



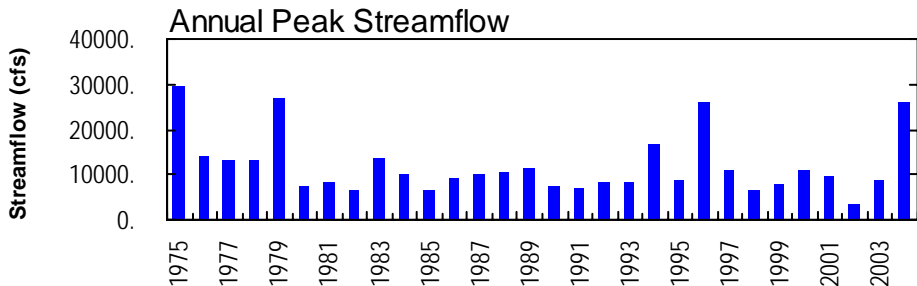
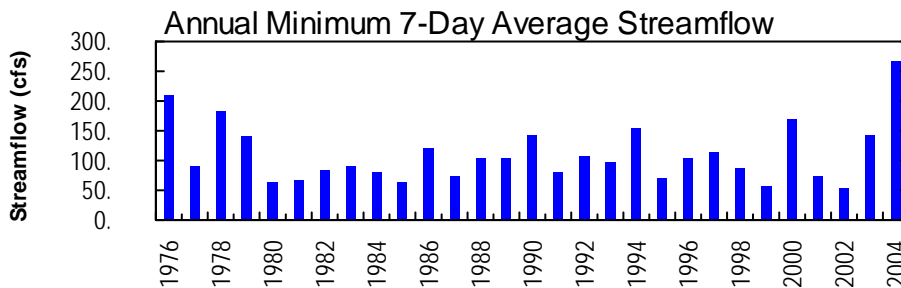
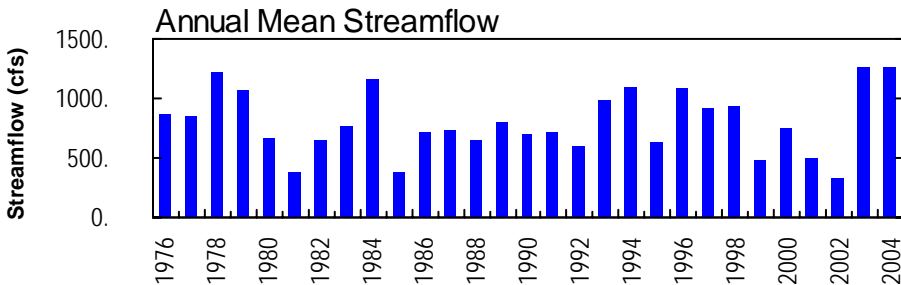
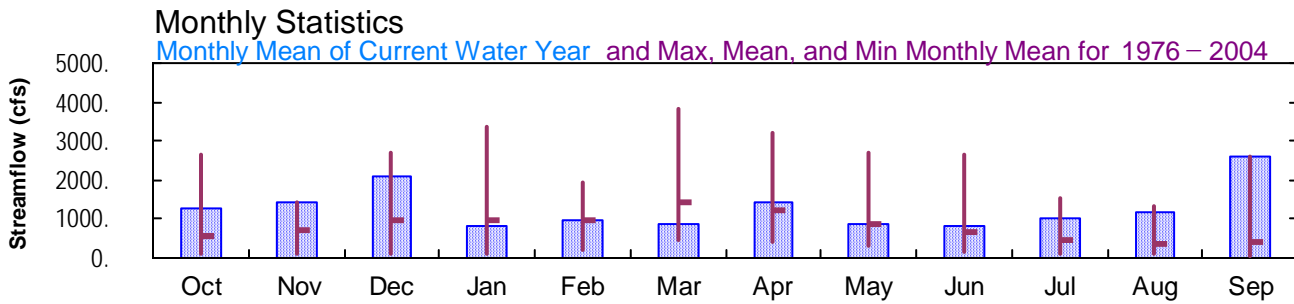
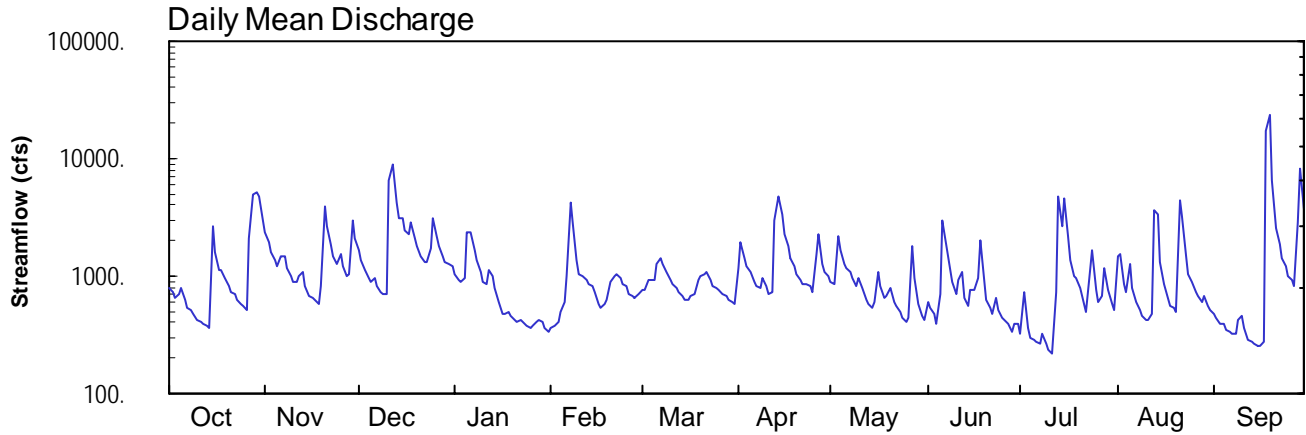
2004 Water Year SWATARA CREEK BASIN

