

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 mi².

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 good 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 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|------|------|------|------|------|-------|------|------|-------|------|------|-------|
| 1 | 33 | 93 | 73 | 431 | 106 | 182 | 163 | 157 | 335 | 182 | 108 | 65 |
| 2 | 29 | 77 | 67 | 456 | 111 | 359 | 168 | 148 | 162 | 174 | 121 | 217 |
| 3 | 29 | 69 | 72 | 311 | 108 | 458 | 192 | 98 | 138 | 187 | 158 | 160 |
| 4 | 38 | 65 | 116 | 364 | 141 | 282 | 186 | 94 | 1150 | 175 | 365 | 366 |
| 5 | 37 | 61 | 123 | 237 | 132 | 345 | 188 | 98 | 597 | 162 | 247 | 215 |
| 6 | 33 | 116 | 129 | 222 | 113 | 706 | 181 | 107 | 355 | 165 | 195 | 128 |
| 7 | 31 | 81 | 119 | 206 | 120 | 451 | 174 | 100 | 524 | 180 | 151 | 87 |
| 8 | 29 | 66 | 126 | 207 | 112 | 365 | 174 | 126 | 433 | 174 | 185 | 79 |
| 9 | 27 | 63 | 124 | 267 | e107 | 581 | 213 | 115 | 337 | 151 | 242 | 72 |
| 10 | 55 | 63 | 118 | 199 | e108 | 406 | 212 | 115 | 323 | 149 | 1160 | 68 |
| 11 | 497 | 75 | 453 | 180 | e105 | 305 | 395 | 109 | 271 | 155 | 248 | 66 |
| 12 | 220 | 171 | 587 | 169 | e100 | 300 | 302 | 103 | 181 | 153 | 198 | 62 |
| 13 | 85 | 217 | 295 | 167 | e95 | 373 | 244 | 95 | 320 | 152 | 169 | 167 |
| 14 | 61 | 150 | 623 | 163 | e92 | 347 | 204 | 91 | 383 | 131 | 170 | 172 |
| 15 | 52 | 134 | 288 | 160 | e95 | 333 | 191 | 87 | 304 | 126 | 143 | 3000 |
| 16 | 217 | 178 | 210 | 151 | e90 | 340 | 190 | 89 | 275 | 122 | 107 | 793 |
| 17 | 162 | 483 | 179 | e140 | e87 | 387 | 184 | 102 | 209 | 114 | 113 | 627 |
| 18 | 76 | 367 | 163 | e145 | e85 | 269 | 185 | 92 | 244 | 111 | 102 | 503 |
| 19 | 57 | 182 | 157 | e137 | e87 | 225 | 166 | 88 | 190 | 112 | 102 | 675 |
| 20 | 58 | 171 | 474 | e138 | e110 | 463 | 118 | 83 | 1520 | 106 | 93 | 273 |
| 21 | 54 | 152 | 270 | e139 | 142 | 705 | 118 | 99 | 2200 | 101 | 89 | 240 |
| 22 | 53 | 127 | 192 | e110 | 842 | 376 | 140 | 96 | 1030 | 111 | 82 | 261 |
| 23 | 50 | 133 | 177 | e83 | 1060 | 330 | 124 | 93 | 613 | 148 | 77 | 1190 |
| 24 | 48 | 150 | 164 | e80 | 580 | 298 | 116 | 116 | 551 | 127 | 70 | 450 |
| 25 | 50 | 142 | 341 | e85 | 404 | 257 | 112 | 126 | 475 | 109 | 67 | 356 |
| 26 | 130 | 136 | 289 | e88 | 319 | 229 | 161 | 748 | 364 | 102 | 68 | 325 |
| 27 | 68 | 153 | 211 | e85 | 212 | 236 | 162 | 284 | 229 | 101 | 69 | 315 |
| 28 | 51 | 126 | 190 | e80 | 194 | 206 | 176 | 217 | 210 | 98 | 63 | 413 |
| 29 | 60 | 77 | 183 | e85 | --- | 213 | 167 | 186 | 200 | 94 | 59 | 295 |
| 30 | 176 | 75 | 177 | e90 | --- | 221 | 161 | 125 | 191 | 89 | 150 | 251 |
| 31 | 225 | --- | 185 | 94 | --- | 207 | --- | 119 | --- | 90 | 83 | --- |
| TOTAL | 2791 | 4153 | 6875 | 5469 | 5857 | 10755 | 5467 | 4306 | 14314 | 4151 | 5254 | 11891 |
| MEAN | 90.0 | 138 | 222 | 176 | 209 | 347 | 182 | 139 | 477 | 134 | 169 | 396 |
| MAX | 497 | 483 | 623 | 456 | 1060 | 706 | 395 | 748 | 2200 | 187 | 1160 | 3000 |
| MIN | 27 | 61 | 67 | 80 | 85 | 182 | 112 | 83 | 138 | 89 | 59 | 62 |
| CFSM | 1.00 | 1.54 | 2.47 | 1.96 | 2.33 | 3.86 | 2.03 | 1.55 | 5.31 | 1.49 | 1.89 | 4.41 |
| IN. | 1.15 | 1.72 | 2.84 | 2.26 | 2.42 | 4.45 | 2.26 | 1.78 | 5.92 | 1.72 | 2.17 | 4.92 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2003, BY WATER YEAR (WY)

| | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| MEAN | 90.4 | 111 | 167 | 179 | 174 | 221 | 205 | 167 | 129 | 106 | 75.8 | 102 | | | | | | | | | | | | | | | | | | | |
| MAX | 304 | 242 | 577 | 527 | 409 | 525 | 594 | 410 | 477 | 421 | 177 | 396 | | | | | | | | | | | | | | | | | | | |
| (WY) | 1997 | 1997 | 1997 | 1979 | 1979 | 1994 | 1983 | 1989 | 2003 | 1984 | 1996 | 2003 | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | |

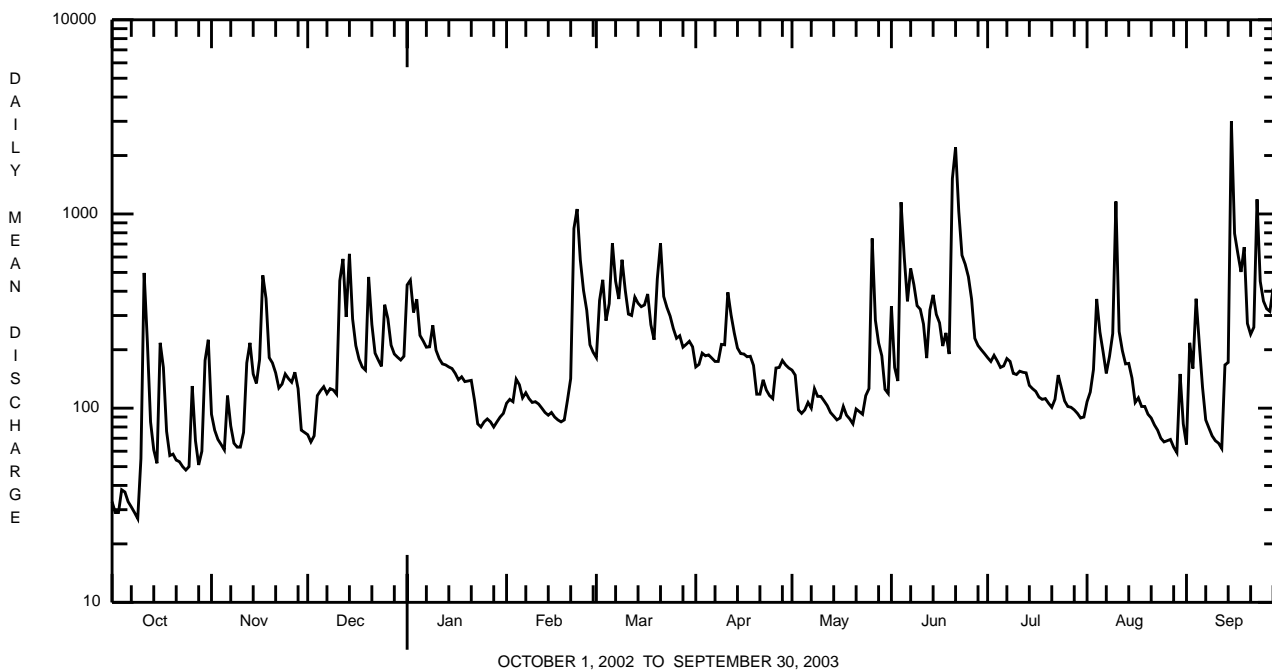
e Estimated.

