

CHOWAN RIVER BASIN

02047500 BLACKWATER RIVER NEAR DENDRON, VA

LOCATION.--Lat 37°01'30", long 76°52'30", Surry County, Hydrologic Unit 03010202, on left bank 10 ft upstream from Walls Bridge on State Highway 617, 1.2 mi downstream from Cypress Swamp, and 3.5 mi southeast of Dendron.

DRAINAGE AREA.--294 mi².

PERIOD OF RECORD.--October 1941 to December 1986, July 1988 to current year.

REVISED RECORDS.--WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 30.99 ft above sea level (U.S. Army Corps of Engineers bench mark). Prior to Aug. 13, 1980, at site 25 ft upstream at same datum.

REMARKS.--Records good except for period of no gage-height record, Sep. 16-21, which is fair. Maximum discharge, 12,300 ft³/s, from rating curve extended above 5,000 ft³/s. No flow at times most years. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

COOPERATION.--Records were provided by the Virginia Department of Environmental Quality - Water Division.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1940 reached a stage of 13.1 ft, from U.S. Army Corps of Engineers floodmarks, discharge, 10,000 ft³/s, from rating curve extended above 4,900 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,300 ft³/s, Sep 17, gage height, 17.11 ft, from floodmarks; no flow part or all of each day Oct 1 to Dec 13, and Jun 4 to Jul 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|------|------|---------|-------|------|-------|-------|--------|------|---------|---------|----------|
| 1 | .00 | .00 | .00 | 189 | 669 | 160 | 420 | 140 | .34 | .00 | 275 | .07 |
| 2 | .00 | .00 | .00 | 185 | 570 | 159 | 355 | 134 | .13 | .00 | 233 | .05 |
| 3 | .00 | .00 | .00 | 242 | 472 | 161 | 299 | 130 | .05 | .00 | 188 | .04 |
| 4 | .00 | .00 | .00 | 367 | 405 | 160 | 267 | 124 | .01 | .00 | 140 | .16 |
| 5 | .00 | .00 | .00 | 607 | 349 | 151 | 247 | 119 | .00 | .00 | 96 | 226 |
| 6 | .00 | .00 | .00 | 784 | 302 | 142 | 229 | 112 | .00 | .00 | 67 | 465 |
| 7 | .00 | .00 | .00 | 721 | 259 | 131 | 209 | 104 | .00 | .00 | 48 | 862 |
| 8 | .00 | .00 | .00 | 656 | 226 | 116 | 193 | 94 | .00 | .00 | 36 | 889 |
| 9 | .00 | .00 | .00 | 635 | 198 | 110 | 188 | 87 | .00 | .10 | 40 | 744 |
| 10 | .00 | .00 | .00 | 627 | 178 | 111 | 206 | 76 | .00 | 102 | 59 | 916 |
| 11 | .00 | .00 | .00 | 554 | 168 | 111 | 360 | 66 | .00 | 173 | 63 | 1270 |
| 12 | .00 | .00 | .00 | 467 | 154 | 111 | 646 | 59 | .00 | 135 | 53 | 1330 |
| 13 | .00 | .00 | 3.7 | 398 | 152 | 111 | 984 | 56 | .00 | 137 | 37 | 1130 |
| 14 | .00 | .00 | 44 | 322 | 144 | 155 | 1030 | 53 | .00 | 153 | 24 | 891 |
| 15 | .00 | .00 | 70 | 399 | 130 | 441 | 963 | 49 | .00 | 240 | 20 | 801 |
| 16 | .00 | .00 | 121 | 513 | 124 | 966 | 973 | 46 | .00 | 494 | 12 | e6270 |
| 17 | .00 | .00 | 185 | 660 | 117 | 1270 | 950 | 43 | .00 | 607 | 7.7 | e11300 |
| 18 | .00 | .00 | 173 | 690 | 142 | 1150 | 864 | 39 | .00 | 444 | 5.4 | e11400 |
| 19 | .00 | .00 | 146 | 594 | 164 | 1190 | 741 | 33 | .00 | 300 | 2.9 | e9480 |
| 20 | .00 | .00 | 125 | 533 | 173 | 1330 | 646 | 27 | .00 | 233 | 1.2 | e7230 |
| 21 | .00 | .00 | 107 | 469 | 185 | 1240 | 594 | 22 | .00 | 192 | .27 | e5010 |
| 22 | .00 | .00 | 95 | 464 | 183 | 1050 | 554 | 30 | .00 | 160 | .09 | 3280 |
| 23 | .00 | .00 | 85 | 436 | 170 | 858 | 497 | 29 | .00 | 131 | .08 | 2120 |
| 24 | .00 | .00 | 93 | 446 | 162 | 732 | 422 | 22 | .00 | 142 | .06 | 1380 |
| 25 | .00 | .00 | 110 | 660 | 156 | 643 | 344 | 17 | .00 | 346 | .04 | 948 |
| 26 | .00 | .00 | 113 | 826 | 158 | 627 | 274 | 14 | .00 | 246 | .17 | 683 |
| 27 | .00 | .00 | 123 | 936 | 154 | 719 | 217 | 9.9 | .00 | 208 | 2.9 | 509 |
| 28 | .00 | .00 | 157 | 841 | 154 | 757 | 185 | 6.3 | .00 | 192 | 3.7 | 416 |
| 29 | .00 | .00 | 176 | 747 | --- | 681 | 175 | 4.0 | .00 | 261 | 2.6 | 450 |
| 30 | .00 | .00 | 185 | 733 | --- | 581 | 156 | 2.1 | .00 | 313 | .70 | 620 |
| 31 | .00 | --- | 189 | 748 | --- | 507 | --- | 1.0 | --- | 316 | .14 | --- |
| TOTAL | 0.00 | 0.00 | 2300.70 | 17449 | 6418 | 16631 | 14188 | 1748.3 | 0.53 | 5535.00 | 1418.95 | 70636.16 |
| MEAN | .000 | .000 | 74.2 | 563 | 229 | 536 | 473 | 56.4 | .018 | 179 | 45.8 | 2355 |
| MAX | .00 | .00 | 189 | 936 | 669 | 1330 | 1030 | 140 | .34 | 607 | 275 | 11400 |
| MIN | .00 | .00 | .00 | 185 | 117 | 110 | 156 | 1.0 | .00 | .00 | .04 | .04 |
| CFSM | .00 | .00 | .25 | 1.91 | .78 | 1.82 | 1.61 | .19 | .00 | .61 | .16 | 8.01 |
| IN. | .00 | .00 | .29 | 2.21 | .81 | 2.10 | 1.80 | .22 | .00 | .70 | .18 | 8.94 |

