Latitude: $39^{\circ} 52^{\prime} 11^{\prime \prime}$ Delaware County

Longitude: $075^{\circ} 35^{\prime} 37{ }^{\prime \prime}$
Datum: 150.45 feet

Hydrologic Unit Code: 02040205
Drainage Area: 287. mi ${ }^{2}$

## 10000

Daily Mean Discharge


Monthly Statistics

## 

Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1974-2005






Streamflow (cfs)
30000
25000
20000
1500
1000
500

## Annual Peak Streamflow



01481000-Brandywine Creek at Chadds Ford

## CHRISTINA RIVER BASIN

## 01481000 BRANDYWINE CREEK AT CHADDS FORD, PA <br> (Pennsylvania Water-Quality Network Station)

LOCATION.--Lat $39^{\circ} 52^{\prime} 11^{\prime \prime}$, long $75^{\circ} 35^{\prime} 37{ }^{\prime \prime}$, Delaware County, Hydrologic Unit 02040205, on left bank 27 ft upstream from Penn Central Railroad bridge at Chadds Ford, 150 ft upstream from Harvey Run, and $1,200 \mathrm{ft}$ downstream from highway bridge on U.S. Highway 1.

DRAINAGE AREA.--287 $\mathrm{mi}^{2}$.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1911 to September 1953, October 1962 to current year. Prior to October 1911, monthly discharge only, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1202: 1917-18(M), 1919-20, 1922-31(M), 1932-33, 1934(M), 1936, 1938(P), 1939(M), 1942, 1944-46(M), WDR PA-98-1: 1996-97 (M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 150.45 ft above National Geodetic Vertical Datum of 1929. Prior to May 21, 1927, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since November 1973 by Marsh Creek Reservoir (station 01480684) about 17 mi upstream. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 19, 1955, reached a stage of 14.64 ft , gage datum, discharge, about $16,400 \mathrm{ft}^{3} / \mathrm{s}$.

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

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1040 | 397 | 1720 | 501 | 471 | 560 | 848 | 743 | 278 | 278 | 157 | 120 |
| 2 | 804 | 379 | 1190 | 472 | 464 | 529 | 2950 | 548 | 270 | 452 | 151 | 110 |
| 3 | 711 | 372 | 842 | 462 | 468 | 486 | 6040 | 524 | 323 | 223 | 142 | 108 |
| 4 | 633 | 601 | 778 | 473 | 468 | 413 | 2130 | 494 | 463 | 200 | 136 | 104 |
| 5 | 570 | 1290 | 716 | 692 | 493 | 416 | 1530 | 470 | 329 | 208 | 136 | 100 |
| 6 | 532 | 541 | 661 | 1120 | 520 | 424 | 1370 | 456 | 321 | 300 | 132 | 98 |
| 7 | 500 | 474 | 872 | 754 | 546 | 491 | 1270 | 454 | 868 | 229 | 130 | 97 |
| 8 | 426 | 437 | 971 | 782 | 581 | 815 | 1500 | 433 | 355 | 1880 | 226 | 95 |
| 9 | 416 | 411 | 729 | 837 | 682 | 568 | 1200 | 414 | 305 | 743 | 292 | 94 |
| 10 | 412 | 398 | 1700 | 573 | 883 | 462 | 1050 | 398 | 301 | 328 | 198 | 95 |
| 11 | 390 | 391 | 1510 | 529 | 629 | 446 | 959 | 392 | 287 | 266 | 159 | 95 |
| 12 | 378 | 615 | 925 | 803 | 515 | 465 | 884 | 385 | 267 | 237 | 139 | 91 |
| 13 | 375 | 1340 | 783 | 743 | 489 | 428 | 835 | 364 | 259 | 224 | 134 | 93 |
| 14 | 595 | 615 | 702 | 3780 | 640 | 404 | 779 | 360 | 252 | 215 | 126 | 109 |
| 15 | 520 | 521 | 635 | 2070 | 1700 | 385 | 729 | 365 | 240 | 239 | 175 | 316 |
| 16 | 882 | 491 | 600 | 1020 | 789 | 380 | 639 | 356 | 237 | 436 | 140 | 142 |
| 17 | 528 | 471 | 591 | 906 | 694 | 374 | 616 | 343 | 232 | 821 | 197 | 172 |
| 18 | 447 | 453 | 564 | 702 | 577 | 371 | 611 | 344 | 222 | 968 | 149 | 244 |
| 19 | 852 | 440 | 559 | 639 | 510 | 365 | 592 | 324 | 215 | 425 | 135 | 144 |
| 20 | 633 | 435 | 523 | 668 | 498 | 395 | 588 | 429 | 217 | 285 | 136 | 123 |
| 21 | 546 | 485 | 478 | 623 | 561 | 426 | 563 | 472 | 212 | 244 | 133 | 114 |
| 22 | 548 | 448 | 498 | 493 | 625 | 386 | 549 | 369 | 202 | 222 | 121 | 108 |
| 23 | 507 | 429 | 1160 | 679 | 641 | 1030 | 737 | 351 | 201 | 204 | 109 | 107 |
| 24 | 477 | 442 | 1900 | 614 | 560 | 1520 | 1080 | 347 | 194 | 188 | 108 | 104 |
| 25 | 450 | 552 | 709 | 636 | 545 | 662 | 659 | 350 | 191 | 203 | 105 | 101 |
| 26 | 394 | 488 | 575 | 582 | 523 | 555 | 588 | 350 | 185 | 199 | 102 | 103 |
| 27 | 383 | 433 | 544 | 533 | 525 | 516 | 570 | 329 | 190 | 183 | 103 | 117 |
| 28 | 374 | 5000 | 482 | 477 | 521 | 2050 | 538 | 311 | 205 | 213 | 141 | 107 |
| 29 | 369 | 1910 | 505 | 506 | --- | 3580 | 511 | 323 | 200 | 180 | 172 | 103 |
| 30 | 537 | 1050 | 504 | 513 | --- | 1160 | 594 | 300 | 196 | 166 | 133 | 101 |
| 31 | 462 | --- | 501 | 491 | -- | 948 | --- | 290 | --- | 159 | 126 | --- |
| TOTAL | 16691 | 22309 | 25427 | 24673 | 17118 | 22010 | 33509 | 12388 | 8217 | 11118 | 4543 | 3615 |
| MEAN | 538 | 744 | 820 | 796 | 611 | 710 | 1117 | 400 | 274 | 359 | 147 | 120 |
| MAX | 1040 | 5000 | 1900 | 3780 | 1700 | 3580 | 6040 | 743 | 868 | 1880 | 292 | 316 |
| MIN | 369 | 372 | 478 | 462 | 464 | 365 | 511 | 290 | 185 | 159 | 102 | 91 |

## CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued


| STAT | CS OF | THLY | DATA | WAT | ARS | 953, | 3-197 | BY W | YEAR | (PRI | RE | TION) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
| MEAN | 219 | 301 | 348 | 444 | 570 | 605 | 530 | 435 | 364 | 309 | 278 | 230 |
| MAX | 666 | 625 | 827 | 1020 | 1130 | 1366 | 1043 | 946 | 1144 | 802 | 1089 | 1050 |
| (WY) | 1972 | 1972 | 1973 | 1936 | 1971 | 1920 | 1973 | 1952 | 1972 | 1919 | 1933 | 1971 |
| MIN | 67.7 | 98.3 | 114 | 145 | 214 | 247 | 226 | 175 | 149 | 91.1 | 82.1 | 59.4 |
| (WY) | 1964 | 1942 | 1966 | 1966 | 1934 | 1931 | 1963 | 1926 | 1963 | 1963 | 1930 | 1932 |

SUMMARY STATISTICS

ANNUAL MEAN
HIGHEST ANNUAL MEAN
LOWEST ANNUAL MEAN
HIGHEST DAILY MEAN
LOWEST DAILY MEAN
ANNUAL SEVEN-DAY MINIMUM
MAXIMUM PEAK FLOW
MAXIMUM PEAK STAGE
INSTANTANEOUS LOW FLOW
ANNUAL RUNOFF (CFSM)
ANNUAL RUNOFF (INCHES)
10 PERCENT EXCEEDS
50 PERCENT EXCEEDS
90 PERCENT EXCEEDS
a From rating curve extended above $13,200 \mathrm{ft}^{3} / \mathrm{s}$ on basis of area-velocity study at gage height 16.56 ft .
b From rating curve extended above $9,000 \mathrm{ft}^{3} / \mathrm{s}$ on basis of area-velocity study.


## CHRISTINA RIVER BASIN

## 01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued <br> (Pennsylvania Water-Quality Network Station)

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1965 to current year.
pH: October 1965 to September 1966, December 1971 to current year.
WATER TEMPERATURES: October 1964 to current year.
DISSOLVED OXYGEN: October 1971 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1963 to September 1978.
INSTRUMENTATION.--Water-quality monitor since August 1971.
REMARKS.--Specific conductance and water temperature records rated good. pH record rated good except for period Mar. 15-21, which is fair. Dissolved oxygen record rated good except for period Oct. 21 to Nov. 8, which is fair, and periods Nov. 8-30, Apr. 19 to May 4, and Aug. 25 to Sept. 30 , 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, 689 microsiemens, Mar. 6, 2001; minimum, 42 microsiemens, Nov. 26, 1979. pH: Maximum, 9.8, Apr. 9, 1975; minimum, 6.1, Feb. 22, 1976.
WATER TEMPERATURE: Maximum, $31.0^{\circ} \mathrm{C}$, July 4, 2002; minimum, $0.0^{\circ} \mathrm{C}$, many days during winters.
DISSOLVED OXYGEN: Maximum, $17.1 \mathrm{mg} / \mathrm{L}$, Dec. 5, 1976; minimum, $3.0 \mathrm{mg} / \mathrm{L}$, June 21, 1984.
WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

| Date | Time | $\begin{gathered} \text { Agency } \\ \text { col- } \\ \text { lecting } \\ \text { sample, } \\ \text { code } \\ (00027) \end{gathered}$ | $\begin{gathered} \text { Agency } \\ \text { ana- } \\ \text { lyzing } \\ \text { sample, } \\ \text { code } \\ (00028) \end{gathered}$ | Instantaneous discharge, cfs (00061) | $\begin{gathered} \text { Dis- } \\ \text { solved } \\ \text { oxygen, } \\ \mathrm{mg} / \mathrm{L} \\ (00300) \end{gathered}$ | ```pH, water, unfltrd field, std units (00400)``` | Specif. conductance, wat unf $\mu \mathrm{S} / \mathrm{cm}$ 25 degC (00095) | ```Temper- ature, water, deg C (00010)``` | $\begin{gathered} \text { Fecal } \\ \text { coli- } \\ \text { form, } \\ \text { M-FC } \\ 0.7 \mu \mathrm{MF} \\ \text { col/ } \\ 100 \mathrm{~mL} \\ (31625) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MAR |  |  |  |  |  |  |  |  |  |
| 08. | 1405 | 1028 | 1028 | 780 | 10.2 | -- | 257 | 7.2 | 37 |
| 28 | 1200 | 1028 | 1028 | 780 | 11.0 | 7.5 | 264 | 7.7 | 410 |
| APR |  |  |  |  |  |  |  |  |  |
| 12. | 1330 | 1028 | 1028 | 884 | -- | 7.6 | 235 | 12.3 | 26 |
| 26. | 1215 | 1028 | 1028 | 589 | 10.7 | 7.7 | 242 | 11.0 | 100 |
| MAY |  |  |  |  |  |  |  |  |  |
| 04. | 1130 | 1028 | 1028 | 487 | 11.5 | 7.6 | 250 | 11.7 | 110 |
| 17. | 1120 | 1028 | 1028 | 342 | 11.8 | 7.8 | 255 | 16.7 | 100 |
| 24. | 0945 | 1028 | 1028 | 346 | 9.9 | 7.5 | 270 | 14.9 | 100 |
| JUN |  |  |  |  |  |  |  |  |  |
| 07. | 0930 | 1028 | 1028 | 897 | 7.9 | 7.3 | 192 | 20.3 | E7100 |
| 20. | 0840 | 1028 | 1028 | 289 | 9.0 | 7.7 | 296 | 18.5 | 140 |
| 27. | 1340 | 1028 | 1028 | 188 | 9.3 | 8.1 | 292 | 24.2 | 230 |
| JUL |  |  |  |  |  |  |  |  |  |
| 07. | 0830 | 1028 | 1028 | 229 | 7.2 | 7.4 | 274 | 23.5 | 240 |
| 19. | 1030 | 1028 | 1028 | 512 | 6.9 | 7.4 | 244 | 24.7 | 2600 |
| 28. | 1300 | 1028 | 1028 | 208 | 8.9 | 8.1 | 307 | 26.3 | 220 |
| AUG |  |  |  |  |  |  |  |  |  |
| 03. | 1000 | 1028 | 1028 | 142 | 7.2 | 7.8 | 316 | 25.2 | E80 |
| 25. | 0940 | 1028 | 1028 | 105 | 7.5 | 7.6 | 334 | 20.7 | E85 |
| 31. | 1000 | 1028 | 1028 | 126 | 6.8 | 7.5 | 316 | 23.8 | E22 |
| SEP |  |  |  |  |  |  |  |  |  |
| 08. | 0900 | 1028 | 1028 | 94 | 7.6 | 7.7 | 344 | 19.6 | E19 |
| 22. | 0830 | 1028 | 1028 | 110 | 9.9 | 7.5 | 338 | 19.9 | 46 |

