



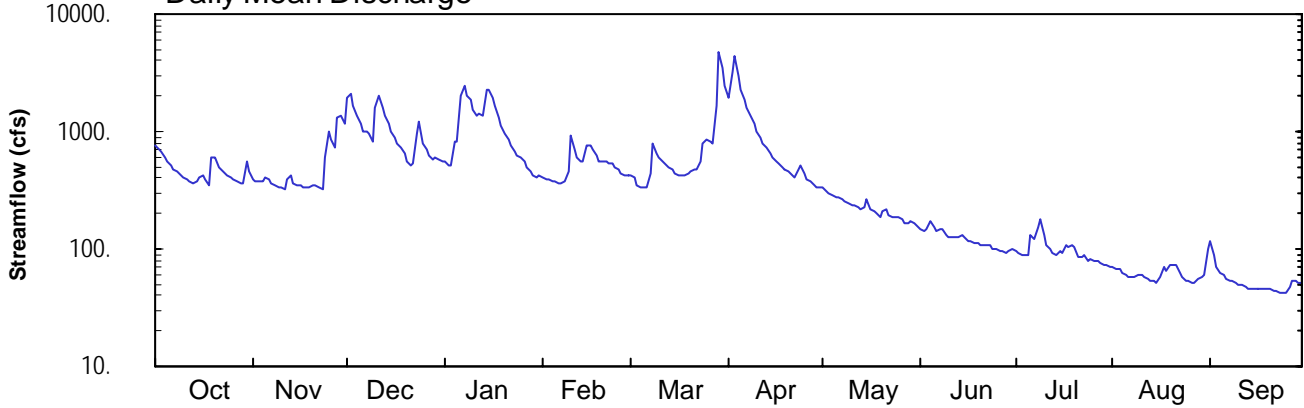
2005 Water Year
PENNS CREEK BASIN
01555000 Penns Creek at Penns Creek, PA

Latitude: 40° 52 ' 00"
Snyder County

Longitude: 077° 02 ' 55"
Datum: 506.72 feet

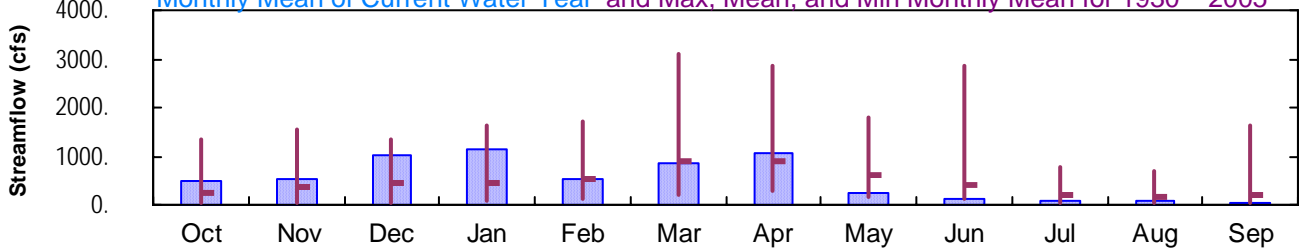
Hydrologic Unit Code: 02050301
Drainage Area: 301. mi²

Daily Mean Discharge

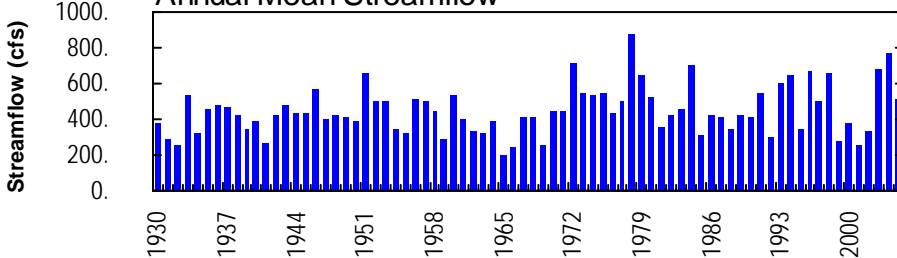


Monthly Statistics

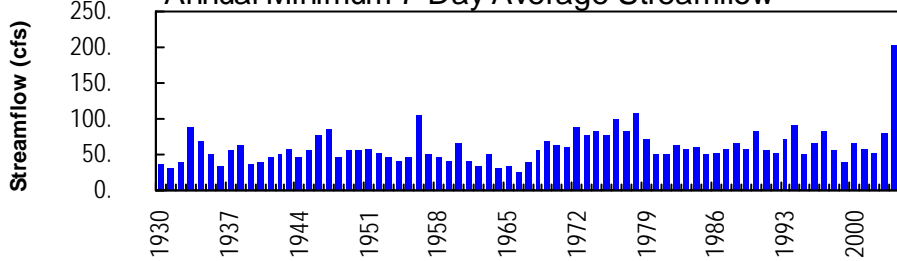
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1930 – 2005