CHRISTINA RIVER BASIN

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

| SUMMARY STATISTICS | FOR 2002 CALENDAR YEAR | | FOR 2003 WATER YEAR | | WATER YEARS 1974 - 2003 | |
|--------------------------|------------------------|--------|---------------------|--------|-------------------------|-------------|
| ANNUAL TOTAL | 30773 | | 81283 | | | |
| ANNUAL MEAN | 84.3 | | 223 | | 144 | |
| HIGHEST ANNUAL MEAN | | | | | 257 | |
| LOWEST ANNUAL MEAN | | | | | 57.0 | |
| HIGHEST DAILY MEAN | 623 | Dec 14 | 3000 | Sep 15 | 3080 | Sep 16 1999 |
| LOWEST DAILY MEAN | 19 | Sep 14 | 27 | Oct 9 | 19 | Sep 14 2002 |
| ANNUAL SEVEN-DAY MINIMUM | 22 | Sep 9 | 32 | Oct 3 | 22 | Sep 9 2002 |
| MAXIMUM PEAK FLOW | | | a6230 | Sep 15 | b8160 | Jun 22 1972 |
| MAXIMUM PEAK STAGE | | | 13.56 | Sep 15 | c14.79 | Sep 16 1999 |
| ANNUAL RUNOFF (CFSM) | 0.94 | | 2.48 | | 1.60 | |
| ANNUAL RUNOFF (INCHES) | 12.73 | | 33.63 | | 21.74 | |
| 10 PERCENT EXCEEDS | 177 | | 420 | | 275 | |
| 50 PERCENT EXCEEDS | 57 | | 160 | | 94 | |
| 90 PERCENT EXCEEDS | 26 | | 69 | | 41 | |

- a From rating curve extended above 3,600 ft³/s on basis of runoff comparison with nearby stations.
- b From rating curve extended above 3,600 ft³/s on basis of slope-area measurement of peak flow at gage height 13.40 ft.
- c Discharge, 7,200 ft³/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. pH record rated good, except for period Oct. 1-18, which is fair. Water temperature record rated good. Dissolved oxygen record rated fair, except for periods Nov. 5-11, 14-16, July 16-28, which are poor. 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 2002 TO SEPTEMBER 2003

| Date | Time | Agency col- lecting sample, code (00027) | Agency ana- lyzing sample, code (00028) | Instan- taneous dis- charge, cfs (00061) | Dis- solved oxygen, mg/L (00300) | pH, water, unfltrd field, std units (00400) | Specif. conduc- tance, wat unf µS/cm 25 degC (00095) | Temper- ature, deg C (00010) | Fecal coli- form, M-FC col/ 100 mL (31625) |
|----------|------|---|--|---|--|---|--|---------------------------------------|--|
| MAR 2003 | | | | | | | | | |
| 10... | 1420 | 1028 | 1028 | 356 | 13.6 | 7.6 | 229 | 4.2 | 183 |
| 20... | 1330 | 1028 | 1028 | 246 | 12.6 | 7.6 | 282 | 6.6 | 380 |
| APR | | | | | | | | | |
| 07... | 1405 | 1028 | 1028 | 168 | 13.1 | 8.2 | 272 | 7.0 | 680 |
| 21... | 1215 | 1028 | 1028 | 116 | 12.3 | 8.2 | 304 | 13.6 | 57 |
| MAY | | | | | | | | | |
| 01... | 1155 | 1028 | 1028 | 159 | 10.9 | 7.8 | 275 | 14.6 | 132 |
| 12... | 1705 | 1028 | 1028 | 100 | 10.1 | 7.7 | 311 | 16.7 | 593 |
| 21... | 1530 | 1028 | 1028 | 114 | 8.4 | 7.4 | 307 | 15.4 | 527 |
| JUN | | | | | | | | | |
| 05... | 1300 | 1028 | 1028 | 557 | 9.4 | 7.2 | 201 | 15.3 | 3900 |
| 12... | 1345 | 1028 | 1028 | 192 | 9.1 | 7.5 | 266 | 18.8 | 133 |
| 26... | 0935 | 1028 | 1028 | 432 | 9.2 | 7.3 | 234 | 16.5 | 280 |
| JUL | | | | | | | | | |
| 08... | 1110 | 1028 | 1028 | 171 | 8.0 | 7.5 | 277 | 22.2 | 1350 |
| 16... | 0950 | 1028 | 1028 | 127 | 7.8 | 7.5 | 296 | 21.2 | 390 |
| 23... | 1350 | 1028 | 1028 | 155 | 8.4 | 7.6 | 270 | 22.6 | 2600 |
| AUG | | | | | | | | | |
| 06... | 1330 | 1028 | 1028 | 172 | 8.0 | 7.6 | 255 | 23.3 | E1700 |
| 27... | 1250 | 1028 | 1028 | 72 | 11.0 | 8.4 | 319 | 22.9 | 1230 |
| SEP | | | | | | | | | |
| 09... | 1140 | 1028 | 1028 | 72 | 8.6 | 7.7 | 333 | 20.1 | 277 |
| 22... | 1245 | 1028 | 1028 | 261 | 8.8 | 7.5 | 249 | 19.4 | 113 |

CHRISTINA RIVER BASIN

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

| Date | Time | Agency collecting sample, code (00027) | Agency analyzing sample, code (00028) | Instantaneous discharge, cfs (00061) | Dissolved oxygen, mg/L (00300) | pH, water, unfltrd field, std units (00400) | Specific conductance, wat unfltrd, μ S/cm 25 degC (00095) | Temperature, water, deg C (00010) | Calcium, water, fltrd, mg/L (00915) | Magnesium, water, fltrd, mg/L (00925) | Potassium, water, fltrd, mg/L (00935) | Sodium, water, fltrd, mg/L (00930) | ANC, wat unfltrd, titr., field, mg/L as CaCO ₃ (00419) | |
|----------|---------------------------------------|--|--|--|--|---|---|---|--|--|--|---|---|-----|
| OCT 2002 | 28... | 1028 | 80020 | 49 | 11.5 | 7.7 | 381 | 12.2 | 35.9 | 11.7 | 4.26 | 21.3 | 103 | |
| Date | Chloride, water, fltrd, mg/L (00940) | Silica, water, fltrd, mg/L (00955) | Sulfate, water, fltrd, mg/L (00945) | Ammonia, water, fltrd, mg/L as N (00608) | Nitrite + nitrate, water, fltrd, mg/L as N (00631) | Nitrite, water, fltrd, mg/L as N (00613) | Orthophosphate, water, fltrd, mg/L as P (00671) | Aluminum, water, fltrd, μ g/L (01106) | Arsenic, water, fltrd, μ g/L (01000) | Boron, water, fltrd, μ g/L (01020) | Cadmium, water, fltrd, μ g/L (01025) | Chromium, water, fltrd, μ g/L (01030) | Copper, water, fltrd, μ g/L (01040) | |
| OCT 2002 | 28... | 33.4 | 12.8 | 27.0 | .36 | 2.98 | .051 | .17 | 20 | <2 | 210 | <.2 | <.8 | 3.2 |
| Date | Iron, water, fltrd, μ g/L (01046) | Lead, water, fltrd, μ g/L (01049) | Manganese, water, fltrd, μ g/L (01056) | Mercury, water, fltrd, μ g/L (71890) | Molybdenum, water, fltrd, μ g/L (01060) | Nickel, water, fltrd, μ g/L (01065) | Zinc, water, fltrd, μ g/L (01090) | | | | | | | |
| OCT 2002 | 28... | 56 | <1 | 29.1 | <.02 | 2.0 | <2.0 | <24 | | | | | | |

CHRISTINA RIVER BASIN

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

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATESREMARKS.--Samples were collected using a Hess sampler with a mesh size of 500 μm . Each sample covered a total area of 2.4 m^2 .

