

PEE DEE RIVER BASIN

02112250 YADKIN RIVER AT ELKIN, NC

LOCATION.--Lat 36°14'30", long 80°50'49", Yadkin County, Hydrologic Unit 03040101, on right bank at downstream side of bridge on U.S. Highway 21 at Elkin, 0.3 mi downstream of Elkin River, and 362 mi upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--869 mi².

PERIOD OF RECORD.--April 1964 to current year.

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 866.03 ft above NGVD of 1929. Prior to Aug. 28, 1964, nonrecording gage on upstream side of bridge at same datum. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Considerable regulation by W. Kerr Scott Reservoir (station 02111391). Maximum gage height for period of record, from graph based on hourly gage-height readings and floodmark. Minimum discharge for period of record and current water year also occurred Aug. 10, 15, Sept. 12, 13, 2002.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of 36.0 ft, from information by North Carolina State Highway Commission. Flood of August 1940 reached a stage of 37.5 ft. A discharge of 172 ft³/s was measured on Sept. 19, 1956.

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 | 413 | 359 | 407 | 453 | 762 | 513 | 965 | 525 | 418 | 345 | 254 | 320 |
| 2 | 410 | 364 | 394 | 442 | 676 | 587 | 814 | 642 | 366 | 344 | 247 | 289 |
| 3 | 391 | 366 | 368 | 473 | 612 | 972 | 766 | 587 | 349 | 337 | 253 | 260 |
| 4 | 392 | 363 | 356 | 438 | 607 | 697 | 756 | 562 | 332 | e350 | 249 | 277 |
| 5 | 393 | 352 | 351 | 442 | 589 | 616 | 793 | 596 | 341 | e320 | 230 | 264 |
| 6 | 394 | 341 | 348 | 531 | 591 | 600 | 736 | 555 | 359 | e310 | 219 | 236 |
| 7 | 393 | 339 | 346 | 594 | 772 | 586 | 715 | 543 | 384 | e300 | 208 | 226 |
| 8 | 388 | 341 | 344 | 497 | 874 | 574 | 705 | 608 | 372 | e290 | 201 | 229 |
| 9 | 375 | 342 | 347 | 472 | 842 | 567 | 709 | 548 | 337 | e282 | 197 | 222 |
| 10 | 376 | 342 | 386 | 474 | 819 | 564 | 828 | 505 | 332 | e280 | 217 | 212 |
| 11 | 377 | 347 | 1100 | 472 | 823 | 547 | 768 | 522 | 325 | e240 | 254 | 206 |
| 12 | 384 | 341 | 633 | 462 | 766 | 567 | 820 | 499 | 315 | e245 | 249 | 197 |
| 13 | 394 | 336 | 537 | 460 | 731 | 717 | 852 | 496 | 306 | e260 | 224 | 193 |
| 14 | 524 | 337 | 625 | 448 | 676 | 778 | 863 | 620 | 324 | e340 | 198 | 220 |
| 15 | 837 | 335 | 509 | 458 | 654 | 915 | 830 | 505 | 336 | e500 | 219 | 318 |
| 16 | 458 | 314 | 463 | 459 | 647 | 909 | 787 | 480 | 313 | e380 | 240 | 611 |
| 17 | 405 | 313 | 472 | 454 | 602 | 1730 | 749 | 469 | 308 | e300 | 281 | 403 |
| 18 | 396 | 315 | 898 | 452 | 588 | 2050 | 848 | 577 | 300 | e280 | 291 | 324 |
