## CHRISTINA RIVER BASIN

### 01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA

**LOCATION**.--Lat 39°58'07", long 75°40'25", Chester County, Hydrologic Unit 02040205, on left bank at downstream side of Sugars Bridge (U.S. Highway 322), 2,000 ft upstream from Valley Creek, 1.5 mi north of Marshallton, and 3.3 mi southeast of Downingtown.

**DRAINAGE AREA**.--89.9 $mi^2$.

### WATER-DISCHARGE RECORDS

**PERIOD OF RECORD**.--February 1972 to current year.

**REVISED RECORDS**.--WDR PA-75-1: 1972(P), 1973, 1974.

**GAGE**.--Water-stage recorder and crest-stage gage. Elevation of gage is 195 ft above National Geodetic Vertical Datum of 1929, from topographic map. Feb. 1 to Apr. 10, and June 25 to Nov. 17, 1972, nonrecording gage at same site and datum.

**REMARKS**.--Records fair except those for estimated daily discharges, which are poor. Flow regulated since November 1973 by Marsh Creek Reservoir (station 01480684) about 7.5 mi upstream. Satellite and landline telemetry at station.

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 | 45 | 40 | 41 | e25 | 76 | 44 | 78 | 83 | 63 | 47 | 22 | 67 |
| 2 | 40 | 40 | 41 | e27 | 72 | 46 | 69 | 212 | 56 | 43 | 23 | 51 |
| 3 | 38 | 41 | 41 | e30 | 55 | 207 | 66 | 244 | 51 | 41 | 52 | 32 |
| 4 | 37 | 41 | 41 | e33 | e48 | 78 | 72 | 102 | 49 | 39 | 78 | 33 |
| 5 | 34 | 40 | 39 | e34 | e40 | 53 | 65 | 87 | 60 | 36 | 30 | 31 |
| 6 | 29 | 38 | 39 | e50 | e37 | 48 | 62 | 80 | 177 | 32 | 30 | 27 |
| 7 | 30 | 37 | 38 | 96 | e45 | 49 | 60 | 75 | 408 | 34 | 28 | 26 |
| 8 | 35 | 39 | 45 | 64 | 52 | 56 | 58 | 71 | 91 | 37 | 27 | 27 |
| 9 | 35 | 39 | 75 | 51 | 50 | 44 | 59 | 96 | 72 | 34 | 26 | 24 |
| 10 | 32 | 37 | 50 | 50 | 50 | 62 | 67 | 94 | 71 | 41 | 25 | 26 |
| 11 | 34 | 38 | 46 | 129 | 52 | 44 | 58 | 73 | 67 | 33 | 25 | 23 |
| 12 | 34 | 39 | 44 | 99 | 49 | 42 | 56 | 82 | 65 | 30 | 25 | 20 |
| 13 | 35 | 39 | 45 | 56 | 49 | 57 | 58 | 157 | 63 | 30 | 23 | 20 |
| 14 | 35 | 37 | 58 | 47 | 46 | 63 | 66 | 374 | 145 | 34 | 22 | 19 |
| 15 | 48 | 37 | 63 | 44 | 47 | 54 | 63 | 127 | 114 | 37 | 23 | 25 |
| 16 | 38 | 40 | 51 | 40 | 48 | 47 | 58 | 103 | 92 | 33 | 22 | 44 |
| 17 | 42 | 38 | 47 | 44 | 48 | 59 | 55 | 92 | 77 | 30 | 23 | 31 |
| 18 | 37 | 38 | 79 | 48 | 46 | 96 | 52 | 321 | 72 | 28 | 24 | 25 |
| 19 | 38 | 39 | 57 | 48 | 46 | 80 | 53 | 144 | 75 | 29 | 23 | 26 |
| 20 | 40 | 41 | 48 | 50 | 46 | 244 | 54 | 112 | 68 | 31 | 22 | 26 |
| 21 | 39 | 39 | 45 | 50 | 53 | 156 | 50 | 101 | 61 | 30 | 22 | 25 |
| 22 | 38 | 40 | 43 | 48 | 47 | 84 | 72 | 92 | 55 | 27 | 22 | 25 |
| 23 | 28 | 39 | 43 | 48 | 46 | 66 | 64 | 86 | 53 | 28 | 22 | 25 |
| 24 | 39 | 38 | 59 | 269 | 45 | 59 | 54 | 79 | 62 | 31 | 41 | 45 |
| 25 | 37 | 61 | 51 | 140 | 46 | 56 | 61 | 76 | 58 | 28 | 64 | 24 |
| 26 | 38 | 81 | 45 | 69 | 46 | 57 | 65 | 73 | 53 | 26 | 24 | 31 |
| 27 | 37 | 49 | e40 | 56 | 46 | 147 | 55 | 75 | 54 | 26 | 28 | 136 |
| 28 | 36 | 44 | e38 | 52 | 46 | 81 | 186 | 74 | 78 | 30 | 26 | 102 |
| 29 | 37 | 42 | e40 | 50 | --- | 68 | 126 | 71 | 52 | 30 | 97 | 37 |
| 30 | 39 | 43 | e33 | 48 | --- | 66 | 88 | 67 | 47 | 28 | 36 | 32 |
| 31 | 35 | --- | e30 | 80 | --- | 69 | --- | 64 | --- | 23 | 28 | --- |
| TOTAL | 1139 | 1254 | 1455 | 1975 | 1377 | 2382 | 2050 | 3587 | 2509 | 1006 | 983 | 1085 |
| MEAN | 36.7 | 41.8 | 46.9 | 63.7 | 49.2 | 76.8 | 68.3 | 116 | 83.6 | 32.5 | 31.7 | 36.2 |
| MAX | 48 | 81 | 79 | 269 | 76 | 244 | 186 | 374 | 408 | 47 | 97 | 136 |
| MIN | 28 | 37 | 30 | 25 | 37 | 42 | 50 | 64 | 47 | 23 | 22 | 19 |
| CFSM | 0.41 | 0.46 | 0.52 | 0.71 | 0.55 | 0.85 | 0.76 | 1.29 | 0.93 | 0.36 | 0.35 | 0.40 |
| IN. | 0.47 | 0.52 | 0.60 | 0.82 | 0.57 | 0.99 | 0.85 | 1.48 | 1.04 | 0.42 | 0.41 | 0.45 |

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2002, BY WATER YEAR (WY)**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 90.4 | 110 | 166 | 180 | 173 | 217 | 206 | 168 | 117 | 105 | 72.6 | 91.6 |
| MAX | 304 | 242 | 577 | 527 | 409 | 525 | 594 | 410 | 315 | 421 | 177 | 292 |
| (WY) | 1997 | 1997 | 1997 | 1979 | 1979 | 1994 | 1983 | 1989 | 1982 | 1984 | 1996 | 1979 |
| MIN | 36.7 | 41.8 | 40.8 | 30.9 | 49.2 | 61.6 | 53.1 | 75.9 | 45.5 | 32.5 | 28.6 | 29.5 |
| (WY) | 2002 | 2002 | 1981 | 1981 | 2002 | 1985 | 1985 | 1999 | 1999 | 2002 | 1999 | 1980 |

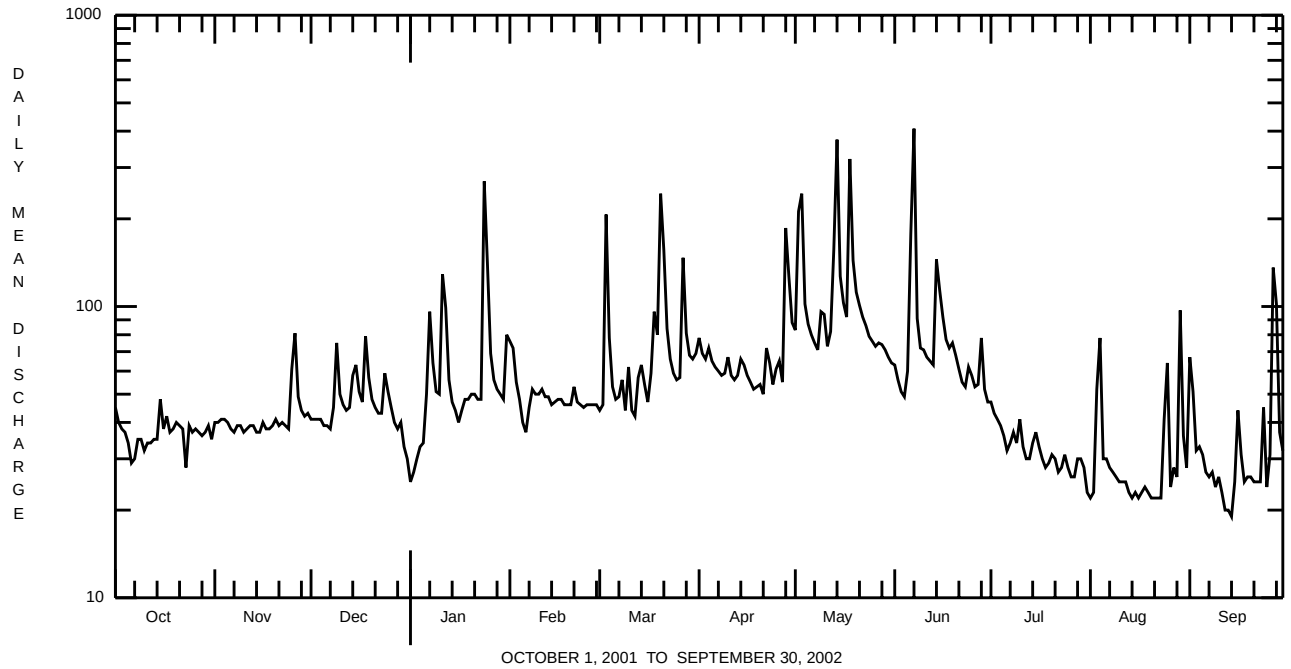
**e** Estimated.