01573560 Swatara Creek near Hershey, PA

Latitude: 40° 17' 54"
Dauphin County

Longitude: 076° 40' 05"
Datum: 325.94 feet

Hydrologic Unit Code: 02050305
Drainage Area: 483. mi²



SWATARA CREEK BASIN

01573560 SWATARA CREEK NEAR HERSHEY, PA

LOCATION.--Lat 40°17'54", long 76°40'05", Dauphin County, Hydrologic Unit 02050305, on left bank, 0.4 mi downstream from Manada Creek, 0.5 mi upstream from State Highway 39, and 1.5 mi northwest of Hershey.

DRAINAGE AREA.--483 mi².

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder and gated concrete control. Datum of gage is 325.94 ft above National Geodetic Vertical Datum of 1929 (levels by Susquehanna River Basin Commission).

REMARKS.--Records fair except for estimated daily discharges, which are poor. The Pennsylvania American Water Company diverts water upstream from station for municipal supply of city of Lebanon. Diversion for the year was equivalent to a mean daily discharge of 11.3 ft³/s. In addition, water is diverted just upstream from the station for 9 municipalities in Dauphin and Lebanon Counties. Diversion for the year was equivalent to a mean daily discharge of 5.0 ft³/s. Satellite and landline telemetry at station.

COOPERATION.--Records of daily diversion furnished by Pennsylvania American Water Company.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 6,900 ft³/s and maximum (*):

| Date | Time | Discharge ft ³ /s | Gage Height (ft) | Date | Time | Discharge ft ³ /s | Gage Height (ft) |
|----------|------|---------------------------------|---------------------|----------|------|---------------------------------|---------------------|
| Dec. 12 | 0915 | 9,970 | 7.51 | Sept. 29 | 1230 | 8,880 | 7.01 |
| Sept. 19 | 1230 | *26,000 | *14.27 | | | | |