| Date | 10/28/02 |
|----------------------------------|----------|
| Benthic Macroinvertebrate | Count |
| Platyhelminthes | |
| Turbellaria (FLATWORMS) | |
| Tricladida | |
| Planariidae | 129 |
| Nemertea (PROBOSAS WORMS) | |
| Enopla | |
| Hoplonemertea | |
| Tetrastemmatidae | |
| <u>Prostoma</u> sp | 95 |
| Mollusca | |
| Gastropoda (SNAILS) | |
| Basommatophora | |
| Ancyliidae | |
| <u>Ferrissia</u> sp | 16 |
| Physidae | |
| <u>Physa</u> sp | 1 |
| Planorbidae | |
| <u>Gyraulus</u> sp | 5 |
| Mesogastropoda | |
| Hydrobiidae | |
| <u>Amnicola</u> sp | 1 |
| Bivalvia (CLAMS) | |
| Veneroidea | |
| Corbiculidae | |
| <u>Corbicula fluminea</u> | 7 |
| Sphaeriidae | |
| <u>Sphaerium</u> sp | 32 |
| Annelida | |
| Oligochaeta (AQUATIC EARTHWORMS) | |
| Lumbriculida | |
| Lumbriculidae | 46 |
| Tubificida | |
| Naididae | 3 |
| Arthropoda | |
| Acariformes | |
| Hydrachnidia (WATER MITES) | 86 |
| Crustacea | |
| Amphipoda (SCUDS) | |
| Gammaridae | |
| <u>Gammarus</u> sp | 90 |

CHRISTINA RIVER BASIN

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

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

| Date | 10/28/02 |
|---------------------------------------|----------|
| Benthic Macroinvertebrate | Count |
| Insecta | |
| Ephemeroptera (MAYFLIES) | |
| Caenidae | |
| <u>Caenis</u> sp | 102 |
| Ephemerellidae sp | |
| <u>Eurylophella</u> sp | 3 |
| <u>Serratella</u> sp | 40 |
| Heptageniidae | |
| <u>Stenonema</u> sp | 159 |
| Isonychiidae | |
| <u>Isonychia</u> sp | 1 |
| Tricorythidae | |
| <u>Tricorythodes</u> sp | 3 |
| Odonata (DRAGONFLIES AND DAMSELFLIES) | |
| Aeshnidae | |
| <u>Boyeria</u> sp | 1 |
| Coenagrionidae | |
| <u>Argia</u> sp | 45 |
| Plecoptera (STONEFLIES) | |
| Perlidae | |
| | 1 |
| Taeniopterygidae | |
| <u>Taeniopteryx</u> sp | 1 |
| Trichoptera (CADDISFLIES) | |
| Brachycentridae | |
| <u>Micrasema</u> sp | 9 |
| Hydropsychidae | |
| <u>Cheumatopsyche</u> sp | 132 |
| <u>Hydropsyche</u> sp | 290 |
| Hydroptilidae | |
| <u>Hydroptila</u> sp | 1 |
| <u>Leucotrichia</u> sp | 12 |
| Lepidostomatidae | |
| <u>Lepidostoma</u> sp | 6 |
| Leptoceridae | |
| <u>Oecetis</u> sp | 4 |
| Philopotamidae | |
| <u>Chimarra</u> sp | 56 |
| Polycentropodidae | |
| <u>Polycentropus</u> sp | 3 |
| Lepidoptera (MOTHS AND BUTTERFLIES) | |
| Pyralidae | |
| <u>Petrophila</u> sp | 14 |

CHRISTINA RIVER BASIN

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

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

| Date | 10/28/02 |
|-----------------------------|----------|
| Benthic Macroinvertebrate | Count |
| Coleoptera (BEETLES) | |
| Dryopidae | |
| <u>Helichus</u> sp | 1 |
| Elmidae (RIFFLE BEETLES) | |
| <u>Ancyronyx</u> sp | 5 |
| <u>Dubiraphia</u> sp | 11 |
| <u>Macronychus</u> sp | 10 |
| <u>Optioservus</u> sp | 277 |
| <u>Oulimnius</u> sp | 24 |
| <u>Stenelmis</u> sp | 464 |
| Hydrophilidae | |
| <u>Berosus</u> sp | 7 |
| Psephenidae (WATER PENNIES) | |
| <u>Psephenus</u> sp | 77 |
| Diptera (TRUE FLIES) | |
| Chironomidae (MIDGES) | |
| | 602 |
| Empididae (DANCE FLIES) | |
| <u>Hemerodromia</u> sp | 6 |
| Simuliidae | |
| <u>Simulium</u> sp | 20 |
| Tipulidae (CRANE FLIES) | |
| <u>Antocha</u> sp | 7 |
| Total organisms | 2905 |
| Total number of taxa | 45 |

CHRISTINA RIVER BASIN

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

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|-------|-----------------|-----|------|-----------------|-----|------|-----------------|-----|------|----------------|-----|------|
| | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
| 1 | 399 | 380 | 389 | 325 | 268 | 302 | 367 | 354 | 359 | --- | --- | --- |
| 2 | 443 | 399 | 422 | --- | --- | --- | 374 | 359 | 367 | --- | --- | --- |
| 3 | 473 | 400 | 449 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | 459 | 398 | 425 | 363 | 348 | 355 | --- | --- | --- | --- | --- | --- |
| 5 | 417 | 392 | 402 | 362 | 347 | 353 | --- | --- | --- | --- | --- | --- |
| 6 | 421 | 401 | 410 | 357 | 279 | 303 | --- | --- | --- | --- | --- | --- |
| 7 | 442 | 412 | 424 | 331 | 290 | 310 | --- | --- | --- | --- | --- | --- |
| 8 | 454 | 430 | 439 | 357 | 322 | 337 | --- | --- | --- | --- | --- | --- |
| 9 | 454 | 433 | 444 | 361 | 344 | 352 | --- | --- | --- | --- | --- | --- |
| 10 | 449 | 262 | 407 | 365 | 341 | 355 | --- | --- | --- | --- | --- | --- |
| 11 | --- | --- | --- | 362 | 326 | 346 | --- | --- | --- | --- | --- | --- |
| 12 | --- | --- | --- | 326 | --- | --- | --- | --- | --- | --- | --- | --- |
| 13 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14 | --- | --- | --- | 281 | 258 | 270 | --- | --- | --- | --- | --- | --- |
| 15 | --- | --- | --- | 291 | 278 | 284 | --- | --- | --- | --- | --- | --- |
| 16 | --- | --- | --- | 292 | 254 | 276 | --- | --- | --- | --- | --- | --- |
| 17 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 18 | 341 | 292 | 319 | 243 | --- | --- | --- | --- | --- | --- | --- | --- |
| 19 | 373 | 341 | 357 | 279 | 243 | 266 | --- | --- | --- | --- | --- | --- |
| 20 | 386 | 350 | 372 | 277 | 266 | 270 | --- | --- | --- | --- | --- | --- |
| 21 | 383 | 349 | 370 | 292 | 273 | 281 | --- | --- | --- | --- | --- | --- |
| 22 | 373 | 363 | 368 | 315 | 274 | 301 | --- | --- | --- | --- | --- | --- |
| 23 | 382 | 367 | 374 | 313 | 276 | 297 | --- | --- | --- | --- | --- | --- |
| 24 | 389 | 375 | 384 | 284 | 271 | 277 | --- | --- | --- | --- | --- | --- |
| 25 | 387 | 369 | 380 | 284 | 276 | 281 | --- | --- | --- | --- | --- | --- |
| 26 | 384 | 257 | 296 | 287 | 278 | 283 | --- | --- | --- | --- | --- | --- |
| 27 | 368 | 298 | 333 | 322 | 276 | 303 | --- | --- | --- | --- | --- | --- |
| 28 | 394 | 368 | 383 | 347 | 296 | 318 | --- | --- | --- | --- | --- | --- |
| 29 | 429 | 286 | 392 | 373 | 347 | 357 | --- | --- | --- | --- | --- | --- |
| 30 | 291 | 241 | 271 | 375 | 360 | 367 | --- | --- | --- | --- | --- | --- |
| 31 | 268 | 207 | 232 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MONTH | 473 | 207 | 377 | 375 | 243 | 310 | 374 | 354 | 363 | --- | --- | --- |
| | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | |
| 1 | --- | --- | --- | 443 | 345 | 376 | 288 | 270 | 280 | 278 | 270 | 275 |
| 2 | --- | --- | --- | 503 | 314 | 385 | --- | --- | --- | 298 | 271 | 278 |
| 3 | --- | --- | --- | 314 | 262 | 273 | --- | --- | --- | 329 | 298 | 321 |
| 4 | --- | --- | --- | 289 | 270 | 276 | --- | --- | --- | 328 | 307 | 316 |
| 5 | --- | --- | --- | 377 | 257 | 317 | --- | --- | --- | 324 | 308 | 318 |
| 6 | --- | --- | --- | 325 | 237 | 268 | --- | --- | --- | 316 | 294 | 305 |
| 7 | --- | --- | --- | 293 | 249 | 259 | --- | --- | --- | 324 | 290 | 308 |
| 8 | --- | --- | --- | 316 | 262 | 278 | 332 | 297 | 312 | 305 | 288 | 295 |
| 9 | --- | --- | --- | 305 | 193 | 253 | 297 | 271 | 286 | 300 | 287 | 294 |
| 10 | --- | --- | --- | 240 | 195 | 220 | 271 | 259 | 264 | 305 | 293 | 298 |
| 11 | --- | --- | --- | 254 | 240 | 248 | 269 | 200 | 238 | 309 | 299 | 304 |
| 12 | --- | --- | --- | 265 | 238 | 258 | 243 | 220 | 234 | 316 | 303 | 309 |
| 13 | --- | --- | --- | 244 | 221 | 237 | --- | --- | --- | 321 | 306 | 312 |
| 14 | --- | --- | --- | 248 | 234 | 243 | --- | --- | --- | 322 | 308 | 313 |
| 15 | --- | --- | --- | 265 | 232 | 248 | 276 | 259 | 268 | 324 | 294 | 312 |
| 16 | --- | --- | --- | 254 | 228 | 243 | 288 | 265 | 273 | 333 | 308 | 323 |
| 17 | --- | --- | --- | 260 | 237 | 248 | 281 | 271 | 275 | 329 | 296 | 316 |
| 18 | --- | --- | --- | 249 | 239 | 243 | 286 | 276 | 280 | 336 | 306 | 321 |
| 19 | --- | --- | --- | 259 | 249 | 255 | 306 | 272 | 283 | 335 | 302 | 322 |
| 20 | --- | --- | --- | 291 | 188 | 261 | 310 | 297 | 304 | 339 | 313 | 326 |
| 21 | --- | --- | --- | 231 | 186 | 212 | 308 | 298 | 302 | 323 | 303 | 311 |
| 22 | --- | --- | --- | 234 | 225 | 231 | 300 | 289 | 296 | 318 | 288 | 306 |
| 23 | --- | --- | --- | 239 | 232 | 235 | 304 | 297 | 300 | 321 | 295 | 312 |
| 24 | --- | --- | --- | 243 | 238 | 240 | 308 | 296 | 304 | 316 | 284 | 298 |
| 25 | --- | --- | --- | 260 | 243 | 249 | 319 | 299 | 309 | 302 | 274 | 288 |
| 26 | --- | --- | --- | 278 | 257 | 263 | 299 | 272 | 288 | 276 | 149 | 199 |
| 27 | 295 | 271 | 289 | 275 | 250 | 259 | 288 | 261 | 278 | 246 | 189 | 227 |
| 28 | 468 | 295 | 361 | 266 | 257 | 262 | 272 | 265 | 268 | 255 | 239 | 247 |
| 29 | --- | --- | --- | 267 | 248 | 261 | 274 | 263 | 269 | 279 | 243 | 254 |
| 30 | --- | --- | --- | 280 | 262 | 269 | 276 | 267 | 272 | 289 | 273 | 282 |
| 31 | --- | --- | --- | 270 | 256 | 264 | --- | --- | --- | 289 | 166 | 253 |
| MONTH | 468 | 271 | 325 | 503 | 186 | 262 | 332 | 200 | 281 | 339 | 149 | 295 |

