332 SANTEE RIVER BASIN

0214266000 MCDOWELL CREEK NEAR CHARLOTTE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD. -- Water years 1997, 2000 to current year.

PERIOD OF DAILY RECORD. --

SPECIFIC CONDUCTANCE: November 1996 to September 1997.

WATER TEMPERATURE: November 1996 to September 1997.

SUSPENDED-SEDIMENT DISCHARGE: October 2000 to current year.

INSTRUMENTATION.--Water-quality monitor from November 1996 to September 1997. Optical backscatterance sensor from April 2000 to current year.

REMARKS.--Station operated in cooperation with Mecklenburg County to characterize water quality and suspended sediment in McDowell Creek basin. Miscellaneous water-quality data collected from November 1996 to September 1997 published in U.S. Geological Survey Open File Report 98-67. Continuous record of suspended-sediment concentration was computed by using a relation between optical backscatterance readings and measured suspended-sediment concentrations. Sediment discharge was computed as the product of continuous suspended-sediment concentration and continuous discharge.

EXTREMES FOR PERIOD OF DAILY RECORD. --

SPECIFIC CONDUCTANCE: Maximum recorded, 602 microsiemens, June 19, 1997; minimum recorded, 39 microsiemens, July 23, 1997.

WATER TEMPERATURE: Maximum recorded 33.2°C, July 21, 1997; minimum recorded, 0.1°C, Dec. 21, 1996.

SEDIMENT DISCHARGE: Maximum recorded, 266 tons, Sept. 24, 2001; minimum recorded, .01 tons, Sept. 8, 9, 12, 2002.

EXTREMES FOR CURRENT YEAR . --

SEDIMENT LOAD: Maximum recorded, 173 tons, Mar. 17, minimum recorded, .01 tons, Sept. 8, 9, 12.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DIS-

SEDI-

| Date | Time | CHARGE, INST. CUBIC FEET PER SECOND (00061) | SEDI- MENT, SUS- PENDED (MG/L) (80154) | MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155) |
|-----------|--------------|---|---|--|
| NOV | | | | |
| 08 DEC | 1650 | 2.7 | | |
| 19 FEB | 1025 | 6.1 | 43 | .71 |
| 25 MAR | 1545 | 8.9 | 6.4 | .15 |
| 05 MAY | 1430 | 18 | 36 | 1.8 |
| 14 | 0915 | 16 | 197 | 8.5 |
| 14 | 1255 | 12 | 136 | 4.4 |
| 17 | 1110 | 5.4 | | |
| 30 | 1310 | 10 | 142 | 3.8 |
| 31 | 0900 | 16 | 162 | 7.0 |
| 31 JUN | 1200 | 19 | 164 | 8.4 |
| 07 | 0940 | 27 | 227 | 16.5 |
| 07 | 1215 | 22 | 193 | 11.5 |
| 28 | 0820 | 12 | 310 | 10.0 |
| 28 | 0840 | 11 | 297 | 8.8 |
| JUL | | | | |
| 15 | 1025 | 5.1 | 59 | .81 |
| 25 25 | 1231 1300 | 18 17 | 160 155 | 7.8 7.1 |
| AUG | 1300 | 17 | 155 | 7.1 |
| 26 | 0915 | 4.7 | 15 | .19 |
| 26 | 1000 | 4.0 | 13 | .14 |
| 29 | 0900 | 2.9 | 6.8 | .05 |
| SEP | | | | |
| 09 | 1515 | 2.7 | 5.4 | .04 |
| 16 | 0745 | 47 | 235 | 29.8 |
| 16 | 0815 | 42 | 221 | 25.1 |
| 16 16 | 0900 1200 | 35 24 | 136 | 8.8 |
| 16 | 1430 | 23 | 113 | 7.0 |
| 16 | 1600 | 21 | 398 | 22.6 |
| 16 | 1630 | 18 | 304 | 14.8 |
| 16 | 1700 | 16 | 236 | 10.2 |
| 17 | 0713 | 69 | 470 | 87.5 |
| 17 | 0842 | 46 | 346 | 43.0 |
| 18 | 0730 | 7.6 | 32 | .67 |
| 19 | 1115 | 5.1 | | 00 5 |
| 26 27 | 1333 0700 | 86 16 | 398 97 | 92.5 4.2 |
| ۷/ | 0700 | Τ.0 | 91 | 4.4 |