02047500 BLACKWATER RIVER NEAR DENDRON, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1986, 1989 - 1999, BY WATER YEAR (WY)

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| MEAN | 148 | 203 | 314 | 500 | 578 | 660 | 457 | 262 | 142 | 142 | 166 | 177 |
| MAX | 1128 | 1108 | 1240 | 1473 | 1732 | 1501 | 1271 | 879 | 988 | 1364 | 912 | 2355 |
| (WY) | 1973 | 1980 | 1958 | 1978 | 1998 | 1975 | 1989 | 1958 | 1963 | 1945 | 1969 | 1999 |
| MIN | .000 | .000 | 2.65 | 21.1 | 70.8 | 79.5 | 87.2 | 25.8 | .018 | .32 | .000 | .000 |
| (WY) | (a) | (b) | 1981 | 1981 | 1942 | 1981 | 1981 | 1991 | 1999 | 1957 | (c) | (d) |

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1942 - 1986 1989 - 1999

| | | | |
|--------------------------|-----------|-----------|---------------|
| ANNUAL TOTAL | 157045.35 | 136325.64 | |
| ANNUAL MEAN | 430 | 373 | 312 |
| HIGHEST ANNUAL MEAN | | | 622 |
| LOWEST ANNUAL MEAN | | | 57.5 |
| HIGHEST DAILY MEAN | 3910 | Feb 6 | e11400 Sep 18 |
| LOWEST DAILY MEAN | .00 | Aug 8 | .00 gOct 1 |
| ANNUAL SEVEN-DAY MINIMUM | .00 | jAug 8 | .00 kOct 1 |
| INSTANTANEOUS PEAK FLOW | | | 12300 Sep 17 |
| INSTANTANEOUS PEAK STAGE | | | m17.11 Sep 17 |
| INSTANTANEOUS LOW FLOW | | | .00 (n) |
| ANNUAL RUNOFF (CFSM) | 1.46 | | 1.27 |
| ANNUAL RUNOFF (INCHES) | 19.87 | | 17.25 |
| 10 PERCENT EXCEEDS | 1130 | | 768 |
| 50 PERCENT EXCEEDS | 48 | | 112 |
| 90 PERCENT EXCEEDS | .00 | | .00 |

- a Monthly mean flow is 0.0 ft³/s in 1955, 1969, 1981, 1984, 1994, 1998, 1999.
- b Monthly mean flow is 0.0 ft³/s in 1955, 1981, 1999.
- c Monthly mean flow is 0.0 ft³/s in 1976, 1980, 1993.
- d Monthly mean flow is 0.0 ft³/s in 1944, 1954, 1980, 1983, 1993, 1995, 1997.
- e Estimated.
- f Also Aug 9 to Sep 2, Sep 20 to Dec 12, 1998.
- g Also Oct 2 to Dec 12, 1998, Jun 5 to Jul 8, 1999.
- h No flow at times most years.
- j Also Aug 9-27, Sep 20 to Dec 6, 1998.
- k Also Oct 2 to Dec 6, 1998, Jun 5 to Jul 2, 1999.
- m From floodmarks.
- n No flow part or all of each day Oct 1 to Dec 13, 1998, Jun 4 to Jul 9, 1999.