CHRISTINA RIVER BASIN

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

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|-------|------|-----|------|------|-----|------|--------|-----|------|-----------|-----|------|
| | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | | |
| 1 | 279 | 191 | 221 | 290 | 277 | 282 | 327 | 265 | 321 | 335 | 318 | 327 |
| 2 | 264 | 215 | 242 | 288 | 273 | 282 | 314 | 262 | 289 | 325 | --- | --- |
| 3 | 281 | 257 | 268 | 288 | 277 | 283 | 317 | 211 | 284 | 272 | 254 | 262 |
| 4 | 265 | 137 | 180 | 289 | 280 | 285 | 267 | 151 | 215 | 265 | 204 | 234 |
| 5 | 225 | 168 | 201 | 291 | 281 | 286 | 270 | 193 | 239 | --- | --- | --- |
| 6 | 238 | 225 | 233 | 290 | 283 | 286 | 267 | 213 | 245 | --- | --- | --- |
| 7 | 240 | 180 | 223 | 289 | 267 | 284 | 278 | 258 | 270 | --- | --- | --- |
| 8 | 237 | 184 | 216 | 285 | 267 | 277 | 266 | 255 | 260 | --- | --- | --- |
| 9 | 241 | 232 | 237 | 301 | 280 | 287 | 271 | 207 | 250 | 333 | 316 | 327 |
| 10 | 245 | 234 | 238 | 295 | 282 | 288 | 238 | 115 | 161 | --- | --- | --- |
| 11 | 266 | 234 | 244 | 296 | 287 | 291 | 246 | 212 | 236 | 348 | 334 | 339 |
| 12 | 281 | 254 | 265 | 293 | 271 | 288 | 265 | 240 | 254 | 345 | 334 | 340 |
| 13 | 287 | 150 | 256 | 297 | 268 | 285 | 269 | 258 | 265 | 341 | 193 | 300 |
| 14 | 239 | 154 | 203 | 299 | 283 | 292 | 269 | 259 | 262 | --- | --- | --- |
| 15 | 252 | 189 | 233 | 297 | 285 | 290 | 297 | 269 | 273 | --- | --- | --- |
| 16 | 252 | 237 | 245 | 303 | 292 | 297 | 301 | 283 | 291 | --- | --- | --- |
| 17 | 282 | 245 | 260 | 303 | 296 | 300 | 304 | 292 | 296 | 225 | 215 | 220 |
| 18 | 281 | 243 | 255 | 306 | 297 | 302 | 306 | 292 | 299 | 251 | 218 | 231 |
| 19 | 278 | 255 | 271 | 311 | 298 | 304 | 298 | 288 | 291 | 239 | 172 | 194 |
| 20 | 278 | 97 | 217 | 316 | 302 | 309 | --- | --- | --- | 256 | 219 | 240 |
| 21 | 168 | 101 | 144 | 315 | 297 | 306 | --- | --- | --- | 260 | 239 | 253 |
| 22 | 214 | 168 | 188 | 312 | 294 | 303 | --- | --- | --- | 249 | 238 | 244 |
| 23 | 225 | 214 | 220 | 303 | 267 | 281 | --- | --- | --- | 262 | --- | --- |
| 24 | 229 | 217 | 223 | 301 | 278 | 286 | --- | --- | --- | --- | --- | --- |
| 25 | 234 | 227 | 231 | 313 | 295 | 301 | --- | --- | --- | --- | --- | --- |
| 26 | 274 | 233 | 246 | 317 | 298 | 304 | --- | --- | --- | --- | --- | --- |
| 27 | 276 | 270 | 273 | 316 | 300 | 307 | 331 | 319 | 327 | --- | --- | --- |
| 28 | 280 | 272 | 276 | 321 | 311 | 315 | 351 | 326 | 335 | --- | --- | --- |
| 29 | 281 | 276 | 279 | 319 | 306 | 311 | 354 | 334 | 345 | --- | --- | --- |
| 30 | 280 | 276 | 278 | 322 | 300 | 310 | 348 | 188 | 293 | --- | --- | --- |
| 31 | --- | --- | --- | 324 | 305 | 316 | 327 | 239 | 303 | --- | --- | --- |
| MONTH | 287 | 97 | 236 | 324 | 267 | 295 | 354 | 115 | 275 | 348 | 172 | 270 |

