

NEUSE RIVER BASIN

02091814 NEUSE RIVER NEAR FORT BARNWELL, NC

LOCATION.--Lat 35°18'40", long 77°18'20", Craven County, Hydrologic Unit 03020202, on left bank 0.2 mi upstream from bridge on Secondary Road 1470, 1.5 mi upstream from Core Creek and 2.0 mi east of Fort Barnwell.

DRAINAGE AREA.--3,900 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional measurements water years 1955-1995, October 1996 to current year.

REVISED RECORDS.--WDR NC-02-1A: 2001.

GAGE.--Water-stage recorder and acoustic velocity meter. Datum of gage is at NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records good, except those for estimated daily discharges, which are poor. Maximum gage height for period of record, from floodmarks. Flow regulated by Falls Lake (station 02087182) and is affected by both astronomical and wind tides.

REVISIONS.--Revised figures of discharge for the water year 2001, superseding those published in the report for 2001 are given below.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|-------|-------|-------|--------|--------|-------|--------|-------|--------|-------|
| 1 | 7340 | 845 | 2710 | 1520 | 1370 | 2620 | 9790 | 3450 | 1800 | 2070 | 3840 | 1820 |
| 2 | 7760 | 826 | 2540 | 1480 | 1340 | 2500 | 9270 | 3030 | 2040 | 1760 | 4120 | 1880 |
| 3 | 8360 | 825 | 2370 | 1440 | 1350 | 2370 | 8930 | 2350 | 2330 | 1570 | 4550 | 2210 |
| 4 | 8550 | 829 | 2200 | 1420 | 1390 | 2350 | 8820 | 1840 | 2710 | 1500 | 4280 | 2380 |
| 5 | 8170 | 826 | 2040 | 1440 | 1440 | 2530 | 9100 | 1540 | 3110 | 1390 | 3660 | 2260 |
| 6 | 7290 | 839 | 1930 | 1450 | 1490 | 2640 | 9610 | 1320 | 3300 | 1370 | 3040 | 2050 |
| 7 | 6410 | 819 | 1900 | 1460 | 1520 | 2870 | 10000 | 1260 | 3410 | 1500 | 2330 | 1840 |
| 8 | 5460 | 816 | 1900 | 1450 | 1590 | 3280 | 10300 | 1150 | 3450 | 1970 | 1740 | 1650 |
| 9 | 3370 | 837 | 1880 | 1420 | 1710 | 3590 | 10300 | 1070 | 3190 | 2620 | 1430 | 1510 |
| 10 | 2760 | 861 | 1890 | 1370 | 1730 | 3700 | 10300 | 1010 | 2580 | 2960 | 1270 | 1450 |
| 11 | 2230 | 849 | 1840 | 1360 | 1650 | 3670 | 10200 | 961 | 1920 | 3110 | 1110 | 1440 |
| 12 | 1830 | 860 | 1800 | 1370 | 1630 | 3440 | 9490 | 919 | 1500 | 3100 | 1070 | 1510 |