0214266000 MCDOWELL CREEK NEAR CHARLOTTE, NC--Continued

SEDIMENT LOAD, IN TONS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001 DAILY SUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|--|---|--|---|------------------------------|---|--------------------------------|--|---|---|--|---|
| 1 2 3 4 5 | | 0.09 0.10 0.10 | 0.10 0.10 0.14 0.10 0.10 | 0.17 0.17 0.22 0.17 0.21 | 0.22 0.20 0.21 0.20 | 1.5 31 | | | 34 5.1 0.91 0.50 0.32 | 0.08 0.10 0.28 15 | 0.13 0.20 0.19 0.21 0.20 | 0.12 0.15 39 34 1.7 |
| 6 7 8 9 10 | 0.10 0.10 0.10 0.10 | 0.07 0.10 0.10 0.93 0.27 | 0.10 0.12 0.12 0.13 0.11 | 0.45 0.34 7.1 0.90 0.36 | 0.62 | | | | 0.22 0.22 0.32 0.24 0.25 | 0.63 0.48 0.41 0.24 | 0.22 0.24 | |
| 11 12 13 14 15 | 0.06 0.05 | 0.10 0.10 0.10 4.1 | 0.12 0.14 0.12 0.55 0.19 | 0.52 1.00 1.0 0.33 0.26 | 0.30 0.77 1.2 | 0.31 0.56 2.3 0.97 | | | 0.27 | 0.33 0.21 45 0.58 0.26 | | |
| 16 17 18 19 20 | 0.05 0.09 0.02 | 1.2 0.22 1.6 1.1 | 5.0 | 0.24 0.25 0.53 | 144 4.9 1.3 1.6 | 9.3 3.1 0.94 0.81 | | 0.13 13 77 | 0.31 | 0.22 0.23 0.19 1.3 0.92 | 1.2 0.23 0.23 | 0.12 0.15 3.8 |
| 21 22 23 24 25 | 0.06 0.04 0.06 0.09 | 0.31 0.18 0.11 0.10 | 0.22 0.20 0.19 | | 1.0 11 2.1 0.73 | 2.4 1.2 | | 0.57 0.89 | 47 2.9 67 | 0.34 0.59 0.44 1.4 | 0.50 0.65 | 0.21 0.22 266 |
| 26 27 28 29 30 31 | 0.10 0.07 0.08 | 8.4 | 0.18 0.20 0.24 0.24 0.20 0.15 | | 6.2 2.4 | 0.84 0.65 0.54 228 | | 54 1.6 8.5 3.8 0.59 0.32 | 12 5.4 1.3 0.40 0.15 | 28 0.64 0.35 0.32 0.24 0.18 | 0.42 0.28 0.16 0.26 0.15 0.14 | |
| TOTAL | | | | | | | | | | 229.86 | | |
| SEDIMENT LOAD, IN TONS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002 DAILY SUM VALUES | | | | | | | | | | | | |
| | | S | SEDIMENT | LOAD, IN | | | | 01 TO SEF | TEMBER 20 | 02 | | |
| DAY | OCT | NOV | DEC | LOAD, IN JAN | | | | 01 TO SEF | TEMBER 20 JUN | 02 JUL | AUG | SEP |
| DAY 1 2 3 4 5 | OCT 0.22 0.21 0.17 | | | | DAII | LY SUM VAI | UES | | | | AUG 0.59 | SEP 1.7 0.16 0.10 0.06 0.04 |
| 1 2 3 4 | 0.22 0.21 | NOV 0.11 0.10 0.13 0.10 | DEC | JAN 0.10 0.11 0.84 0.33 | DAII FEB | MAR 0.52 118 87 8.7 | APR 18 1.7 0.95 1.4 | MAY 0.32 0.41 9.0 | JUN 31 19 | JUL 0.28 0.25 2.8 2.4 | 0.59 | 1.7 0.16 0.10 0.06 |
| 1 2 3 4 5 6 7 8 | 0.22 0.21 0.17 0.19 0.21 0.21 0.29 | NOV 0.11 0.10 0.13 0.10 0.11 0.10 0.10 0.10 | DEC 0.10 0.09 0.11 | JAN 0.10 0.11 0.84 0.33 0.12 0.47 | DAII FEB | MAR 0.52 118 87 8.7 4.3 1.4 0.98 | APR 18 1.7 0.95 1.4 0.84 | MAY 0.32 0.41 9.0 1.4 0.44 0.38 0.39 0.35 | JUN 31 19 136 3.3 1.2 | JUL 0.28 0.25 2.8 2.4 0.34 0.26 | 0.59 | 1.7 0.16 0.10 0.06 0.04 0.05 0.02 0.01 |
| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 | 0.22 0.21 0.17 0.19 0.21 0.21 0.22 0.27 0.31 0.26 0.31 | NOV 0.11 0.10 0.13 0.10 0.11 0.10 0.10 0.10 | DEC | JAN 0.10 0.11 0.84 0.33 0.12 0.47 0.29 0.22 0.22 0.35 0.20 | DAII FEB 0.86 1.2 1.4 1.3 | MAR 0.52 118 87 8.7 4.3 1.4 0.98 1.1 10 | APR 18 1.7 0.95 1.4 0.84 | MAY 0.32 0.41 9.0 1.4 0.44 0.38 0.39 0.35 0.37 1.7 0.45 18 | JUN 31 19 136 3.3 1.2 0.55 0.38 0.37 0.39 0.33 | JUL 0.28 0.25 2.8 2.4 0.34 0.26 0.14 0.13 0.12 0.28 | 0.59 | 1.7 0.16 0.10 0.06 0.04 0.05 0.02 0.01 0.01 0.04 0.03 0.01 0.02 66 |
| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 | 0.22 0.21 0.17 0.19 0.21 0.21 0.29 0.27 0.31 0.26 0.31 | NOV 0.11 0.10 0.13 0.10 0.11 0.10 0.10 0. | DEC | JAN 0.10 0.11 0.84 0.33 0.12 0.47 0.29 0.22 0.22 0.22 0.22 0.35 0.20 0.22 0.19 0.13 0.21 166 | DAII FEB | MAR 0.52 118 87 8.7 4.3 1.4 0.98 1.1 10 2.9 1.7 173 31 6.0 | APR 18 1.7 0.95 1.4 0.84 0.45 | MAY 0.32 0.41 9.0 1.4 0.44 0.38 0.39 0.35 0.37 1.7 0.45 18 1.9 0.58 0.49 4.8 0.49 | JUN 31 19 136 3.3 1.2 0.55 0.38 0.37 0.39 0.33 0.31 0.29 0.26 0.29 | JUL 0.28 0.25 2.8 2.4 0.34 0.26 0.14 0.13 0.12 0.28 2.4 0.59 0.35 0.34 0.34 | 0.59 | 1.7 0.16 0.10 0.06 0.04 0.05 0.02 0.01 0.01 0.04 0.03 0.01 0.02 66 89 |

TOTAL