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

| DAY | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN |
|-----|---------|-----|--------|----------|-----|--------|----------|-----|--------|---------|-----|--------|
| | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
| 1 | 8.0 | 7.5 | 7.7 | 7.6 | 7.4 | 7.4 | 7.6 | 7.4 | 7.4 | --- | --- | --- |
| 2 | 8.0 | 7.4 | 7.6 | 7.6 | --- | --- | 7.6 | 7.4 | 7.4 | --- | --- | --- |
| 3 | 7.9 | 7.2 | 7.5 | 7.6 | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | 7.6 | 7.2 | 7.4 | 7.6 | 7.4 | 7.5 | --- | --- | --- | --- | --- | --- |
| 5 | 7.7 | 7.2 | 7.3 | 7.7 | 7.4 | 7.5 | --- | --- | --- | --- | --- | --- |
| 6 | 8.0 | 7.3 | 7.5 | 7.5 | 7.3 | 7.4 | --- | --- | --- | --- | --- | --- |
| 7 | 8.1 | 7.5 | 7.5 | 7.6 | 7.4 | 7.5 | --- | --- | --- | --- | --- | --- |
| 8 | 8.3 | 7.5 | 7.8 | 7.8 | 7.5 | 7.6 | --- | --- | --- | --- | --- | --- |
| 9 | 8.2 | 7.6 | 7.8 | 7.7 | 7.4 | 7.5 | --- | --- | --- | --- | --- | --- |
| 10 | 7.8 | 7.4 | 7.6 | 7.5 | 7.2 | 7.4 | --- | --- | --- | --- | --- | --- |
| 11 | --- | --- | --- | 7.2 | 7.1 | 7.1 | --- | --- | --- | --- | --- | --- |
| 12 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14 | --- | --- | --- | 7.5 | 7.2 | 7.3 | --- | --- | --- | --- | --- | --- |
| 15 | --- | --- | --- | 7.5 | 7.2 | 7.2 | --- | --- | --- | --- | --- | --- |
| 16 | --- | --- | --- | 7.3 | 7.2 | 7.2 | --- | --- | --- | --- | --- | --- |
| 17 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 18 | 7.7 | 7.4 | 7.5 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 19 | 7.8 | 7.5 | 7.6 | 7.5 | 7.3 | 7.3 | --- | --- | --- | --- | --- | --- |
| 20 | 7.7 | 7.4 | 7.5 | 7.5 | 7.2 | 7.3 | --- | --- | --- | --- | --- | --- |
| 21 | 7.6 | 7.4 | 7.5 | 7.5 | 7.2 | 7.3 | --- | --- | --- | --- | --- | --- |
| 22 | 7.7 | 7.4 | 7.5 | 7.3 | 7.2 | 7.2 | --- | --- | --- | --- | --- | --- |
| 23 | 7.8 | 7.5 | 7.5 | 7.5 | 7.2 | 7.3 | --- | --- | --- | --- | --- | --- |
| 24 | 7.7 | 7.5 | 7.6 | 7.5 | 7.2 | 7.3 | --- | --- | --- | --- | --- | --- |
| 25 | 7.7 | 7.5 | 7.6 | 7.5 | 7.2 | 7.3 | --- | --- | --- | --- | --- | --- |
| 26 | 7.5 | 7.1 | 7.3 | 7.4 | 7.2 | 7.2 | --- | --- | --- | --- | --- | --- |
| 27 | 7.4 | 7.1 | 7.2 | 7.4 | 7.2 | 7.3 | --- | --- | --- | --- | --- | --- |
| 28 | 7.3 | 7.1 | 7.3 | 7.6 | 7.3 | 7.4 | --- | --- | --- | --- | --- | --- |
| 29 | 7.6 | 7.3 | 7.5 | 7.6 | 7.4 | 7.4 | --- | --- | --- | --- | --- | --- |
| 30 | 7.6 | 7.4 | 7.5 | 7.5 | 7.4 | 7.4 | --- | --- | --- | --- | --- | --- |
| 31 | 7.5 | 7.3 | 7.4 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MAX | 8.3 | 7.6 | 7.8 | 7.8 | 7.5 | 7.6 | 7.6 | 7.4 | 7.4 | --- | --- | --- |
| MIN | 7.3 | 7.1 | 7.2 | 7.2 | 7.1 | 7.1 | 7.6 | 7.4 | 7.4 | --- | --- | --- |

CHRISTINA RIVER BASIN

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

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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