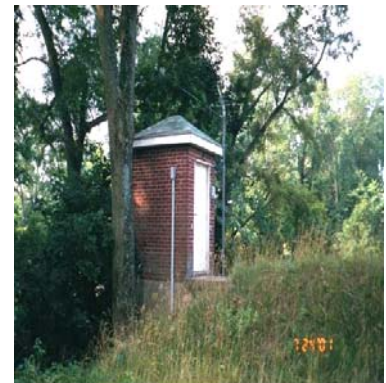
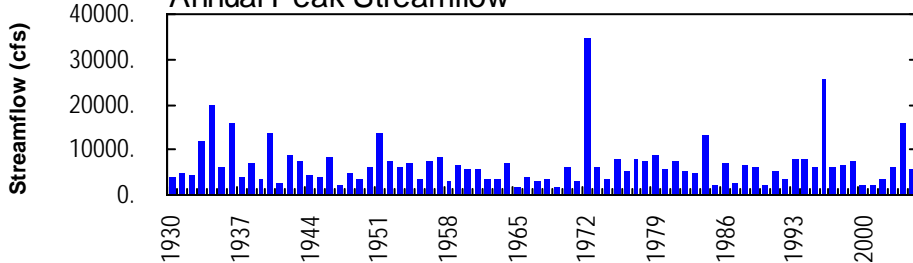
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



01555000-Penns Creek at Penns Creek

PENNS CREEK BASIN

01555000 PENNS CREEK AT PENNS CREEK, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°52'00", long 77°02'55", Union County, Hydrologic Unit 02050301, on left bank 200 ft downstream from bridge on State Highway 104, 2.9 mi upstream from Sweitzers Run, and 0.8 mi northeast of Penns Creek, Pa.

DRAINAGE AREA.--301 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1929 to current year. Prior to October 1965, published as Penn Creek at Penns Creek.

REVISED RECORDS.--WSP 891: 1934(M). WSP 1502: 1933(M), 1934, 1936(M). WDR PA-72-1: 1933-34(M), 1936(M), 1940(M), 1951(M). WDR PA-79-2: 1978.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 506.72 ft, datum of 1912; 507.38 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 1, 1930, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 3,100 ft³/s and maximum (*):

| Date | Time | Discharge ft ³ /s | Gage Height (ft) | Date | Time | Discharge ft ³ /s | Gage Height (ft) |
|---------|------|---------------------------------|---------------------|--------|------|---------------------------------|---------------------|
| Mar. 29 | 0715 | *5,590 | *7.96 | Apr. 2 | 1730 | 5,500 | 7.89 |

