0.0	0.0	0.0



\*\*\*\*\*  
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977  
 ERROR CORR - 01  
 MODIFICATION - 50,51,52  
 \*\*\*\*\*

T1 SALISBURY-ROWAN CO. STREAM 11SAL  
 T2 FLOODPLAIN STUDY AT ROWAN & DAVIDSON COUNTIES M-6 JOB NO. 6918  
 T3 100 YEAR FLOOD WATER SURFACE PROFILE

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	4.	0.	0.	0.013000	0.0	0.0	0.	703.300	0.0

J2	NPROF	IPLOT	PREVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	15.000	0.0	-1.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MADE IN U.S.A.

0000  
1111

0000  
0000

0000  
1111

0000  
1111

\*\*\*\*\*  
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977  
 ERROR CORR - 01  
 MODIFICATION - 50.51.52  
 \*\*\*\*\*

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

10 YEAR FLOOD WATER SURF

SUMMARY PRINTOUT

	SECTNO	XLCM	ELTRD	ELLC	Q	ELMIN	CWSEL	CRINS	VCH	SSTA	ENDST	AREA	DIFWSP
A	585.000	585.00	0.0	0.0	221.00	695.30	697.89	0.0	7.15	1814.12	1829.33	30.91	0.0
	585.000	585.00	0.0	0.0	543.00	695.30	699.52	0.0	9.31	1812.31	1830.79	38.30	1.63
	635.000	50.00	0.0	0.0	221.00	696.10	698.51	698.51	7.83	1814.32	1829.17	28.21	0.0
*	635.000	50.00	0.0	0.0	543.00	696.10	700.14	700.14	9.88	1812.51	1830.62	54.96	1.62
* B	685.000	50.00	0.0	0.0	221.00	697.30	701.50	701.50	9.23	3094.38	3105.72	25.03	0.0
*	685.000	50.00	0.0	0.0	543.00	697.30	703.74	703.74	10.18	3087.63	3112.79	65.82	2.23
C	765.000	81.00	707.00	704.30	221.00	697.30	701.31	0.0	9.19	3094.35	3105.76	25.16	0.0
	765.000	81.00	707.00	704.30	543.00	697.30	707.31	0.0	3.20	2974.25	3154.28	245.31	5.79
	816.000	50.00	0.0	0.0	221.00	698.00	702.91	0.0	2.87	1467.61	1492.19	76.96	0.0
	816.000	50.00	0.0	0.0	543.00	698.00	707.32	0.0	2.47	1451.85	1516.60	230.24	4.41
D	891.000	75.00	0.0	0.0	221.00	699.00	702.95	0.0	4.01	1469.44	1490.59	55.14	0.0
	891.000	75.00	0.0	0.0	543.00	699.00	707.33	0.0	2.98	1460.67	1497.89	182.35	4.37
* E	1030.000	139.00	0.0	0.0	220.00	700.30	703.43	703.43	9.02	1693.35	1709.82	31.58	0.0
	1030.000	139.00	0.0	0.0	540.00	700.30	707.21	0.0	7.16	1686.25	1718.50	123.67	3.78
	1080.000	50.00	0.0	0.0	220.00	700.90	703.90	703.90	8.52	1693.45	1709.70	30.63	0.0
	1080.000	50.00	0.0	0.0	540.00	700.90	707.37	0.0	6.58	1687.07	1717.50	109.88	3.40
*	1130.000	50.00	0.0	0.0	220.00	702.00	706.14	706.14	9.32	1694.90	1705.76	24.51	0.0
*	1130.000	50.00	0.0	0.0	540.00	702.00	708.37	708.37	10.39	1689.33	1713.64	63.72	2.23
	1180.000	50.00	711.80	709.00	220.00	702.00	706.15	0.0	9.28	1694.87	1705.80	24.64	0.0
	1180.000	50.00	711.80	709.00	540.00	702.00	712.07	0.0	3.27	1667.43	1817.35	247.35	5.92
	1230.000	50.00	0.0	0.0	220.00	702.40	707.48	0.0	4.61	1689.69	1714.30	71.61	0.0
	1230.000	50.00	0.0	0.0	540.00	702.40	712.04	0.0	4.20	1681.10	1801.75	242.19	4.56
F	1305.000	75.00	0.0	0.0	220.00	703.20	707.53	0.0	5.78	1691.10	1712.58	54.37	0.0
	1305.000	75.00	0.0	0.0	540.00	703.20	712.05	0.0	4.88	1682.61	1722.96	193.90	4.52
* G	2215.000	910.00	0.0	0.0	209.00	711.30	713.57	713.57	7.42	1334.59	1351.26	28.15	0.0
*	2215.000	910.00	0.0	0.0	510.00	711.30	715.00	715.00	9.27	1333.67	1354.52	55.04	1.43

SECNO	VLCH	ELYRD	ELLCL	O	ELMIN	CMSEL	CRIMS	VCH	SJTA	ENDST	AREA	DIFWSP
* 2265.000	50.00	0.0	0.0	209.00	712.50	714.77	714.77	7.41	1334.59	1351.26	28.19	0.0
* 2265.000	50.00	0.0	0.0	510.00	712.50	716.20	716.20	9.25	1333.57	1354.53	55.15	1.43
* H 2315.000	50.00	0.0	0.0	209.00	715.60	719.37	719.37	8.71	1470.47	1486.58	29.42	0.0
* 2315.000	50.00	0.0	0.0	510.00	715.60	721.18	721.18	8.41	1433.97	1494.67	87.61	1.81
I 2477.000	162.00	749.10	747.00	209.00	715.60	719.37	0.0	8.71	1470.47	1486.59	29.43	0.0
2477.000	162.00	749.10	747.00	510.00	715.60	721.18	0.0	8.41	1433.97	1494.67	87.63	1.81
2527.000	50.00	0.0	0.0	209.00	716.80	720.32	0.0	4.07	1333.70	1354.12	51.41	0.0
2527.000	50.00	0.0	0.0	510.00	716.80	721.43	0.0	6.72	1328.29	1356.65	76.18	1.11
* J 2577.000	50.00	0.0	0.0	209.00	718.00	720.27	720.27	7.42	1334.59	1351.26	28.15	0.0
* 2577.000	50.00	0.0	0.0	510.00	718.00	721.70	721.70	9.27	1333.57	1354.52	55.01	1.43