| 19 | 396 | 317 | 618 | 570 | 578 | 2000 | 748 | 522 | 294 | 263 | 273 | 631 |
| 20 | 373 | 307 | 514 | 1010 | 581 | 1830 | 716 | 471 | 293 | 255 | 234 | 495 |
| 21 | 369 | 303 | 466 | 930 | 588 | 1370 | 697 | 460 | 278 | 259 | 223 | 357 |
| 22 | 366 | 305 | 443 | 784 | 569 | 1010 | 671 | 457 | 273 | 248 | e216 | 345 |
| 23 | 361 | 314 | 453 | 1060 | 563 | 929 | 610 | 450 | 275 | 237 | 210 | 401 |
| 24 | 358 | 389 | 567 | 1400 | 563 | 904 | 569 | 448 | 278 | 270 | 208 | 351 |
| 25 | 360 | 444 | 603 | 1620 | 558 | 872 | 582 | 445 | 271 | 335 | 216 | 315 |
| 26 | 351 | 449 | 550 | 1730 | 543 | 875 | 576 | 438 | 291 | 954 | 238 | 534 |
| 27 | 347 | 365 | 566 | 1120 | 530 | 1110 | 556 | 439 | 354 | 515 | 349 | 1570 |
| 28 | 358 | 343 | 558 | 1010 | 518 | 947 | 561 | 503 | 409 | 360 | 300 | 1190 |
| 29 | 361 | 339 | 486 | 823 | --- | 945 | 565 | 450 | 353 | 312 | 284 | 612 |
| 30 | 359 | 344 | 465 | 811 | --- | 978 | 532 | 436 | 316 | 279 | 287 | 470 |
| 31 | 359 | --- | 457 | 788 | --- | 969 | --- | 444 | --- | 261 | 297 | --- |
| TOTAL | 12418 | 10366 | 15630 | 22137 | 18222 | 29228 | 21687 | 15802 | 9802 | 10251 | 7566 | 12278 |
| MEAN | 400.6 | 345.5 | 504.2 | 714.1 | 650.8 | 942.8 | 722.9 | 509.7 | 326.7 | 330.7 | 244.1 | 409.3 |
| MAX | 837 | 449 | 1100 | 1730 | 874 | 2050 | 965 | 642 | 418 | 954 | 349 | 1570 |
| MIN | 347 | 303 | 344 | 438 | 518 | 513 | 532 | 436 | 271 | 237 | 197 | 193 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| MEAN | 1090 | 1108 | 1198 | 1449 | 1582 | 1867 | 1815 | 1495 | 1334 | 1050 | 1108 | 965.5 |
| MAX | 2911 | 3871 | 2591 | 3129 | 2978 | 3885 | 4510 | 2887 | 2942 | 1922 | 3323 | 2910 |
| (WY) | 1991 | 1978 | 1974 | 1978 | 1990 | 1975 | 1980 | 1973 | 1975 | 1989 | 1994 | 1979 |
| MIN | 368 | 346 | 479 | 583 | 567 | 745 | 723 | 510 | 327 | 331 | 244 | 409 |
| (WY) | 2001 | 2002 | 2001 | 2001 | 2001 | 1988 | 2002 | 2002 | 2002 | 2002 | 2002 | 2002 |

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1964 - 2002

| | | | |
|--------------------------|--------|--------|--------|
| ANNUAL TOTAL | 217122 | 185387 | |
| ANNUAL MEAN | 594.9 | 507.9 | 1341 |
| HIGHEST ANNUAL MEAN | | | 1951 |
| LOWEST ANNUAL MEAN | | | 508 |
| HIGHEST DAILY MEAN | 4610 | Mar 30 | 21500 |
| LOWEST DAILY MEAN | 303 | Nov 21 | 193 |
| ANNUAL SEVEN-DAY MINIMUM | 311 | Nov 16 | 211 |
| MAXIMUM PEAK FLOW | | | 3060 |
| MAXIMUM PEAK STAGE | | 5.09 | Mar 17 |
| INSTANTANEOUS LOW FLOW | | 187* | Aug 9 |
| 10 PERCENT EXCEEDS | 866 | 844 | 2250 |
| 50 PERCENT EXCEEDS | 518 | 442 | 1030 |
| 90 PERCENT EXCEEDS | 360 | 255 | 560 |

e Estimated.
* See REMARKS.

02112250 YADKIN RIVER AT ELKIN, NC--Continued

