
HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977

ERROR CORR - 01

MODIFICATION - 50,51,52

I1 EAST SPENCER-ROWAN COUNTY STREAM 1ES UNNAMED STREAM
I2 FLOODPLAIN STUDY AT ROWAN & DAVIDSON COUNTIES M-G JOB NO. 6918
I3 100 YEAR FLOOD WATER SURFACE PROFILE

| J1 | ICHECK | INQ | NINV | IDIR | STRT | METRIC | HVINS | Q | WSEL | EQ |
|----|--------|-----|------|------|----------|--------|-------|----|---------|-----|
| | -10. | 4. | 0. | 0. | 0.012000 | 0.0 | 0.0 | 0. | 661.500 | 0.0 |

| J2 | NPROF | IPLT | 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 |

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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 | Q | ELMIN | CWSEL | CRWS | VCH | SSTA | ENDST | AREA | DIFWSP |
|----|----------|---------|--------|--------|--------|--------|--------|--------|-------|---------|---------|---------|--------|
| A | 1200.000 | 1200.00 | 0.0 | 0.0 | 292.00 | 653.50 | 659.42 | 0.0 | 5.70 | 1328.26 | 1365.78 | 64.55 | 0.0 |
| | 1200.000 | 1200.00 | 0.0 | 0.0 | 678.00 | 653.50 | 661.02 | 0.0 | 7.19 | 1310.71 | 1377.24 | 147.73 | 1.60 |
| B | 2325.000 | 1125.00 | 0.0 | 0.0 | 275.00 | 666.30 | 671.28 | 0.0 | 4.84 | 1397.58 | 1455.94 | 77.98 | 0.0 |
| | 2325.000 | 1125.00 | 0.0 | 0.0 | 639.00 | 666.30 | 672.60 | 0.0 | 5.81 | 1357.60 | 1478.13 | 195.99 | 1.32 |
| * | 2400.000 | 75.00 | 0.0 | 0.0 | 275.00 | 667.20 | 672.48 | 672.48 | 9.00 | 1184.26 | 1220.48 | 49.34 | 0.0 |
| * | 2400.000 | 75.00 | 0.0 | 0.0 | 639.00 | 667.20 | 673.60 | 673.60 | 10.47 | 1167.31 | 1229.89 | 104.61 | 1.12 |
| | 2433.000 | 33.00 | 676.90 | 672.20 | 275.00 | 667.20 | 675.47 | 0.0 | 2.95 | 1069.68 | 1143.95 | 138.68 | 0.0 |
| | 2433.000 | 33.00 | 676.90 | 672.20 | 639.00 | 667.20 | 677.98 | 0.0 | 2.22 | 1058.49 | 1161.30 | 361.67 | 2.51 |
| C | 2508.000 | 75.00 | 0.0 | 0.0 | 275.00 | 668.10 | 675.55 | 0.0 | 1.48 | 1322.66 | 1497.52 | 366.26 | 0.0 |
| | 2508.000 | 75.00 | 0.0 | 0.0 | 639.00 | 668.10 | 678.03 | 0.0 | 1.18 | 1269.03 | 1643.01 | 1114.42 | 2.48 |
| *D | 3975.000 | 1467.00 | 0.0 | 0.0 | 157.00 | 691.50 | 694.52 | 694.52 | 8.40 | 1196.01 | 1204.66 | 18.70 | 0.0 |
| | 3975.000 | 1467.00 | 0.0 | 0.0 | 399.00 | 691.50 | 696.78 | 696.78 | 8.24 | 1176.45 | 1226.28 | 67.72 | 2.26 |
| * | 4050.000 | 75.00 | 0.0 | 0.0 | 157.00 | 692.70 | 696.94 | 696.94 | 7.99 | 1395.30 | 1414.49 | 25.99 | 0.0 |
| * | 4050.000 | 75.00 | 0.0 | 0.0 | 399.00 | 692.70 | 698.16 | 698.16 | 9.04 | 1372.18 | 1428.31 | 69.16 | 1.22 |
| * | 4124.000 | 74.00 | 702.00 | 695.70 | 157.00 | 692.70 | 702.90 | 0.0 | 0.32 | 1286.28 | 1481.92 | 706.52 | 0.0 |
| | 4124.000 | 74.00 | 702.00 | 695.70 | 399.00 | 692.70 | 703.95 | 0.0 | 0.59 | 1277.80 | 1493.80 | 922.80 | 1.05 |
| E | 4199.000 | 75.00 | 0.0 | 0.0 | 157.00 | 693.90 | 702.90 | 0.0 | 0.62 | 1095.97 | 1268.33 | 493.46 | 0.0 |
| | 4199.000 | 75.00 | 0.0 | 0.0 | 399.00 | 693.90 | 703.95 | 0.0 | 1.10 | 1087.52 | 1280.18 | 684.70 | 1.05 |

SUMMARY OF ERRORS

CAUTION SECNO= 2400.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
 CAUTION SECNO= 2400.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO= 2400.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO= 2400.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
 CAUTION SECNO= 2400.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO= 2400.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO= 3975.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
 CAUTION SECNO= 3975.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 3975.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 3975.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 3975.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 3975.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 4050.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 4050.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY
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= 4124.000 PROFILE= 1 HYDRAULIC JUMP D.S.