SUMMARY OF ERRORS

CAUTION	SECNO= 635.000	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 635.000	PROFILE= 2	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 685.000	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 685.000	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 685.000	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO= 685.000	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 685.000	PROFILE= 2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 685.000	PROFILE= 2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO= 1030.000	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 1030.000	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 1030.000	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO= 1130.000	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 1130.000	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 1130.000	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO= 1130.000	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 1130.000	PROFILE= 2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 1130.000	PROFILE= 2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO= 2215.000	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 2215.000	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 2215.000	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 2215.000	PROFILE= 2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 2215.000	PROFILE= 2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO= 2265.000	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 2265.000	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 2265.000	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 2265.000	PROFILE= 2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 2265.000	PROFILE= 2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO= 2315.000	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 2315.000	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 2315.000	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO= 2315.000	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 2315.000	PROFILE= 2	PROBABLE MINIMUM SPECIFIC ENERGY

MADE IN U.S.A.

0000

0000

0000

0000

FLOOD INSURANCE ZONE DATA FOR 10 YEAR FLOOD WATER SURF

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND		
		10C	2C	0.2C
585.000	0.	697.9	699.5	0.0
635.000	50.	691.4	693.0	****
685.000	100.	66.5	68.7	****
766.000	181.	5.0	8.8	-0.0
816.000	231.	702.9	707.3	0.0
891.000	306.	482.0	486.3	476.3
1030.000	445.	****	****	****
1080.000	495.	-3.0	0.4	-2.7
1130.000	545.	696.9	699.2	****
1180.000	595.	****	****	****
1230.000	645.	4.6	9.1	****
1305.000	720.	707.5	712.0	0.0
2215.000	1630.	492.6	494.0	478.0
2265.000	1680.	****	****	****
2315.000	1730.	713.4	721.2	0.0
2477.000	1892.	710.3	712.2	****
2527.000	1942.	****	****	****
2577.000	1992.	16.3	17.7	-0.0
WEIGHTED AVG FOR REACH		****	****	84.6

FHF FOR THE REACH = 005 WITH 0.00 OF THE REACH WITHIN 0.5 FEET ZONE FOR THE REACH = A 1

CONTINUOUS FLOOD HAZARD FACTORS BY EVEN INCREMENTS

INC NO.	TOTAL LENGTH	AVG ELEVATION DATA			WTD. AVG.	FHF	PERCENT WITHIN
		10C	1C	DIFF.			
1	0.				SEC.	585.000	
	100.	698.5	7.1	691.4	691.4	005	100.
	50.				SEC.	635.000	
	100.				SEC.	685.000	
	181.				SEC.	766.000	
2	200.	701.8	585.6	136.0	613.7	005	0.
	231.				SEC.	816.000	
3	300.	702.5	318.2	384.3	403.9	005	0.
	306.				SEC.	891.000	
4	400.	703.1	1187.6	-484.5	181.8	005	0.
	445.				SEC.	1030.000	
	495.				SEC.	1080.000	
5	500.	704.1	672.3	32.0	151.8	005	0.
	545.				SEC.	1130.000	
	595.				SEC.	1180.000	

6	600.	706.2	810.3	-104.1	109.2	005	0.
	645.					SEC.	1230.000
7	700.	706.9	496.1	210.8	123.7	005	0.
	720.					SEC.	1305.000
8	800.	707.8	103.4	604.4	183.8	005	0.
9	900.	708.4	31.6	676.8	238.6	005	0.
10	1000.	709.1	55.0	653.2	280.0	005	0.
11	1100.	709.7	80.1	629.6	311.8	005	0.
12	1200.	710.4	104.4	606.0	336.3	005	0.
13	1300.	711.0	128.7	582.3	355.2	005	0.
14	1400.	711.7	153.0	558.7	369.8	005	0.
15	1500.	712.4	177.3	535.1	380.8	005	0.
16	1600.	713.0	201.6	511.5	389.0	005	0.
	1630.					SEC.	2215.000
	1680.					SEC.	2265.000
17	1700.	715.7	1192.5	-476.8	338.0	005	0.
	1730.					SEC.	2315.000
18	1800.	718.0	449.1	268.9	334.2	005	0.
	1892.					SEC.	2477.000
19	1900.	719.4	92.1	627.3	349.6	005	0.
	1942.					SEC.	2527.000
	1992.					SEC.	2577.000

THIS REACH CAN BE SUBDIVIDED BY INC NO. TO MEET FIA REQUIREMENTS  
 INPUT 20N WHERE N IS THE NUMBER OF REACHES AND THEN INPUT THE END  
 OF EACH REACH BY INC NO. FOR EXAMPLE 202 1 19  
 A NEGATIVE INC NO. WILL SUPPRESS INTERMEDIATE INC OUTPUT.

MADE IN U.S.A.

VUN  
ARRA

UUN  
UUN

UUN  
UUN