| 13 | 1590 | 866 | 1730 | 1390 | 1600 | 3190 | 8710 | 945 | 1230 | 2720 | 1210 | 1650 |
| 14 | 1460 | 875 | 1770 | 1410 | 1580 | 2930 | 7810 | 932 | 1270 | 2380 | 2090 | 1730 |
| 15 | 1380 | 873 | 1710 | 1430 | 1570 | 2650 | 7070 | 891 | 2440 | 2390 | 2790 | 1730 |
| 16 | 1310 | 931 | 1720 | 1420 | 1610 | 2420 | 6440 | 866 | 3880 | 2520 | 3380 | 1710 |
| 17 | 1230 | 962 | 1720 | 1430 | 1750 | 2310 | 6070 | 919 | 5760 | 2220 | 3680 | 1600 |
| 18 | 1170 | 1050 | 1680 | 1420 | 1990 | 2270 | 5880 | 925 | 5990 | 1640 | 4010 | 1440 |
| 19 | 1130 | 1200 | 1690 | 1420 | 2160 | 2390 | 5700 | 979 | 6070 | 1250 | 5090 | 1260 |
| 20 | 1100 | 1350 | 1940 | 1440 | 2360 | 2470 | 5640 | 1140 | 6060 | 1050 | 5830 | 1190 |
| 21 | 1070 | 1370 | 2440 | 1440 | 2720 | 3000 | 5560 | 1210 | 6090 | 976 | 6900 | 1120 |
| 22 | 1020 | 1360 | 2690 | 1450 | 2880 | 3740 | 5520 | 1170 | 6110 | 920 | 7650 | 1060 |
| 23 | 1020 | 1410 | e2600 | 1540 | 2990 | 5350 | 5530 | 1150 | 6170 | 867 | 7350 | 998 |
| 24 | 1030 | 1510 | e2350 | 1800 | 2940 | 6120 | 5390 | 1210 | 6170 | 826 | 6530 | 968 |
| 25 | 967 | 1540 | e2230 | 1920 | 2900 | 6860 | 4610 | 1210 | 5980 | 833 | 6000 | 1020 |
| 26 | 939 | 1680 | e2100 | 1850 | 2870 | 7610 | 3560 | 1200 | 5670 | 822 | 4130 | 1070 |
| 27 | 928 | 1770 | e1950 | 1760 | 2820 | 8220 | 3310 | 1270 | 3830 | 795 | 2980 | 1240 |
| 28 | 917 | 1930 | e1830 | 1660 | 2720 | 9030 | 3270 | 1440 | 3330 | 902 | 2480 | 1530 |
| 29 | 935 | 2280 | 1740 | 1590 | --- | 9630 | 3350 | 1810 | 2930 | 1110 | 2140 | 1730 |
| 30 | 889 | 2620 | 1670 | 1530 | --- | 10100 | 3430 | 2010 | 2490 | 2350 | 1940 | 1570 |
| 31 | 864 | --- | 1580 | 1450 | --- | 10000 | --- | 1920 | --- | 3470 | 1860 | --- |
| TOTAL | 90479 | 35609 | 62140 | 46530 | 55670 | 135850 | 212960 | 43097 | 112810 | 54961 | 110480 | 46616 |
| MEAN | 2919 | 1187 | 2005 | 1501 | 1988 | 4382 | 7099 | 1390 | 3760 | 1773 | 3564 | 1554 |
| MAX | 8550 | 2620 | 2710 | 1920 | 2990 | 10100 | 10300 | 3450 | 6170 | 3470 | 7650 | 2380 |
| MIN | 864 | 816 | 1580 | 1360 | 1340 | 2270 | 3270 | 866 | 1230 | 795 | 1070 | 968 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2001, BY WATER YEAR (WY)