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES**

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 791 | 2350 | 1680 | 1030 | e360 | e750 | 1170 | 897 | 603 | 322 | 1480 | 468 |
| 2 | 724 | 1910 | 1370 | 929 | e380 | e770 | 1970 | 849 | 539 | 736 | 1520 | 448 |
| 3 | 650 | 1580 | 1120 | 889 | e400 | e920 | 1420 | 2210 | 479 | 365 | 872 | 393 |
| 4 | 696 | 1350 | 962 | 953 | e500 | e940 | 1220 | 1670 | 389 | 301 | 739 | 388 |
| 5 | 781 | 1220 | 887 | 2350 | e600 | e910 | 1090 | 1270 | 691 | 284 | 1250 | 348 |
| 6 | 629 | 1460 | 948 | 2370 | e1000 | 1280 | 891 | 1170 | 2990 | 271 | 796 | 329 |
| 7 | 538 | 1480 | 829 | 1690 | e4200 | 1410 | 824 | 1070 | 1850 | 268 | 606 | 320 |
| 8 | 512 | 1170 | 722 | 1350 | e2900 | 1260 | 796 | 949 | 1140 | 321 | 519 | 323 |
| 9 | 474 | 995 | 693 | e1100 | e1350 | 1100 | 945 | 823 | 884 | 263 | 462 | 419 |
| 10 | 430 | 896 | 704 | e900 | e1050 | 940 | 814 | 979 | 702 | 239 | 427 | 450 |
| 11 | 412 | 883 | 6430 | e850 | e1000 | 861 | 711 | 777 | 916 | 219 | 420 | 357 |
| 12 | 391 | 1010 | 8760 | 1130 | e920 | 789 | 737 | 624 | 1070 | 721 | 482 | 289 |
| 13 | 375 | 1060 | 4200 | 986 | e840 | 726 | 2990 | 572 | 651 | 4840 | 3650 | 272 |
| 14 | 362 | 820 | 3100 | 789 | e820 | 677 | 4760 | 541 | 551 | 2610 | 3420 | 270 |
| 15 | 2620 | 683 | 3060 | e600 | e720 | 634 | 3350 | 604 | 776 | 4590 | 1310 | 250 |
| 16 | 1580 | 643 | 2430 | e470 | e570 | 629 | 2300 | 1060 | 771 | 2190 | 851 | 252 |
| 17 | 1120 | 623 | 2300 | e480 | e530 | 680 | 1770 | 809 | 977 | 1340 | 656 | 273 |
| 18 | 1120 | 587 | 2850 | e490 | e570 | 696 | 1450 | 650 | 2020 | 1000 | 561 | 17500 |
| 19 | 968 | 808 | 2080 | e460 | e620 | 923 | 1200 | 675 | 920 | 955 | 543 | 23500 |
| 20 | 820 | 3900 | 1790 | e430 | e900 | 1020 | 1030 | 788 | 630 | 777 | 503 | 6440 |
| 21 | 745 | 2640 | 1500 | e400 | e1000 | 1040 | 914 | 601 | 534 | 583 | 4320 | 2570 |
| 22 | 704 | 1860 | 1310 | e430 | e1050 | 1090 | 859 | 561 | 474 | 501 | 3290 | 1850 |
| 23 | 638 | 1450 | 1300 | e400 | e950 | 925 | 847 | 488 | 641 | 1130 | 1450 | 1420 |
| 24 | 579 | 1240 | 1720 | e380 | e860 | 833 | 823 | 444 | 522 | 1640 | 1040 | 1200 |
| 25 | 547 | 1510 | 3050 | e360 | e820 | 790 | 740 | 406 | 442 | 772 | 879 | 1010 |
| 26 | 513 | 1210 | 2200 | e370 | e710 | 754 | 1530 | 436 | 410 | 604 | 724 | 929 |
| 27 | 2070 | 982 | 1780 | e400 | e680 | 714 | 2290 | 1810 | 388 | 667 | 665 | 808 |
| 28 | 4980 | 1050 | 1500 | e430 | e660 | 686 | 1280 | 951 | 339 | 1180 | 603 | 2830 |
| 29 | 5050 | 3010 | 1320 | e400 | e700 | 624 | 1080 | 574 | 396 | 769 | 675 | 8160 |
| 30 | 4790 | 2130 | 1280 | e360 | --- | 593 | 993 | 462 | 393 | 572 | 566 | 3700 |
| 31 | 3020 | --- | 1200 | e340 | --- | 575 | --- | 427 | --- | 507 | 511 | --- |
| TOTAL | 39629 | 42510 | 65075 | 24516 | 27660 | 26539 | 42794 | 26147 | 24088 | 31537 | 35790 | 77766 |
| MEAN | 1278 | 1417 | 2099 | 791 | 954 | 856 | 1426 | 843 | 803 | 1017 | 1155 | 2592 |
| MAX | 5050 | 3900 | 8760 | 2370 | 4200 | 1410 | 4760 | 2210 | 2990 | 4840 | 4320 | 23500 |
| MIN | 362 | 587 | 693 | 340 | 360 | 575 | 711 | 406 | 339 | 219 | 420 | 250 |
| CFSM | 2.65 | 2.93 | 4.35 | 1.64 | 1.97 | 1.77 | 2.95 | 1.75 | 1.66 | 2.11 | 2.39 | 5.37 |
| IN. | 3.05 | 3.27 | 5.01 | 1.89 | 2.13 | 2.04 | 3.30 | 2.01 | 1.86 | 2.43 | 2.76 | 5.99 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2004, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| MEAN | 574 | 728 | 992 | 956 | 954 | 1408 | 1217 | 880 | 662 | 446 | 358 | 424 |
| MAX | 2632 | 1427 | 2693 | 3370 | 1963 | 3848 | 3207 | 2708 | 2641 | 1536 | 1346 | 2592 |
| (WY) | 1977 | 1993 | 1997 | 1979 | 1998 | 1994 | 1993 | 1989 | 2003 | 1989 | 2003 | 2004 |
| MIN | 85.3 | 109 | 111 | 79.9 | 220 | 459 | 420 | 295 | 158 | 78.9 | 81.8 | 73.0 |
| (WY) | 1981 | 2002 | 1981 | 1981 | 2002 | 1985 | 1995 | 1999 | 1999 | 1999 | 2002 | 1980 |