**CHRISTINA RIVER BASIN**

**01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA**--Continued

| SUMMARY STATISTICS | FOR 2001 CALENDAR YEAR | | FOR 2002 WATER YEAR | | WATER YEARS 1974 - 2002 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 37240 | | 20802 | | | |
| ANNUAL MEAN | 102 | | 57.0 | | 141 | |
| HIGHEST ANNUAL MEAN | | | | | 257 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 57.0 | 2002 |
| HIGHEST DAILY MEAN | 938 | Mar 30 | 408 | Jun 7 | 3080 | Sep 16 1999 |
| LOWEST DAILY MEAN | 28 | Oct 23 | 19 | Sep 14 | 19 | Sep 14 2002 |
| ANNUAL SEVEN-DAY MINIMUM | 32 | Sep 6 | 22 | Sep 9 | 22 | Sep 9 2002 |
| MAXIMUM PEAK FLOW | | | 1590 | Jun 7 | **a**8160 | Jun 22 1972 |
| MAXIMUM PEAK STAGE | | | 6.51 | Jun 7 | **b**14.79 | Sep 16 1999 |
| ANNUAL RUNOFF (CFSM) | 1.13 | | 0.63 | | 1.57 | |
| ANNUAL RUNOFF (INCHES) | 15.41 | | 8.61 | | 21.33 | |
| 10 PERCENT EXCEEDS | 202 | | 89 | | 269 | |
| 50 PERCENT EXCEEDS | 70 | | 46 | | 91 | |
| 90 PERCENT EXCEEDS | 35 | | 26 | | 41 | |

**a** From rating curve extended above 3,600 $ft^3/s$ on basis of slope-area measurement of peak flow at gage height 13.40 ft.
**b** Discharge, 7,200 $ft^3/s$ on basis of runoff comparison with nearby stations.



## CHRISTINA RIVER BASIN

### 01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

### WATER-QUALITY RECORDS

**PERIOD OF RECORD**.--October 1965 to September 1966, October 1970 to current year.

**PERIOD OF DAILY RECORD**.--
SPECIFIC CONDUCTANCE: February 1972 to current year.
pH: February 1972 to current year.
WATER TEMPERATURES: February 1972 to current year.
DISSOLVED OXYGEN: February 1972 to current year.

**INSTRUMENTATION**.--Water-quality monitor since February 1972.

**REMARKS**.--Specific conductance record rated good, except for periods July 8-23 and Aug. 6-14, which are fair, and Mar. 27 to Apr. 1, which are poor. pH record rated good, except for periods Nov. 7-19 and Sept. 12-30, which are fair. Water temperature record rated good. Dissolved oxygen record rated fair. Data collection discontinued during winter months since 1981 water year. Other interruptions in the record were due to malfunctions of the equipment.

**EXTREMES FOR PERIOD OF DAILY RECORD**.--
SPECIFIC CONDUCTANCE: Maximum, 891 microsiemens, Mar. 5, 2001; minimum, 67 microsiemens, July 1, 1984.
pH: Maximum, 9.9, May 13, June 5, 1973; minimum, 5.4, Oct. 24, 26, 1973.
WATER TEMPERATURE: Maximum, 33.0°C, July 18, 1977; minimum, 0.0°C, many days during winters.
DISSOLVED OXYGEN: Maximum, 19.4 mg/L, Mar. 18, 1989; minimum, 0.8 mg/L, July 23, 1984.

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

| Date | Time | AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027) | AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028) | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | 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) | COLI-FORM, FECAL, 0.7 µM-MF (COLS./ 100 ML) (31625) |
|---|---|---|---|---|---|---|---|---|---|
| MAR 2002 | | | | | | | | | |
| 05... | 1350 | 1028 | 1028 | 51 | 15.8 | 8.1 | 346 | 6.4 | 119 |
| 18... | 1330 | 1028 | 1028 | 105 | 12.3 | 7.9 | 319 | 7.2 | 433 |
| APR | | | | | | | | | |
| 23... | 1530 | 1028 | 1028 | 59 | 12.0 | 8.3 | 317 | 16.3 | 450 |
| MAY | | | | | | | | | |
| 01... | 1425 | 1028 | 1028 | 84 | 11.2 | 7.8 | 297 | 11.2 | 130 |
| 14... | 1345 | 1028 | 1028 | 234 | 8.6 | 7.3 | 179 | 15.8 | 13000 |
| 30... | 1515 | 1028 | 1028 | 68 | 10.9 | 7.7 | 327 | 23.2 | 627 |
| JUN | | | | | | | | | |
| 10... | 0941 | 1028 | 1028 | 62 | 7.5 | 7.2 | 312 | 20.0 | 800 |
| 17... | 1200 | 1028 | 1028 | 68 | 9.2 | 7.5 | 299 | 19.7 | 380 |
| 25... | 1245 | 1028 | 1028 | 57 | 9.6 | 7.7 | 338 | 25.0 | 620 |
| JUL | | | | | | | | | |
| 08... | 1300 | 1028 | 1028 | 36 | 9.7 | 8.0 | 382 | 22.9 | 360 |
| 15... | 1310 | 1028 | 1028 | 37 | 9.9 | 7.9 | 402 | 22.6 | 237 |
| 23... | 1245 | 1028 | 1028 | 25 | 9.2 | 7.9 | 414 | 25.9 | 520 |
| AUG | | | | | | | | | |
| 06... | 1300 | 1028 | 1028 | 30 | 8.1 | 7.8 | 389 | 24.0 | 427 |
| 14... | 1330 | 1028 | 1028 | 24 | 10.6 | 8.3 | 441 | 26.2 | 700 |
| 20... | 1405 | 1028 | 1028 | 21 | 9.3 | 7.8 | 464 | 25.7 | 1450 |
| SEP | | | | | | | | | |
| 12... | 1250 | 1028 | 1028 | 23 | 8.6 | 8.2 | 514 | 20.0 | 540 |
| 23... | 1130 | 1028 | 1028 | 23 | 7.6 | 7.6 | 450 | 22.0 | 260 |

## CHRISTINA RIVER BASIN

### 01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

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

| Date | Time | AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028) | AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027) | DISCHARGE, INST. CUBIC FEET PER SECOND (00061) | OXYGEN, DISSOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STANDARD UNITS) (00400) | SPECIFIC CONDUCTANCE (µS/CM) (00095) | TEMPERATURE WATER (DEG C) (00010) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | MAGNESIUM, DISSOLVED (MG/L AS MG) (00925) | POTASSIUM, DISSOLVED (MG/L AS K) (00935) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | ANC WATER UNFLTRD IT FIELD (MG/L AS CACO3) (00419) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 2001 03... | 1130 | 80020 | 1028 | 43 | 10.4 | 7.8 | 382 | 15.5 | 32.9 | 10.8 | 4.47 | 25.4 | 87 |

| Date | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | SILICA, DISSOLVED (MG/L AS SIO2) (00955) | SULFATE DISSOLVED (MG/L AS SO4) (00945) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631) | NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613) | ORTHOPHOSPHATE, DISSOLVED (MG/L AS P) (00671) | ALUMINUM, DISSOLVED (µG/L AS AL) (01106) | ARSENIC DISSOLVED (µG/L AS AS) (01000) | BORON, DISSOLVED (µG/L AS B) (01020) | CADMIUM DISSOLVED (µG/L AS CD) (01025) | CHROMIUM, DISSOLVED (µG/L AS CR) (01030) | COPPER, DISSOLVED (µG/L AS CU) (01040) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 2001 03... | 38.0 | 11.0 | 22.1 | <.04 | 3.19 | E.006 | .31 | 20 | <2 | 210 | <.1 | <.8 | 4.0 |

| Date | IRON, DISSOLVED (µG/L AS FE) (01046) | LEAD, DISSOLVED (µG/L AS PB) (01049) | MANGANESE, DISSOLVED (µG/L AS MN) (01056) | MERCURY DISSOLVED (µG/L AS HG) (71890) | MOLYBDENUM, DISSOLVED (µG/L AS MO) (01060) | NICKEL, DISSOLVED (µG/L AS NI) (01065) | ZINC, DISSOLVED (µG/L AS ZN) (01090) |
|---|---|---|---|---|---|---|---|
| OCT 2001 03... | 28 | <1 | 27.3 | <.01 | <1.8 | <2.0 | <24 |

**01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA**--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

**REMARKS**.--Samples were collected using a Hess sampler with a mesh size of 500 µm. Each sample covered a total area of 3.2 $m^2$.

| Date | 10/03/01 |
|---|---|
| Benthic Macroinvertebrate | Count |
| Platyhelminthes | |
| Turbellaria (FLATWORMS) | |
| Tricladida | |
| Planariidae | 44 |
| Nematoda (NEMATODES) | 82 |
| Nemertea (PROBOSCIS WORMS) | |
| Enopla | |
| Hoplonemertea | |
| Tetrastemmatidae | |
| Prostoma sp | 3 |
| Mollusca | |
| Gastropoda (SNAILS) | |
| Basommatophora | |
| Ancylidae | |
| Ferrissia sp | 3 |
| Lymnaeidae | 2 |
| Planorbidae | |
| Gyraulus sp | 4 |
| Annelida | |
| Oligochaeta (AQUATIC EARTHWORMS) | 9 |
| Arthropoda | |
| Acariformes | |
| Hydrachnidia (WATER MITES) | 79 |
| Crustacea | |
| Amphipoda (SCUDS) | |
| Gammaridae | |
| Gammarus sp | 29 |
| Insecta | |
| Ephemeroptera (MAYFLIES) | |
| Baetidae | |
| Baetis sp | 68 |
| Caenidae | |
| Caenis sp | 49 |
| Ephemerellidae sp | |
| Serratella sp | 87 |
| Heptageniidae | |
| Stenonema sp | 43 |
| Isonychiidae | |
| Isonychia sp | 5 |
| Leptohyphidae | |
| Tricorythodes sp | 8 |
| Plecoptera (STONEFLIES) | |
| Capniidae | 1 |

**01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA**--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

| Date | 10/03/01 |
|---|---|
| Benthic Macroinvertebrate | Count |
| Trichoptera (CADDISFLIES) | |
| Apataniidae | |
| Apatania sp | 1 |
| Brachycentridae | |
| Micrasema sp | 6 |
| Hydropsychidae | |
| Cheumatopsyche sp | 232 |
| Hydropsyche sp | 626 |
| Hydroptilidae | |
| Leucotrichia sp | 2 |
| Lepidostomatidae | |
| Lepidostoma sp | 1 |
| Philopotamidae | |
| Chimarra sp | 80 |
| Lepidoptera | |
| Pyralididae (MOTHS) | |
| Petrophila sp | 9 |
| Coleoptera (BEETLES) | |
| Elmidae (RIFFLE BEETLES) | |
| Optioservus sp | 277 |
| Oulimnius sp | 4 |
| Stenelmis sp | 63 |
| Hydrophilidae | |
| Berosus sp | 1 |
| Psephenidae (WATER PENNIES) | |
| Psephenus sp | 13 |
| Diptera (TRUE FLIES) | |
| Chironomidae (MIDGES) | 56 |
| Empididae (DANCE FLIES) | |
| Hemerodromia sp | 3 |
| Tipulidae (CRANE FLIES) | |
| Antocha sp | 4 |
| Total organisms | 1894 |
| Total number of taxa | 32 |

