

(INCHES) 0.639 0.898 0.898 0.898
 (AC-FT) 39. 55. 55. 55.
 CUMULATIVE AREA = 1.14 SQ MI

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 * *
 663 KK * AP-DFCS *
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666 KO OUTPUT CONTROL VARIABLES
 IPRNT 1 PRINT CONTROL
 IPLOT 1 PLOT CONTROL
 QSCAL 0. HYDROGRAPH PLOT SCALE

667 HC HYDROGRAPH COMBINATION
 ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

HYDROGRAPH AT STATION AP-DFCS
 SUM OF 2 HYDROGRAPHS

| DA | MON | HRMN | ORD | FLOW | * | DA | MON | HRMN | ORD | FLOW | * | DA | MON | HRMN | ORD | FLOW | * | DA | MON | HRMN | ORD | FLOW | |
|----|------|------|-----|------|---|------|-----|------|-----|------|------|-----|-----|------|-----|------|-----|-----|-----|------|-----|------|--|
| 1 | 0000 | 1 | 1. | * | 1 | 0345 | 76 | 0. | * | 1 | 0730 | 151 | 84. | * | 1 | 1115 | 226 | 63. | | | | | |
| 1 | 0003 | 2 | 0. | * | 1 | 0348 | 77 | 0. | * | 1 | 0733 | 152 | 83. | * | 1 | 1118 | 227 | 63. | | | | | |
| 1 | 0006 | 3 | 0. | * | 1 | 0351 | 78 | 0. | * | 1 | 0736 | 153 | 83. | * | 1 | 1121 | 228 | 63. | | | | | |
| 1 | 0009 | 4 | 0. | * | 1 | 0354 | 79 | 0. | * | 1 | 0739 | 154 | 82. | * | 1 | 1124 | 229 | 63. | | | | | |
| 1 | 0012 | 5 | 0. | * | 1 | 0357 | 80 | 0. | * | 1 | 0742 | 155 | 82. | * | 1 | 1127 | 230 | 63. | | | | | |
| 1 | 0015 | 6 | 0. | * | 1 | 0400 | 81 | 0. | * | 1 | 0745 | 156 | 82. | * | 1 | 1130 | 231 | 63. | | | | | |
| 1 | 0018 | 7 | 0. | * | 1 | 0403 | 82 | 0. | * | 1 | 0748 | 157 | 81. | * | 1 | 1133 | 232 | 63. | | | | | |
| 1 | 0021 | 8 | 0. | * | 1 | 0406 | 83 | 0. | * | 1 | 0751 | 158 | 81. | * | 1 | 1136 | 233 | 62. | | | | | |
| 1 | 0024 | 9 | 0. | * | 1 | 0409 | 84 | 0. | * | 1 | 0754 | 159 | 81. | * | 1 | 1139 | 234 | 62. | | | | | |
| 1 | 0027 | 10 | 0. | * | 1 | 0412 | 85 | 0. | * | 1 | 0757 | 160 | 80. | * | 1 | 1142 | 235 | 62. | | | | | |
| 1 | 0030 | 11 | 0. | * | 1 | 0415 | 86 | 0. | * | 1 | 0800 | 161 | 80. | * | 1 | 1145 | 236 | 62. | | | | | |
| 1 | 0033 | 12 | 0. | * | 1 | 0418 | 87 | 0. | * | 1 | 0803 | 162 | 80. | * | 1 | 1148 | 237 | 62. | | | | | |
| 1 | 0036 | 13 | 0. | * | 1 | 0421 | 88 | 0. | * | 1 | 0806 | 163 | 79. | * | 1 | 1151 | 238 | 62. | | | | | |
| 1 | 0039 | 14 | 0. | * | 1 | 0424 | 89 | 0. | * | 1 | 0809 | 164 | 78. | * | 1 | 1154 | 239 | 62. | | | | | |
| 1 | 0042 | 15 | 0. | * | 1 | 0427 | 90 | 0. | * | 1 | 0812 | 165 | 76. | * | 1 | 1157 | 240 | 62. | | | | | |
| 1 | 0045 | 16 | 0. | * | 1 | 0430 | 91 | 0. | * | 1 | 0815 | 166 | 75. | * | 1 | 1200 | 241 | 62. | | | | | |
| 1 | 0048 | 17 | 0. | * | 1 | 0433 | 92 | 0. | * | 1 | 0818 | 167 | 74. | * | 1 | 1203 | 242 | 62. | | | | | |
| 1 | 0051 | 18 | 0. | * | 1 | 0436 | 93 | 0. | * | 1 | 0821 | 168 | 73. | * | 1 | 1206 | 243 | 62. | | | | | |
| 1 | 0054 | 19 | 0. | * | 1 | 0439 | 94 | 0. | * | 1 | 0824 | 169 | 73. | * | 1 | 1209 | 244 | 62. | | | | | |
| 1 | 0057 | 20 | 0. | * | 1 | 0442 | 95 | 0. | * | 1 | 0827 | 170 | 72. | * | 1 | 1212 | 245 | 62. | | | | | |
| 1 | 0100 | 21 | 0. | * | 1 | 0445 | 96 | 0. | * | 1 | 0830 | 171 | 71. | * | 1 | 1215 | 246 | 62. | | | | | |
| 1 | 0103 | 22 | 0. | * | 1 | 0448 | 97 | 0. | * | 1 | 0833 | 172 | 71. | * | 1 | 1218 | 247 | 62. | | | | | |
| 1 | 0106 | 23 | 0. | * | 1 | 0451 | 98 | 0. | * | 1 | 0836 | 173 | 71. | * | 1 | 1221 | 248 | 61. | | | | | |
| 1 | 0109 | 24 | 0. | * | 1 | 0454 | 99 | 0. | * | 1 | 0839 | 174 | 70. | * | 1 | 1224 | 249 | 61. | | | | | |
| 1 | 0112 | 25 | 0. | * | 1 | 0457 | 100 | 0. | * | 1 | 0842 | 175 | 70. | * | 1 | 1227 | 250 | 61. | | | | | |
| 1 | 0115 | 26 | 0. | * | 1 | 0500 | 101 | 0. | * | 1 | 0845 | 176 | 70. | * | 1 | 1230 | 251 | 61. | | | | | |
| 1 | 0118 | 27 | 0. | * | 1 | 0503 | 102 | 0. | * | 1 | 0848 | 177 | 70. | * | 1 | 1233 | 252 | 61. | | | | | |
| 1 | 0121 | 28 | 0. | * | 1 | 0506 | 103 | 0. | * | 1 | 0851 | 178 | 69. | * | 1 | 1236 | 253 | 61. | | | | | |
| 1 | 0124 | 29 | 0. | * | 1 | 0509 | 104 | 0. | * | 1 | 0854 | 179 | 69. | * | 1 | 1239 | 254 | 61. | | | | | |
| 1 | 0127 | 30 | 0. | * | 1 | 0512 | 105 | 0. | * | 1 | 0857 | 180 | 69. | * | 1 | 1242 | 255 | 61. | | | | | |
| 1 | 0130 | 31 | 0. | * | 1 | 0515 | 106 | 0. | * | 1 | 0900 | 181 | 69. | * | 1 | 1245 | 256 | 61. | | | | | |
| 1 | 0133 | 32 | 0. | * | 1 | 0518 | 107 | 0. | * | 1 | 0903 | 182 | 69. | * | 1 | 1248 | 257 | 61. | | | | | |
| 1 | 0136 | 33 | 0. | * | 1 | 0521 | 108 | 0. | * | 1 | 0906 | 183 | 68. | * | 1 | 1251 | 258 | 61. | | | | | |
| 1 | 0139 | 34 | 0. | * | 1 | 0524 | 109 | 0. | * | 1 | 0909 | 184 | 68. | * | 1 | 1254 | 259 | 61. | | | | | |
| 1 | 0142 | 35 | 0. | * | 1 | 0527 | 110 | 0. | * | 1 | 0912 | 185 | 68. | * | 1 | 1257 | 260 | 61. | | | | | |
| 1 | 0145 | 36 | 0. | * | 1 | 0530 | 111 | 0. | * | 1 | 0915 | 186 | 68. | * | 1 | 1300 | 261 | 60. | | | | | |
| 1 | 0148 | 37 | 0. | * | 1 | 0533 | 112 | 1. | * | 1 | 0918 | 187 | 68. | * | 1 | 1303 | 262 | 60. | | | | | |
| 1 | 0151 | 38 | 0. | * | 1 | 0536 | 113 | 4. | * | 1 | 0921 | 188 | 68. | * | 1 | 1306 | 263 | 60. | | | | | |
| 1 | 0154 | 39 | 0. | * | 1 | 0539 | 114 | 15. | * | 1 | 0924 | 189 | 68. | * | 1 | 1309 | 264 | 60. | | | | | |
| 1 | 0157 | 40 | 0. | * | 1 | 0542 | 115 | 37. | * | 1 | 0927 | 190 | 67. | * | 1 | 1312 | 265 | 60. | | | | | |
| 1 | 0200 | 41 | 0. | * | 1 | 0545 | 116 | 69. | * | 1 | 0930 | 191 | 67. | * | 1 | 1315 | 266 | 60. | | | | | |

| | | | | | | | | | | | | | | | | | | |
|---|------|----|----|---|---|------|-----|------|---|---|------|-----|-----|---|---|------|-----|-----|
| 1 | 0203 | 42 | 0. | * | 1 | 0548 | 117 | 105. | * | 1 | 0933 | 192 | 67. | * | 1 | 1318 | 267 | 59. |
| 1 | 0206 | 43 | 0. | * | 1 | 0551 | 118 | 136. | * | 1 | 0936 | 193 | 67. | * | 1 | 1321 | 268 | 59. |
| 1 | 0209 | 44 | 0. | * | 1 | 0554 | 119 | 164. | * | 1 | 0939 | 194 | 67. | * | 1 | 1324 | 269 | 59. |
| 1 | 0212 | 45 | 0. | * | 1 | 0557 | 120 | 188. | * | 1 | 0942 | 195 | 67. | * | 1 | 1327 | 270 | 59. |
| 1 | 0215 | 46 | 0. | * | 1 | 0600 | 121 | 210. | * | 1 | 0945 | 196 | 67. | * | 1 | 1330 | 271 | 59. |
| 1 | 0218 | 47 | 0. | * | 1 | 0603 | 122 | 221. | * | 1 | 0948 | 197 | 67. | * | 1 | 1333 | 272 | 59. |
| 1 | 0221 | 48 | 0. | * | 1 | 0606 | 123 | 210. | * | 1 | 0951 | 198 | 67. | * | 1 | 1336 | 273 | 59. |
| 1 | 0224 | 49 | 0. | * | 1 | 0609 | 124 | 179. | * | 1 | 0954 | 199 | 67. | * | 1 | 1339 | 274 | 58. |
| 1 | 0227 | 50 | 0. | * | 1 | 0612 | 125 | 142. | * | 1 | 0957 | 200 | 67. | * | 1 | 1342 | 275 | 58. |
| 1 | 0230 | 51 | 0. | * | 1 | 0615 | 126 | 106. | * | 1 | 1000 | 201 | 67. | * | 1 | 1345 | 276 | 58. |
| 1 | 0233 | 52 | 0. | * | 1 | 0618 | 127 | 86. | * | 1 | 1003 | 202 | 66. | * | 1 | 1348 | 277 | 58. |
| 1 | 0236 | 53 | 0. | * | 1 | 0621 | 128 | 82. | * | 1 | 1006 | 203 | 66. | * | 1 | 1351 | 278 | 58. |
| 1 | 0239 | 54 | 0. | * | 1 | 0624 | 129 | 82. | * | 1 | 1009 | 204 | 66. | * | 1 | 1354 | 279 | 58. |
| 1 | 0242 | 55 | 0. | * | 1 | 0627 | 130 | 84. | * | 1 | 1012 | 205 | 66. | * | 1 | 1357 | 280 | 58. |
| 1 | 0245 | 56 | 0. | * | 1 | 0630 | 131 | 87. | * | 1 | 1015 | 206 | 65. | * | 1 | 1400 | 281 | 58. |
| 1 | 0248 | 57 | 0. | * | 1 | 0633 | 132 | 89. | * | 1 | 1018 | 207 | 65. | * | 1 | 1403 | 282 | 57. |
| 1 | 0251 | 58 | 0. | * | 1 | 0636 | 133 | 91. | * | 1 | 1021 | 208 | 65. | * | 1 | 1406 | 283 | 57. |
| 1 | 0254 | 59 | 0. | * | 1 | 0639 | 134 | 91. | * | 1 | 1024 | 209 | 65. | * | 1 | 1409 | 284 | 57. |
| 1 | 0257 | 60 | 0. | * | 1 | 0642 | 135 | 91. | * | 1 | 1027 | 210 | 64. | * | 1 | 1412 | 285 | 57. |
| 1 | 0300 | 61 | 0. | * | 1 | 0645 | 136 | 90. | * | 1 | 1030 | 211 | 64. | * | 1 | 1415 | 286 | 57. |
| 1 | 0303 | 62 | 0. | * | 1 | 0648 | 137 | 90. | * | 1 | 1033 | 212 | 64. | * | 1 | 1418 | 287 | 56. |
| 1 | 0306 | 63 | 0. | * | 1 | 0651 | 138 | 90. | * | 1 | 1036 | 213 | 64. | * | 1 | 1421 | 288 | 56. |
| 1 | 0309 | 64 | 0. | * | 1 | 0654 | 139 | 90. | * | 1 | 1039 | 214 | 64. | * | 1 | 1424 | 289 | 56. |
| 1 | 0312 | 65 | 0. | * | 1 | 0657 | 140 | 91. | * | 1 | 1042 | 215 | 64. | * | 1 | 1427 | 290 | 56. |
| 1 | 0315 | 66 | 0. | * | 1 | 0700 | 141 | 91. | * | 1 | 1045 | 216 | 64. | * | 1 | 1430 | 291 | 56. |
| 1 | 0318 | 67 | 0. | * | 1 | 0703 | 142 | 91. | * | 1 | 1048 | 217 | 64. | * | 1 | 1433 | 292 | 55. |
| 1 | 0321 | 68 | 0. | * | 1 | 0706 | 143 | 90. | * | 1 | 1051 | 218 | 64. | * | 1 | 1436 | 293 | 55. |
| 1 | 0324 | 69 | 0. | * | 1 | 0709 | 144 | 89. | * | 1 | 1054 | 219 | 63. | * | 1 | 1439 | 294 | 55. |
| 1 | 0327 | 70 | 0. | * | 1 | 0712 | 145 | 88. | * | 1 | 1057 | 220 | 63. | * | 1 | 1442 | 295 | 55. |
| 1 | 0330 | 71 | 0. | * | 1 | 0715 | 146 | 87. | * | 1 | 1100 | 221 | 63. | * | 1 | 1445 | 296 | 55. |
| 1 | 0333 | 72 | 0. | * | 1 | 0718 | 147 | 86. | * | 1 | 1103 | 222 | 63. | * | 1 | 1448 | 297 | 54. |
| 1 | 0336 | 73 | 0. | * | 1 | 0721 | 148 | 85. | * | 1 | 1106 | 223 | 63. | * | 1 | 1451 | 298 | 54. |
| 1 | 0339 | 74 | 0. | * | 1 | 0724 | 149 | 85. | * | 1 | 1109 | 224 | 63. | * | 1 | 1454 | 299 | 54. |
| 1 | 0342 | 75 | 0. | * | 1 | 0727 | 150 | 84. | * | 1 | 1112 | 225 | 63. | * | 1 | 1457 | 300 | 54. |

| PEAK FLOW (CFS) | TIME (HR) | 6-HR (CFS) | 24-HR (INCHES) | 72-HR (AC-FT) | 14.95-HR (CFS) |
|--------------------|--------------|---------------|-------------------|------------------|-------------------|
| 221. | 6.05 | 81. | 0.650 | 40. | 45. |
| | | | 0.909 | 56. | 0.909 |
| | | | | 56. | 56. |

CUMULATIVE AREA = 1.16 SQ MI

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* *
668 KK * RR-DFCS *
* *

674 KO OUTPUT CONTROL VARIABLES
IPRNT 1 PRINT CONTROL
IPLOT 1 PLOT CONTROL
QSCAL 0. HYDROGRAPH PLOT SCALE

HYDROGRAPH ROUTING DATA

| 675 RS | STORAGE ROUTING | NSTPS | 1 | NUMBER OF SUBREACHES | ITYP | STOR | TYPE OF INITIAL CONDITION | RSVRIC | 0.00 | INITIAL CONDITION | X | 0.00 | WORKING R AND D COEFFICIENT | |
|--------|-----------------|-------|-------|----------------------|-------|-------|---------------------------|--------|-------|-------------------|-------|-------|-----------------------------|-------|
| 676 SV | STORAGE | 0.0 | 0.1 | 0.4 | 1.0 | 1.7 | 2.5 | 3.3 | 4.2 | 5.2 | 6.3 | 7.4 | 8.6 | 9.9 |
| 678 SE | ELEVATION | 72.00 | 73.00 | 74.00 | 75.00 | 76.00 | 77.00 | 78.00 | 79.00 | 80.00 | 81.00 | 82.00 | 83.00 | 84.00 |

680 SQ DISCHARGE 0. 4. 15. 28. 32. 35. 38. 41. 78. 143.
 226. 324. 435.

HYDROGRAPH AT STATION RR-DFCS

| ***** | | | | | | | HYDROGRAPH AT STATION RR-DFCS | | | | | | | | | | ***** | | | | | | |
|-------|-----|------|-----|---------|---------|-------|-------------------------------|----|-----|------|-----|---------|---------|-------|---|----|-------|------|-----|---------|---------|-------|--|
| DA | MON | HRMN | ORD | OUTFLOW | STORAGE | STAGE | * | DA | MON | HRMN | ORD | OUTFLOW | STORAGE | STAGE | * | DA | MON | HRMN | ORD | OUTFLOW | STORAGE | STAGE | |
| 1 | | 0000 | 1 | 0. | 0.0 | 72.0 | * | 1 | | 0500 | 101 | 0. | 0.0 | 72.0 | * | 1 | | 1000 | 201 | 67. | 4.9 | 79.7 | |
| 1 | | 0003 | 2 | 0. | 0.0 | 72.0 | * | 1 | | 0503 | 102 | 0. | 0.0 | 72.0 | * | 1 | | 1003 | 202 | 67. | 4.9 | 79.7 | |
| 1 | | 0006 | 3 | 0. | 0.0 | 72.0 | * | 1 | | 0506 | 103 | 0. | 0.0 | 72.0 | * | 1 | | 1006 | 203 | 67. | 4.9 | 79.7 | |
| 1 | | 0009 | 4 | 0. | 0.0 | 72.0 | * | 1 | | 0509 | 104 | 0. | 0.0 | 72.0 | * | 1 | | 1009 | 204 | 67. | 4.9 | 79.7 | |
| 1 | | 0012 | 5 | 0. | 0.0 | 72.0 | * | 1 | | 0512 | 105 | 0. | 0.0 | 72.0 | * | 1 | | 1012 | 205 | 67. | 4.9 | 79.7 | |
| 1 | | 0015 | 6 | 0. | 0.0 | 72.0 | * | 1 | | 0515 | 106 | 0. | 0.0 | 72.0 | * | 1 | | 1015 | 206 | 67. | 4.9 | 79.7 | |
| 1 | | 0018 | 7 | 0. | 0.0 | 72.0 | * | 1 | | 0518 | 107 | 0. | 0.0 | 72.0 | * | 1 | | 1018 | 207 | 66. | 4.9 | 79.7 | |
| 1 | | 0021 | 8 | 0. | 0.0 | 72.0 | * | 1 | | 0521 | 108 | 0. | 0.0 | 72.0 | * | 1 | | 1021 | 208 | 66. | 4.9 | 79.7 | |
| 1 | | 0024 | 9 | 0. | 0.0 | 72.0 | * | 1 | | 0524 | 109 | 0. | 0.0 | 72.0 | * | 1 | | 1024 | 209 | 66. | 4.9 | 79.7 | |
| 1 | | 0027 | 10 | 0. | 0.0 | 72.0 | * | 1 | | 0527 | 110 | 0. | 0.0 | 72.0 | * | 1 | | 1027 | 210 | 66. | 4.9 | 79.7 | |
| 1 | | 0030 | 11 | 0. | 0.0 | 72.0 | * | 1 | | 0530 | 111 | 0. | 0.0 | 72.0 | * | 1 | | 1030 | 211 | 66. | 4.9 | 79.7 | |
| 1 | | 0033 | 12 | 0. | 0.0 | 72.0 | * | 1 | | 0533 | 112 | 0. | 0.0 | 72.1 | * | 1 | | 1033 | 212 | 65. | 4.9 | 79.7 | |
| 1 | | 0036 | 13 | 0. | 0.0 | 72.0 | * | 1 | | 0536 | 113 | 1. | 0.0 | 72.2 | * | 1 | | 1036 | 213 | 65. | 4.9 | 79.7 | |
| 1 | | 0039 | 14 | 0. | 0.0 | 72.0 | * | 1 | | 0539 | 114 | 3. | 0.0 | 72.8 | * | 1 | | 1039 | 214 | 65. | 4.9 | 79.6 | |
| 1 | | 0042 | 15 | 0. | 0.0 | 72.0 | * | 1 | | 0542 | 115 | 7. | 0.1 | 73.2 | * | 1 | | 1042 | 215 | 65. | 4.9 | 79.6 | |
| 1 | | 0045 | 16 | 0. | 0.0 | 72.0 | * | 1 | | 0545 | 116 | 12. | 0.3 | 73.8 | * | 1 | | 1045 | 216 | 65. | 4.9 | 79.6 | |
| 1 | | 0048 | 17 | 0. | 0.0 | 72.0 | * | 1 | | 0548 | 117 | 19. | 0.6 | 74.3 | * | 1 | | 1048 | 217 | 65. | 4.9 | 79.6 | |
| 1 | | 0051 | 18 | 0. | 0.0 | 72.0 | * | 1 | | 0551 | 118 | 28. | 1.0 | 75.0 | * | 1 | | 1051 | 218 | 64. | 4.9 | 79.6 | |
| 1 | | 0054 | 19 | 0. | 0.0 | 72.0 | * | 1 | | 0554 | 119 | 31. | 1.5 | 75.7 | * | 1 | | 1054 | 219 | 64. | 4.9 | 79.6 | |
| 1 | | 0057 | 20 | 0. | 0.0 | 72.0 | * | 1 | | 0557 | 120 | 33. | 2.1 | 76.5 | * | 1 | | 1057 | 220 | 64. | 4.9 | 79.6 | |
| 1 | | 0100 | 21 | 0. | 0.0 | 72.0 | * | 1 | | 0600 | 121 | 36. | 2.8 | 77.4 | * | 1 | | 1100 | 221 | 64. | 4.8 | 79.6 | |
| 1 | | 0103 | 22 | 0. | 0.0 | 72.0 | * | 1 | | 0603 | 122 | 39. | 3.5 | 78.2 | * | 1 | | 1103 | 222 | 64. | 4.8 | 79.6 | |
| 1 | | 0106 | 23 | 0. | 0.0 | 72.0 | * | 1 | | 0606 | 123 | 41. | 4.2 | 79.0 | * | 1 | | 1106 | 223 | 64. | 4.8 | 79.6 | |
| 1 | | 0109 | 24 | 0. | 0.0 | 72.0 | * | 1 | | 0609 | 124 | 63. | 4.8 | 79.6 | * | 1 | | 1109 | 224 | 64. | 4.8 | 79.6 | |
| 1 | | 0112 | 25 | 0. | 0.0 | 72.0 | * | 1 | | 0612 | 125 | 77. | 5.2 | 80.0 | * | 1 | | 1112 | 225 | 64. | 4.8 | 79.6 | |
| 1 | | 0115 | 26 | 0. | 0.0 | 72.0 | * | 1 | | 0615 | 126 | 87. | 5.4 | 80.1 | * | 1 | | 1115 | 226 | 64. | 4.8 | 79.6 | |
| 1 | | 0118 | 27 | 0. | 0.0 | 72.0 | * | 1 | | 0618 | 127 | 89. | 5.4 | 80.2 | * | 1 | | 1118 | 227 | 63. | 4.8 | 79.6 | |
| 1 | | 0121 | 28 | 0. | 0.0 | 72.0 | * | 1 | | 0621 | 128 | 88. | 5.4 | 80.2 | * | 1 | | 1121 | 228 | 63. | 4.8 | 79.6 | |
| 1 | | 0124 | 29 | 0. | 0.0 | 72.0 | * | 1 | | 0624 | 129 | 87. | 5.4 | 80.1 | * | 1 | | 1124 | 229 | 63. | 4.8 | 79.6 | |
| 1 | | 0127 | 30 | 0. | 0.0 | 72.0 | * | 1 | | 0627 | 130 | 86. | 5.3 | 80.1 | * | 1 | | 1127 | 230 | 63. | 4.8 | 79.6 | |
| 1 | | 0130 | 31 | 0. | 0.0 | 72.0 | * | 1 | | 0630 | 131 | 86. | 5.3 | 80.1 | * | 1 | | 1130 | 231 | 63. | 4.8 | 79.6 | |
| 1 | | 0133 | 32 | 0. | 0.0 | 72.0 | * | 1 | | 0633 | 132 | 86. | 5.4 | 80.1 | * | 1 | | 1133 | 232 | 63. | 4.8 | 79.6 | |
| 1 | | 0136 | 33 | 0. | 0.0 | 72.0 | * | 1 | | 0636 | 133 | 87. | 5.4 | 80.1 | * | 1 | | 1136 | 233 | 63. | 4.8 | 79.6 | |
| 1 | | 0139 | 34 | 0. | 0.0 | 72.0 | * | 1 | | 0639 | 134 | 88. | 5.4 | 80.2 | * | 1 | | 1139 | 234 | 63. | 4.8 | 79.6 | |
| 1 | | 0142 | 35 | 0. | 0.0 | 72.0 | * | 1 | | 0642 | 135 | 89. | 5.4 | 80.2 | * | 1 | | 1142 | 235 | 63. | 4.8 | 79.6 | |
| 1 | | 0145 | 36 | 0. | 0.0 | 72.0 | * | 1 | | 0645 | 136 | 89. | 5.4 | 80.2 | * | 1 | | 1145 | 236 | 63. | 4.8 | 79.6 | |
| 1 | | 0148 | 37 | 0. | 0.0 | 72.0 | * | 1 | | 0648 | 137 | 89. | 5.4 | 80.2 | * | 1 | | 1148 | 237 | 63. | 4.8 | 79.6 | |
| 1 | | 0151 | 38 | 0. | 0.0 | 72.0 | * | 1 | | 0651 | 138 | 90. | 5.4 | 80.2 | * | 1 | | 1151 | 238 | 63. | 4.8 | 79.6 | |
| 1 | | 0154 | 39 | 0. | 0.0 | 72.0 | * | 1 | | 0654 | 139 | 90. | 5.4 | 80.2 | * | 1 | | 1154 | 239 | 63. | 4.8 | 79.6 | |
| 1 | | 0157 | 40 | 0. | 0.0 | 72.0 | * | 1 | | 0657 | 140 | 90. | 5.4 | 80.2 | * | 1 | | 1157 | 240 | 62. | 4.8 | 79.6 | |
| 1 | | 0200 | 41 | 0. | 0.0 | 72.0 | * | 1 | | 0700 | 141 | 90. | 5.4 | 80.2 | * | 1 | | 1200 | 241 | 62. | 4.8 | 79.6 | |
| 1 | | 0203 | 42 | 0. | 0.0 | 72.0 | * | 1 | | 0703 | 142 | 90. | 5.4 | 80.2 | * | 1 | | 1203 | 242 | 62. | 4.8 | 79.6 | |
| 1 | | 0206 | 43 | 0. | 0.0 | 72.0 | * | 1 | | 0706 | 143 | 90. | 5.4 | 80.2 | * | 1 | | 1206 | 243 | 62. | 4.8 | 79.6 | |
| 1 | | 0209 | 44 | 0. | 0.0 | 72.0 | * | 1 | | 0709 | 144 | 90. | 5.4 | 80.2 | * | 1 | | 1209 | 244 | 62. | 4.8 | 79.6 | |
| 1 | | 0212 | 45 | 0. | 0.0 | 72.0 | * | 1 | | 0712 | 145 | 90. | 5.4 | 80.2 | * | 1 | | 1212 | 245 | 62. | 4.8 | 79.6 | |
| 1 | | 0215 | 46 | 0. | 0.0 | 72.0 | * | 1 | | 0715 | 146 | 89. | 5.4 | 80.2 | * | 1 | | 1215 | 246 | 62. | 4.8 | 79.6 | |
| 1 | | 0218 | 47 | 0. | 0.0 | 72.0 | * | 1 | | 0718 | 147 | 89. | 5.4 | 80.2 | * | 1 | | 1218 | 247 | 62. | 4.8 | 79.6 | |
| 1 | | 0221 | 48 | 0. | 0.0 | 72.0 | * | 1 | | 0721 | 148 | 88. | 5.4 | 80.2 | * | 1 | | 1221 | 248 | 62. | 4.8 | 79.6 | |
| 1 | | 0224 | 49 | 0. | 0.0 | 72.0 | * | 1 | | 0724 | 149 | 87. | 5.4 | 80.1 | * | 1 | | 1224 | 249 | 62. | 4.8 | 79.6 | |
| 1 | | 0227 | 50 | 0. | 0.0 | 72.0 | * | 1 | | 0727 | 150 | 87. | 5.4 | 80.1 | * | 1 | | 1227 | 250 | 62. | 4.8 | 79.6 | |
| 1 | | 0230 | 51 | 0. | 0.0 | 72.0 | * | 1 | | 0730 | 151 | 86. | 5.4 | 80.1 | * | 1 | | 1230 | 251 | 62. | 4.8 | 79.6 | |
| 1 | | 0233 | 52 | 0. | 0.0 | 72.0 | * | 1 | | 0733 | 152 | 86. | 5.3 | 80.1 | * | 1 | | 1233 | 252 | 62. | 4.8 | 79.6 | |
| 1 | | 0236 | 53 | 0. | 0.0 | 72.0 | * | 1 | | 0736 | 153 | 85. | 5.3 | 80.1 | * | 1 | | 1236 | 253 | 62. | 4.8 | 79.6 | |
| 1 | | 0239 | 54 | 0. | 0.0 | 72.0 | * | 1 | | 0739 | 154 | 84. | 5.3 | 80.1 | * | 1 | | 1239 | 254 | 61. | 4.8 | 79.6 | |
| 1 | | 0242 | 55 | 0. | 0.0 | 72.0 | * | 1 | | 0742 | 155 | 84. | 5.3 | 80.1 | * | 1 | | 1242 | 255 | 61. | 4.8 | 79.6 | |
| 1 | | 0245 | 56 | 0. | 0.0 | 72.0 | * | 1 | | 0745 | 156 | 84. | 5.3 | 80.1 | * | 1 | | 1245 | 256 | 61. | 4.8 | 79.5 | |
| 1 | | 0248 | 57 | 0. | 0.0 | 72.0 | * | 1 | | 0748 | 157 | 83. | 5.3 | 80.1 | * | 1 | | 1248 | 257 | 61. | 4.8 | 79.5 | |
| 1 | | 0251 | 58 | 0. | 0.0 | 72.0 | * | 1 | | 0751 | 158 | 83. | 5.3 | 80.1 | * | 1 | | 1251 | 258 | 61. | 4.8 | 79.5 | |
| 1 | | 0254 | 59 | 0. | 0.0 | 72.0 | * | 1 | | 0754 | 159 | 82. | 5.3 | 80.1 | * | 1 | | 1254 | 259 | 61. | 4.8 | 79.5 | |
| 1 | | 0257 | 60 | 0. | 0.0 | 72.0 | * | 1 | | 0757 | 160 | 82. | 5.3 | 80.1 | * | 1 | | 1257 | 260 | 61. | 4.8 | 79.5 | |
| 1 | | 0300 | 61 | 0. | 0.0 | 72.0 | * | 1 | | 0800 | 161 | 82. | 5.3 | 80.1 | * | 1 | | 1300 | 261 | 61. | 4.8 | 79.5 | |
| 1 | | 0303 | 62 | 0. | 0.0 | 72.0 | * | 1 | | 0803 | 162 | 81. | 5.3 | 80.0 | * | 1 | | 1303 | 262 | 61. | 4.8 | 79.5 | |
| 1 | | 0306 | 63 | 0. | 0.0 | 72.0 | * | 1 | | 0806 | 163 | 81. | 5.3 | 80.0 | * | 1 | | 1306 | 263 | 61. | 4.8 | 79.5 | |

| | | | | | | | | | | | | | | | | | | | |
|---|------|-----|----|-----|------|---|---|------|-----|-----|-----|------|---|---|------|-----|-----|-----|------|
| 1 | 0309 | 64 | 0. | 0.0 | 72.0 | * | 1 | 0809 | 164 | 80. | 5.3 | 80.0 | * | 1 | 1309 | 264 | 61. | 4.8 | 79.5 |
| 1 | 0312 | 65 | 0. | 0.0 | 72.0 | * | 1 | 0812 | 165 | 80. | 5.2 | 80.0 | * | 1 | 1312 | 265 | 61. | 4.8 | 79.5 |
| 1 | 0315 | 66 | 0. | 0.0 | 72.0 | * | 1 | 0815 | 166 | 79. | 5.2 | 80.0 | * | 1 | 1315 | 266 | 60. | 4.8 | 79.5 |
| 1 | 0318 | 67 | 0. | 0.0 | 72.0 | * | 1 | 0818 | 167 | 78. | 5.2 | 80.0 | * | 1 | 1318 | 267 | 60. | 4.8 | 79.5 |
| 1 | 0321 | 68 | 0. | 0.0 | 72.0 | * | 1 | 0821 | 168 | 77. | 5.2 | 80.0 | * | 1 | 1321 | 268 | 60. | 4.7 | 79.5 |
| 1 | 0324 | 69 | 0. | 0.0 | 72.0 | * | 1 | 0824 | 169 | 77. | 5.2 | 80.0 | * | 1 | 1324 | 269 | 60. | 4.7 | 79.5 |
| 1 | 0327 | 70 | 0. | 0.0 | 72.0 | * | 1 | 0827 | 170 | 76. | 5.2 | 79.9 | * | 1 | 1327 | 270 | 60. | 4.7 | 79.5 |
| 1 | 0330 | 71 | 0. | 0.0 | 72.0 | * | 1 | 0830 | 171 | 75. | 5.2 | 79.9 | * | 1 | 1330 | 271 | 60. | 4.7 | 79.5 |
| 1 | 0333 | 72 | 0. | 0.0 | 72.0 | * | 1 | 0833 | 172 | 75. | 5.1 | 79.9 | * | 1 | 1333 | 272 | 60. | 4.7 | 79.5 |
| 1 | 0336 | 73 | 0. | 0.0 | 72.0 | * | 1 | 0836 | 173 | 74. | 5.1 | 79.9 | * | 1 | 1336 | 273 | 59. | 4.7 | 79.5 |
| 1 | 0339 | 74 | 0. | 0.0 | 72.0 | * | 1 | 0839 | 174 | 74. | 5.1 | 79.9 | * | 1 | 1339 | 274 | 59. | 4.7 | 79.5 |
| 1 | 0342 | 75 | 0. | 0.0 | 72.0 | * | 1 | 0842 | 175 | 73. | 5.1 | 79.9 | * | 1 | 1342 | 275 | 59. | 4.7 | 79.5 |
| 1 | 0345 | 76 | 0. | 0.0 | 72.0 | * | 1 | 0845 | 176 | 73. | 5.1 | 79.9 | * | 1 | 1345 | 276 | 59. | 4.7 | 79.5 |
| 1 | 0348 | 77 | 0. | 0.0 | 72.0 | * | 1 | 0848 | 177 | 72. | 5.1 | 79.8 | * | 1 | 1348 | 277 | 59. | 4.7 | 79.5 |
| 1 | 0351 | 78 | 0. | 0.0 | 72.0 | * | 1 | 0851 | 178 | 72. | 5.1 | 79.8 | * | 1 | 1351 | 278 | 59. | 4.7 | 79.5 |
| 1 | 0354 | 79 | 0. | 0.0 | 72.0 | * | 1 | 0854 | 179 | 71. | 5.0 | 79.8 | * | 1 | 1354 | 279 | 59. | 4.7 | 79.5 |
| 1 | 0357 | 80 | 0. | 0.0 | 72.0 | * | 1 | 0857 | 180 | 71. | 5.0 | 79.8 | * | 1 | 1357 | 280 | 59. | 4.7 | 79.5 |
| 1 | 0400 | 81 | 0. | 0.0 | 72.0 | * | 1 | 0900 | 181 | 71. | 5.0 | 79.8 | * | 1 | 1400 | 281 | 58. | 4.7 | 79.5 |
| 1 | 0403 | 82 | 0. | 0.0 | 72.0 | * | 1 | 0903 | 182 | 70. | 5.0 | 79.8 | * | 1 | 1403 | 282 | 58. | 4.7 | 79.5 |
| 1 | 0406 | 83 | 0. | 0.0 | 72.0 | * | 1 | 0906 | 183 | 70. | 5.0 | 79.8 | * | 1 | 1406 | 283 | 58. | 4.7 | 79.5 |
| 1 | 0409 | 84 | 0. | 0.0 | 72.0 | * | 1 | 0909 | 184 | 70. | 5.0 | 79.8 | * | 1 | 1409 | 284 | 58. | 4.7 | 79.5 |
| 1 | 0412 | 85 | 0. | 0.0 | 72.0 | * | 1 | 0912 | 185 | 70. | 5.0 | 79.8 | * | 1 | 1412 | 285 | 58. | 4.7 | 79.5 |
| 1 | 0415 | 86 | 0. | 0.0 | 72.0 | * | 1 | 0915 | 186 | 69. | 5.0 | 79.8 | * | 1 | 1415 | 286 | 58. | 4.7 | 79.5 |
| 1 | 0418 | 87 | 0. | 0.0 | 72.0 | * | 1 | 0918 | 187 | 69. | 5.0 | 79.8 | * | 1 | 1418 | 287 | 58. | 4.7 | 79.5 |
| 1 | 0421 | 88 | 0. | 0.0 | 72.0 | * | 1 | 0921 | 188 | 69. | 5.0 | 79.8 | * | 1 | 1421 | 288 | 57. | 4.7 | 79.4 |
| 1 | 0424 | 89 | 0. | 0.0 | 72.0 | * | 1 | 0924 | 189 | 69. | 5.0 | 79.8 | * | 1 | 1424 | 289 | 57. | 4.7 | 79.4 |
| 1 | 0427 | 90 | 0. | 0.0 | 72.0 | * | 1 | 0927 | 190 | 69. | 5.0 | 79.7 | * | 1 | 1427 | 290 | 57. | 4.7 | 79.4 |
| 1 | 0430 | 91 | 0. | 0.0 | 72.0 | * | 1 | 0930 | 191 | 68. | 5.0 | 79.7 | * | 1 | 1430 | 291 | 57. | 4.7 | 79.4 |
| 1 | 0433 | 92 | 0. | 0.0 | 72.0 | * | 1 | 0933 | 192 | 68. | 5.0 | 79.7 | * | 1 | 1433 | 292 | 57. | 4.7 | 79.4 |
| 1 | 0436 | 93 | 0. | 0.0 | 72.0 | * | 1 | 0936 | 193 | 68. | 5.0 | 79.7 | * | 1 | 1436 | 293 | 56. | 4.6 | 79.4 |
| 1 | 0439 | 94 | 0. | 0.0 | 72.0 | * | 1 | 0939 | 194 | 68. | 5.0 | 79.7 | * | 1 | 1439 | 294 | 56. | 4.6 | 79.4 |
| 1 | 0442 | 95 | 0. | 0.0 | 72.0 | * | 1 | 0942 | 195 | 68. | 5.0 | 79.7 | * | 1 | 1442 | 295 | 56. | 4.6 | 79.4 |
| 1 | 0445 | 96 | 0. | 0.0 | 72.0 | * | 1 | 0945 | 196 | 68. | 4.9 | 79.7 | * | 1 | 1445 | 296 | 56. | 4.6 | 79.4 |
| 1 | 0448 | 97 | 0. | 0.0 | 72.0 | * | 1 | 0948 | 197 | 68. | 4.9 | 79.7 | * | 1 | 1448 | 297 | 56. | 4.6 | 79.4 |
| 1 | 0451 | 98 | 0. | 0.0 | 72.0 | * | 1 | 0951 | 198 | 67. | 4.9 | 79.7 | * | 1 | 1451 | 298 | 55. | 4.6 | 79.4 |
| 1 | 0454 | 99 | 0. | 0.0 | 72.0 | * | 1 | 0954 | 199 | 67. | 4.9 | 79.7 | * | 1 | 1454 | 299 | 55. | 4.6 | 79.4 |
| 1 | 0457 | 100 | 0. | 0.0 | 72.0 | * | 1 | 0957 | 200 | 67. | 4.9 | 79.7 | * | 1 | 1457 | 300 | 55. | 4.6 | 79.4 |

| PEAK FLOW (CFS) | TIME (HR) | MAXIMUM AVERAGE FLOW | | | | |
|--------------------|--------------|----------------------|-------|-------|----------|-------|
| | | 6-HR | 24-HR | 72-HR | 14.95-HR | |
| 90. | 7.10 | (CFS) | 74. | 42. | 42. | 42. |
| | | (INCHES) | 0.593 | 0.835 | 0.835 | 0.835 |
| | | (AC-FT) | 37. | 51. | 51. | 51. |

| PEAK STORAGE (AC-FT) | TIME (HR) | MAXIMUM AVERAGE STORAGE | | | |
|-------------------------|--------------|-------------------------|-------|-------|----------|
| | | 6-HR | 24-HR | 72-HR | 14.95-HR |
| 5. | 7.05 | 5. | 3. | 3. | 3. |

| PEAK STAGE (FEET) | TIME (HR) | MAXIMUM AVERAGE STAGE | | | |
|----------------------|--------------|-----------------------|-------|-------|----------|
| | | 6-HR | 24-HR | 72-HR | 14.95-HR |
| 80.19 | 7.10 | 79.85 | 76.69 | 76.69 | 76.69 |

