

WEST CONEWAGO CREEK BASIN

01574000 WEST CONEWAGO CREEK NEAR MANCHESTER, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°04'56", long 76°43'13", York County, Hydrologic Unit 02050306, on left bank 500 ft upstream from bridge on State Highway 181, 0.6 mi downstream from Little Conewago Creek, and 1.5 mi north of Manchester.

DRAINAGE AREA.--510 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1928 to current year. Prior to October 1931, published as Conewago Creek near Manchester.

REVISED RECORDS.--WSP 741: Drainage area. WSP 1502: 1930, 1936.

GAGE.--Water-stage recorder. Datum of gage is 263.68 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Occasional slight regulation since October 1959 by Conewago Lake about 13 miles upstream, capacity, 3,570 acre-ft. Gage height record affected at times by backwater from the Susquehanna River. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 10,800 ft³/s and maximum (*):

| Date | Time | Discharge ft ³ /s | Gage Height (ft) | Date | Time | Discharge ft ³ /s | Gage Height (ft) |
|---------|------|---------------------------------|---------------------|----------------------------------|------|---------------------------------|---------------------|
| Mar. 27 | 1615 | *2,970 | *6.29 | (No peaks above base discharge.) | | | |

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 | 51 | 41 | 80 | e42 | 210 | 68 | 357 | 486 | 180 | 79 | 21 | 88 |
| 2 | 46 | 45 | 61 | e41 | 258 | 68 | 395 | 464 | 161 | 64 | 20 | 65 |
| 3 | 43 | 46 | 54 | e42 | 231 | 134 | 306 | 725 | 143 | 55 | 24 | 53 |
| 4 | 40 | 45 | 51 | e45 | 195 | 364 | 263 | 447 | 129 | 47 | 27 | 45 |
| 5 | 38 | 46 | 54 | e43 | 168 | 288 | 235 | 308 | 116 | 44 | 27 | 39 |
| 6 | 35 | 49 | 49 | e45 | 145 | 180 | 205 | 257 | 124 | 40 | 25 | 35 |
| 7 | 32 | 74 | 47 | e48 | 128 | 143 | 185 | 230 | 319 | 36 | 24 | 32 |
| 8 | 30 | 73 | 46 | e58 | 121 | 129 | 175 | 209 | 397 | 35 | 21 | 29 |
| 9 | 30 | 73 | 55 | 51 | 116 | 118 | 167 | 234 | 206 | 34 | 19 | 26 |
| 10 | 30 | 66 | 53 | 56 | 110 | 116 | 173 | 237 | 151 | 38 | 18 | 25 |
| 11 | 30 | 62 | 63 | 77 | 107 | 110 | 174 | 221 | 124 | 32 | 18 | 22 |
| 12 | 27 | 61 | 76 | 121 | 103 | 114 | 167 | 193 | 107 | 29 | 17 | 20 |
| 13 | 28 | 61 | 67 | 188 | 103 | 121 | 154 | 299 | 89 | 28 | 15 | 18 |
| 14 | 30 | 131 | 67 | 163 | 100 | 125 | 158 | 1630 | 152 | 29 | 15 | 16 |
| 15 | 49 | 150 | 75 | 141 | 96 | 134 | 967 | 836 | 409 | 29 | 12 | 17 |
| 16 | 48 | 142 | 69 | 119 | 90 | 143 | 1010 | 442 | 296 | 27 | 11 | 18 |
| 17 | 45 | 94 | 90 | 105 | 87 | 129 | 493 | 326 | 187 | 26 | 9.5 | 15 |
| 18 | 43 | 106 | 98 | 95 | 83 | 138 | 347 | 1260 | 140 | 26 | 8.0 | 14 |
| 19 | 42 | 104 | 89 | 77 | 83 | 163 | 280 | 1630 | 114 | 26 | 7.1 | 14 |
| 20 | 41 | 106 | 93 | 83 | 83 | 465 | 374 | 725 | 99 | 25 | 11 | 12 |
| 21 | 41 | 107 | 99 | 92 | 82 | 1730 | 281 | 503 | 101 | 23 | 7.4 | 11 |
| 22 | 47 | 99 | 80 | 94 | 76 | 791 | 275 | 426 | 109 | 23 | 5.6 | 31 |
| 23 | 48 | 75 | 68 | 96 | 74 | 446 | 275 | 352 | 85 | 25 | 5.6 | 40 |
| 24 | 46 | 47 | 65 | 241 | 74 | 328 | 241 | 305 | 75 | 26 | 10 | 29 |
| 25 | 46 | 46 | 60 | 643 | 74 | 276 | 203 | 231 | 71 | 25 | 26 | 18 |
| 26 | 45 | 84 | e55 | 471 | 74 | 268 | 191 | 206 | 63 | 22 | 17 | 27 |
| 27 | 45 | 195 | e51 | 257 | 74 | 1960 | 177 | 195 | 59 | 22 | 13 | 211 |
| 28 | 45 | 194 | e47 | 200 | 69 | 1090 | 287 | 430 | 77 | 38 | 12 | 632 |
| 29 | 46 | 142 | e44 | 212 | --- | 583 | 1180 | 385 | 64 | 32 | 59 | 519 |
| 30 | 43 | 121 | e42 | 199 | --- | 439 | 709 | 242 | 78 | 23 | 61 | 197 |
| 31 | 41 | --- | e42 | 157 | --- | 360 | --- | 210 | --- | 22 | 93 | --- |
| TOTAL | 1251 | 2685 | 1990 | 4302 | 3214 | 11521 | 10404 | 14644 | 4425 | 1030 | 659.2 | 2318 |
| MEAN | 40.4 | 89.5 | 64.2 | 139 | 115 | 372 | 347 | 472 | 148 | 33.2 | 21.3 | 77.3 |
| MAX | 51 | 195 | 99 | 643 | 258 | 1960 | 1180 | 1630 | 409 | 79 | 93 | 632 |
| MIN | 27 | 41 | 42 | 41 | 69 | 68 | 154 | 193 | 59 | 22 | 5.6 | 11 |
| CFSM | 0.08 | 0.18 | 0.13 | 0.27 | 0.23 | 0.73 | 0.68 | 0.93 | 0.29 | 0.07 | 0.04 | 0.15 |
| IN. | 0.09 | 0.20 | 0.15 | 0.31 | 0.23 | 0.84 | 0.76 | 1.07 | 0.32 | 0.08 | 0.05 | 0.17 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2002, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| MEAN | 272 | 452 | 663 | 777 | 952 | 1262 | 976 | 650 | 419 | 252 | 216 | 260 |
| MAX | 1783 | 1534 | 2578 | 3126 | 2526 | 4510 | 3273 | 2874 | 4445 | 1419 | 2423 | 3862 |
| (WY) | 1977 | 1933 | 1997 | 1996 | 1998 | 1994 | 1993 | 1989 | 1972 | 1969 | 1933 | 1975 |
| MIN | 9.71 | 14.7 | 43.3 | 37.7 | 86.2 | 345 | 253 | 135 | 52.7 | 12.2 | 13.3 | 12.0 |
| (WY) | 1942 | 1932 | 1966 | 1981 | 1934 | 1931 | 1995 | 1941 | 1965 | 1966 | 1930 | 1964 |