CHRISTINA RIVER BASIN

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

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|-------|-----------------|------|------|-----------------|------|------|-----------------|------|------|----------------|------|------|
| | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
| 1 | 21.0 | 17.0 | 18.5 | 9.0 | 7.0 | 8.0 | 5.5 | 3.5 | 4.5 | --- | --- | --- |
| 2 | 22.5 | 18.5 | 20.0 | 9.0 | 7.0 | --- | 4.5 | 3.0 | 4.0 | --- | --- | --- |
| 3 | 23.0 | 19.5 | 21.0 | 9.0 | 7.0 | --- | --- | --- | --- | --- | --- | --- |
| 4 | 21.5 | 20.5 | 21.0 | 9.5 | 7.5 | 8.5 | --- | --- | --- | --- | --- | --- |
| 5 | 23.5 | 20.5 | 21.5 | 9.5 | 7.5 | 8.5 | --- | --- | --- | --- | --- | --- |
| 6 | 20.5 | 17.5 | 19.0 | 10.0 | 9.0 | 9.5 | --- | --- | --- | --- | --- | --- |
| 7 | 21.5 | 18.0 | 19.5 | 10.5 | 8.5 | 9.0 | --- | --- | --- | --- | --- | --- |
| 8 | 18.0 | 15.5 | 17.0 | 10.0 | 7.5 | 8.5 | --- | --- | --- | --- | --- | --- |
| 9 | 17.0 | 14.5 | 16.0 | 11.5 | 8.5 | 10.0 | --- | --- | --- | --- | --- | --- |
| 10 | 17.5 | 16.5 | 17.0 | 14.0 | 10.5 | 12.0 | --- | --- | --- | --- | --- | --- |
| 11 | --- | --- | --- | 16.5 | 14.0 | 15.5 | --- | --- | --- | --- | --- | --- |
| 12 | --- | --- | --- | 16.0 | --- | --- | --- | --- | --- | --- | --- | --- |
| 13 | --- | --- | --- | 11.5 | --- | --- | --- | --- | --- | --- | --- | --- |
| 14 | --- | --- | --- | 10.5 | 8.5 | 9.5 | --- | --- | --- | --- | --- | --- |
| 15 | --- | --- | --- | 11.0 | 9.0 | 10.0 | --- | --- | --- | --- | --- | --- |
| 16 | 14.0 | 13.0 | 13.5 | 10.0 | 9.0 | 10.0 | --- | --- | --- | --- | --- | --- |
| 17 | 13.5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 18 | 14.0 | 12.0 | 13.0 | 8.5 | --- | --- | --- | --- | --- | --- | --- | --- |
| 19 | 13.0 | 11.0 | 12.0 | 8.5 | 6.5 | 7.5 | --- | --- | --- | --- | --- | --- |
| 20 | 14.0 | 13.0 | 13.5 | 9.0 | 7.0 | 8.0 | --- | --- | --- | --- | --- | --- |
| 21 | 14.5 | 12.0 | 13.0 | 9.0 | 7.5 | 8.0 | --- | --- | --- | --- | --- | --- |
| 22 | 13.5 | 10.5 | 12.0 | 9.5 | 9.0 | 9.5 | --- | --- | --- | --- | --- | --- |
| 23 | 13.0 | 10.5 | 12.0 | 9.0 | 7.0 | 8.0 | --- | --- | --- | --- | --- | --- |
| 24 | 12.0 | 11.0 | 11.5 | 8.5 | 7.0 | 7.5 | --- | --- | --- | --- | --- | --- |
| 25 | 11.5 | 10.5 | 11.0 | 9.0 | 6.5 | 7.5 | --- | --- | --- | --- | --- | --- |
| 26 | 12.5 | 11.0 | 11.5 | 9.0 | 7.5 | 8.5 | --- | --- | --- | --- | --- | --- |
| 27 | 13.0 | 11.0 | 12.0 | 8.0 | 6.0 | 7.0 | --- | --- | --- | --- | --- | --- |
| 28 | 12.5 | 11.0 | 12.0 | 6.0 | 5.0 | 5.5 | --- | --- | --- | --- | --- | --- |
| 29 | 11.0 | 8.5 | 10.0 | 5.0 | 4.0 | 4.5 | --- | --- | --- | --- | --- | --- |
| 30 | 8.5 | 7.5 | 8.0 | 6.0 | 4.5 | 5.5 | --- | --- | --- | --- | --- | --- |
| 31 | 8.5 | 7.0 | 8.0 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MONTH | 23.5 | 7.0 | 14.5 | 16.5 | 4.0 | 8.6 | 5.5 | 3.0 | 4.2 | --- | --- | --- |
| | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | |
| 1 | --- | --- | --- | 4.5 | 4.0 | 4.5 | 8.0 | 6.0 | 7.5 | 18.0 | 13.5 | 16.0 |
| 2 | --- | --- | --- | 5.5 | 3.5 | 4.5 | 13.0 | 7.5 | 10.5 | 18.0 | 15.0 | 16.5 |
| 3 | --- | --- | --- | 3.5 | 1.5 | 2.5 | 13.0 | 10.0 | 11.5 | 18.0 | 15.0 | 16.5 |
| 4 | --- | --- | --- | 4.0 | 1.0 | 2.5 | 12.0 | 9.0 | 10.0 | 16.0 | 14.5 | 15.0 |
| 5 | --- | --- | --- | 6.5 | 3.5 | 4.5 | 9.5 | 8.5 | 9.0 | 14.5 | 12.0 | 13.0 |
| 6 | --- | --- | --- | 4.0 | 2.0 | 3.0 | 11.5 | 7.5 | 9.5 | 13.5 | 12.0 | 12.5 |
| 7 | --- | --- | --- | 4.5 | 1.5 | 3.0 | 10.0 | 6.5 | 8.0 | 18.5 | 13.0 | 15.5 |
| 8 | --- | --- | --- | 6.0 | 2.5 | 4.5 | 6.5 | 6.0 | 6.5 | 17.5 | 16.5 | 17.0 |
| 9 | --- | --- | --- | 7.0 | 3.0 | 5.0 | 7.0 | 6.5 | 6.5 | 16.5 | 15.0 | 15.5 |
| 10 | --- | --- | --- | 4.5 | 2.0 | 3.0 | 8.5 | 6.5 | 7.5 | 16.0 | 14.0 | 15.0 |
| 11 | --- | --- | --- | 4.5 | 2.0 | 3.0 | 8.5 | 7.0 | 7.5 | 18.0 | 16.0 | 16.5 |
| 12 | --- | --- | --- | 6.5 | 3.5 | 5.0 | 12.5 | 7.5 | 9.5 | 17.5 | 15.5 | 16.5 |
| 13 | --- | --- | --- | 7.0 | 4.5 | 5.5 | --- | --- | --- | 15.5 | 14.0 | 14.5 |
| 14 | --- | --- | --- | 6.5 | 3.5 | 5.0 | --- | --- | --- | 15.5 | 13.0 | 14.0 |
| 15 | --- | --- | --- | 7.0 | 3.5 | 5.5 | 15.5 | 10.0 | 12.5 | 15.5 | 13.0 | 14.5 |
| 16 | --- | --- | --- | 9.0 | 5.0 | 7.0 | 17.0 | 12.0 | 14.5 | 15.0 | 13.5 | 14.0 |
| 17 | --- | --- | --- | 9.5 | 7.0 | 8.0 | 15.5 | 10.0 | 12.5 | 14.0 | 12.5 | 13.0 |
| 18 | --- | --- | --- | 10.5 | 7.5 | 9.0 | 10.0 | 9.0 | 9.5 | 13.5 | 12.0 | 13.0 |
| 19 | --- | --- | --- | 9.5 | 7.5 | 8.0 | 14.0 | 9.0 | 11.0 | 17.0 | 11.0 | 14.0 |
| 20 | --- | --- | --- | 7.5 | 6.5 | 6.5 | 15.5 | 10.5 | 13.0 | 18.5 | 13.5 | 16.0 |
| 21 | --- | --- | --- | 9.0 | 6.5 | 8.0 | 15.0 | 12.0 | 13.5 | 16.5 | 15.0 | 15.5 |
| 22 | --- | --- | --- | 11.0 | 7.0 | 9.0 | 15.0 | 13.0 | 14.0 | 15.0 | 14.5 | 14.5 |
| 23 | --- | --- | --- | 11.0 | 7.5 | 9.5 | 14.0 | 11.0 | 12.5 | 14.5 | 13.5 | 14.0 |
| 24 | --- | --- | --- | 11.5 | 7.5 | 9.5 | 15.0 | 10.0 | 12.5 | 15.0 | 13.5 | 14.5 |
| 25 | --- | --- | --- | 12.0 | 8.0 | 10.0 | 15.0 | 11.0 | 13.0 | 14.5 | 14.0 | 14.5 |
| 26 | --- | --- | --- | 12.0 | 9.0 | 10.5 | 14.0 | 13.0 | 13.5 | 14.5 | 13.5 | 14.0 |
| 27 | 3.5 | 2.0 | 2.5 | 12.5 | 9.0 | 10.5 | 17.5 | 12.5 | 14.5 | 15.0 | 13.0 | 14.0 |
| 28 | 5.0 | 2.5 | 4.0 | 11.5 | 8.5 | 10.0 | 17.0 | 12.0 | 14.5 | 15.5 | 14.0 | 15.0 |
| 29 | --- | --- | --- | 13.0 | 10.0 | 11.5 | 15.5 | 13.0 | 14.5 | 17.0 | 13.5 | 15.5 |
| 30 | --- | --- | --- | 12.0 | 8.5 | 10.5 | 17.0 | 12.5 | 15.0 | 19.5 | 15.0 | 17.0 |
| 31 | --- | --- | --- | 9.5 | 6.5 | 8.0 | --- | --- | --- | 18.0 | 16.5 | 17.0 |
| MONTH | 5.0 | 2.0 | 3.2 | 13.0 | 1.0 | 6.7 | 17.5 | 6.0 | 11.2 | 19.5 | 11.0 | 15.0 |

CHRISTINA RIVER BASIN

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

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| | | | | | | | | | | | | |
| 1 | 17.0 | 15.0 | 16.0 | 22.5 | 19.5 | 21.0 | 23.5 | 21.5 | 22.5 | 21.5 | 21.0 | 21.0 |
| 2 | 17.0 | 13.5 | 15.5 | 22.0 | 20.0 | 21.0 | 24.5 | 22.0 | 23.0 | --- | 20.0 | --- |
| 3 | 16.0 | 14.5 | 15.5 | 21.0 | 20.0 | 20.5 | 24.5 | 23.0 | 23.5 | 20.0 | 19.0 | 20.0 |
| 4 | 15.0 | 13.0 | 13.5 | 23.0 | 19.5 | 21.0 | 24.5 | 22.5 | 23.5 | 19.5 | 18.0 | 19.0 |
| 5 | 16.5 | 14.0 | 15.0 | 24.0 | 21.0 | 22.5 | 24.0 | 23.0 | 23.5 | --- | --- | --- |
| 6 | 16.5 | 14.5 | 15.5 | 24.0 | 21.0 | 22.5 | 24.0 | 22.0 | 23.0 | --- | --- | --- |
| 7 | 15.0 | 14.0 | 14.5 | 24.5 | 21.5 | 23.0 | 23.5 | 22.5 | 23.0 | --- | --- | --- |
| 8 | 15.5 | 14.5 | 15.0 | 24.0 | 22.0 | 23.0 | 23.0 | 19.5 | 21.0 | 21.5 | 17.5 | --- |
| 9 | 17.0 | 14.5 | 15.5 | 23.5 | 22.0 | 23.0 | 21.5 | 19.5 | 20.5 | 22.0 | 19.2 | --- |
| 10 | 17.5 | 14.0 | 15.5 | 22.5 | 20.5 | 21.0 | 23.5 | 21.0 | 22.5 | 20.5 | --- | --- |
| 11 | 16.5 | 14.5 | 15.5 | 22.5 | 20.0 | 21.5 | 23.5 | 22.5 | 23.0 | 21.0 | 17.5 | 19.0 |
| 12 | 19.5 | 16.5 | 18.0 | 22.5 | 20.0 | 21.5 | 24.5 | 22.5 | 23.5 | 19.5 | 18.5 | 19.0 |
| 13 | 20.5 | 18.0 | 19.0 | 23.5 | 20.0 | 21.5 | 24.5 | 23.0 | 23.5 | 21.0 | 18.5 | 19.0 |
| 14 | 21.5 | 19.0 | 20.0 | 22.5 | 20.0 | 21.0 | 23.5 | 21.0 | 22.5 | --- | --- | --- |
| 15 | 21.0 | 17.0 | 19.5 | 23.0 | 20.0 | 21.5 | 23.5 | 21.0 | 22.0 | --- | --- | --- |
| 16 | 17.5 | 15.0 | 16.5 | 24.0 | 21.0 | 22.5 | 23.0 | 21.5 | 22.5 | 21.0 | --- | --- |
| 17 | 17.5 | 13.5 | 15.5 | 24.0 | 20.5 | 22.5 | 24.0 | 22.0 | 23.0 | 18.0 | 14.5 | 16.5 |
| 18 | 18.0 | 16.5 | 17.0 | 22.0 | 20.5 | 21.0 | 24.0 | 21.5 | 23.0 | 18.5 | 14.0 | 15.5 |
| 19 | 19.0 | 17.0 | 18.0 | 23.0 | 20.0 | 21.5 | 24.5 | 22.0 | 23.0 | 20.0 | 18.5 | 19.5 |
| 20 | 18.5 | 17.5 | 18.0 | 23.0 | 19.5 | 21.0 | --- | --- | --- | 20.5 | 18.5 | 19.5 |
| 21 | 17.5 | 17.0 | 17.0 | 24.0 | 21.0 | 22.5 | --- | --- | --- | 20.0 | 18.5 | 19.5 |
| 22 | 18.0 | 17.0 | 17.5 | 24.0 | 22.5 | 23.0 | --- | --- | --- | 20.0 | 19.0 | 19.5 |
| 23 | 20.0 | 16.5 | 18.0 | 23.0 | 22.0 | 22.5 | --- | --- | --- | --- | --- | --- |
| 24 | 19.0 | 16.0 | 17.5 | 23.5 | 21.5 | 22.5 | --- | --- | --- | --- | --- | --- |
| 25 | 19.0 | 16.0 | 17.5 | 24.5 | 21.0 | 22.5 | --- | --- | --- | --- | --- | --- |
| 26 | 20.0 | 16.5 | 18.0 | 25.0 | 21.0 | 23.0 | --- | --- | --- | --- | --- | --- |
| 27 | 22.0 | 19.5 | 21.0 | 25.5 | 22.5 | 24.0 | 23.5 | 21.5 | 22.5 | --- | --- | --- |
| 28 | 21.5 | 19.0 | 20.5 | 24.5 | 23.0 | 24.0 | 24.5 | 21.5 | 23.0 | --- | --- | --- |
| 29 | 22.0 | 19.0 | 20.5 | 25.0 | 21.5 | 23.0 | 23.5 | 21.5 | 22.5 | --- | --- | --- |
| 30 | 22.5 | 19.5 | 21.0 | 24.0 | 21.0 | 22.5 | 24.5 | 22.0 | 23.0 | --- | --- | --- |
| 31 | --- | --- | --- | 23.5 | 22.0 | 22.5 | 23.0 | 20.5 | 22.0 | --- | --- | --- |
| MONTH | 22.5 | 13.0 | 17.2 | 25.5 | 19.5 | 22.1 | 24.5 | 19.5 | 22.7 | 22.0 | 14.0 | 18.9 |