CUMULATIVE AREA = 1.16 SQ MI

*** **

* *
702 KK * AP-D24 *
* *

705 KO OUTPUT CONTROL VARIABLES
IPRNT 1 PRINT CONTROL
IPLOT 1 PLOT CONTROL
QSCAL 0. HYDROGRAPH PLOT SCALE

BEGIN CALCULATIONS IN THE NORTH TRIBUTARY WATERSHED

706 HC

HYDROGRAPH COMBINATION

ICOMP

2 NUMBER OF HYDROGRAPHS TO COMBINE

HYDROGRAPH AT STATION AP-D24
SUM OF 2 HYDROGRAPHS

| DA | MON | HRMN | ORD | FLOW | * | DA | MON | HRMN | ORD | FLOW | * | DA | MON | HRMN | ORD | FLOW | * | DA | MON | HRMN | ORD | FLOW |
|----|-----|------|-----|------|---|----|-----|------|-----|------|---|----|-----|------|-----|------|---|----|-----|------|-----|------|
| 1 | | 0000 | 1 | 0. | * | 1 | | 0345 | 76 | 0. | * | 1 | | 0730 | 151 | 243. | * | 1 | | 1115 | 226 | 100. |
| 1 | | 0003 | 2 | 0. | * | 1 | | 0348 | 77 | 0. | * | 1 | | 0733 | 152 | 239. | * | 1 | | 1118 | 227 | 99. |
| 1 | | 0006 | 3 | 0. | * | 1 | | 0351 | 78 | 0. | * | 1 | | 0736 | 153 | 234. | * | 1 | | 1121 | 228 | 99. |
| 1 | | 0009 | 4 | 0. | * | 1 | | 0354 | 79 | 0. | * | 1 | | 0739 | 154 | 230. | * | 1 | | 1124 | 229 | 98. |
| 1 | | 0012 | 5 | 0. | * | 1 | | 0357 | 80 | 0. | * | 1 | | 0742 | 155 | 226. | * | 1 | | 1127 | 230 | 98. |
| 1 | | 0015 | 6 | 0. | * | 1 | | 0400 | 81 | 0. | * | 1 | | 0745 | 156 | 222. | * | 1 | | 1130 | 231 | 97. |
| 1 | | 0018 | 7 | 0. | * | 1 | | 0403 | 82 | 0. | * | 1 | | 0748 | 157 | 216. | * | 1 | | 1133 | 232 | 97. |
| 1 | | 0021 | 8 | 0. | * | 1 | | 0406 | 83 | 0. | * | 1 | | 0751 | 158 | 210. | * | 1 | | 1136 | 233 | 96. |
| 1 | | 0024 | 9 | 0. | * | 1 | | 0409 | 84 | 0. | * | 1 | | 0754 | 159 | 205. | * | 1 | | 1139 | 234 | 96. |
| 1 | | 0027 | 10 | 0. | * | 1 | | 0412 | 85 | 0. | * | 1 | | 0757 | 160 | 201. | * | 1 | | 1142 | 235 | 95. |
| 1 | | 0030 | 11 | 0. | * | 1 | | 0415 | 86 | 0. | * | 1 | | 0800 | 161 | 197. | * | 1 | | 1145 | 236 | 94. |
| 1 | | 0033 | 12 | 0. | * | 1 | | 0418 | 87 | 0. | * | 1 | | 0803 | 162 | 193. | * | 1 | | 1148 | 237 | 94. |
| 1 | | 0036 | 13 | 0. | * | 1 | | 0421 | 88 | 0. | * | 1 | | 0806 | 163 | 189. | * | 1 | | 1151 | 238 | 93. |
| 1 | | 0039 | 14 | 0. | * | 1 | | 0424 | 89 | 0. | * | 1 | | 0809 | 164 | 186. | * | 1 | | 1154 | 239 | 93. |
| 1 | | 0042 | 15 | 0. | * | 1 | | 0427 | 90 | 1. | * | 1 | | 0812 | 165 | 182. | * | 1 | | 1157 | 240 | 92. |
| 1 | | 0045 | 16 | 0. | * | 1 | | 0430 | 91 | 1. | * | 1 | | 0815 | 166 | 179. | * | 1 | | 1200 | 241 | 92. |
| 1 | | 0048 | 17 | 0. | * | 1 | | 0433 | 92 | 1. | * | 1 | | 0818 | 167 | 175. | * | 1 | | 1203 | 242 | 91. |
| 1 | | 0051 | 18 | 0. | * | 1 | | 0436 | 93 | 1. | * | 1 | | 0821 | 168 | 172. | * | 1 | | 1206 | 243 | 90. |
| 1 | | 0054 | 19 | 0. | * | 1 | | 0439 | 94 | 1. | * | 1 | | 0824 | 169 | 168. | * | 1 | | 1209 | 244 | 90. |
| 1 | | 0057 | 20 | 0. | * | 1 | | 0442 | 95 | 1. | * | 1 | | 0827 | 170 | 165. | * | 1 | | 1212 | 245 | 89. |
| 1 | | 0100 | 21 | 0. | * | 1 | | 0445 | 96 | 1. | * | 1 | | 0830 | 171 | 161. | * | 1 | | 1215 | 246 | 89. |
| 1 | | 0103 | 22 | 0. | * | 1 | | 0448 | 97 | 1. | * | 1 | | 0833 | 172 | 158. | * | 1 | | 1218 | 247 | 88. |
| 1 | | 0106 | 23 | 0. | * | 1 | | 0451 | 98 | 1. | * | 1 | | 0836 | 173 | 155. | * | 1 | | 1221 | 248 | 87. |
| 1 | | 0109 | 24 | 0. | * | 1 | | 0454 | 99 | 1. | * | 1 | | 0839 | 174 | 153. | * | 1 | | 1224 | 249 | 87. |
| 1 | | 0112 | 25 | 0. | * | 1 | | 0457 | 100 | 1. | * | 1 | | 0842 | 175 | 151. | * | 1 | | 1227 | 250 | 86. |
| 1 | | 0115 | 26 | 0. | * | 1 | | 0500 | 101 | 1. | * | 1 | | 0845 | 176 | 148. | * | 1 | | 1230 | 251 | 85. |
| 1 | | 0118 | 27 | 0. | * | 1 | | 0503 | 102 | 1. | * | 1 | | 0848 | 177 | 146. | * | 1 | | 1233 | 252 | 85. |
| 1 | | 0121 | 28 | 0. | * | 1 | | 0506 | 103 | 1. | * | 1 | | 0851 | 178 | 144. | * | 1 | | 1236 | 253 | 84. |
| 1 | | 0124 | 29 | 0. | * | 1 | | 0509 | 104 | 1. | * | 1 | | 0854 | 179 | 142. | * | 1 | | 1239 | 254 | 84. |
| 1 | | 0127 | 30 | 0. | * | 1 | | 0512 | 105 | 1. | * | 1 | | 0857 | 180 | 141. | * | 1 | | 1242 | 255 | 83. |
| 1 | | 0130 | 31 | 0. | * | 1 | | 0515 | 106 | 1. | * | 1 | | 0900 | 181 | 139. | * | 1 | | 1245 | 256 | 82. |
| 1 | | 0133 | 32 | 0. | * | 1 | | 0518 | 107 | 1. | * | 1 | | 0903 | 182 | 137. | * | 1 | | 1248 | 257 | 82. |
| 1 | | 0136 | 33 | 0. | * | 1 | | 0521 | 108 | 1. | * | 1 | | 0906 | 183 | 136. | * | 1 | | 1251 | 258 | 81. |
| 1 | | 0139 | 34 | 0. | * | 1 | | 0524 | 109 | 1. | * | 1 | | 0909 | 184 | 134. | * | 1 | | 1254 | 259 | 81. |
| 1 | | 0142 | 35 | 0. | * | 1 | | 0527 | 110 | 1. | * | 1 | | 0912 | 185 | 133. | * | 1 | | 1257 | 260 | 80. |
| 1 | | 0145 | 36 | 0. | * | 1 | | 0530 | 111 | 1. | * | 1 | | 0915 | 186 | 132. | * | 1 | | 1300 | 261 | 79. |
| 1 | | 0148 | 37 | 0. | * | 1 | | 0533 | 112 | 1. | * | 1 | | 0918 | 187 | 131. | * | 1 | | 1303 | 262 | 79. |
| 1 | | 0151 | 38 | 0. | * | 1 | | 0536 | 113 | 2. | * | 1 | | 0921 | 188 | 129. | * | 1 | | 1306 | 263 | 78. |
| 1 | | 0154 | 39 | 0. | * | 1 | | 0539 | 114 | 6. | * | 1 | | 0924 | 189 | 128. | * | 1 | | 1309 | 264 | 78. |
| 1 | | 0157 | 40 | 0. | * | 1 | | 0542 | 115 | 13. | * | 1 | | 0927 | 190 | 127. | * | 1 | | 1312 | 265 | 77. |
| 1 | | 0200 | 41 | 0. | * | 1 | | 0545 | 116 | 25. | * | 1 | | 0930 | 191 | 126. | * | 1 | | 1315 | 266 | 77. |
| 1 | | 0203 | 42 | 0. | * | 1 | | 0548 | 117 | 41. | * | 1 | | 0933 | 192 | 125. | * | 1 | | 1318 | 267 | 77. |
| 1 | | 0206 | 43 | 0. | * | 1 | | 0551 | 118 | 59. | * | 1 | | 0936 | 193 | 124. | * | 1 | | 1321 | 268 | 76. |
| 1 | | 0209 | 44 | 0. | * | 1 | | 0554 | 119 | 71. | * | 1 | | 0939 | 194 | 124. | * | 1 | | 1324 | 269 | 76. |
| 1 | | 0212 | 45 | 0. | * | 1 | | 0557 | 120 | 83. | * | 1 | | 0942 | 195 | 123. | * | 1 | | 1327 | 270 | 75. |
| 1 | | 0215 | 46 | 0. | * | 1 | | 0600 | 121 | 94. | * | 1 | | 0945 | 196 | 122. | * | 1 | | 1330 | 271 | 75. |
| 1 | | 0218 | 47 | 0. | * | 1 | | 0603 | 122 | 100. | * | 1 | | 0948 | 197 | 121. | * | 1 | | 1333 | 272 | 74. |
| 1 | | 0221 | 48 | 0. | * | 1 | | 0606 | 123 | 114. | * | 1 | | 0951 | 198 | 120. | * | 1 | | 1336 | 273 | 73. |
| 1 | | 0224 | 49 | 0. | * | 1 | | 0609 | 124 | 297. | * | 1 | | 0954 | 199 | 120. | * | 1 | | 1339 | 274 | 73. |
| 1 | | 0227 | 50 | 0. | * | 1 | | 0612 | 125 | 453. | * | 1 | | 0957 | 200 | 119. | * | 1 | | 1342 | 275 | 72. |
| 1 | | 0230 | 51 | 0. | * | 1 | | 0615 | 126 | 571. | * | 1 | | 1000 | 201 | 118. | * | 1 | | 1345 | 276 | 72. |
| 1 | | 0233 | 52 | 0. | * | 1 | | 0618 | 127 | 626. | * | 1 | | 1003 | 202 | 118. | * | 1 | | 1348 | 277 | 71. |
| 1 | | 0236 | 53 | 0. | * | 1 | | 0621 | 128 | 612. | * | 1 | | 1006 | 203 | 117. | * | 1 | | 1351 | 278 | 71. |
| 1 | | 0239 | 54 | 0. | * | 1 | | 0624 | 129 | 630. | * | 1 | | 1009 | 204 | 116. | * | 1 | | 1354 | 279 | 70. |
| 1 | | 0242 | 55 | 0. | * | 1 | | 0627 | 130 | 589. | * | 1 | | 1012 | 205 | 115. | * | 1 | | 1357 | 280 | 70. |
| 1 | | 0245 | 56 | 0. | * | 1 | | 0630 | 131 | 576. | * | 1 | | 1015 | 206 | 115. | * | 1 | | 1400 | 281 | 69. |
| 1 | | 0248 | 57 | 0. | * | 1 | | 0633 | 132 | 539. | * | 1 | | 1018 | 207 | 114. | * | 1 | | 1403 | 282 | 69. |
| 1 | | 0251 | 58 | 0. | * | 1 | | 0636 | 133 | 515. | * | 1 | | 1021 | 208 | 113. | * | 1 | | 1406 | 283 | 68. |
| 1 | | 0254 | 59 | 0. | * | 1 | | 0639 | 134 | 485. | * | 1 | | 1024 | 209 | 112. | * | 1 | | 1409 | 284 | 67. |
| 1 | | 0257 | 60 | 0. | * | 1 | | 0642 | 135 | 458. | * | 1 | | 1027 | 210 | 111. | * | 1 | | 1412 | 285 | 67. |

| | | | | | | | | | | | | | | | | | | |
|---|------|----|----|---|---|------|-----|------|---|---|------|-----|------|---|---|------|-----|-----|
| 1 | 0300 | 61 | 0. | * | 1 | 0645 | 136 | 427. | * | 1 | 1030 | 211 | 110. | * | 1 | 1415 | 286 | 66. |
| 1 | 0303 | 62 | 0. | * | 1 | 0648 | 137 | 395. | * | 1 | 1033 | 212 | 109. | * | 1 | 1418 | 287 | 65. |
| 1 | 0306 | 63 | 0. | * | 1 | 0651 | 138 | 367. | * | 1 | 1036 | 213 | 108. | * | 1 | 1421 | 288 | 65. |
| 1 | 0309 | 64 | 0. | * | 1 | 0654 | 139 | 346. | * | 1 | 1039 | 214 | 107. | * | 1 | 1424 | 289 | 64. |
| 1 | 0312 | 65 | 0. | * | 1 | 0657 | 140 | 327. | * | 1 | 1042 | 215 | 107. | * | 1 | 1427 | 290 | 63. |
| 1 | 0315 | 66 | 0. | * | 1 | 0700 | 141 | 316. | * | 1 | 1045 | 216 | 106. | * | 1 | 1430 | 291 | 63. |
| 1 | 0318 | 67 | 0. | * | 1 | 0703 | 142 | 306. | * | 1 | 1048 | 217 | 105. | * | 1 | 1433 | 292 | 63. |
| 1 | 0321 | 68 | 0. | * | 1 | 0706 | 143 | 295. | * | 1 | 1051 | 218 | 105. | * | 1 | 1436 | 293 | 63. |
| 1 | 0324 | 69 | 0. | * | 1 | 0709 | 144 | 285. | * | 1 | 1054 | 219 | 104. | * | 1 | 1439 | 294 | 62. |
| 1 | 0327 | 70 | 0. | * | 1 | 0712 | 145 | 276. | * | 1 | 1057 | 220 | 103. | * | 1 | 1442 | 295 | 62. |
| 1 | 0330 | 71 | 0. | * | 1 | 0715 | 146 | 268. | * | 1 | 1100 | 221 | 103. | * | 1 | 1445 | 296 | 62. |
| 1 | 0333 | 72 | 0. | * | 1 | 0718 | 147 | 261. | * | 1 | 1103 | 222 | 102. | * | 1 | 1448 | 297 | 61. |
| 1 | 0336 | 73 | 0. | * | 1 | 0721 | 148 | 256. | * | 1 | 1106 | 223 | 102. | * | 1 | 1451 | 298 | 61. |
| 1 | 0339 | 74 | 0. | * | 1 | 0724 | 149 | 252. | * | 1 | 1109 | 224 | 101. | * | 1 | 1454 | 299 | 61. |
| 1 | 0342 | 75 | 0. | * | 1 | 0727 | 150 | 247. | * | 1 | 1112 | 225 | 101. | * | 1 | 1457 | 300 | 61. |

| PEAK FLOW (CFS) | TIME (HR) | MAXIMUM AVERAGE FLOW | | | |
|--------------------|--------------|----------------------|-------|-------|----------|
| | | 6-HR | 24-HR | 72-HR | 14.95-HR |
| 630. | 6.40 | 196. | 96. | 95. | 95. |
| | | (INCHES) 1.529 | 1.841 | 1.841 | 1.841 |
| | | (AC-FT) 97. | 117. | 117. | 117. |

CUMULATIVE AREA = 1.19 SQ MI

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* *
734 KK * RR-DFG *
* *

738 KO OUTPUT CONTROL VARIABLES
IPRNT 1 PRINT CONTROL
IPLOT 1 PLOT CONTROL
QSCAL 0. HYDROGRAPH PLOT SCALE

HYDROGRAPH ROUTING DATA

739 RS STORAGE ROUTING
NSTPS 1 NUMBER OF SUBREACHES
ITYP STOR TYPE OF INITIAL CONDITION
RSVRIC 0.00 INITIAL CONDITION
X 0.00 WORKING R AND D COEFFICIENT

| | | | | | | | | | | |
|--------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 740 SV | STORAGE | 0.0 | 0.1 | 0.3 | 0.7 | 1.4 | 2.2 | 3.2 | 4.2 | 5.6 |
| 741 SE | ELEVATION | 60.00 | 61.00 | 62.00 | 64.00 | 66.00 | 68.00 | 70.00 | 72.00 | 74.00 |
| 742 SQ | DISCHARGE | 0. | 1. | 1. | 2. | 2. | 24. | 33. | 40. | 46. |

HYDROGRAPH AT STATION RR-DFG

| DA | MON | HRMN | ORD | OUTFLOW | STORAGE | STAGE | DA | MON | HRMN | ORD | OUTFLOW | STORAGE | STAGE | DA | MON | HRMN | ORD | OUTFLOW | STORAGE | STAGE |
|----|------|------|-----|---------|---------|-------|----|------|------|-----|---------|---------|-------|----|------|------|-----|---------|---------|-------|
| 1 | 0000 | 1 | 0. | 0.0 | 60.0 | * | 1 | 0500 | 101 | 0. | 0.0 | 60.0 | * | 1 | 1000 | 201 | 4. | 1.4 | 66.2 | |
| 1 | 0003 | 2 | 0. | 0.0 | 60.0 | * | 1 | 0503 | 102 | 0. | 0.0 | 60.0 | * | 1 | 1003 | 202 | 4. | 1.4 | 66.1 | |
| 1 | 0006 | 3 | 0. | 0.0 | 60.0 | * | 1 | 0506 | 103 | 0. | 0.0 | 60.0 | * | 1 | 1006 | 203 | 4. | 1.4 | 66.1 | |
| 1 | 0009 | 4 | 0. | 0.0 | 60.0 | * | 1 | 0509 | 104 | 0. | 0.0 | 60.0 | * | 1 | 1009 | 204 | 4. | 1.4 | 66.1 | |
| 1 | 0012 | 5 | 0. | 0.0 | 60.0 | * | 1 | 0512 | 105 | 0. | 0.0 | 60.0 | * | 1 | 1012 | 205 | 4. | 1.4 | 66.1 | |
| 1 | 0015 | 6 | 0. | 0.0 | 60.0 | * | 1 | 0515 | 106 | 0. | 0.0 | 60.0 | * | 1 | 1015 | 206 | 4. | 1.4 | 66.1 | |
| 1 | 0018 | 7 | 0. | 0.0 | 60.0 | * | 1 | 0518 | 107 | 0. | 0.0 | 60.0 | * | 1 | 1018 | 207 | 4. | 1.4 | 66.1 | |
| 1 | 0021 | 8 | 0. | 0.0 | 60.0 | * | 1 | 0521 | 108 | 0. | 0.0 | 60.0 | * | 1 | 1021 | 208 | 4. | 1.4 | 66.1 | |

| | | | | | | | | | | | | | | | | | | | |
|---|------|----|----|-----|------|---|---|------|-----|-----|-----|------|---|---|------|-----|----|-----|------|
| 1 | 0024 | 9 | 0. | 0.0 | 60.0 | * | 1 | 0524 | 109 | 0. | 0.0 | 60.0 | * | 1 | 1024 | 209 | 4. | 1.4 | 66.1 |
| 1 | 0027 | 10 | 0. | 0.0 | 60.0 | * | 1 | 0527 | 110 | 0. | 0.0 | 60.0 | * | 1 | 1027 | 210 | 3. | 1.4 | 66.1 |
| 1 | 0030 | 11 | 0. | 0.0 | 60.0 | * | 1 | 0530 | 111 | 0. | 0.0 | 60.0 | * | 1 | 1030 | 211 | 3. | 1.4 | 66.1 |
| 1 | 0033 | 12 | 0. | 0.0 | 60.0 | * | 1 | 0533 | 112 | 0. | 0.0 | 60.0 | * | 1 | 1033 | 212 | 3. | 1.4 | 66.1 |
| 1 | 0036 | 13 | 0. | 0.0 | 60.0 | * | 1 | 0536 | 113 | 0. | 0.0 | 60.0 | * | 1 | 1036 | 213 | 3. | 1.4 | 66.1 |
| 1 | 0039 | 14 | 0. | 0.0 | 60.0 | * | 1 | 0539 | 114 | 0. | 0.0 | 60.4 | * | 1 | 1039 | 214 | 3. | 1.4 | 66.1 |
| 1 | 0042 | 15 | 0. | 0.0 | 60.0 | * | 1 | 0542 | 115 | 1. | 0.1 | 61.1 | * | 1 | 1042 | 215 | 3. | 1.4 | 66.1 |
| 1 | 0045 | 16 | 0. | 0.0 | 60.0 | * | 1 | 0545 | 116 | 1. | 0.2 | 61.8 | * | 1 | 1045 | 216 | 3. | 1.4 | 66.1 |
| 1 | 0048 | 17 | 0. | 0.0 | 60.0 | * | 1 | 0548 | 117 | 2. | 0.5 | 62.8 | * | 1 | 1048 | 217 | 3. | 1.4 | 66.1 |
| 1 | 0051 | 18 | 0. | 0.0 | 60.0 | * | 1 | 0551 | 118 | 2. | 0.8 | 64.2 | * | 1 | 1051 | 218 | 3. | 1.4 | 66.1 |
| 1 | 0054 | 19 | 0. | 0.0 | 60.0 | * | 1 | 0554 | 119 | 2. | 1.2 | 65.5 | * | 1 | 1054 | 219 | 3. | 1.4 | 66.1 |
| 1 | 0057 | 20 | 0. | 0.0 | 60.0 | * | 1 | 0557 | 120 | 11. | 1.7 | 66.8 | * | 1 | 1057 | 220 | 3. | 1.4 | 66.1 |
| 1 | 0100 | 21 | 0. | 0.0 | 60.0 | * | 1 | 0600 | 121 | 24. | 2.2 | 68.1 | * | 1 | 1100 | 221 | 3. | 1.4 | 66.1 |
| 1 | 0103 | 22 | 0. | 0.0 | 60.0 | * | 1 | 0603 | 122 | 29. | 2.7 | 69.1 | * | 1 | 1103 | 222 | 3. | 1.4 | 66.1 |
| 1 | 0106 | 23 | 0. | 0.0 | 60.0 | * | 1 | 0606 | 123 | 34. | 3.3 | 70.2 | * | 1 | 1106 | 223 | 3. | 1.4 | 66.1 |
| 1 | 0109 | 24 | 0. | 0.0 | 60.0 | * | 1 | 0609 | 124 | 37. | 3.7 | 71.0 | * | 1 | 1109 | 224 | 3. | 1.4 | 66.1 |
| 1 | 0112 | 25 | 0. | 0.0 | 60.0 | * | 1 | 0612 | 125 | 39. | 4.0 | 71.6 | * | 1 | 1112 | 225 | 3. | 1.4 | 66.1 |
| 1 | 0115 | 26 | 0. | 0.0 | 60.0 | * | 1 | 0615 | 126 | 40. | 4.2 | 72.0 | * | 1 | 1115 | 226 | 3. | 1.4 | 66.1 |
| 1 | 0118 | 27 | 0. | 0.0 | 60.0 | * | 1 | 0618 | 127 | 41. | 4.3 | 72.1 | * | 1 | 1118 | 227 | 3. | 1.4 | 66.1 |
| 1 | 0121 | 28 | 0. | 0.0 | 60.0 | * | 1 | 0621 | 128 | 41. | 4.3 | 72.2 | * | 1 | 1121 | 228 | 3. | 1.4 | 66.1 |
| 1 | 0124 | 29 | 0. | 0.0 | 60.0 | * | 1 | 0624 | 129 | 41. | 4.3 | 72.1 | * | 1 | 1124 | 229 | 3. | 1.4 | 66.1 |
| 1 | 0127 | 30 | 0. | 0.0 | 60.0 | * | 1 | 0627 | 130 | 40. | 4.3 | 72.1 | * | 1 | 1127 | 230 | 3. | 1.4 | 66.1 |
| 1 | 0130 | 31 | 0. | 0.0 | 60.0 | * | 1 | 0630 | 131 | 40. | 4.2 | 72.0 | * | 1 | 1130 | 231 | 3. | 1.4 | 66.1 |
| 1 | 0133 | 32 | 0. | 0.0 | 60.0 | * | 1 | 0633 | 132 | 40. | 4.1 | 71.8 | * | 1 | 1133 | 232 | 3. | 1.4 | 66.1 |
| 1 | 0136 | 33 | 0. | 0.0 | 60.0 | * | 1 | 0636 | 133 | 39. | 4.0 | 71.7 | * | 1 | 1136 | 233 | 3. | 1.4 | 66.1 |
| 1 | 0139 | 34 | 0. | 0.0 | 60.0 | * | 1 | 0639 | 134 | 39. | 4.0 | 71.5 | * | 1 | 1139 | 234 | 3. | 1.4 | 66.1 |
| 1 | 0142 | 35 | 0. | 0.0 | 60.0 | * | 1 | 0642 | 135 | 38. | 3.9 | 71.3 | * | 1 | 1142 | 235 | 3. | 1.4 | 66.1 |
| 1 | 0145 | 36 | 0. | 0.0 | 60.0 | * | 1 | 0645 | 136 | 37. | 3.8 | 71.1 | * | 1 | 1145 | 236 | 3. | 1.4 | 66.1 |
| 1 | 0148 | 37 | 0. | 0.0 | 60.0 | * | 1 | 0648 | 137 | 37. | 3.7 | 70.9 | * | 1 | 1148 | 237 | 3. | 1.4 | 66.1 |
| 1 | 0151 | 38 | 0. | 0.0 | 60.0 | * | 1 | 0651 | 138 | 36. | 3.6 | 70.8 | * | 1 | 1151 | 238 | 3. | 1.4 | 66.1 |
| 1 | 0154 | 39 | 0. | 0.0 | 60.0 | * | 1 | 0654 | 139 | 35. | 3.5 | 70.6 | * | 1 | 1154 | 239 | 3. | 1.4 | 66.1 |
| 1 | 0157 | 40 | 0. | 0.0 | 60.0 | * | 1 | 0657 | 140 | 35. | 3.4 | 70.4 | * | 1 | 1157 | 240 | 3. | 1.4 | 66.1 |
| 1 | 0200 | 41 | 0. | 0.0 | 60.0 | * | 1 | 0700 | 141 | 34. | 3.3 | 70.2 | * | 1 | 1200 | 241 | 3. | 1.4 | 66.1 |
| 1 | 0203 | 42 | 0. | 0.0 | 60.0 | * | 1 | 0703 | 142 | 33. | 3.2 | 70.0 | * | 1 | 1203 | 242 | 3. | 1.4 | 66.1 |
| 1 | 0206 | 43 | 0. | 0.0 | 60.0 | * | 1 | 0706 | 143 | 32. | 3.1 | 69.8 | * | 1 | 1206 | 243 | 3. | 1.4 | 66.1 |
| 1 | 0209 | 44 | 0. | 0.0 | 60.0 | * | 1 | 0709 | 144 | 32. | 3.0 | 69.6 | * | 1 | 1209 | 244 | 3. | 1.4 | 66.1 |
| 1 | 0212 | 45 | 0. | 0.0 | 60.0 | * | 1 | 0712 | 145 | 31. | 2.9 | 69.5 | * | 1 | 1212 | 245 | 3. | 1.4 | 66.1 |
| 1 | 0215 | 46 | 0. | 0.0 | 60.0 | * | 1 | 0715 | 146 | 30. | 2.8 | 69.3 | * | 1 | 1215 | 246 | 3. | 1.4 | 66.1 |
| 1 | 0218 | 47 | 0. | 0.0 | 60.0 | * | 1 | 0718 | 147 | 29. | 2.7 | 69.1 | * | 1 | 1218 | 247 | 3. | 1.4 | 66.1 |
| 1 | 0221 | 48 | 0. | 0.0 | 60.0 | * | 1 | 0721 | 148 | 28. | 2.7 | 68.9 | * | 1 | 1221 | 248 | 3. | 1.4 | 66.1 |
| 1 | 0224 | 49 | 0. | 0.0 | 60.0 | * | 1 | 0724 | 149 | 28. | 2.6 | 68.8 | * | 1 | 1224 | 249 | 3. | 1.4 | 66.1 |
| 1 | 0227 | 50 | 0. | 0.0 | 60.0 | * | 1 | 0727 | 150 | 27. | 2.5 | 68.6 | * | 1 | 1227 | 250 | 3. | 1.4 | 66.1 |
| 1 | 0230 | 51 | 0. | 0.0 | 60.0 | * | 1 | 0730 | 151 | 26. | 2.4 | 68.5 | * | 1 | 1230 | 251 | 3. | 1.4 | 66.1 |
| 1 | 0233 | 52 | 0. | 0.0 | 60.0 | * | 1 | 0733 | 152 | 25. | 2.3 | 68.3 | * | 1 | 1233 | 252 | 3. | 1.4 | 66.1 |
| 1 | 0236 | 53 | 0. | 0.0 | 60.0 | * | 1 | 0736 | 153 | 25. | 2.3 | 68.2 | * | 1 | 1236 | 253 | 3. | 1.4 | 66.1 |
| 1 | 0239 | 54 | 0. | 0.0 | 60.0 | * | 1 | 0739 | 154 | 24. | 2.2 | 68.0 | * | 1 | 1239 | 254 | 3. | 1.4 | 66.1 |
| 1 | 0242 | 55 | 0. | 0.0 | 60.0 | * | 1 | 0742 | 155 | 23. | 2.1 | 67.9 | * | 1 | 1242 | 255 | 3. | 1.4 | 66.1 |
| 1 | 0245 | 56 | 0. | 0.0 | 60.0 | * | 1 | 0745 | 156 | 21. | 2.1 | 67.7 | * | 1 | 1245 | 256 | 3. | 1.4 | 66.1 |
| 1 | 0248 | 57 | 0. | 0.0 | 60.0 | * | 1 | 0748 | 157 | 20. | 2.0 | 67.6 | * | 1 | 1248 | 257 | 3. | 1.4 | 66.1 |
| 1 | 0251 | 58 | 0. | 0.0 | 60.0 | * | 1 | 0751 | 158 | 18. | 2.0 | 67.5 | * | 1 | 1251 | 258 | 3. | 1.4 | 66.1 |
| 1 | 0254 | 59 | 0. | 0.0 | 60.0 | * | 1 | 0754 | 159 | 17. | 1.9 | 67.4 | * | 1 | 1254 | 259 | 3. | 1.4 | 66.1 |
| 1 | 0257 | 60 | 0. | 0.0 | 60.0 | * | 1 | 0757 | 160 | 16. | 1.9 | 67.3 | * | 1 | 1257 | 260 | 3. | 1.4 | 66.1 |
| 1 | 0300 | 61 | 0. | 0.0 | 60.0 | * | 1 | 0800 | 161 | 15. | 1.9 | 67.2 | * | 1 | 1300 | 261 | 3. | 1.4 | 66.1 |
| 1 | 0303 | 62 | 0. | 0.0 | 60.0 | * | 1 | 0803 | 162 | 14. | 1.8 | 67.1 | * | 1 | 1303 | 262 | 3. | 1.4 | 66.1 |
| 1 | 0306 | 63 | 0. | 0.0 | 60.0 | * | 1 | 0806 | 163 | 14. | 1.8 | 67.1 | * | 1 | 1306 | 263 | 3. | 1.4 | 66.1 |
| 1 | 0309 | 64 | 0. | 0.0 | 60.0 | * | 1 | 0809 | 164 | 13. | 1.8 | 67.0 | * | 1 | 1309 | 264 | 3. | 1.4 | 66.1 |
| 1 | 0312 | 65 | 0. | 0.0 | 60.0 | * | 1 | 0812 | 165 | 12. | 1.7 | 66.9 | * | 1 | 1312 | 265 | 3. | 1.4 | 66.1 |
| 1 | 0315 | 66 | 0. | 0.0 | 60.0 | * | 1 | 0815 | 166 | 12. | 1.7 | 66.8 | * | 1 | 1315 | 266 | 3. | 1.4 | 66.0 |
| 1 | 0318 | 67 | 0. | 0.0 | 60.0 | * | 1 | 0818 | 167 | 11. | 1.7 | 66.8 | * | 1 | 1318 | 267 | 3. | 1.4 | 66.0 |
| 1 | 0321 | 68 | 0. | 0.0 | 60.0 | * | 1 | 0821 | 168 | 10. | 1.7 | 66.7 | * | 1 | 1321 | 268 | 3. | 1.4 | 66.0 |
| 1 | 0324 | 69 | 0. | 0.0 | 60.0 | * | 1 | 0824 | 169 | 10. | 1.6 | 66.7 | * | 1 | 1324 | 269 | 3. | 1.4 | 66.0 |
| 1 | 0327 | 70 | 0. | 0.0 | 60.0 | * | 1 | 0827 | 170 | 9. | 1.6 | 66.6 | * | 1 | 1327 | 270 | 3. | 1.4 | 66.0 |
| 1 | 0330 | 71 | 0. | 0.0 | 60.0 | * | 1 | 0830 | 171 | 8. | 1.6 | 66.6 | * | 1 | 1330 | 271 | 3. | 1.4 | 66.0 |
| 1 | 0333 | 72 | 0. | 0.0 | 60.0 | * | 1 | 0833 | 172 | 8. | 1.6 | 66.5 | * | 1 | 1333 | 272 | 3. | 1.4 | 66.0 |
| 1 | 0336 | 73 | 0. | 0.0 | 60.0 | * | 1 | 0836 | 173 | 7. | 1.6 | 66.5 | * | 1 | 1336 | 273 | 3. | 1.4 | 66.0 |
| 1 | 0339 | 74 | 0. | 0.0 | 60.0 | * | 1 | 0839 | 174 | 7. | 1.5 | 66.4 | * | 1 | 1339 | 274 | 3. | 1.4 | 66.0 |
| 1 | 0342 | 75 | 0. | 0.0 | 60.0 | * | 1 | 0842 | 175 | 7. | 1.5 | 66.4 | * | 1 | 1342 | 275 | 3. | 1.4 | 66.0 |
| 1 | 0345 | 76 | 0. | 0.0 | 60.0 | * | 1 | 0845 | 176 | 6. | 1.5 | 66.4 | * | 1 | 1345 | 276 | 3. | 1.4 | 66.0 |
| 1 | 0348 | 77 | 0. | 0.0 | 60.0 | * | 1 | 0848 | 177 | 6. | 1.5 | 66.4 | * | 1 | 1348 | 277 | 3. | 1.4 | 66.0 |
| 1 | 0351 | 78 | 0. | 0.0 | 60.0 | * | 1 | 0851 | 178 | 6. | 1.5 | 66.3 | * | 1 | 1351 | 278 | 3. | 1.4 | 66.0 |
| 1 | 0354 | 79 | 0. | 0.0 | 60.0 | * | 1 | 0854 | 179 | 6. | 1.5 | 66.3 | * | 1 | 1354 | 279 | 3. | 1.4 | 66.0 |
| 1 | 0357 | 80 | 0. | 0.0 | 60.0 | * | 1 | 0857 | 180 | 5. | 1.5 | 66.3 | * | 1 | 1357 | 280 | 3. | 1.4 | 66.0 |
| 1 | 0400 | 81 | 0. | 0.0 | 60.0 | * | 1 | 0900 | 181 | 5. | 1.5 | 66.3 | * | 1 | 1400 | 281 | 3. | 1.4 | 66.0 |
| 1 | 0403 | 82 | 0. | 0.0 | 60.0 | * | 1 | 0903 | 182 | 5. | 1.5 | 66.3 | * | 1 | 1403 | 282 | 3. | 1.4 | 66.0 |
| 1 | 0406 | 83 | 0. | 0.0 | 60.0 | * | 1 | 0906 | 183 | 5. | 1.5 | 66.2 | * | 1 | 1406 | 283 | 3. | 1.4 | 66.0 |
| 1 | 0409 | 84 | 0. | 0.0 | 60.0 | * | 1 | 0909 | 184 | 5. | 1.5 | 66.2 | * | 1 | 1409 | 284 | 3. | 1.4 | 66.0 |
| 1 | 0412 | 85 | 0. | 0.0 | 60.0 | * | 1 | 0912 | 185 | 5. | 1.5 | 66.2 | * | 1 | 1412 | 285 | 3. | 1.4 | 66.0 |

| | | | | | | | | | | | | | | | | | | | |
|---|------|-----|----|-----|------|---|---|------|-----|----|-----|------|---|---|------|-----|----|-----|------|
| 1 | 0415 | 86 | 0. | 0.0 | 60.0 | * | 1 | 0915 | 186 | 5. | 1.5 | 66.2 | * | 1 | 1415 | 286 | 3. | 1.4 | 66.0 |
| 1 | 0418 | 87 | 0. | 0.0 | 60.0 | * | 1 | 0918 | 187 | 5. | 1.5 | 66.2 | * | 1 | 1418 | 287 | 3. | 1.4 | 66.0 |
| 1 | 0421 | 88 | 0. | 0.0 | 60.0 | * | 1 | 0921 | 188 | 4. | 1.4 | 66.2 | * | 1 | 1421 | 288 | 2. | 1.4 | 66.0 |
| 1 | 0424 | 89 | 0. | 0.0 | 60.0 | * | 1 | 0924 | 189 | 4. | 1.4 | 66.2 | * | 1 | 1424 | 289 | 2. | 1.4 | 66.0 |
| 1 | 0427 | 90 | 0. | 0.0 | 60.0 | * | 1 | 0927 | 190 | 4. | 1.4 | 66.2 | * | 1 | 1427 | 290 | 2. | 1.4 | 66.0 |
| 1 | 0430 | 91 | 0. | 0.0 | 60.0 | * | 1 | 0930 | 191 | 4. | 1.4 | 66.2 | * | 1 | 1430 | 291 | 2. | 1.4 | 66.0 |
| 1 | 0433 | 92 | 0. | 0.0 | 60.0 | * | 1 | 0933 | 192 | 4. | 1.4 | 66.2 | * | 1 | 1433 | 292 | 2. | 1.4 | 66.0 |
| 1 | 0436 | 93 | 0. | 0.0 | 60.0 | * | 1 | 0936 | 193 | 4. | 1.4 | 66.2 | * | 1 | 1436 | 293 | 2. | 1.4 | 66.0 |
| 1 | 0439 | 94 | 0. | 0.0 | 60.0 | * | 1 | 0939 | 194 | 4. | 1.4 | 66.2 | * | 1 | 1439 | 294 | 2. | 1.4 | 66.0 |
| 1 | 0442 | 95 | 0. | 0.0 | 60.0 | * | 1 | 0942 | 195 | 4. | 1.4 | 66.2 | * | 1 | 1442 | 295 | 2. | 1.4 | 66.0 |
| 1 | 0445 | 96 | 0. | 0.0 | 60.0 | * | 1 | 0945 | 196 | 4. | 1.4 | 66.2 | * | 1 | 1445 | 296 | 2. | 1.4 | 66.0 |
| 1 | 0448 | 97 | 0. | 0.0 | 60.0 | * | 1 | 0948 | 197 | 4. | 1.4 | 66.2 | * | 1 | 1448 | 297 | 2. | 1.4 | 66.0 |
| 1 | 0451 | 98 | 0. | 0.0 | 60.0 | * | 1 | 0951 | 198 | 4. | 1.4 | 66.2 | * | 1 | 1451 | 298 | 2. | 1.4 | 66.0 |
| 1 | 0454 | 99 | 0. | 0.0 | 60.0 | * | 1 | 0954 | 199 | 4. | 1.4 | 66.2 | * | 1 | 1454 | 299 | 2. | 1.4 | 66.0 |
| 1 | 0457 | 100 | 0. | 0.0 | 60.0 | * | 1 | 0957 | 200 | 4. | 1.4 | 66.2 | * | 1 | 1457 | 300 | 2. | 1.4 | 66.0 |

| PEAK FLOW (CFS) | TIME (HR) | MAXIMUM AVERAGE FLOW | | | | |
|-------------------------|--------------|-------------------------|-------|-------|----------|-------|
| | | 6-HR | 24-HR | 72-HR | 14.95-HR | |
| 41. | 6.35 | 14. | 6. | 6. | 6. | |
| | | (INCHES) | 1.661 | 1.831 | 1.831 | 1.831 |
| | | (AC-FT) | 7. | 8. | 8. | 8. |
| PEAK STORAGE (AC-FT) | TIME (HR) | MAXIMUM AVERAGE STORAGE | | | | |
| | | 6-HR | 24-HR | 72-HR | 14.95-HR | |
| 4. | 6.35 | 2. | 1. | 1. | 1. | |
| PEAK STAGE (FEET) | TIME (HR) | MAXIMUM AVERAGE STAGE | | | | |
| | | 6-HR | 24-HR | 72-HR | 14.95-HR | |
| 72.16 | 6.35 | 67.46 | 64.27 | 64.27 | 64.27 | |
| CUMULATIVE AREA = | | 0.08 SQ MI | | | | |