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|------|-------|------|------|------|-------|
| MEAN | 7572 | 2935 | 3280 | 5798 | 8754 |
| MAX | 23040 | 6630 | 6969 | 8707 | 19110 |
| (WY) | 2000 | 2000 | 1997 | 1998 | 1998 |
| MIN | 1060 | 968 | 1764 | 1501 | 1988 |
| (WY) | 1999 | 1999 | 1999 | 2001 | 1999 |

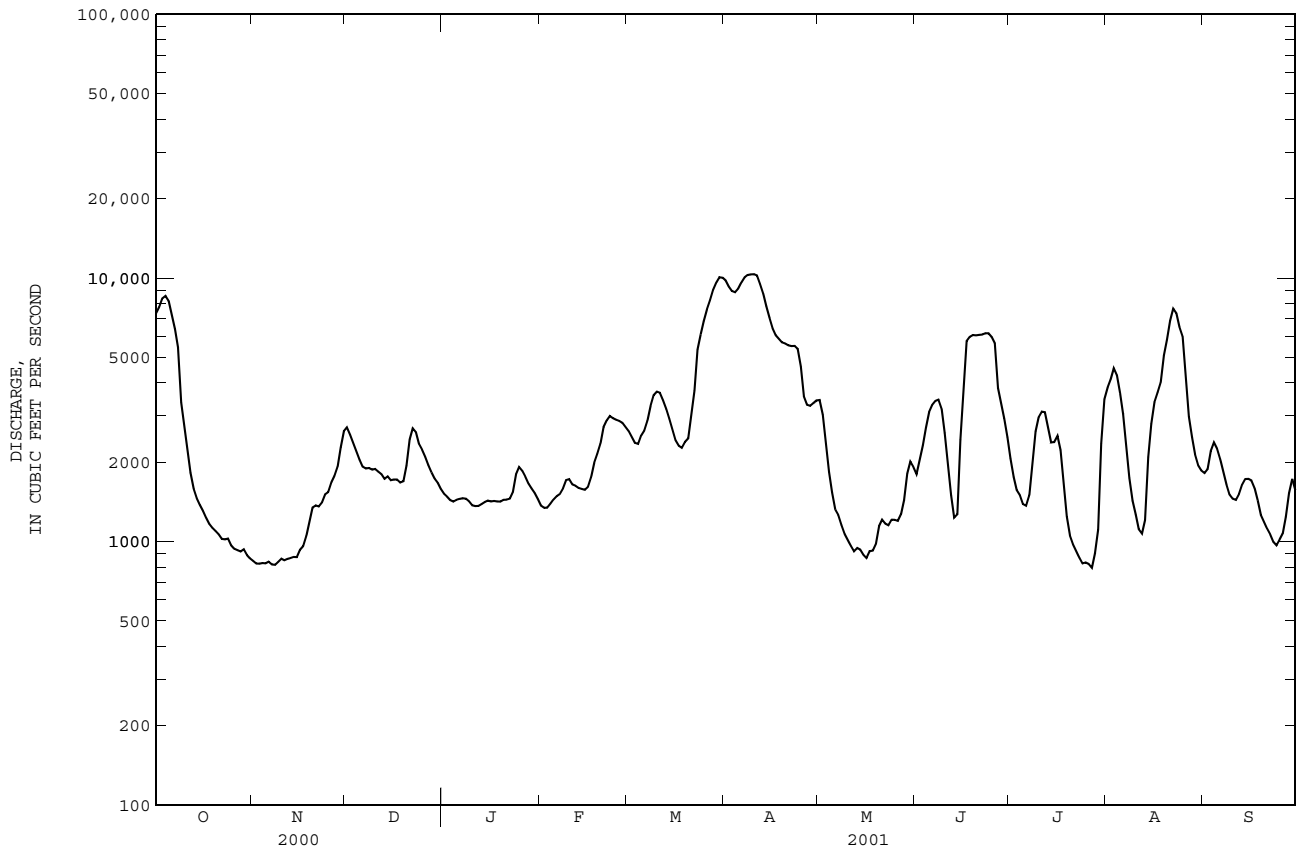
SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1997 - 2001

| | | | | |
|--------------------------|---------|---------|-------|--------|
| ANNUAL TOTAL | 1346525 | 1007202 | | |
| ANNUAL MEAN | 3679 | 2759 | 4707 | |
| HIGHEST ANNUAL MEAN | | | 5902 | 1998 |
| LOWEST ANNUAL MEAN | | | 2759 | 2001 |
| HIGHEST DAILY MEAN | 11200 | Feb 3 | 10300 | Apr 8 |
| LOWEST DAILY MEAN | 782 | Jun 17 | 795 | Jul 27 |
| ANNUAL SEVEN-DAY MINIMUM | 826 | Nov 2 | 826 | Nov 2 |
| MAXIMUM PEAK FLOW | | | 11500 | Apr 10 |
| MAXIMUM PEAK STAGE | | | 10.26 | Apr 10 |
| INSTANTANEOUS LOW FLOW | | | 673 | Jul 27 |
| 10 PERCENT EXCEEDS | 8220 | 6140 | 10100 | |
| 50 PERCENT EXCEEDS | 2600 | 1840 | 2600 | |
| 90 PERCENT EXCEEDS | 995 | 955 | 933 | |

e Estimated.