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| 1 | 764 | 394 | 1920 | 548 | e400 | 428 | 1940 | 331 | 148 | 96 | 70 | 116 |
| 2 | 696 | 377 | 2060 | 519 | e390 | 403 | 3210 | 312 | 141 | 92 | 68 | 88 |
| 3 | 688 | 374 | 1670 | 521 | e385 | e350 | 4380 | 301 | 147 | 89 | 67 | 72 |
| 4 | 611 | 373 | 1380 | 825 | 378 | e340 | 3020 | 290 | 175 | 88 | 62 | 63 |
| 5 | 553 | 404 | 1180 | 826 | 371 | e330 | 2290 | 280 | 153 | 89 | 60 | 59 |
| 6 | 513 | 387 | 1010 | 2060 | 362 | e340 | 1880 | 272 | 144 | 130 | 59 | 56 |
| 7 | 481 | 364 | 1020 | 2440 | 360 | 447 | 1590 | 263 | 151 | 120 | 58 | 55 |
| 8 | 455 | 350 | 974 | 2020 | 383 | 797 | 1360 | 255 | 149 | 156 | 59 | 53 |
| 9 | 432 | 339 | 826 | 1840 | 459 | 660 | 1150 | 247 | 133 | 178 | 60 | 52 |
| 10 | 413 | 329 | 1600 | 1530 | 934 | 591 | 999 | 240 | 128 | 131 | 60 | 50 |
| 11 | 392 | 327 | 2020 | 1360 | 696 | 559 | 883 | 233 | 127 | 107 | 58 | 49 |
| 12 | 377 | 390 | 1620 | 1410 | 608 | 533 | 786 | 225 | 126 | 98 | 56 | 47 |
| 13 | 364 | 427 | 1380 | 1380 | 564 | 502 | 722 | 214 | 126 | 93 | 54 | 46 |
| 14 | 370 | 366 | 1180 | 2310 | 549 | 472 | 663 | 230 | 131 | 90 | 53 | 45 |
| 15 | 405 | 344 | 999 | 2280 | 775 | 444 | 607 | 269 | 127 | 94 | 51 | 45 |
| 16 | 428 | 342 | 879 | 1920 | 759 | 430 | 562 | 221 | 119 | 91 | 58 | 46 |
| 17 | 397 | 341 | e800 | 1650 | 696 | 422 | 528 | 207 | 117 | 110 | 69 | 46 |
| 18 | 354 | 340 | e720 | 1340 | e625 | 426 | 502 | 199 | 115 | 103 | 66 | 46 |
| 19 | 597 | 337 | e640 | e1130 | e560 | 435 | 476 | 190 | 113 | 107 | 73 | 45 |
| 20 | 595 | 349 | e565 | e980 | 554 | 450 | 456 | 213 | 110 | 105 | 73 | 45 |
| 21 | 490 | 345 | e525 | e850 | 559 | 477 | 432 | 221 | 107 | 86 | 73 | 45 |
| 22 | 471 | 331 | e530 | e750 | 533 | 474 | 411 | 198 | 106 | 87 | 63 | 44 |
| 23 | 438 | 325 | 946 | e670 | 528 | 552 | 479 | 186 | 107 | 88 | 57 | 43 |
| 24 | 426 | 606 | 1230 | e635 | 503 | 797 | 515 | 187 | 102 | 80 | 54 | 43 |
| 25 | 413 | 1000 | 800 | e600 | 479 | 840 | 437 | 190 | 99 | 82 | 53 | 43 |
| 26 | 396 | 843 | e700 | e550 | 447 | 817 | 396 | 181 | 97 | 79 | 52 | 47 |
| 27 | 382 | 729 | e635 | e500 | 427 | 777 | 383 | 167 | 96 | 78 | 52 | 55 |
| 28 | 367 | 1310 | e585 | e450 | 422 | 1670 | 355 | 163 | 94 | 77 | 56 | 54 |
| 29 | 358 | 1390 | e600 | e420 | --- | 4820 | 339 | 174 | 96 | 75 | 57 | 52 |
| 30 | 550 | 1180 | 576 | e400 | --- | 3440 | 337 | 164 | 101 | 72 | 60 | 52 |
| 31 | 460 | --- | 553 | e425 | --- | 2490 | --- | 156 | --- | 71 | 99 | --- |
| TOTAL | 14636 | 15313 | 32123 | 35139 | 14706 | 26513 | 32088 | 6979 | 3685 | 3042 | 1910 | 1602 |
| MEAN | 472 | 510 | 1036 | 1134 | 525 | 855 | 1070 | 225 | 123 | 98.1 | 61.6 | 53.4 |
| MAX | 764 | 1390 | 2060 | 2440 | 934 | 4820 | 4380 | 331 | 175 | 178 | 99 | 116 |
| MIN | 354 | 325 | 525 | 400 | 360 | 330 | 337 | 156 | 94 | 71 | 51 | 43 |
| CFSM | 1.57 | 1.70 | 3.44 | 3.77 | 1.74 | 2.84 | 3.55 | 0.75 | 0.41 | 0.33 | 0.20 | 0.18 |
| IN. | 1.81 | 1.89 | 3.97 | 4.34 | 1.82 | 3.28 | 3.97 | 0.86 | 0.46 | 0.38 | 0.24 | 0.20 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2005, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| MEAN | 228 | 366 | 463 | 463 | 525 | 901 | 885 | 609 | 393 | 195 | 161 | 194 |
| MAX | 1355 | 1567 | 1359 | 1627 | 1697 | 3093 | 2855 | 1793 | 2845 | 759 | 684 | 1649 |
| (WY) | 1991 | 1978 | 1997 | 1996 | 1984 | 1936 | 1993 | 1978 | 1972 | 1989 | 1984 | 2004 |
| MIN | 35.9 | 34.1 | 46.3 | 76.0 | 108 | 195 | 278 | 179 | 107 | 57.2 | 37.0 | 36.4 |
| (WY) | 1931 | 1931 | 1999 | 1981 | 1940 | 1931 | 1995 | 1941 | 1962 | 1962 | 1966 | 1964 |

e Estimated.