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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 | | |
|------------------------|---------------------|---|-------|-------|
| | | 10' | 2' | 0.2' |
| 1200.000 | 0. | 659.4 | 661.0 | 0.0 |
| 2325.000 | 1125. | 665.6 | 666.9 | **** |
| 2400.000 | 1200. | **** | **** | **** |
| 2433.000 | 1233. | 4.2 | 6.7 | **** |
| 2508.000 | 1308. | 675.6 | 678.0 | 0.0 |
| 3975.000 | 2775. | 419.5 | 421.8 | 392.2 |
| 4050.000 | 2850. | **** | **** | **** |
| 4124.000 | 2924. | 26.0 | 27.0 | -4.7 |
| 4199.000 | 2999. | 700.0 | 701.0 | **** |
| WEIGHTED AVG FOR REACH | | **** | **** | **** |

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 |
|---------|--------------|--------------------|--------|--------|-----------|-----|----------------|
| | | 10' | 1' | DIFF. | | | |
| | 0. | | | | | | SEC. 1200.000 |
| 1 | 100. | 660.0 | 0.3 | 659.7 | 659.7 | 005 | 100. |
| 2 | 200. | 661.0 | 0.8 | 660.2 | 660.0 | 005 | 100. |
| 3 | 300. | 662.1 | 1.3 | 660.8 | 660.2 | 005 | 33. |
| 4 | 400. | 663.1 | 1.8 | 661.3 | 660.5 | 005 | 50. |
| 5 | 500. | 664.2 | 2.3 | 661.9 | 660.8 | 005 | 20. |
| 6 | 600. | 665.2 | 2.8 | 662.4 | 661.1 | 005 | 33. |
| 7 | 700. | 666.3 | 3.3 | 663.0 | 661.3 | 005 | 14. |
| 8 | 800. | 667.3 | 3.8 | 663.5 | 661.6 | 005 | 25. |
| 9 | 900. | 668.4 | 4.3 | 664.1 | 661.9 | 005 | 11. |
| 10 | 1000. | 669.4 | 4.8 | 664.6 | 662.2 | 005 | 20. |
| 11 | 1100. | 670.5 | 5.3 | 665.2 | 662.4 | 005 | 9. |
| | 1125. | | | | | | SEC. 2325.000 |
| 12 | 1200. | 671.7 | 1165.3 | -493.5 | 566.1 | 005 | 0. |
| | 1200. | | | | | | SEC. 2400.000 |
| | 1233. | | | | | | SEC. 2433.000 |
| 13 | 1300. | 675.5 | 371.4 | 304.1 | 545.9 | 005 | 0. |
| | 1308. | | | | | | SEC. 2508.000 |
| 14 | 1400. | 676.1 | 44.4 | 631.7 | 552.1 | 005 | 0. |
| 15 | 1500. | 677.4 | 26.6 | 650.8 | 558.7 | 005 | 0. |
| 16 | 1600. | 678.7 | 45.4 | 633.3 | 563.3 | 005 | 0. |
| 17 | 1700. | 680.0 | 64.1 | 615.9 | 566.4 | 005 | 0. |
| 18 | 1800. | 681.3 | 82.9 | 598.4 | 568.2 | 005 | 0. |
| 19 | 1900. | 682.6 | 101.6 | 581.0 | 568.9 | 005 | 0. |

| | | | | | | | |
|----|-------|-------|-------|-------|-------|----------|----|
| 20 | 2000. | 683.9 | 120.3 | 563.5 | 568.6 | 005 | 0. |
| 21 | 2100. | 685.1 | 139.1 | 546.1 | 567.5 | 005 | 0. |
| 22 | 2200. | 686.4 | 157.8 | 528.6 | 565.7 | 005 | 0. |
| 23 | 2300. | 687.7 | 176.6 | 511.1 | 563.4 | 005 | 4. |
| 24 | 2400. | 689.0 | 195.3 | 493.7 | 560.5 | 005 | 0. |
| 25 | 2500. | 690.3 | 214.1 | 476.2 | 557.1 | 005 | 0. |
| 26 | 2600. | 691.6 | 232.8 | 458.8 | 553.3 | 005 | 0. |
| 27 | 2700. | 692.9 | 251.6 | 441.3 | 549.2 | 005 | 0. |
| | 2775. | | | | SEC. | 3975.000 | |
| 28 | 2900. | 694.4 | 425.6 | 268.9 | 539.2 | 005 | 0. |
| | 2850. | | | | SEC. | 4050.000 | |
| 29 | 2900. | 698.1 | 721.7 | -23.5 | 519.8 | 005 | 0. |
| | 2924. | | | | SEC. | 4124.000 | |
| | 2999. | | | | SEC. | 4199.000 | |

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 2 29
A NEGATIVE INC NO. WILL SUPPRESS INTERMEDIATE INC OUTPUT.

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ERROR CORR - 01
MODIFICATION - 50, 51, 52

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