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 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977  
 ERROR CORR - 01  
 MODIFICATION - 50,51,52  
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T1 THOMASVILLE-DAVIDSON CO. STRM 7T  
 T2 FLOODPLAIN STUDY AT ROWAN & DAVIDSON COUNTIES M-6 JOB NO. 6918  
 T3 50 YEAR FLOOD WATER SURFACE PROFILE

|    |        |      |        |       |          |        |       |     |         |        |
|----|--------|------|--------|-------|----------|--------|-------|-----|---------|--------|
| J1 | ICHECK | IMD  | NINV   | IDIR  | STRT     | METRIC | HVINS | Q   | WSEL    | FR     |
|    | -10.   | 3.   | 0.     | 0.    | 0.000000 | 0.0    | 0.0   | 0.  | 864.000 | 0.0    |
| J2 | NPROF  | IPLT | 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 250.000

| SECNO    | DEPTH | WSEL   | CRTWS | WSELK  | EG     | HV    | HL    | DLOSS  | BANK ELEV  |
|----------|-------|--------|-------|--------|--------|-------|-------|--------|------------|
| Q        | QLOB  | QCH    | QROB  | ALOB   | ACH    | AROB  | VOL   | TWA    | LEFT/RIGHT |
| TIME     | VLOB  | VCH    | VROB  | XNL    | XNCH   | XNR   | WTN   | ELMIN  | SSTA       |
| SLOPE    | XLOB  | XLCH   | XLOBR | ITRIAL | IDC    | ICONT | CORAR | TOPWID | ENDST      |
| 250.00   | 3.57  | 861.57 | 0.0   | 864.00 | 861.86 | 0.29  | 0.0   | 0.0    | 860.60     |
| 201.     | 52.   | 99.    | 50.   | 35.    | 17.    | 27.   | 0.    | 0.     | 860.30     |
| 0.9      | 1.49  | 5.92   | 1.50  | 0.055  | 0.035  | 0.055 | 0.0   | 856.00 | 1216.60    |
| 0.007933 | 250.  | 250.   | 250.  | 0      | 0      | 6     | 0.0   | 120.30 | 1336.98    |

\*SECNO 1600.000

| SECNO | DEPTH | WSEL | CRTWS | WSELK  | EG   | HV    | HL    | DLOSS  | BANK ELEV  |
|-------|-------|------|-------|--------|------|-------|-------|--------|------------|
| Q     | QLOB  | QCH  | QROB  | ALOB   | ACH  | AROB  | VOL   | TWA    | LEFT/RIGHT |
| TIME  | VLOB  | VCH  | VROB  | XNL    | XNCH | XNR   | WTN   | ELMIN  | SSTA       |
| SLOPE | XLOB  | XLCH | XLOBR | ITRIAL | IDC  | ICONT | CORAR | TOPWID | ENDST      |

3695 20 TRIALS ATTEMPTED WSEL, WSEL  
 3693 PROBABLE MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

|          |       |        |        |       |        |       |       |        |         |
|----------|-------|--------|--------|-------|--------|-------|-------|--------|---------|
| 1600.00  | 2.02  | 882.02 | 882.00 | 0.0   | 882.24 | 0.22  | 10.95 | 0.01   | 841.40  |
| 59.      | 15.   | 37.    | 6.     | 13.   | 8.     | 6.    | 2.    | 3.     | 881.40  |
| 0.11     | 1.15  | 4.67   | 1.14   | 0.055 | 0.035  | 0.055 | 0.035 | 880.00 | 1105.44 |
| 0.006553 | 1350. | 1350.  | 1350.  | 20    | 11     | 0     | 0.0   | 65.79  | 1171.23 |

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 T2 FLOODPLAIN STUDY AT ROWAN & DAVIDSON COUNTIES M-G JOB NO. 6918  
 T3 100 YEAR FLOOD WATER SURFACE PROFILE

| J1 | TCHECK | TNO | NINV | TDIR | STRT     | METRIC | HVIDS | Q  | WSEL    | FQ  |
|----|--------|-----|------|------|----------|--------|-------|----|---------|-----|
|    | -10.   | 4.  | 0.   | 0.   | 0.008000 | 0.0    | 0.0   | 0. | 866.000 | 0.0 |