## CHRISTINA RIVER BASIN

## 01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued (Pennsylvania Water-Quality Network Station)

PERIOD OF RECORD.--April 2002 to current year.
REMARKS.--Other data for the Water-Quality Network can be found on pages 386-432.
COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005


## CHRISTINA RIVER BASIN

## 01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES
REMARKS.--Samples were collected using a D-Frame net with a mesh size of $500 \mu \mathrm{~m}$. Samples represent counts per 100 animal (approximate) subsamples.

| Date | 08/11/04 |
| :---: | :---: |
| Benthic macroinvertebrate | Count |
| Platyhelminthes |  |
| Turbellaria (FLATWORMS) |  |
| Tricladida |  |
| Planariidae | 6 |
| Nemertea (PROBOSCIS WORMS) |  |
| Enopla |  |
| Hoplonemertea |  |
| Tetrastemmatidae |  |
| Prostoma | 3 |
| Mollusca |  |
| Bivalvia (CLAMS) |  |
| Veneroida |  |
| Corbiculidae |  |
| Corbicula fluminea | 6 |
| Arthropoda |  |
| Acariformes |  |
| Hydrachnidia (WATER MITES) | 1 |
| Crustacea |  |
| Amphipoda (SCUDS) |  |
| Gammaridae |  |
| Gammarus | 4 |
| Insecta |  |
| Ephemeroptera (MAYFLIES) |  |
| Baetidae |  |
| Acentrella | 3 |
| Baetis | 18 |
| Hemiptera |  |
| Veliidae |  |
| Rhagovelia | 2 |
| Trichoptera (CADDISFLIES) |  |
| Glossosomatidae | 2 |
| Hydropsychidae |  |
| Cheumatopsyche | 10 |
| Hydropsyche | 14 |
| Philopotamidae |  |
| Chimarra | 2 |
| Coleoptera (BEETLES) |  |
| Elmidae (RIFFLE BEETLES) |  |
| Optioservus | 27 |
| Oulimnius | 3 |
| Stenelmis | 126 |
| Diptera (TRUE FLIES) |  |
| Chironomidae (MIDGES) | 19 |
| Empididae (DANCE FLIES) |  |
| Hemerodromia | 4 |
| Simuliidae (BLACK FLIES) |  |
| Simulium | 2 |
| Tipulidae (CRANE FLIES) |  |
| Antocha | 2 |
| Total Organisms | 254 |
| Total Taxa | 19 |