**CHRISTINA RIVER BASIN**

**01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA**--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **OCTOBER** | | | **NOVEMBER** | | | **DECEMBER** | | | **JANUARY** | |
| 1 | 358 | 341 | 350 | 384 | 362 | 373 | 369 | 318 | 345 | --- | --- | --- |
| 2 | 375 | 340 | 360 | 388 | 352 | 372 | 374 | 351 | 362 | --- | --- | --- |
| 3 | 386 | 334 | 369 | 387 | 363 | 376 | 375 | 330 | 356 | --- | --- | --- |
| 4 | 399 | 343 | 375 | 391 | 363 | 377 | 369 | 356 | 363 | --- | --- | --- |
| 5 | 394 | 352 | 377 | 397 | 376 | 383 | --- | --- | --- | --- | --- | --- |
| 6 | 454 | 358 | 418 | 397 | 364 | 380 | --- | --- | --- | --- | --- | --- |
| 7 | 462 | 429 | 443 | 394 | 358 | 383 | --- | --- | --- | --- | --- | --- |
| 8 | 456 | 398 | 413 | 395 | 354 | 378 | --- | --- | --- | --- | --- | --- |
| 9 | 405 | 384 | 392 | 394 | 357 | 378 | --- | --- | --- | --- | --- | --- |
| 10 | 400 | 356 | 388 | 391 | 362 | 381 | --- | --- | --- | --- | --- | --- |
| 11 | 398 | 343 | 376 | 393 | 358 | 380 | --- | --- | --- | --- | --- | --- |
| 12 | 401 | 360 | 384 | 394 | 360 | 381 | --- | --- | --- | --- | --- | --- |
| 13 | 393 | 361 | 377 | 394 | 369 | 381 | --- | --- | --- | --- | --- | --- |
| 14 | 395 | 358 | 377 | 410 | 343 | 383 | --- | --- | --- | --- | --- | --- |
| 15 | 380 | 321 | 347 | 390 | 357 | 376 | --- | --- | --- | --- | --- | --- |
| 16 | 375 | 303 | 349 | 392 | 357 | 377 | --- | --- | --- | --- | --- | --- |
| 17 | 389 | 358 | 374 | 402 | 361 | 384 | --- | --- | --- | --- | --- | --- |
| 18 | 383 | 310 | 355 | 402 | 371 | 390 | --- | --- | --- | --- | --- | --- |
| 19 | 400 | 370 | 387 | 401 | 383 | 392 | --- | --- | --- | --- | --- | --- |
| 20 | 422 | 388 | 402 | 395 | 366 | 379 | --- | --- | --- | --- | --- | --- |
| 21 | 419 | 392 | 407 | 392 | 373 | 384 | --- | --- | --- | --- | --- | --- |
| 22 | 410 | 380 | 394 | 395 | 348 | 374 | --- | --- | --- | --- | --- | --- |
| 23 | 423 | 396 | 410 | 374 | 346 | 359 | --- | --- | --- | --- | --- | --- |
| 24 | 437 | 375 | 398 | 382 | 347 | 368 | --- | --- | --- | --- | --- | --- |
| 25 | 388 | 324 | 368 | 381 | 246 | 344 | --- | --- | --- | --- | --- | --- |
| 26 | 393 | 377 | 386 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 27 | 413 | 371 | 394 | 339 | 308 | 325 | --- | --- | --- | --- | --- | --- |
| 28 | 421 | 378 | 399 | 352 | 313 | 339 | --- | --- | --- | --- | --- | --- |
| 29 | 418 | 372 | 396 | 356 | 341 | 350 | --- | --- | --- | --- | --- | --- |
| 30 | 403 | 365 | 382 | 361 | 341 | 352 | --- | --- | --- | --- | --- | --- |
| 31 | 392 | 301 | 360 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MONTH | 462 | 301 | 384 | 410 | 246 | 372 | --- | --- | --- | --- | --- | --- |

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **FEBRUARY** | | | **MARCH** | | | **APRIL** | | | **MAY** | |
| 1 | --- | --- | --- | 372 | 353 | 361 | 320 | 289 | 307 | 313 | 296 | 303 |
| 2 | --- | --- | --- | 375 | 350 | 364 | 322 | 302 | 313 | 308 | 144 | 264 |
| 3 | --- | --- | --- | 350 | 203 | 237 | 341 | 311 | 324 | 242 | 154 | 201 |
| 4 | --- | --- | --- | 322 | 251 | 289 | 340 | 304 | 323 | 283 | 239 | 266 |
| 5 | --- | --- | --- | 357 | 322 | 341 | 342 | 315 | 325 | 308 | 282 | 294 |
| 6 | --- | --- | --- | 373 | 349 | 367 | 337 | 314 | 327 | 311 | 282 | 301 |
| 7 | --- | --- | --- | 379 | 362 | 373 | 340 | 308 | 328 | 319 | 286 | 311 |
| 8 | --- | --- | --- | 362 | 329 | 344 | 347 | 311 | 333 | 330 | 301 | 319 |
| 9 | --- | --- | --- | 390 | 348 | 369 | 354 | 321 | 344 | 347 | 265 | 308 |
| 10 | --- | --- | --- | 371 | 320 | 337 | 358 | 312 | 334 | 315 | 286 | 300 |
| 11 | --- | --- | --- | 391 | 356 | 376 | 356 | 315 | 334 | 328 | 305 | 314 |
| 12 | --- | --- | --- | 406 | 367 | 388 | 367 | 338 | 353 | 329 | 260 | 309 |
| 13 | --- | --- | --- | 367 | 325 | 348 | 366 | 326 | 344 | 265 | 220 | 245 |
| 14 | --- | --- | --- | 333 | 312 | 325 | 347 | 324 | 333 | 220 | 151 | 182 |
| 15 | --- | --- | --- | 355 | 330 | 343 | 349 | 301 | 324 | 267 | 215 | 244 |
| 16 | --- | --- | --- | 395 | 355 | 369 | 361 | 328 | 341 | 276 | 263 | 269 |
| 17 | --- | --- | --- | 396 | 342 | 356 | 374 | 336 | 354 | 287 | 273 | 280 |
| 18 | --- | --- | --- | 442 | 311 | 359 | 367 | 341 | 357 | 284 | 164 | 210 |
| 19 | --- | --- | --- | 355 | 329 | 343 | 380 | 358 | 368 | 255 | 195 | 230 |
| 20 | --- | --- | --- | 359 | 186 | 288 | 390 | 359 | 373 | 276 | 253 | 263 |
| 21 | --- | --- | --- | 238 | 188 | 217 | 390 | 349 | 367 | 287 | 274 | 277 |
| 22 | --- | --- | --- | 297 | 233 | 269 | 372 | 317 | 332 | 291 | 270 | 282 |
| 23 | --- | --- | --- | 329 | 252 | 303 | 349 | 302 | 323 | 303 | 281 | 293 |
| 24 | --- | --- | --- | 333 | 259 | 303 | 365 | 339 | 350 | 306 | 285 | 297 |
| 25 | --- | --- | --- | 325 | 268 | 297 | 366 | 333 | 346 | 319 | 301 | 306 |
| 26 | --- | --- | --- | 317 | 285 | 305 | 347 | 312 | 327 | 319 | 295 | 307 |
| 27 | 361 | 340 | 349 | 285 | 202 | 219 | 359 | 318 | 336 | 311 | 299 | 307 |
| 28 | 362 | 348 | 354 | 284 | 242 | 262 | 361 | 212 | 264 | 325 | 270 | 303 |
| 29 | --- | --- | --- | 300 | 267 | 284 | 281 | 227 | 250 | 330 | 260 | 316 |
| 30 | --- | --- | --- | 301 | 278 | 288 | 306 | 279 | 295 | 338 | 319 | 330 |
| 31 | --- | --- | --- | 306 | 276 | 297 | --- | --- | --- | 356 | 332 | 350 |
| MONTH | --- | --- | --- | 442 | 186 | 320 | 390 | 212 | 331 | 356 | 144 | 283 |

**01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA**--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **JUNE** | | | **JULY** | | | **AUGUST** | | | **SEPTEMBER** | |
| 1 | 359 | 337 | 348 | 369 | 352 | 364 | 460 | 423 | 442 | 420 | 264 | 345 |
| 2 | 370 | 326 | 350 | 376 | 351 | 361 | 479 | 447 | 464 | 384 | 287 | 336 |
| 3 | 382 | 364 | 371 | 383 | 362 | 372 | 474 | 192 | 420 | 445 | 381 | 409 |
| 4 | 381 | 363 | 373 | 392 | 382 | 386 | 369 | 215 | 291 | 434 | 382 | 415 |
| 5 | 372 | 284 | 341 | 393 | 355 | 374 | 432 | 369 | 397 | 475 | 405 | 442 |
| 6 | 358 | 138 | 321 | 423 | 393 | 406 | 432 | 381 | 398 | 467 | 438 | 451 |
| 7 | 240 | 137 | 186 | --- | --- | --- | 419 | 400 | 407 | 469 | 414 | 443 |
| 8 | 302 | 239 | 276 | --- | --- | --- | 435 | 405 | 421 | 473 | 434 | 452 |
| 9 | 322 | 302 | 314 | 413 | 391 | 398 | 440 | 394 | 422 | 460 | 372 | 428 |
| 10 | 335 | 308 | 322 | 415 | 384 | 399 | 447 | 417 | 432 | 456 | 414 | 435 |
| 11 | 345 | 313 | 334 | 415 | 390 | 404 | 446 | 406 | 429 | 474 | 427 | 448 |
| 12 | 347 | 313 | 338 | 431 | 384 | 412 | 455 | 419 | 438 | 514 | 450 | 487 |
| 13 | 352 | 322 | 340 | 420 | 387 | 406 | 446 | 386 | 414 | 526 | 486 | 506 |
| 14 | 340 | 234 | 276 | 420 | 386 | 397 | 448 | 396 | 426 | 534 | 505 | 518 |
| 15 | 292 | 236 | 267 | 405 | 380 | 393 | 479 | 441 | 459 | 537 | 455 | 495 |
| 16 | 305 | 279 | 290 | 414 | 393 | 405 | 479 | 440 | 460 | 455 | 341 | 382 |
| 17 | 319 | 296 | 310 | 444 | 384 | 416 | 477 | 450 | 460 | 426 | 393 | 413 |
| 18 | 334 | 304 | 318 | 444 | 392 | 418 | 483 | 442 | 462 | 487 | 425 | 460 |
| 19 | --- | --- | --- | 448 | 411 | 432 | 475 | 449 | 461 | 478 | 431 | 456 |
| 20 | --- | --- | --- | 463 | 409 | 434 | 491 | 457 | 469 | 457 | 424 | 443 |
| 21 | --- | --- | --- | 435 | 410 | 424 | 507 | 478 | 493 | 457 | 432 | 443 |
| 22 | --- | --- | --- | 433 | 387 | 414 | 511 | 470 | 487 | 474 | 433 | 453 |
| 23 | --- | --- | --- | 443 | 400 | 421 | 493 | 438 | 470 | --- | --- | --- |
| 24 | --- | --- | --- | 445 | 414 | 429 | 480 | 254 | 422 | --- | --- | --- |
| 25 | --- | --- | --- | 450 | 418 | 435 | 363 | 243 | 306 | 457 | 388 | 428 |
| 26 | --- | --- | --- | 460 | 409 | 438 | 485 | 363 | 434 | 494 | 321 | 458 |
| 27 | --- | --- | --- | 452 | 427 | 437 | 469 | 414 | 429 | 321 | 207 | 252 |
| 28 | --- | --- | --- | 452 | 388 | 425 | 452 | 432 | 439 | 323 | 224 | 267 |
| 29 | 360 | 324 | 337 | 428 | 412 | 420 | 432 | 247 | 311 | 415 | 323 | 366 |
| 30 | 368 | 348 | 356 | 450 | 412 | 428 | 396 | 314 | 359 | 418 | 395 | 407 |
| 31 | --- | --- | --- | 457 | 417 | 437 | 428 | 380 | 404 | --- | --- | --- |
| MONTH | 382 | 137 | 318 | 463 | 351 | 410 | 511 | 192 | 423 | 537 | 207 | 423 |

**PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002**

| DAY | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **OCTOBER** | | | **NOVEMBER** | | | **DECEMBER** | | | **JANUARY** | |
| 1 | 7.9 | 7.5 | 7.6 | 8.5 | 7.4 | 7.6 | 7.9 | 7.3 | 7.4 | --- | --- | --- |
| 2 | 7.9 | 7.5 | 7.6 | 8.5 | 7.3 | 7.4 | 8.0 | 7.4 | 7.6 | --- | --- | --- |
| 3 | 7.9 | 7.4 | 7.5 | 8.3 | 7.2 | 7.3 | 8.1 | 7.6 | 7.7 | --- | --- | --- |
| 4 | 7.8 | 7.3 | 7.4 | 8.5 | 7.3 | 7.5 | 8.1 | 7.5 | 7.7 | --- | --- | --- |
| 5 | 7.9 | 7.3 | 7.4 | 8.5 | 7.4 | 7.6 | --- | --- | --- | --- | --- | --- |
| 6 | 7.8 | 7.2 | 7.3 | 8.6 | 7.5 | 7.6 | --- | --- | --- | --- | --- | --- |
| 7 | 7.9 | 7.2 | 7.4 | 8.6 | 7.3 | 7.5 | --- | --- | --- | --- | --- | --- |
| 8 | 7.9 | 7.3 | 7.4 | 8.5 | 7.3 | 7.5 | --- | --- | --- | --- | --- | --- |
| 9 | 8.0 | 7.4 | 7.5 | 8.4 | 7.3 | 7.4 | --- | --- | --- | --- | --- | --- |
| 10 | 8.2 | 7.4 | 7.6 | 8.6 | 7.3 | 7.5 | --- | --- | --- | --- | --- | --- |
| 11 | 8.2 | 7.5 | 7.6 | 8.6 | 7.3 | 7.5 | --- | --- | --- | --- | --- | --- |
| 12 | 8.3 | 7.4 | 7.5 | 8.5 | 7.4 | 7.6 | --- | --- | --- | --- | --- | --- |
| 13 | 8.2 | 7.3 | 7.4 | 8.5 | 7.4 | 7.5 | --- | --- | --- | --- | --- | --- |
| 14 | 8.2 | 7.3 | 7.3 | 8.6 | 7.4 | 7.5 | --- | --- | --- | --- | --- | --- |
| 15 | 7.7 | 7.2 | 7.3 | 8.6 | 7.3 | 7.4 | --- | --- | --- | --- | --- | --- |
| 16 | 8.1 | 7.3 | 7.4 | 8.5 | 7.3 | 7.4 | --- | --- | --- | --- | --- | --- |
| 17 | 7.9 | 7.3 | 7.4 | 8.4 | 7.3 | 7.4 | --- | --- | --- | --- | --- | --- |
| 18 | 8.0 | 7.4 | 7.5 | 8.5 | 7.3 | 7.4 | --- | --- | --- | --- | --- | --- |
| 19 | 7.9 | 7.4 | 7.5 | 8.6 | 7.3 | 7.5 | --- | --- | --- | --- | --- | --- |
| 20 | 8.0 | 7.3 | 7.4 | 8.5 | 7.4 | 7.6 | --- | --- | --- | --- | --- | --- |
| 21 | 8.0 | 7.3 | 7.4 | 8.6 | 7.5 | 7.7 | --- | --- | --- | --- | --- | --- |
| 22 | 8.0 | 7.3 | 7.4 | 8.6 | 7.6 | 7.7 | --- | --- | --- | --- | --- | --- |
| 23 | 8.2 | 7.2 | 7.3 | 8.6 | 7.6 | 7.7 | --- | --- | --- | --- | --- | --- |
| 24 | 8.0 | 7.2 | 7.2 | 8.3 | 7.3 | 7.6 | --- | --- | --- | --- | --- | --- |
| 25 | 8.0 | 7.2 | 7.2 | 7.8 | 7.2 | 7.3 | --- | --- | --- | --- | --- | --- |
| 26 | 7.9 | 7.2 | 7.4 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 27 | 7.9 | 7.3 | 7.4 | 8.0 | 7.4 | 7.5 | --- | --- | --- | --- | --- | --- |
| 28 | 8.1 | 7.4 | 7.5 | 8.1 | 7.3 | 7.4 | --- | --- | --- | --- | --- | --- |
| 29 | 8.2 | 7.4 | 7.6 | 7.6 | 7.3 | 7.4 | --- | --- | --- | --- | --- | --- |
| 30 | 8.3 | 7.5 | 7.6 | 7.6 | 7.3 | 7.3 | --- | --- | --- | --- | --- | --- |
| 31 | 8.7 | 7.5 | 7.7 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MAX | 8.7 | 7.5 | 7.7 | 8.6 | 7.6 | 7.7 | --- | --- | --- | --- | --- | --- |
| MIN | 7.7 | 7.2 | 7.2 | 7.6 | 7.2 | 7.3 | --- | --- | --- | --- | --- | --- |

**CHRISTINA RIVER BASIN**

**01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA**--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

| DAY | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **FEBRUARY** | | | **MARCH** | | | **APRIL** | | | **MAY** | |
| 1 | --- | --- | --- | 8.6 | 7.7 | 7.8 | 9.0 | 7.4 | 7.9 | 8.0 | 7.3 | 7.5 |
| 2 | --- | --- | --- | 8.5 | 7.6 | 7.8 | 9.0 | 7.4 | 7.8 | 7.6 | 7.0 | 7.4 |
| 3 | --- | --- | --- | 7.6 | 7.4 | 7.4 | 8.9 | 7.3 | 7.5 | 7.3 | 7.0 | 7.3 |
| 4 | --- | --- | --- | 8.1 | 7.4 | 7.7 | 9.1 | 7.4 | 7.8 | 7.7 | 7.3 | 7.5 |
| 5 | --- | --- | --- | 8.2 | 7.6 | 7.7 | 9.2 | 7.5 | 8.0 | 7.7 | 7.3 | 7.4 |
| 6 | --- | --- | --- | 8.3 | 7.6 | 7.7 | 9.2 | 7.6 | 8.1 | 7.8 | 7.2 | 7.4 |
| 7 | --- | --- | --- | 8.3 | 7.5 | 7.7 | 9.3 | 7.6 | 8.1 | 7.7 | 7.1 | 7.3 |
| 8 | --- | --- | --- | 8.3 | 7.3 | 7.6 | 9.3 | 7.5 | 8.0 | 7.8 | 7.1 | 7.3 |
| 9 | --- | --- | --- | 8.3 | 7.3 | 7.5 | 9.1 | 7.2 | 7.6 | 7.7 | 7.2 | 7.4 |
| 10 | --- | --- | --- | 8.5 | 7.3 | 7.6 | 9.3 | 7.2 | 7.8 | 7.9 | 7.3 | 7.5 |
| 11 | --- | --- | --- | 8.6 | 7.6 | 7.7 | 9.3 | 7.3 | 8.0 | 8.2 | 7.3 | 7.6 |
| 12 | --- | --- | --- | 8.5 | 7.5 | 7.7 | 9.0 | 7.3 | 7.7 | 8.2 | 7.4 | 7.6 |
| 13 | --- | --- | --- | 7.9 | 7.5 | 7.6 | 9.2 | 7.3 | 7.7 | 7.5 | 7.3 | 7.4 |
| 14 | --- | --- | --- | 8.6 | 7.3 | 7.6 | 9.0 | 7.2 | 7.6 | 7.5 | 7.2 | 7.3 |
| 15 | --- | --- | --- | 8.6 | 7.2 | 7.5 | 9.0 | 7.1 | 7.5 | 7.8 | 7.3 | 7.6 |
| 16 | --- | --- | --- | 8.3 | 7.2 | 7.5 | 8.9 | 6.9 | 7.2 | 7.8 | 7.1 | 7.5 |
| 17 | --- | --- | --- | 8.3 | 7.4 | 7.7 | 8.8 | 6.9 | 7.2 | 7.6 | 7.1 | 7.3 |
| 18 | --- | --- | --- | 8.0 | 7.6 | 7.6 | 8.5 | 6.9 | 7.1 | 7.4 | 7.2 | 7.4 |
| 19 | --- | --- | --- | 8.7 | 7.5 | 7.7 | 8.4 | 6.8 | 7.0 | 7.7 | 7.4 | 7.5 |
| 20 | --- | --- | --- | 7.8 | 7.5 | 7.6 | 7.8 | 6.8 | 7.1 | 7.8 | 7.5 | 7.6 |
| 21 | --- | --- | --- | 8.0 | 7.5 | 7.6 | 7.8 | 7.1 | 7.5 | 7.9 | 7.6 | 7.7 |
| 22 | --- | --- | --- | 8.4 | 7.5 | 7.9 | 7.8 | 7.5 | 7.6 | 7.9 | 7.6 | 7.7 |
| 23 | --- | --- | --- | 8.5 | 7.8 | 8.0 | 8.3 | 7.4 | 7.6 | 7.9 | 7.4 | 7.7 |
| 24 | --- | --- | --- | 8.5 | 7.8 | 7.9 | 8.2 | 7.2 | 7.5 | 7.9 | 7.3 | 7.6 |
| 25 | --- | --- | --- | 8.7 | 7.8 | 7.9 | 7.7 | 7.2 | 7.4 | 7.9 | 7.2 | 7.4 |
| 26 | --- | --- | --- | 8.2 | 7.8 | 7.9 | 8.1 | 7.3 | 7.6 | 8.0 | 7.3 | 7.5 |
| 27 | 8.7 | 7.5 | 7.8 | 8.2 | 7.8 | 7.9 | 8.2 | 7.3 | 7.5 | 7.7 | 7.4 | 7.5 |
| 28 | 8.6 | 7.7 | 7.8 | 8.7 | 7.8 | 7.9 | 7.3 | 7.1 | 7.3 | 7.8 | 7.3 | 7.5 |
| 29 | --- | --- | --- | 8.8 | 7.7 | 8.0 | 7.6 | 7.1 | 7.4 | 7.9 | 7.3 | 7.5 |
| 30 | --- | --- | --- | 8.7 | 7.6 | 7.8 | 7.8 | 7.4 | 7.5 | 8.0 | 7.2 | 7.4 |
| 31 | --- | --- | --- | 8.6 | 7.6 | 7.9 | --- | --- | --- | 8.0 | 7.1 | 7.4 |
| MAX | --- | --- | --- | 8.8 | 7.8 | 8.0 | 9.3 | 7.6 | 8.1 | 8.2 | 7.6 | 7.7 |
| MIN | --- | --- | --- | 7.6 | 7.2 | 7.4 | 7.3 | 6.8 | 7.0 | 7.3 | 7.0 | 7.3 |