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|-------|------|------|------|------|------|------|-----|-----|------|-----|-----|------|
| | | | | | | | | | | | | |
| 1 | 8.4 | 5.5 | 6.8 | 11.1 | 9.8 | 10.3 | --- | --- | --- | --- | --- | --- |
| 2 | 9.1 | 5.5 | 6.8 | 11.1 | 9.8 | --- | --- | --- | --- | --- | --- | --- |
| 3 | 9.4 | 5.5 | 6.9 | 11.4 | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | 7.6 | 5.0 | 6.0 | 11.1 | 9.5 | 10.2 | --- | --- | --- | --- | --- | --- |
| 5 | 8.2 | 5.5 | 6.5 | 11.4 | 9.5 | 10.2 | --- | --- | --- | --- | --- | --- |
| 6 | 9.6 | 6.0 | 7.5 | 10.9 | 9.4 | 10.2 | --- | --- | --- | --- | --- | --- |
| 7 | 10.0 | 6.5 | 7.6 | 11.3 | 10.9 | 11.2 | --- | --- | --- | --- | --- | --- |
| 8 | 10.6 | 6.6 | 8.0 | 11.4 | 11.0 | 11.2 | --- | --- | --- | --- | --- | --- |
| 9 | 10.8 | 7.0 | 8.2 | 11.0 | 10.8 | 10.9 | --- | --- | --- | --- | --- | --- |
| 10 | 8.6 | 6.7 | 7.5 | 10.8 | 10.0 | 10.4 | --- | --- | --- | --- | --- | --- |
| 11 | --- | --- | --- | 10.0 | 9.6 | 9.8 | --- | --- | --- | --- | --- | --- |
| 12 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14 | --- | --- | --- | 9.7 | 8.7 | 9.1 | --- | --- | --- | --- | --- | --- |
| 15 | --- | --- | --- | 10.3 | 8.9 | 9.5 | --- | --- | --- | --- | --- | --- |
| 16 | --- | 8.5 | --- | 9.9 | 9.4 | 9.8 | --- | --- | --- | --- | --- | --- |
| 17 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 18 | 10.4 | 9.1 | 9.7 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 19 | 10.5 | 9.2 | 9.8 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20 | 10.5 | 9.1 | 9.6 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 21 | 10.5 | 9.2 | 9.7 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 22 | 11.0 | 9.4 | 10.0 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 23 | 11.5 | 9.6 | 10.3 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 24 | 11.2 | 9.4 | 10.1 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 25 | 11.2 | 9.7 | 10.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 26 | 10.7 | 9.6 | 10.1 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 27 | 11.1 | 9.0 | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28 | 10.8 | 8.9 | 9.6 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 29 | 11.1 | 9.1 | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 30 | 10.7 | 10.1 | 10.4 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 31 | 10.9 | 10.0 | 10.5 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MONTH | 11.5 | 5.0 | 8.8 | 11.4 | 8.7 | 10.2 | --- | --- | --- | --- | --- | --- |

CHRISTINA RIVER BASIN

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

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|-------|----------|------|------|-------|------|------|-------|------|------|------|-----|------|
| | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | |
| 1 | --- | --- | --- | 13.0 | 11.9 | 12.3 | 14.4 | 10.3 | 12.1 | 11.5 | 7.5 | 9.4 |
| 2 | --- | --- | --- | 12.4 | 11.8 | 12.0 | 15.0 | 9.0 | 11.7 | 11.3 | 7.4 | 9.1 |
| 3 | --- | --- | --- | 13.7 | 12.2 | 13.0 | 14.7 | 8.9 | 11.2 | 12.5 | 7.3 | 9.5 |
| 4 | --- | --- | --- | 13.9 | 12.2 | 13.2 | 12.7 | 8.9 | 10.5 | 13.0 | 7.6 | 9.8 |
| 5 | --- | --- | --- | 12.8 | 11.5 | 12.2 | 13.4 | 9.9 | 11.2 | 12.3 | 8.1 | 10 |
| 6 | --- | --- | --- | 12.9 | 12.1 | 12.5 | 15.3 | 9.7 | 12.0 | 12.2 | 8.7 | 10.1 |
| 7 | --- | --- | --- | 13.7 | 12.3 | 13.1 | 13.5 | 9.6 | 11.3 | 12.9 | 7.1 | 9.9 |
| 8 | --- | --- | --- | 13.3 | 11.4 | 12.5 | 13.9 | 10.7 | 11.9 | 10.7 | 6.5 | 8.4 |
| 9 | --- | --- | --- | 12.7 | 11.5 | 12.1 | 13.7 | 10.7 | 11.9 | 9.7 | 7.5 | 8.5 |
| 10 | --- | --- | --- | 13.5 | 12.4 | 12.9 | 14.5 | 10.4 | 12.2 | 11.4 | 7.9 | 9.4 |
| 11 | --- | --- | --- | 13.8 | 12.3 | 13.1 | 11.2 | 10.2 | 10.7 | 10.6 | 7.3 | 8.8 |
| 12 | --- | --- | --- | 13.4 | 11.6 | 12.5 | 12.0 | 9.2 | 10.8 | 10.8 | 7.2 | 8.7 |
| 13 | --- | --- | --- | 13.0 | 11.6 | 12.1 | --- | --- | --- | 11.7 | 8.0 | 9.7 |
| 14 | --- | --- | --- | 13.6 | 11.9 | 12.6 | --- | --- | --- | 11.8 | 7.6 | 9.6 |
| 15 | --- | --- | --- | 13.6 | 11.5 | 12.5 | 14.3 | 8.6 | 11.2 | 11.6 | 6.4 | 9.0 |
| 16 | --- | --- | --- | 13.2 | 11.1 | 12.1 | 14.2 | 8.0 | 10.6 | --- | --- | --- |
| 17 | --- | --- | --- | 12.7 | 10.3 | 11.5 | 13.8 | 8.0 | 10.9 | --- | --- | --- |
| 18 | --- | --- | --- | 12.7 | 9.9 | 11.1 | 13.0 | 10.1 | 11.4 | --- | --- | --- |
| 19 | --- | --- | --- | 12.9 | 9.8 | 11.3 | 14.5 | 9.0 | 11.7 | --- | --- | --- |
| 20 | --- | --- | --- | 12.7 | 10.8 | 11.5 | 13.9 | 8.5 | 10.9 | 9.9 | 5.3 | 7.3 |
| 21 | --- | --- | --- | 11.4 | 10.5 | 11.1 | 12.9 | 8.3 | 10.1 | 8.8 | 6.2 | 7.5 |
| 22 | --- | --- | --- | 12.1 | 10.2 | 11.1 | 11.4 | 8.3 | 9.4 | 9.5 | 7.1 | 8.3 |
| 23 | --- | --- | --- | 12.3 | 10.1 | 11.1 | 11.9 | 8.4 | 10.1 | 10.6 | 8.0 | 9.2 |
| 24 | --- | --- | --- | 12.6 | 9.9 | 11.1 | 11.9 | 8.8 | 10.3 | 10.7 | 8.6 | 9.4 |
| 25 | --- | --- | --- | 12.7 | 9.6 | 11.0 | 11.9 | 8.4 | 10 | 10.1 | 8.6 | 9.3 |
| 26 | 13.9 | --- | --- | 12.8 | 9.3 | 10.7 | 10.4 | 7.9 | 9.1 | 9.3 | 8.6 | 9.0 |
| 27 | 13.4 | 12.4 | 12.8 | 13.2 | 9.3 | 11.0 | 11.4 | 8.3 | 9.7 | 10.4 | 8.9 | 9.8 |
| 28 | 13.4 | 11.9 | 12.6 | 13.7 | 9.6 | 11.2 | 11.4 | 8.1 | 9.6 | 10.1 | 8.9 | 9.5 |
| 29 | --- | --- | --- | 13.2 | 9.1 | 10.6 | 11.2 | 8.1 | 9.6 | 10.1 | 8.1 | 9.2 |
| 30 | --- | --- | --- | 12.4 | 9.0 | 10.4 | 11.7 | 8.2 | 9.7 | 9.4 | 7.4 | 8.6 |
| 31 | --- | --- | --- | 14.1 | 10.3 | 11.9 | --- | --- | --- | 8.9 | 5.3 | 7.9 |
| MONTH | 13.9 | 11.9 | 12.7 | 14.1 | 9.0 | 11.8 | 15.3 | 7.9 | 10.8 | 13.0 | 5.3 | 9.1 |