  

| J2 | NPROF | IPLOT | PRFVS  | XSECV | XSECH | FM  | 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 250.000

| SECNO    | DEPTH | CWSEL  | CRWS  | WSELK  | EG     | HV    | HL    | OLOSS  | BANK ELEV  |
|----------|-------|--------|-------|--------|--------|-------|-------|--------|------------|
| Q        | QLOB  | GCH    | GROR  | ALOB   | ACH    | AROB  | VOL   | TWA    | LEFT/RIGHT |
| TIME     | VLOS  | VCH    | VROF  | XNL    | XNCH   | XNR   | WTN   | ELMIN  | SSTA       |
| SLOPE    | XLOBL | XLCH   | XLOBR | ITRIAL | IDC    | ICONT | CORAR | TOPWID | ENDST      |
| 250.00   | 3.77  | 861.77 | 0.0   | 866.00 | 862.04 | 0.28  | 0.0   | 0.0    | 860.60     |
| 268.     | 94.   | 110.   | 74.   | 50.    | 18.    | 36.   | 0.    | 0.     | 860.30     |
| 0.0      | 1.69  | 6.19   | 2.05  | 0.055  | 0.035  | 0.055 | 0.0   | 858.00 | 1202.49    |
| 0.007990 | 250.  | 250.   | 250.  | 0      | 0      | 8     | 0.0   | 141.15 | 1343.65    |

\*SECNO 1600.000

| SECNO | DEPTH | CWSEL | CRWS  | WSELK  | EG   | HV    | HL    | OLOSS  | BANK ELEV  |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| Q     | QLOB  | GCH   | GROR  | ALOB   | ACH  | AROB  | VOL   | TWA    | LEFT/RIGHT |
| TIME  | VLOS  | VCH   | VROF  | XNL    | XNCH | XNR   | WTN   | ELMIN  | SSTA       |
| SLOPE | XLOBL | XLCH  | XLOBR | ITRIAL | IDC  | ICONT | CORAR | TOPWID | ENDST      |

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

|          |       |        |        |       |        |       |       |        |         |
|----------|-------|--------|--------|-------|--------|-------|-------|--------|---------|
| 1600.00  | 2.14  | 882.14 | 882.14 | 0.0   | 882.39 | 0.25  | 11.33 | 0.00   | 881.40  |
| 93.      | 27.   | 45.    | 11.    | 19.   | 9.     | 8.    | 2.    | 3.     | 881.40  |
| 0.11     | 1.43  | 5.27   | 1.38   | 0.055 | 0.035  | 0.055 | 0.035 | 880.00 | 1099.74 |
| 0.009906 | 1350. | 1350.  | 1350.  | 20    | 14     | 0     | 0.0   | 74.93  | 1174.68 |

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T1 THOMASVILLE-DAVIDSON CO. STRM 7T  
 T2 FLOODPLAIN STUDY AT ROYAN & DAVIDSON COUNTIES M-G JOB NO. 6918  
 T3 500 YEAR FLOOD WATER SURFACE PROFILE

| J1 | ICHECK | INC   | NINV   | IOIR  | STRT     | METRIC | HVINS | Q   | WSEL    | FO     |
|----|--------|-------|--------|-------|----------|--------|-------|-----|---------|--------|
|    | -10.   | 5.    | 0.     | 0.    | 0.008000 | 0.0    | 0.0   | 0.  | 867.000 | 0.0    |
| J2 | NPROF  | IPLOT | PRFVS  | XSECV | XSECH    | FN     | ALLDC | IBW | 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  
 \*SECTO 250.000

| SECTO    | DEPTH | WSEL   | CRWS  | WSELK  | EG     | HV    | HL    | OLOSS  | BANK ELEV |
|----------|-------|--------|-------|--------|--------|-------|-------|--------|-----------|
| TIME     | VLOC  | VCH    | VROB  | XNL    | XNCH   | XNR   | WTN   | ELMIN  | SSTA      |
| SLOPE    | XLOB  | XLCH   | XLOBR | ITRIAL | IDC    | ICONT | CORAR | TOPWID | ENDST     |
| 250.00   | 4.13  | 862.13 | 0.0   | 867.00 | 862.30 | 0.26  | 0.0   | 0.0    | 860.60    |
| 451.     | 137.  | 133.   | 131.  | 82.    | 20.    | 56.   | 0.    | 0.     | 860.30    |
| 0.0      | 2.27  | 6.65   | 2.35  | 0.055  | 0.035  | 0.055 | 0.0   | 858.00 | 1194.57   |
| 0.007917 | 250.  | 250.   | 250.  | 0      | 0      | 7     | 0.0   | 161.49 | 1356.06   |

\*SECTO 1400.000

| SECTO | DEPTH | WSEL | CRWS  | WSELK  | EG   | HV    | HL    | OLOSS  | BANK ELEV |
|-------|-------|------|-------|--------|------|-------|-------|--------|-----------|
| TIME  | VLOC  | VCH  | VROB  | XNL    | XNCH | XNR   | WTN   | ELMIN  | SSTA      |
| SLOPE | XLOB  | XLCH | XLOBR | ITRIAL | IDC  | ICONT | CORAR | TOPWID | ENDST     |