100 Year, 24 Hour, Developed Condition
 RUNOFF SUMMARY
 FLOW IN CUBIC FEET PER SECOND
 TIME IN HOURS, AREA IN SQUARE MILES

| OPERATION | STATION | PEAK FLOW | TIME OF PEAK | AVERAGE FLOW FOR MAXIMUM PERIOD | | | BASIN AREA | MAXIMUM STAGE | TIME OF MAX STAGE |
|---------------|----------|-----------|--------------|---------------------------------|---------|---------|------------|---------------|-------------------|
| | | | | 6-HOUR | 24-HOUR | 72-HOUR | | | |
| HYDROGRAPH AT | SB-D1 | 72. | 6.25 | 12. | 5. | 5. | 0.09 | | |
| ROUTED TO | RT-SBD1 | 72. | 6.30 | 12. | 5. | 5. | 0.09 | | |
| HYDROGRAPH AT | SB-D2 | 72. | 6.10 | 8. | 4. | 4. | 0.06 | | |
| 2 COMBINED AT | AP-D1 | 127. | 6.20 | 20. | 9. | 9. | 0.14 | | |
| HYDROGRAPH AT | SB-D3 | 40. | 6.15 | 5. | 2. | 2. | 0.03 | | |
| 2 COMBINED AT | AP-DDA | 165. | 6.15 | 25. | 11. | 11. | 0.17 | | |
| ROUTED TO | RR-DFA | 65. | 6.60 | 25. | 11. | 11. | 0.17 | 63.22 | 6.60 |
| ROUTED TO | RT-APDFA | 65. | 6.65 | 25. | 11. | 11. | 0.17 | | |
| HYDROGRAPH AT | SB-D6 | 86. | 6.05 | 9. | 4. | 4. | 0.04 | | |
| 2 COMBINED AT | AP-D2 | 131. | 6.05 | 34. | 15. | 15. | 0.21 | | |
| ROUTED TO | RT-APD2 | 130. | 6.10 | 34. | 15. | 15. | 0.21 | | |
| HYDROGRAPH AT | SB-D7 | 157. | 6.05 | 17. | 7. | 7. | 0.07 | | |
| HYDROGRAPH AT | SB-D4 | 56. | 6.15 | 7. | 3. | 3. | 0.05 | | |
| HYDROGRAPH AT | SB-D5 | 47. | 6.10 | 6. | 2. | 2. | 0.03 | | |
| 2 COMBINED AT | AP-DFB | 103. | 6.15 | 12. | 6. | 6. | 0.08 | | |
| ROUTED TO | RR-DFB | 57. | 6.35 | 12. | 6. | 6. | 0.08 | 25.45 | 6.35 |
| ROUTED TO | RT-APDFB | 57. | 6.35 | 12. | 6. | 6. | 0.08 | | |
| 3 COMBINED AT | AP-D3 | 330. | 6.05 | 63. | 28. | 28. | 0.36 | | |
| ROUTED TO | RT-APD3 | 329. | 6.10 | 63. | 28. | 28. | 0.36 | | |
| HYDROGRAPH AT | SB-D8 | 208. | 6.00 | 22. | 9. | 9. | 0.06 | | |
| 2 COMBINED AT | AP-DFC | 524. | 6.05 | 84. | 37. | 37. | 0.42 | | |
| ROUTED TO | RR-DFC | 86. | 7.30 | 74. | 37. | 37. | 0.42 | 65.48 | 7.30 |

| | | | | | | | |
|---------------|----------|------|------|------|-----|-----|------|
| ROUTED TO | RT-DFC | 86. | 7.35 | 74. | 37. | 37. | 0.42 |
| HYDROGRAPH AT | SB-D9A | 30. | 6.10 | 3. | 1. | 1. | 0.02 |
| 2 COMBINED AT | AP-D4 | 102. | 6.15 | 78. | 38. | 38. | 0.44 |
| ROUTED TO | RT-APD4 | 101. | 6.15 | 78. | 38. | 38. | 0.44 |
| HYDROGRAPH AT | SB-D9 | 37. | 6.10 | 5. | 2. | 2. | 0.02 |
| 2 COMBINED AT | AP-D4a | 139. | 6.15 | 82. | 40. | 40. | 0.46 |
| ROUTED TO | RT-APD4a | 139. | 6.15 | 82. | 40. | 40. | 0.46 |
| HYDROGRAPH AT | SB-D15 | 75. | 6.10 | 8. | 4. | 4. | 0.04 |
| 2 COMBINED AT | AP-D4b | 211. | 6.10 | 90. | 44. | 44. | 0.50 |
| ROUTED TO | RT-APD4b | 210. | 6.10 | 90. | 44. | 44. | 0.50 |
| HYDROGRAPH AT | SB-D10 | 27. | 6.20 | 4. | 2. | 2. | 0.03 |
| ROUTED TO | RT-SBD10 | 27. | 6.25 | 4. | 2. | 2. | 0.03 |
| HYDROGRAPH AT | SB-D11 | 81. | 6.10 | 10. | 4. | 4. | 0.05 |
| HYDROGRAPH AT | SB-D12 | 31. | 6.15 | 4. | 2. | 2. | 0.02 |
| ROUTED TO | RT-SBD12 | 31. | 6.20 | 4. | 2. | 2. | 0.02 |
| 3 COMBINED AT | AP-D5 | 133. | 6.15 | 17. | 8. | 8. | 0.10 |
| ROUTED TO | RT-APD5 | 132. | 6.15 | 17. | 8. | 8. | 0.10 |
| HYDROGRAPH AT | SB-D13 | 219. | 6.00 | 23. | 10. | 10. | 0.07 |
| 2 COMBINED AT | AP-D6 | 323. | 6.05 | 40. | 18. | 18. | 0.17 |
| ROUTED TO | RT-APD6 | 320. | 6.05 | 40. | 18. | 18. | 0.17 |
| HYDROGRAPH AT | SB-D14 | 49. | 6.05 | 5. | 2. | 2. | 0.02 |
| ROUTED TO | RT-SBD14 | 49. | 6.05 | 5. | 2. | 2. | 0.02 |
| 3 COMBINED AT | AP-D7 | 567. | 6.05 | 134. | 64. | 64. | 0.69 |
| ROUTED TO | RT-APD7 | 562. | 6.05 | 134. | 64. | 64. | 0.69 |
| HYDROGRAPH AT | SB-D17 | 25. | 6.00 | 2. | 1. | 1. | 0.01 |

| | | | | | | | | | |
|---------------|----------|------|------|------|-----|-----|------|-------|------|
| 2 COMBINED AT | AP-D7A | 586. | 6.05 | 137. | 65. | 65. | 0.70 | | |
| HYDROGRAPH AT | SB-D16A | 28. | 6.05 | 3. | 1. | 1. | 0.01 | | |
| 2 COMBINED AT | AP-D7A | 614. | 6.05 | 139. | 66. | 66. | 0.71 | | |
| ROUTED TO | RT-APD8 | 610. | 6.05 | 139. | 66. | 66. | 0.71 | | |
| HYDROGRAPH AT | SB-D17A | 36. | 6.00 | 4. | 2. | 2. | 0.01 | | |
| 2 COMBINED AT | AP-D8 | 645. | 6.05 | 143. | 68. | 68. | 0.72 | | |
| HYDROGRAPH AT | SB-D16 | 98. | 6.10 | 11. | 5. | 5. | 0.06 | | |
| ROUTED TO | RT-SBD16 | 98. | 6.10 | 11. | 5. | 5. | 0.06 | | |
| 2 COMBINED AT | AP-D8 | 739. | 6.05 | 154. | 72. | 72. | 0.78 | | |
| ROUTED TO | RT-APD9 | 735. | 6.05 | 154. | 72. | 72. | 0.78 | | |
| HYDROGRAPH AT | SB-D36 | 34. | 6.10 | 4. | 2. | 2. | 0.02 | | |
| ROUTED TO | RT-SBD36 | 34. | 6.15 | 4. | 2. | 2. | 0.02 | | |
| 2 COMBINED AT | AP-D9 | 765. | 6.10 | 158. | 74. | 74. | 0.81 | | |
| HYDROGRAPH AT | SB-D37 | 40. | 6.00 | 5. | 2. | 2. | 0.01 | | |
| ROUTED TO | RT-SBD37 | 40. | 6.00 | 5. | 2. | 2. | 0.01 | | |
| 2 COMBINED AT | AP-D9 | 803. | 6.05 | 162. | 76. | 76. | 0.82 | | |
| ROUTED TO | RT-APDFE | 799. | 6.05 | 162. | 76. | 76. | 0.82 | | |
| HYDROGRAPH AT | SB-D18 | 106. | 6.15 | 13. | 6. | 6. | 0.06 | | |
| ROUTED TO | RR-DFPCH | 36. | 6.45 | 11. | 5. | 5. | 0.06 | 23.15 | 6.45 |
| ROUTED TO | RT-RRDFP | 36. | 6.50 | 11. | 5. | 5. | 0.06 | | |
| HYDROGRAPH AT | SB-D19 | 59. | 6.00 | 6. | 3. | 3. | 0.02 | | |
| 2 COMBINED AT | AP-D10 | 65. | 6.05 | 17. | 7. | 7. | 0.09 | | |
| ROUTED TO | RT-APD10 | 65. | 6.10 | 17. | 7. | 7. | 0.09 | | |
| HYDROGRAPH AT | SB-D20 | 107. | 6.00 | 12. | 5. | 5. | 0.03 | | |
| 2 COMBINED AT | AP-D11 | 167. | 6.00 | 28. | 13. | 13. | 0.12 | | |

| | | | | | | | | | |
|---------------|----------|-------|------|------|-----|-----|------|-------|------|
| ROUTED TO | RT-APD11 | 165. | 6.05 | 28. | 13. | 13. | 0.12 | | |
| HYDROGRAPH AT | SB-D21 | 117. | 6.00 | 12. | 5. | 5. | 0.04 | | |
| 3 COMBINED AT | AP-DFE | 1079. | 6.05 | 202. | 94. | 94. | 0.98 | | |
| ROUTED TO | RR-DFE | 600. | 6.25 | 180. | 86. | 86. | 0.98 | 40.69 | 6.25 |
| DIVERSION TO | AP-D12 | 525. | 6.25 | 119. | 51. | 51. | 0.98 | | |
| HYDROGRAPH AT | AP-DFE | 75. | 6.25 | 61. | 36. | 36. | 0.98 | | |
| ROUTED TO | RT-APD13 | 75. | 6.30 | 61. | 36. | 36. | 0.98 | | |
| HYDROGRAPH AT | SB-D22 | 81. | 6.05 | 8. | 4. | 4. | 0.04 | | |
| 2 COMBINED AT | AP-D13 | 148. | 6.05 | 69. | 39. | 39. | 1.02 | | |
| ROUTED TO | RT-APD13 | 146. | 6.10 | 69. | 39. | 39. | 1.02 | | |
| HYDROGRAPH AT | SB-D23 | 15. | 6.00 | 2. | 1. | 1. | 0.00 | | |
| 2 COMBINED AT | AP-D14 | 161. | 6.05 | 70. | 40. | 40. | 1.02 | | |
| ROUTED TO | AP-DFE | 160. | 6.05 | 70. | 40. | 40. | 1.02 | | |
| HYDROGRAPH AT | SB-D24 | 48. | 6.05 | 5. | 2. | 2. | 0.03 | | |
| 2 COMBINED AT | AP-DFE | 208. | 6.05 | 75. | 42. | 42. | 1.05 | | |
| ROUTED TO | RR-DFE | 76. | 7.10 | 64. | 36. | 36. | 1.05 | 69.47 | 7.10 |
| HYDROGRAPH AT | SB-D25 | 42. | 6.05 | 4. | 2. | 2. | 0.02 | | |
| ROUTED TO | RR-SBD25 | 42. | 6.05 | 4. | 2. | 2. | 0.02 | | |
| HYDROGRAPH AT | SB-D26 | 66. | 6.05 | 7. | 3. | 3. | 0.03 | | |
| 2 COMBINED AT | AP-D16 | 108. | 6.05 | 11. | 5. | 5. | 0.05 | | |
| ROUTED TO | RT-APD16 | 107. | 6.05 | 11. | 5. | 5. | 0.05 | | |
| 2 COMBINED AT | AP-D17 | 117. | 6.05 | 70. | 40. | 40. | 1.10 | | |
| ROUTED TO | RT-APD17 | 116. | 6.05 | 70. | 40. | 40. | 1.10 | | |
| HYDROGRAPH AT | SB-D27 | 19. | 6.05 | 2. | 1. | 1. | 0.01 | | |
| 2 COMBINED AT | AP-D18 | 135. | 6.05 | 71. | 41. | 41. | 1.10 | | |

| | | | | | | | | | |
|---------------|----------|------|------|------|-----|-----|------|-------|------|
| ROUTED TO | RT-APD18 | 134. | 6.05 | 71. | 41. | 41. | 1.10 | | |
| HYDROGRAPH AT | SB-D29 | 40. | 6.05 | 4. | 2. | 2. | 0.02 | | |
| DIVERSION TO | AP-D19a | 20. | 5.85 | 1. | 0. | 0. | 0.02 | | |
| HYDROGRAPH AT | AP-D19 | 20. | 5.85 | 3. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-APD19 | 20. | 5.90 | 3. | 1. | 1. | 0.02 | | |
| HYDROGRAPH AT | SB-D28 | 11. | 6.05 | 1. | 0. | 0. | 0.00 | | |
| 3 COMBINED AT | AP-D20 | 165. | 6.05 | 75. | 43. | 43. | 1.13 | | |
| ROUTED TO | RT-APD20 | 164. | 6.05 | 75. | 43. | 43. | 1.13 | | |
| HYDROGRAPH AT | SB-D30 | 32. | 6.05 | 3. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-SBD30 | 32. | 6.05 | 3. | 1. | 1. | 0.02 | | |
| 2 COMBINED AT | AP-D21 | 196. | 6.05 | 79. | 44. | 44. | 1.14 | | |
| HYDROGRAPH AT | SB-D31 | 16. | 6.05 | 2. | 1. | 1. | 0.01 | | |
| 2 COMBINED AT | AP-D22 | 211. | 6.05 | 80. | 45. | 45. | 1.15 | | |
| HYDROGRAPH AT | SB-D32 | 9. | 6.05 | 1. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-DFCS | 221. | 6.05 | 81. | 45. | 45. | 1.16 | | |
| ROUTED TO | RR-DFCS | 90. | 7.10 | 74. | 42. | 42. | 1.16 | 80.19 | 7.10 |
| HYDROGRAPH AT | DR-APD12 | 525. | 6.25 | 119. | 51. | 51. | 0.00 | | |
| ROUTED TO | RT-APD12 | 534. | 6.40 | 119. | 51. | 51. | 0.00 | | |
| HYDROGRAPH AT | SB-D33 | 59. | 6.05 | 6. | 3. | 3. | 0.04 | | |
| 2 COMBINED AT | AP-D23 | 544. | 6.40 | 123. | 53. | 53. | 0.04 | | |
| 2 COMBINED AT | AP-D24 | 630. | 6.40 | 196. | 95. | 95. | 1.19 | | |
| HYDROGRAPH AT | SB-D34 | 80. | 6.05 | 8. | 4. | 4. | 0.04 | | |
| ROUTED TO | RT-SBD34 | 79. | 6.05 | 8. | 4. | 4. | 0.04 | | |
| HYDROGRAPH AT | SB-D35 | 83. | 6.05 | 8. | 4. | 4. | 0.04 | | |
| 2 COMBINED AT | AP-DFG | 162. | 6.05 | 17. | 7. | 7. | 0.08 | | |
| ROUTED TO | RR-DFG | 41. | 6.35 | 14. | 6. | 6. | 0.08 | 72.16 | 6.35 |

SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
(FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)

| ISTAQ | ELEMENT | DT (MIN) | PEAK (CFS) | TIME TO PEAK (MIN) | VOLUME (IN) | DT (MIN) | INTERPOLATED TO COMPUTATION INTERVAL | | VOLUME (IN) |
|--|---------|-------------|---------------|--------------------------|----------------|-------------|---|--------------------------|----------------|
| | | | | | | | PEAK (CFS) | TIME TO PEAK (MIN) | |
| RT-SBD1 | MANE | 2.10 | 71.96 | 378.00 | 1.41 | 3.00 | 71.96 | 378.00 | 1.41 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.6407E+01 EXCESS=0.0000E+00 OUTFLOW=0.6389E+01 BASIN STORAGE=0.2228E-01 PERCENT ERROR= -0.1 | | | | | | | | | |
| RT-APDFA | MANE | 1.04 | 64.89 | 397.55 | 1.53 | 3.00 | 64.88 | 399.00 | 1.53 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1372E+02 EXCESS=0.0000E+00 OUTFLOW=0.1371E+02 BASIN STORAGE=0.1137E-01 PERCENT ERROR= 0.0 | | | | | | | | | |
| RT-APD2 | MANE | 1.36 | 130.63 | 364.69 | 1.67 | 3.00 | 130.49 | 366.00 | 1.67 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1849E+02 EXCESS=0.0000E+00 OUTFLOW=0.1847E+02 BASIN STORAGE=0.2086E-01 PERCENT ERROR= 0.0 | | | | | | | | | |
| RT-APDFB | MANE | 0.85 | 57.20 | 381.48 | 1.64 | 3.00 | 57.16 | 381.00 | 1.64 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.6826E+01 EXCESS=0.0000E+00 OUTFLOW=0.6821E+01 BASIN STORAGE=0.5042E-02 PERCENT ERROR= 0.0 | | | | | | | | | |
| RT-APD3 | MANE | 0.41 | 329.83 | 363.73 | 1.80 | 3.00 | 329.38 | 366.00 | 1.80 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3418E+02 EXCESS=0.0000E+00 OUTFLOW=0.3417E+02 BASIN STORAGE=0.1188E-01 PERCENT ERROR= 0.0 | | | | | | | | | |
| RT-DFC | MANE | 1.18 | 86.19 | 439.60 | 2.03 | 3.00 | 86.19 | 441.00 | 2.04 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4541E+02 EXCESS=0.0000E+00 OUTFLOW=0.4538E+02 BASIN STORAGE=0.3301E-01 PERCENT ERROR= 0.0 | | | | | | | | | |
| RT-APD4 | MANE | 0.56 | 101.60 | 369.43 | 2.03 | 3.00 | 101.40 | 369.00 | 2.03 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4721E+02 EXCESS=0.0000E+00 OUTFLOW=0.4719E+02 BASIN STORAGE=0.1691E-01 PERCENT ERROR= 0.0 | | | | | | | | | |
| RT-APD4a | MANE | 0.38 | 138.71 | 369.29 | 2.03 | 3.00 | 138.58 | 369.00 | 2.03 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4968E+02 EXCESS=0.0000E+00 OUTFLOW=0.4967E+02 BASIN STORAGE=0.1256E-01 PERCENT ERROR= 0.0 | | | | | | | | | |
| RT-APD4b | MANE | 0.32 | 210.75 | 366.58 | 2.03 | 3.00 | 209.92 | 366.00 | 2.03 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5416E+02 EXCESS=0.0000E+00 OUTFLOW=0.5415E+02 BASIN STORAGE=0.1252E-01 PERCENT ERROR= 0.0 | | | | | | | | | |
| RT-SBD10 | MANE | 1.95 | 27.15 | 374.40 | 1.45 | 3.00 | 27.07 | 375.00 | 1.45 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2089E+01 EXCESS=0.0000E+00 OUTFLOW=0.2083E+01 BASIN STORAGE=0.8854E-02 PERCENT ERROR= -0.2 | | | | | | | | | |
| RT-SBD12 | MANE | 1.95 | 30.62 | 372.45 | 1.92 | 3.00 | 30.58 | 372.00 | 1.92 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2157E+01 EXCESS=0.0000E+00 OUTFLOW=0.2152E+01 BASIN STORAGE=0.7009E-02 PERCENT ERROR= -0.1 | | | | | | | | | |
| RT-APD5 | MANE | 0.49 | 132.65 | 369.48 | 1.78 | 3.00 | 132.15 | 369.00 | 1.78 |

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.9393E+01 EXCESS=0.0000E+00 OUTFLOW=0.9390E+01 BASIN STORAGE=0.4286E-02 PERCENT ERROR= 0.0

| | | | | | | | | | |
|---------|------|------|--------|--------|------|------|--------|--------|------|
| RT-APD6 | MANE | 0.74 | 320.90 | 363.44 | 2.45 | 3.00 | 319.74 | 363.00 | 2.45 |
|---------|------|------|--------|--------|------|------|--------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2170E+02 EXCESS=0.0000E+00 OUTFLOW=0.2169E+02 BASIN STORAGE=0.1284E-01 PERCENT ERROR= 0.0

| | | | | | | | | | |
|----------|------|------|-------|--------|------|------|-------|--------|------|
| RT-SBD14 | MANE | 0.34 | 48.96 | 363.32 | 2.20 | 3.00 | 48.83 | 363.00 | 2.20 |
|----------|------|------|-------|--------|------|------|-------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2700E+01 EXCESS=0.0000E+00 OUTFLOW=0.2699E+01 BASIN STORAGE=0.8244E-03 PERCENT ERROR= 0.0

| | | | | | | | | | |
|---------|------|------|--------|--------|------|------|--------|--------|------|
| RT-APD7 | MANE | 0.50 | 566.67 | 363.90 | 2.13 | 3.00 | 561.56 | 363.00 | 2.13 |
|---------|------|------|--------|--------|------|------|--------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.7855E+02 EXCESS=0.0000E+00 OUTFLOW=0.7852E+02 BASIN STORAGE=0.3040E-01 PERCENT ERROR= 0.0

| | | | | | | | | | |
|---------|------|------|--------|--------|------|------|--------|--------|------|
| RT-APD8 | MANE | 0.32 | 613.58 | 363.62 | 2.14 | 3.00 | 610.33 | 363.00 | 2.14 |
|---------|------|------|--------|--------|------|------|--------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.8134E+02 EXCESS=0.0000E+00 OUTFLOW=0.8132E+02 BASIN STORAGE=0.2062E-01 PERCENT ERROR= 0.0

| | | | | | | | | | |
|----------|------|------|-------|--------|------|------|-------|--------|------|
| RT-SBD16 | MANE | 0.37 | 98.05 | 366.20 | 1.77 | 3.00 | 97.94 | 366.00 | 1.77 |
|----------|------|------|-------|--------|------|------|-------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5861E+01 EXCESS=0.0000E+00 OUTFLOW=0.5859E+01 BASIN STORAGE=0.2118E-02 PERCENT ERROR= 0.0

| | | | | | | | | | |
|---------|------|------|--------|--------|------|------|--------|--------|------|
| RT-APD9 | MANE | 0.24 | 738.43 | 363.33 | 2.14 | 3.00 | 735.04 | 363.00 | 2.14 |
|---------|------|------|--------|--------|------|------|--------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.8947E+02 EXCESS=0.0000E+00 OUTFLOW=0.8946E+02 BASIN STORAGE=0.1699E-01 PERCENT ERROR= 0.0

| | | | | | | | | | |
|----------|------|------|-------|--------|------|------|-------|--------|------|
| RT-SBD36 | MANE | 0.89 | 34.00 | 367.72 | 1.73 | 3.00 | 33.75 | 369.00 | 1.73 |
|----------|------|------|-------|--------|------|------|-------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2219E+01 EXCESS=0.0000E+00 OUTFLOW=0.2218E+01 BASIN STORAGE=0.1888E-02 PERCENT ERROR= 0.0

| | | | | | | | | | |
|----------|------|------|-------|--------|------|------|-------|--------|------|
| RT-SBD37 | MANE | 0.23 | 39.85 | 359.94 | 4.27 | 3.00 | 39.85 | 360.00 | 4.27 |
|----------|------|------|-------|--------|------|------|-------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2506E+01 EXCESS=0.0000E+00 OUTFLOW=0.2506E+01 BASIN STORAGE=0.3465E-03 PERCENT ERROR= 0.0

| | | | | | | | | | |
|----------|------|------|--------|--------|------|------|--------|--------|------|
| RT-APDFE | MANE | 0.25 | 802.07 | 363.61 | 2.15 | 3.00 | 798.54 | 363.00 | 2.15 |
|----------|------|------|--------|--------|------|------|--------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.9419E+02 EXCESS=0.0000E+00 OUTFLOW=0.9418E+02 BASIN STORAGE=0.1856E-01 PERCENT ERROR= 0.0

| | | | | | | | | | |
|----------|------|------|-------|--------|------|------|-------|--------|------|
| RT-RRDFP | MANE | 0.37 | 35.75 | 387.49 | 1.75 | 3.00 | 35.73 | 390.00 | 1.75 |
|----------|------|------|-------|--------|------|------|-------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5970E+01 EXCESS=0.0000E+00 OUTFLOW=0.5968E+01 BASIN STORAGE=0.1937E-02 PERCENT ERROR= 0.0

| | | | | | | | | | |
|----------|------|------|-------|--------|------|------|-------|--------|------|
| RT-APD10 | MANE | 0.81 | 65.14 | 364.51 | 1.94 | 3.00 | 64.91 | 366.00 | 1.94 |
|----------|------|------|-------|--------|------|------|-------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.9099E+01 EXCESS=0.0000E+00 OUTFLOW=0.9093E+01 BASIN STORAGE=0.6275E-02 PERCENT ERROR= 0.0

| | | | | | | | | | |
|----------|------|------|--------|--------|------|------|--------|--------|------|
| RT-APD11 | MANE | 1.02 | 166.20 | 361.67 | 2.46 | 3.00 | 164.60 | 363.00 | 2.46 |
|----------|------|------|--------|--------|------|------|--------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1547E+02 EXCESS=0.0000E+00 OUTFLOW=0.1546E+02 BASIN STORAGE=0.1247E-01 PERCENT ERROR= 0.0

| | | | | | | | | | |
|---|------|------|--------|--------|-------|------|--------|--------|-------|
| RT-APD13 | MANE | 0.56 | 75.38 | 375.95 | 0.84 | 3.00 | 75.35 | 378.00 | 0.84 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4403E+02 EXCESS=0.0000E+00 OUTFLOW=0.4399E+02 BASIN STORAGE=0.4321E-01 PERCENT ERROR= 0.0 | | | | | | | | | |
| RT-APD13 | MANE | 0.60 | 147.47 | 364.08 | 0.89 | 3.00 | 146.12 | 366.00 | 0.89 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4842E+02 EXCESS=0.0000E+00 OUTFLOW=0.4837E+02 BASIN STORAGE=0.5396E-01 PERCENT ERROR= 0.0 | | | | | | | | | |
| AP-DFE | MANE | 0.14 | 160.69 | 363.19 | 0.90 | 3.00 | 160.41 | 363.00 | 0.90 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4920E+02 EXCESS=0.0000E+00 OUTFLOW=0.4918E+02 BASIN STORAGE=0.1254E-01 PERCENT ERROR= 0.0 | | | | | | | | | |
| RR-SBD25 | MANE | 0.61 | 41.68 | 363.68 | 2.55 | 3.00 | 41.59 | 363.00 | 2.56 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2317E+01 EXCESS=0.0000E+00 OUTFLOW=0.2316E+01 BASIN STORAGE=0.1194E-02 PERCENT ERROR= 0.0 | | | | | | | | | |
| RT-APD16 | MANE | 0.25 | 107.30 | 363.15 | 2.19 | 3.00 | 107.14 | 363.00 | 2.19 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5842E+01 EXCESS=0.0000E+00 OUTFLOW=0.5841E+01 BASIN STORAGE=0.1310E-02 PERCENT ERROR= 0.0 | | | | | | | | | |
| RT-APD17 | MANE | 0.31 | 116.55 | 363.33 | 0.85 | 3.00 | 116.20 | 363.00 | 0.85 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4977E+02 EXCESS=0.0000E+00 OUTFLOW=0.4974E+02 BASIN STORAGE=0.2732E-01 PERCENT ERROR= 0.0 | | | | | | | | | |
| RT-APD18 | MANE | 0.30 | 134.56 | 363.41 | 0.86 | 3.00 | 134.25 | 363.00 | 0.86 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5076E+02 EXCESS=0.0000E+00 OUTFLOW=0.5073E+02 BASIN STORAGE=0.2744E-01 PERCENT ERROR= 0.0 | | | | | | | | | |
| RT-APD19 | MANE | 0.10 | 20.00 | 351.22 | 1.83 | 3.00 | 20.00 | 354.00 | 1.83 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1754E+01 EXCESS=0.0000E+00 OUTFLOW=0.1754E+01 BASIN STORAGE=0.1670E-03 PERCENT ERROR= 0.0 | | | | | | | | | |
| RT-APD20 | MANE | 0.31 | 164.49 | 363.41 | 0.88 | 3.00 | 164.12 | 363.00 | 0.88 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5305E+02 EXCESS=0.0000E+00 OUTFLOW=0.5302E+02 BASIN STORAGE=0.3021E-01 PERCENT ERROR= 0.0 | | | | | | | | | |
| RT-SBD30 | MANE | 0.25 | 31.71 | 363.32 | 1.92 | 3.00 | 31.60 | 363.00 | 1.92 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1738E+01 EXCESS=0.0000E+00 OUTFLOW=0.1738E+01 BASIN STORAGE=0.4217E-03 PERCENT ERROR= 0.0 | | | | | | | | | |
| RT-APD12 | MANE | 3.00 | 533.87 | 384.00 | -1.00 | 3.00 | 533.87 | 384.00 | -1.00 |
| RT-SBD34 | MANE | 0.73 | 79.52 | 363.36 | 2.12 | 3.00 | 79.09 | 363.00 | 2.12 |
| CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4409E+01 EXCESS=0.0000E+00 OUTFLOW=0.4406E+01 BASIN STORAGE=0.2937E-02 PERCENT ERROR= 0.0 | | | | | | | | | |

*** NORMAL END OF HEC-1 ***

G.
HEC-1 MODEL OUTPUT
FULLY DEVELOPED CONDITION
SUMMARY SHEETS FOR 2, 5, 10, 25 AND 50-YEAR STORMS

2 Year, 24 Hour, Developed Condition
 RUNOFF SUMMARY
 FLOW IN CUBIC FEET PER SECOND
 TIME IN HOURS, AREA IN SQUARE MILES

| OPERATION | STATION | PEAK FLOW | TIME OF PEAK | AVERAGE FLOW FOR MAXIMUM PERIOD | | | BASIN AREA | MAXIMUM STAGE | TIME OF MAX STAGE |
|---------------|----------|-----------|--------------|---------------------------------|---------|---------|------------|---------------|-------------------|
| | | | | 6-HOUR | 24-HOUR | 72-HOUR | | | |
| HYDROGRAPH AT | SB-D1 | 6. | 6.35 | 1. | 1. | 1. | 0.09 | | |
| ROUTED TO | RT-SBD1 | 6. | 6.45 | 1. | 1. | 1. | 0.09 | | |
| HYDROGRAPH AT | SB-D2 | 8. | 6.15 | 1. | 1. | 1. | 0.06 | | |
| 2 COMBINED AT | AP-D1 | 11. | 6.25 | 2. | 1. | 1. | 0.14 | | |
| HYDROGRAPH AT | SB-D3 | 7. | 6.20 | 1. | 0. | 0. | 0.03 | | |
| 2 COMBINED AT | AP-DDA | 17. | 6.20 | 3. | 2. | 2. | 0.17 | | |
| ROUTED TO | RR-DFA | 17. | 6.25 | 3. | 2. | 2. | 0.17 | 54.92 | 6.25 |
| ROUTED TO | RT-APDFA | 17. | 6.25 | 3. | 2. | 2. | 0.17 | | |
| HYDROGRAPH AT | SB-D6 | 19. | 6.10 | 2. | 1. | 1. | 0.04 | | |
| 2 COMBINED AT | AP-D2 | 30. | 6.15 | 5. | 2. | 2. | 0.21 | | |
| ROUTED TO | RT-APD2 | 29. | 6.15 | 5. | 2. | 2. | 0.21 | | |
| HYDROGRAPH AT | SB-D7 | 36. | 6.10 | 4. | 2. | 2. | 0.07 | | |
| HYDROGRAPH AT | SB-D4 | 5. | 6.20 | 1. | 0. | 0. | 0.05 | | |
| HYDROGRAPH AT | SB-D5 | 8. | 6.15 | 1. | 0. | 0. | 0.03 | | |
| 2 COMBINED AT | AP-DFB | 13. | 6.15 | 2. | 1. | 1. | 0.08 | | |
| ROUTED TO | RR-DFB | 13. | 6.20 | 2. | 1. | 1. | 0.08 | 19.35 | 6.20 |
| ROUTED TO | RT-APDFB | 13. | 6.20 | 2. | 1. | 1. | 0.08 | | |
| 3 COMBINED AT | AP-D3 | 73. | 6.10 | 11. | 5. | 5. | 0.36 | | |
| ROUTED TO | RT-APD3 | 73. | 6.15 | 11. | 5. | 5. | 0.36 | | |
| HYDROGRAPH AT | SB-DB | 79. | 6.00 | 8. | 3. | 3. | 0.06 | | |
| 2 COMBINED AT | AP-DFC | 139. | 6.05 | 19. | 8. | 8. | 0.42 | | |
| ROUTED TO | RR-DFC | 45. | 6.40 | 18. | 8. | 8. | 0.42 | 55.96 | 6.40 |

| | | | | | | | |
|---------------|----------|------|------|-----|-----|-----|------|
| ROUTED TO | RT-DFC | 45. | 6.45 | 18. | 8. | 8. | 0.42 |
| HYDROGRAPH AT | SB-D9A | 5. | 6.15 | 1. | 0. | 0. | 0.02 |
| 2 COMBINED AT | AP-D4 | 47. | 6.30 | 19. | 9. | 9. | 0.44 |
| ROUTED TO | RT-APD4 | 47. | 6.30 | 19. | 9. | 9. | 0.44 |
| HYDROGRAPH AT | SB-D9 | 7. | 6.15 | 1. | 0. | 0. | 0.02 |
| 2 COMBINED AT | AP-D4a | 53. | 6.20 | 20. | 9. | 9. | 0.46 |
| ROUTED TO | RT-APD4a | 53. | 6.25 | 20. | 9. | 9. | 0.46 |
| HYDROGRAPH AT | SB-D15 | 13. | 6.10 | 2. | 1. | 1. | 0.04 |
| 2 COMBINED AT | AP-D4b | 64. | 6.15 | 21. | 10. | 10. | 0.50 |
| ROUTED TO | RT-APD4b | 64. | 6.20 | 21. | 10. | 10. | 0.50 |
| HYDROGRAPH AT | SB-D10 | 2. | 6.25 | 0. | 0. | 0. | 0.03 |
| ROUTED TO | RT-SBD10 | 2. | 6.35 | 0. | 0. | 0. | 0.03 |
| HYDROGRAPH AT | SB-D11 | 13. | 6.15 | 2. | 1. | 1. | 0.05 |
| HYDROGRAPH AT | SB-D12 | 5. | 6.20 | 1. | 0. | 0. | 0.02 |
| ROUTED TO | RT-SBD12 | 5. | 6.25 | 1. | 0. | 0. | 0.02 |
| 3 COMBINED AT | AP-D5 | 19. | 6.20 | 3. | 1. | 1. | 0.10 |
| ROUTED TO | RT-APD5 | 18. | 6.20 | 3. | 1. | 1. | 0.10 |
| HYDROGRAPH AT | SB-D13 | 80. | 6.00 | 8. | 3. | 3. | 0.07 |
| 2 COMBINED AT | AP-D6 | 90. | 6.05 | 11. | 5. | 5. | 0.17 |
| ROUTED TO | RT-APD6 | 89. | 6.05 | 11. | 5. | 5. | 0.17 |
| HYDROGRAPH AT | SB-D14 | 10. | 6.05 | 1. | 0. | 0. | 0.02 |
| ROUTED TO | RT-SBD14 | 10. | 6.10 | 1. | 0. | 0. | 0.02 |
| 3 COMBINED AT | AP-D7 | 153. | 6.10 | 33. | 15. | 15. | 0.69 |
| ROUTED TO | RT-APD7 | 153. | 6.10 | 33. | 15. | 15. | 0.69 |
| HYDROGRAPH AT | SB-D17 | 6. | 6.05 | 1. | 0. | 0. | 0.01 |
| 2 COMBINED AT | AP-D7A | 159. | 6.10 | 34. | 15. | 15. | 0.70 |

| | | | | | | | | | |
|---------------|----------|------|------|-----|-----|-----|------|-------|------|
| HYDROGRAPH AT | SB-D16A | 6. | 6.05 | 1. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-D7A | 164. | 6.10 | 34. | 15. | 15. | 0.71 | | |
| ROUTED TO | RT-APD8 | 164. | 6.10 | 34. | 15. | 15. | 0.71 | | |
| HYDROGRAPH AT | SB-D17A | 16. | 6.00 | 2. | 1. | 1. | 0.01 | | |
| 2 COMBINED AT | AP-D8 | 177. | 6.10 | 36. | 16. | 16. | 0.72 | | |
| HYDROGRAPH AT | SB-D16 | 14. | 6.10 | 2. | 1. | 1. | 0.06 | | |
| ROUTED TO | RT-SBD16 | 14. | 6.15 | 2. | 1. | 1. | 0.06 | | |
| 2 COMBINED AT | AP-DB | 191. | 6.10 | 38. | 17. | 17. | 0.78 | | |
| ROUTED TO | RT-APD9 | 190. | 6.10 | 38. | 17. | 17. | 0.78 | | |
| HYDROGRAPH AT | SB-D36 | 5. | 6.15 | 1. | 0. | 0. | 0.02 | | |
| ROUTED TO | RT-SBD36 | 5. | 6.20 | 1. | 0. | 0. | 0.02 | | |
| 2 COMBINED AT | AP-D9 | 194. | 6.10 | 39. | 17. | 17. | 0.81 | | |
| HYDROGRAPH AT | SB-D37 | 18. | 6.00 | 2. | 1. | 1. | 0.01 | | |
| ROUTED TO | RT-SBD37 | 18. | 6.00 | 2. | 1. | 1. | 0.01 | | |
| 2 COMBINED AT | AP-D9 | 208. | 6.10 | 40. | 18. | 18. | 0.82 | | |
| ROUTED TO | RT-APDFE | 208. | 6.10 | 40. | 18. | 18. | 0.82 | | |
| HYDROGRAPH AT | SB-D18 | 19. | 6.15 | 3. | 1. | 1. | 0.06 | | |
| ROUTED TO | RR-DFPCH | 1. | 8.40 | 1. | 0. | 0. | 0.06 | 20.13 | 8.40 |
| ROUTED TO | RT-RRDFP | 1. | 8.40 | 1. | 0. | 0. | 0.06 | | |
| HYDROGRAPH AT | SB-D19 | 15. | 6.05 | 1. | 1. | 1. | 0.02 | | |
| 2 COMBINED AT | AP-D10 | 15. | 6.05 | 2. | 1. | 1. | 0.09 | | |
| ROUTED TO | RT-APD10 | 15. | 6.05 | 2. | 1. | 1. | 0.09 | | |
| HYDROGRAPH AT | SB-D20 | 46. | 6.00 | 5. | 2. | 2. | 0.03 | | |
| 2 COMBINED AT | AP-D11 | 60. | 6.00 | 7. | 3. | 3. | 0.12 | | |
| ROUTED TO | RT-APD11 | 59. | 6.05 | 7. | 3. | 3. | 0.12 | | |
| HYDROGRAPH AT | SB-D21 | 36. | 6.05 | 4. | 2. | 2. | 0.04 | | |

| | | | | | | | | | |
|---------------|----------|------|------|-----|-----|-----|------|-------|------|
| 3 COMBINED AT | AP-DFE | 299. | 6.05 | 51. | 23. | 23. | 0.98 | | |
| ROUTED TO | RR-DFE | 60. | 7.15 | 45. | 21. | 21. | 0.98 | 32.29 | 7.15 |
| DIVERSION TO | AP-D12 | 9. | 7.15 | 4. | 2. | 2. | 0.98 | | |
| HYDROGRAPH AT | AP-DFE | 51. | 7.15 | 41. | 19. | 19. | 0.98 | | |
| ROUTED TO | RT-APD13 | 51. | 7.15 | 41. | 19. | 19. | 0.98 | | |
| HYDROGRAPH AT | SB-D22 | 17. | 6.05 | 2. | 1. | 1. | 0.04 | | |
| 2 COMBINED AT | AP-D13 | 55. | 6.15 | 42. | 20. | 20. | 1.02 | | |
| ROUTED TO | RT-APD13 | 55. | 6.15 | 42. | 20. | 20. | 1.02 | | |
| HYDROGRAPH AT | SB-D23 | 5. | 6.00 | 0. | 0. | 0. | 0.00 | | |
| 2 COMBINED AT | AP-D14 | 58. | 6.15 | 43. | 20. | 20. | 1.02 | | |
| ROUTED TO | AP-DFF | 58. | 6.15 | 43. | 20. | 20. | 1.02 | | |
| HYDROGRAPH AT | SB-D24 | 8. | 6.10 | 1. | 0. | 0. | 0.03 | | |
| 2 COMBINED AT | AP-DFF | 66. | 6.10 | 43. | 21. | 21. | 1.05 | | |
| ROUTED TO | RR-DFF | 48. | 8.70 | 33. | 15. | 15. | 1.05 | 68.83 | 8.70 |
| HYDROGRAPH AT | SB-D25 | 11. | 6.05 | 1. | 0. | 0. | 0.02 | | |
| ROUTED TO | RR-SBD25 | 11. | 6.05 | 1. | 0. | 0. | 0.02 | | |
| HYDROGRAPH AT | SB-D26 | 12. | 6.05 | 1. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-D16 | 23. | 6.05 | 2. | 1. | 1. | 0.05 | | |
| ROUTED TO | RT-APD16 | 23. | 6.05 | 2. | 1. | 1. | 0.05 | | |
| 2 COMBINED AT | AP-D17 | 48. | 8.70 | 33. | 16. | 16. | 1.10 | | |
| ROUTED TO | RT-APD17 | 48. | 8.70 | 33. | 16. | 16. | 1.10 | | |
| HYDROGRAPH AT | SB-D27 | 4. | 6.05 | 0. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-D18 | 49. | 8.70 | 33. | 16. | 16. | 1.10 | | |
| ROUTED TO | RT-APD18 | 49. | 8.70 | 33. | 16. | 16. | 1.10 | | |
| HYDROGRAPH AT | SB-D29 | 9. | 6.05 | 1. | 0. | 0. | 0.02 | | |

| | | | | | | | | | |
|---------------|----------|-----|-------|-----|-----|-----|------|-------|-------|
| DIVERSION TO | AP-D19a | 0. | 6.05 | 0. | 0. | 0. | 0.02 | | |
| HYDROGRAPH AT | AP-D19 | 9. | 6.05 | 1. | 0. | 0. | 0.02 | | |
| ROUTED TO | RT-APD19 | 9. | 6.05 | 1. | 0. | 0. | 0.02 | | |
| HYDROGRAPH AT | SB-D28 | 3. | 6.05 | 0. | 0. | 0. | 0.00 | | |
| 3 COMBINED AT | AP-D20 | 49. | 8.70 | 34. | 17. | 17. | 1.13 | | |
| ROUTED TO | RT-APD20 | 49. | 8.70 | 34. | 17. | 17. | 1.13 | | |
| HYDROGRAPH AT | SB-D30 | 6. | 6.10 | 1. | 0. | 0. | 0.02 | | |
| ROUTED TO | RT-SBD30 | 5. | 6.10 | 1. | 0. | 0. | 0.02 | | |
| 2 COMBINED AT | AP-D21 | 49. | 8.70 | 34. | 17. | 17. | 1.14 | | |
| HYDROGRAPH AT | SB-D31 | 3. | 6.05 | 0. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-D22 | 52. | 6.10 | 34. | 17. | 17. | 1.15 | | |
| HYDROGRAPH AT | SB-D32 | 1. | 6.05 | 0. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-DFCS | 53. | 6.10 | 34. | 17. | 17. | 1.16 | | |
| ROUTED TO | RR-DFCS | 37. | 10.60 | 33. | 17. | 17. | 1.16 | 77.77 | 10.60 |
| HYDROGRAPH AT | DR-APD12 | 9. | 7.15 | 4. | 2. | 2. | 0.00 | | |
| ROUTED TO | RT-APD12 | 9. | 7.45 | 4. | 2. | 2. | 0.00 | | |
| HYDROGRAPH AT | SB-D33 | 8. | 6.10 | 1. | 0. | 0. | 0.04 | | |
| 2 COMBINED AT | AP-D23 | 9. | 7.45 | 5. | 2. | 2. | 0.04 | | |
| 2 COMBINED AT | AP-D24 | 40. | 10.45 | 36. | 19. | 19. | 1.19 | | |
| HYDROGRAPH AT | SB-D34 | 16. | 6.10 | 2. | 1. | 1. | 0.04 | | |
| ROUTED TO | RT-SBD34 | 16. | 6.10 | 2. | 1. | 1. | 0.04 | | |
| HYDROGRAPH AT | SB-D35 | 17. | 6.10 | 2. | 1. | 1. | 0.04 | | |
| 2 COMBINED AT | AP-DFG | 33. | 6.10 | 3. | 2. | 2. | 0.08 | | |
| ROUTED TO | RR-DFG | 2. | 7.85 | 2. | 1. | 1. | 0.08 | 65.01 | 8.10 |