* See REMARKS.

02091814 NEUSE RIVER NEAR FORT BARNWELL, NC--Continued



NEUSE RIVER BASIN

02091814 NEUSE RIVER NEAR FORT BARNWELL, NC--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|-------|--------|--------|-------|--------|-------|-------|-------|-------|-------|
| 1 | 1360 | 642 | 1230 | 715 | 9300 | 1550 | 4280 | 1220 | 699 | 616 | 1330 | 1760 |
| 2 | 1230 | 646 | 1110 | 710 | e8750 | 1540 | 5760 | 1180 | 778 | 667 | 1120 | 1860 |
| 3 | 1180 | 664 | 1050 | 812 | e7810 | 2720 | 6180 | 1070 | 719 | 760 | 912 | 2270 |
| 4 | 1130 | 713 | 976 | 849 | e6160 | 3280 | 6640 | 1050 | 694 | 724 | 790 | 2800 |
| 5 | 1060 | 722 | 925 | 1070 | e4200 | 3330 | 7050 | 1100 | 605 | 646 | 675 | 3170 |
| 6 | 971 | 737 | 865 | 1260 | 3200 | 3430 | 7420 | 1130 | 578 | 622 | 571 | 3170 |
| 7 | 997 | 700 | 834 | 1670 | 2870 | 3500 | 7860 | 1150 | 601 | 614 | 602 | 2920 |
| 8 | 963 | 686 | 812 | 2010 | 2920 | 3440 | 8150 | 1130 | 657 | 569 | 547 | 2580 |
| 9 | 976 | 675 | 776 | 2400 | 3160 | 3230 | 7770 | 1200 | 675 | 475 | 523 | 2290 |
| 10 | 1050 | 711 | 803 | 2880 | 3450 | 2930 | 6660 | 1180 | 605 | 457 | 493 | 2000 |
| 11 | 1060 | 649 | 796 | 3240 | 3880 | 2590 | 5960 | 1060 | 610 | 596 | 458 | 1620 |
| 12 | 1010 | 659 | 802 | 3340 | 4960 | 2350 | 4280 | 1000 | 586 | 646 | 441 | 1210 |
| 13 | 950 | 639 | 837 | 3360 | 5630 | 2250 | 3670 | 907 | 528 | 636 | 397 | 1020 |
| 14 | 922 | 623 | 929 | 3320 | 5840 | 2650 | 3630 | 905 | 533 | 603 | 389 | 891 |
| 15 | 886 | 599 | 1420 | 3300 | 5630 | 2950 | 3440 | 854 | 584 | 937 | 404 | 793 |
| 16 | 864 | 608 | 1540 | 3240 | 4630 | 2960 | 3250 | 876 | 622 | 1090 | 420 | 800 |
| 17 | 814 | 604 | 1370 | 3160 | 3530 | 2890 | 3100 | 819 | 624 | 1010 | 385 | 801 |
| 18 | 886 | 630 | 1200 | 2970 | 3160 | 2820 | 2900 | 814 | 575 | 861 | 452 | 908 |
| 19 | 1210 | 626 | 1080 | 2690 | 2840 | 2690 | 2680 | 835 | 549 | 754 | 444 | 1120 |
| 20 | 1170 | 590 | 1020 | 2470 | 2540 | 2590 | 2500 | 877 | 552 | 677 | 538 | 1510 |
| 21 | 1020 | 637 | 926 | 2420 | 2360 | 2580 | 2390 | 863 | 571 | 622 | 640 | 1700 |
| 22 | 890 | 618 | 930 | 2690 | 2190 | 2600 | 2310 | 791 | 590 | 572 | 642 | 1530 |
| 23 | 835 | 608 | 933 | 3260 | 2020 | 2540 | 2170 | 773 | 541 | 534 | 610 | 1340 |
| 24 | 795 | 666 | 904 | 4040 | 1940 | 2500 | 2050 | 722 | 490 | 539 | e600 | 1210 |
| 25 | 752 | 718 | 856 | 5580 | 1900 | 2520 | 1920 | 678 | 464 | 647 | e575 | 1090 |
| 26 | 735 | 828 | 822 | 6540 | 1840 | 2560 | 1700 | 621 | 420 | 756 | e600 | 1050 |
| 27 | 707 | 939 | 788 | e7490 | e1750 | 2750 | 1590 | 582 | e340 | 897 | 630 | 915 |
| 28 | 668 | 1170 | 746 | e8130 | 1600 | 2620 | 1480 | 557 | 364 | 1240 | 635 | 804 |
| 29 | 690 | 1310 | 750 | e8540 | --- | 2450 | 1370 | 543 | 474 | 1480 | 705 | 832 |
| 30 | 652 | 1330 | 750 | 8780 | --- | 2490 | 1290 | 578 | 575 | 1660 | 1270 | 810 |
| 31 | 645 | --- | 736 | 9090 | --- | 2880 | --- | 627 | --- | 1520 | 1620 | --- |
| TOTAL | 29078 | 21947 | 29516 | 112026 | 110060 | 84180 | 121450 | 27692 | 17203 | 24427 | 20418 | 46774 |
| MEAN | 938.0 | 731.6 | 952.1 | 3614 | 3931 | 2715 | 4048 | 893.3 | 573.4 | 788.0 | 658.6 | 1559 |
| MAX | 1360 | 1330 | 1540 | 9090 | 9300 | 3500 | 8150 | 1220 | 778 | 1660 | 1620 | 3170 |
| MIN | 645 | 590 | 736 | 710 | 1600 | 1540 | 1290 | 543 | 340 | 457 | 385 | 793 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)

| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
|------|-------|------|------|------|-------|-------|
| MEAN | 6466 | 2567 | 2892 | 5434 | 7955 | 6077 |
| MAX | 23040 | 6630 | 6969 | 8707 | 19110 | 15340 |
| (WY) | 2000 | 2000 | 1997 | 1998 | 1998 | 1998 |
| MIN | 938 | 732 | 952 | 1501 | 1988 | 2715 |
| (WY) | 2002 | 2002 | 2002 | 2001 | 2001 | 2002 |

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1997 - 2002

| | | | |
|--------------------------|--------|--------|-------|
| ANNUAL TOTAL | 899515 | 644771 | |
| ANNUAL MEAN | 2464 | 1766 | 4217 |
| HIGHEST ANNUAL MEAN | | | 5902 |
| LOWEST ANNUAL MEAN | | | 1766 |
| HIGHEST DAILY MEAN | 10300 | Apr 8 | 57000 |
| LOWEST DAILY MEAN | 590 | Nov 20 | 340 |
| ANNUAL SEVEN-DAY MINIMUM | 611 | Nov 14 | 413 |
| MAXIMUM PEAK FLOW | | | 10100 |
| MAXIMUM PEAK STAGE | | | 9.83 |
| INSTANTANEOUS LOW FLOW | | | 204 |
| 10 PERCENT EXCEEDS | 5990 | 3440 | 9450 |
| 50 PERCENT EXCEEDS | 1530 | 997 | 2270 |
| 90 PERCENT EXCEEDS | 766 | 575 | 819 |

e Estimated.

* See REMARKS.

02091814 NEUSE RIVER NEAR FORT BARNWELL, NC--Continued