| DAY | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **JUNE** | | | **JULY** | | | **AUGUST** | | | **SEPTEMBER** | |
| 1 | 8.0 | 7.1 | 7.3 | 8.3 | 7.3 | 7.5 | 8.3 | 7.2 | 7.5 | 7.8 | 7.6 | 7.7 |
| 2 | 8.0 | 7.1 | 7.4 | 8.3 | 7.2 | 7.4 | 8.3 | 7.3 | 7.4 | 7.9 | 7.5 | 7.7 |
| 3 | 7.9 | 7.2 | 7.4 | 8.2 | 7.2 | 7.4 | 8.5 | 7.1 | 7.4 | 8.1 | 7.5 | 7.6 |
| 4 | 7.9 | 7.3 | 7.5 | 8.0 | 7.2 | 7.3 | 7.7 | 7.1 | 7.2 | 8.1 | 7.4 | 7.6 |
| 5 | 7.5 | 7.0 | 7.3 | 8.1 | 7.2 | 7.3 | 7.8 | 7.1 | 7.3 | 8.2 | 7.5 | 7.6 |
| 6 | 7.6 | 6.9 | 7.2 | 8.1 | 7.2 | 7.5 | 8.2 | 7.2 | 7.5 | 8.3 | 7.6 | 7.7 |
| 7 | 7.2 | 6.8 | 7.0 | --- | --- | --- | 8.3 | 7.4 | 7.7 | 8.4 | 7.7 | 7.8 |
| 8 | 7.5 | 7.2 | 7.3 | --- | --- | --- | 8.3 | 7.5 | 7.7 | 8.3 | 7.6 | 7.8 |
| 9 | 7.6 | 7.3 | 7.4 | 8.4 | 7.4 | 7.6 | 8.5 | 7.4 | 7.7 | 8.3 | 7.6 | 7.8 |
| 10 | 7.7 | 7.2 | 7.4 | 8.2 | 7.3 | 7.5 | 8.5 | 7.4 | 7.6 | 8.3 | 7.6 | 7.7 |
| 11 | 7.8 | 7.2 | 7.4 | 8.4 | 7.4 | 7.6 | 8.6 | 7.3 | 7.6 | 8.3 | 7.6 | 7.7 |
| 12 | 7.7 | 7.2 | 7.3 | 8.5 | 7.5 | 7.7 | 8.3 | 7.3 | 7.6 | 8.4 | 7.6 | 7.8 |
| 13 | 7.7 | 7.2 | 7.5 | 8.4 | 7.5 | 7.7 | 8.6 | 7.2 | 7.6 | 8.4 | 7.7 | 7.9 |
| 14 | 7.7 | 7.5 | 7.6 | 8.2 | 7.4 | 7.6 | 8.8 | 7.3 | 7.6 | 8.2 | 7.6 | 7.8 |
| 15 | 7.9 | 7.6 | 7.7 | 8.4 | 7.5 | 7.6 | 8.3 | 7.4 | 7.6 | 7.8 | 7.5 | 7.6 |
| 16 | 8.0 | 7.5 | 7.7 | 8.4 | 7.4 | 7.6 | 8.4 | 7.3 | 7.6 | 7.9 | 7.5 | 7.6 |
| 17 | 8.0 | 7.5 | 7.6 | 8.4 | 7.3 | 7.6 | 8.3 | 7.3 | 7.5 | 8.0 | 7.5 | 7.6 |
| 18 | 8.2 | 7.6 | 7.7 | 8.2 | 7.2 | 7.5 | 8.3 | 7.3 | 7.5 | 8.1 | 7.6 | 7.7 |
| 19 | --- | --- | --- | 8.1 | 7.2 | 7.4 | 8.3 | 7.2 | 7.4 | 8.1 | 7.6 | 7.7 |
| 20 | --- | --- | --- | 8.3 | 7.2 | 7.4 | 8.2 | 7.2 | 7.4 | 8.1 | 7.5 | 7.7 |
| 21 | --- | --- | --- | 8.3 | 7.3 | 7.5 | 8.3 | 7.2 | 7.5 | 8.0 | 7.4 | 7.6 |
| 22 | --- | --- | --- | 8.6 | 7.2 | 7.6 | 8.4 | 7.2 | 7.6 | 8.0 | 7.4 | 7.5 |
| 23 | --- | --- | --- | 8.6 | 7.3 | 7.5 | 8.1 | 7.3 | 7.5 | --- | --- | --- |
| 24 | --- | --- | --- | 8.0 | 7.2 | 7.5 | 8.0 | 7.3 | 7.5 | --- | --- | --- |
| 25 | --- | --- | --- | 8.6 | 7.4 | 7.7 | 8.0 | 7.2 | 7.4 | 8.5 | 7.5 | 7.9 |
| 26 | --- | --- | --- | 8.5 | 7.4 | 7.7 | 8.0 | 7.3 | 7.5 | 8.3 | 7.9 | 8.1 |
| 27 | --- | --- | --- | 8.1 | 7.5 | 7.7 | 8.2 | 7.4 | 7.7 | 8.2 | 7.5 | 8.0 |
| 28 | --- | --- | --- | 8.4 | 7.3 | 7.5 | 7.9 | 7.4 | 7.7 | 7.9 | 7.5 | 7.6 |
| 29 | 8.2 | 7.3 | 7.5 | 8.3 | 7.3 | 7.4 | 7.8 | 7.7 | 7.8 | 8.1 | 7.6 | 7.8 |
| 30 | 8.2 | 7.3 | 7.5 | 8.3 | 7.2 | 7.4 | 8.0 | 7.7 | 7.8 | 8.1 | 7.6 | 7.8 |
| 31 | --- | --- | --- | 8.3 | 7.2 | 7.4 | 8.1 | 7.6 | 7.8 | --- | --- | --- |
| MAX | 8.2 | 7.6 | 7.7 | 8.6 | 7.5 | 7.7 | 8.8 | 7.7 | 7.8 | 8.5 | 7.9 | 8.1 |
| MIN | 7.2 | 6.8 | 7.0 | 8.0 | 7.2 | 7.3 | 7.7 | 7.1 | 7.2 | 7.8 | 7.4 | 7.5 |

**01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA**--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **OCTOBER** | | | **NOVEMBER** | | | **DECEMBER** | | | **JANUARY** | |
| 1 | 15.0 | 13.5 | 14.0 | 14.0 | 10.0 | 12.0 | 14.5 | 12.5 | 13.5 | --- | --- | --- |
| 2 | 17.5 | 13.0 | 15.0 | 16.0 | 12.0 | 14.0 | 12.5 | 9.0 | 11.0 | --- | --- | --- |
| 3 | 19.0 | 14.5 | 16.5 | 17.0 | 13.5 | 15.0 | 10.5 | 7.5 | 9.0 | --- | --- | --- |
| 4 | 20.0 | 16.0 | 17.5 | 14.5 | 11.5 | 13.0 | 10.5 | 7.5 | 9.0 | --- | --- | --- |
| 5 | 19.5 | 15.5 | 17.5 | 13.0 | 10.0 | 11.0 | --- | --- | --- | --- | --- | --- |
| 6 | 18.5 | 15.5 | 17.5 | 12.0 | 9.0 | 10.0 | --- | --- | --- | --- | --- | --- |
| 7 | 15.5 | 13.0 | 14.5 | 13.0 | 9.0 | 10.5 | --- | --- | --- | --- | --- | --- |
| 8 | 14.0 | 11.0 | 12.5 | 13.0 | 9.5 | 11.0 | --- | --- | --- | --- | --- | --- |
| 9 | 14.0 | 9.5 | 11.5 | 12.5 | 10.0 | 11.0 | --- | --- | --- | --- | --- | --- |
| 10 | 14.5 | 10.0 | 12.0 | 11.5 | 8.0 | 10.0 | --- | --- | --- | --- | --- | --- |
| 11 | 16.5 | 12.0 | 14.0 | 11.5 | 8.0 | 9.5 | --- | --- | --- | --- | --- | --- |
| 12 | 17.5 | 13.5 | 15.5 | 10.0 | 6.5 | 8.0 | --- | --- | --- | --- | --- | --- |
| 13 | 19.0 | 15.5 | 17.0 | 10.0 | 6.0 | 8.0 | --- | --- | --- | --- | --- | --- |
| 14 | 19.0 | 17.0 | 17.5 | 10.0 | 6.5 | 8.0 | --- | --- | --- | --- | --- | --- |
| 15 | 18.0 | 15.5 | 17.0 | 12.0 | 8.0 | 10.0 | --- | --- | --- | --- | --- | --- |
| 16 | 16.5 | 13.5 | 15.0 | 12.5 | 9.0 | 11.0 | --- | --- | --- | --- | --- | --- |
| 17 | 15.0 | 12.5 | 14.0 | 12.0 | 9.5 | 10.5 | --- | --- | --- | --- | --- | --- |
| 18 | 13.5 | 10.5 | 12.0 | 11.0 | 8.0 | 9.5 | --- | --- | --- | --- | --- | --- |
| 19 | 14.0 | 10.0 | 12.0 | 11.5 | 8.0 | 9.5 | --- | --- | --- | --- | --- | --- |
| 20 | 15.5 | 11.5 | 13.0 | 11.5 | 8.5 | 10.0 | --- | --- | --- | --- | --- | --- |
| 21 | 16.0 | 12.0 | 14.0 | 9.5 | 6.5 | 8.0 | --- | --- | --- | --- | --- | --- |
| 22 | 17.5 | 13.5 | 15.5 | 8.5 | 5.5 | 7.0 | --- | --- | --- | --- | --- | --- |
| 23 | 18.0 | 15.0 | 16.5 | 9.0 | 5.5 | 7.5 | --- | --- | --- | --- | --- | --- |
| 24 | 19.5 | 16.0 | 17.5 | 11.5 | 7.5 | 9.5 | --- | --- | --- | --- | --- | --- |
| 25 | 18.0 | 15.0 | 16.5 | 13.5 | 11.5 | 12.5 | --- | --- | --- | --- | --- | --- |
| 26 | 15.0 | 11.5 | 13.5 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 27 | 12.0 | 10.5 | 11.5 | 12.0 | 10.0 | 11.0 | --- | --- | --- | --- | --- | --- |
| 28 | 12.5 | 9.5 | 10.5 | 13.5 | 11.5 | 12.5 | --- | --- | --- | --- | --- | --- |
| 29 | 12.5 | 8.0 | 10.0 | 13.5 | 13.0 | 13.0 | --- | --- | --- | --- | --- | --- |
| 30 | 13.5 | 10.0 | 11.5 | 14.5 | 13.0 | 14.0 | --- | --- | --- | --- | --- | --- |
| 31 | 11.5 | 10.0 | 11.0 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MONTH | 20.0 | 8.0 | 14.3 | 17.0 | 5.5 | 10.6 | --- | --- | --- | --- | --- | --- |