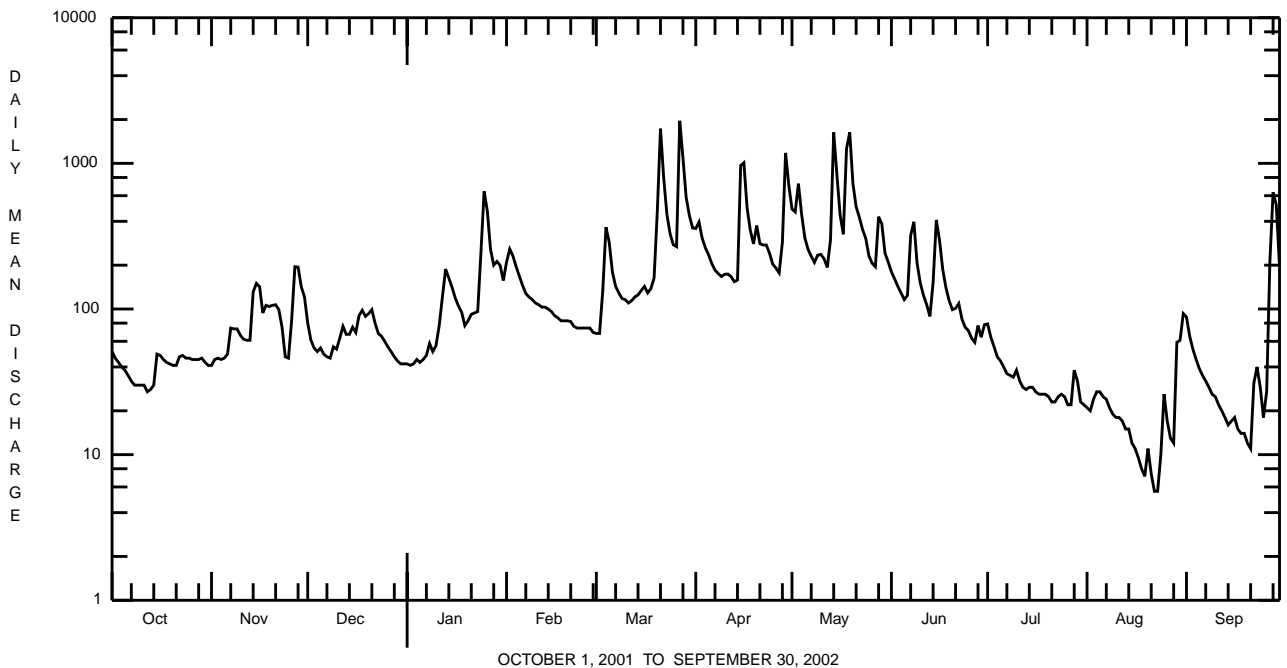
e Estimated.