5 Year, 24 Hour, Developed Condition

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

| OPERATION | STATION | PEAK FLOW | TIME OF PEAK | AVERAGE FLOW FOR MAXIMUM PERIOD | | | BASIN AREA | MAXIMUM STAGE | TIME OF MAX STAGE |
|---------------|----------|-----------|--------------|---------------------------------|---------|---------|------------|---------------|-------------------|
| | | | | 6-HOUR | 24-HOUR | 72-HOUR | | | |
| HYDROGRAPH AT | SB-D1 | 17. | 6.30 | 3. | 1. | 1. | 0.09 | | |
| ROUTED TO | RT-SBD1 | 17. | 6.35 | 3. | 1. | 1. | 0.09 | | |
| HYDROGRAPH AT | SB-D2 | 20. | 6.15 | 2. | 1. | 1. | 0.06 | | |
| 2 COMBINED AT | AP-D1 | 31. | 6.25 | 6. | 3. | 3. | 0.14 | | |
| HYDROGRAPH AT | SB-D3 | 13. | 6.15 | 2. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-DDA | 44. | 6.20 | 7. | 3. | 3. | 0.17 | | |
| ROUTED TO | RR-DFA | 38. | 6.35 | 7. | 3. | 3. | 0.17 | 56.38 | 6.35 |
| ROUTED TO | RT-APDFA | 38. | 6.35 | 7. | 3. | 3. | 0.17 | | |
| HYDROGRAPH AT | SB-D6 | 34. | 6.05 | 3. | 2. | 2. | 0.04 | | |
| 2 COMBINED AT | AP-D2 | 64. | 6.15 | 11. | 5. | 5. | 0.21 | | |
| ROUTED TO | RT-APD2 | 64. | 6.15 | 11. | 5. | 5. | 0.21 | | |
| HYDROGRAPH AT | SB-D7 | 62. | 6.05 | 7. | 3. | 3. | 0.07 | | |
| HYDROGRAPH AT | SB-D4 | 14. | 6.15 | 2. | 1. | 1. | 0.05 | | |
| HYDROGRAPH AT | SB-D5 | 16. | 6.15 | 2. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-DFB | 30. | 6.15 | 4. | 2. | 2. | 0.08 | | |
| ROUTED TO | RR-DFB | 30. | 6.15 | 4. | 2. | 2. | 0.08 | 19.82 | 6.15 |
| ROUTED TO | RT-APDFB | 30. | 6.15 | 4. | 2. | 2. | 0.08 | | |
| 3 COMBINED AT | AP-D3 | 148. | 6.10 | 21. | 10. | 10. | 0.36 | | |
| ROUTED TO | RT-APD3 | 147. | 6.15 | 21. | 10. | 10. | 0.36 | | |
| HYDROGRAPH AT | SB-D8 | 111. | 6.00 | 11. | 5. | 5. | 0.06 | | |
| 2 COMBINED AT | AP-DFC | 237. | 6.05 | 32. | 14. | 14. | 0.42 | | |
| ROUTED TO | RR-DFC | 60. | 6.60 | 32. | 14. | 14. | 0.42 | 58.40 | 6.60 |

| | | | | | | | |
|---------------|----------|------|------|-----|-----|-----|------|
| ROUTED TO | RT-DFC | 60. | 6.60 | 32. | 14. | 14. | 0.42 |
| HYDROGRAPH AT | SB-D9A | 10. | 6.10 | 1. | 1. | 1. | 0.02 |
| 2 COMBINED AT | AP-D4 | 64. | 6.25 | 33. | 15. | 15. | 0.44 |
| ROUTED TO | RT-APD4 | 63. | 6.30 | 33. | 15. | 15. | 0.44 |
| HYDROGRAPH AT | SB-D9 | 14. | 6.15 | 2. | 1. | 1. | 0.02 |
| 2 COMBINED AT | AP-D4a | 76. | 6.20 | 35. | 16. | 16. | 0.46 |
| ROUTED TO | RT-APD4a | 76. | 6.20 | 35. | 16. | 16. | 0.46 |
| HYDROGRAPH AT | SB-D15 | 26. | 6.10 | 3. | 1. | 1. | 0.04 |
| 2 COMBINED AT | AP-D4b | 99. | 6.15 | 38. | 17. | 17. | 0.50 |
| ROUTED TO | RT-APD4b | 99. | 6.15 | 38. | 17. | 17. | 0.50 |
| HYDROGRAPH AT | SB-D10 | 7. | 6.25 | 1. | 0. | 0. | 0.03 |
| ROUTED TO | RT-SBD10 | 7. | 6.30 | 1. | 0. | 0. | 0.03 |
| HYDROGRAPH AT | SB-D11 | 27. | 6.15 | 3. | 1. | 1. | 0.05 |
| HYDROGRAPH AT | SB-D12 | 10. | 6.20 | 1. | 1. | 1. | 0.02 |
| ROUTED TO | RT-SBD12 | 10. | 6.25 | 1. | 1. | 1. | 0.02 |
| 3 COMBINED AT | AP-D5 | 40. | 6.20 | 6. | 3. | 3. | 0.10 |
| ROUTED TO | RT-APD5 | 40. | 6.20 | 6. | 3. | 3. | 0.10 |
| HYDROGRAPH AT | SB-D13 | 115. | 6.00 | 12. | 5. | 5. | 0.07 |
| 2 COMBINED AT | AP-D6 | 141. | 6.05 | 17. | 8. | 8. | 0.17 |
| ROUTED TO | RT-APD6 | 139. | 6.05 | 17. | 8. | 8. | 0.17 |
| HYDROGRAPH AT | SB-D14 | 19. | 6.05 | 2. | 1. | 1. | 0.02 |
| ROUTED TO | RT-SBD14 | 19. | 6.05 | 2. | 1. | 1. | 0.02 |
| 3 COMBINED AT | AP-D7 | 244. | 6.10 | 57. | 25. | 25. | 0.69 |
| ROUTED TO | RT-APD7 | 244. | 6.10 | 57. | 25. | 25. | 0.69 |
| HYDROGRAPH AT | SB-D17 | 10. | 6.05 | 1. | 0. | 0. | 0.01 |
| 2 COMBINED AT | AP-D7A | 253. | 6.10 | 58. | 26. | 26. | 0.70 |

| | | | | | | | | | |
|---------------|----------|------|------|-----|-----|-----|------|-------|------|
| HYDROGRAPH AT | SB-D16A | 11. | 6.05 | 1. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-D7A | 263. | 6.10 | 59. | 26. | 26. | 0.71 | | |
| ROUTED TO | RT-APD8 | 263. | 6.10 | 59. | 26. | 26. | 0.71 | | |
| HYDROGRAPH AT | SB-D17A | 21. | 6.00 | 2. | 1. | 1. | 0.01 | | |
| 2 COMBINED AT | AP-D8 | 279. | 6.05 | 61. | 27. | 27. | 0.72 | | |
| HYDROGRAPH AT | SB-D16 | 31. | 6.10 | 4. | 2. | 2. | 0.06 | | |
| ROUTED TO | RT-SBD16 | 31. | 6.10 | 4. | 2. | 2. | 0.06 | | |
| 2 COMBINED AT | AP-D8 | 310. | 6.10 | 65. | 29. | 29. | 0.78 | | |
| ROUTED TO | RT-APD9 | 309. | 6.10 | 65. | 29. | 29. | 0.78 | | |
| HYDROGRAPH AT | SB-D36 | 10. | 6.15 | 1. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-SBD36 | 10. | 6.15 | 1. | 1. | 1. | 0.02 | | |
| 2 COMBINED AT | AP-D9 | 319. | 6.10 | 66. | 29. | 29. | 0.81 | | |
| HYDROGRAPH AT | SB-D37 | 23. | 6.00 | 3. | 1. | 1. | 0.01 | | |
| ROUTED TO | RT-SBD37 | 23. | 6.00 | 3. | 1. | 1. | 0.01 | | |
| 2 COMBINED AT | AP-D9 | 337. | 6.10 | 69. | 31. | 31. | 0.82 | | |
| ROUTED TO | RT-APDFE | 337. | 6.10 | 69. | 31. | 31. | 0.82 | | |
| HYDROGRAPH AT | SB-D18 | 38. | 6.15 | 5. | 2. | 2. | 0.06 | | |
| ROUTED TO | RR-DFPCH | 6. | 6.80 | 3. | 1. | 1. | 0.06 | 20.80 | 6.80 |
| ROUTED TO | RT-RRDFP | 6. | 6.80 | 3. | 1. | 1. | 0.06 | | |
| HYDROGRAPH AT | SB-D19 | 25. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| 2 COMBINED AT | AP-D10 | 25. | 6.05 | 5. | 2. | 2. | 0.09 | | |
| ROUTED TO | RT-APD10 | 25. | 6.05 | 5. | 2. | 2. | 0.09 | | |
| HYDROGRAPH AT | SB-D20 | 62. | 6.00 | 7. | 3. | 3. | 0.03 | | |
| 2 COMBINED AT | AP-D11 | 85. | 6.00 | 12. | 5. | 5. | 0.12 | | |
| ROUTED TO | RT-APD11 | 84. | 6.00 | 12. | 5. | 5. | 0.12 | | |
| HYDROGRAPH AT | | | | | | | | | |

| | | | | | | | | | |
|---------------|----------|------|------|-----|-----|-----|------|-------|------|
| | SB-D21 | 56. | 6.05 | 5. | 2. | 2. | 0.04 | | |
| 3 COMBINED AT | AP-DFE | 470. | 6.05 | 86. | 38. | 38. | 0.98 | | |
| ROUTED TO | RR-DFE | 137. | 6.60 | 74. | 36. | 36. | 0.98 | 34.90 | 6.60 |
| DIVERSION TO | AP-D12 | 77. | 6.60 | 24. | 10. | 10. | 0.98 | | |
| HYDROGRAPH AT | AP-DFE | 60. | 6.60 | 51. | 26. | 26. | 0.98 | | |
| ROUTED TO | RT-APD13 | 60. | 6.60 | 51. | 26. | 26. | 0.98 | | |
| HYDROGRAPH AT | SB-D22 | 31. | 6.05 | 3. | 1. | 1. | 0.04 | | |
| 2 COMBINED AT | AP-D13 | 79. | 6.10 | 54. | 27. | 27. | 1.02 | | |
| ROUTED TO | RT-APD13 | 79. | 6.10 | 54. | 27. | 27. | 1.02 | | |
| HYDROGRAPH AT | SB-D23 | 8. | 6.00 | 1. | 0. | 0. | 0.00 | | |
| 2 COMBINED AT | AP-D14 | 84. | 6.10 | 54. | 28. | 28. | 1.02 | | |
| ROUTED TO | AP-DFE | 84. | 6.10 | 54. | 28. | 28. | 1.02 | | |
| HYDROGRAPH AT | SB-D24 | 16. | 6.05 | 2. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-DFE | 100. | 6.10 | 56. | 28. | 28. | 1.05 | | |
| ROUTED TO | RR-DFE | 57. | 8.25 | 47. | 23. | 23. | 1.05 | 69.05 | 8.25 |
| HYDROGRAPH AT | SB-D25 | 18. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| ROUTED TO | RR-SBD25 | 18. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| HYDROGRAPH AT | SB-D26 | 24. | 6.05 | 2. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-D16 | 41. | 6.05 | 4. | 2. | 2. | 0.05 | | |
| ROUTED TO | RT-APD16 | 41. | 6.05 | 4. | 2. | 2. | 0.05 | | |
| 2 COMBINED AT | AP-D17 | 59. | 8.10 | 48. | 24. | 24. | 1.10 | | |
| ROUTED TO | RT-APD17 | 59. | 8.10 | 48. | 24. | 24. | 1.10 | | |
| HYDROGRAPH AT | SB-D27 | 8. | 6.05 | 1. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-D18 | 59. | 8.10 | 48. | 25. | 25. | 1.10 | | |
| ROUTED TO | RT-APD18 | 59. | 8.10 | 48. | 25. | 25. | 1.10 | | |
| HYDROGRAPH AT | SB-D29 | 15. | 6.05 | 2. | 1. | 1. | 0.02 | | |

| | | | | | | | | | |
|---------------|----------|------|------|-----|-----|-----|------|-------|------|
| DIVERSION TO | AP-D19a | 0. | 6.05 | 0. | 0. | 0. | 0.02 | | |
| HYDROGRAPH AT | AP-D19 | 15. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-APD19 | 15. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| HYDROGRAPH AT | SB-D28 | 5. | 6.05 | 0. | 0. | 0. | 0.00 | | |
| 3 COMBINED AT | AP-D20 | 74. | 6.05 | 49. | 26. | 26. | 1.13 | | |
| ROUTED TO | RT-APD20 | 74. | 6.05 | 49. | 26. | 26. | 1.13 | | |
| HYDROGRAPH AT | SB-D30 | 11. | 6.05 | 1. | 0. | 0. | 0.02 | | |
| ROUTED TO | RT-SBD30 | 11. | 6.05 | 1. | 0. | 0. | 0.02 | | |
| 2 COMBINED AT | AP-D21 | 84. | 6.05 | 49. | 26. | 26. | 1.14 | | |
| HYDROGRAPH AT | SB-D31 | 6. | 6.05 | 1. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-D22 | 90. | 6.05 | 49. | 26. | 26. | 1.15 | | |
| HYDROGRAPH AT | SB-D32 | 3. | 6.05 | 0. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-DFCS | 93. | 6.05 | 49. | 27. | 27. | 1.16 | | |
| ROUTED TO | RR-DFCS | 55. | 9.90 | 45. | 25. | 25. | 1.16 | 79.37 | 9.90 |
| HYDROGRAPH AT | DR-APD12 | 77. | 6.60 | 24. | 10. | 10. | 0.00 | | |
| ROUTED TO | RT-APD12 | 78. | 6.70 | 24. | 10. | 10. | 0.00 | | |
| HYDROGRAPH AT | SB-D33 | 18. | 6.05 | 2. | 1. | 1. | 0.04 | | |
| 2 COMBINED AT | AP-D23 | 80. | 6.70 | 25. | 11. | 11. | 0.04 | | |
| 2 COMBINED AT | AP-D24 | 111. | 6.70 | 67. | 35. | 35. | 1.19 | | |
| HYDROGRAPH AT | SB-D34 | 30. | 6.05 | 3. | 1. | 1. | 0.04 | | |
| ROUTED TO | RT-SBD34 | 29. | 6.10 | 3. | 1. | 1. | 0.04 | | |
| HYDROGRAPH AT | SB-D35 | 32. | 6.05 | 3. | 1. | 1. | 0.04 | | |
| 2 COMBINED AT | AP-DFG | 60. | 6.05 | 6. | 3. | 3. | 0.08 | | |
| ROUTED TO | RR-DFG | 11. | 6.45 | 4. | 2. | 2. | 0.08 | 66.82 | 6.45 |

10 Year, 24 Hour, Developed Condition

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

| OPERATION | STATION | PEAK FLOW | TIME OF PEAK | AVERAGE FLOW FOR MAXIMUM PERIOD | | | BASIN AREA | MAXIMUM STAGE | TIME OF MAX STAGE |
|---------------|----------|-----------|--------------|---------------------------------|---------|---------|------------|---------------|-------------------|
| | | | | 6-HOUR | 24-HOUR | 72-HOUR | | | |
| HYDROGRAPH AT | SB-D1 | 27. | 6.30 | 5. | 2. | 2. | 0.09 | | |
| ROUTED TO | RT-SBD1 | 27. | 6.35 | 5. | 2. | 2. | 0.09 | | |
| HYDROGRAPH AT | SB-D2 | 30. | 6.15 | 4. | 2. | 2. | 0.06 | | |
| 2 COMBINED AT | AP-D1 | 48. | 6.20 | 8. | 4. | 4. | 0.14 | | |
| HYDROGRAPH AT | SB-D3 | 19. | 6.15 | 2. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-DDA | 66. | 6.20 | 11. | 5. | 5. | 0.17 | | |
| ROUTED TO | RR-DFA | 45. | 6.45 | 11. | 5. | 5. | 0.17 | 58.43 | 6.45 |
| ROUTED TO | RT-APDFA | 44. | 6.45 | 11. | 5. | 5. | 0.17 | | |
| HYDROGRAPH AT | SB-D6 | 45. | 6.05 | 5. | 2. | 2. | 0.04 | | |
| 2 COMBINED AT | AP-D2 | 81. | 6.10 | 15. | 7. | 7. | 0.21 | | |
| ROUTED TO | RT-APD2 | 80. | 6.10 | 15. | 7. | 7. | 0.21 | | |
| HYDROGRAPH AT | SB-D7 | 82. | 6.05 | 9. | 4. | 4. | 0.07 | | |
| HYDROGRAPH AT | SB-D4 | 22. | 6.15 | 3. | 1. | 1. | 0.05 | | |
| HYDROGRAPH AT | SB-D5 | 22. | 6.15 | 3. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-DFB | 44. | 6.15 | 6. | 3. | 3. | 0.08 | | |
| ROUTED TO | RR-DFB | 39. | 6.25 | 6. | 3. | 3. | 0.08 | 20.69 | 6.25 |
| ROUTED TO | RT-APDFB | 39. | 6.25 | 6. | 3. | 3. | 0.08 | | |
| 3 COMBINED AT | AP-D3 | 198. | 6.10 | 29. | 13. | 13. | 0.36 | | |
| ROUTED TO | RT-APD3 | 196. | 6.10 | 29. | 13. | 13. | 0.36 | | |
| HYDROGRAPH AT | SB-D8 | 133. | 6.00 | 13. | 6. | 6. | 0.06 | | |
| 2 COMBINED AT | AP-DFC | 311. | 6.05 | 43. | 19. | 19. | 0.42 | | |
| ROUTED TO | RR-DFC | 66. | 6.80 | 42. | 19. | 19. | 0.42 | 60.06 | 6.80 |

| | | | | | | | |
|---------------|----------|------|------|-----|-----|-----|------|
| ROUTED TO | RT-DFC | 66. | 6.85 | 42. | 19. | 19. | 0.42 |
| HYDROGRAPH AT | SB-D9A | 14. | 6.10 | 2. | 1. | 1. | 0.02 |
| 2 COMBINED AT | AP-D4 | 73. | 6.20 | 44. | 19. | 19. | 0.44 |
| ROUTED TO | RT-APD4 | 73. | 6.20 | 44. | 19. | 19. | 0.44 |
| HYDROGRAPH AT | SB-D9 | 18. | 6.15 | 2. | 1. | 1. | 0.02 |
| 2 COMBINED AT | AP-D4a | 90. | 6.15 | 46. | 20. | 20. | 0.46 |
| ROUTED TO | RT-APD4a | 90. | 6.20 | 46. | 20. | 20. | 0.46 |
| HYDROGRAPH AT | SB-D15 | 36. | 6.10 | 4. | 2. | 2. | 0.04 |
| 2 COMBINED AT | AP-D4b | 124. | 6.15 | 50. | 22. | 22. | 0.50 |
| ROUTED TO | RT-APD4b | 123. | 6.15 | 50. | 22. | 22. | 0.50 |
| HYDROGRAPH AT | SB-D10 | 11. | 6.20 | 2. | 1. | 1. | 0.03 |
| ROUTED TO | RT-SBD10 | 10. | 6.30 | 2. | 1. | 1. | 0.03 |
| HYDROGRAPH AT | SB-D11 | 37. | 6.15 | 4. | 2. | 2. | 0.05 |
| HYDROGRAPH AT | SB-D12 | 14. | 6.15 | 2. | 1. | 1. | 0.02 |
| ROUTED TO | RT-SBD12 | 14. | 6.20 | 2. | 1. | 1. | 0.02 |
| 3 COMBINED AT | AP-D5 | 58. | 6.15 | 8. | 4. | 4. | 0.10 |
| ROUTED TO | RT-APD5 | 58. | 6.20 | 8. | 4. | 4. | 0.10 |
| HYDROGRAPH AT | SB-D13 | 138. | 6.00 | 14. | 6. | 6. | 0.07 |
| 2 COMBINED AT | AP-D6 | 178. | 6.05 | 22. | 10. | 10. | 0.17 |
| ROUTED TO | RT-APD6 | 176. | 6.05 | 22. | 10. | 10. | 0.17 |
| HYDROGRAPH AT | SB-D14 | 25. | 6.05 | 3. | 1. | 1. | 0.02 |
| ROUTED TO | RT-SBD14 | 25. | 6.05 | 3. | 1. | 1. | 0.02 |
| 3 COMBINED AT | AP-D7 | 311. | 6.10 | 75. | 33. | 33. | 0.69 |
| ROUTED TO | RT-APD7 | 311. | 6.10 | 74. | 33. | 33. | 0.69 |
| HYDROGRAPH AT | SB-D17 | 13. | 6.05 | 1. | 1. | 1. | 0.01 |
| 2 COMBINED AT | AP-D7A | 322. | 6.10 | 76. | 34. | 34. | 0.70 |

| | | | | | | | | | |
|---------------|----------|------|------|-----|-----|-----|------|-------|------|
| HYDROGRAPH AT | SB-D16A | 15. | 6.05 | 1. | 1. | 1. | 0.01 | | |
| 2 COMBINED AT | AP-D7A | 335. | 6.10 | 77. | 34. | 34. | 0.71 | | |
| ROUTED TO | RT-APD8 | 335. | 6.10 | 77. | 34. | 34. | 0.71 | | |
| HYDROGRAPH AT | SB-D17A | 25. | 6.00 | 3. | 1. | 1. | 0.01 | | |
| 2 COMBINED AT | AP-D8 | 355. | 6.05 | 80. | 35. | 35. | 0.72 | | |
| HYDROGRAPH AT | SB-D16 | 45. | 6.10 | 5. | 2. | 2. | 0.06 | | |
| ROUTED TO | RT-SBD16 | 44. | 6.10 | 5. | 2. | 2. | 0.06 | | |
| 2 COMBINED AT | AP-D8 | 398. | 6.10 | 85. | 38. | 38. | 0.78 | | |
| ROUTED TO | RT-APD9 | 398. | 6.10 | 85. | 38. | 38. | 0.78 | | |
| HYDROGRAPH AT | SB-D36 | 15. | 6.15 | 2. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-SBD36 | 15. | 6.15 | 2. | 1. | 1. | 0.02 | | |
| 2 COMBINED AT | AP-D9 | 412. | 6.10 | 87. | 38. | 38. | 0.81 | | |
| HYDROGRAPH AT | SB-D37 | 27. | 6.00 | 3. | 1. | 1. | 0.01 | | |
| ROUTED TO | RT-SBD37 | 27. | 6.00 | 3. | 1. | 1. | 0.01 | | |
| 2 COMBINED AT | AP-D9 | 433. | 6.10 | 90. | 40. | 40. | 0.82 | | |
| ROUTED TO | RT-APDFE | 433. | 6.10 | 90. | 40. | 40. | 0.82 | | |
| HYDROGRAPH AT | SB-D18 | 51. | 6.15 | 6. | 3. | 3. | 0.06 | | |
| ROUTED TO | RR-DFPCH | 14. | 6.55 | 4. | 2. | 2. | 0.06 | 21.29 | 6.55 |
| ROUTED TO | RT-RRDFP | 14. | 6.55 | 4. | 2. | 2. | 0.06 | | |
| HYDROGRAPH AT | SB-D19 | 32. | 6.05 | 3. | 1. | 1. | 0.02 | | |
| 2 COMBINED AT | AP-D10 | 32. | 6.05 | 7. | 3. | 3. | 0.09 | | |
| ROUTED TO | RT-APD10 | 32. | 6.05 | 7. | 3. | 3. | 0.09 | | |
| HYDROGRAPH AT | SB-D20 | 72. | 6.00 | 8. | 3. | 3. | 0.03 | | |
| 2 COMBINED AT | AP-D11 | 103. | 6.00 | 15. | 7. | 7. | 0.12 | | |
| ROUTED TO | RT-APD11 | 101. | 6.00 | 15. | 7. | 7. | 0.12 | | |
| HYDROGRAPH AT | SB-D21 | 69. | 6.05 | 7. | 3. | 3. | 0.04 | | |

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|---------------|----------|------|------|------|-----|-----|------|-------|------|
| 3 COMBINED AT | AP-DFE | 596. | 6.05 | 111. | 50. | 50. | 0.98 | | |
| ROUTED TO | RR-DFE | 213. | 6.45 | 96. | 46. | 46. | 0.98 | 36.33 | 6.45 |
| DIVERSION TO | AP-D12 | 148. | 6.45 | 42. | 17. | 17. | 0.98 | | |
| HYDROGRAPH AT | AP-DFE | 64. | 6.45 | 55. | 29. | 29. | 0.98 | | |
| ROUTED TO | RT-APD13 | 64. | 6.45 | 55. | 29. | 29. | 0.98 | | |
| HYDROGRAPH AT | SB-D22 | 42. | 6.05 | 4. | 2. | 2. | 0.04 | | |
| 2 COMBINED AT | AP-D13 | 95. | 6.10 | 58. | 31. | 31. | 1.02 | | |
| ROUTED TO | RT-APD13 | 94. | 6.10 | 58. | 31. | 31. | 1.02 | | |
| HYDROGRAPH AT | SB-D23 | 9. | 6.00 | 1. | 0. | 0. | 0.00 | | |
| 2 COMBINED AT | AP-D14 | 101. | 6.10 | 59. | 31. | 31. | 1.02 | | |
| ROUTED TO | AP-DFF | 101. | 6.10 | 59. | 31. | 31. | 1.02 | | |
| HYDROGRAPH AT | SB-D24 | 23. | 6.05 | 2. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-DFF | 123. | 6.10 | 61. | 32. | 32. | 1.05 | | |
| ROUTED TO | RR-DFF | 61. | 8.10 | 53. | 26. | 26. | 1.05 | 69.14 | 8.10 |
| HYDROGRAPH AT | SB-D25 | 23. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| ROUTED TO | RR-SBD25 | 23. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| HYDROGRAPH AT | SB-D26 | 32. | 6.05 | 3. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-D16 | 55. | 6.05 | 5. | 2. | 2. | 0.05 | | |
| ROUTED TO | RT-APD16 | 55. | 6.05 | 5. | 2. | 2. | 0.05 | | |
| 2 COMBINED AT | AP-D17 | 64. | 8.05 | 54. | 29. | 29. | 1.10 | | |
| ROUTED TO | RT-APD17 | 64. | 8.05 | 54. | 29. | 29. | 1.10 | | |
| HYDROGRAPH AT | SB-D27 | 10. | 6.05 | 1. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-D18 | 72. | 6.05 | 54. | 29. | 29. | 1.10 | | |
| ROUTED TO | RT-APD18 | 71. | 6.05 | 54. | 29. | 29. | 1.10 | | |
| HYDROGRAPH AT | SB-D29 | 20. | 6.05 | 2. | 1. | 1. | 0.02 | | |

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|---------------|----------|------|------|-----|-----|-----|------|-------|------|
| DIVERSION TO | AP-D19a | 0. | 6.05 | 0. | 0. | 0. | 0.02 | | |
| HYDROGRAPH AT | AP-D19 | 20. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-APD19 | 20. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| HYDROGRAPH AT | SB-D28 | 6. | 6.05 | 1. | 0. | 0. | 0.00 | | |
| 3 COMBINED AT | AP-D20 | 97. | 6.05 | 55. | 30. | 30. | 1.13 | | |
| ROUTED TO | RT-APD20 | 96. | 6.05 | 55. | 30. | 30. | 1.13 | | |
| HYDROGRAPH AT | SB-D30 | 15. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-SBD30 | 15. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| 2 COMBINED AT | AP-D21 | 111. | 6.05 | 56. | 31. | 31. | 1.14 | | |
| HYDROGRAPH AT | SB-D31 | 8. | 6.05 | 1. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-D22 | 119. | 6.05 | 57. | 31. | 31. | 1.15 | | |
| HYDROGRAPH AT | SB-D32 | 4. | 6.05 | 0. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-DFCS | 123. | 6.05 | 57. | 32. | 32. | 1.16 | | |
| ROUTED TO | RR-DFCS | 61. | 9.00 | 52. | 29. | 29. | 1.16 | 79.54 | 9.00 |
| HYDROGRAPH AT | DR-APD12 | 148. | 6.45 | 42. | 17. | 17. | 0.00 | | |
| ROUTED TO | RT-APD12 | 149. | 6.60 | 42. | 17. | 17. | 0.00 | | |
| HYDROGRAPH AT | SB-D33 | 26. | 6.05 | 2. | 1. | 1. | 0.04 | | |
| 2 COMBINED AT | AP-D23 | 153. | 6.50 | 44. | 18. | 18. | 0.04 | | |
| 2 COMBINED AT | AP-D24 | 188. | 6.50 | 93. | 47. | 47. | 1.19 | | |
| HYDROGRAPH AT | SB-D34 | 40. | 6.05 | 4. | 2. | 2. | 0.04 | | |
| ROUTED TO | RT-SBD34 | 39. | 6.05 | 4. | 2. | 2. | 0.04 | | |
| HYDROGRAPH AT | SB-D35 | 42. | 6.05 | 4. | 2. | 2. | 0.04 | | |
| 2 COMBINED AT | AP-DFG | 81. | 6.05 | 8. | 4. | 4. | 0.08 | | |
| ROUTED TO | RR-DFG | 23. | 6.35 | 6. | 3. | 3. | 0.08 | 67.87 | 6.35 |

25 Year, 24 Hour, Developed Condition
 RUNOFF SUMMARY
 FLOW IN CUBIC FEET PER SECOND
 TIME IN HOURS, AREA IN SQUARE MILES

| OPERATION | STATION | PEAK FLOW | TIME OF PEAK | AVERAGE FLOW FOR MAXIMUM PERIOD | | | BASIN AREA | MAXIMUM STAGE | TIME OF MAX STAGE |
|---------------|----------|-----------|--------------|---------------------------------|---------|---------|------------|---------------|-------------------|
| | | | | 6-HOUR | 24-HOUR | 72-HOUR | | | |
| HYDROGRAPH AT | SB-D1 | 45. | 6.30 | 8. | 3. | 3. | 0.09 | | |
| ROUTED TO | RT-SB01 | 45. | 6.35 | 8. | 3. | 3. | 0.09 | | |
| HYDROGRAPH AT | SB-D2 | 46. | 6.10 | 6. | 2. | 2. | 0.06 | | |
| 2 COMBINED AT | AP-D1 | 79. | 6.20 | 13. | 6. | 6. | 0.14 | | |
| HYDROGRAPH AT | SB-D3 | 27. | 6.15 | 3. | 2. | 2. | 0.03 | | |
| 2 COMBINED AT | AP-DDA | 105. | 6.20 | 16. | 7. | 7. | 0.17 | | |
| ROUTED TO | RR-DFA | 54. | 6.55 | 16. | 7. | 7. | 0.17 | 60.75 | 6.55 |
| ROUTED TO | RT-APDFA | 54. | 6.55 | 16. | 7. | 7. | 0.17 | | |
| HYDROGRAPH AT | SB-D6 | 62. | 6.05 | 6. | 3. | 3. | 0.04 | | |
| 2 COMBINED AT | AP-D2 | 101. | 6.10 | 23. | 10. | 10. | 0.21 | | |
| ROUTED TO | RT-APD2 | 101. | 6.10 | 23. | 10. | 10. | 0.21 | | |
| HYDROGRAPH AT | SB-D7 | 113. | 6.05 | 12. | 5. | 5. | 0.07 | | |
| HYDROGRAPH AT | SB-D4 | 36. | 6.15 | 4. | 2. | 2. | 0.05 | | |
| HYDROGRAPH AT | SB-D5 | 32. | 6.15 | 4. | 2. | 2. | 0.03 | | |
| 2 COMBINED AT | AP-DFB | 68. | 6.15 | 8. | 4. | 4. | 0.08 | | |
| ROUTED TO | RR-DFB | 47. | 6.30 | 8. | 4. | 4. | 0.08 | 23.03 | 6.30 |
| ROUTED TO | RT-APDFB | 47. | 6.30 | 8. | 4. | 4. | 0.08 | | |
| 3 COMBINED AT | AP-D3 | 254. | 6.10 | 43. | 19. | 19. | 0.36 | | |
| ROUTED TO | RT-APD3 | 253. | 6.10 | 43. | 19. | 19. | 0.36 | | |
| HYDROGRAPH AT | SB-D8 | 165. | 6.00 | 17. | 7. | 7. | 0.06 | | |
| 2 COMBINED AT | AP-DFC | 405. | 6.05 | 60. | 26. | 26. | 0.42 | | |
| ROUTED TO | RR-DFC | 75. | 7.05 | 58. | 26. | 26. | 0.42 | 62.40 | 7.10 |

| | | | | | | | |
|---------------|----------|------|------|------|-----|-----|------|
| ROUTED TO | RT-DFC | 75. | 7.10 | 58. | 26. | 26. | 0.42 |
| HYDROGRAPH AT | SB-D9A | 21. | 6.10 | 2. | 1. | 1. | 0.02 |
| 2 COMBINED AT | AP-D4 | 85. | 6.15 | 60. | 27. | 27. | 0.44 |
| ROUTED TO | RT-APD4 | 85. | 6.20 | 60. | 27. | 27. | 0.44 |
| HYDROGRAPH AT | SB-D9 | 26. | 6.15 | 3. | 1. | 1. | 0.02 |
| 2 COMBINED AT | AP-D4a | 111. | 6.15 | 64. | 29. | 29. | 0.46 |
| ROUTED TO | RT-APD4a | 111. | 6.15 | 64. | 29. | 29. | 0.46 |
| HYDROGRAPH AT | SB-D15 | 52. | 6.10 | 6. | 3. | 3. | 0.04 |
| 2 COMBINED AT | AP-D4b | 159. | 6.10 | 69. | 31. | 31. | 0.50 |
| ROUTED TO | RT-APD4b | 159. | 6.15 | 69. | 31. | 31. | 0.50 |
| HYDROGRAPH AT | SB-D10 | 17. | 6.20 | 2. | 1. | 1. | 0.03 |
| ROUTED TO | RT-SBD10 | 17. | 6.25 | 2. | 1. | 1. | 0.03 |
| HYDROGRAPH AT | SB-D11 | 55. | 6.10 | 7. | 3. | 3. | 0.05 |
| HYDROGRAPH AT | SB-D12 | 21. | 6.15 | 3. | 1. | 1. | 0.02 |
| ROUTED TO | RT-SBD12 | 21. | 6.20 | 3. | 1. | 1. | 0.02 |
| 3 COMBINED AT | AP-D5 | 88. | 6.15 | 12. | 5. | 5. | 0.10 |
| ROUTED TO | RT-APD5 | 88. | 6.15 | 12. | 5. | 5. | 0.10 |
| HYDROGRAPH AT | SB-D13 | 173. | 6.00 | 18. | 8. | 8. | 0.07 |
| 2 COMBINED AT | AP-D6 | 238. | 6.05 | 30. | 13. | 13. | 0.17 |
| ROUTED TO | RT-APD6 | 236. | 6.05 | 30. | 13. | 13. | 0.17 |
| HYDROGRAPH AT | SB-D14 | 35. | 6.05 | 4. | 2. | 2. | 0.02 |
| ROUTED TO | RT-SBD14 | 35. | 6.05 | 4. | 2. | 2. | 0.02 |
| 3 COMBINED AT | AP-D7 | 418. | 6.05 | 102. | 46. | 46. | 0.69 |
| ROUTED TO | RT-APD7 | 415. | 6.10 | 102. | 46. | 46. | 0.69 |
| HYDROGRAPH AT | SB-D17 | 18. | 6.00 | 2. | 1. | 1. | 0.01 |
| 2 COMBINED AT | AP-D7A | 431. | 6.05 | 104. | 46. | 46. | 0.70 |

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|---------------|----------|------|------|------|-----|-----|------|-------|------|
| HYDROGRAPH AT | SB-D16A | 20. | 6.05 | 2. | 1. | 1. | 0.01 | | |
| 2 COMBINED AT | AP-D7A | 451. | 6.05 | 106. | 47. | 47. | 0.71 | | |
| ROUTED TO | RT-APD8 | 448. | 6.10 | 106. | 47. | 47. | 0.71 | | |
| HYDROGRAPH AT | SB-D17A | 30. | 6.00 | 3. | 1. | 1. | 0.01 | | |
| 2 COMBINED AT | AP-D8 | 476. | 6.05 | 109. | 49. | 49. | 0.72 | | |
| HYDROGRAPH AT | SB-D16 | 66. | 6.10 | 7. | 3. | 3. | 0.06 | | |
| ROUTED TO | RT-SBD16 | 66. | 6.10 | 7. | 3. | 3. | 0.06 | | |
| 2 COMBINED AT | AP-D8 | 538. | 6.05 | 116. | 52. | 52. | 0.78 | | |
| ROUTED TO | RT-APD9 | 537. | 6.10 | 116. | 52. | 52. | 0.78 | | |
| HYDROGRAPH AT | SB-D36 | 23. | 6.15 | 3. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-SBD36 | 23. | 6.15 | 3. | 1. | 1. | 0.02 | | |
| 2 COMBINED AT | AP-D9 | 559. | 6.10 | 119. | 53. | 53. | 0.81 | | |
| HYDROGRAPH AT | SB-D37 | 33. | 6.00 | 4. | 2. | 2. | 0.01 | | |
| ROUTED TO | RT-SBD37 | 33. | 6.00 | 4. | 2. | 2. | 0.01 | | |
| 2 COMBINED AT | AP-D9 | 585. | 6.05 | 122. | 55. | 55. | 0.82 | | |
| ROUTED TO | RT-APDFE | 584. | 6.10 | 122. | 55. | 55. | 0.82 | | |
| HYDROGRAPH AT | SB-D18 | 74. | 6.15 | 9. | 4. | 4. | 0.06 | | |
| ROUTED TO | RR-DFPCH | 29. | 6.45 | 7. | 3. | 3. | 0.06 | 21.96 | 6.45 |
| ROUTED TO | RT-RRDFP | 29. | 6.45 | 7. | 3. | 3. | 0.06 | | |
| HYDROGRAPH AT | SB-D19 | 44. | 6.05 | 4. | 2. | 2. | 0.02 | | |
| 2 COMBINED AT | AP-D10 | 44. | 6.05 | 11. | 5. | 5. | 0.09 | | |
| ROUTED TO | RT-APD10 | 43. | 6.05 | 11. | 5. | 5. | 0.09 | | |
| HYDROGRAPH AT | SB-D20 | 87. | 6.00 | 9. | 4. | 4. | 0.03 | | |
| 2 COMBINED AT | AP-D11 | 129. | 6.00 | 20. | 9. | 9. | 0.12 | | |
| ROUTED TO | RT-APD11 | 128. | 6.00 | 20. | 9. | 9. | 0.12 | | |
| HYDROGRAPH AT | | | | | | | | | |

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|---------------|----------|------|------|------|-----|-----|------|-------|------|
| | SB-D21 | 89. | 6.05 | 9. | 4. | 4. | 0.04 | | |
| 3 COMBINED AT | AP-DFE | 796. | 6.05 | 152. | 68. | 68. | 0.98 | | |
| ROUTED TO | RR-DFE | 367. | 6.35 | 132. | 63. | 63. | 0.98 | 38.46 | 6.35 |
| DIVERSION TO | AP-D12 | 297. | 6.35 | 73. | 30. | 30. | 0.98 | | |
| HYDROGRAPH AT | AP-DFE | 70. | 6.35 | 58. | 33. | 33. | 0.98 | | |
| ROUTED TO | RT-APD13 | 70. | 6.35 | 58. | 33. | 33. | 0.98 | | |
| HYDROGRAPH AT | SB-D22 | 58. | 6.05 | 6. | 3. | 3. | 0.04 | | |
| 2 COMBINED AT | AP-D13 | 118. | 6.10 | 63. | 35. | 35. | 1.02 | | |
| ROUTED TO | RT-APD13 | 118. | 6.10 | 63. | 35. | 35. | 1.02 | | |
| HYDROGRAPH AT | SB-D23 | 12. | 6.00 | 1. | 1. | 1. | 0.00 | | |
| 2 COMBINED AT | AP-D14 | 127. | 6.05 | 64. | 36. | 36. | 1.02 | | |
| ROUTED TO | AP-DFE | 126. | 6.10 | 64. | 36. | 36. | 1.02 | | |
| HYDROGRAPH AT | SB-D24 | 33. | 6.05 | 3. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-DFE | 159. | 6.05 | 68. | 37. | 37. | 1.05 | | |
| ROUTED TO | RR-DFE | 66. | 7.55 | 59. | 31. | 31. | 1.05 | 69.26 | 7.55 |
| HYDROGRAPH AT | SB-D25 | 31. | 6.05 | 3. | 1. | 1. | 0.02 | | |
| ROUTED TO | RR-SBD25 | 31. | 6.05 | 3. | 1. | 1. | 0.02 | | |
| HYDROGRAPH AT | SB-D26 | 46. | 6.05 | 5. | 2. | 2. | 0.03 | | |
| 2 COMBINED AT | AP-D16 | 77. | 6.05 | 8. | 3. | 3. | 0.05 | | |
| ROUTED TO | RT-APD16 | 77. | 6.05 | 8. | 3. | 3. | 0.05 | | |
| 2 COMBINED AT | AP-D17 | 85. | 6.05 | 61. | 34. | 34. | 1.10 | | |
| ROUTED TO | RT-APD17 | 84. | 6.05 | 61. | 34. | 34. | 1.10 | | |
| HYDROGRAPH AT | SB-D27 | 14. | 6.05 | 1. | 1. | 1. | 0.01 | | |
| 2 COMBINED AT | AP-D18 | 98. | 6.05 | 61. | 35. | 35. | 1.10 | | |
| ROUTED TO | RT-APD18 | 97. | 6.05 | 61. | 35. | 35. | 1.10 | | |
| HYDROGRAPH AT | SB-D29 | 28. | 6.05 | 3. | 1. | 1. | 0.02 | | |

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|---------------|----------|------|------|------|-----|-----|------|-------|------|
| DIVERSION TO | AP-D19a | 8. | 5.90 | 0. | 0. | 0. | 0.02 | | |
| HYDROGRAPH AT | AP-D19 | 20. | 5.90 | 3. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-APD19 | 20. | 5.95 | 3. | 1. | 1. | 0.02 | | |
| HYDROGRAPH AT | SB-D28 | 8. | 6.05 | 1. | 0. | 0. | 0.00 | | |
| 3 COMBINED AT | AP-D20 | 125. | 6.05 | 64. | 36. | 36. | 1.13 | | |
| ROUTED TO | RT-APD20 | 125. | 6.05 | 64. | 36. | 36. | 1.13 | | |
| HYDROGRAPH AT | SB-D30 | 22. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-SBD30 | 22. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| 2 COMBINED AT | AP-D21 | 146. | 6.05 | 66. | 37. | 37. | 1.14 | | |
| HYDROGRAPH AT | SB-D31 | 11. | 6.05 | 1. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-D22 | 158. | 6.05 | 67. | 38. | 38. | 1.15 | | |
| HYDROGRAPH AT | SB-D32 | 6. | 6.05 | 1. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-DFCS | 164. | 6.05 | 68. | 38. | 38. | 1.16 | | |
| ROUTED TO | RR-DFCS | 73. | 8.10 | 63. | 35. | 35. | 1.16 | 79.86 | 8.10 |
| HYDROGRAPH AT | DR-APD12 | 297. | 6.35 | 73. | 30. | 30. | 0.00 | | |
| ROUTED TO | RT-APD12 | 300. | 6.40 | 74. | 30. | 30. | 0.00 | | |
| HYDROGRAPH AT | SB-D33 | 39. | 6.05 | 4. | 2. | 2. | 0.04 | | |
| 2 COMBINED AT | AP-D23 | 307. | 6.40 | 77. | 32. | 32. | 0.04 | | |
| 2 COMBINED AT | AP-D24 | 348. | 6.40 | 136. | 67. | 67. | 1.19 | | |
| HYDROGRAPH AT | SB-D34 | 57. | 6.05 | 6. | 3. | 3. | 0.04 | | |
| ROUTED TO | RT-SBD34 | 56. | 6.05 | 6. | 3. | 3. | 0.04 | | |
| HYDROGRAPH AT | SB-D35 | 59. | 6.05 | 6. | 3. | 3. | 0.04 | | |
| 2 COMBINED AT | AP-DFG | 115. | 6.05 | 12. | 5. | 5. | 0.08 | | |
| ROUTED TO | RR-DFG | 31. | 6.35 | 9. | 4. | 4. | 0.08 | 69.56 | 6.35 |