## CHRISTINA RIVER BASIN

## 01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT $25^{\circ}$ CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | OCTOBER |  |  | NOVEMBER |  |  | DECEMBER |  |  | JANUARY |  |  |
| 1 | 234 | 226 | 230 | 287 | 271 | 280 | 241 | 187 | 222 | --- | --- | --- |
| 2 | 242 | 233 | 237 | 287 | 283 | 285 | 228 | 187 | 211 | --- | --- | --- |
| 3 | 248 | 242 | 245 | 296 | 284 | 290 | --- | --- | , | --- | --- |  |
| 4 | 252 | 248 | 250 | 290 | 264 | 284 | --- | --- | --- | --- | --- | --- |
| 5 | 253 | 250 | 251 | 264 | 226 | 237 | --- | --- | --- | --- | --- | --- |
| 6 | 250 | 248 | 249 | 261 | 238 | 248 | - | --- | --- | --- | --- | --- |
| 7 | 251 | 249 | 250 | 276 | 261 | 269 | --- | --- | --- | --- | --- | --- |
| 8 | 260 | 246 | 251 | 279 | 276 | 277 | --- | --- | --- | --- | --- | --- |
| 9 | 261 | 258 | 259 | 284 | 279 | 281 | --- | --- | --- | --- | --- | --- |
| 10 | 272 | 260 | 269 | 290 | 284 | 288 | --- | --- | --- | --- | --- | --- |
| 11 | 271 | 266 | 268 | 292 | 289 | 291 | --- | --- | --- | --- | --- | --- |
| 12 | 284 | 264 | 270 | 290 | 268 | 283 | --- | --- | --- | --- | --- | --- |
| 13 | 294 | 284 | 291 | 268 | 216 | 227 | --- | --- | --- | --- | --- | --- |
| 14 | 293 | 281 | 288 | 261 | 232 | 248 | --- | --- | --- | --- | --- | --- |
| 15 | 286 | 249 | 260 | 272 | 261 | 267 | --- | --- | --- | --- | --- | --- |
| 16 | 281 | 220 | 237 | 277 | 272 | 274 | --- | --- | --- | --- | --- | --- |
| 17 | 268 | 240 | 258 | 280 | 277 | 279 | --- | --- | --- | --- | --- | --- |
| 18 | 273 | 263 | 269 | 281 | 279 | 280 | --- | --- | --- | --- | --- | --- |
| 19 | 274 | 235 | 262 | 284 | 280 | 282 | --- | --- | --- | --- | --- | --- |
| 20 | 263 | 232 | 247 | 284 | 279 | 282 | --- | --- | --- | --- | --- | --- |
| 21 | 273 | 263 | 268 | 283 | 277 | 281 | --- | --- | --- | --- | --- | --- |
| 22 | 273 | 266 | 269 | 277 | 273 | 275 | --- | -- | --- | --- | --- | --- |
| 23 | 272 | 270 | 271 | 284 | 277 | 280 | --- | - | --- | --- | --- | --- |
| 24 | 277 | 272 | 275 | 286 | 281 | 284 | --- | --- | --- | --- | --- | --- |
| 25 | 292 | 277 | 281 | 286 | 270 | 281 | --- | --- | --- | --- | --- | --- |
| 26 | 289 | 278 | 282 | 272 | 269 | 270 | --- | --- | --- | --- | --- | --- |
| 27 | 293 | 288 | 290 | 281 | 270 | 276 | --- | --- | --- | --- | --- | --- |
| 28 | 292 | 287 | 290 | 279 | 120 | 177 | --- | --- | --- | --- | --- | --- |
| 29 | 291 | 287 | 289 | 218 | 141 | 184 | --- | --- | --- | --- | --- | --- |
| 30 | 304 | 259 | 286 | 237 | 218 | 229 | --- | --- | --- | --- | --- | --- |
| 31 | 278 | 256 | 264 |  |  |  | --- | --- | --- | --- | --- | --- |
| MONTH | 304 | 220 | 265 | 296 | 120 | 266 | 241 | 187 | 216 | --- | --- | --- |
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|  | FEBRUARY |  |  | MARCH |  |  | APRIL |  |  | MAY |  |  |
| 1 | --- | --- | --- | 368 | 288 | 329 | 241 | 237 | 240 | 246 | 233 | 239 |
| 2 | --- | --- | --- | 505 | 363 | 442 | 241 | 145 | 204 | 246 | 235 | 240 |
| 3 | --- | --- | --- | 415 | 325 | 357 | 168 | 131 | 143 | 253 | 243 | 248 |
| 4 | --- | --- | --- | 327 | 311 | 322 | 211 | 168 | 192 |  |  |  |
| 5 | --- | --- | --- | 321 | 302 | 311 | 219 | 211 | 217 | 256 | 253 | 254 |
| 6 | --- | --- | --- | 303 | 295 | 300 | 224 | 219 | 222 | 257 | 254 | 255 |
| 7 | - | --- | --- | 296 | 288 | 292 | 231 | 223 | 227 | 258 | 255 | 257 |
| 8 | - | --- | --- | 320 | 274 | 289 | 236 | 219 | 226 | 258 | 253 | 256 |
| 9 | --- | --- | --- | 341 | 318 | 327 | 229 | 222 | 226 | 259 | 253 | 256 |
| 10 | --- | --- | --- | 326 | 306 | 315 | 232 | 229 | 231 | 260 | 253 | 256 |
| 11 | --- | --- | --- | 307 | 296 | 301 | 234 | 231 | 233 | 261 | 253 | 257 |
| 12 | --- | --- | --- | 304 | 294 | 296 | 236 | 233 | 235 | 259 | 254 | 256 |
| 13 | - | --- | --- | 307 | 292 | 301 | 240 | 235 | 238 | 260 | 250 | 256 |
| 14 | --- | --- | --- | 293 | 285 | 290 | 240 | 237 | 239 | 257 | 242 | 251 |
| 15 | --- | --- | --- | 289 | 282 | 285 | 241 | 238 | 240 | 261 | 252 | 256 |
| 16 | -- | --- | --- | 287 | 281 | 284 | 246 | 240 | 243 | 257 | 251 | 254 |
| 17 | --- | --- | --- | 284 | 282 | 283 | 247 | 244 | 246 | 258 | 251 | 254 |
| 18 | --- | --- | --- | 286 | 283 | 285 | 247 | 243 | 245 | 271 | 252 | 261 |
| 19 | --- | --- | --- | 288 | 284 | 285 | 250 | 245 | 247 | 270 | 260 | 266 |
| 20 | - | --- | --- | 292 | 284 | 289 | 251 | 247 | 249 | 275 | 267 | 271 |
| 21 | --- | -- | --- | 298 | 291 | 294 | 249 | 246 | 247 | 270 | 247 | 255 |
| 22 | --- | --- | --- | 292 | 283 | 289 | 251 | 248 | 249 | 265 | 253 | 260 |
| 23 | --- | -- | --- | 287 | 260 | 279 | 251 | 233 | 247 | 268 | 264 | 266 |
| 24 | -- | --- | -- | 260 | 223 | 234 | 243 | 211 | 223 | 279 | 267 | 269 |
| 25 | -- | -- | - | 264 | 242 | 257 | 235 | 221 | 229 | 270 | 267 | 269 |
| 26 | 457 | 314 | 393 | 266 | 264 | 265 | 243 | 234 | 239 | 272 | 268 | 270 |
| 27 | 372 | 318 | 337 | 269 | 265 | 266 | 247 | 238 | 243 | 276 | 270 | 273 |
| 28 | 319 | 290 | 302 | 265 | 148 | 236 | 248 | 243 | 245 | 276 | 272 | 274 |
| 29 | --- | --- | --- | 204 | 141 | 167 | 250 | 245 | 247 | 277 | 273 | 274 |
| 30 | --- | -- | --- | 232 | 204 | 223 | 251 | 242 | 247 | 273 | 271 | 272 |
| 31 | --- | --- | --- | 238 | 232 | 236 |  | , |  | 276 | 273 | 275 |
| MONTH | 457 | 290 | 344 | 505 | 141 | 288 | 251 | 131 | 232 | 279 | 233 | 260 |