WEST CONEWAGO CREEK BASIN

01574000 WEST CONEWAGO CREEK NEAR MANCHESTER, PA--Continued

| SUMMARY STATISTICS | FOR 2001 CALENDAR YEAR | | FOR 2002 WATER YEAR | | WATER YEARS 1929 - 2002 | |
|--------------------------|------------------------|-----------|---------------------|-----------|-------------------------|-------------|
| ANNUAL TOTAL | 113609 | | 58443.2 | | | |
| ANNUAL MEAN | 311 | | 160 | | 594 | |
| HIGHEST ANNUAL MEAN | | | | | 1117 | 1972 |
| LOWEST ANNUAL MEAN | | | | | 154 | 1931 |
| HIGHEST DAILY MEAN | 5740 | Mar 30 | 1960 | Mar 27 | 64000 | Sep 26 1975 |
| LOWEST DAILY MEAN | 16 | Sep 17-21 | 5.6 | Aug 22,23 | 2.0 | Aug 8 1930 |
| ANNUAL SEVEN-DAY MINIMUM | 17 | Sep 17 | 7.7 | Aug 17 | 3.9 | Aug 3 1966 |
| MAXIMUM PEAK FLOW | | | 2970 | Mar 27 | ^a 96200 | Sep 26 1975 |
| MAXIMUM PEAK STAGE | | | 6.29 | Mar 27 | ^b 32.11 | Sep 26 1975 |
| INSTANTANEOUS LOW FLOW | | | 5.4 | Aug 22,23 | 1.9 | Oct 13 1941 |
| ANNUAL RUNOFF (CFSM) | 0.61 | | 0.31 | | 1.16 | |
| ANNUAL RUNOFF (INCHES) | 8.29 | | 4.26 | | 15.82 | |
| 10 PERCENT EXCEEDS | 799 | | 362 | | 1280 | |
| 50 PERCENT EXCEEDS | 107 | | 77 | | 245 | |
| 90 PERCENT EXCEEDS | 31 | | 22 | | 45 | |

a From rating curve extended above 45,000 ft³/s on basis of slope-area computation at gage height 30.26 ft.
b From floodmark.



WEST CONEWAGO CREEK BASIN

01574000 WEST CONEWAGO CREEK NEAR MANCHESTER, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--Other data for the Water-Quality Network can be found on pages 306-334.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

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

| Date | Time | AGENCY ANA-LYZING SAMPLE (CODE NUMBER) | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SAM-PLING METHOD, CODES (82398) | OXYGEN, DIS-SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | SPE-CIFIC CON-DUCT-ANCE (µS/CM) (00095) | TEMPER-ATURE WATER (DEG C) (00010) | HARD-NESS TOTAL (MG/L AS CACO3) (00900) | CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA) (00916) | MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG) (00927) | ANC WATER UNFLTRD FET LAB (MG/L AS CACO3) (00417) | SULFATE DIS-SOLVED (MG/L AS SO4) (00945) |
|----------------|------|--|---|---------------------------------|-----------------------------------|--|---|------------------------------------|---|---|---|---|--|
| APR 2002 09... | 1230 | 9813 | 165 | 40 | 10.6 | 8.6 | 305 | 12.9 | 120 | 32.8 | 9.8 | 76 | 29.5 |
| JUN 12... | 1230 | 9813 | 105 | 40 | 5.5 | 7.5 | 341 | 25.7 | 130 | 33.7 | 10.2 | 90 | 24.9 |
| AUG 27... | 0830 | 9813 | 13 | 40 | 5.8 | 7.6 | 476 | 24.2 | 130 | 31.9 | 11.9 | 86 | 32.4 |

| Date | RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L) (00515) | RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L) (00530) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620) | NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615) | NITRO-GEN, TOTAL (MG/L AS N) (00600) | PHOS-PHORUS ORTHO TOTAL (MG/L AS P) (70507) | PHOS-PHORUS TOTAL (MG/L AS P) (00665) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) | COPPER, TOTAL RECOV-ERABLE (µG/L AS CU) (01042) | IRON, TOTAL RECOV-ERABLE (µG/L AS FE) (01045) | LEAD, TOTAL RECOV-ERABLE (µG/L AS PB) (01051) | MANGA-NESE, TOTAL RECOV-ERABLE (µG/L AS MN) (01055) |
|----------------|--|--|--|--|--|--------------------------------------|---|---------------------------------------|---|---|---|---|---|
| APR 2002 09... | 220 | 10 | <.020 | 1.98 | <.040 | 2.7 | .04 | .060 | 4.6 | <10 | 300 | <1.0 | 30 |
| JUN 12... | 232 | 16 | .040 | 1.81 | <.040 | 2.6 | .19 | .230 | 4.9 | 10 | 520 | <1.0 | 90 |
| AUG 27... | 255 | 16 | .110 | 4.97 | <.200 | 5.7 | .35 | .450 | 6.1 | <10 | 590 | <1.0 | 80 |

| Date | NICKEL, TOTAL RECOV-ERABLE (µG/L AS NI) (01067) | ZINC, TOTAL RECOV-ERABLE (µG/L AS ZN) (01092) |
|----------------|---|---|
| APR 2002 09... | <50 | <10 |
| JUN 12... | <50 | <10 |
| AUG 27... | <50 | <10 |