50 Year, 24 Hour, Developed Condition
 RUNOFF SUMMARY
 FLOW IN CUBIC FEET PER SECOND
 TIME IN HOURS, AREA IN SQUARE MILES

| OPERATION | STATION | PEAK FLOW | TIME OF PEAK | AVERAGE FLOW FOR MAXIMUM PERIOD | | | BASIN AREA | MAXIMUM STAGE | TIME OF MAX STAGE |
|---------------|----------|-----------|--------------|---------------------------------|---------|---------|------------|---------------|-------------------|
| | | | | 6-HOUR | 24-HOUR | 72-HOUR | | | |
| HYDROGRAPH AT | SB-D1 | 58. | 6.25 | 10. | 4. | 4. | 0.09 | | |
| ROUTED TO | RT-SBD1 | 58. | 6.30 | 10. | 4. | 4. | 0.09 | | |
| HYDROGRAPH AT | SB-D2 | 59. | 6.10 | 7. | 3. | 3. | 0.06 | | |
| 2 COMBINED AT | AP-D1 | 102. | 6.20 | 16. | 7. | 7. | 0.14 | | |
| HYDROGRAPH AT | SB-D3 | 33. | 6.15 | 4. | 2. | 2. | 0.03 | | |
| 2 COMBINED AT | AP-DDA | 134. | 6.20 | 21. | 9. | 9. | 0.17 | | |
| ROUTED TO | RR-DFA | 60. | 6.60 | 21. | 9. | 9. | 0.17 | 62.11 | 6.60 |
| ROUTED TO | RT-APDFA | 60. | 6.60 | 21. | 9. | 9. | 0.17 | | |
| HYDROGRAPH AT | SB-D6 | 74. | 6.05 | 8. | 3. | 3. | 0.04 | | |
| 2 COMBINED AT | AP-D2 | 116. | 6.05 | 28. | 12. | 12. | 0.21 | | |
| ROUTED TO | RT-APD2 | 116. | 6.10 | 28. | 12. | 12. | 0.21 | | |
| HYDROGRAPH AT | SB-D7 | 134. | 6.05 | 14. | 6. | 6. | 0.07 | | |
| HYDROGRAPH AT | SB-D4 | 45. | 6.15 | 6. | 2. | 2. | 0.05 | | |
| HYDROGRAPH AT | SB-D5 | 40. | 6.10 | 5. | 2. | 2. | 0.03 | | |
| 2 COMBINED AT | AP-DFB | 85. | 6.15 | 10. | 5. | 5. | 0.08 | | |
| ROUTED TO | RR-DFB | 52. | 6.30 | 10. | 5. | 5. | 0.08 | 24.31 | 6.30 |
| ROUTED TO | RT-APDFB | 52. | 6.35 | 10. | 5. | 5. | 0.08 | | |
| 3 COMBINED AT | AP-D3 | 291. | 6.10 | 53. | 23. | 23. | 0.36 | | |
| ROUTED TO | RT-APD3 | 291. | 6.10 | 53. | 23. | 23. | 0.36 | | |
| HYDROGRAPH AT | SB-D8 | 186. | 6.00 | 19. | 8. | 8. | 0.06 | | |
| 2 COMBINED AT | AP-DFC | 465. | 6.05 | 72. | 32. | 32. | 0.42 | | |
| ROUTED TO | RR-DFC | 81. | 7.20 | 67. | 31. | 31. | 0.42 | 64.02 | 7.20 |

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|---------------|----------|------|------|------|-----|-----|------|
| ROUTED TO | RT-DFC | 81. | 7.20 | 67. | 31. | 31. | 0.42 |
| HYDROGRAPH AT | SB-D9A | 25. | 6.10 | 3. | 1. | 1. | 0.02 |
| 2 COMBINED AT | AP-D4 | 93. | 6.15 | 70. | 33. | 33. | 0.44 |
| ROUTED TO | RT-APD4 | 93. | 6.15 | 70. | 33. | 33. | 0.44 |
| HYDROGRAPH AT | SB-D9 | 32. | 6.15 | 4. | 2. | 2. | 0.02 |
| 2 COMBINED AT | AP-D4a | 125. | 6.15 | 73. | 34. | 34. | 0.46 |
| ROUTED TO | RT-APD4a | 124. | 6.15 | 73. | 34. | 34. | 0.46 |
| HYDROGRAPH AT | SB-D15 | 63. | 6.10 | 7. | 3. | 3. | 0.04 |
| 2 COMBINED AT | AP-D4b | 185. | 6.10 | 80. | 37. | 37. | 0.50 |
| ROUTED TO | RT-APD4b | 184. | 6.10 | 80. | 37. | 37. | 0.50 |
| HYDROGRAPH AT | SB-D10 | 22. | 6.20 | 3. | 1. | 1. | 0.03 |
| ROUTED TO | RT-SBD10 | 22. | 6.25 | 3. | 1. | 1. | 0.03 |
| HYDROGRAPH AT | SB-D11 | 68. | 6.10 | 8. | 4. | 4. | 0.05 |
| HYDROGRAPH AT | SB-D12 | 26. | 6.15 | 3. | 1. | 1. | 0.02 |
| ROUTED TO | RT-SBD12 | 26. | 6.20 | 3. | 1. | 1. | 0.02 |
| 3 COMBINED AT | AP-D5 | 110. | 6.15 | 14. | 6. | 6. | 0.10 |
| ROUTED TO | RT-APD5 | 109. | 6.15 | 14. | 6. | 6. | 0.10 |
| HYDROGRAPH AT | SB-D13 | 196. | 6.00 | 20. | 9. | 9. | 0.07 |
| 2 COMBINED AT | AP-D6 | 280. | 6.05 | 35. | 15. | 15. | 0.17 |
| ROUTED TO | RT-APD6 | 277. | 6.05 | 35. | 15. | 15. | 0.17 |
| HYDROGRAPH AT | SB-D14 | 42. | 6.05 | 4. | 2. | 2. | 0.02 |
| ROUTED TO | RT-SBD14 | 42. | 6.05 | 4. | 2. | 2. | 0.02 |
| 3 COMBINED AT | AP-D7 | 492. | 6.05 | 119. | 54. | 54. | 0.69 |
| ROUTED TO | RT-APD7 | 487. | 6.10 | 119. | 54. | 54. | 0.69 |
| HYDROGRAPH AT | SB-D17 | 21. | 6.00 | 2. | 1. | 1. | 0.01 |
| 2 COMBINED AT | AP-D7A | 507. | 6.05 | 121. | 55. | 55. | 0.70 |

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|---------------|----------|------|------|------|-----|-----|------|-------|------|
| HYDROGRAPH AT | SB-D16A | 24. | 6.05 | 2. | 1. | 1. | 0.01 | | |
| 2 COMBINED AT | AP-D7A | 532. | 6.05 | 123. | 56. | 56. | 0.71 | | |
| ROUTED TO | RT-APD8 | 528. | 6.05 | 123. | 56. | 56. | 0.71 | | |
| HYDROGRAPH AT | SB-D17A | 33. | 6.00 | 4. | 2. | 2. | 0.01 | | |
| 2 COMBINED AT | AP-D8 | 559. | 6.05 | 126. | 58. | 58. | 0.72 | | |
| HYDROGRAPH AT | SB-D16 | 82. | 6.10 | 9. | 4. | 4. | 0.06 | | |
| ROUTED TO | RT-SBD16 | 82. | 6.10 | 9. | 4. | 4. | 0.06 | | |
| 2 COMBINED AT | AP-D8 | 637. | 6.05 | 135. | 62. | 62. | 0.78 | | |
| ROUTED TO | RT-APD9 | 633. | 6.05 | 135. | 62. | 62. | 0.78 | | |
| HYDROGRAPH AT | SB-D36 | 28. | 6.15 | 3. | 2. | 2. | 0.02 | | |
| ROUTED TO | RT-SBD36 | 28. | 6.15 | 3. | 1. | 1. | 0.02 | | |
| 2 COMBINED AT | AP-D9 | 660. | 6.10 | 139. | 63. | 63. | 0.81 | | |
| HYDROGRAPH AT | SB-D37 | 36. | 6.00 | 4. | 2. | 2. | 0.01 | | |
| ROUTED TO | RT-SBD37 | 36. | 6.00 | 4. | 2. | 2. | 0.01 | | |
| 2 COMBINED AT | AP-D9 | 692. | 6.05 | 143. | 65. | 65. | 0.82 | | |
| ROUTED TO | RT-APDFE | 689. | 6.10 | 143. | 65. | 65. | 0.82 | | |
| HYDROGRAPH AT | SB-D18 | 90. | 6.15 | 11. | 5. | 5. | 0.06 | | |
| ROUTED TO | RR-DFPCH | 33. | 6.45 | 9. | 4. | 4. | 0.06 | 22.51 | 6.45 |
| ROUTED TO | RT-RRDFP | 33. | 6.45 | 9. | 4. | 4. | 0.06 | | |
| HYDROGRAPH AT | SB-D19 | 51. | 6.00 | 5. | 2. | 2. | 0.02 | | |
| 2 COMBINED AT | AP-D10 | 54. | 6.05 | 14. | 6. | 6. | 0.09 | | |
| ROUTED TO | RT-APD10 | 53. | 6.05 | 14. | 6. | 6. | 0.09 | | |
| HYDROGRAPH AT | SB-D20 | 97. | 6.00 | 11. | 5. | 5. | 0.03 | | |
| 2 COMBINED AT | AP-D11 | 147. | 6.00 | 24. | 11. | 11. | 0.12 | | |
| ROUTED TO | RT-APD11 | 146. | 6.00 | 24. | 11. | 11. | 0.12 | | |

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|---------------|----------|------|------|------|-----|-----|------|-------|------|
| HYDROGRAPH AT | SB-D21 | 102. | 6.00 | 11. | 5. | 5. | 0.04 | | |
| 3 COMBINED AT | AP-DFE | 935. | 6.05 | 177. | 81. | 81. | 0.98 | | |
| ROUTED TO | RR-DFE | 490. | 6.30 | 156. | 74. | 74. | 0.98 | 39.58 | 6.30 |
| DIVERSION TO | AP-D12 | 417. | 6.30 | 96. | 40. | 40. | 0.98 | | |
| HYDROGRAPH AT | AP-DFE | 73. | 6.30 | 60. | 34. | 34. | 0.98 | | |
| ROUTED TO | RT-APD13 | 73. | 6.30 | 60. | 34. | 34. | 0.98 | | |
| HYDROGRAPH AT | SB-D22 | 69. | 6.05 | 7. | 3. | 3. | 0.04 | | |
| 2 COMBINED AT | AP-D13 | 133. | 6.05 | 66. | 37. | 37. | 1.02 | | |
| ROUTED TO | RT-APD13 | 132. | 6.10 | 66. | 37. | 37. | 1.02 | | |
| HYDROGRAPH AT | SB-D23 | 14. | 6.00 | 1. | 1. | 1. | 0.00 | | |
| 2 COMBINED AT | AP-D14 | 144. | 6.05 | 67. | 38. | 38. | 1.02 | | |
| ROUTED TO | AP-DFE | 144. | 6.05 | 67. | 38. | 38. | 1.02 | | |
| HYDROGRAPH AT | SB-D24 | 40. | 6.05 | 4. | 2. | 2. | 0.03 | | |
| 2 COMBINED AT | AP-DFE | 184. | 6.05 | 71. | 40. | 40. | 1.05 | | |
| ROUTED TO | RR-DFE | 71. | 7.25 | 61. | 33. | 33. | 1.05 | 69.36 | 7.25 |
| HYDROGRAPH AT | SB-D25 | 36. | 6.05 | 4. | 2. | 2. | 0.02 | | |
| ROUTED TO | RR-SBD25 | 36. | 6.05 | 4. | 2. | 2. | 0.02 | | |
| HYDROGRAPH AT | SB-D26 | 56. | 6.05 | 5. | 2. | 2. | 0.03 | | |
| 2 COMBINED AT | AP-D16 | 92. | 6.05 | 9. | 4. | 4. | 0.05 | | |
| ROUTED TO | RT-APD16 | 92. | 6.05 | 9. | 4. | 4. | 0.05 | | |
| 2 COMBINED AT | AP-D17 | 101. | 6.05 | 65. | 37. | 37. | 1.10 | | |
| ROUTED TO | RT-APD17 | 100. | 6.05 | 65. | 37. | 37. | 1.10 | | |
| HYDROGRAPH AT | SB-D27 | 16. | 6.05 | 2. | 1. | 1. | 0.01 | | |
| 2 COMBINED AT | AP-D18 | 116. | 6.05 | 66. | 38. | 38. | 1.10 | | |
| ROUTED TO | RT-APD18 | 116. | 6.05 | 66. | 38. | 38. | 1.10 | | |

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|---------------|----------|------|------|------|-----|-----|------|-------|------|
| HYDROGRAPH AT | SB-D29 | 34. | 6.05 | 3. | 1. | 1. | 0.02 | | |
| DIVERSION TO | AP-D19a | 14. | 5.85 | 0. | 0. | 0. | 0.02 | | |
| HYDROGRAPH AT | AP-D19 | 20. | 5.85 | 3. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-APD19 | 20. | 5.90 | 3. | 1. | 1. | 0.02 | | |
| HYDROGRAPH AT | SB-D28 | 9. | 6.05 | 1. | 0. | 0. | 0.00 | | |
| 3 COMBINED AT | AP-D20 | 145. | 6.05 | 70. | 40. | 40. | 1.13 | | |
| ROUTED TO | RT-APD20 | 144. | 6.05 | 70. | 40. | 40. | 1.13 | | |
| HYDROGRAPH AT | SB-D30 | 27. | 6.05 | 3. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-SBD30 | 27. | 6.05 | 3. | 1. | 1. | 0.02 | | |
| 2 COMBINED AT | AP-D21 | 171. | 6.05 | 72. | 41. | 41. | 1.14 | | |
| HYDROGRAPH AT | SB-D31 | 13. | 6.05 | 1. | 1. | 1. | 0.01 | | |
| 2 COMBINED AT | AP-D22 | 184. | 6.05 | 74. | 42. | 42. | 1.15 | | |
| HYDROGRAPH AT | SB-D32 | 8. | 6.05 | 1. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-DFCS | 192. | 6.05 | 74. | 42. | 42. | 1.16 | | |
| ROUTED TO | RR-DFCS | 79. | 7.50 | 67. | 38. | 38. | 1.16 | 80.02 | 7.50 |
| HYDROGRAPH AT | DR-APD12 | 417. | 6.30 | 96. | 40. | 40. | 0.00 | | |
| ROUTED TO | RT-APD12 | 430. | 6.35 | 96. | 40. | 40. | 0.00 | | |
| HYDROGRAPH AT | SB-D33 | 49. | 6.05 | 5. | 2. | 2. | 0.04 | | |
| 2 COMBINED AT | AP-D23 | 440. | 6.35 | 100. | 42. | 42. | 0.04 | | |
| 2 COMBINED AT | AP-D24 | 501. | 6.35 | 166. | 80. | 80. | 1.19 | | |
| HYDROGRAPH AT | SB-D34 | 68. | 6.05 | 7. | 3. | 3. | 0.04 | | |
| ROUTED TO | RT-SBD34 | 67. | 6.05 | 7. | 3. | 3. | 0.04 | | |
| HYDROGRAPH AT | SB-D35 | 71. | 6.05 | 7. | 3. | 3. | 0.04 | | |
| 2 COMBINED AT | AP-DFG | 138. | 6.05 | 14. | 6. | 6. | 0.08 | | |
| ROUTED TO | RR-DFG | 36. | 6.35 | 11. | 5. | 5. | 0.08 | 70.85 | 6.35 |

H.
HEC-1 MODEL OUTPUT
HISTORIC (UNDEVELOPED) CONDITION
• 100-YEAR STORM

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*
* FLOOD HYDROGRAPH PACKAGE (HEC-1) *
*      MAY 1991                      *
*      VERSION 4.0.1E                *
*
* RUN DATE 05/06/1999 TIME 19:40:18 *
*
*****
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*****
*
* U.S. ARMY CORPS OF ENGINEERS      *
* HYDROLOGIC ENGINEERING CENTER     *
*      609 SECOND STREET             *
*      DAVIS, CALIFORNIA 95616      *
*      (916) 756-1104                *
*
*****
```

```

X   X  XXXXXXX  XXXXX      X
X   X  X      X   X      XX
X   X  X      X           X
XXXXXX XXXX   X      XXXXX X
X   X  X      X           X
X   X  X      X   X      X
X   X  XXXXXXX  XXXXX      XXX

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::::::::::::::::::::::::::::::::::::
::::::::::::::::::::::::::::::::::::
:::
::: Full Microcomputer Implementation :::
:::           by                       :::
::: Haestad Methods, Inc.             :::
:::
::::::::::::::::::::::::::::::::::::
::::::::::::::::::::::::::::::::::::

```

37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE. THE DEFINITION OF -AMSK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
 NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
 DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
 KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1 ID KETTLE CREEK DRAINAGE BASIN - 24HR, HISTORIC CONDITION (TYPE IIa100 YEAR)

2 ID WATERSHED IN PREDEVELOPMENT CONDITION WITH NO CONSERVATION TREATMENT

3 ID FILE:KCU100.DAT

4 ID UNDEVELOPED CONDITION MODEL

5 ID *****

6 ID BEGIN CALCULATIONS IN THE SOUTH TRIBUTARY WATERSHED

7 ID *****

*** FREE ***

*DIAGRAM

8 IT 3 0 0 300

9 IO 5

10 KK SB-H1

11 KM COMPUTE HYDROGRAPH FOR BASIN H1

12 BA .1347

13 IN 15

14 PB 4.4 4.0

| | | | | | | | | | | | |
|----|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 15 | PC | 0000 | .0005 | .0015 | .0030 | .0045 | .0060 | .0080 | .0100 | .0120 | .0143 |
| 16 | PC | .0165 | .0188 | .0210 | .0233 | .0255 | .0278 | .0320 | .0390 | .0460 | .0530 |
| 17 | PC | .0600 | .0750 | .1000 | .4000 | .7000 | .7250 | .7500 | .7650 | .7800 | .7900 |
| 18 | PC | .8000 | .8100 | .8200 | .8250 | .8300 | .8350 | .8400 | .8450 | .8500 | .8550 |
| 19 | PC | .8600 | .8638 | .8675 | .8713 | .8750 | .8788 | .8825 | .8863 | .8900 | .8938 |
| 20 | PC | .8975 | .9013 | .9050 | .9083 | .9115 | .9148 | .9180 | .9210 | .9240 | .9270 |
| 21 | PC | .9300 | .9325 | .9350 | .9375 | .9400 | .9425 | .9450 | .9475 | .9500 | .9525 |
| 22 | PC | .9550 | .9575 | .9600 | .9625 | .9650 | .9675 | .9700 | .9725 | .9750 | .9775 |
| 23 | PC | .9800 | .9813 | .9825 | .9838 | .9850 | .9863 | .9875 | .9888 | .9900 | .9913 |
| 24 | PC | .9925 | .9938 | .9950 | .9963 | .9975 | .9988 | 1.000 | | | |

25 LS 0 66

26 UD .420

27 KK RT-SBH1

28 KM ROUTE THE RUNOFF FROM SB-H1 THROUGH SB-H2 TO AP-H1

29 RD 3500 .027 .035 TRAP 15 10

30 KK SB-H2

31 KM COMPUTE HYDROGRAPH FOR BASIN H2

32 BA 0.1288

33 LS 0 66

34 UD .303

35 KK AP-H1

36 KM COMBINE THE FLOW FROM BASIN H2 TO THE ROUTED FLOW FROM BASIN H1 AT AP-H1

37 HC 2

38 KK RT-APH1

39 KM ROUTE THE RUNOFF FROM AP1 TO AP-H2

40 RD 590 .015 .035 TRAP 30 5

41 KK SB-H3

42 KM COMPUTE HYDROGRAPH FOR BASIN H3

43 BA 0.0853

44 LS 0 66

45 UD .314

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

| | | | | | | | | | |
|----|----|---|-------|------|------|----|----|--|--|
| 46 | KK | RT-H3 | | | | | | | |
| 47 | KM | ROUTE THE RUNOFF FROM BASIN H3 TO AP-H2 | | | | | | | |
| 48 | RD | 610 | .025 | .035 | TRAP | 15 | 10 | | |
| 49 | KK | AP-H2 | | | | | | | |
| 50 | KM | COMBINE THE ROUTED FLOW FROM AP-H1 AND BASIN H3 AT AP-H2 | | | | | | | |
| 51 | HC | 2 | | | | | | | |
| 52 | KK | RT-AP2 | | | | | | | |
| 53 | KM | ROUTE THE RUNOFF FROM AP-H2 TO AP-H3 | | | | | | | |
| 54 | RD | 1800 | .022 | .035 | TRAP | 15 | 10 | | |
| 55 | KK | SB-H4 | | | | | | | |
| 56 | KM | COMPUTE HYDROGRAPH FOR BASIN H4 | | | | | | | |
| 57 | BA | 0.0428 | | | | | | | |
| 58 | LS | 0 | 66 | | | | | | |
| 59 | UD | .188 | | | | | | | |
| 60 | KK | SB-H5 | | | | | | | |
| 61 | KM | COMPUTE HYDROGRAPH FOR BASIN H5 | | | | | | | |
| 62 | BA | 0.0769 | | | | | | | |
| 63 | LS | 0 | 66 | | | | | | |
| 64 | UD | .286 | | | | | | | |
| 65 | KK | AP-H3 | | | | | | | |
| 66 | KM | COMBINE THE ROUTED FLOW FROM AP-H2 AND BASINS H4 AND H5 AT AP-H3 | | | | | | | |
| 67 | HC | 3 | | | | | | | |
| 68 | KK | RT-APH3 | | | | | | | |
| 69 | KM | ROUTE THE RUNOFF FROM AP-H3 TO AP-H4 | | | | | | | |
| 70 | RD | 530 | .021 | .035 | TRAP | 15 | 3 | | |
| 71 | KK | SB-H6 | | | | | | | |
| 72 | KM | COMPUTE HYDROGRAPH FOR BASIN H6 | | | | | | | |
| 73 | BA | 0.0814 | | | | | | | |
| 74 | LS | 0 | 66 | | | | | | |
| 75 | UD | .392 | | | | | | | |
| 76 | KK | AP-H4 | | | | | | | |
| 77 | KM | COMBINE THE ROUTED FLOW FROM AP-H3 WITH THE FLOW FROM BASIN H6 AT AP-H4 | | | | | | | |
| 78 | HC | 2 | | | | | | | |
| 79 | KK | RT-APH4 | | | | | | | |
| 80 | KM | ROUTE THE RUNOFF FROM AP-H4 TO AP-H5 | | | | | | | |
| 81 | RD | 800 | .018 | .035 | TRAP | 15 | 3 | | |
| 82 | KK | RT-APH5 | | | | | | | |
| 83 | KM | ROUTE THE RUNOFF FROM AP-H5 TO AP-H6 | | | | | | | |
| 84 | RD | 1570 | .0248 | .035 | TRAP | 20 | 15 | | |

| LINE | ID | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------|----|--|------|------|------|----|----|---|---|---|----|
| 85 | KK | RT-APH6 | | | | | | | | | |
| 86 | KM | ROUTE THE RUNOFF FROM AP-H6 TO AP-H8 | | | | | | | | | |
| 87 | RD | 650 | .039 | .040 | TRAP | 10 | 5 | | | | |
| 88 | KK | SB-H7 | | | | | | | | | |
| 89 | KM | COMPUTE HYDROGRAPH FOR BASIN H7 | | | | | | | | | |
| 90 | BA | 0.0591 | | | | | | | | | |
| 91 | LS | 0 | 66 | | | | | | | | |
| 92 | UD | .359 | | | | | | | | | |
| 93 | KK | RT-SBH7 | | | | | | | | | |
| 94 | KM | ROUTE THE RUNOFF FROM BASIN H7 TO AP-H7 | | | | | | | | | |
| 95 | RD | 3000 | .030 | .040 | TRAP | 20 | 20 | | | | |
| 96 | KK | SB-H8 | | | | | | | | | |
| 97 | KM | COMPUTE HYDROGRAPH FOR BASIN H8 | | | | | | | | | |
| 98 | BA | 0.0803 | | | | | | | | | |
| 99 | LS | 0 | 66 | | | | | | | | |
| 100 | UD | .346 | | | | | | | | | |
| 101 | KK | AP-H7 | | | | | | | | | |
| 102 | KM | COMBINE THE ROUTED FLOW FROM BASIN H7 WITH THE FLOW FROM BASIN H8 AT AP-H7 | | | | | | | | | |
| 103 | HC | 2 | | | | | | | | | |
| 104 | KK | RT-APH7 | | | | | | | | | |
| 105 | KM | ROUTE THE RUNOFF FROM AP-H7 TO AP-H8 | | | | | | | | | |
| 106 | RD | 1030 | .038 | .040 | TRAP | 10 | 15 | | | | |
| 107 | KK | AP-H8 | | | | | | | | | |
| 108 | KM | COMBINE THE ROUTED FLOW FROM AP-H7 AND AP-H6 AT AP-H8 | | | | | | | | | |
| 109 | HC | 2 | | | | | | | | | |
| 110 | KK | RT-APH8 | | | | | | | | | |
| 111 | KM | ROUTE THE RUNOFF FROM AP-H8 TO AP-H9 | | | | | | | | | |
| 112 | RD | 570 | .039 | .035 | TRAP | 10 | 5 | | | | |
| 113 | KK | SB-H9 | | | | | | | | | |
| 114 | KM | COMPUTE HYDROGRAPH FOR BASIN H9 | | | | | | | | | |
| 115 | BA | 0.1406 | | | | | | | | | |
| 116 | LS | 0 | 66 | | | | | | | | |
| 117 | UD | .297 | | | | | | | | | |
| 118 | KK | AP-H9 | | | | | | | | | |
| 119 | KM | COMBINE THE ROUTED FLOW FROM AP-H8 WITH THE FLOW FROM BASIN H9 AT AP-H9 | | | | | | | | | |
| 120 | KO | 1 | 3 | | | | | | | | |
| 121 | HC | 2 | | | | | | | | | |
| 122 | KK | RT-APH9 | | | | | | | | | |
| 123 | KM | ROUTE THE RUNOFF FROM AP-H9 TO AP-H10 | | | | | | | | | |
| 124 | RD | 2660 | .045 | .060 | TRAP | 10 | 2 | | | | |

```

LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

125      KK  SB-H10
126      KM  COMPUTE HYDROGRAPH FOR BASIN H10
127      BA  0.0572
128      LS   0    66
129      UD  .215

130      KK  AP-H10
131      KM  COMBINE THE ROUTED FLOW FROM AP-H9 WITH THE FLOW FROM BASIN H10 AT AP-H10
132      KM  THIS IS THE TOTAL HISTORIC (UNDEVELOPED CONDITION RUNOFF) CONTRIBUTED
133      KM  BY THE SOUTH TRIBUTARY WATERSHED TO KETTLE CREEK
134      HC   2

135      KK  SB-H11
136      KM  COMPUTE HYDROGRAPH FOR BASIN H11
137      BA  0.168
138      LS   0    66
139      UD  .411

140      KK  AP-H12
141      KM  COMBINE THE FLOW AT AP-H10 WITH THE FLOW FROM BASIN H11 AT THEORETICAL
142      KM  AP-12. THIS IS THE TOTAL HISTORIC (UNDEVELOPED CONDITION RUNOFF) CONTRIBUTED
143      KM  TO KETTLE CREEK BY THE SOUTH TRIBUTARY WATERSHED AND BASIN H11 TO KETTLE
144      KM  CREEK
145      HC   2
146      KM  *****
147      KM  BEGIN CALCULATIONS IN THE NORTH WATERSHED
148      KM  *****

149      KK  SB-H12
150      KM  COMPUTE HYDROGRAPH FOR BASIN H12
151      BA  0.086
152      LS   0    66
153      UD  .397
154      ZZ
    
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

| INPUT LINE | (V) ROUTING | (--->) DIVERSION OR PUMP FLOW |
|------------|---------------|--|
| NO. | (.) CONNECTOR | (<---) RETURN OF DIVERTED OR PUMPED FLOW |
| 10 | SB-H1 | |
| | V | |
| | V | |
| 27 | RT-SBH1 | |
| | . | |
| | . | |
| 30 | . | SB-H2 |
| | . | . |
| | . | . |
| 35 | AP-H1..... | |
| | V | |
| | V | |
| 38 | RT-APH1 | |
| | . | |
| | . | |
| 41 | . | SB-H3 |
| | . | V |
| | . | V |
| 46 | . | RT-H3 |
| | . | . |
| | . | . |
| 49 | AP-H2..... | |
| | V | |
| | V | |
| 52 | RT-AP2 | |
| | . | |
| | . | |
| 55 | . | SB-H4 |
| | . | . |
| | . | . |
| 60 | . | SB-H5 |
| | . | . |
| | . | . |
| 65 | AP-H3..... | |
| | V | |
| | V | |
| 68 | RT-APH3 | |
| | . | |
| | . | |
| 71 | . | SB-H6 |
| | . | . |
| | . | . |
| 76 | AP-H4..... | |
| | V | |
| | V | |
| 79 | RT-APH4 | |
| | V | |
| | V | |
| 82 | RT-APH5 | |
| | V | |
| | V | |
| 85 | RT-APH6 | |
| | . | |

