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 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977  
 ERROR CORR - 01  
 MODIFICATION - 50,51,52  
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C  
 T1 DAVIDSON COUNTY BASIN C STRM  
 T2 FLOODPLAIN STUDY AT ROWAN & DAVIDSON COUNTIES M-G JOB NO. 6918  
 T3 10 YEAR FLOOD WATER SURFACE PROFILE

J1	ICHECK	INO	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-1.	2.	0.	0.	0.005000	0.0	0.0	0.	704.500	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
NC	0.055	0.055	0.035	0.100	0.300	0.0	0.0	0.0	0.0	0.0
QT	5.000	200.000	384.000	486.000	742.000	486.000	0.0	0.0	0.0	0.0
ET	5.000	0.0	0.0	0.0	0.0	-10.400	0.0	0.0	0.0	0.0
X1	1125.000	11.000	1145.000	1151.000	1125.000	1125.000	1125.000	0.0	0.0	0.0
GR	721.400	1000.000	706.700	1028.000	706.400	1100.000	706.400	1145.000	702.900	1146.000
GR	702.500	1147.000	762.900	1149.000	704.700	1151.000	707.900	1182.000	716.300	1200.000
GR	721.400	1230.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
QT	5.000	123.000	251.000	326.000	522.000	326.000	0.0	0.0	0.0	0.0
X1	2574.000	13.000	1349.000	1370.000	1449.000	1449.000	1449.000	0.0	0.0	0.0
GR	738.800	1000.000	733.200	1100.000	728.000	1200.000	725.000	1300.000	724.100	1349.000
GR	716.600	1358.000	716.200	1361.000	716.600	1363.000	725.100	1370.000	727.000	1400.000
GR	727.700	1500.000	731.800	1600.000	738.800	1700.000	0.0	0.0	0.0	0.0
X1	2624.000	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	2649.000	18.000	1444.500	1447.500	25.000	25.000	25.000	0.0	0.0	0.0
GR	741.100	1000.000	736.500	1100.000	732.500	1200.000	728.600	1300.000	726.200	1385.000
GR	725.300	1434.000	718.900	1444.500	717.800	1444.900	717.400	1446.000	717.800	1447.100
GR	718.900	1447.500	726.300	1455.000	726.600	1500.000	728.700	1600.000	732.300	1700.000
GR	735.600	1800.000	738.900	1900.000	741.100	1992.000	0.0	0.0	0.0	0.0
SB	0.900	1.500	2.500	0.0	3.000	0.010	7.070	0.0	0.0	0.0



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T1 DAVIDSON COUNTY BASIN C STRM 9  
 T2 FLOODPLAIN STUDY AT ROWAN & DAVIDSON COUNTIES M-G JOB NO. 6918  
 T3 50 YEAR FLOOD WATER SURFACE PROFILE

J1	ICHECK	INO	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FG
	-10.	3.	0.	0.	0.005000	0.0	0.0	0.	705.000	0.0
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.0	-1.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0

\*PROF 2

CCHV= 0.100 CEHV= 0.300

\*SECNO 1125.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1125.00	4.85	707.35	0.0	705.00	707.55	0.20	0.0	0.0	706.40
384.	174.	132.	78.	101.	24.	34.	0.	0.	704.70
0.0	1.73	5.54	2.29	0.055	0.035	0.055	0.0	702.50	1026.70
0.004987	1125.	1125.	1125.	0	0	6	0.0	149.92	1176.68

\*SECNO 2574.000

3301 HV CHANGED MORE THAN HVINS

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

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

2574.00	3.67	719.87	719.87	0.0	721.10	1.23	10.93	0.31	724.10
251.	0.	251.	0.	0.	28.	0.	3.	3.	725.10
0.05	0.0	8.90	0.0	0.055	0.035	0.055	0.035	716.20	1354.07
0.017937	1449.	1449.	1449.	1	15	0	0.0	11.63	1365.70

\*SECNO 2624.000

2624.00	3.88	720.88	0.0	0.0	721.92	1.04	0.80	0.02	724.90
251.	0.	251.	0.	0.	31.	0.	3.	3.	725.90
0.05	0.0	8.17	0.0	0.055	0.035	0.055	0.035	717.00	1353.82
0.014258	50.	50.	50.	2	0	0	0.0	12.05	1365.87

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T1 DAVIDSON COUNTY BASIN C STRM 9  
 T2 FLOODPLAIN STUDY AT ROWAN & DAVIDSON COUNTIES M-G JOB NO, 6918  
 T3 100 YEAR FLOOD WATER SURFACE PROFILE

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FG
	-10.	4.	0.	0.	0.005000	0.0	0.0	0.	706.000	0.0
J2	NPROF	IPLT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.0	-1.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0

\*PROF 3

CCHV= 0.100 CEHV= 0.300

\*SECNO 1125.000

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VRUB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1125.00	5.06	707.56	0.0	706.00	707.75	0.20	0.0	0.0	706.40
486.	248.	143.	95.	125.	25.	40.	0.	0.	704.70
0.0	1.98	5.71	2.40	0.055	0.035	0.055	0.0	702.50	1026.37
0.004939	1125.	1125.	1125.	0	0	5	0.0	152.32	1178.69