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

|          |       |        |        |       |        |       |       |        |         |
|----------|-------|--------|--------|-------|--------|-------|-------|--------|---------|
| 1400.00  | 2.37  | 882.37 | 882.37 | 0.0   | 882.68 | 0.31  | 11.97 | 0.02   | 831.40  |
| 155.     | 66.   | 63.    | 26.    | 30.   | 10.    | 14.   | 3.    | 4.     | 881.40  |
| 0.10     | 2.21  | 6.53   | 1.40   | 0.055 | 0.035  | 0.055 | 0.035 | 860.00 | 1098.22 |
| 0.012348 | 1350. | 1350.  | 1350.  | 20    | 14     | 0     | 0.0   | 83.15  | 1101.36 |

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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

| SECNO      | XLCH    | ELTRD | ELLC | O      | ELMIN  | CWSEL  | CRIWS  | VCH  | SSTA    | ENDST   | AREA   | DIFWSP |
|------------|---------|-------|------|--------|--------|--------|--------|------|---------|---------|--------|--------|
| 250.000    | 250.00  | 0.0   | 0.0  | 91.00  | 858.00 | 861.07 | 861.07 | 5.16 | 1253.64 | 1319.59 | 31.28  | 0.0    |
| 250.000    | 250.00  | 0.0   | 0.0  | 201.00 | 858.00 | 861.57 | 0.0    | 5.92 | 1216.68 | 1336.98 | 78.23  | 0.50   |
| 250.000    | 250.00  | 0.0   | 0.0  | 268.00 | 858.00 | 861.77 | 0.0    | 6.19 | 1202.49 | 1343.65 | 103.51 | 0.19   |
| 250.000    | 250.00  | 0.0   | 0.0  | 451.00 | 858.00 | 862.13 | 0.0    | 6.65 | 1194.57 | 1356.06 | 158.30 | 0.36   |
| * 1600.000 | 1350.00 | 0.0   | 0.0  | 24.00  | 880.00 | 881.29 | 881.29 | 5.48 | 1148.15 | 1152.92 | 4.38   | 0.0    |
| * 1600.000 | 1350.00 | 0.0   | 0.0  | 59.00  | 880.00 | 882.02 | 882.02 | 4.67 | 1105.44 | 1171.23 | 26.86  | 0.73   |
| * 1600.000 | 1350.00 | 0.0   | 0.0  | 83.00  | 880.00 | 882.14 | 882.14 | 5.27 | 1099.74 | 1174.68 | 35.22  | 0.12   |
| * 1600.000 | 1350.00 | 0.0   | 0.0  | 155.00 | 880.00 | 882.37 | 882.37 | 6.53 | 1098.22 | 1181.36 | 53.22  | 0.23   |

SUMMARY OF ERRORS

CAUTION SECNO= 1600.000 PROFILE= 1 CRITICAL DEPTH ASSUMED  
 CAUTION SECNO= 1600.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY  
 CAUTION SECNO= 1600.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL  
 CAUTION SECNO= 1600.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
 CAUTION SECNO= 1600.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY  
 CAUTION SECNO= 1600.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL  
 CAUTION SECNO= 1600.000 PROFILE= 3 CRITICAL DEPTH ASSUMED  
 CAUTION SECNO= 1600.000 PROFILE= 3 PROBABLE MINIMUM SPECIFIC ENERGY  
 CAUTION SECNO= 1600.000 PROFILE= 3 20 TRIALS ATTEMPTED TO BALANCE WSEL  
 CAUTION SECNO= 1600.000 PROFILE= 4 CRITICAL DEPTH ASSUMED  
 CAUTION SECNO= 1600.000 PROFILE= 4 PROBABLE MINIMUM SPECIFIC ENERGY  
 CAUTION SECNO= 1600.000 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 |      |      |
|------------------------|---------------------|---|------|------|
|                        |                     | 10f   | 2f   | 0.2f |
| 250,000                | 0.                  | -0.7  | -0.2 | 0.4  |
| 1600,000               | 1350.               | -0.8  | -0.1 | 0.2  |
| WEIGHTED AVG FOR REACH |                     | -0.8  | -0.2 | 0.3  |

FHF FOR THE REACH = 0.10 WITH 100.0% OF THE REACH WITHIN 0.5 FEET.  
 ZONE FOR THE REACH = A 2

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EJ