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*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1)
* MAY 1991
* VERSION 4.0.1E
*
* RUN DATE 05/06/1999 TIME 19:40:18
*
*****
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*****
*
* U.S. ARMY CORPS OF ENGINEERS
* HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET
* DAVIS, CALIFORNIA 95616
* (916) 756-1104
*
*****
```

KETTLE CREEK DRAINAGE BASIN - 24HR, HISTORIC CONDITION (TYPE IIa100 YEAR)
 WATERSHED IN PREDEVELOPMENT CONDITION WITH NO CONSERVATION TREATMENT
 FILE:KCU100.DAT

UNDEVELOPED CONDITION MODEL

BEGIN CALCULATIONS IN THE SOUTH TRIBUTARY WATERSHED

9 IO OUTPUT CONTROL VARIABLES

IPRNT 5 PRINT CONTROL
 IPLOT 0 PLOT CONTROL
 QSCAL 0. HYDROGRAPH PLOT SCALE

IT HYDROGRAPH TIME DATA

NMIN 3 MINUTES IN COMPUTATION INTERVAL
 IDATE 1 0 STARTING DATE
 ITIME 0000 STARTING TIME
 NQ 300 NUMBER OF HYDROGRAPH ORDINATES
 NDDATE 1 0 ENDING DATE
 NDTIME 1457 ENDING TIME
 ICENT 19 CENTURY MARK

COMPUTATION INTERVAL 0.05 HOURS
 TOTAL TIME BASE 14.95 HOURS

ENGLISH UNITS

DRAINAGE AREA SQUARE MILES
 PRECIPITATION DEPTH INCHES
 LENGTH, ELEVATION FEET
 FLOW CUBIC FEET PER SECOND
 STORAGE VOLUME ACRE- FEET
 SURFACE AREA ACRES
 TEMPERATURE DEGREES FAHRENHEIT

*** **

* *
 * AP-H9 *
 * *

| | | | |
|-----|---|-------------|-------|
| 88 | . | SB-H7 | |
| | . | V | |
| | . | V | |
| 93 | . | RT-SBH7 | |
| | . | . | |
| 96 | . | . | SB-H8 |
| | . | . | . |
| | . | . | . |
| 101 | . | AP-H7..... | |
| | . | V | |
| | . | V | |
| 104 | . | RT-APH7 | |
| | . | . | |
| | . | . | |
| 107 | . | AP-H8..... | |
| | . | V | |
| | . | V | |
| 110 | . | RT-APH8 | |
| | . | . | |
| | . | . | |
| 113 | . | SB-H9 | |
| | . | . | |
| | . | . | |
| 118 | . | AP-H9..... | |
| | . | V | |
| | . | V | |
| 122 | . | RT-APH9 | |
| | . | . | |
| | . | . | |
| 125 | . | SB-H10 | |
| | . | . | |
| | . | . | |
| 130 | . | AP-H10..... | |
| | . | . | |
| | . | . | |
| 135 | . | SB-H11 | |
| | . | . | |
| | . | . | |
| 140 | . | AP-H12..... | |
| | . | . | |
| | . | . | |
| 149 | . | SB-H12 | |

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

120 KO OUTPUT CONTROL VARIABLES
 IPRNT 1 PRINT CONTROL
 IPLOT 3 PLOT CONTROL
 QSCAL 0. HYDROGRAPH PLOT SCALE

121 HC HYDROGRAPH COMBINATION
 ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

HYDROGRAPH AT STATION AP-H9
SUM OF 2 HYDROGRAPHS

| DA | MON | HRMN | ORD | FLOW | * | DA | MON | HRMN | ORD | FLOW | * | DA | MON | HRMN | ORD | FLOW | * | DA | MON | HRMN | ORD | FLOW |
|----|-----|------|-----|------|---|----|-----|------|-----|------|---|----|-----|------|-----|------|---|----|-----|------|-----|------|
| 1 | | 0000 | 1 | 0. | * | 1 | | 0345 | 76 | 0. | * | 1 | | 0730 | 151 | 100. | * | 1 | | 1115 | 226 | 24. |
| 1 | | 0003 | 2 | 0. | * | 1 | | 0348 | 77 | 0. | * | 1 | | 0733 | 152 | 94. | * | 1 | | 1118 | 227 | 24. |
| 1 | | 0006 | 3 | 0. | * | 1 | | 0351 | 78 | 0. | * | 1 | | 0736 | 153 | 89. | * | 1 | | 1121 | 228 | 24. |
| 1 | | 0009 | 4 | 0. | * | 1 | | 0354 | 79 | 0. | * | 1 | | 0739 | 154 | 85. | * | 1 | | 1124 | 229 | 24. |
| 1 | | 0012 | 5 | 0. | * | 1 | | 0357 | 80 | 0. | * | 1 | | 0742 | 155 | 81. | * | 1 | | 1127 | 230 | 24. |
| 1 | | 0015 | 6 | 0. | * | 1 | | 0400 | 81 | 0. | * | 1 | | 0745 | 156 | 78. | * | 1 | | 1130 | 231 | 24. |
| 1 | | 0018 | 7 | 0. | * | 1 | | 0403 | 82 | 0. | * | 1 | | 0748 | 157 | 75. | * | 1 | | 1133 | 232 | 24. |
| 1 | | 0021 | 8 | 0. | * | 1 | | 0406 | 83 | 0. | * | 1 | | 0751 | 158 | 73. | * | 1 | | 1136 | 233 | 23. |
| 1 | | 0024 | 9 | 0. | * | 1 | | 0409 | 84 | 0. | * | 1 | | 0754 | 159 | 71. | * | 1 | | 1139 | 234 | 23. |
| 1 | | 0027 | 10 | 0. | * | 1 | | 0412 | 85 | 0. | * | 1 | | 0757 | 160 | 69. | * | 1 | | 1142 | 235 | 23. |
| 1 | | 0030 | 11 | 0. | * | 1 | | 0415 | 86 | 0. | * | 1 | | 0800 | 161 | 67. | * | 1 | | 1145 | 236 | 23. |
| 1 | | 0033 | 12 | 0. | * | 1 | | 0418 | 87 | 0. | * | 1 | | 0803 | 162 | 66. | * | 1 | | 1148 | 237 | 23. |
| 1 | | 0036 | 13 | 0. | * | 1 | | 0421 | 88 | 0. | * | 1 | | 0806 | 163 | 64. | * | 1 | | 1151 | 238 | 23. |
| 1 | | 0039 | 14 | 0. | * | 1 | | 0424 | 89 | 0. | * | 1 | | 0809 | 164 | 63. | * | 1 | | 1154 | 239 | 23. |
| 1 | | 0042 | 15 | 0. | * | 1 | | 0427 | 90 | 0. | * | 1 | | 0812 | 165 | 62. | * | 1 | | 1157 | 240 | 23. |
| 1 | | 0045 | 16 | 0. | * | 1 | | 0430 | 91 | 0. | * | 1 | | 0815 | 166 | 61. | * | 1 | | 1200 | 241 | 23. |
| 1 | | 0048 | 17 | 0. | * | 1 | | 0433 | 92 | 0. | * | 1 | | 0818 | 167 | 59. | * | 1 | | 1203 | 242 | 23. |
| 1 | | 0051 | 18 | 0. | * | 1 | | 0436 | 93 | 0. | * | 1 | | 0821 | 168 | 57. | * | 1 | | 1206 | 243 | 23. |
| 1 | | 0054 | 19 | 0. | * | 1 | | 0439 | 94 | 0. | * | 1 | | 0824 | 169 | 56. | * | 1 | | 1209 | 244 | 23. |
| 1 | | 0057 | 20 | 0. | * | 1 | | 0442 | 95 | 0. | * | 1 | | 0827 | 170 | 54. | * | 1 | | 1212 | 245 | 23. |
| 1 | | 0100 | 21 | 0. | * | 1 | | 0445 | 96 | 0. | * | 1 | | 0830 | 171 | 52. | * | 1 | | 1215 | 246 | 23. |
| 1 | | 0103 | 22 | 0. | * | 1 | | 0448 | 97 | 0. | * | 1 | | 0833 | 172 | 50. | * | 1 | | 1218 | 247 | 23. |
| 1 | | 0106 | 23 | 0. | * | 1 | | 0451 | 98 | 0. | * | 1 | | 0836 | 173 | 48. | * | 1 | | 1221 | 248 | 23. |
| 1 | | 0109 | 24 | 0. | * | 1 | | 0454 | 99 | 0. | * | 1 | | 0839 | 174 | 46. | * | 1 | | 1224 | 249 | 23. |
| 1 | | 0112 | 25 | 0. | * | 1 | | 0457 | 100 | 0. | * | 1 | | 0842 | 175 | 45. | * | 1 | | 1227 | 250 | 23. |
| 1 | | 0115 | 26 | 0. | * | 1 | | 0500 | 101 | 0. | * | 1 | | 0845 | 176 | 43. | * | 1 | | 1230 | 251 | 23. |
| 1 | | 0118 | 27 | 0. | * | 1 | | 0503 | 102 | 0. | * | 1 | | 0848 | 177 | 42. | * | 1 | | 1233 | 252 | 23. |
| 1 | | 0121 | 28 | 0. | * | 1 | | 0506 | 103 | 0. | * | 1 | | 0851 | 178 | 40. | * | 1 | | 1236 | 253 | 23. |
| 1 | | 0124 | 29 | 0. | * | 1 | | 0509 | 104 | 0. | * | 1 | | 0854 | 179 | 39. | * | 1 | | 1239 | 254 | 23. |
| 1 | | 0127 | 30 | 0. | * | 1 | | 0512 | 105 | 0. | * | 1 | | 0857 | 180 | 38. | * | 1 | | 1242 | 255 | 23. |
| 1 | | 0130 | 31 | 0. | * | 1 | | 0515 | 106 | 0. | * | 1 | | 0900 | 181 | 37. | * | 1 | | 1245 | 256 | 23. |
| 1 | | 0133 | 32 | 0. | * | 1 | | 0518 | 107 | 0. | * | 1 | | 0903 | 182 | 36. | * | 1 | | 1248 | 257 | 24. |
| 1 | | 0136 | 33 | 0. | * | 1 | | 0521 | 108 | 0. | * | 1 | | 0906 | 183 | 35. | * | 1 | | 1251 | 258 | 24. |
| 1 | | 0139 | 34 | 0. | * | 1 | | 0524 | 109 | 0. | * | 1 | | 0909 | 184 | 34. | * | 1 | | 1254 | 259 | 24. |
| 1 | | 0142 | 35 | 0. | * | 1 | | 0527 | 110 | 0. | * | 1 | | 0912 | 185 | 34. | * | 1 | | 1257 | 260 | 24. |
| 1 | | 0145 | 36 | 0. | * | 1 | | 0530 | 111 | 0. | * | 1 | | 0915 | 186 | 33. | * | 1 | | 1300 | 261 | 24. |
| 1 | | 0148 | 37 | 0. | * | 1 | | 0533 | 112 | 0. | * | 1 | | 0918 | 187 | 33. | * | 1 | | 1303 | 262 | 24. |
| 1 | | 0151 | 38 | 0. | * | 1 | | 0536 | 113 | 0. | * | 1 | | 0921 | 188 | 32. | * | 1 | | 1306 | 263 | 24. |
| 1 | | 0154 | 39 | 0. | * | 1 | | 0539 | 114 | 0. | * | 1 | | 0924 | 189 | 32. | * | 1 | | 1309 | 264 | 24. |

| | | | | | | | | | | | | | | | | | | |
|---|------|----|----|---|---|------|-----|------|---|---|------|-----|-----|---|---|------|-----|-----|
| 1 | 0157 | 40 | 0. | * | 1 | 0542 | 115 | 1. | * | 1 | 0927 | 190 | 32. | * | 1 | 1312 | 265 | 23. |
| 1 | 0200 | 41 | 0. | * | 1 | 0545 | 116 | 4. | * | 1 | 0930 | 191 | 31. | * | 1 | 1315 | 266 | 23. |
| 1 | 0203 | 42 | 0. | * | 1 | 0548 | 117 | 10. | * | 1 | 0933 | 192 | 31. | * | 1 | 1318 | 267 | 23. |
| 1 | 0206 | 43 | 0. | * | 1 | 0551 | 118 | 21. | * | 1 | 0936 | 193 | 31. | * | 1 | 1321 | 268 | 23. |
| 1 | 0209 | 44 | 0. | * | 1 | 0554 | 119 | 38. | * | 1 | 0939 | 194 | 31. | * | 1 | 1324 | 269 | 23. |
| 1 | 0212 | 45 | 0. | * | 1 | 0557 | 120 | 63. | * | 1 | 0942 | 195 | 31. | * | 1 | 1327 | 270 | 23. |
| 1 | 0215 | 46 | 0. | * | 1 | 0600 | 121 | 99. | * | 1 | 0945 | 196 | 31. | * | 1 | 1330 | 271 | 23. |
| 1 | 0218 | 47 | 0. | * | 1 | 0603 | 122 | 155. | * | 1 | 0948 | 197 | 31. | * | 1 | 1333 | 272 | 23. |
| 1 | 0221 | 48 | 0. | * | 1 | 0606 | 123 | 232. | * | 1 | 0951 | 198 | 31. | * | 1 | 1336 | 273 | 23. |
| 1 | 0224 | 49 | 0. | * | 1 | 0609 | 124 | 323. | * | 1 | 0954 | 199 | 31. | * | 1 | 1339 | 274 | 22. |
| 1 | 0227 | 50 | 0. | * | 1 | 0612 | 125 | 413. | * | 1 | 0957 | 200 | 30. | * | 1 | 1342 | 275 | 22. |
| 1 | 0230 | 51 | 0. | * | 1 | 0615 | 126 | 484. | * | 1 | 1000 | 201 | 30. | * | 1 | 1345 | 276 | 22. |
| 1 | 0233 | 52 | 0. | * | 1 | 0618 | 127 | 533. | * | 1 | 1003 | 202 | 30. | * | 1 | 1348 | 277 | 22. |
| 1 | 0236 | 53 | 0. | * | 1 | 0621 | 128 | 556. | * | 1 | 1006 | 203 | 30. | * | 1 | 1351 | 278 | 22. |
| 1 | 0239 | 54 | 0. | * | 1 | 0624 | 129 | 557. | * | 1 | 1009 | 204 | 30. | * | 1 | 1354 | 279 | 22. |
| 1 | 0242 | 55 | 0. | * | 1 | 0627 | 130 | 540. | * | 1 | 1012 | 205 | 30. | * | 1 | 1357 | 280 | 22. |
| 1 | 0245 | 56 | 0. | * | 1 | 0630 | 131 | 512. | * | 1 | 1015 | 206 | 30. | * | 1 | 1400 | 281 | 22. |
| 1 | 0248 | 57 | 0. | * | 1 | 0633 | 132 | 477. | * | 1 | 1018 | 207 | 30. | * | 1 | 1403 | 282 | 21. |
| 1 | 0251 | 58 | 0. | * | 1 | 0636 | 133 | 439. | * | 1 | 1021 | 208 | 30. | * | 1 | 1406 | 283 | 21. |
| 1 | 0254 | 59 | 0. | * | 1 | 0639 | 134 | 401. | * | 1 | 1024 | 209 | 29. | * | 1 | 1409 | 284 | 21. |
| 1 | 0257 | 60 | 0. | * | 1 | 0642 | 135 | 364. | * | 1 | 1027 | 210 | 29. | * | 1 | 1412 | 285 | 21. |
| 1 | 0300 | 61 | 0. | * | 1 | 0645 | 136 | 330. | * | 1 | 1030 | 211 | 29. | * | 1 | 1415 | 286 | 21. |
| 1 | 0303 | 62 | 0. | * | 1 | 0648 | 137 | 299. | * | 1 | 1033 | 212 | 28. | * | 1 | 1418 | 287 | 21. |
| 1 | 0306 | 63 | 0. | * | 1 | 0651 | 138 | 272. | * | 1 | 1036 | 213 | 28. | * | 1 | 1421 | 288 | 21. |
| 1 | 0309 | 64 | 0. | * | 1 | 0654 | 139 | 247. | * | 1 | 1039 | 214 | 27. | * | 1 | 1424 | 289 | 21. |
| 1 | 0312 | 65 | 0. | * | 1 | 0657 | 140 | 225. | * | 1 | 1042 | 215 | 27. | * | 1 | 1427 | 290 | 21. |
| 1 | 0315 | 66 | 0. | * | 1 | 0700 | 141 | 205. | * | 1 | 1045 | 216 | 27. | * | 1 | 1430 | 291 | 20. |
| 1 | 0318 | 67 | 0. | * | 1 | 0703 | 142 | 188. | * | 1 | 1048 | 217 | 26. | * | 1 | 1433 | 292 | 20. |
| 1 | 0321 | 68 | 0. | * | 1 | 0706 | 143 | 172. | * | 1 | 1051 | 218 | 26. | * | 1 | 1436 | 293 | 20. |
| 1 | 0324 | 69 | 0. | * | 1 | 0709 | 144 | 159. | * | 1 | 1054 | 219 | 26. | * | 1 | 1439 | 294 | 20. |
| 1 | 0327 | 70 | 0. | * | 1 | 0712 | 145 | 147. | * | 1 | 1057 | 220 | 25. | * | 1 | 1442 | 295 | 20. |
| 1 | 0330 | 71 | 0. | * | 1 | 0715 | 146 | 137. | * | 1 | 1100 | 221 | 25. | * | 1 | 1445 | 296 | 20. |
| 1 | 0333 | 72 | 0. | * | 1 | 0718 | 147 | 128. | * | 1 | 1103 | 222 | 25. | * | 1 | 1448 | 297 | 20. |
| 1 | 0336 | 73 | 0. | * | 1 | 0721 | 148 | 120. | * | 1 | 1106 | 223 | 25. | * | 1 | 1451 | 298 | 20. |
| 1 | 0339 | 74 | 0. | * | 1 | 0724 | 149 | 112. | * | 1 | 1109 | 224 | 24. | * | 1 | 1454 | 299 | 20. |
| 1 | 0342 | 75 | 0. | * | 1 | 0727 | 150 | 106. | * | 1 | 1112 | 225 | 24. | * | 1 | 1457 | 300 | 20. |

| PEAK FLOW (CFS) | TIME (HR) | MAXIMUM AVERAGE FLOW | | | |
|--------------------|--------------|----------------------|-------|-------|----------|
| | | 6-HR | 24-HR | 72-HR | 14.95-HR |
| 557. | 6.40 | (CFS) 105. | 47. | 47. | 47. |
| | | (INCHES) 1.171 | 1.303 | 1.303 | 1.303 |
| | | (AC-FT) 52. | 58. | 58. | 58. |

CUMULATIVE AREA = 0.83 SQ MI

RUNOFF SUMMARY
 FLOW IN CUBIC FEET PER SECOND
 TIME IN HOURS, AREA IN SQUARE MILES

| OPERATION | STATION | PEAK FLOW | TIME OF PEAK | AVERAGE FLOW FOR MAXIMUM PERIOD | | | BASIN AREA | MAXIMUM STAGE | TIME OF MAX STAGE |
|---------------|---------|-----------|--------------|---------------------------------|---------|---------|------------|---------------|-------------------|
| | | | | 6-HOUR | 24-HOUR | 72-HOUR | | | |
| HYDROGRAPH AT | SB-H1 | 99. | 6.30 | 17. | 8. | 8. | 0.13 | | |
| ROUTED TO | RT-SBH1 | 98. | 6.45 | 17. | 8. | 8. | 0.13 | | |
| HYDROGRAPH AT | SB-H2 | 118. | 6.20 | 16. | 7. | 7. | 0.13 | | |
| 2 COMBINED AT | AP-H1 | 179. | 6.30 | 33. | 15. | 15. | 0.26 | | |
| ROUTED TO | RT-APH1 | 178. | 6.35 | 33. | 15. | 15. | 0.26 | | |
| HYDROGRAPH AT | SB-H3 | 76. | 6.20 | 11. | 5. | 5. | 0.09 | | |
| ROUTED TO | RT-H3 | 75. | 6.25 | 11. | 5. | 5. | 0.09 | | |
| 2 COMBINED AT | AP-H2 | 247. | 6.30 | 44. | 20. | 20. | 0.35 | | |
| ROUTED TO | RT-AP2 | 245. | 6.35 | 44. | 20. | 20. | 0.35 | | |
| HYDROGRAPH AT | SB-H4 | 51. | 6.10 | 5. | 2. | 2. | 0.04 | | |
| HYDROGRAPH AT | SB-H5 | 72. | 6.20 | 10. | 4. | 4. | 0.08 | | |
| 3 COMBINED AT | AP-H3 | 317. | 6.30 | 59. | 26. | 26. | 0.47 | | |
| ROUTED TO | RT-APH3 | 314. | 6.35 | 59. | 26. | 26. | 0.47 | | |
| HYDROGRAPH AT | SB-H6 | 62. | 6.30 | 10. | 5. | 5. | 0.08 | | |
| 2 COMBINED AT | AP-H4 | 376. | 6.30 | 69. | 31. | 31. | 0.55 | | |
| ROUTED TO | RT-APH4 | 376. | 6.35 | 69. | 31. | 31. | 0.55 | | |
| ROUTED TO | RT-APH5 | 376. | 6.40 | 69. | 31. | 31. | 0.55 | | |
| ROUTED TO | RT-APH6 | 374. | 6.40 | 69. | 31. | 31. | 0.55 | | |
| HYDROGRAPH AT | SB-H7 | 48. | 6.25 | 8. | 3. | 3. | 0.06 | | |
| ROUTED TO | RT-SBH7 | 48. | 6.45 | 8. | 3. | 3. | 0.06 | | |
| HYDROGRAPH AT | SB-H8 | 67. | 6.25 | 10. | 5. | 5. | 0.08 | | |
| 2 COMBINED AT | AP-H7 | 103. | 6.35 | 18. | 8. | 8. | 0.14 | | |
| ROUTED TO | RT-APH7 | 102. | 6.40 | 18. | 8. | 8. | 0.14 | | |
| 2 COMBINED AT | AP-H8 | 477. | 6.40 | 87. | 39. | 39. | 0.69 | | |
| ROUTED TO | RT-APH8 | 474. | 6.40 | 87. | 39. | 39. | 0.69 | | |
| HYDROGRAPH AT | SB-H9 | 130. | 6.20 | 18. | 8. | 8. | 0.14 | | |

| | | | | | | | |
|---------------|---------|------|------|------|-----|-----|------|
| 2 COMBINED AT | AP-H9 | 557. | 6.40 | 105. | 47. | 47. | 0.83 |
| ROUTED TO | RT-APH9 | 558. | 6.45 | 105. | 46. | 46. | 0.83 |
| HYDROGRAPH AT | SB-H10 | 63. | 6.10 | 7. | 3. | 3. | 0.06 |
| 2 COMBINED AT | AP-H10 | 577. | 6.45 | 111. | 50. | 50. | 0.89 |
| HYDROGRAPH AT | SB-H11 | 125. | 6.30 | 21. | 10. | 10. | 0.17 |
| 2 COMBINED AT | AP-H12 | 693. | 6.40 | 133. | 59. | 59. | 1.06 |
| HYDROGRAPH AT | SB-H12 | 65. | 6.30 | 11. | 5. | 5. | 0.09 |

SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
(FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)

| ISTAQ | ELEMENT | DT | PEAK | TIME TO PEAK | VOLUME | INTERPOLATED TO COMPUTATION INTERVAL | | | |
|---------|---------|-------|-------|-----------------|--------|---|-------|-----------------|--------|
| | | | | | | DT | PEAK | TIME TO PEAK | VOLUME |
| | | (MIN) | (CFS) | (MIN) | (IN) | (MIN) | (CFS) | (MIN) | (IN) |
| RT-SBH1 | MANE | 2.25 | 98.35 | 387.00 | 1.30 | 3.00 | 98.35 | 387.00 | 1.30 |

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.9429E+01 EXCESS=0.0000E+00 OUTFLOW=0.9338E+01 BASIN STORAGE=0.1320E+00 PERCENT ERROR= -0.4

| | | | | | | | | | |
|---------|------|------|--------|--------|------|------|--------|--------|------|
| RT-APH1 | MANE | 1.79 | 178.47 | 381.10 | 1.31 | 3.00 | 178.46 | 381.00 | 1.31 |
|---------|------|------|--------|--------|------|------|--------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1840E+02 EXCESS=0.0000E+00 OUTFLOW=0.1836E+02 BASIN STORAGE=0.5273E-01 PERCENT ERROR= -0.1

| | | | | | | | | | |
|-------|------|------|-------|--------|------|------|-------|--------|------|
| RT-H3 | MANE | 1.95 | 75.64 | 374.40 | 1.32 | 3.00 | 75.26 | 375.00 | 1.31 |
|-------|------|------|-------|--------|------|------|-------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5996E+01 EXCESS=0.0000E+00 OUTFLOW=0.5985E+01 BASIN STORAGE=0.1681E-01 PERCENT ERROR= -0.1

| | | | | | | | | | |
|--------|------|------|--------|--------|------|------|--------|--------|------|
| RT-AP2 | MANE | 2.40 | 245.53 | 381.60 | 1.30 | 3.00 | 244.54 | 381.00 | 1.30 |
|--------|------|------|--------|--------|------|------|--------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2434E+02 EXCESS=0.0000E+00 OUTFLOW=0.2423E+02 BASIN STORAGE=0.1467E+00 PERCENT ERROR= -0.1

| | | | | | | | | | |
|---------|------|------|--------|--------|------|------|--------|--------|------|
| RT-APH3 | MANE | 1.00 | 316.88 | 379.09 | 1.31 | 3.00 | 314.46 | 381.00 | 1.31 |
|---------|------|------|--------|--------|------|------|--------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3266E+02 EXCESS=0.0000E+00 OUTFLOW=0.3263E+02 BASIN STORAGE=0.5039E-01 PERCENT ERROR= 0.0

| | | | | | | | | | |
|---------|------|------|--------|--------|------|------|--------|--------|------|
| RT-APH4 | MANE | 1.51 | 376.34 | 381.05 | 1.30 | 3.00 | 376.31 | 381.00 | 1.30 |
|---------|------|------|--------|--------|------|------|--------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3833E+02 EXCESS=0.0000E+00 OUTFLOW=0.3827E+02 BASIN STORAGE=0.8959E-01 PERCENT ERROR= -0.1

| | | | | | | | | | |
|---------|------|------|--------|--------|------|------|--------|--------|------|
| RT-APH5 | MANE | 3.00 | 376.45 | 384.00 | 1.30 | 3.00 | 376.45 | 384.00 | 1.30 |
|---------|------|------|--------|--------|------|------|--------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3830E+02 EXCESS=0.0000E+00 OUTFLOW=0.3818E+02 BASIN STORAGE=0.1874E+00 PERCENT ERROR= -0.2

| | | | | | | | | | |
|---------|------|------|--------|--------|------|------|--------|--------|------|
| RT-APH6 | MANE | 1.09 | 375.92 | 385.14 | 1.30 | 3.00 | 374.36 | 384.00 | 1.30 |
|---------|------|------|--------|--------|------|------|--------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3815E+02 EXCESS=0.0000E+00 OUTFLOW=0.3811E+02 BASIN STORAGE=0.5767E-01 PERCENT ERROR= 0.0

| | | | | | | | | | |
|---------|------|------|-------|--------|------|------|-------|--------|------|
| RT-SBH7 | MANE | 2.10 | 48.07 | 386.40 | 1.30 | 3.00 | 47.88 | 387.00 | 1.30 |
|---------|------|------|-------|--------|------|------|-------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4148E+01 EXCESS=0.0000E+00 OUTFLOW=0.4097E+01 BASIN STORAGE=0.7346E-01 PERCENT ERROR= -0.5

| | | | | | | | | | |
|---------|------|------|--------|--------|------|------|--------|--------|------|
| RT-APH7 | MANE | 2.55 | 102.50 | 382.50 | 1.30 | 3.00 | 102.14 | 384.00 | 1.31 |
|---------|------|------|--------|--------|------|------|--------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.9729E+01 EXCESS=0.0000E+00 OUTFLOW=0.9705E+01 BASIN STORAGE=0.3871E-01 PERCENT ERROR= -0.1

| | | | | | | | | | |
|---------|------|------|--------|--------|------|------|--------|--------|------|
| RT-APH8 | MANE | 0.82 | 475.57 | 385.13 | 1.30 | 3.00 | 473.85 | 384.00 | 1.30 |
|---------|------|------|--------|--------|------|------|--------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4782E+02 EXCESS=0.0000E+00 OUTFLOW=0.4778E+02 BASIN STORAGE=0.5406E-01 PERCENT ERROR= 0.0

| | | | | | | | | | |
|---------|------|------|--------|--------|------|------|--------|--------|------|
| RT-APH9 | MANE | 3.00 | 558.26 | 387.00 | 1.30 | 3.00 | 558.26 | 387.00 | 1.30 |
|---------|------|------|--------|--------|------|------|--------|--------|------|

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5771E+02 EXCESS=0.0000E+00 OUTFLOW=0.5746E+02 BASIN STORAGE=0.3737E+00 PERCENT ERROR= -0.2

*** NORMAL END OF HEC-1 ***

**HEC-1 MODEL OUTPUT
HISTORIC (UNDEVELOPED) CONDITION
SUMMARY SHEETS FOR 2, 5, 10, 25, AND 50 YEAR STORMS**

2 YEAR 24 HOUR STORM
 RUNOFF SUMMARY
 FLOW IN CUBIC FEET PER SECOND
 TIME IN HOURS, AREA IN SQUARE MILES

| OPERATION | STATION | PEAK FLOW | TIME OF PEAK | AVERAGE FLOW FOR 6-HOUR | MAXIMUM PERIOD 24-HOUR | 72-HOUR | BASIN AREA | MAXIMUM STAGE | TIME OF MAX STAGE |
|---------------|---------|-----------|--------------|-------------------------|------------------------|---------|------------|---------------|-------------------|
| HYDROGRAPH AT | SB-H1 | 7. | 6.40 | 2. | 1. | 1. | 0.13 | | |
| ROUTED TO | RT-SBH1 | 7. | 6.65 | 2. | 1. | 1. | 0.13 | | |
| HYDROGRAPH AT | SB-H2 | 8. | 6.25 | 2. | 1. | 1. | 0.13 | | |
| 2 COMBINED AT | AP-H1 | 11. | 6.65 | 3. | 2. | 2. | 0.26 | | |
| ROUTED TO | RT-APH1 | 11. | 6.75 | 3. | 2. | 2. | 0.26 | | |
| HYDROGRAPH AT | SB-H3 | 5. | 6.30 | 1. | 1. | 1. | 0.09 | | |
| ROUTED TO | RT-H3 | 5. | 6.35 | 1. | 1. | 1. | 0.09 | | |
| 2 COMBINED AT | AP-H2 | 14. | 6.75 | 5. | 2. | 2. | 0.35 | | |
| ROUTED TO | RT-AP2 | 14. | 6.85 | 5. | 2. | 2. | 0.35 | | |
| HYDROGRAPH AT | SB-H4 | 4. | 6.15 | 1. | 0. | 0. | 0.04 | | |
| HYDROGRAPH AT | SB-H5 | 5. | 6.25 | 1. | 1. | 1. | 0.08 | | |
| 3 COMBINED AT | AP-H3 | 18. | 6.45 | 6. | 3. | 3. | 0.47 | | |
| ROUTED TO | RT-APH3 | 18. | 6.50 | 6. | 3. | 3. | 0.47 | | |
| HYDROGRAPH AT | SB-H6 | 4. | 6.40 | 1. | 1. | 1. | 0.08 | | |
| 2 COMBINED AT | AP-H4 | 22. | 6.50 | 7. | 3. | 3. | 0.55 | | |
| ROUTED TO | RT-APH4 | 22. | 6.50 | 7. | 3. | 3. | 0.55 | | |
| ROUTED TO | RT-APH5 | 23. | 6.65 | 7. | 3. | 3. | 0.55 | | |
| ROUTED TO | RT-APH6 | 22. | 6.70 | 7. | 3. | 3. | 0.55 | | |
| HYDROGRAPH AT | SB-H7 | 3. | 6.35 | 1. | 0. | 0. | 0.06 | | |
| ROUTED TO | RT-SBH7 | 4. | 6.65 | 1. | 0. | 0. | 0.06 | | |
| HYDROGRAPH AT | SB-H8 | 5. | 6.30 | 1. | 1. | 1. | 0.08 | | |
| 2 COMBINED AT | AP-H7 | 7. | 6.65 | 2. | 1. | 1. | 0.14 | | |
| ROUTED TO | RT-APH7 | 6. | 6.75 | 2. | 1. | 1. | 0.14 | | |
| 2 COMBINED AT | AP-H8 | 27. | 6.75 | 9. | 4. | 4. | 0.69 | | |
| ROUTED TO | RT-APH8 | 27. | 6.75 | 9. | 4. | 4. | 0.69 | | |
| HYDROGRAPH AT | SB-H9 | 9. | 6.25 | 2. | 1. | 1. | 0.14 | | |

| | | | | | | | |
|---------------|---------|-----|------|-----|----|----|------|
| 2 COMBINED AT | AP-H9 | 31. | 6.75 | 11. | 5. | 5. | 0.83 |
| ROUTED TO | RT-APH9 | 31. | 6.85 | 11. | 5. | 5. | 0.83 |
| HYDROGRAPH AT | SB-H10 | 5. | 6.15 | 1. | 0. | 0. | 0.06 |
| 2 COMBINED AT | AP-H10 | 32. | 6.85 | 11. | 5. | 5. | 0.89 |
| HYDROGRAPH AT | SB-H11 | 9. | 6.40 | 2. | 1. | 1. | 0.17 |
| 2 COMBINED AT | AP-H12 | 37. | 6.85 | 13. | 7. | 7. | 1.06 |
| HYDROGRAPH AT | SB-H12 | 5. | 6.40 | 1. | 1. | 1. | 0.09 |

5 YEAR 24 HOUR STORM
 RUNOFF SUMMARY
 FLOW IN CUBIC FEET PER SECOND
 TIME IN HOURS, AREA IN SQUARE MILES

| OPERATION | STATION | PEAK FLOW | TIME OF PEAK | AVERAGE FLOW FOR MAXIMUM PERIOD | | | BASIN AREA | MAXIMUM STAGE | TIME OF MAX STAGE |
|---------------|---------|-----------|--------------|---------------------------------|---------|---------|------------|---------------|-------------------|
| | | | | 6-HOUR | 24-HOUR | 72-HOUR | | | |
| HYDROGRAPH AT | SB-H1 | 22. | 6.35 | 5. | 2. | 2. | 0.13 | | |
| ROUTED TO | RT-SBH1 | 22. | 6.55 | 4. | 2. | 2. | 0.13 | | |
| HYDROGRAPH AT | SB-H2 | 26. | 6.25 | 4. | 2. | 2. | 0.13 | | |
| 2 COMBINED AT | AP-H1 | 36. | 6.40 | 9. | 4. | 4. | 0.26 | | |
| ROUTED TO | RT-APH1 | 35. | 6.50 | 9. | 4. | 4. | 0.26 | | |
| HYDROGRAPH AT | SB-H3 | 17. | 6.25 | 3. | 1. | 1. | 0.09 | | |
| ROUTED TO | RT-H3 | 17. | 6.30 | 3. | 1. | 1. | 0.09 | | |
| 2 COMBINED AT | AP-H2 | 48. | 6.45 | 12. | 5. | 5. | 0.35 | | |
| ROUTED TO | RT-AP2 | 47. | 6.60 | 12. | 5. | 5. | 0.35 | | |
| HYDROGRAPH AT | SB-H4 | 12. | 6.10 | 1. | 1. | 1. | 0.04 | | |
| HYDROGRAPH AT | SB-H5 | 16. | 6.20 | 3. | 1. | 1. | 0.08 | | |
| 3 COMBINED AT | AP-H3 | 60. | 6.35 | 15. | 7. | 7. | 0.47 | | |
| ROUTED TO | RT-APH3 | 59. | 6.35 | 15. | 7. | 7. | 0.47 | | |
| HYDROGRAPH AT | SB-H6 | 14. | 6.35 | 3. | 1. | 1. | 0.08 | | |
| 2 COMBINED AT | AP-H4 | 73. | 6.35 | 18. | 8. | 8. | 0.55 | | |
| ROUTED TO | RT-APH4 | 73. | 6.40 | 18. | 8. | 8. | 0.55 | | |
| ROUTED TO | RT-APH5 | 72. | 6.50 | 18. | 8. | 8. | 0.55 | | |
| ROUTED TO | RT-APH6 | 73. | 6.50 | 18. | 8. | 8. | 0.55 | | |
| HYDROGRAPH AT | SB-H7 | 11. | 6.30 | 2. | 1. | 1. | 0.06 | | |
| ROUTED TO | RT-SBH7 | 11. | 6.55 | 2. | 1. | 1. | 0.06 | | |
| HYDROGRAPH AT | SB-H8 | 15. | 6.30 | 3. | 1. | 1. | 0.08 | | |
| 2 COMBINED AT | AP-H7 | 23. | 6.45 | 5. | 2. | 2. | 0.14 | | |
| ROUTED TO | RT-APH7 | 22. | 6.55 | 5. | 2. | 2. | 0.14 | | |
| 2 COMBINED AT | AP-H8 | 94. | 6.55 | 23. | 10. | 10. | 0.69 | | |
| ROUTED TO | RT-APH8 | 93. | 6.55 | 23. | 10. | 10. | 0.69 | | |
| HYDROGRAPH AT | SB-H9 | 29. | 6.25 | 5. | 2. | 2. | 0.14 | | |

| | | | | | | | |
|---------------|---------|------|------|-----|-----|-----|------|
| 2 COMBINED AT | AP-H9 | 107. | 6.55 | 27. | 13. | 13. | 0.83 |
| ROUTED TO | RT-APH9 | 106. | 6.65 | 27. | 13. | 13. | 0.83 |
| HYDROGRAPH AT | SB-H10 | 15. | 6.15 | 2. | 1. | 1. | 0.06 |
| 2 COMBINED AT | AP-H10 | 110. | 6.65 | 29. | 13. | 13. | 0.89 |
| HYDROGRAPH AT | SB-H11 | 28. | 6.35 | 6. | 3. | 3. | 0.17 |
| 2 COMBINED AT | AP-H12 | 129. | 6.60 | 34. | 16. | 16. | 1.06 |
| HYDROGRAPH AT | SB-H12 | 14. | 6.35 | 3. | 1. | 1. | 0.09 |

10 YEAR 24 HOUR STORM
 RUNOFF SUMMARY
 FLOW IN CUBIC FEET PER SECOND
 TIME IN HOURS, AREA IN SQUARE MILES

| OPERATION | STATION | PEAK FLOW | TIME OF PEAK | AVERAGE FLOW FOR MAXIMUM PERIOD | | | BASIN AREA | MAXIMUM STAGE | TIME OF MAX STAGE |
|---------------|---------|-----------|--------------|---------------------------------|---------|---------|------------|---------------|-------------------|
| | | | | 6-HOUR | 24-HOUR | 72-HOUR | | | |
| HYDROGRAPH AT | SB-H1 | 35. | 6.35 | 7. | 3. | 3. | 0.13 | | |
| ROUTED TO | RT-SBH1 | 35. | 6.55 | 7. | 3. | 3. | 0.13 | | |
| HYDROGRAPH AT | SB-H2 | 43. | 6.20 | 7. | 3. | 3. | 0.13 | | |
| 2 COMBINED AT | AP-H1 | 60. | 6.40 | 13. | 6. | 6. | 0.26 | | |
| ROUTED TO | RT-APH1 | 60. | 6.45 | 13. | 6. | 6. | 0.26 | | |
| HYDROGRAPH AT | SB-H3 | 27. | 6.25 | 4. | 2. | 2. | 0.09 | | |
| ROUTED TO | RT-H3 | 27. | 6.25 | 4. | 2. | 2. | 0.09 | | |
| 2 COMBINED AT | AP-H2 | 81. | 6.40 | 18. | 8. | 8. | 0.35 | | |
| ROUTED TO | RT-AP2 | 81. | 6.50 | 18. | 8. | 8. | 0.35 | | |
| HYDROGRAPH AT | SB-H4 | 19. | 6.10 | 2. | 1. | 1. | 0.04 | | |
| HYDROGRAPH AT | SB-H5 | 27. | 6.20 | 4. | 2. | 2. | 0.08 | | |
| 3 COMBINED AT | AP-H3 | 99. | 6.30 | 23. | 11. | 11. | 0.47 | | |
| ROUTED TO | RT-APH3 | 99. | 6.35 | 23. | 11. | 11. | 0.47 | | |
| HYDROGRAPH AT | SB-H6 | 22. | 6.30 | 4. | 2. | 2. | 0.08 | | |
| 2 COMBINED AT | AP-H4 | 121. | 6.35 | 28. | 13. | 13. | 0.55 | | |
| ROUTED TO | RT-APH4 | 121. | 6.35 | 28. | 13. | 13. | 0.55 | | |
| ROUTED TO | RT-APH5 | 121. | 6.45 | 28. | 12. | 12. | 0.55 | | |
| ROUTED TO | RT-APH6 | 120. | 6.50 | 27. | 12. | 12. | 0.55 | | |
| HYDROGRAPH AT | SB-H7 | 17. | 6.30 | 3. | 1. | 1. | 0.06 | | |
| ROUTED TO | RT-SBH7 | 17. | 6.55 | 3. | 1. | 1. | 0.06 | | |
| HYDROGRAPH AT | SB-H8 | 24. | 6.25 | 4. | 2. | 2. | 0.08 | | |
| 2 COMBINED AT | AP-H7 | 35. | 6.40 | 7. | 3. | 3. | 0.14 | | |
| ROUTED TO | RT-APH7 | 35. | 6.50 | 7. | 3. | 3. | 0.14 | | |
| 2 COMBINED AT | AP-H8 | 155. | 6.50 | 34. | 16. | 16. | 0.69 | | |
| ROUTED TO | RT-APH8 | 154. | 6.50 | 34. | 16. | 16. | 0.69 | | |
| HYDROGRAPH AT | SB-H9 | 47. | 6.20 | 7. | 3. | 3. | 0.14 | | |

| | | | | | | | |
|---------------|---------|------|------|-----|-----|-----|------|
| 2 COMBINED AT | AP-H9 | 178. | 6.50 | 41. | 19. | 19. | 0.83 |
| ROUTED TO | RT-APH9 | 178. | 6.55 | 41. | 19. | 19. | 0.83 |
| HYDROGRAPH AT | SB-H10 | 24. | 6.15 | 3. | 1. | 1. | 0.06 |
| 2 COMBINED AT | AP-H10 | 184. | 6.55 | 44. | 20. | 20. | 0.89 |
| HYDROGRAPH AT | SB-H11 | 45. | 6.35 | 8. | 4. | 4. | 0.17 |
| 2 COMBINED AT | AP-H12 | 219. | 6.50 | 52. | 24. | 24. | 1.06 |
| HYDROGRAPH AT | SB-H12 | 23. | 6.30 | 4. | 2. | 2. | 0.09 |

25 YEAR 24 HOUR STORM
 RUNOFF SUMMARY
 FLOW IN CUBIC FEET PER SECOND
 TIME IN HOURS, AREA IN SQUARE MILES

| OPERATION | STATION | PEAK FLOW | TIME OF PEAK | AVERAGE FLOW FOR MAXIMUM PERIOD | | | BASIN AREA | MAXIMUM STAGE | TIME OF MAX STAGE |
|---------------|---------|-----------|--------------|---------------------------------|---------|---------|------------|---------------|-------------------|
| | | | | 6-HOUR | 24-HOUR | 72-HOUR | | | |
| HYDROGRAPH AT | SB-H1 | 59. | 6.35 | 11. | 5. | 5. | 0.13 | | |