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **FEBRUARY** | | | **MARCH** | | | **APRIL** | | | **MAY** | |
| 1 | --- | --- | --- | 8.5 | 3.0 | 5.5 | 15.0 | 11.0 | 12.5 | 18.5 | 13.5 | 15.5 |
| 2 | --- | --- | --- | 7.0 | 4.0 | 5.5 | 15.0 | 9.5 | 12.0 | 18.0 | 14.5 | 16.0 |
| 3 | --- | --- | --- | 9.0 | 7.0 | 8.0 | 17.0 | 11.5 | 13.5 | 18.0 | 14.5 | 16.0 |
| 4 | --- | --- | --- | 8.0 | 4.0 | 6.5 | 13.5 | 9.5 | 11.0 | 17.0 | 12.0 | 14.5 |
| 5 | --- | --- | --- | 6.5 | 2.5 | 4.5 | 10.5 | 8.0 | 9.5 | 19.0 | 13.5 | 16.0 |
| 6 | --- | --- | --- | 8.0 | 3.5 | 5.5 | 11.5 | 7.5 | 9.0 | 19.0 | 14.5 | 16.5 |
| 7 | --- | --- | --- | 10.0 | 5.0 | 7.5 | 13.0 | 6.5 | 9.0 | 20.5 | 16.0 | 18.0 |
| 8 | --- | --- | --- | 11.5 | 6.5 | 9.0 | 13.5 | 8.5 | 11.0 | 21.5 | 17.0 | 19.0 |
| 9 | --- | --- | --- | 13.0 | 9.0 | 11.0 | 16.0 | 11.5 | 13.5 | 18.5 | 15.5 | 16.5 |
| 10 | --- | --- | --- | 12.5 | 7.0 | 10.5 | 18.5 | 13.5 | 15.5 | 20.5 | 15.5 | 17.5 |
| 11 | --- | --- | --- | 10.5 | 5.0 | 7.5 | 18.5 | 12.0 | 14.5 | 20.0 | 15.5 | 17.5 |
| 12 | --- | --- | --- | 10.0 | 5.5 | 7.5 | 14.0 | 12.5 | 13.0 | 19.5 | 16.0 | 17.5 |
| 13 | --- | --- | --- | 9.0 | 8.0 | 8.5 | 18.5 | 13.5 | 15.5 | 19.5 | 17.5 | 18.5 |
| 14 | --- | --- | --- | 13.0 | 8.0 | 10.5 | 20.0 | 15.5 | 17.5 | 18.5 | 15.0 | 16.0 |
| 15 | --- | --- | --- | 15.0 | 10.0 | 12.0 | 22.5 | 17.0 | 19.0 | 17.0 | 13.0 | 15.0 |
| 16 | --- | --- | --- | 14.5 | 11.0 | 13.0 | 24.5 | 18.0 | 21.0 | 18.5 | 13.5 | 16.0 |
| 17 | --- | --- | --- | 11.0 | 7.0 | 9.0 | 25.5 | 18.5 | 22.0 | 20.0 | 17.0 | 18.5 |
| 18 | --- | --- | --- | 7.5 | 7.0 | 7.0 | 25.5 | 19.5 | 22.0 | 18.5 | 13.5 | 15.0 |
| 19 | --- | --- | --- | 10.0 | 7.0 | 8.0 | 25.5 | 19.0 | 22.0 | 15.5 | 12.0 | 13.5 |
| 20 | --- | --- | --- | 8.5 | 7.0 | 8.0 | 21.5 | 18.5 | 20.5 | 14.0 | 12.0 | 13.0 |
| 21 | --- | --- | --- | 10.5 | 6.5 | 8.5 | 18.5 | 14.0 | 16.0 | 14.5 | 11.5 | 13.0 |
| 22 | --- | --- | --- | 9.0 | 5.5 | 7.0 | 15.0 | 13.0 | 13.5 | 17.0 | 11.5 | 14.0 |
| 23 | --- | --- | --- | 9.5 | 4.0 | 6.5 | 16.5 | 11.5 | 13.5 | 18.5 | 13.0 | 15.5 |
| 24 | --- | --- | --- | 9.5 | 5.5 | 7.5 | 18.0 | 11.0 | 14.0 | 20.0 | 14.5 | 17.5 |
| 25 | --- | --- | --- | 10.5 | 7.0 | 8.5 | 14.0 | 12.0 | 13.0 | 20.5 | 17.0 | 19.0 |
| 26 | --- | --- | --- | 8.5 | 8.0 | 8.5 | 16.0 | 10.0 | 13.0 | 19.0 | 17.0 | 18.0 |
| 27 | 9.5 | 5.0 | 7.5 | 9.0 | 7.5 | 8.0 | 18.0 | 11.0 | 14.0 | 19.0 | 17.5 | 18.5 |
| 28 | 8.0 | 3.5 | 5.5 | 12.0 | 6.5 | 9.0 | 15.0 | 13.5 | 14.0 | 20.5 | 17.5 | 19.0 |
| 29 | --- | --- | --- | 13.5 | 8.5 | 10.5 | 14.5 | 12.5 | 14.0 | 22.5 | 18.5 | 20.0 |
| 30 | --- | --- | --- | 15.5 | 10.5 | 12.5 | 16.0 | 11.0 | 13.0 | 23.5 | 19.0 | 21.0 |
| 31 | --- | --- | --- | 13.0 | 11.5 | 12.0 | --- | --- | --- | 24.5 | 19.5 | 22.0 |
| MONTH | --- | --- | --- | 15.5 | 2.5 | 8.5 | 25.5 | 6.5 | 14.7 | 24.5 | 11.5 | 16.9 |

## CHRISTINA RIVER BASIN

### 01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTON, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 25.0 | 20.5 | 22.5 | 27.0 | 22.0 | 24.0 | 29.0 | 23.0 | 25.5 | 20.5 | 17.5 | 19.0 |
| 2 | 24.5 | 19.5 | 21.5 | 28.5 | 22.5 | 25.0 | 29.0 | 23.0 | 25.5 | 20.5 | 17.5 | 19.0 |
| 3 | 23.5 | 18.5 | 20.5 | 29.5 | 24.0 | 26.5 | 28.0 | 22.5 | 25.5 | 24.0 | 19.5 | 21.5 |
| 4 | 21.5 | 18.5 | 20.0 | 30.0 | 24.5 | 27.0 | 26.5 | 22.5 | 24.0 | 25.5 | 21.0 | 23.0 |
| 5 | 23.5 | 19.0 | 21.0 | 29.0 | 24.5 | 26.5 | 26.0 | 23.0 | 24.5 | 24.0 | 20.0 | 22.0 |
| 6 | 24.0 | 19.5 | 22.0 | 26.0 | 21.5 | 23.5 | 26.0 | 22.0 | 24.0 | 23.5 | 19.0 | 21.0 |
| 7 | --- | --- | --- | --- | --- | --- | 23.5 | 19.0 | 21.5 | 23.5 | 18.0 | 20.5 |
| 8 | 21.5 | 17.5 | 19.5 | --- | --- | --- | 23.5 | 18.5 | 21.0 | 24.0 | 18.5 | 21.0 |
| 9 | 22.5 | 17.5 | 20.0 | 26.5 | 21.0 | 23.5 | 24.5 | 18.5 | 21.0 | 24.5 | 18.5 | 21.0 |
| 10 | 24.0 | 19.5 | 21.5 | 26.0 | 22.5 | 24.0 | 25.0 | 19.0 | 22.0 | 25.0 | 20.0 | 22.0 |
| 11 | 25.0 | 20.5 | 22.5 | 25.0 | 19.5 | 22.0 | 26.0 | 19.5 | 22.5 | 23.5 | 20.0 | 22.0 |
| 12 | 24.5 | 22.0 | 23.0 | 24.5 | 18.0 | 21.0 | 26.0 | 21.0 | 23.5 | 22.5 | 18.0 | 20.0 |
| 13 | 23.0 | 20.5 | 22.0 | 23.0 | 19.0 | 21.0 | 27.5 | 22.0 | 24.5 | 22.5 | 16.0 | 19.0 |
| 14 | 20.5 | 18.0 | 19.0 | 22.0 | 20.0 | 21.0 | 28.0 | 23.0 | 25.5 | 22.5 | 18.0 | 20.5 |
| 15 | 19.0 | 18.0 | 18.5 | 25.0 | 19.5 | 22.0 | 27.5 | 23.0 | 25.0 | 22.5 | 21.5 | 22.0 |
| 16 | 21.0 | 17.5 | 19.0 | 26.5 | 21.0 | 23.0 | 27.5 | 24.5 | 25.5 | 24.0 | 21.5 | 22.5 |
| 17 | 22.0 | 18.0 | 20.0 | 26.5 | 20.0 | 23.0 | 27.5 | 23.5 | 25.5 | 24.0 | 20.0 | 21.5 |
| 18 | 23.0 | 18.5 | 20.5 | 26.5 | 22.5 | 24.5 | 28.0 | 24.0 | 25.5 | 23.0 | 19.0 | 20.5 |
| 19 | --- | --- | --- | 26.0 | 23.0 | 24.5 | 28.0 | 23.5 | 25.5 | 23.0 | 19.0 | 21.0 |
| 20 | --- | --- | --- | 27.0 | 22.5 | 24.5 | 27.0 | 24.0 | 25.0 | 24.0 | 19.5 | 21.5 |
| 21 | --- | --- | --- | 26.5 | 23.0 | 24.5 | 26.0 | 21.5 | 24.0 | 24.5 | 20.5 | 22.5 |
| 22 | --- | --- | --- | 27.5 | 22.5 | 25.0 | 26.0 | 21.0 | 23.5 | 24.5 | 22.0 | 23.0 |
| 23 | --- | --- | --- | 29.0 | 23.5 | 25.5 | 25.0 | 23.5 | 24.0 | --- | --- | --- |
| 24 | --- | --- | --- | 25.0 | 23.0 | 23.5 | 24.0 | 22.5 | 23.0 | --- | --- | --- |
| 25 | --- | --- | --- | 25.5 | 21.5 | 23.0 | 25.5 | 20.5 | 22.5 | 19.5 | 16.5 | 18.0 |
| 26 | --- | --- | --- | 22.5 | 20.5 | 21.5 | 24.0 | 21.0 | 22.5 | 19.0 | 17.5 | 18.5 |
| 27 | --- | --- | --- | 22.5 | 20.5 | 21.5 | 25.0 | 20.5 | 22.5 | 19.0 | 16.5 | 17.5 |
| 28 | --- | --- | --- | 26.0 | 21.5 | 23.0 | 22.5 | 20.0 | 21.5 | 20.5 | 18.5 | 19.5 |
| 29 | 26.5 | 21.5 | 23.5 | 28.0 | 23.0 | 25.0 | 20.0 | 18.0 | 18.5 | 20.0 | 16.5 | 18.0 |
| 30 | 26.5 | 22.0 | 24.0 | 28.0 | 23.5 | 25.5 | 20.0 | 18.5 | 19.0 | 20.5 | 16.5 | 18.0 |
| 31 | --- | --- | --- | 28.5 | 23.0 | 25.5 | 22.5 | 18.5 | 20.0 | --- | --- | --- |
| MONTH | 26.5 | 17.5 | 21.1 | 30.0 | 18.0 | 23.8 | 29.0 | 18.0 | 23.3 | 25.5 | 16.0 | 20.6 |

**OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002**

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | |
| 1 | 10.0 | 8.2 | 8.9 | 13.8 | 7.3 | 9.7 | 11.2 | 7.1 | 8.4 | --- | --- | --- |
| 2 | 10.7 | 8.1 | 9.1 | 13.3 | 6.2 | 9.0 | 11.9 | 7.5 | 9.3 | --- | --- | --- |
| 3 | 10.7 | 7.8 | 8.9 | 12.5 | 5.8 | 7.9 | 12.8 | 8.7 | 10.1 | --- | --- | --- |
| 4 | 10.8 | 7.5 | 8.7 | 13.4 | 6.3 | 8.9 | 12.9 | 8.8 | 10.2 | --- | --- | --- |
| 5 | 10.7 | 7.5 | 8.7 | 13.7 | 7.0 | 9.4 | --- | --- | --- | --- | --- | --- |
| 6 | 10.2 | 6.8 | 8.3 | 13.8 | 7.5 | 9.8 | --- | --- | --- | --- | --- | --- |
| 7 | 10.7 | 7.6 | 8.9 | 15.0 | 7.4 | 10.1 | --- | --- | --- | --- | --- | --- |
| 8 | 11.0 | 8.3 | 9.5 | 15.1 | 7.7 | 10.3 | --- | --- | --- | --- | --- | --- |
| 9 | 11.6 | 8.9 | 10.0 | 14.9 | 7.2 | 10 | --- | --- | --- | --- | --- | --- |
| 10 | 11.9 | 8.2 | 10 | 15.5 | 8.1 | 10.7 | --- | --- | --- | --- | --- | --- |
| 11 | 11.2 | 7.5 | 9.0 | 15.8 | 8.2 | 10.8 | --- | --- | --- | --- | --- | --- |
| 12 | 12.0 | 7.1 | 9.0 | 16.5 | 8.9 | 11.6 | --- | --- | --- | --- | --- | --- |
| 13 | 12.2 | 7.2 | 9.0 | 16.6 | 9.2 | 11.6 | --- | --- | --- | --- | --- | --- |
| 14 | 11.5 | 6.9 | 8.5 | 16.7 | 8.9 | 11.6 | --- | --- | --- | --- | --- | --- |
| 15 | 9.8 | 6.5 | 7.8 | 16.8 | 8.3 | 11.4 | --- | --- | --- | --- | --- | --- |
| 16 | 10.5 | 6.9 | 8.5 | 16.3 | 8.1 | 10.9 | --- | --- | --- | --- | --- | --- |
| 17 | 10.4 | 7.0 | 8.4 | 16.0 | 8.1 | 10.9 | --- | --- | --- | --- | --- | --- |
| 18 | 11.1 | 8.2 | 9.5 | 16.4 | 8.7 | 11.5 | --- | --- | --- | --- | --- | --- |
| 19 | 11.0 | 7.5 | 9.2 | 16.0 | 7.6 | 11.0 | --- | --- | --- | --- | --- | --- |
| 20 | 11.3 | 7.0 | 8.6 | 14.5 | 7.3 | 9.6 | --- | --- | --- | --- | --- | --- |
| 21 | 11.6 | 6.5 | 8.5 | 15.5 | 8.0 | 10.5 | --- | --- | --- | --- | --- | --- |
| 22 | 11.9 | 6.2 | 8.3 | 15.9 | 8.8 | 11.3 | --- | --- | --- | --- | --- | --- |
| 23 | 11.7 | 5.8 | 7.9 | 15.7 | 9.1 | 11.2 | --- | --- | --- | --- | --- | --- |
| 24 | 11.0 | 5.8 | 7.6 | 14.6 | 7.7 | 10.3 | --- | --- | --- | --- | --- | --- |
| 25 | 11.0 | 5.9 | 7.6 | 12.3 | --- | --- | --- | --- | --- | --- | --- | --- |
| 26 | 11.6 | 6.4 | 8.5 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 27 | 12.2 | 7.7 | 9.4 | 11.8 | 8.0 | 9.3 | --- | --- | --- | --- | --- | --- |
| 28 | 13.1 | 8.3 | 10.1 | 11.9 | 7.4 | 8.9 | --- | --- | --- | --- | --- | --- |
| 29 | 13.4 | 7.9 | 10.2 | 9.7 | 7.2 | 8.0 | --- | --- | --- | --- | --- | --- |
| 30 | 13.2 | 7.6 | 9.5 | 9.6 | 7.1 | 8.0 | --- | --- | --- | --- | --- | --- |
| 31 | 14.0 | 7.6 | 9.8 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MONTH | 14.0 | 5.8 | 8.9 | 16.8 | 5.8 | 10.2 | --- | --- | --- | --- | --- | --- |

**CHRISTINA RIVER BASIN**

**01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTON, PA**--Continued

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **FEBRUARY** | | | **MARCH** | | | **APRIL** | | | **MAY** | |
| 1 | --- | --- | --- | 17.3 | 12.4 | 14.2 | 15.1 | 9.1 | 11.3 | 11.3 | 7.7 | 9.7 |
| 2 | --- | --- | --- | 17.1 | 12.0 | 14.1 | 16.6 | 8.6 | 11.6 | 9.9 | 7.2 | 8.3 |
| 3 | --- | --- | --- | 12.5 | 11.5 | 12.0 | 16.8 | 8.2 | 10.7 | 9.1 | 7.4 | 8.6 |
| 4 | --- | --- | --- | 14.7 | 11.5 | 13.0 | 16.7 | 8.6 | 11.8 | 10.4 | 8.4 | 9.5 |
| 5 | --- | --- | --- | 15.8 | 12.7 | 14.0 | 16.9 | 9.3 | 12.3 | 10.1 | 7.9 | 9.0 |
| 6 | --- | --- | --- | --- | --- | --- | 17.5 | 9.5 | 12.7 | 10.3 | 7.5 | 8.9 |
| 7 | --- | --- | --- | --- | --- | --- | 18.5 | 9.2 | 13.0 | 10.3 | 7.1 | 8.5 |
| 8 | --- | --- | --- | --- | --- | --- | 19.3 | 8.6 | 12.9 | 10.3 | 6.9 | 8.3 |
| 9 | --- | --- | --- | 12.8 | 8.0 | 9.7 | 18.9 | 7.4 | 11.6 | 9.3 | 6.8 | 8.1 |
| 10 | --- | --- | --- | 12.4 | 7.9 | 9.6 | 18.3 | 6.9 | 11.5 | 10.7 | 8.0 | 9.3 |
| 11 | --- | --- | --- | 13.0 | 8.5 | 10.2 | 18.4 | 7.3 | 11.9 | 11.2 | 7.9 | 9.5 |
| 12 | --- | --- | --- | 13.4 | 9.0 | 10.5 | 16.9 | 7.4 | 11.1 | 11.7 | 7.9 | 9.5 |
| 13 | --- | --- | --- | 11.5 | 9.4 | 10.2 | 18.9 | 6.9 | 11.6 | 10.2 | 7.8 | 8.7 |
| 14 | --- | --- | --- | 13.1 | 7.9 | 10.2 | 18.2 | 6.3 | 10.8 | 9.2 | 7.8 | 8.7 |
| 15 | --- | --- | --- | 13.7 | 7.5 | 9.9 | 17.2 | 5.1 | 10.1 | 10.5 | 8.9 | 9.6 |
| 16 | --- | --- | --- | 13.4 | 7.2 | 9.3 | 15.9 | 4.2 | 8.9 | 10.7 | 8.5 | 9.5 |
| 17 | --- | --- | --- | 13.1 | 7.9 | 10.3 | 15.9 | 3.8 | 8.3 | 9.9 | 7.4 | 8.7 |
| 18 | --- | --- | --- | 12.3 | 10.0 | 10.8 | 14.6 | 3.6 | 7.6 | 9.3 | 7.4 | 8.6 |
| 19 | --- | --- | --- | 12.4 | 8.8 | 10.6 | 13.7 | 3.7 | 7.2 | 10.5 | 9.2 | 9.7 |
| 20 | --- | --- | --- | 11.0 | 9.5 | 10.4 | 10.8 | 3.7 | 6.7 | 10.9 | 9.2 | 10.0 |
| 21 | --- | --- | --- | 12.1 | 9.8 | 10.9 | 10.6 | 4.9 | 7.6 | 11.1 | 9.3 | 10.1 |
| 22 | --- | --- | --- | 13.1 | 9.8 | 11.3 | 10.8 | 7.1 | 8.7 | 11.3 | 8.8 | 10.1 |
| 23 | --- | --- | --- | 13.4 | 10.3 | 11.5 | 12.2 | 7.9 | 9.8 | 11.1 | 8.3 | 9.7 |
| 24 | --- | --- | --- | 13.9 | 10.3 | 11.6 | 12.0 | 7.6 | 9.5 | 11.2 | 7.5 | 9.3 |
| 25 | --- | --- | --- | 14.4 | 10.0 | 11.6 | 10.6 | 7.5 | 8.8 | 11.4 | 7.4 | 9.0 |
| 26 | --- | --- | --- | 12.7 | 10.0 | 11.0 | 12.0 | 8.6 | 10.2 | 11.2 | 7.6 | 9.0 |
| 27 | 15.5 | 9.8 | 12.1 | 12.8 | 10.6 | 11.5 | 12.0 | 8.2 | 10.0 | 10.3 | 7.7 | 8.7 |
| 28 | 16.6 | 11.6 | 13.7 | 14.0 | 10.1 | 11.7 | 9.6 | 8.1 | 9.0 | 11.0 | 7.4 | 8.9 |
| 29 | --- | --- | --- | 14.5 | 9.3 | 11.5 | 10.8 | 8.8 | 9.8 | 11.1 | 6.9 | 8.7 |
| 30 | --- | --- | --- | 14.4 | 9.0 | 11.1 | 11.7 | 8.9 | 10.3 | 10.9 | 6.8 | 8.4 |
| 31 | --- | --- | --- | 14.1 | 8.9 | 11.0 | --- | --- | --- | 10.9 | 6.3 | 8.2 |
| MONTH | --- | --- | --- | 17.3 | 7.2 | 11.2 | 19.3 | 3.6 | 10.2 | 11.7 | 6.3 | 9.1 |