e Estimated.

SWATARA CREEK BASIN

01573560 SWATARA CREEK NEAR HERSHEY, PA--Continued

| SUMMARY STATISTICS | FOR 2003 CALENDAR YEAR | | FOR 2004 WATER YEAR | | WATER YEARS 1976 - 2004 | |
|---------------------------|-------------------------------|--------|----------------------------|-----------|--------------------------------|-------------------------|
| ANNUAL TOTAL | 518882 | | 464051 | | | |
| ANNUAL MEAN | 1422 | | 1268 | | 799 | |
| HIGHEST ANNUAL MEAN | | | | | 1268 | 2004 |
| LOWEST ANNUAL MEAN | | | | | 327 | 2002 |
| HIGHEST DAILY MEAN | 8760 | Dec 12 | 23500 | Sep 19 | 23800 | Jan 25 1979 |
| LOWEST DAILY MEAN | 109 | Feb 17 | 219 | Jul 11 | 29 | Aug 6 2002 |
| ANNUAL SEVEN-DAY MINIMUM | 237 | Feb 14 | 266 | Jul 5 | 52 | Aug 6 2002 |
| MAXIMUM PEAK FLOW | | | 26000 | Sep 19 | 29400 | Sep 27 1975 |
| MAXIMUM PEAK STAGE | | | 14.27 | Sep 19 | 15.36 | Sep 27 1975 |
| INSTANTANEOUS LOW FLOW | | | 210 | Jul 11,12 | 24 | Aug 5 2002 ^a |
| ANNUAL RUNOFF (CFSM) | 2.94 | | 2.63 | | 1.65 | |
| ANNUAL RUNOFF (INCHES) | 39.96 | | 35.74 | | 22.48 | |
| 10 PERCENT EXCEEDS | 3020 | | 2390 | | 1770 | |
| 50 PERCENT EXCEEDS | 1010 | | 824 | | 454 | |
| 90 PERCENT EXCEEDS | 397 | | 393 | | 132 | |

^a Also Aug. 6, Sept. 10, 14, 15, 21.