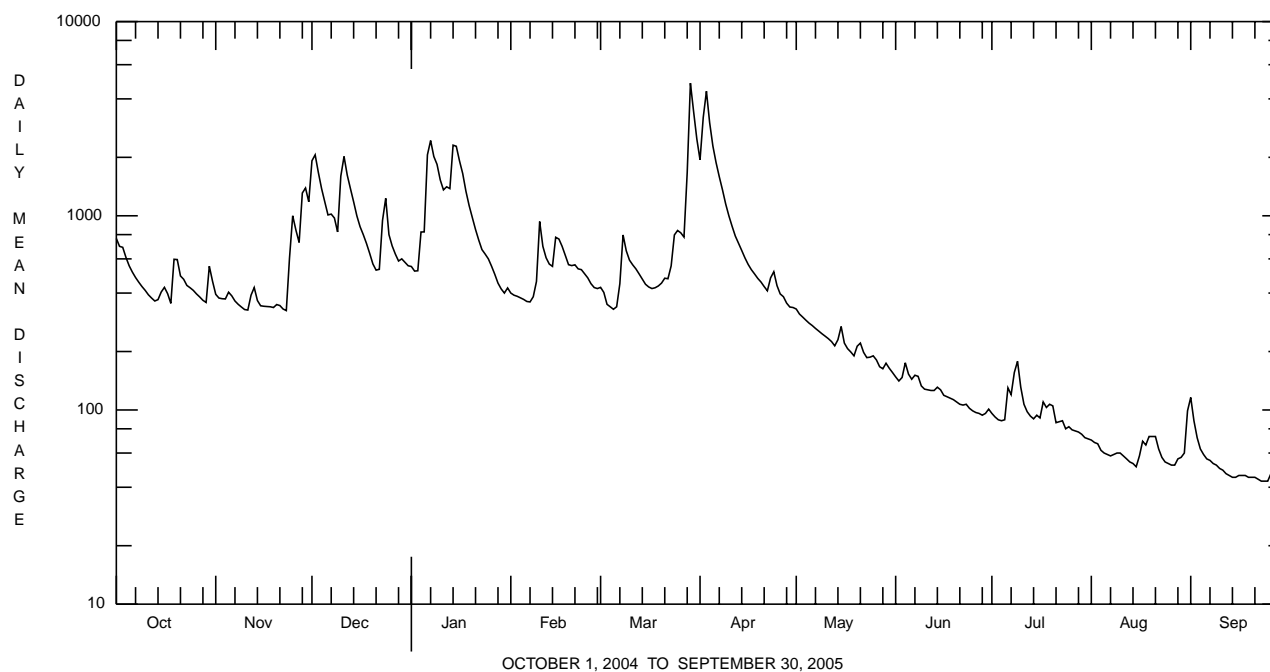
PENNS CREEK BASIN

01555000 PENNS CREEK AT PENNS CREEK, PA--Continued

| SUMMARY STATISTICS | FOR 2004 CALENDAR YEAR | | FOR 2005 WATER YEAR | | WATER YEARS 1930 - 2005 | |
|--------------------------|------------------------|--------|---------------------|-----------|-------------------------|-------------|
| ANNUAL TOTAL | 260085 | | 187736 | | | |
| ANNUAL MEAN | 711 | | 514 | | 448 | |
| HIGHEST ANNUAL MEAN | | | | | 878 | 1978 |
| LOWEST ANNUAL MEAN | | | | | 205 | 1965 |
| HIGHEST DAILY MEAN | 13000 | Sep 18 | 4820 | Mar 29 | 24600 | Jun 23 1972 |
| LOWEST DAILY MEAN | 183 | Jul 11 | 43 | Sep 23-25 | 21 | Aug 30 1966 |
| ANNUAL SEVEN-DAY MINIMUM | 204 | Jul 1 | 44 | Sep 19 | 24 | Aug 28 1966 |
| MAXIMUM PEAK FLOW | | | 5590 | Mar 29 | a 34600 | Jun 23 1972 |
| MAXIMUM PEAK STAGE | | | 7.96 | Mar 29 | b 14.85 | Jun 23 1972 |
| INSTANTANEOUS LOW FLOW | | | 43 | Sep 22-26 | 7.0 | Sep 27 1932 |
| ANNUAL RUNOFF (CFSM) | 2.36 | | 1.71 | | 1.49 | |
| ANNUAL RUNOFF (INCHES) | 32.14 | | 23.20 | | 20.22 | |
| 10 PERCENT EXCEEDS | 1310 | | 1200 | | 988 | |
| 50 PERCENT EXCEEDS | 494 | | 371 | | 268 | |
| 90 PERCENT EXCEEDS | 246 | | 58 | | 68 | |