## CHRISTINA RIVER BASIN

## 01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT $25^{\circ}$ CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | JUNE |  |  | JULY |  | AUGUST |  |  | SEPTEMBER |  |  |
| 1 | 278 | 275 | 277 | 299 | 283 | 295 | 320 | 311 | 317 | 340 | 324 | 335 |
| 2 | 283 | 275 | 280 | 284 | 210 | 237 | 320 | 311 | 317 | 339 | 331 | 338 |
| 3 | 285 | 273 | 280 | 271 | 254 | 260 | 319 | 309 | 316 | 338 | 332 | 335 |
| 4 | 279 | 253 | 266 | 290 | 271 | 280 | 329 | 319 | 323 | 340 | 335 | 337 |
| 5 | 271 | 253 | 264 | 295 | 280 | 289 | 333 | 320 | 327 | 341 | 336 | 338 |
| 6 | 277 | 267 | 274 | 301 | 278 | 290 | 326 | 321 | 323 | 340 | 335 | 338 |
| 7 | 268 | 191 | 215 | 284 | 270 | 276 | 327 | 317 | 322 | 346 | 338 | 340 |
| 8 | 263 | 232 | 247 | - | - | --- | 342 | 316 | 324 | 346 | 338 | 343 |
| 9 | 275 | 263 | 271 | --- | --- | --- | 328 | 227 | 250 | 352 | 338 | 346 |
| 10 | 282 | 274 | 280 | --- | -- | --- | 295 | 257 | 272 | 350 | 332 | 342 |
| 11 | 286 | 281 | 283 | --- | --- | --- | 299 | 286 | 293 | 343 | 330 | 336 |
| 12 | 290 | 282 | 286 | 285 | 272 | 281 | 308 | 299 | 304 | 350 | 319 | 336 |
| 13 | 289 | 282 | 286 | 291 | 283 | 288 | 326 | 308 | 317 | 351 | 340 | 347 |
| 14 | 297 | 287 | 291 | 298 | 288 | 292 | 327 | 322 | 325 | 350 | 327 | 341 |
| 15 | 301 | 288 | 293 | 298 | 271 | 292 | 339 | 317 | 327 | 345 | 240 | 288 |
| 16 | 293 | 284 | 290 | 292 | 207 | 243 | 317 | 279 | 289 | 271 | 236 | 249 |
| 17 | 299 | 284 | 293 | 274 | 166 | 234 | 325 | 291 | 312 | 303 | 271 | 289 |
| 18 | 297 | 291 | 294 | 217 | 172 | 193 | 314 | 306 | 308 | 309 | 260 | 288 |
| 19 | 303 | 295 | 299 | 254 | 217 | 241 | 316 | 306 | 311 | 276 | 257 | 266 |
| 20 | 303 | 295 | 297 | 272 | 244 | 257 | 323 | 316 | 320 | 308 | 276 | 292 |
| 21 | 300 | 294 | 296 | 289 | 272 | 282 | 330 | 320 | 327 | 328 | 308 | 319 |
| 22 | 301 | 291 | 296 | 296 | 289 | 293 | 336 | 326 | 332 | 347 | 328 | 339 |
| 23 | 303 | 294 | 298 | 302 | 296 | 300 | 330 | 322 | 328 | 346 | 339 | 342 |
| 24 | 301 | 292 | 298 | 305 | 301 | 303 | 339 | 328 | 335 | 346 | 339 | 343 |
| 25 | 302 | 291 | 299 | 309 | 299 | 304 | 350 | 332 | 339 | 358 | 346 | 352 |
| 26 | 302 | 293 | 299 | 308 | 300 | 305 | 349 | 342 | 345 | 358 | 346 | 353 |
| 27 | 304 | 295 | 300 | 305 | 290 | 298 | 350 | 341 | 344 | 348 | 345 | 347 |
| 28 | 304 | 298 | 301 | 308 | 294 | 303 | 351 | 344 | 348 | 353 | 343 | 349 |
| 29 | 302 | 293 | 298 | 309 | 293 | 301 | 362 | 326 | 342 | 349 | 341 | 345 |
| 30 | 300 | 296 | 298 | 310 | 298 | 305 | 327 | 295 | 308 | 349 | 341 | 345 |
| 31 | --- | -- | --- | 318 | 308 | 312 | 324 | 307 | 316 | - | --- | --- |
| MONTH | 304 | 191 | 285 | 318 | 166 | 280 | 362 | 227 | 318 | 358 | 236 | 329 |