\*SECNO 2574.000

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VRUB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2574.00	4.19	720.39	720.39	0.0	721.78	1.39	10.80	0.36	724.10
326.	0.	326.	0.	0.	35.	0.	4.	3.	725.10
0.04	0.0	9.45	0.0	0.055	0.035	0.055	0.035	716.20	1353.45
0.017621	1449.	1449.	1449.	13	15	0	0.0	12.67	1366.12

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VRUB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2624.00	4.40	721.40	721.40	0.0	722.59	1.19	0.79	0.02	724.90
326.	0.	326.	0.	0.	37.	0.	4.	3.	725.90
0.04	0.0	8.74	0.0	0.055	0.035	0.055	0.035	717.00	1353.19
0.014304	50.	50.	50.	2	0	0	0.0	13.11	1366.30

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T1 DAVIDSON COUNTY BASIN C STRM 9  
 T2 FLOODPLAIN STUDY AT ROWAN & DAVIDSON COUNTIES M-6 JOB NO. 6918  
 T3 500 YEAR FLOOD WATER SURFACE PROFILE

J1	ICHECK	INA	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FG
	-10.	5.	0.	0.	0.005000	0.0	0.0	0.	706.500	0.0
J2	NPROF	IPLT	PRFVS	XSECV	XSECH	FN	ALLDC	IDW	CHNIM	ITRACE
	15.000	0.0	-1.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0

\*PROF 4

CCHV= 0.100 CEHV= 0.300

\*SECNO 1125.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CGRAR	TOPWID	ENDST
1125.00	5.48	707.98	0.0	706.50	708.19	0.21	0.0	0.0	706.40
742.	434.	168.	140.	176.	28.	52.	0.	0.	704.70
0.0	2.47	6.11	2.68	0.055	0.035	0.055	0.0	702.30	1025.56
0.004973	1125.	1125.	1125.	0	0	5	0.0	156.61	1182.17

\*SECNO 2574.000

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CGRAR	TOPWID	ENDST
2574.00	5.33	721.53	721.53	0.0	723.21	1.68	10.90	0.44	724.10
522.	0.	522.	0.	0.	50.	0.	5.	3.	725.10
0.04	0.0	10.40	0.0	0.055	0.035	0.055	0.035	716.20	1352.09
0.016606	1449.	1449.	1449.	20	0	0	0.0	14.97	1367.06

3585 20 TRIALS ATTEMPTED WSEL,CWSEL  
 3693 PROBABLE MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

2574.00	5.33	721.53	721.53	0.0	723.21	1.68	10.90	0.44	724.10
522.	0.	522.	0.	0.	50.	0.	5.	3.	725.10
0.04	0.0	10.40	0.0	0.055	0.035	0.055	0.035	716.20	1352.09
0.016606	1449.	1449.	1449.	20	0	0	0.0	14.97	1367.06

\*SECNO 2624.000

2624.00	5.44	722.44	0.0	0.0	724.01	1.57	0.79	0.01	724.90
522.	0.	522.	0.	0.	52.	0.	5.	3.	725.90
0.04	0.0	10.04	0.0	0.055	0.035	0.055	0.035	717.00	1351.94