a From rating curve extended above 6,800 ft³/s on basis of contracted-opening measurement of peak flow.

b From floodmark in gage.



PENNS CREEK BASIN

01555000 PENNS CREEK AT PENNS CREEK, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

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

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

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.

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

| Date | 09/15/04 |
|----------------------------------|----------|
| Benthic macroinvertebrate | Count |
| Platyhelminthes | |
| Turbellaria (FLATWORMS) | |
| Tricladida | |
| Planariidae | 1 |
| Nematoda (NEMATODES) | 3 |
| Mollusca | |
| Gastropoda (SNAILS) | |
| Basommatophora | |
| Ancylidae | |
| <i>Ferrissia</i> | 1 |
| Hydrobiidae | |
| <i>Ammicola</i> | 2 |
| Pleuroceridae | |
| <i>Leptoxis carinata</i> | 9 |
| Bivalvia (CLAMS) | |
| Veneroida | |
| Sphaeriidae | |
| <i>Sphaerium</i> | 1 |
| Annelida | |
| Oligochaeta (AQUATIC EARTHWORMS) | |
| Tubificida | |
| Enchytraeidae | 1 |
| Tubificidae | 3 |
| Arthropoda | |
| Acariformes | |
| Hydrachnidia (WATER MITES) | 1 |
| Insecta | |
| Ephemeroptera (MAYFLIES) | |
| Baetidae | 1 |
| <i>Acentrella</i> | 3 |
| <i>Baetis</i> | 28 |
| <i>Heterocloeon</i> | 2 |
| <i>Plauditus</i> | 2 |
| Caenidae | |
| <i>Caenis</i> | 3 |
| Ephemerellidae | 7 |
| <i>Ephemerella</i> | 1 |
| <i>Serratella</i> | 12 |
| Heptageniidae | 2 |
| <i>Stenonema</i> | 30 |
| Isonychiidae | |
| <i>Isonychia</i> | 15 |
| Leptophlebiidae | |
| <i>Paraleptophlebia</i> | 1 |
| Potamanthidae | |
| <i>Anthopotamus</i> | 2 |

PENNS CREEK BASIN

01555000 PENNS CREEK AT PENNS CREEK, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

| Date | 09/15/04 |
|-----------------------------|----------|
| Benthic macroinvertebrate | Count |
| Plecoptera (STONEFLIES) | |
| Perlidae | |
| <i>Acroneuria</i> | 1 |
| <i>Paragnetina</i> | 1 |
| Trichoptera (CADDISFLIES) | |
| Brachycentridae | |
| <i>Micrasema</i> | 2 |
| Helicopsychidae | |
| <i>Helicopsyche</i> | 6 |
| Hydropsychidae | |
| <i>Cheumatopsyche</i> | 12 |
| <i>Hydropsyche</i> | 2 |
| Hydroptilidae | |
| <i>Leucotrichia</i> | 1 |
| Psychomyiidae | |
| <i>Psychomyia</i> | 2 |
| Coleoptera (BEETLES) | |
| Elmidae (RIFFLE BEETLES) | |
| <i>Optioservus</i> | 29 |
| <i>Stenelmis</i> | 15 |
| Psephenidae (WATER PENNIES) | |
| <i>Psephenus</i> | 10 |
| Diptera (TRUE FLIES) | |
| Chironomidae (MIDGES) | |
| | 26 |
| Empididae (DANCE FLIES) | |
| <i>Hemerodromia</i> | 2 |
| Ephydriidae | |
| | 1 |
| Simuliidae (BLACK FLIES) | |
| <i>Simulium</i> | 2 |
| Total Organisms | 243 |
| Total Taxa | 38 |