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

| DAY | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN | MAX | MIN | MEDIAN |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | OCTOBER |  |  | NOVEMBER |  |  | DECEMBER |  |  | JANUARY |  |  |
| 1 | 7.4 | 7.3 | 7.3 | 7.3 | 7.2 | 7.3 | 7.5 | 7.4 | 7.4 | --- | --- | - |
| 2 | 7.4 | 7.4 | 7.4 | 7.4 | 7.3 | 7.3 | 7.4 | 7.4 | 7.4 | --- | --- | --- |
| 3 | 7.4 | 7.4 | 7.4 | 7.4 | 7.2 | 7.3 | --- | , |  | --- | --- | --- |
| 4 | 7.4 | 7.4 | 7.4 | 7.3 | 7.1 | 7.3 | --- | --- | --- | --- | --- | --- |
| 5 | 7.5 | 7.4 | 7.4 | 7.1 | 6.9 | 7.0 | --- | --- | --- | --- | --- | --- |
| 6 | 7.5 | 7.4 | 7.4 | 7.2 | 7.0 | 7.1 | --- | --- | --- | --- | --- | --- |
| 7 | 7.5 | 7.4 | 7.5 | 7.1 | 7.1 | 7.1 | --- | --- | --- | --- | --- | --- |
| 8 | 7.5 | 7.4 | 7.4 | 7.6 | 7.1 | 7.5 | --- | --- | --- | --- | --- | --- |
| 9 | 7.6 | 7.5 | 7.5 | 7.6 | 7.5 | 7.5 | --- | --- | --- | --- | --- | --- |
| 10 | 7.6 | 7.5 | 7.5 | 7.6 | 7.5 | 7.6 | --- | --- | --- | --- | --- | --- |
| 11 | 7.6 | 7.5 | 7.5 | 7.6 | 7.5 | 7.6 | --- | --- | --- | --- | --- | --- |
| 12 | 7.6 | 7.5 | 7.5 | 7.6 | 7.4 | 7.5 | --- | --- | --- | --- | --- | --- |
| 13 | 7.6 | 7.5 | 7.5 | 7.5 | 7.3 | 7.3 | --- | --- | --- | --- | --- | --- |
| 14 | 7.5 | 7.4 | 7.4 | 7.4 | 7.3 | 7.4 | --- | --- | --- | --- | --- | --- |
| 15 | 7.4 | 7.2 | 7.2 | 7.4 | 7.4 | 7.4 | --- | --- | --- | --- | --- | --- |
| 16 | 7.4 | 7.2 | 7.4 | 7.5 | 7.4 | 7.4 | --- | --- | --- | --- | --- | --- |
| 17 | 7.5 | 7.4 | 7.4 | 7.5 | 7.4 | 7.4 | --- | -- | --- | --- | --- | --- |
| 18 | 7.5 | 7.4 | 7.4 | 7.5 | 7.4 | 7.4 | --- | --- | --- | --- | --- | --- |
| 19 | 7.5 | 7.3 | 7.4 | 7.6 | 7.4 | 7.5 | -- | --- | --- | --- | --- | --- |
| 20 | 7.6 | 7.3 | 7.4 | 7.6 | 7.5 | 7.5 | --- | --- | --- | --- | --- | --- |
| 21 | 7.6 | 7.5 | 7.6 | 7.6 | 7.5 | 7.5 | --- | --- | --- | --- | --- | --- |
| 22 | 7.6 | 7.6 | 7.6 | 7.6 | 7.5 | 7.6 | --- | --- | --- | --- | --- | --- |
| 23 | 7.6 | 7.5 | 7.6 | 7.6 | 7.5 | 7.6 | --- | --- | --- | --- | --- | --- |
| 24 | 7.6 | 7.6 | 7.6 | 7.6 | 7.5 | 7.5 | --- | --- | --- | --- | --- | --- |
| 25 | 7.6 | 7.6 | 7.6 | 7.6 | 7.5 | 7.5 | --- | --- | --- | --- | --- | --- |
| 26 | 7.6 | 7.5 | 7.6 | 7.6 | 7.5 | 7.6 | --- | --- | --- | --- | --- | --- |
| 27 | 7.6 | 7.5 | 7.6 | 7.7 | 7.5 | 7.6 | --- | --- | --- | --- | --- | --- |
| 28 | 7.6 | 7.5 | 7.6 | 7.6 | 7.1 | 7.1 | -- | -- | - | --- | --- | --- |
| 29 | 7.6 | 7.5 | 7.5 | 7.4 | 7.1 | 7.2 | --- | --- | --- | --- | --- | --- |
| 30 | 7.5 | 7.3 | 7.3 | 7.5 | 7.4 | 7.4 | --- | --- | --- | --- | --- | --- |
| 31 | 7.3 | 7.2 | 7.2 | --- | --- | --- | - | --- | - | -- | --- | --- |
| MAX | 7.6 | 7.6 | 7.6 | 7.7 | 7.5 | 7.6 | 7.5 | 7.4 | 7.4 | -- | -- | --- |
| MIN | 7.3 | 7.2 | 7.2 | 7.1 | 6.9 | 7.0 | 7.4 | 7.4 | 7.4 | --- | --- | --- |

## CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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

## CHRISTINA RIVER BASIN

## 01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005


## CHRISTINA RIVER BASIN

## 01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | JUNE |  |  | JULY |  |  | AUGUST |  |  | PTEMB |  |
| 1 | 19.9 | 17.3 | 18.7 | 26.2 | 24.4 | 25.2 | 25.7 | 23.6 | 24.6 | 25.5 | 23.1 | 24.2 |
| 2 | 19.6 | 18.0 | 18.9 | 25.0 | 22.8 | 23.9 | 26.9 | 24.0 | 25.5 | 25.1 | 22.4 | 23.7 |
| 3 | 18.9 | 16.9 | 17.8 | 24.4 | 22.6 | 23.7 | 27.7 | 24.9 | 26.4 | 24.3 | 22.1 | 23.2 |
| 4 | 17.7 | 16.3 | 17.0 | 24.8 | 22.1 | 23.5 | 28.0 | 25.6 | 27.0 | 23.4 | 21.0 | 22.2 |
| 5 | 20.9 | 17.1 | 18.9 | 25.1 | 23.3 | 24.2 | 28.5 | 26.2 | 27.4 | 23.1 | 20.7 | 21.8 |
| 6 | 22.8 | 20.1 | 21.4 | 24.7 | 23.1 | 23.9 | 27.9 | 26.0 | 27.0 | 22.9 | 20.4 | 21.5 |
| 7 | 22.6 | 20.3 | 21.5 | 24.3 | 22.6 | 23.5 | 26.7 | 25.0 | 25.9 | 22.7 | 20.0 | 21.2 |
| 8 | 24.0 | 21.2 | 22.7 | --- |  | , | 26.0 | 23.5 | 25.1 | 22.4 | 19.6 | 20.9 |
| 9 | 24.1 | 22.5 | 23.4 | --- | --- | --- | 23.5 | 22.6 | 23.0 | 21.8 | 20.0 | 20.7 |
| 10 | 24.5 | 22.8 | 23.6 | --- | --- | --- | 24.3 | 22.5 | 23.4 | 22.2 | 19.7 | 20.8 |
| 11 | 25.3 | 23.2 | 24.3 | --- | - | --- | 26.1 | 23.3 | 24.7 | 22.1 | 19.6 | 20.7 |
| 12 | 25.4 | 23.6 | 24.5 | 25.5 | 23.1 | 24.4 | 27.3 | 24.6 | 26.0 | 22.4 | 19.8 | 20.9 |
| 13 | 25.3 | 23.6 | 24.5 | 25.0 | 23.9 | 24.5 | 28.3 | 25.7 | 27.1 | 23.0 | 20.4 | 21.4 |
| 14 | 26.0 | 23.9 | 25.0 | 24.8 | 23.9 | 24.3 | 29.0 | 26.5 | 27.8 | 22.1 | 21.3 | 21.7 |
| 15 | 26.0 | 24.4 | 25.2 | 25.0 | 23.7 | 24.2 | 28.4 | 26.7 | 27.4 | 23.0 | 21.1 | 22.1 |
| 16 | 25.0 | 22.7 | 23.9 | 24.3 | 22.9 | 23.7 | 26.8 | 24.0 | 25.3 | 24.3 | 22.6 | 23.4 |
| 17 | 22.7 | 21.0 | 21.8 | 24.1 | 23.2 | 23.6 | 24.7 | 22.7 | 23.9 | 24.4 | 23.2 | 23.8 |
| 18 | 21.6 | 19.5 | 20.7 | 25.6 | 23.9 | 24.7 | 25.0 | 22.7 | 23.9 | 23.6 | 22.0 | 22.8 |
| 19 | 20.6 | 19.3 | 19.7 | 26.2 | 24.4 | 25.4 | 24.5 | 23.2 | 23.7 | 23.4 | 21.2 | 22.3 |
| 20 | 20.3 | 18.5 | 19.5 | 26.7 | 24.6 | 25.7 | 24.1 | 22.5 | 23.3 | 22.6 | 21.3 | 22.1 |
| 21 | 21.5 | 18.5 | 20.1 | 26.5 | 24.4 | 25.6 | 25.7 | 23.3 | 24.5 | 22.7 | 20.5 | 21.6 |
| 22 | 22.8 | 20.1 | 21.4 | 27.0 | 24.9 | 26.1 | 25.9 | 23.3 | 24.6 | 22.2 | 19.8 | 21.1 |
| 23 | 23.2 | 20.4 | 21.9 | 26.9 | 25.2 | 26.1 | 25.0 | 22.6 | 23.8 | 22.3 | 20.5 | 21.4 |
| 24 | 24.1 | 21.3 | 22.7 | 25.6 | 23.6 | 24.8 | 24.0 | 21.7 | 22.8 | 22.0 | 20.6 | 21.3 |
| 25 | 24.9 | 22.0 | 23.6 | 25.7 | 23.4 | 24.6 | 23.5 | 20.6 | 22.2 | 21.3 | 20.2 | 20.7 |
| 26 | 25.6 | 22.9 | 24.3 | 27.2 | 24.6 | 25.9 | 23.1 | 21.1 | 22.1 | 21.2 | 20.1 | 20.7 |
| 27 | 25.0 | 23.7 | 24.1 | 28.6 | 26.0 | 27.2 | 23.0 | 21.5 | 22.3 | 21.6 | 20.0 | 20.7 |
| 28 | 25.6 | 22.9 | 24.3 | 27.4 | 25.3 | 26.2 | 22.8 | 22.1 | 22.4 | 20.4 | 18.1 | 19.4 |
| 29 | 25.4 | 24.1 | 24.7 | 25.8 | 23.8 | 25.0 | 23.3 | 21.5 | 22.4 | 19.4 | 17.7 | 18.7 |
| 30 | 25.9 | 24.0 | 24.9 | 25.7 | 24.0 | 24.9 | 23.9 | 22.5 | 23.3 | 18.2 | 16.2 | 17.1 |
| 31 | --- | --- | --- | 24.9 | 23.6 | 24.4 | 25.0 | 23.6 | 24.2 |  | 16. | 17. |
| MONTH | 26.0 | 16.3 | 22.2 | 28.6 | 22.1 | 24.8 | 29.0 | 20.6 | 24.6 | 25.5 | 16.2 | 21.5 |