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **JUNE** | | | **JULY** | | | **AUGUST** | | | **SEPTEMBER** | |
| 1 | 10.6 | 6.1 | 7.8 | 9.7 | 6.2 | 7.5 | 9.5 | 5.5 | 7.1 | 8.5 | 6.4 | 7.5 |
| 2 | 10.7 | 6.1 | 7.9 | 9.5 | 5.9 | 7.4 | 9.6 | 5.5 | 7.1 | 9.3 | 6.6 | 8.0 |
| 3 | 10.8 | 6.3 | 8.0 | 9.3 | 5.6 | 7.0 | 9.6 | 5.7 | 7.3 | 9.9 | 6.0 | 7.3 |
| 4 | 11.0 | 6.4 | 8.3 | 9.3 | 5.5 | 6.9 | 8.4 | 6.3 | 7.1 | 9.1 | 5.7 | 6.9 |
| 5 | 9.3 | 5.8 | 7.4 | 8.9 | 5.6 | 6.9 | 8.6 | 6.1 | 7.2 | 9.4 | 5.8 | 7.0 |
| 6 | 9.8 | 5.6 | 7.2 | 9.6 | 6.1 | 7.7 | 8.6 | 6.2 | 7.2 | 9.4 | 6.0 | 7.2 |
| 7 | --- | --- | --- | --- | --- | --- | 9.0 | 6.2 | 7.5 | 9.5 | 6.2 | 7.4 |
| 8 | 8.1 | 6.7 | 7.4 | --- | --- | --- | 9.5 | 6.8 | 7.9 | 9.3 | 6.1 | 7.2 |
| 9 | 9.0 | 6.4 | 7.7 | 10.1 | 6.1 | 7.7 | 9.9 | 6.9 | 8.0 | 9.3 | 5.9 | 7.1 |
| 10 | 9.2 | 6.5 | 7.6 | 9.9 | 5.8 | 7.4 | 10.1 | 6.9 | 8.1 | 9.5 | 5.7 | 7.1 |
| 11 | 9.4 | 6.4 | 7.7 | 10.0 | 6.4 | 7.8 | 10.4 | 6.9 | 8.2 | 9.2 | 5.4 | 6.8 |
| 12 | 8.9 | 6.2 | 7.3 | 10.3 | 6.8 | 8.1 | 10.8 | 6.5 | 8.1 | 9.7 | 5.8 | 7.2 |
| 13 | 9.1 | 6.3 | 7.4 | 10.3 | 6.6 | 8.2 | 11.0 | 6.3 | 8.1 | 9.8 | 5.9 | 7.3 |
| 14 | 8.3 | 7.0 | 7.7 | 10.0 | 6.6 | 8.0 | 10.9 | 5.8 | 7.9 | 9.5 | 5.2 | 7.0 |
| 15 | 9.1 | 7.8 | 8.3 | 10.2 | 6.4 | 8.1 | 10.1 | 5.4 | 7.2 | 8.2 | 4.9 | 6.1 |
| 16 | 9.4 | 7.4 | 8.4 | 10.0 | 6.1 | 7.6 | 10.5 | 5.0 | 7.2 | 8.5 | 5.4 | 6.5 |
| 17 | 9.7 | 7.3 | 8.2 | 10.2 | 6.0 | 7.6 | 10.3 | 5.2 | 7.1 | 8.5 | 5.3 | 6.4 |
| 18 | 9.9 | 7.0 | 8.3 | 9.8 | 5.3 | 7.2 | 10.2 | 5.0 | 6.8 | 8.9 | 5.2 | 6.5 |
| 19 | --- | --- | --- | 9.7 | 5.3 | 7.1 | 10.3 | 4.6 | 6.7 | 9.4 | 5.3 | 6.7 |
| 20 | --- | --- | --- | 9.7 | 5.4 | 7.1 | 10.2 | 4.6 | 6.8 | 9.3 | 5.2 | 6.6 |
| 21 | --- | --- | --- | 9.8 | 5.3 | 7.2 | 10.3 | 5.1 | 7.0 | 9.2 | 4.9 | 6.5 |
| 22 | --- | --- | --- | 9.8 | 5.3 | 7.1 | 11.1 | 5.3 | 7.4 | 8.9 | 4.7 | 6.2 |
| 23 | --- | --- | --- | 9.7 | 5.0 | 6.8 | 9.5 | 4.8 | 6.6 | --- | --- | --- |
| 24 | --- | --- | --- | 8.7 | 4.9 | 6.7 | 9.1 | 5.1 | 6.6 | --- | --- | --- |
| 25 | --- | --- | --- | 9.9 | 5.8 | 7.4 | 8.6 | 5.7 | 7.1 | 10.0 | 6.7 | 7.9 |
| 26 | --- | --- | --- | 9.7 | 5.8 | 7.4 | 9.4 | 5.4 | 6.9 | 8.5 | 6.3 | 7.3 |
| 27 | --- | --- | --- | 9.2 | 6.2 | 7.4 | 9.9 | 5.4 | 7.1 | 8.5 | 7.2 | 7.9 |
| 28 | --- | --- | --- | 9.8 | 6.1 | 7.5 | 8.3 | 5.4 | 6.7 | 8.5 | 7.0 | 7.5 |
| 29 | 9.5 | 6.1 | 7.4 | 9.7 | 5.7 | 7.2 | 8.6 | 6.6 | 7.7 | 8.8 | 6.5 | 7.5 |
| 30 | 9.7 | 6.2 | 7.5 | 9.3 | 5.4 | 7.0 | 9.4 | 6.9 | 7.8 | 8.7 | 6.3 | 7.1 |
| 31 | --- | --- | --- | 9.3 | 5.5 | 6.9 | 9.7 | 6.5 | 7.7 | --- | --- | --- |
| MONTH | 11.0 | 5.6 | 7.8 | 10.3 | 4.9 | 7.4 | 11.1 | 4.6 | 7.3 | 10.0 | 4.7 | 7.1 |

**01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA**--Continued

CROSS-SECTION ANALYSES, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

| Date | Time | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SAM-PLING DEPTH (FEET) (00003) | 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) | SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009) |
|---|---|---|---|---|---|---|---|---|
| MAR | | | | | | | | |
| 15... | 1306 | 57 | 0.0 | -- | -- | -- | -- | 0 |
| 15... | 1307 | -- | 0.5 | 14.4 | 8.6 | 320 | 13.5 | 3 |
| 15... | 1308 | -- | 0.5 | 14.4 | 8.6 | 336 | 13.5 | 6 |
| 15... | 1309 | -- | 0.5 | 14.2 | 8.6 | 336 | 13.5 | 9 |
| 15... | 1310 | -- | 0.5 | 14.4 | 8.6 | 336 | 13.5 | 12 |
| 15... | 1311 | -- | 0.5 | 14.3 | 8.6 | 336 | 13.5 | 15 |
| 15... | 1312 | -- | 0.5 | 14.3 | 8.6 | 336 | 13.5 | 18 |
| 15... | 1313 | -- | 2.0 | 14.4 | 8.6 | 335 | 13.5 | 18 |
| 15... | 1314 | -- | 0.5 | 14.4 | 8.6 | 335 | 13.5 | 22 |
| 15... | 1315 | -- | 2.5 | 14.4 | 8.6 | 335 | 13.5 | 22 |
| 15... | 1316 | -- | 0.5 | 14.2 | 8.6 | 335 | 13.5 | 25 |
| 15... | 1317 | -- | 2.0 | 14.4 | 8.6 | 335 | 13.5 | 25 |
| 15... | 1318 | -- | 0.5 | 14.1 | 8.6 | 335 | 13.5 | 29 |
| 15... | 1319 | -- | 0.5 | 14.4 | 8.6 | 335 | 13.7 | 33 |
| 15... | 1320 | -- | 0.5 | 14.4 | 8.6 | 335 | 13.6 | 37 |
| 15... | 1321 | -- | 0.5 | 14.4 | 8.6 | 336 | 13.6 | 41 |
| 15... | 1322 | -- | 0.5 | 14.2 | 8.6 | 334 | 13.6 | 45 |
| 15... | 1323 | -- | 0.5 | 13.9 | 8.5 | 336 | 13.5 | 49 |
| 15... | 1324 | -- | 0.5 | 14.2 | 8.6 | 335 | 13.5 | 53 |
| 15... | 1325 | -- | 0.5 | 14.2 | 8.6 | 336 | 13.5 | 56 |
| 15... | 1326 | -- | 0.5 | 14.2 | 8.5 | 335 | 13.5 | 59 |
| 15... | 1327 | -- | 0.5 | 14.2 | 8.5 | 335 | 13.6 | 62 |
| 15... | 1328 | 57 | -- | -- | -- | -- | -- | 63 |