| ROUTED TO | RT-SBH1 | 60. | 6.50 | 11. | 5. | 5. | 0.13 | | |
| HYDROGRAPH AT | SB-H2 | 72. | 6.20 | 10. | 5. | 5. | 0.13 | | |
| 2 COMBINED AT | AP-H1 | 105. | 6.35 | 21. | 10. | 10. | 0.26 | | |
| ROUTED TO | RT-APH1 | 105. | 6.40 | 21. | 10. | 10. | 0.26 | | |
| HYDROGRAPH AT | SB-H3 | 46. | 6.20 | 7. | 3. | 3. | 0.09 | | |
| ROUTED TO | RT-H3 | 46. | 6.25 | 7. | 3. | 3. | 0.09 | | |
| 2 COMBINED AT | AP-H2 | 144. | 6.35 | 28. | 13. | 13. | 0.35 | | |
| ROUTED TO | RT-AP2 | 143. | 6.40 | 28. | 13. | 13. | 0.35 | | |
| HYDROGRAPH AT | SB-H4 | 32. | 6.10 | 3. | 2. | 2. | 0.04 | | |
| HYDROGRAPH AT | SB-H5 | 45. | 6.20 | 6. | 3. | 3. | 0.08 | | |
| 3 COMBINED AT | AP-H3 | 181. | 6.35 | 37. | 17. | 17. | 0.47 | | |
| ROUTED TO | RT-APH3 | 180. | 6.40 | 37. | 17. | 17. | 0.47 | | |
| HYDROGRAPH AT | SB-H6 | 38. | 6.30 | 7. | 3. | 3. | 0.08 | | |
| 2 COMBINED AT | AP-H4 | 217. | 6.35 | 44. | 20. | 20. | 0.55 | | |
| ROUTED TO | RT-APH4 | 216. | 6.40 | 44. | 20. | 20. | 0.55 | | |
| ROUTED TO | RT-APH5 | 216. | 6.45 | 44. | 20. | 20. | 0.55 | | |
| ROUTED TO | RT-APH6 | 215. | 6.45 | 44. | 20. | 20. | 0.55 | | |
| HYDROGRAPH AT | SB-H7 | 29. | 6.25 | 5. | 2. | 2. | 0.06 | | |
| ROUTED TO | RT-SBH7 | 29. | 6.45 | 5. | 2. | 2. | 0.06 | | |
| HYDROGRAPH AT | SB-H8 | 41. | 6.25 | 6. | 3. | 3. | 0.08 | | |
| 2 COMBINED AT | AP-H7 | 60. | 6.40 | 11. | 5. | 5. | 0.14 | | |
| ROUTED TO | RT-APH7 | 60. | 6.40 | 11. | 5. | 5. | 0.14 | | |
| 2 COMBINED AT | AP-H8 | 274. | 6.45 | 55. | 25. | 25. | 0.69 | | |
| ROUTED TO | RT-APH8 | 274. | 6.45 | 55. | 25. | 25. | 0.69 | | |
| HYDROGRAPH AT | SB-H9 | 80. | 6.20 | 11. | 5. | 5. | 0.14 | | |

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|---------------|---------|------|------|-----|-----|-----|------|
| 2 COMBINED AT | AP-H9 | 320. | 6.40 | 66. | 30. | 30. | 0.83 |
| ROUTED TO | RT-APH9 | 321. | 6.50 | 66. | 30. | 30. | 0.83 |
| HYDROGRAPH AT | SB-H10 | 39. | 6.10 | 5. | 2. | 2. | 0.06 |
| 2 COMBINED AT | AP-H10 | 331. | 6.50 | 70. | 32. | 32. | 0.89 |
| HYDROGRAPH AT | SB-H11 | 76. | 6.30 | 14. | 6. | 6. | 0.17 |
| 2 COMBINED AT | AP-H12 | 398. | 6.45 | 84. | 38. | 38. | 1.06 |
| HYDROGRAPH AT | SB-H12 | 40. | 6.30 | 7. | 3. | 3. | 0.09 |

50 YEAR 24 HOUR STORM
 RUNOFF SUMMARY
 FLOW IN CUBIC FEET PER SECOND
 TIME IN HOURS, AREA IN SQUARE MILES

| OPERATION | STATION | PEAK FLOW | TIME OF PEAK | AVERAGE FLOW FOR MAXIMUM PERIOD | | | BASIN AREA | MAXIMUM STAGE | TIME OF MAX STAGE |
|---------------|---------|-----------|--------------|---------------------------------|---------|---------|------------|---------------|-------------------|
| | | | | 6-HOUR | 24-HOUR | 72-HOUR | | | |
| HYDROGRAPH AT | SB-H1 | 78. | 6.30 | 14. | 6. | 6. | 0.13 | | |
| ROUTED TO | RT-SBH1 | 78. | 6.45 | 14. | 6. | 6. | 0.13 | | |
| HYDROGRAPH AT | SB-H2 | 94. | 6.20 | 13. | 6. | 6. | 0.13 | | |
| 2 COMBINED AT | AP-H1 | 140. | 6.35 | 27. | 12. | 12. | 0.26 | | |
| ROUTED TO | RT-APH1 | 139. | 6.35 | 27. | 12. | 12. | 0.26 | | |
| HYDROGRAPH AT | SB-H3 | 61. | 6.20 | 9. | 4. | 4. | 0.09 | | |
| ROUTED TO | RT-H3 | 60. | 6.25 | 9. | 4. | 4. | 0.09 | | |
| 2 COMBINED AT | AP-H2 | 193. | 6.30 | 36. | 16. | 16. | 0.35 | | |
| ROUTED TO | RT-AP2 | 192. | 6.40 | 36. | 16. | 16. | 0.35 | | |
| HYDROGRAPH AT | SB-H4 | 41. | 6.10 | 4. | 2. | 2. | 0.04 | | |
| HYDROGRAPH AT | SB-H5 | 58. | 6.20 | 8. | 4. | 4. | 0.08 | | |
| 3 COMBINED AT | AP-H3 | 246. | 6.35 | 48. | 22. | 22. | 0.47 | | |
| ROUTED TO | RT-APH3 | 246. | 6.35 | 48. | 21. | 21. | 0.47 | | |
| HYDROGRAPH AT | SB-H6 | 50. | 6.30 | 8. | 4. | 4. | 0.08 | | |
| 2 COMBINED AT | AP-H4 | 294. | 6.35 | 56. | 25. | 25. | 0.55 | | |
| ROUTED TO | RT-APH4 | 292. | 6.35 | 56. | 25. | 25. | 0.55 | | |
| ROUTED TO | RT-APH5 | 291. | 6.40 | 56. | 25. | 25. | 0.55 | | |
| ROUTED TO | RT-APH6 | 291. | 6.45 | 56. | 25. | 25. | 0.55 | | |
| HYDROGRAPH AT | SB-H7 | 38. | 6.25 | 6. | 3. | 3. | 0.06 | | |
| ROUTED TO | RT-SBH7 | 38. | 6.45 | 6. | 3. | 3. | 0.06 | | |
| HYDROGRAPH AT | SB-H8 | 54. | 6.25 | 8. | 4. | 4. | 0.08 | | |
| 2 COMBINED AT | AP-H7 | 81. | 6.35 | 14. | 6. | 6. | 0.14 | | |
| ROUTED TO | RT-APH7 | 81. | 6.45 | 14. | 6. | 6. | 0.14 | | |
| 2 COMBINED AT | AP-H8 | 371. | 6.45 | 70. | 31. | 31. | 0.69 | | |
| ROUTED TO | RT-APH8 | 370. | 6.45 | 70. | 31. | 31. | 0.69 | | |
| HYDROGRAPH AT | SB-H9 | 104. | 6.20 | 15. | 7. | 7. | 0.14 | | |

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|---------------|---------|------|------|------|-----|-----|------|
| 2 COMBINED AT | AP-H9 | 432. | 6.40 | 85. | 38. | 38. | 0.83 |
| ROUTED TO | RT-APH9 | 433. | 6.45 | 85. | 38. | 38. | 0.83 |
| HYDROGRAPH AT | SB-H10 | 51. | 6.10 | 6. | 3. | 3. | 0.06 |
| 2 COMBINED AT | AP-H10 | 448. | 6.45 | 90. | 40. | 40. | 0.89 |
| HYDROGRAPH AT | SB-H11 | 99. | 6.30 | 17. | 8. | 8. | 0.17 |
| 2 COMBINED AT | AP-H12 | 535. | 6.45 | 107. | 48. | 48. | 1.06 |
| HYDROGRAPH AT | SB-H12 | 52. | 6.30 | 9. | 4. | 4. | 0.09 |

I.
HEC-1 MODEL OUTPUT
HISTORIC (UNDEVELOPED) CONDITION
SUMMARY SHEETS FOR 2, 5, 10, 25, AND 50-YEAR STORMS

2 YEAR 24 HOUR STORM
 RUNOFF SUMMARY
 FLOW IN CUBIC FEET PER SECOND
 TIME IN HOURS, AREA IN SQUARE MILES

| OPERATION | STATION | PEAK FLOW | TIME OF PEAK | AVERAGE FLOW FOR MAXIMUM PERIOD | | | BASIN AREA | MAXIMUM STAGE | TIME OF MAX STAGE |
|---------------|----------|-----------|--------------|---------------------------------|---------|---------|------------|---------------|-------------------|
| | | | | 6-HOUR | 24-HOUR | 72-HOUR | | | |
| HYDROGRAPH AT | SB-D1 | 6. | 6.35 | 1. | 1. | 1. | 0.09 | | |
| ROUTED TO | RT-SBD1 | 6. | 6.45 | 1. | 1. | 1. | 0.09 | | |
| HYDROGRAPH AT | SB-D2 | 8. | 6.15 | 1. | 1. | 1. | 0.06 | | |
| 2 COMBINED AT | AP-D1 | 11. | 6.25 | 2. | 1. | 1. | 0.14 | | |
| HYDROGRAPH AT | SB-D3 | 7. | 6.20 | 1. | 0. | 0. | 0.03 | | |
| 2 COMBINED AT | AP-DDA | 17. | 6.20 | 3. | 2. | 2. | 0.17 | | |
| ROUTED TO | RR-DFA | 17. | 6.25 | 3. | 2. | 2. | 0.17 | 54.92 | 6.25 |
| ROUTED TO | RT-APDFA | 17. | 6.25 | 3. | 2. | 2. | 0.17 | | |
| HYDROGRAPH AT | SB-D6 | 19. | 6.10 | 2. | 1. | 1. | 0.04 | | |
| 2 COMBINED AT | AP-D2 | 30. | 6.15 | 5. | 2. | 2. | 0.21 | | |
| ROUTED TO | RT-APD2 | 29. | 6.15 | 5. | 2. | 2. | 0.21 | | |
| HYDROGRAPH AT | SB-D7 | 36. | 6.10 | 4. | 2. | 2. | 0.07 | | |
| HYDROGRAPH AT | SB-D4 | 5. | 6.20 | 1. | 0. | 0. | 0.05 | | |
| HYDROGRAPH AT | SB-D5 | 8. | 6.15 | 1. | 0. | 0. | 0.03 | | |
| 2 COMBINED AT | AP-DFB | 13. | 6.15 | 2. | 1. | 1. | 0.08 | | |
| ROUTED TO | RR-DFB | 13. | 6.20 | 2. | 1. | 1. | 0.08 | 19.35 | 6.20 |
| ROUTED TO | RT-APDFB | 13. | 6.20 | 2. | 1. | 1. | 0.08 | | |
| 3 COMBINED AT | AP-D3 | 73. | 6.10 | 11. | 5. | 5. | 0.36 | | |
| ROUTED TO | RT-APD3 | 73. | 6.15 | 11. | 5. | 5. | 0.36 | | |
| HYDROGRAPH AT | SB-D8 | 79. | 6.00 | 8. | 3. | 3. | 0.06 | | |
| 2 COMBINED AT | AP-DFC | 139. | 6.05 | 19. | 8. | 8. | 0.42 | | |
| ROUTED TO | RR-DFC | 45. | 6.40 | 18. | 8. | 8. | 0.42 | 55.96 | 6.40 |
| ROUTED TO | RT-RRDFC | 45. | 6.45 | 18. | 8. | 8. | 0.42 | | |
| HYDROGRAPH AT | SB-D9 | 41. | 6.05 | 4. | 2. | 2. | 0.06 | | |
| 2 COMBINED AT | AP-D4 | 78. | 6.10 | 23. | 10. | 10. | 0.47 | | |
| ROUTED TO | RT-APD4 | 78. | 6.10 | 23. | 10. | 10. | 0.47 | | |

| | | | | | | | | | |
|---------------|----------|------|------|-----|-----|-----|------|-------|------|
| HYDROGRAPH AT | SB-D10 | 2. | 6.25 | 0. | 0. | 0. | 0.03 | | |
| ROUTED TO | RT-SBD10 | 2. | 6.35 | 0. | 0. | 0. | 0.03 | | |
| HYDROGRAPH AT | SB-D11 | 13. | 6.15 | 2. | 1. | 1. | 0.05 | | |
| HYDROGRAPH AT | SB-D12 | 5. | 6.20 | 1. | 0. | 0. | 0.02 | | |
| ROUTED TO | RT-SBD12 | 5. | 6.25 | 1. | 0. | 0. | 0.02 | | |
| 3 COMBINED AT | AP-D5 | 19. | 6.20 | 3. | 1. | 1. | 0.10 | | |
| ROUTED TO | RT-APD5 | 18. | 6.20 | 3. | 1. | 1. | 0.10 | | |
| HYDROGRAPH AT | SB-D13 | 84. | 6.05 | 9. | 4. | 4. | 0.07 | | |
| 2 COMBINED AT | AP-D6 | 95. | 6.05 | 11. | 5. | 5. | 0.17 | | |
| ROUTED TO | RT-APD6 | 94. | 6.05 | 11. | 5. | 5. | 0.17 | | |
| 2 COMBINED AT | AP-D7 | 169. | 6.05 | 34. | 15. | 15. | 0.64 | | |
| ROUTED TO | RT-APD7 | 167. | 6.10 | 34. | 15. | 15. | 0.64 | | |
| HYDROGRAPH AT | SB-D14 | 10. | 6.10 | 1. | 0. | 0. | 0.03 | | |
| 2 COMBINED AT | AP-DFD | 177. | 6.10 | 35. | 16. | 16. | 0.67 | | |
| ROUTED TO | RR-DFD | 75. | 6.50 | 35. | 16. | 16. | 0.67 | 86.56 | 6.50 |
| ROUTED TO | RT-APDFD | 75. | 6.50 | 35. | 16. | 16. | 0.67 | | |
| HYDROGRAPH AT | SB-D15 | 38. | 6.10 | 4. | 2. | 2. | 0.05 | | |
| ROUTED TO | RT-SBD15 | 38. | 6.10 | 4. | 2. | 2. | 0.05 | | |
| HYDROGRAPH AT | SB-D16 | 4. | 6.30 | 1. | 0. | 0. | 0.04 | | |
| 2 COMBINED AT | AP-D8 | 40. | 6.10 | 5. | 2. | 2. | 0.09 | | |
| ROUTED TO | RT-APD8 | 40. | 6.10 | 5. | 2. | 2. | 0.09 | | |
| HYDROGRAPH AT | SB-D17 | 37. | 6.05 | 4. | 2. | 2. | 0.04 | | |
| 3 COMBINED AT | AP-D9 | 138. | 6.10 | 43. | 19. | 19. | 0.81 | | |
| ROUTED TO | RT-APD9 | 137. | 6.10 | 43. | 19. | 19. | 0.81 | | |
| HYDROGRAPH AT | SB-D18 | 19. | 6.15 | 3. | 1. | 1. | 0.06 | | |
| ROUTED TO | RR-DFPCH | 1. | 8.40 | 1. | 0. | 0. | 0.06 | 20.13 | 8.40 |
| ROUTED TO | RT-RRDFP | 1. | 8.40 | 1. | 0. | 0. | 0.06 | | |
| HYDROGRAPH AT | SB-D19 | 13. | 6.05 | 1. | 1. | 1. | 0.02 | | |
| 2 COMBINED AT | AP-D10 | 13. | 6.05 | 2. | 1. | 1. | 0.09 | | |
| ROUTED TO | RT-APD10 | 12. | 6.05 | 2. | 1. | 1. | 0.09 | | |

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|---------------|----------|------|------|-----|-----|-----|------|-------|------|
| HYDROGRAPH AT | SB-D20 | 46. | 6.00 | 5. | 2. | 2. | 0.03 | | |
| 2 COMBINED AT | AP-D11 | 57. | 6.00 | 7. | 3. | 3. | 0.12 | | |
| ROUTED TO | RT-APD11 | 56. | 6.05 | 7. | 3. | 3. | 0.12 | | |
| HYDROGRAPH AT | SB-D21 | 37. | 6.05 | 4. | 2. | 2. | 0.04 | | |
| 3 COMBINED AT | AP-DFE | 226. | 6.05 | 53. | 24. | 24. | 0.96 | | |
| ROUTED TO | RR-DFE | 91. | 6.75 | 52. | 23. | 23. | 0.96 | 35.35 | 6.75 |
| DIVERSION TO | AP-D12 | 28. | 6.70 | 7. | 3. | 3. | 0.96 | | |
| HYDROGRAPH AT | AP-DFE | 62. | 6.70 | 45. | 20. | 20. | 0.96 | | |
| ROUTED TO | RT-APDFE | 62. | 6.75 | 45. | 20. | 20. | 0.96 | | |
| HYDROGRAPH AT | SB-D22 | 19. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| 2 COMBINED AT | AP-13 | 68. | 6.15 | 47. | 21. | 21. | 0.98 | | |
| ROUTED TO | RT-AP13 | 67. | 6.15 | 47. | 21. | 21. | 0.98 | | |
| HYDROGRAPH AT | SB-D23 | 5. | 6.00 | 0. | 0. | 0. | 0.00 | | |
| 2 COMBINED AT | AP-D14 | 71. | 6.10 | 47. | 21. | 21. | 0.99 | | |
| ROUTED TO | RT-AP13 | 70. | 6.10 | 47. | 21. | 21. | 0.99 | | |
| HYDROGRAPH AT | SB-D24 | 8. | 6.10 | 1. | 0. | 0. | 0.03 | | |
| 2 COMBINED AT | AP-DFF | 79. | 6.10 | 48. | 22. | 22. | 1.01 | | |
| ROUTED TO | RR-DFF | 62. | 8.30 | 37. | 17. | 17. | 1.01 | 69.16 | 8.30 |
| HYDROGRAPH AT | SB-D25 | 18. | 6.05 | 2. | 1. | 1. | 0.03 | | |
| ROUTED TO | RR-SBD25 | 18. | 6.10 | 2. | 1. | 1. | 0.03 | | |
| HYDROGRAPH AT | SB-D26 | 12. | 6.05 | 1. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-D16 | 30. | 6.10 | 3. | 1. | 1. | 0.06 | | |
| ROUTED TO | RT-APD16 | 30. | 6.10 | 3. | 1. | 1. | 0.06 | | |
| 2 COMBINED AT | AP-D17 | 64. | 8.15 | 39. | 19. | 19. | 1.08 | | |
| ROUTED TO | RT-APD17 | 64. | 8.15 | 39. | 18. | 18. | 1.08 | | |
| HYDROGRAPH AT | SB-D27 | 4. | 6.05 | 0. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-D18 | 64. | 8.15 | 40. | 19. | 19. | 1.08 | | |
| ROUTED TO | RT-APD18 | 64. | 8.15 | 40. | 19. | 19. | 1.08 | | |
| HYDROGRAPH AT | SB-D29 | 9. | 6.05 | 1. | 0. | 0. | 0.02 | | |
| DIVERSION TO | AP-D19a | 0. | 6.05 | 0. | 0. | 0. | 0.02 | | |

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|---------------|----------|-----|------|-----|-----|-----|------|-------|------|
| HYDROGRAPH AT | AP-D19 | 9. | 6.05 | 1. | 0. | 0. | 0.02 | | |
| ROUTED TO | RT-APD19 | 9. | 6.05 | 1. | 0. | 0. | 0.02 | | |
| HYDROGRAPH AT | SB-D28 | 3. | 6.05 | 0. | 0. | 0. | 0.00 | | |
| 3 COMBINED AT | AP-D20 | 64. | 8.10 | 41. | 19. | 19. | 1.11 | | |
| ROUTED TO | RT-APD20 | 64. | 8.10 | 41. | 19. | 19. | 1.11 | | |
| HYDROGRAPH AT | SB-D30 | 6. | 6.10 | 1. | 0. | 0. | 0.02 | | |
| ROUTED TO | RT-SBD30 | 5. | 6.10 | 1. | 0. | 0. | 0.02 | | |
| 2 COMBINED AT | AP-D21 | 65. | 8.10 | 42. | 19. | 19. | 1.12 | | |
| HYDROGRAPH AT | SB-D31 | 3. | 6.05 | 0. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-D22 | 65. | 8.10 | 42. | 20. | 20. | 1.13 | | |
| HYDROGRAPH AT | SB-D32 | 1. | 6.05 | 0. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-DFCS | 65. | 8.10 | 42. | 20. | 20. | 1.14 | | |
| ROUTED TO | RR-DFCS | 58. | 9.25 | 38. | 19. | 19. | 1.14 | 79.50 | 9.25 |
| HYDROGRAPH AT | DR-APD12 | 28. | 6.75 | 7. | 3. | 3. | 0.00 | | |
| ROUTED TO | RT-APD12 | 31. | 6.80 | 7. | 3. | 3. | 0.00 | | |
| HYDROGRAPH AT | SB-D33 | 8. | 6.10 | 1. | 0. | 0. | 0.04 | | |
| 2 COMBINED AT | AP-D23 | 32. | 6.80 | 7. | 3. | 3. | 0.04 | | |
| 2 COMBINED AT | AP-D24 | 61. | 9.20 | 45. | 23. | 23. | 1.17 | | |
| HYDROGRAPH AT | SB-D34 | 16. | 6.10 | 2. | 1. | 1. | 0.04 | | |
| ROUTED TO | RT-SBD34 | 16. | 6.10 | 2. | 1. | 1. | 0.04 | | |
| HYDROGRAPH AT | SB-D35 | 17. | 6.10 | 2. | 1. | 1. | 0.04 | | |
| 2 COMBINED AT | AP-DFG | 33. | 6.10 | 3. | 2. | 2. | 0.08 | | |
| ROUTED TO | RR-DFG | 2. | 7.85 | 2. | 1. | 1. | 0.08 | 65.01 | 8.10 |

5 YEAR 24 HOUR STORM
 RUNOFF SUMMARY
 FLOW IN CUBIC FEET PER SECOND
 TIME IN HOURS, AREA IN SQUARE MILES

| OPERATION | STATION | PEAK FLOW | TIME OF PEAK | AVERAGE FLOW 6-HOUR | 24-HOUR | 72-HOUR | BASIN AREA | MAXIMUM STAGE | TIME OF MAX STAGE |
|---------------|----------|-----------|--------------|---------------------|---------|---------|------------|---------------|-------------------|
| HYDROGRAPH AT | SB-D1 | 17. | 6.30 | 3. | 1. | 1. | 0.09 | | |
| ROUTED TO | RT-SBD1 | 17. | 6.35 | 3. | 1. | 1. | 0.09 | | |
| HYDROGRAPH AT | SB-D2 | 20. | 6.15 | 2. | 1. | 1. | 0.06 | | |
| 2 COMBINED AT | AP-D1 | 31. | 6.25 | 6. | 3. | 3. | 0.14 | | |
| HYDROGRAPH AT | SB-D3 | 13. | 6.15 | 2. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-DDA | 44. | 6.20 | 7. | 3. | 3. | 0.17 | | |
| ROUTED TO | RR-DFA | 38. | 6.35 | 7. | 3. | 3. | 0.17 | 56.38 | 6.35 |
| ROUTED TO | RT-APDFA | 38. | 6.35 | 7. | 3. | 3. | 0.17 | | |
| HYDROGRAPH AT | SB-D6 | 34. | 6.05 | 3. | 2. | 2. | 0.04 | | |
| 2 COMBINED AT | AP-D2 | 64. | 6.15 | 11. | 5. | 5. | 0.21 | | |
| ROUTED TO | RT-APD2 | 64. | 6.15 | 11. | 5. | 5. | 0.21 | | |
| HYDROGRAPH AT | SB-D7 | 62. | 6.05 | 7. | 3. | 3. | 0.07 | | |
| HYDROGRAPH AT | SB-D4 | 14. | 6.15 | 2. | 1. | 1. | 0.05 | | |
| HYDROGRAPH AT | SB-D5 | 16. | 6.15 | 2. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-DFB | 30. | 6.15 | 4. | 2. | 2. | 0.08 | | |
| ROUTED TO | RR-DFB | 30. | 6.15 | 4. | 2. | 2. | 0.08 | 19.82 | 6.15 |
| ROUTED TO | RT-APDFB | 30. | 6.15 | 4. | 2. | 2. | 0.08 | | |
| 3 COMBINED AT | AP-D3 | 148. | 6.10 | 21. | 10. | 10. | 0.36 | | |
| ROUTED TO | RT-APD3 | 147. | 6.15 | 21. | 10. | 10. | 0.36 | | |
| HYDROGRAPH AT | SB-D8 | 111. | 6.00 | 11. | 5. | 5. | 0.06 | | |
| 2 COMBINED AT | AP-DFC | 237. | 6.05 | 32. | 14. | 14. | 0.42 | | |
| ROUTED TO | RR-DFC | 60. | 6.60 | 32. | 14. | 14. | 0.42 | 58.40 | 6.60 |
| ROUTED TO | RT-RRDFC | 60. | 6.60 | 32. | 14. | 14. | 0.42 | | |
| HYDROGRAPH AT | SB-D9 | 66. | 6.05 | 7. | 3. | 3. | 0.06 | | |
| 2 COMBINED AT | AP-D4 | 112. | 6.10 | 39. | 17. | 17. | 0.47 | | |
| ROUTED TO | RT-APD4 | 112. | 6.10 | 39. | 17. | 17. | 0.47 | | |

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|---------------|----------|------|------|-----|-----|-----|------|-------|------|
| HYDROGRAPH AT | SB-D10 | 7. | 6.25 | 1. | 0. | 0. | 0.03 | | |
| ROUTED TO | RT-SBD10 | 7. | 6.30 | 1. | 0. | 0. | 0.03 | | |
| HYDROGRAPH AT | SB-D11 | 27. | 6.15 | 3. | 1. | 1. | 0.05 | | |
| HYDROGRAPH AT | SB-D12 | 10. | 6.20 | 1. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-SBD12 | 10. | 6.25 | 1. | 1. | 1. | 0.02 | | |
| 3 COMBINED AT | AP-D5 | 40. | 6.20 | 6. | 3. | 3. | 0.10 | | |
| ROUTED TO | RT-APD5 | 40. | 6.20 | 6. | 3. | 3. | 0.10 | | |
| HYDROGRAPH AT | SB-D13 | 120. | 6.00 | 12. | 5. | 5. | 0.07 | | |
| 2 COMBINED AT | AP-D6 | 148. | 6.05 | 18. | 8. | 8. | 0.17 | | |
| ROUTED TO | RT-APD6 | 147. | 6.05 | 18. | 8. | 8. | 0.17 | | |
| 2 COMBINED AT | AP-D7 | 256. | 6.05 | 57. | 25. | 25. | 0.64 | | |
| ROUTED TO | RT-APD7 | 253. | 6.05 | 57. | 25. | 25. | 0.64 | | |
| HYDROGRAPH AT | SB-D14 | 20. | 6.05 | 2. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-DFD | 272. | 6.05 | 59. | 26. | 26. | 0.67 | | |
| ROUTED TO | RR-DFD | 94. | 6.65 | 59. | 26. | 26. | 0.67 | 89.14 | 6.65 |
| ROUTED TO | RT-APDFD | 94. | 6.65 | 59. | 26. | 26. | 0.67 | | |
| HYDROGRAPH AT | SB-D15 | 60. | 6.05 | 6. | 3. | 3. | 0.05 | | |
| ROUTED TO | RT-SBD15 | 59. | 6.05 | 6. | 3. | 3. | 0.05 | | |
| HYDROGRAPH AT | SB-D16 | 11. | 6.25 | 2. | 1. | 1. | 0.04 | | |
| 2 COMBINED AT | AP-D8 | 67. | 6.10 | 8. | 4. | 4. | 0.09 | | |
| ROUTED TO | RT-APD8 | 67. | 6.10 | 8. | 4. | 4. | 0.09 | | |
| HYDROGRAPH AT | SB-D17 | 56. | 6.05 | 6. | 3. | 3. | 0.04 | | |
| 3 COMBINED AT | AP-D9 | 197. | 6.10 | 72. | 32. | 32. | 0.81 | | |
| ROUTED TO | RT-APD9 | 196. | 6.10 | 72. | 32. | 32. | 0.81 | | |
| HYDROGRAPH AT | SB-D18 | 38. | 6.15 | 5. | 2. | 2. | 0.06 | | |
| ROUTED TO | RR-DFPCH | 6. | 6.80 | 3. | 1. | 1. | 0.06 | 20.80 | 6.80 |
| ROUTED TO | RT-RRDFP | 6. | 6.80 | 3. | 1. | 1. | 0.06 | | |
| HYDROGRAPH AT | SB-D19 | 21. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| 2 COMBINED AT | AP-D10 | 21. | 6.05 | 5. | 2. | 2. | 0.09 | | |
| ROUTED TO | RT-APD10 | 21. | 6.05 | 5. | 2. | 2. | 0.09 | | |

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|---------------|----------|------|------|-----|-----|-----|------|-------|------|
| HYDROGRAPH AT | SB-D20 | 62. | 6.00 | 7. | 3. | 3. | 0.03 | | |
| 2 COMBINED AT | AP-D11 | 81. | 6.00 | 11. | 5. | 5. | 0.12 | | |
| ROUTED TO | RT-APD11 | 80. | 6.00 | 11. | 5. | 5. | 0.12 | | |
| HYDROGRAPH AT | SB-D21 | 57. | 6.05 | 6. | 2. | 2. | 0.04 | | |
| 3 COMBINED AT | AP-DFE | 327. | 6.05 | 89. | 40. | 40. | 0.96 | | |
| ROUTED TO | RR-DFE | 189. | 6.25 | 85. | 39. | 39. | 0.96 | 36.34 | 6.25 |
| DIVERSION TO | AP-D12 | 122. | 6.25 | 28. | 11. | 11. | 0.96 | | |
| HYDROGRAPH AT | AP-DFE | 66. | 6.25 | 58. | 27. | 27. | 0.96 | | |
| ROUTED TO | RT-APDFE | 66. | 6.30 | 58. | 27. | 27. | 0.96 | | |
| HYDROGRAPH AT | SB-D22 | 28. | 6.05 | 3. | 1. | 1. | 0.02 | | |
| 2 COMBINED AT | AP-13 | 87. | 6.10 | 60. | 28. | 28. | 0.98 | | |
| ROUTED TO | RT-AP13 | 87. | 6.10 | 60. | 28. | 28. | 0.98 | | |
| HYDROGRAPH AT | SB-D23 | 8. | 6.00 | 1. | 0. | 0. | 0.00 | | |
| 2 COMBINED AT | AP-D14 | 92. | 6.10 | 61. | 29. | 29. | 0.99 | | |
| ROUTED TO | RT-AP13 | 92. | 6.10 | 61. | 29. | 29. | 0.99 | | |
| HYDROGRAPH AT | SB-D24 | 16. | 6.05 | 2. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-DFE | 108. | 6.10 | 62. | 29. | 29. | 1.01 | | |
| ROUTED TO | RR-DFE | 65. | 8.15 | 53. | 25. | 25. | 1.01 | 69.22 | 8.15 |
| HYDROGRAPH AT | SB-D25 | 31. | 6.05 | 3. | 1. | 1. | 0.03 | | |
| ROUTED TO | RR-SBD25 | 30. | 6.05 | 3. | 1. | 1. | 0.03 | | |
| HYDROGRAPH AT | SB-D26 | 24. | 6.05 | 2. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-D16 | 54. | 6.05 | 6. | 2. | 2. | 0.06 | | |
| ROUTED TO | RT-APD16 | 54. | 6.05 | 6. | 2. | 2. | 0.06 | | |
| 2 COMBINED AT | AP-D17 | 68. | 8.05 | 55. | 27. | 27. | 1.08 | | |
| ROUTED TO | RT-APD17 | 68. | 8.05 | 55. | 27. | 27. | 1.08 | | |
| HYDROGRAPH AT | SB-D27 | 8. | 6.05 | 1. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-D18 | 68. | 6.05 | 56. | 27. | 27. | 1.08 | | |
| ROUTED TO | RT-APD18 | 68. | 6.10 | 56. | 27. | 27. | 1.08 | | |
| HYDROGRAPH AT | SB-D29 | 15. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| DIVERSION TO | AP-D19a | 0. | 6.05 | 0. | 0. | 0. | 0.02 | | |

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|---------------|----------|------|------|-----|-----|-----|------|-------|------|
| HYDROGRAPH AT | AP-D19 | 15. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-APD19 | 15. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| HYDROGRAPH AT | SB-D28 | 5. | 6.05 | 0. | 0. | 0. | 0.00 | | |
| 3 COMBINED AT | AP-D20 | 88. | 6.05 | 58. | 28. | 28. | 1.11 | | |
| ROUTED TO | RT-APD20 | 87. | 6.05 | 58. | 28. | 28. | 1.11 | | |
| HYDROGRAPH AT | SB-D30 | 11. | 6.05 | 1. | 0. | 0. | 0.02 | | |
| ROUTED TO | RT-SBD30 | 11. | 6.05 | 1. | 0. | 0. | 0.02 | | |
| 2 COMBINED AT | AP-D21 | 98. | 6.05 | 59. | 29. | 29. | 1.12 | | |
| HYDROGRAPH AT | SB-D31 | 6. | 6.05 | 1. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-D22 | 104. | 6.05 | 59. | 29. | 29. | 1.13 | | |
| HYDROGRAPH AT | SB-D32 | 3. | 6.05 | 0. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-DFCS | 106. | 6.05 | 59. | 29. | 29. | 1.14 | | |
| ROUTED TO | RR-DFCS | 66. | 8.85 | 54. | 28. | 28. | 1.14 | 79.70 | 8.85 |
| HYDROGRAPH AT | DR-APD12 | 122. | 6.25 | 28. | 11. | 11. | 0.00 | | |
| ROUTED TO | RT-APD12 | 143. | 6.40 | 28. | 11. | 11. | 0.00 | | |
| HYDROGRAPH AT | SB-D33 | 18. | 6.05 | 2. | 1. | 1. | 0.04 | | |
| 2 COMBINED AT | AP-D23 | 146. | 6.40 | 29. | 12. | 12. | 0.04 | | |
| 2 COMBINED AT | AP-D24 | 176. | 6.40 | 81. | 40. | 40. | 1.17 | | |
| HYDROGRAPH AT | SB-D34 | 30. | 6.05 | 3. | 1. | 1. | 0.04 | | |
| ROUTED TO | RT-SBD34 | 29. | 6.10 | 3. | 1. | 1. | 0.04 | | |
| HYDROGRAPH AT | SB-D35 | 32. | 6.05 | 3. | 1. | 1. | 0.04 | | |
| 2 COMBINED AT | AP-DFG | 60. | 6.05 | 6. | 3. | 3. | 0.08 | | |
| ROUTED TO | RR-DFG | 11. | 6.45 | 4. | 2. | 2. | 0.08 | 66.82 | 6.45 |

10YEAR 24 HOUR STORM
 RUNOFF SUMMARY
 FLOW IN CUBIC FEET PER SECOND
 TIME IN HOURS, AREA IN SQUARE MILES

| OPERATION | STATION | PEAK FLOW | TIME OF PEAK | AVERAGE FLOW FOR MAXIMUM PERIOD | | | BASIN AREA | MAXIMUM STAGE | TIME OF MAX STAGE |
|---------------|----------|-----------|--------------|---------------------------------|---------|---------|------------|---------------|-------------------|
| | | | | 6-HOUR | 24-HOUR | 72-HOUR | | | |
| HYDROGRAPH AT | SB-D1 | 27. | 6.30 | 5. | 2. | 2. | 0.09 | | |
| ROUTED TO | RT-SBD1 | 27. | 6.35 | 5. | 2. | 2. | 0.09 | | |
| HYDROGRAPH AT | SB-D2 | 30. | 6.15 | 4. | 2. | 2. | 0.06 | | |
| 2 COMBINED AT | AP-D1 | 48. | 6.20 | 8. | 4. | 4. | 0.14 | | |
| HYDROGRAPH AT | SB-D3 | 19. | 6.15 | 2. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-DDA | 66. | 6.20 | 11. | 5. | 5. | 0.17 | | |
| ROUTED TO | RR-DFA | 45. | 6.45 | 11. | 5. | 5. | 0.17 | 58.43 | 6.45 |
| ROUTED TO | RT-APDFA | 44. | 6.45 | 11. | 5. | 5. | 0.17 | | |
| HYDROGRAPH AT | SB-D6 | 45. | 6.05 | 5. | 2. | 2. | 0.04 | | |
| 2 COMBINED AT | AP-D2 | 81. | 6.10 | 15. | 7. | 7. | 0.21 | | |
| ROUTED TO | RT-APD2 | 80. | 6.10 | 15. | 7. | 7. | 0.21 | | |
| HYDROGRAPH AT | SB-D7 | 82. | 6.05 | 9. | 4. | 4. | 0.07 | | |
| HYDROGRAPH AT | SB-D4 | 22. | 6.15 | 3. | 1. | 1. | 0.05 | | |
| HYDROGRAPH AT | SB-D5 | 22. | 6.15 | 3. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-DFB | 44. | 6.15 | 6. | 3. | 3. | 0.08 | | |
| ROUTED TO | RR-DFB | 39. | 6.25 | 6. | 3. | 3. | 0.08 | 20.69 | 6.25 |
| ROUTED TO | RT-APDFB | 39. | 6.25 | 6. | 3. | 3. | 0.08 | | |
| 3 COMBINED AT | AP-D3 | 198. | 6.10 | 29. | 13. | 13. | 0.36 | | |
| ROUTED TO | RT-APD3 | 196. | 6.10 | 29. | 13. | 13. | 0.36 | | |
| HYDROGRAPH AT | SB-D8 | 133. | 6.00 | 13. | 6. | 6. | 0.06 | | |
| 2 COMBINED AT | AP-DFC | 311. | 6.05 | 43. | 19. | 19. | 0.42 | | |
| ROUTED TO | RR-DFC | 66. | 6.80 | 42. | 19. | 19. | 0.42 | 60.06 | 6.80 |
| ROUTED TO | RT-RRDFC | 66. | 6.85 | 42. | 19. | 19. | 0.42 | | |
| HYDROGRAPH AT | SB-D9 | 83. | 6.05 | 9. | 4. | 4. | 0.06 | | |
| 2 COMBINED AT | AP-D4 | 135. | 6.10 | 51. | 23. | 23. | 0.47 | | |
| ROUTED TO | RT-APD4 | 135. | 6.10 | 51. | 23. | 23. | 0.47 | | |

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|---------------|----------|------|------|-----|-----|-----|------|-------|------|
| HYDROGRAPH AT | SB-D10 | 11. | 6.20 | 2. | 1. | 1. | 0.03 | | |
| ROUTED TO | RT-SBD10 | 10. | 6.30 | 2. | 1. | 1. | 0.03 | | |
| HYDROGRAPH AT | SB-D11 | 37. | 6.15 | 4. | 2. | 2. | 0.05 | | |
| HYDROGRAPH AT | SB-D12 | 14. | 6.15 | 2. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-SBD12 | 14. | 6.20 | 2. | 1. | 1. | 0.02 | | |
| 3 COMBINED AT | AP-D5 | 58. | 6.15 | 8. | 4. | 4. | 0.10 | | |
| ROUTED TO | RT-APD5 | 58. | 6.20 | 8. | 4. | 4. | 0.10 | | |
| HYDROGRAPH AT | SB-D13 | 145. | 6.00 | 15. | 7. | 7. | 0.07 | | |
| 2 COMBINED AT | AP-D6 | 187. | 6.05 | 23. | 10. | 10. | 0.17 | | |
| ROUTED TO | RT-APD6 | 186. | 6.05 | 23. | 10. | 10. | 0.17 | | |
| 2 COMBINED AT | AP-D7 | 318. | 6.05 | 74. | 33. | 33. | 0.64 | | |
| ROUTED TO | RT-APD7 | 314. | 6.05 | 74. | 33. | 33. | 0.64 | | |
| HYDROGRAPH AT | SB-D14 | 27. | 6.05 | 3. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-DFD | 342. | 6.05 | 77. | 34. | 34. | 0.67 | | |
| ROUTED TO | RR-DFD | 103. | 6.70 | 76. | 34. | 34. | 0.67 | 90.86 | 6.70 |
| ROUTED TO | RT-APDFD | 103. | 6.75 | 76. | 34. | 34. | 0.67 | | |
| HYDROGRAPH AT | SB-D15 | 76. | 6.05 | 8. | 4. | 4. | 0.05 | | |
| ROUTED TO | RT-SBD15 | 75. | 6.05 | 8. | 4. | 4. | 0.05 | | |
| HYDROGRAPH AT | SB-D16 | 16. | 6.25 | 3. | 1. | 1. | 0.04 | | |
| 2 COMBINED AT | AP-D8 | 87. | 6.10 | 11. | 5. | 5. | 0.09 | | |
| ROUTED TO | RT-APD8 | 87. | 6.10 | 11. | 5. | 5. | 0.09 | | |
| HYDROGRAPH AT | SB-D17 | 69. | 6.05 | 7. | 3. | 3. | 0.04 | | |
| 3 COMBINED AT | AP-D9 | 238. | 6.10 | 94. | 41. | 41. | 0.81 | | |
| ROUTED TO | RT-APD9 | 238. | 6.10 | 94. | 41. | 41. | 0.81 | | |
| HYDROGRAPH AT | SB-D18 | 51. | 6.15 | 6. | 3. | 3. | 0.06 | | |
| ROUTED TO | RR-DFPCH | 14. | 6.55 | 4. | 2. | 2. | 0.06 | 21.29 | 6.55 |
| ROUTED TO | RT-RRDFP | 14. | 6.55 | 4. | 2. | 2. | 0.06 | | |
| HYDROGRAPH AT | SB-D19 | 27. | 6.05 | 3. | 1. | 1. | 0.02 | | |
| 2 COMBINED AT | AP-D10 | 27. | 6.05 | 7. | 3. | 3. | 0.09 | | |
| ROUTED TO | RT-APD10 | 27. | 6.05 | 7. | 3. | 3. | 0.09 | | |

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|---------------|----------|------|------|------|-----|-----|------|-------|------|
| HYDROGRAPH AT | SB-D20 | 72. | 6.00 | 8. | 3. | 3. | 0.03 | | |
| 2 COMBINED AT | AP-D11 | 98. | 6.00 | 15. | 7. | 7. | 0.12 | | |
| ROUTED TO | RT-APD11 | 96. | 6.00 | 15. | 7. | 7. | 0.12 | | |
| HYDROGRAPH AT | SB-D21 | 70. | 6.05 | 7. | 3. | 3. | 0.04 | | |
| 3 COMBINED AT | AP-DFE | 398. | 6.05 | 115. | 51. | 51. | 0.96 | | |
| ROUTED TO | RR-DFE | 276. | 6.20 | 107. | 50. | 50. | 0.96 | 36.97 | 6.20 |
| DIVERSION TO | AP-D12 | 205. | 6.20 | 45. | 19. | 19. | 0.96 | | |
| HYDROGRAPH AT | AP-DFE | 71. | 6.20 | 62. | 31. | 31. | 0.96 | | |
| ROUTED TO | RT-APDFE | 71. | 6.20 | 62. | 31. | 31. | 0.96 | | |
| HYDROGRAPH AT | SB-D22 | 35. | 6.05 | 4. | 2. | 2. | 0.02 | | |
| 2 COMBINED AT | AP-13 | 98. | 6.10 | 65. | 33. | 33. | 0.98 | | |
| ROUTED TO | RT-AP13 | 97. | 6.10 | 65. | 33. | 33. | 0.98 | | |
| HYDROGRAPH AT | SB-D23 | 9. | 6.00 | 1. | 0. | 0. | 0.00 | | |
| 2 COMBINED AT | AP-D14 | 104. | 6.05 | 66. | 33. | 33. | 0.99 | | |
| ROUTED TO | RT-AP13 | 104. | 6.10 | 66. | 33. | 33. | 0.99 | | |
| HYDROGRAPH AT | SB-D24 | 23. | 6.05 | 2. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-DFE | 127. | 6.05 | 68. | 34. | 34. | 1.01 | | |
| ROUTED TO | RR-DFE | 66. | 8.05 | 61. | 29. | 29. | 1.01 | 69.26 | 8.05 |
| HYDROGRAPH AT | SB-D25 | 40. | 6.05 | 4. | 2. | 2. | 0.03 | | |
| ROUTED TO | RR-SBD25 | 39. | 6.05 | 4. | 2. | 2. | 0.03 | | |
| HYDROGRAPH AT | SB-D26 | 32. | 6.05 | 3. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-D16 | 72. | 6.05 | 7. | 3. | 3. | 0.06 | | |
| ROUTED TO | RT-APD16 | 71. | 6.05 | 7. | 3. | 3. | 0.06 | | |