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|-------|------|-----|------|------|-----|------|--------|-----|------|-----------|-----|------|
| | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | | |
| 1 | 8.9 | 7.5 | 8.3 | 8.9 | 7.3 | 8.0 | 8.8 | 6.9 | 7.5 | 9.2 | 7.2 | 7.9 |
| 2 | 9.7 | 8.1 | 9.0 | 9.2 | 7.3 | 8.1 | 8.5 | 6.6 | 7.4 | --- | --- | --- |
| 3 | 9.2 | 8.0 | 8.5 | 8.5 | 7.4 | 7.9 | 8.5 | 6.4 | 7.1 | 8.8 | 8.0 | 8.4 |
| 4 | 9.5 | 8.2 | 9.2 | 9.0 | 7.2 | 8.1 | 7.2 | 6.8 | 7.0 | 8.8 | 8.3 | 8.4 |
| 5 | 9.5 | 8.7 | 9.2 | 9.0 | 7.0 | 7.8 | 7.6 | 6.8 | 7.1 | --- | --- | --- |
| 6 | 9.3 | 8.8 | 9.1 | 8.9 | 7.0 | 7.8 | 8.1 | 7.0 | 7.4 | --- | --- | --- |
| 7 | 9.4 | 8.8 | 9.1 | 8.8 | 6.8 | 7.7 | 8.2 | 7.1 | 7.6 | --- | --- | --- |
| 8 | 9.1 | 8.8 | 9.0 | 8.6 | 7.0 | 7.6 | 8.8 | 7.3 | 8.2 | --- | --- | --- |
| 9 | 9.4 | 8.7 | 9.1 | 8.5 | 6.8 | 7.5 | 8.6 | 7.7 | 8.0 | 9.1 | --- | --- |
| 10 | 9.6 | 8.8 | 9.2 | 8.2 | 7.0 | 7.6 | 7.8 | 7.2 | 7.4 | 9.8 | --- | --- |
| 11 | 9.6 | 8.4 | 9.2 | 8.7 | 7.3 | 7.9 | 7.7 | 7.1 | 7.4 | 10.0 | 7.5 | 8.3 |
| 12 | 9.1 | 7.5 | 8.5 | 8.8 | 7.1 | 7.9 | 7.9 | 7.1 | 7.4 | 9.8 | 7.4 | 8.1 |
| 13 | 8.8 | 7.1 | 7.9 | 8.7 | 7.2 | 7.8 | 7.8 | 7.0 | 7.3 | 9.0 | 7.2 | 7.8 |
| 14 | 8.2 | 6.7 | 7.7 | 8.9 | 7.2 | 8.0 | 8.1 | 7.0 | 7.6 | --- | --- | --- |
| 15 | 8.6 | 6.7 | 7.9 | 8.9 | 7.3 | 8.1 | 8.0 | 6.8 | 7.5 | --- | --- | --- |
| 16 | 9.6 | 8.6 | 9.2 | 8.7 | 7.0 | 7.7 | 8.0 | 6.8 | 7.3 | --- | --- | --- |
| 17 | 10.0 | 8.2 | 9.4 | 8.7 | 7.0 | 7.7 | 8.2 | 6.8 | 7.5 | 9.7 | 8.1 | 9.1 |
| 18 | 9.2 | 8.2 | 8.7 | 8.7 | 7.3 | 8.0 | 8.4 | 6.7 | 7.4 | 9.9 | 8.5 | 9.5 |
| 19 | 9.1 | 8.0 | 8.6 | 9.1 | 7.7 | 8.2 | 8.3 | 6.7 | 7.4 | 8.5 | 8.0 | 8.2 |
| 20 | 8.6 | 7.4 | 8.1 | 9.1 | 7.7 | 8.3 | --- | --- | --- | 8.5 | 7.9 | 8.2 |
| 21 | 8.6 | 7.6 | 8.4 | 9.0 | 7.3 | 8.2 | --- | --- | --- | 8.6 | 7.9 | 8.2 |
| 22 | 8.8 | 8.6 | 8.7 | 8.5 | 6.8 | 7.7 | --- | --- | --- | 8.9 | 8.2 | 8.5 |
| 23 | 8.9 | 8.3 | 8.7 | 8.6 | 6.8 | 7.3 | --- | --- | --- | --- | --- | --- |
| 24 | 9.2 | 8.5 | 8.9 | 8.1 | 6.8 | 7.4 | --- | --- | --- | --- | --- | --- |
| 25 | 9.3 | 8.7 | 8.9 | 8.2 | 7.0 | 7.5 | --- | --- | --- | --- | --- | --- |
| 26 | 9.4 | 8.0 | 8.8 | 8.4 | 7.2 | 7.7 | --- | --- | --- | --- | --- | --- |
| 27 | 8.5 | 7.7 | 8.1 | 8.6 | 7.4 | 7.9 | 11.5 | 6.8 | 8.7 | --- | --- | --- |
| 28 | 8.7 | 7.7 | 8.2 | 8.7 | 6.7 | 7.8 | 11.7 | 6.9 | 8.6 | --- | --- | --- |
| 29 | 8.7 | 7.5 | 8.2 | 8.8 | 6.7 | 7.6 | 11.8 | 6.8 | 8.4 | --- | --- | --- |
| 30 | 8.8 | 7.5 | 8.0 | 9.1 | 6.9 | 7.8 | 11.0 | 6.0 | 7.7 | --- | --- | --- |
| 31 | --- | --- | --- | 8.9 | 6.9 | 7.6 | 9.7 | 6.0 | 8.0 | --- | --- | --- |
| MONTH | 10.0 | 6.7 | 8.7 | 9.2 | 6.7 | 7.8 | 11.8 | 6.0 | 7.6 | 10.0 | 7.2 | 8.4 |