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005


## CHRISTINA RIVER BASIN

## 01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FEBRUARY |  |  | MARCH |  |  | APRIL |  |  | MAY |  |  |
| 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 10.0 | 8.1 | 9.3 |
| 2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 10.7 | 9.2 | 9.9 |
| 3 | --- | --- | --- | --- | --- | --- | --- |  |  | - | --- | --- |
| 4 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13.0 | 11.1 | 12.0 |
| 6 | --- | --- | --- | --- | --- | --- | -- | - | - | 13.0 | 10.9 | 11.9 |
| 7 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13.5 | 11.4 | 12.3 |
| 8 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13.3 | 10.7 | 11.9 |
| 9 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13.6 | 10.2 | 11.8 |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 14.0 | 10.0 | 11.8 |
| 11 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 14.3 | 9.7 | 11.8 |
| 12 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13.6 | 9.5 | 11.4 |
| 13 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 14.6 | 10.2 | 12.3 |
| 14 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 14.6 | 10.3 | 12.2 |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13.3 | 9.3 | 11.3 |
| 16 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13.6 | 9.4 | 11.4 |
| 17 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13.7 | 9.5 | 11.6 |
| 18 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13.6 | 10.2 | 11.8 |
| 19 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13.6 | 9.9 | 11.7 |
| 20 | --- | --- | --- | --- | --- | --- | 10.1 | 7.7 | 9.0 | 11.0 | 9.4 | 10.2 |
| 21 | --- | --- | --- | --- | --- | --- | 11.7 | 7.0 | 9.1 | 12.1 | 10.3 | 11.0 |
| 22 | --- | --- | --- | --- | --- | --- | 9.8 | 8.0 | 9.0 | 11.8 | 9.7 | 10.7 |
| 23 | --- | --- | --- | --- | --- | --- | 12.0 | 8.1 | 10.6 | 11.8 | 9.5 | 10.5 |
| 24 | --- | --- | --- | --- | --- | --- | 10.3 | 8.2 | 9.3 | 10.8 | 9.4 | 10.1 |
| 25 | --- | --- | --- | --- | --- | --- | 10.9 | 8.7 | 10.1 | 10.9 | 9.8 | 10.3 |
| 26 | --- | --- | --- | --- | --- | --- | 11.3 | 9.1 | 10.5 | 11.4 | 10.2 | 10.8 |
| 27 | --- | --- | --- | --- | --- | --- | 10.9 | 9.2 | 9.9 | 11.4 | 9.6 | 10.5 |
| 28 | --- | --- | --- | --- | --- | --- | 10.6 | 8.1 | 9.3 | 10.9 | 8.9 | 9.7 |
| 29 | --- | --- | --- | --- | --- | --- | 9.9 | 8.3 | 9.2 | 10.7 | 8.7 | 9.5 |
| 30 | --- | --- | --- | --- | --- | --- | 9.9 | 8.3 | 9.1 | 11.0 | 8.8 | 9.7 |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 11.3 | 9.1 | 10 |
| MONTH | --- | --- | --- | --- | --- | --- | 12.0 | 7.0 | 9.6 | 14.6 | 8.1 | 11.0 |
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|  | JUNE |  |  | JULY |  |  | AUGUST |  |  | SEPTEMBER |  |  |
| 1 | 11.3 | 8.8 | 9.9 | 8.2 | 6.5 | 7.2 | 10.6 | 6.8 | 8.5 | 8.5 | 6.6 | 7.4 |
| 2 | 11.0 | 8.7 | 9.6 | 7.6 | 6.6 | 7.0 | 10.5 | 6.6 | 8.3 | 9.0 | 7.0 | 7.7 |
| 3 | 9.6 | 8.5 | 9.0 | 8.1 | 6.5 | 7.2 | 10.0 | 6.2 | 7.8 | 9.0 | 7.1 | 7.8 |
| 4 | 9.7 | 8.8 | 9.2 | 8.6 | 6.5 | 7.6 | 9.3 | 5.9 | 7.4 | 9.4 | 7.3 | 8.1 |
| 5 | 10.0 | 8.2 | 9.1 | 8.3 | 6.7 | 7.4 | 9.2 | 5.9 | 7.3 | 9.6 | 7.6 | 8.3 |
| 6 | 9.5 | 7.7 | 8.4 | 8.3 | 6.8 | 7.4 | 8.7 | 5.8 | 7.0 | 9.9 | 7.8 | 8.6 |
| 7 | 7.8 | 7.2 | 7.5 | 7.8 | 6.7 | 7.2 | 8.3 | 5.9 | 6.8 | 10.1 | 8.0 | 8.6 |
| 8 | 8.2 | 7.1 | 7.5 | --- | --- | --- | 8.0 | 6.0 | 6.8 | 10.3 | 8.0 | 8.8 |
| 9 | 8.4 | 7.0 | 7.5 | --- | --- | --- | 6.9 | 6.3 | 6.6 | 10.6 | 8.1 | 9.0 |
| 10 | 8.2 | 7.0 | 7.5 | --- | --- | --- | 7.2 | 6.3 | 6.7 | 10.5 | 8.3 | 9.1 |
| 11 | 8.3 | 6.9 | 7.5 | --- | --- | --- | 7.5 | 6.3 | 6.8 | 10.8 | 8.3 | 9.2 |
| 12 | 8.4 | 6.8 | 7.5 | 8.3 | 7.0 | 7.6 | 7.5 | 6.1 | 6.7 | 10.8 | 8.3 | 9.2 |
| 13 | 8.5 | 6.9 | 7.6 | 8.4 | 6.9 | 7.5 | 7.5 | 5.9 | 6.6 | 10.9 | 8.2 | 9.1 |
| 14 | 8.7 | 6.9 | 7.7 | 8.3 | 7.0 | 7.5 | 7.5 | 5.8 | 6.4 | 10.1 | 8.1 | 8.7 |
| 15 | 8.6 | 6.7 | 7.6 | 8.6 | 7.0 | 7.6 | 7.2 | 5.8 | 6.3 | 8.4 | 6.7 | 7.6 |
| 16 | 8.4 | 6.8 | 7.6 | 7.4 | 7.0 | 7.2 | 6.8 | 5.8 | 6.3 | 7.7 | 6.5 | 6.9 |
| 17 | 9.3 | 7.2 | 8.2 | 7.4 | 6.9 | 7.0 | 7.8 | 6.4 | 7.1 | 7.8 | 6.5 | 7.1 |
| 18 | 9.9 | 7.8 | 8.8 | 7.0 | 6.6 | 6.8 | 8.0 | 6.7 | 7.2 | 8.2 | 7.0 | 7.5 |
| 19 | 10.1 | 8.1 | 8.9 | 6.9 | 6.4 | 6.7 | 7.6 | 6.6 | 7.0 | 8.4 | 7.0 | 7.6 |
| 20 | 10.6 | 8.4 | 9.4 | 7.3 | 6.3 | 6.7 | 8.1 | 6.7 | 7.3 | 8.6 | 7.2 | 7.8 |
| 21 | 10.9 | 8.4 | 9.5 | 7.6 | 6.3 | 6.8 | 8.1 | 6.7 | 7.2 | 9.1 | 7.2 | 8.0 |
| 22 | 10.9 | 7.9 | 9.3 | 8.1 | 6.2 | 7.2 | 8.1 | 6.5 | 7.1 | 9.4 | 7.5 | 8.2 |
| 23 | 11.4 | 7.8 | 9.5 | 8.3 | 6.7 | 7.4 | 8.5 | 6.6 | 7.3 | 9.7 | 7.5 | 8.3 |
| 24 | 11.6 | 7.7 | 9.5 | 8.9 | 6.8 | 7.8 | 8.8 | 7.0 | 7.7 | 10.2 | 7.6 | 8.6 |
| 25 | 11.5 | 7.4 | 9.4 | 9.0 | 7.0 | 7.9 | 9.0 | 7.2 | 7.9 | 10.4 | 7.7 | 8.7 |
| 26 | 11.1 | 7.1 | 9.1 | 9.0 | 6.7 | 7.7 | 9.3 | 7.2 | 8.0 | 10.1 | 7.9 | 8.6 |
| 27 | 9.3 | 6.9 | 8.1 | 9.2 | 6.3 | 7.5 | 8.8 | 7.3 | 7.9 | 9.8 | 7.6 | 8.5 |
| 28 | 9.7 | 6.9 | 8.1 | 9.1 | 6.2 | 7.5 | 8.3 | 7.0 | 7.5 | 10.4 | 7.9 | 8.9 |
| 29 | 8.5 | 6.5 | 7.5 | 10.2 | 6.6 | 8.2 | 8.6 | 7.2 | 7.7 | 9.9 | 8.2 | 8.9 |
| 30 | 8.5 | 6.5 | 7.4 | 10.2 | 6.7 | 8.3 | 8.3 | 7.0 | 7.5 | 10.9 | 8.7 | 9.5 |
| 31 | --- | --- | --- | 10.2 | 6.7 | 8.4 | 8.1 | 6.7 | 7.2 | --- | --- | --- |
| MONTH | 11.6 | 6.5 | 8.4 | 10.2 | 6.2 | 7.4 | 10.6 | 5.8 | 7.2 | 10.9 | 6.5 | 8.3 |