| 2 COMBINED AT | AP-D17 | 80. | 6.05 | 63. | 33. | 33. | 1.08 | | |
| ROUTED TO | RT-APD17 | 79. | 6.05 | 63. | 33. | 33. | 1.08 | | |
| HYDROGRAPH AT | SB-D27 | 10. | 6.05 | 1. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-D18 | 89. | 6.05 | 63. | 33. | 33. | 1.08 | | |
| ROUTED TO | RT-APD18 | 88. | 6.05 | 63. | 33. | 33. | 1.08 | | |
| HYDROGRAPH AT | SB-D29 | 20. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| DIVERSION TO | AP-D19a | 0. | 6.05 | 0. | 0. | 0. | 0.02 | | |

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|---------------|----------|------|------|------|-----|-----|------|-------|------|
| HYDROGRAPH AT | AP-D19 | 20. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-APD19 | 20. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| HYDROGRAPH AT | SB-D28 | 6. | 6.05 | 1. | 0. | 0. | 0.00 | | |
| 3 COMBINED AT | AP-D20 | 114. | 6.05 | 65. | 34. | 34. | 1.11 | | |
| ROUTED TO | RT-APD20 | 113. | 6.05 | 65. | 34. | 34. | 1.11 | | |
| HYDROGRAPH AT | SB-D30 | 15. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-SBD30 | 15. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| 2 COMBINED AT | AP-D21 | 128. | 6.05 | 66. | 35. | 35. | 1.12 | | |
| HYDROGRAPH AT | SB-D31 | 8. | 6.05 | 1. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-D22 | 136. | 6.05 | 67. | 35. | 35. | 1.13 | | |
| HYDROGRAPH AT | SB-D32 | 4. | 6.05 | 0. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-DFCS | 140. | 6.05 | 68. | 35. | 35. | 1.14 | | |
| ROUTED TO | RR-DFCS | 71. | 8.20 | 63. | 33. | 33. | 1.14 | 79.82 | 8.20 |
| HYDROGRAPH AT | DR-APD12 | 205. | 6.20 | 45. | 19. | 19. | 0.00 | | |
| ROUTED TO | RT-APD12 | 238. | 6.30 | 45. | 19. | 19. | 0.00 | | |
| HYDROGRAPH AT | SB-D33 | 26. | 6.05 | 2. | 1. | 1. | 0.04 | | |
| 2 COMBINED AT | AP-D23 | 245. | 6.30 | 48. | 20. | 20. | 0.04 | | |
| 2 COMBINED AT | AP-D24 | 279. | 6.30 | 107. | 52. | 52. | 1.17 | | |
| HYDROGRAPH AT | SB-D34 | 40. | 6.05 | 4. | 2. | 2. | 0.04 | | |
| ROUTED TO | RT-SBD34 | 39. | 6.05 | 4. | 2. | 2. | 0.04 | | |
| HYDROGRAPH AT | SB-D35 | 42. | 6.05 | 4. | 2. | 2. | 0.04 | | |
| 2 COMBINED AT | AP-DFG | 81. | 6.05 | 8. | 4. | 4. | 0.08 | | |
| ROUTED TO | RR-DFG | 23. | 6.35 | 6. | 3. | 3. | 0.08 | 67.87 | 6.35 |

25 YEAR 24 HOUR STORM
 RUNOFF SUMMARY
 FLOW IN CUBIC FEET PER SECOND
 TIME IN HOURS, AREA IN SQUARE MILES

| OPERATION | STATION | PEAK FLOW | TIME OF PEAK | AVERAGE FLOW FOR MAXIMUM PERIOD | | | BASIN AREA | MAXIMUM STAGE | TIME OF MAX STAGE |
|---------------|----------|-----------|--------------|---------------------------------|---------|---------|------------|---------------|-------------------|
| | | | | 6-HOUR | 24-HOUR | 72-HOUR | | | |
| HYDROGRAPH AT | SB-D1 | 45. | 6.30 | 8. | 3. | 3. | 0.09 | | |
| ROUTED TO | RT-SBD1 | 45. | 6.35 | 8. | 3. | 3. | 0.09 | | |
| HYDROGRAPH AT | SB-D2 | 46. | 6.10 | 6. | 2. | 2. | 0.06 | | |
| 2 COMBINED AT | AP-D1 | 79. | 6.20 | 13. | 6. | 6. | 0.14 | | |
| HYDROGRAPH AT | SB-D3 | 27. | 6.15 | 3. | 2. | 2. | 0.03 | | |
| 2 COMBINED AT | AP-DDA | 105. | 6.20 | 16. | 7. | 7. | 0.17 | | |
| ROUTED TO | RR-DFA | 54. | 6.55 | 16. | 7. | 7. | 0.17 | 60.75 | 6.55 |
| ROUTED TO | RT-APDFA | 54. | 6.55 | 16. | 7. | 7. | 0.17 | | |
| HYDROGRAPH AT | SB-D6 | 62. | 6.05 | 6. | 3. | 3. | 0.04 | | |
| 2 COMBINED AT | AP-D2 | 101. | 6.10 | 23. | 10. | 10. | 0.21 | | |
| ROUTED TO | RT-APD2 | 101. | 6.10 | 23. | 10. | 10. | 0.21 | | |
| HYDROGRAPH AT | SB-D7 | 113. | 6.05 | 12. | 5. | 5. | 0.07 | | |
| HYDROGRAPH AT | SB-D4 | 36. | 6.15 | 4. | 2. | 2. | 0.05 | | |
| HYDROGRAPH AT | SB-D5 | 32. | 6.15 | 4. | 2. | 2. | 0.03 | | |
| 2 COMBINED AT | AP-DFB | 68. | 6.15 | 8. | 4. | 4. | 0.08 | | |
| ROUTED TO | RR-DFB | 47. | 6.30 | 8. | 4. | 4. | 0.08 | 23.03 | 6.30 |
| ROUTED TO | RT-APDFB | 47. | 6.30 | 8. | 4. | 4. | 0.08 | | |
| 3 COMBINED AT | AP-D3 | 254. | 6.10 | 43. | 19. | 19. | 0.36 | | |
| ROUTED TO | RT-APD3 | 253. | 6.10 | 43. | 19. | 19. | 0.36 | | |
| HYDROGRAPH AT | SB-D8 | 165. | 6.00 | 17. | 7. | 7. | 0.06 | | |
| 2 COMBINED AT | AP-DFC | 405. | 6.05 | 60. | 26. | 26. | 0.42 | | |
| ROUTED TO | RR-DFC | 75. | 7.05 | 58. | 26. | 26. | 0.42 | 62.40 | 7.10 |
| ROUTED TO | RT-RRDFC | 75. | 7.10 | 58. | 26. | 26. | 0.42 | | |
| HYDROGRAPH AT | SB-D9 | 109. | 6.05 | 12. | 5. | 5. | 0.06 | | |
| 2 COMBINED AT | AP-D4 | 168. | 6.05 | 70. | 31. | 31. | 0.47 | | |
| ROUTED TO | RT-APD4 | 167. | 6.10 | 70. | 31. | 31. | 0.47 | | |

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|---------------|----------|------|------|------|-----|-----|------|-------|------|
| HYDROGRAPH AT | SB-D10 | 17. | 6.20 | 2. | 1. | 1. | 0.03 | | |
| ROUTED TO | RT-SBD10 | 17. | 6.25 | 2. | 1. | 1. | 0.03 | | |
| HYDROGRAPH AT | SB-D11 | 55. | 6.10 | 7. | 3. | 3. | 0.05 | | |
| HYDROGRAPH AT | SB-D12 | 21. | 6.15 | 3. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-SBD12 | 21. | 6.20 | 3. | 1. | 1. | 0.02 | | |
| 3 COMBINED AT | AP-D5 | 88. | 6.15 | 12. | 5. | 5. | 0.10 | | |
| ROUTED TO | RT-APD5 | 87. | 6.15 | 12. | 5. | 5. | 0.10 | | |
| HYDROGRAPH AT | SB-D13 | 182. | 6.00 | 19. | 8. | 8. | 0.07 | | |
| 2 COMBINED AT | AP-D6 | 249. | 6.05 | 31. | 13. | 13. | 0.17 | | |
| ROUTED TO | RT-APD6 | 248. | 6.05 | 31. | 13. | 13. | 0.17 | | |
| 2 COMBINED AT | AP-D7 | 415. | 6.05 | 100. | 45. | 45. | 0.64 | | |
| ROUTED TO | RT-APD7 | 411. | 6.05 | 100. | 45. | 45. | 0.64 | | |
| HYDROGRAPH AT | SB-D14 | 40. | 6.05 | 4. | 2. | 2. | 0.03 | | |
| 2 COMBINED AT | AP-DFD | 451. | 6.05 | 104. | 46. | 46. | 0.67 | | |
| ROUTED TO | RR-DFD | 117. | 6.80 | 99. | 46. | 46. | 0.67 | 93.34 | 6.80 |
| ROUTED TO | RT-APDFD | 117. | 6.80 | 99. | 46. | 46. | 0.67 | | |
| HYDROGRAPH AT | SB-D15 | 100. | 6.05 | 11. | 5. | 5. | 0.05 | | |
| ROUTED TO | RT-SBD15 | 100. | 6.05 | 11. | 5. | 5. | 0.05 | | |
| HYDROGRAPH AT | SB-D16 | 26. | 6.20 | 4. | 2. | 2. | 0.04 | | |
| 2 COMBINED AT | AP-D8 | 119. | 6.10 | 15. | 6. | 6. | 0.09 | | |
| ROUTED TO | RT-APD8 | 119. | 6.10 | 15. | 6. | 6. | 0.09 | | |
| HYDROGRAPH AT | SB-D17 | 89. | 6.05 | 9. | 4. | 4. | 0.04 | | |
| 3 COMBINED AT | AP-D9 | 297. | 6.10 | 123. | 57. | 57. | 0.81 | | |
| ROUTED TO | RT-APD9 | 297. | 6.10 | 123. | 57. | 57. | 0.81 | | |
| HYDROGRAPH AT | SB-D18 | 74. | 6.15 | 9. | 4. | 4. | 0.06 | | |
| ROUTED TO | RR-DFPCH | 29. | 6.45 | 7. | 3. | 3. | 0.06 | 21.96 | 6.45 |
| ROUTED TO | RT-RRDFP | 29. | 6.45 | 7. | 3. | 3. | 0.06 | | |
| HYDROGRAPH AT | SB-D19 | 37. | 6.05 | 4. | 2. | 2. | 0.02 | | |
| 2 COMBINED AT | AP-D10 | 37. | 6.05 | 11. | 5. | 5. | 0.09 | | |
| ROUTED TO | RT-APD10 | 37. | 6.05 | 11. | 5. | 5. | 0.09 | | |

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|---------------|----------|------|------|------|-----|-----|------|-------|------|
| HYDROGRAPH AT | SB-D20 | 87. | 6.00 | 9. | 4. | 4. | 0.03 | | |
| 2 COMBINED AT | AP-D11 | 123. | 6.00 | 20. | 9. | 9. | 0.12 | | |
| ROUTED TO | RT-APD11 | 121. | 6.00 | 20. | 9. | 9. | 0.12 | | |
| HYDROGRAPH AT | SB-D21 | 90. | 6.05 | 9. | 4. | 4. | 0.04 | | |
| 3 COMBINED AT | AP-DFE | 504. | 6.05 | 151. | 69. | 69. | 0.96 | | |
| ROUTED TO | RR-DFE | 406. | 6.15 | 140. | 68. | 68. | 0.96 | 37.76 | 6.15 |
| DIVERSION TO | AP-D12 | 332. | 6.15 | 76. | 31. | 31. | 0.96 | | |
| HYDROGRAPH AT | AP-DFE | 73. | 6.15 | 64. | 37. | 37. | 0.96 | | |
| ROUTED TO | RT-APDFE | 73. | 6.20 | 64. | 37. | 37. | 0.96 | | |
| HYDROGRAPH AT | SB-D22 | 44. | 6.05 | 5. | 2. | 2. | 0.02 | | |
| 2 COMBINED AT | AP-13 | 114. | 6.05 | 68. | 39. | 39. | 0.98 | | |
| ROUTED TO | RT-AP13 | 113. | 6.10 | 68. | 38. | 38. | 0.98 | | |
| HYDROGRAPH AT | SB-D23 | 12. | 6.00 | 1. | 1. | 1. | 0.00 | | |
| 2 COMBINED AT | AP-D14 | 124. | 6.05 | 69. | 39. | 39. | 0.99 | | |
| ROUTED TO | RT-AP13 | 124. | 6.05 | 69. | 39. | 39. | 0.99 | | |
| HYDROGRAPH AT | SB-D24 | 33. | 6.05 | 3. | 1. | 1. | 0.03 | | |
| 2 COMBINED AT | AP-DFE | 157. | 6.05 | 72. | 40. | 40. | 1.01 | | |
| ROUTED TO | RR-DFE | 69. | 7.30 | 65. | 35. | 35. | 1.01 | 69.32 | 7.30 |
| HYDROGRAPH AT | SB-D25 | 54. | 6.05 | 6. | 2. | 2. | 0.03 | | |
| ROUTED TO | RR-SBD25 | 54. | 6.05 | 6. | 2. | 2. | 0.03 | | |
| HYDROGRAPH AT | SB-D26 | 46. | 6.05 | 5. | 2. | 2. | 0.03 | | |
| 2 COMBINED AT | AP-D16 | 100. | 6.05 | 10. | 4. | 4. | 0.06 | | |
| ROUTED TO | RT-APD16 | 99. | 6.05 | 10. | 4. | 4. | 0.06 | | |
| 2 COMBINED AT | AP-D17 | 109. | 6.05 | 69. | 40. | 40. | 1.08 | | |
| ROUTED TO | RT-APD17 | 108. | 6.05 | 69. | 40. | 40. | 1.08 | | |
| HYDROGRAPH AT | SB-D27 | 14. | 6.05 | 1. | 1. | 1. | 0.01 | | |
| 2 COMBINED AT | AP-D18 | 121. | 6.05 | 70. | 40. | 40. | 1.08 | | |
| ROUTED TO | RT-APD18 | 121. | 6.05 | 70. | 40. | 40. | 1.08 | | |
| HYDROGRAPH AT | SB-D29 | 28. | 6.05 | 3. | 1. | 1. | 0.02 | | |
| DIVERSION TO | AP-D19a | 8. | 5.90 | 0. | 0. | 0. | 0.02 | | |

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|---------------|----------|------|------|------|-----|-----|------|-------|------|
| HYDROGRAPH AT | AP-D19 | 20. | 5.90 | 3. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-APD19 | 20. | 5.95 | 3. | 1. | 1. | 0.02 | | |
| HYDROGRAPH AT | SB-D28 | 8. | 6.05 | 1. | 0. | 0. | 0.00 | | |
| 3 COMBINED AT | AP-D20 | 149. | 6.05 | 73. | 42. | 42. | 1.11 | | |
| ROUTED TO | RT-APD20 | 148. | 6.05 | 73. | 42. | 42. | 1.11 | | |
| HYDROGRAPH AT | SB-D30 | 22. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-SBD30 | 22. | 6.05 | 2. | 1. | 1. | 0.02 | | |
| 2 COMBINED AT | AP-D21 | 170. | 6.05 | 75. | 43. | 43. | 1.12 | | |
| HYDROGRAPH AT | SB-D31 | 11. | 6.05 | 1. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-D22 | 181. | 6.05 | 76. | 43. | 43. | 1.13 | | |
| HYDROGRAPH AT | SB-D32 | 6. | 6.05 | 1. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-DFCS | 187. | 6.05 | 77. | 43. | 43. | 1.14 | | |
| ROUTED TO | RR-DFCS | 78. | 7.50 | 71. | 40. | 40. | 1.14 | 79.97 | 7.50 |
| HYDROGRAPH AT | DR-APD12 | 332. | 6.15 | 76. | 31. | 31. | 0.00 | | |
| ROUTED TO | RT-APD12 | 342. | 6.25 | 76. | 31. | 31. | 0.00 | | |
| HYDROGRAPH AT | SB-D33 | 39. | 6.05 | 4. | 2. | 2. | 0.04 | | |
| 2 COMBINED AT | AP-D23 | 356. | 6.25 | 79. | 33. | 33. | 0.04 | | |
| 2 COMBINED AT | AP-D24 | 408. | 6.25 | 148. | 73. | 73. | 1.17 | | |
| HYDROGRAPH AT | SB-D34 | 57. | 6.05 | 6. | 3. | 3. | 0.04 | | |
| ROUTED TO | RT-SBD34 | 56. | 6.05 | 6. | 3. | 3. | 0.04 | | |
| HYDROGRAPH AT | SB-D35 | 59. | 6.05 | 6. | 3. | 3. | 0.04 | | |
| 2 COMBINED AT | AP-DFG | 115. | 6.05 | 12. | 5. | 5. | 0.08 | | |
| ROUTED TO | RR-DFG | 31. | 6.35 | 9. | 4. | 4. | 0.08 | 69.56 | 6.35 |

50 YEAR 24 HOUR STORM
 RUNOFF SUMMARY
 FLOW IN CUBIC FEET PER SECOND
 TIME IN HOURS, AREA IN SQUARE MILES

| OPERATION | STATION | PEAK FLOW | TIME OF PEAK | AVERAGE FLOW FOR MAXIMUM PERIOD | | | BASIN AREA | MAXIMUM STAGE | TIME OF MAX STAGE |
|---------------|----------|-----------|--------------|---------------------------------|---------|---------|------------|---------------|-------------------|
| | | | | 6-HOUR | 24-HOUR | 72-HOUR | | | |
| HYDROGRAPH AT | SB-D1 | 58. | 6.25 | 10. | 4. | 4. | 0.09 | | |
| ROUTED TO | RT-SBD1 | 58. | 6.30 | 10. | 4. | 4. | 0.09 | | |
| HYDROGRAPH AT | SB-D2 | 59. | 6.10 | 7. | 3. | 3. | 0.06 | | |
| 2 COMBINED AT | AP-D1 | 102. | 6.20 | 16. | 7. | 7. | 0.14 | | |
| HYDROGRAPH AT | SB-D3 | 33. | 6.15 | 4. | 2. | 2. | 0.03 | | |
| 2 COMBINED AT | AP-DDA | 134. | 6.20 | 21. | 9. | 9. | 0.17 | | |
| ROUTED TO | RR-DFA | 60. | 6.60 | 21. | 9. | 9. | 0.17 | 62.11 | 6.60 |
| ROUTED TO | RT-APDFA | 60. | 6.60 | 21. | 9. | 9. | 0.17 | | |
| HYDROGRAPH AT | SB-D6 | 74. | 6.05 | 8. | 3. | 3. | 0.04 | | |
| 2 COMBINED AT | AP-D2 | 116. | 6.05 | 28. | 12. | 12. | 0.21 | | |
| ROUTED TO | RT-APD2 | 116. | 6.10 | 28. | 12. | 12. | 0.21 | | |
| HYDROGRAPH AT | SB-D7 | 134. | 6.05 | 14. | 6. | 6. | 0.07 | | |
| HYDROGRAPH AT | SB-D4 | 45. | 6.15 | 6. | 2. | 2. | 0.05 | | |
| HYDROGRAPH AT | SB-D5 | 40. | 6.10 | 5. | 2. | 2. | 0.03 | | |
| 2 COMBINED AT | AP-DFB | 85. | 6.15 | 10. | 5. | 5. | 0.08 | | |
| ROUTED TO | RR-DFB | 52. | 6.30 | 10. | 5. | 5. | 0.08 | 24.31 | 6.30 |
| ROUTED TO | RT-APDFB | 52. | 6.35 | 10. | 5. | 5. | 0.08 | | |
| 3 COMBINED AT | AP-D3 | 291. | 6.10 | 53. | 23. | 23. | 0.36 | | |
| ROUTED TO | RT-APD3 | 291. | 6.10 | 53. | 23. | 23. | 0.36 | | |
| HYDROGRAPH AT | SB-D8 | 186. | 6.00 | 19. | 8. | 8. | 0.06 | | |
| 2 COMBINED AT | AP-DFC | 465. | 6.05 | 72. | 32. | 32. | 0.42 | | |
| ROUTED TO | RR-DFC | 81. | 7.20 | 67. | 31. | 31. | 0.42 | 64.02 | 7.20 |
| ROUTED TO | RT-RRDFC | 81. | 7.20 | 67. | 31. | 31. | 0.42 | | |
| HYDROGRAPH AT | SB-D9 | 127. | 6.05 | 14. | 6. | 6. | 0.06 | | |
| 2 COMBINED AT | AP-D4 | 190. | 6.05 | 80. | 37. | 37. | 0.47 | | |
| ROUTED TO | RT-APD4 | 188. | 6.05 | 80. | 37. | 37. | 0.47 | | |

| | | | | | | | | | |
|---------------|----------|------|------|------|-----|-----|------|-------|------|
| HYDROGRAPH AT | SB-D10 | 22. | 6.20 | 3. | 1. | 1. | 0.03 | | |
| ROUTED TO | RT-SBD10 | 22. | 6.25 | 3. | 1. | 1. | 0.03 | | |
| HYDROGRAPH AT | SB-D11 | 68. | 6.10 | 8. | 4. | 4. | 0.05 | | |
| HYDROGRAPH AT | SB-D12 | 26. | 6.15 | 3. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-SBD12 | 26. | 6.20 | 3. | 1. | 1. | 0.02 | | |
| 3 COMBINED AT | AP-D5 | 110. | 6.15 | 14. | 6. | 6. | 0.10 | | |
| ROUTED TO | RT-APD5 | 109. | 6.15 | 14. | 6. | 6. | 0.10 | | |
| HYDROGRAPH AT | SB-D13 | 207. | 6.00 | 22. | 9. | 9. | 0.07 | | |
| 2 COMBINED AT | AP-D6 | 293. | 6.05 | 36. | 16. | 16. | 0.17 | | |
| ROUTED TO | RT-APD6 | 292. | 6.05 | 36. | 16. | 16. | 0.17 | | |
| 2 COMBINED AT | AP-D7 | 480. | 6.05 | 116. | 53. | 53. | 0.64 | | |
| ROUTED TO | RT-APD7 | 476. | 6.05 | 116. | 53. | 53. | 0.64 | | |
| HYDROGRAPH AT | SB-D14 | 48. | 6.05 | 5. | 2. | 2. | 0.03 | | |
| 2 COMBINED AT | AP-DFD | 524. | 6.05 | 121. | 55. | 55. | 0.67 | | |
| ROUTED TO | RR-DFD | 125. | 6.85 | 111. | 55. | 55. | 0.67 | 94.92 | 6.85 |
| ROUTED TO | RT-APDFD | 125. | 6.85 | 111. | 55. | 55. | 0.67 | | |
| HYDROGRAPH AT | SB-D15 | 117. | 6.05 | 13. | 5. | 5. | 0.05 | | |
| ROUTED TO | RT-SBD15 | 116. | 6.05 | 13. | 5. | 5. | 0.05 | | |
| HYDROGRAPH AT | SB-D16 | 33. | 6.20 | 5. | 2. | 2. | 0.04 | | |
| 2 COMBINED AT | AP-D8 | 141. | 6.10 | 18. | 8. | 8. | 0.09 | | |
| ROUTED TO | RT-APD8 | 141. | 6.10 | 18. | 8. | 8. | 0.09 | | |
| HYDROGRAPH AT | SB-D17 | 102. | 6.05 | 11. | 5. | 5. | 0.04 | | |
| 3 COMBINED AT | AP-D9 | 338. | 6.10 | 137. | 67. | 67. | 0.81 | | |
| ROUTED TO | RT-APD9 | 338. | 6.10 | 137. | 67. | 67. | 0.81 | | |
| HYDROGRAPH AT | SB-D18 | 90. | 6.15 | 11. | 5. | 5. | 0.06 | | |
| ROUTED TO | RR-DFPCH | 33. | 6.45 | 9. | 4. | 4. | 0.06 | 22.51 | 6.45 |
| ROUTED TO | RT-RRDFP | 33. | 6.45 | 9. | 4. | 4. | 0.06 | | |
| HYDROGRAPH AT | SB-D19 | 44. | 6.05 | 4. | 2. | 2. | 0.02 | | |
| 2 COMBINED AT | AP-D10 | 46. | 6.05 | 13. | 6. | 6. | 0.09 | | |
| ROUTED TO | RT-APD10 | 46. | 6.05 | 13. | 6. | 6. | 0.09 | | |

| | | | | | | | | | |
|---------------|----------|------|------|------|-----|-----|------|-------|------|
| HYDROGRAPH AT | SB-D20 | 97. | 6.00 | 11. | 5. | 5. | 0.03 | | |
| 2 COMBINED AT | AP-D11 | 140. | 6.00 | 24. | 10. | 10. | 0.12 | | |
| ROUTED TO | RT-APD11 | 138. | 6.00 | 24. | 10. | 10. | 0.12 | | |
| HYDROGRAPH AT | SB-D21 | 104. | 6.00 | 11. | 5. | 5. | 0.04 | | |
| 3 COMBINED AT | AP-DFE | 576. | 6.05 | 171. | 82. | 82. | 0.96 | | |
| ROUTED TO | RR-DFE | 464. | 6.15 | 160. | 79. | 79. | 0.96 | 38.31 | 6.15 |
| DIVERSION TO | AP-D12 | 388. | 6.15 | 95. | 41. | 41. | 0.96 | | |
| HYDROGRAPH AT | AP-DFE | 75. | 6.15 | 65. | 39. | 39. | 0.96 | | |
| ROUTED TO | RT-APDFE | 75. | 6.15 | 65. | 39. | 39. | 0.96 | | |
| HYDROGRAPH AT | SB-D22 | 50. | 6.05 | 5. | 2. | 2. | 0.02 | | |
| 2 COMBINED AT | AP-13 | 123. | 6.05 | 69. | 41. | 41. | 0.98 | | |
| ROUTED TO | RT-AP13 | 122. | 6.05 | 69. | 41. | 41. | 0.98 | | |
| HYDROGRAPH AT | SB-D23 | 14. | 6.00 | 1. | 1. | 1. | 0.00 | | |
| 2 COMBINED AT | AP-D14 | 135. | 6.05 | 71. | 41. | 41. | 0.99 | | |
| ROUTED TO | RT-AP13 | 135. | 6.05 | 71. | 41. | 41. | 0.99 | | |
| HYDROGRAPH AT | SB-D24 | 40. | 6.05 | 4. | 2. | 2. | 0.03 | | |
| 2 COMBINED AT | AP-DFF | 175. | 6.05 | 75. | 43. | 43. | 1.01 | | |
| ROUTED TO | RR-DFF | 72. | 7.10 | 67. | 38. | 38. | 1.01 | 69.40 | 7.10 |
| HYDROGRAPH AT | SB-D25 | 64. | 6.05 | 7. | 3. | 3. | 0.03 | | |
| ROUTED TO | RR-SBD25 | 63. | 6.05 | 7. | 3. | 3. | 0.03 | | |
| HYDROGRAPH AT | SB-D26 | 56. | 6.05 | 5. | 2. | 2. | 0.03 | | |
| 2 COMBINED AT | AP-D16 | 119. | 6.05 | 12. | 5. | 5. | 0.06 | | |
| ROUTED TO | RT-APD16 | 119. | 6.05 | 12. | 5. | 5. | 0.06 | | |
| 2 COMBINED AT | AP-D17 | 129. | 6.05 | 73. | 43. | 43. | 1.08 | | |
| ROUTED TO | RT-APD17 | 128. | 6.05 | 73. | 43. | 43. | 1.08 | | |
| HYDROGRAPH AT | SB-D27 | 16. | 6.05 | 2. | 1. | 1. | 0.01 | | |
| 2 COMBINED AT | AP-D18 | 144. | 6.05 | 74. | 44. | 44. | 1.08 | | |
| ROUTED TO | RT-APD18 | 143. | 6.05 | 74. | 44. | 44. | 1.08 | | |
| HYDROGRAPH AT | SB-D29 | 34. | 6.05 | 3. | 1. | 1. | 0.02 | | |
| DIVERSION TO | AP-D19a | 14. | 5.85 | 0. | 0. | 0. | 0.02 | | |

| | | | | | | | | | |
|---------------|----------|------|------|------|-----|-----|------|-------|------|
| HYDROGRAPH AT | AP-D19 | 20. | 5.85 | 3. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-APD19 | 20. | 5.90 | 3. | 1. | 1. | 0.02 | | |
| HYDROGRAPH AT | SB-D28 | 9. | 6.05 | 1. | 0. | 0. | 0.00 | | |
| 3 COMBINED AT | AP-D20 | 173. | 6.05 | 78. | 45. | 45. | 1.11 | | |
| ROUTED TO | RT-APD20 | 172. | 6.05 | 78. | 45. | 45. | 1.11 | | |
| HYDROGRAPH AT | SB-D30 | 27. | 6.05 | 3. | 1. | 1. | 0.02 | | |
| ROUTED TO | RT-SBD30 | 27. | 6.05 | 3. | 1. | 1. | 0.02 | | |
| 2 COMBINED AT | AP-D21 | 198. | 6.05 | 81. | 46. | 46. | 1.12 | | |
| HYDROGRAPH AT | SB-D31 | 13. | 6.05 | 1. | 1. | 1. | 0.01 | | |
| 2 COMBINED AT | AP-D22 | 212. | 6.05 | 82. | 47. | 47. | 1.13 | | |
| HYDROGRAPH AT | SB-D32 | 8. | 6.05 | 1. | 0. | 0. | 0.01 | | |
| 2 COMBINED AT | AP-DFCS | 219. | 6.05 | 83. | 47. | 47. | 1.14 | | |
| ROUTED TO | RR-DFCS | 89. | 6.30 | 76. | 44. | 44. | 1.14 | 80.19 | 6.30 |
| HYDROGRAPH AT | DR-APD12 | 388. | 6.15 | 95. | 41. | 41. | 0.00 | | |
| ROUTED TO | RT-APD12 | 412. | 6.20 | 95. | 41. | 41. | 0.00 | | |
| HYDROGRAPH AT | SB-D33 | 49. | 6.05 | 5. | 2. | 2. | 0.04 | | |
| 2 COMBINED AT | AP-D23 | 436. | 6.20 | 98. | 43. | 43. | 0.04 | | |
| 2 COMBINED AT | AP-D24 | 514. | 6.20 | 174. | 86. | 86. | 1.17 | | |
| HYDROGRAPH AT | SB-D34 | 68. | 6.05 | 7. | 3. | 3. | 0.04 | | |
| ROUTED TO | RT-SBD34 | 67. | 6.05 | 7. | 3. | 3. | 0.04 | | |
| HYDROGRAPH AT | SB-D35 | 71. | 6.05 | 7. | 3. | 3. | 0.04 | | |
| 2 COMBINED AT | AP-DFG | 138. | 6.05 | 14. | 6. | 6. | 0.08 | | |
| ROUTED TO | RR-DFG | 36. | 6.35 | 11. | 5. | 5. | 0.08 | 70.85 | 6.35 |

J.
HISTORIC (UNDEVELOPED) CONDITION
REGRESSION EQUATION ANALYSIS

KETTLE CREEK DRAINAGE BASIN
 OLD RANCH ROAD TRIBUTARY
 MASTER DEVELOPMENT DRAINAGE PLAN
UNDEVELOPED CONDITION PEAK FLOW RATE ESTIMATE BY REGRESSION EQUATIONS

5/12/99

| ANALYSIS POINT I.D. | METHOD OR EQUATION | EQUATION SET NUMBER | WATERSHED AREA (sm) | BASIN SLOPE (ft/mi) | ESTIMATED PEAK RUNOFF RATE | | | | | | |
|---------------------|---|---------------------|---------------------|---------------------|----------------------------|----------------------|-----------------------|-----------------------|-----------------------|------------------------|------|
| | | | | | Q ₂ (cfs) | Q ₅ (cfs) | Q ₁₀ (cfs) | Q ₂₅ (cfs) | Q ₅₀ (cfs) | Q ₁₀₀ (cfs) | |
| H9 | USGS,WRI 87-4094, Livingston and Minges 1987, Quadratic Model | 1 | 0.830 | | | | 200 | 326 | 530 | 722 | 961 |
| | CWCB, TM No.1, McCain and Jarrett, 1976 | 2 | 0.830 | 144 | | | | 693 | | 1751 | 2490 |
| | USGS,WRI XX Draft, J.E. Vail, 1996 | 3 | 0.830 | | 36 | 182 | 338 | 674 | 1037 | 1526 | |
| | USGS, WRI 87-4117, JARRETT AND COSTA, 1988 | 4 | 0.830 | | | 33 | | 97 | | 198 | 257 |
| | S.C.C. UNIT HYDROGRAPH/ HEC1 COMPUTER MODEL | | 0.830 | | | 31 | 107 | 178 | 320 | 432 | 557 |
| H10 | USGS,WRI 87-4094, Livingston and Minges 1987, Quadratic Model | 1 | 0.890 | | | | 212 | 348 | 571 | 782 | 1046 |
| | CWCB, TM No.1, McCain and Jarrett, 1976 | 2 | 0.890 | 159 | | | | 744 | | 1839 | 2593 |
| | USGS,WRI XX Draft, J.E. Vail, 1996 | 3 | 0.890 | | 37 | 187 | 348 | 693 | 1066 | 1567 | |
| | USGS, WRI 87-4117, JARRETT AND COSTA, 1988 | 4 | 0.890 | | | 34 | | 102 | | 210 | 273 |
| | S.C.C. UNIT HYDROGRAPH/ HEC1 COMPUTER MODEL | | 0.890 | | | 32 | 110 | 184 | 331 | 448 | 577 |
| H11 | USGS,WRI 87-4094, Livingston and Minges 1987, Quadratic Model | 1 | 0.170 | | | | 36 | 49 | 64 | 76 | 88 |
| | CWCB, TM No.1, McCain and Jarrett, 1976 | 2 | 0.170 | 229 | | | | 351 | | 876 | 1243 |
| | USGS,WRI XX Draft, J.E. Vail, 1996 | 3 | 0.170 | | 16 | 97 | 179 | 360 | 557 | 825 | |
| | USGS, WRI 87-4117, JARRETT AND COSTA, 1988 | 4 | 0.170 | | | 13 | | 29 | | 53 | 66 |
| | S.C.C. UNIT HYDROGRAPH/ HEC1 COMPUTER MODEL | | 0.170 | | | 9 | 28 | 45 | 76 | 99 | 125 |
| H12 | USGS,WRI 87-4094, Livingston and Minges 1987, Quadratic Model | 1 | 1.060 | | | | 246 | 411 | 686 | 950 | 1287 |
| | CWCB, TM No.1, McCain and Jarrett, 1976 | 2 | 1.060 | 158 | | | | 814 | | 1998 | 2810 |
| | USGS,WRI XX Draft, J.E. Vail, 1996 | 3 | 1.060 | | 40 | 200 | 373 | 742 | 1142 | 1677 | |
| | USGS, WRI 87-4117, JARRETT AND COSTA, 1988 | 4 | 1.060 | | | 38 | | 116 | | 242 | 318 |
| | S.C.C. UNIT HYDROGRAPH/ HEC1 COMPUTER MODEL | | 1.060 | | | 37 | 129 | 219 | 398 | 535 | 693 |
| H13 | USGS,WRI 87-4094, Livingston and Minges 1987, Quadratic Model | 1 | 0.090 | | | | 15 | 18 | 21 | 23 | 25 |
| | CWCB, TM No.1, McCain and Jarrett, 1976 | 2 | 0.090 | 188 | | | | 235 | | 625 | 911 |
| | USGS,WRI XX Draft, J.E. Vail, 1996 | 3 | 0.090 | | 12 | 75 | 139 | 280 | 434 | 644 | |
| | USGS, WRI 87-4117, JARRETT AND COSTA, 1988 | 4 | 0.090 | | | 8 | | 18 | | 31 | 38 |
| | S.C.C. UNIT HYDROGRAPH/ HEC1 COMPUTER MODEL | | 0.090 | | | 5 | 14 | 23 | 40 | 52 | 65 |

EQUATIONS

1

Log Q₅ = 3.83 - 1.46(AE⁻²⁵)
 Log Q₁₀ = 4.21 - 1.62(AE⁻²⁵)
 Log Q₂₅ = 4.61 - 1.80(AE⁻²⁵)
 Log Q₅₀ = 4.87 - 1.92(AE⁻²⁵)
 Log Q₁₀₀ = 5.12 - 2.04(AE⁻²⁵)

AE = Effective watershed area in Square Miles (sm)

2

Q₁₀ = 144(A^{0.528})(SB^{0.336})
 Q₅₀ = 891(A^{0.482})(SB^{0.154})
 Q₁₀₀ = 1770(A^{0.463})(SB^{0.085})

A = Watershed area in sm
 SB = Slope of the watershed between 10% & 85% points in the watershed length in feet/mile

3

Q₂ = 39.0 (A^{0.486})
 Q₅ = 195.8 (A^{0.399})
 Q₁₀ = 364.6 (A^{0.400})
 Q₂₅ = 725.3 (A^{0.395})
 Q₅₀ = 1116 (A^{0.392})
 Q₁₀₀ = 1640 (A^{0.388})

A = Watershed area in square miles (sm)

4

Q₂ = 36.9 (AB^{0.61})
 Q₁₀ = 111 (AB^{0.75})
 Q₅₀ = 231 (AB^{0.83})
 Q₁₀₀ = 302(AB^{0.86})

AB = Watershed area below 8000 feet elevation

K.
HYDRAULIC GRADE LINE CALCULATION
FOR
PROPOSED MODIFICATION TO THE EXISTING
OLD RANCH ROAD STORM DRAIN AT
CREEKSIDE ESTATES

MANNINGS n =

0.013

KETTLE CREEK MDDP
MODIFIED OLD RANCH RD. STORM DRAIN
 With Proposed Fully Developed Condition MDDP 100 Year Peak Flows
HGL CALCULATION

4/5/2001 9:38

| STATION | PIPE SIZE (inches) | PEAK RATE (cfs) | AREA (sf) | VELOCITY (fps) | CONV. K | FRICTION SLOPE (ft/ft) | JUNCTION DATA | | | | BEND LOSS K | FRICTION LOSS (ft) | BEND LOSS (ft) | UNCTION LOSS (ft) | ENTRNC LOSS (ft) | TRANS LOSS (ft) | TOTAL LOSS (ft) | ENERGY | VELOCITY | HYDRAULIC |
|-------------------|--------------------|-----------------|-----------|----------------|---------|------------------------|------------------------|-----------|------------------------|--|-------------|--------------------|----------------|-------------------|------------------|-----------------|-----------------|--------|----------|-----------|
| | | | | | | | GRADE LINE (elevation) | HEAD (ft) | GRADE LINE (elevation) | | | | | | | | | | | |
| DF "CS" | 1225 | 48 | | | | | | | | | | | | | | | | | | |
| DF "CS" | 1225 | 48 | 163 | 12.98 | 1435 | 0.013 | 0.00 | | | | | 0.00 | | | | 0.00 | 691.66 | 2.62 | 699.04 | |
| | 1225 | 48 | 163 | 12.98 | 1435 | 0.013 | 12.80 | | | | | 0.17 | | 0.00 | | 0.17 | 691.68 | 2.62 | 689.06 | |
| | 1225 | 48 | 163 | 12.98 | 1435 | 0.013 | 0.00 | | | | 0.32 | 0.00 | 0.84 | 0.00 | | 0.84 | 692.52 | 2.62 | 689.90 | |
| AP D22 | 1235 | 48 | 163 | 12.98 | 1435 | 0.013 | 12.90 | | | | | 0.17 | 0.00 | 0.00 | | 0.17 | 692.68 | 2.62 | 690.07 | |
| AP D22 | 1235 | 48 | 147 | 11.70 | 1435 | 0.010 | 0.00 | 24 | 90 | | | 0.00 | 0.00 | 0.49 | | 0.49 | 693.17 | 2.13 | 691.04 | |
| | 1244 | 48 | 147 | 11.70 | 1435 | 0.010 | 10.70 | | | | | 0.11 | 0.00 | 0.00 | | 0.11 | 693.28 | 2.13 | 691.16 | |
| | 1244 | 48 | 147 | 11.70 | 1435 | 0.010 | 0.00 | | | | 0.32 | 0.00 | 0.68 | 0.00 | | 0.68 | 693.96 | 2.13 | 691.84 | |
| AP D21 | 1300 | 48 | 147 | 11.70 | 1435 | 0.010 | 56.00 | | | | | 0.59 | 0.00 | 0.00 | | 0.59 | 694.55 | 2.13 | 692.42 | |
| AP D21 | 1300 | 48 | 117 | 9.32 | 1435 | 0.007 | 0.00 | 24 | 45 | | | 0.00 | 0.00 | 0.28 | | 0.28 | 694.83 | 1.35 | 693.48 | |
| PROP. DIVERT 1310 | 48 | 117 | 12.560 | 9.32 | 1435 | 0.007 | 10.00 | | | | | 0.07 | 0.00 | 0.00 | | 0.07 | 694.90 | 1.35 | 693.55 | |
| PROP. DIVERT 1310 | 48 | 165 | 12.580 | 13.14 | 1435 | 0.013 | 0.00 | | | | | 0.00 | 0.00 | 0.00 | 0.54 | 0.54 | 695.43 | 2.68 | 692.75 | |
| AP D20 | 3884 | 48 | 165 | 13.14 | 1435 | 0.013 | 365.00 | | | | | 4.82 | 0.00 | 0.00 | | 4.82 | 704.37 | 2.68 | 701.69 | |
| AP D20 | 3884 | 48 | 160 | 12.74 | 1435 | 0.012 | 0.00 | 48 | 90 | | | 0.00 | 0.00 | 0.16 | | 0.16 | 704.53 | 2.52 | 702.01 | |
| | 3884 | 48 | 160 | 12.74 | 1435 | 0.012 | 30.70 | | | | | 0.38 | 0.00 | 0.00 | | 0.38 | 705.17 | 2.52 | 702.65 | |
| | 3884 | 42 | 135 | 9.616 | 1005 | 0.018 | 0.00 | 30 | 45 | | 0.32 | 0.00 | 0.98 | 0.89 | | 1.67 | 706.84 | 3.06 | 703.78 | |
| | 3906 | 42 | 135 | 9.616 | 1005 | 0.018 | 26.90 | | | | | 0.49 | 0.00 | 0.00 | | 0.49 | 707.32 | 3.06 | 704.26 | |
| | 3906 | 42 | 135 | 9.616 | 1005 | 0.018 | 0.00 | | | | 0.32 | 0.00 | 0.98 | 0.00 | | 0.98 | 708.30 | 3.06 | 705.24 | |
| AP D18 | 4403 | 42 | 135 | 9.616 | 1005 | 0.018 | 494.00 | | | | | 8.92 | 0.00 | 0.00 | | 8.92 | 733.02 | 3.06 | 729.96 | |
| AP D18 | 4403 | 42 | 126 | 13.10 | 1005 | 0.016 | 0.00 | 24 | 75 | | | 0.00 | 0.00 | 0.37 | | 0.37 | 733.39 | 2.67 | 730.73 | |
| AP D18 | 4403 | 42 | 117 | 12.17 | 1005 | 0.014 | 0.00 | 18 | 70 | | | 0.00 | 0.00 | 0.32 | | 0.32 | 733.71 | 2.30 | 731.41 | |
| | 4846 | 42 | 117 | 12.17 | 1005 | 0.014 | 440.00 | | | | | 5.97 | 0.00 | 0.00 | | 5.97 | 754.39 | 2.30 | 752.09 | |
| | 4846 | 42 | 117 | 12.17 | 1005 | 0.014 | 0.00 | | | | | 0.00 | 0.00 | 0.00 | | 0.00 | 754.39 | 2.30 | 752.09 | |
| AP D17 | 4960 | 42 | 117 | 12.17 | 1005 | 0.014 | 114.00 | | | | | 1.55 | 0.00 | 0.00 | | 1.55 | 759.28 | 2.30 | 756.98 | |
| AP D17 | 4960 | 42 | 117 | 12.17 | 1005 | 0.014 | 0.00 | | | | | 0.00 | 0.00 | 0.00 | 0.17 | 0.17 | 759.45 | 2.30 | 757.15 | |

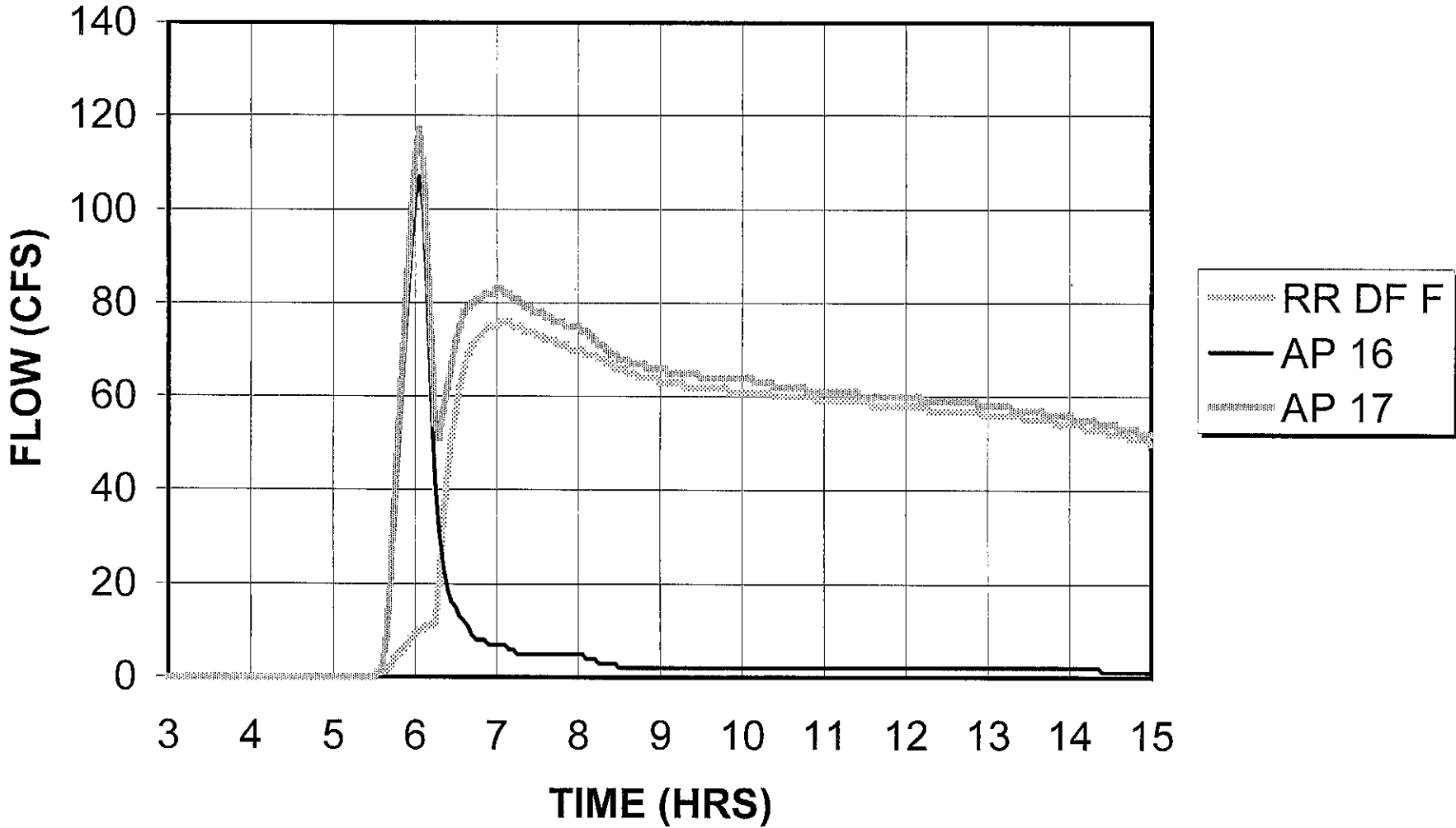
Revised 4/3/01

This calculation assumes that a 30" diameter relief storm drain is connected to the existing 48" diameter storm drain just upstream of Analysis Point D21 and will divert 48 cfs +/- of the 100 year peak flow directly to the Creek Side Detention facility.

L.

HYDROGRAPH AT ANALYSIS POINT D17

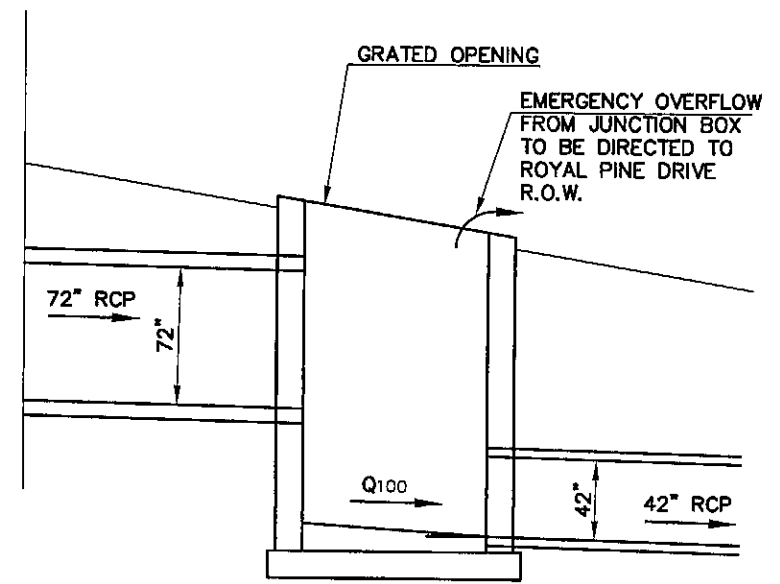
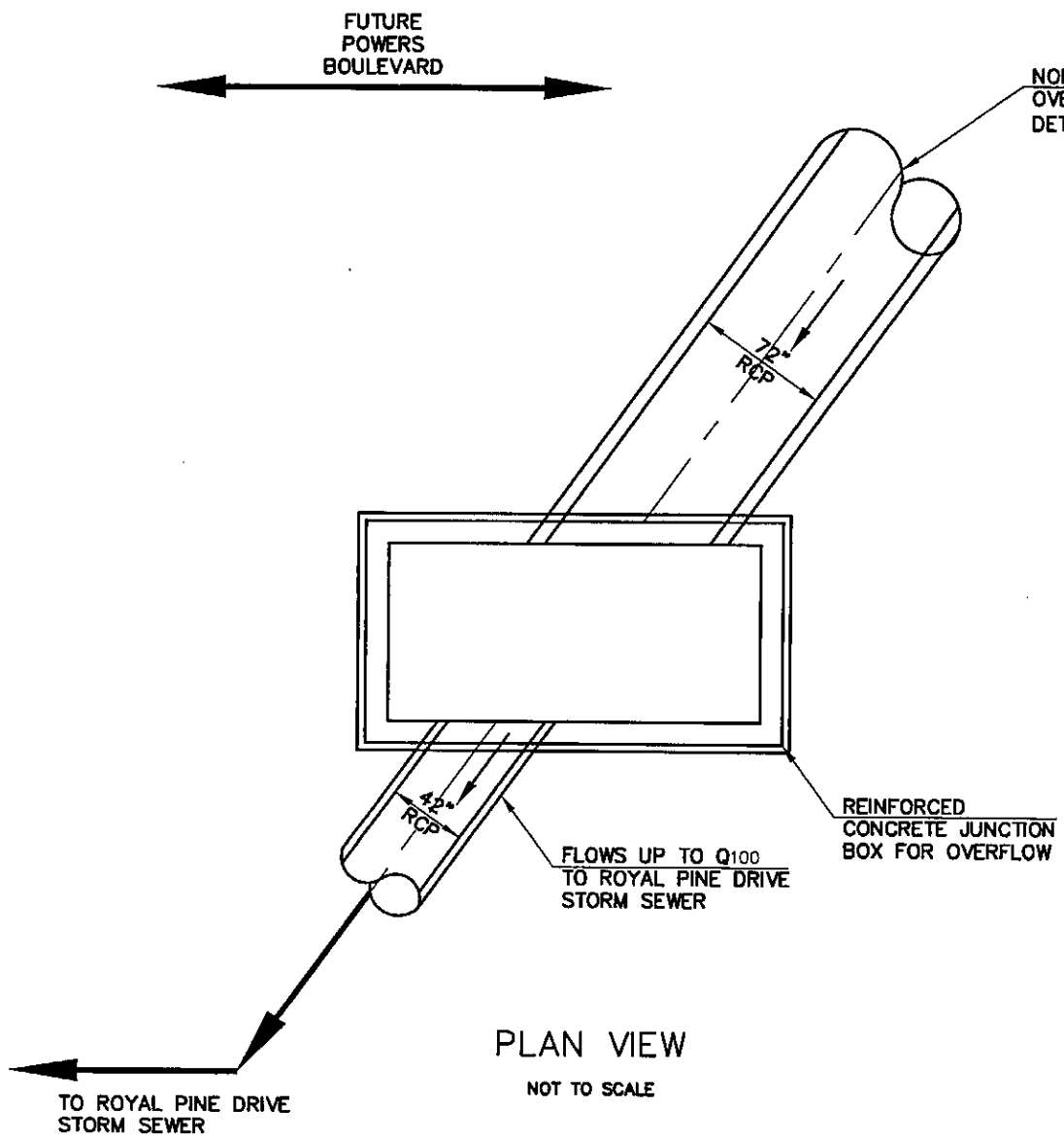
HYDROGRAPH AT AP-D17



M.

JUNCTION/OVERFLOW BOX

CONCEPT DETAIL



JUNCTION/OVERFLOW BOX
CONCEPT DETAIL
JOB NO. 8877.10
10/2002

N.

MAPS (FOLDED IN POCKETS)

- **FULLY DEVELOPED CONDITION BASIN MAP AND MASTER PLAN**
 - **HISTORIC CONDITION BASIN MAP**
 - **SUBDIVISION AND LAND USE IDENTIFICATION MAP**
 - **EXISTING DRAINAGE FACILITY MAP**