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

10 YEAR FLOOD WATER SURF

SUMMARY PRINTOUT

*702.5*      *702.5*

SECTNO	XLCH	ELTRD	ELLC	Q	ELMIN	CWSEL	CRWS	VCH	SSTA	ENDST	AREA	DIFWSP
1125.000	1125.00	0.0	0.0	200.00	702.50	706.88	0.0	5.11	1027.66	1172.10	89.08	0.0
1125.000	1125.00	0.0	0.0	384.00	702.50	707.35	0.0	5.54	1026.76	1176.68	158.66	0.47
1125.000	1125.00	0.0	0.0	486.00	702.50	707.56	0.0	5.71	1026.37	1178.69	189.95	0.21
1125.000	1125.00	0.0	0.0	742.00	702.50	707.98	0.0	6.11	1025.56	1182.17	255.08	0.42
* 2574.000	1449.00	0.0	0.0	123.00	716.20	718.74	718.74	7.52	1355.43	1364.76	16.36	0.0
* 2574.000	1449.00	0.0	0.0	251.00	716.20	719.87	719.87	8.90	1354.07	1365.70	28.22	1.13
* 2574.000	1449.00	0.0	0.0	326.00	716.20	720.39	720.39	9.45	1353.45	1366.12	34.51	0.52
* 2574.000	1449.00	0.0	0.0	522.00	716.20	721.53	721.53	10.40	1352.09	1367.06	50.18	1.13
2624.000	50.00	0.0	0.0	123.00	717.00	719.74	0.0	6.74	1355.19	1364.93	18.26	0.0
2624.000	50.00	0.0	0.0	251.00	717.00	720.88	0.0	8.17	1353.82	1365.87	30.73	1.14
2624.000	50.00	0.0	0.0	326.00	717.00	721.40	0.0	8.74	1353.19	1366.30	37.30	0.52
2624.000	50.00	0.0	0.0	522.00	717.00	722.44	0.0	10.04	1351.94	1367.16	51.99	1.04
* 2649.000	25.00	0.0	0.0	123.00	717.40	721.19	721.19	8.72	1440.74	1449.82	17.16	0.0
* 2649.000	25.00	0.0	0.0	251.00	717.40	722.44	722.44	10.42	1438.69	1451.09	30.60	1.25
* 2649.000	25.00	0.0	0.0	326.00	717.40	722.98	722.98	11.11	1437.80	1451.64	37.69	0.54
* 2649.000	25.00	0.0	0.0	522.00	717.40	724.09	724.09	12.47	1435.98	1452.76	54.67	1.11
* 2701.000	52.00	726.30	720.40	123.00	717.40	726.59	0.0	1.30	1371.03	1499.19	154.19	0.0
2701.000	52.00	726.30	720.40	251.00	717.40	727.08	0.0	2.00	1373.74	1522.98	226.89	0.49
2701.000	52.00	726.30	720.40	326.00	717.40	727.26	0.0	2.33	1347.31	1531.63	259.00	0.18
2701.000	52.00	726.30	720.40	522.00	717.40	727.61	0.0	3.01	1334.99	1548.19	328.11	0.35
2726.000	25.00	0.0	0.0	123.00	717.80	726.59	0.0	1.05	1300.74	1369.91	135.02	0.0
2726.000	25.00	0.0	0.0	251.00	717.80	727.07	0.0	1.87	1284.38	1375.83	173.51	0.48
2726.000	25.00	0.0	0.0	326.00	717.80	727.24	0.0	2.31	1278.68	1378.53	189.87	0.17
2726.000	25.00	0.0	0.0	522.00	717.80	727.55	0.0	3.35	1268.27	1383.45	223.43	0.31
2776.000	50.00	0.0	0.0	123.00	718.60	726.59	0.0	1.26	1344.07	1369.25	97.47	0.0
2776.000	50.00	0.0	0.0	251.00	718.60	727.06	0.0	2.32	1317.90	1369.65	115.97	0.46
2776.000	50.00	0.0	0.0	326.00	718.60	727.23	0.0	2.91	1309.34	1369.78	124.78	0.16
2776.000	50.00	0.0	0.0	522.00	718.60	727.52	0.0	4.31	1296.15	1370.25	144.28	0.29
* 4050.000	1274.00	0.0	0.0	123.00	734.80	736.98	736.98	7.27	1042.02	1052.48	16.93	0.0
* 4050.000	1274.00	0.0	0.0	251.00	734.80	738.03	738.03	8.62	1040.97	1053.79	29.12	1.05
* 4050.000	1274.00	0.0	0.0	326.00	734.80	738.53	738.53	9.10	1040.47	1054.41	35.83	0.50
* 4050.000	1274.00	0.0	0.0	522.00	734.80	740.06	740.06	7.97	1036.98	1103.62	90.52	1.53

SUMMARY OF ERRORS

CAUTION	SECNO= 2574.000	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 2574.000	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 2574.000	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 2574.000	PROFILE= 2	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 2574.000	PROFILE= 3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 2574.000	PROFILE= 3	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 2574.000	PROFILE= 4	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 2574.000	PROFILE= 4	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 2574.000	PROFILE= 4	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO= 2649.000	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 2649.000	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 2649.000	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO= 2649.000	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 2649.000	PROFILE= 2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 2649.000	PROFILE= 2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO= 2649.000	PROFILE= 3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 2649.000	PROFILE= 3	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 2649.000	PROFILE= 3	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO= 2649.000	PROFILE= 4	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 2649.000	PROFILE= 4	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 2649.000	PROFILE= 4	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO= 2701.000	PROFILE= 1	HYDRAULIC JUMP D.S.
CAUTION	SECNO= 4050.000	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 4050.000	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 4050.000	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO= 4050.000	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 4050.000	PROFILE= 2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 4050.000	PROFILE= 2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO= 4050.000	PROFILE= 3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 4050.000	PROFILE= 3	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 4050.000	PROFILE= 3	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO= 4050.000	PROFILE= 3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 4050.000	PROFILE= 3	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 4050.000	PROFILE= 3	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO= 4050.000	PROFILE= 4	CRITICAL DEPTH ASSUMED
CAUTION	SECNO= 4050.000	PROFILE= 4	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO= 4050.000	PROFILE= 4	20 TRIALS ATTEMPTED TO BALANCE WSEL



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
1125.000	0.	-0.7	-0.2	0.4
2574.000	1449.	-1.6	-0.5	1.1
2624.000	1499.	-1.7	-0.5	1.0
2649.000	1524.	-1.8	-0.5	1.1
2701.000	1576.	-0.7	-0.2	0.3
2726.000	1601.	-0.7	-0.2	0.3
2776.000	1651.	-0.6	-0.2	0.3
4050.000	2925.	-1.5	-0.5	1.5
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WEIGHTED AVG FOR REACH		-1.1	-0.3	0.8

FHF FOR THE REACH = 010 WITH 97.4% OF THE REACH WITHIN 0.5 FEET  
 ZONE FOR THE REACH = A 2

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