



2004 Water Year LACKAWAXEN RIVER BASIN

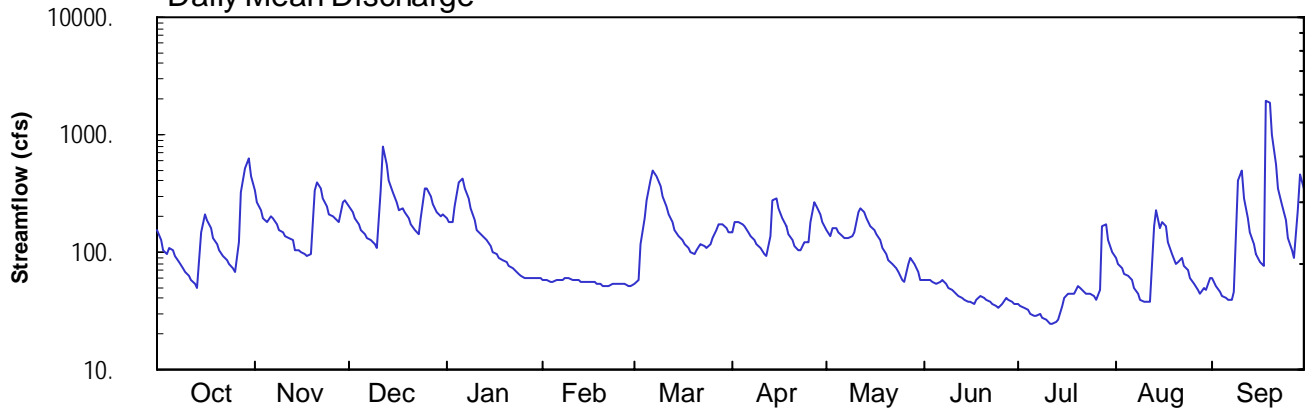
01429000 West Branch Lackawaxen River at Prompton, PA

Latitude: 41° 35' 14"
Wayne County

Longitude: 075° 19' 38"
Datum: 1083.78 feet

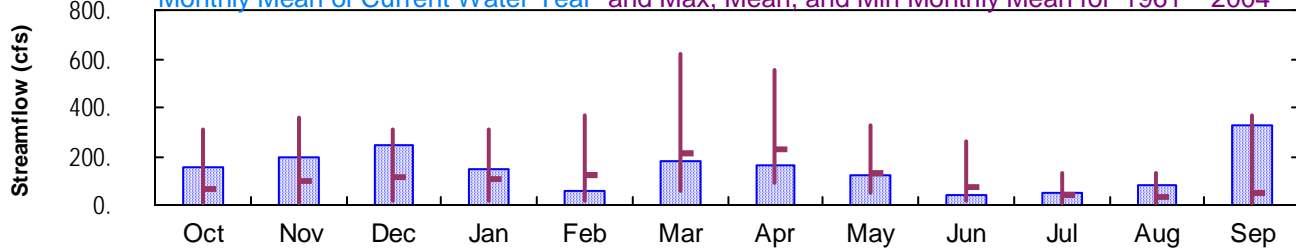
Hydrologic Unit Code: 02040103
Drainage Area: 59.7 mi²

Daily Mean Discharge

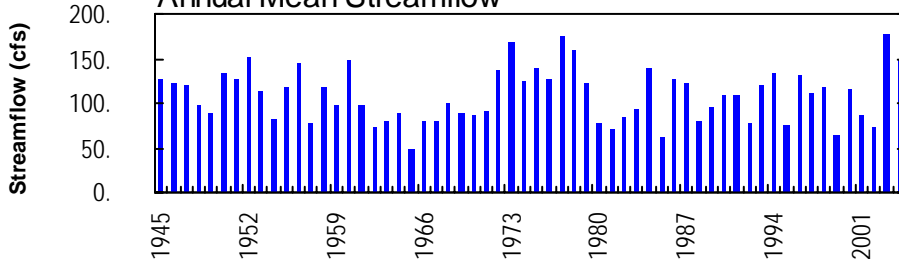


Monthly Statistics

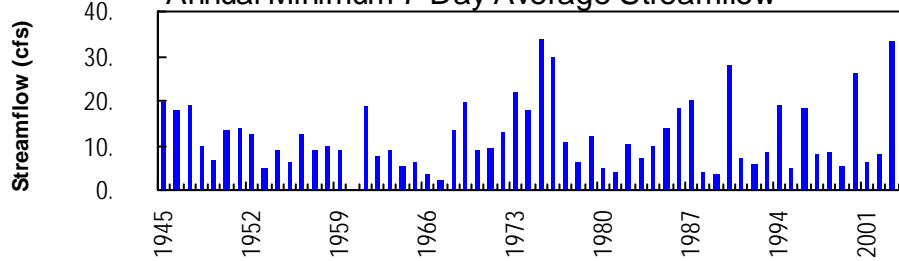
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1961 – 2004



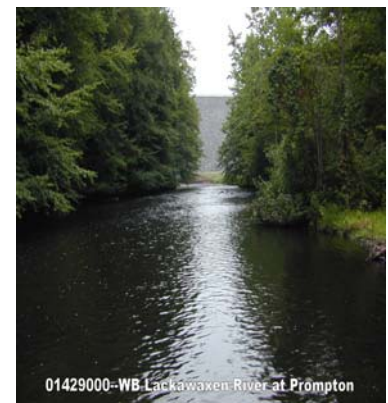
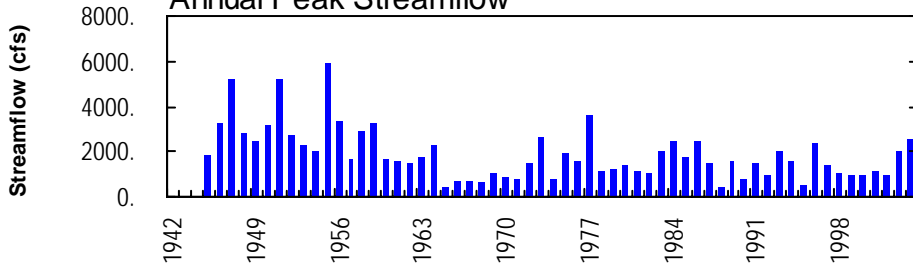
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



01429000-WB Lackawaxen River at Prompton

LACKAWAXEN RIVER BASIN

01429000 WEST BRANCH LACKAWAXEN RIVER AT PROMPTON, PA

LOCATION.--Lat 41°35'14", long 75°19'38", Wayne County, Hydrologic Unit 02040103, on left bank 500 ft downstream from Prompton Reservoir, 1,500 ft upstream from bridge on U.S. Highway 6 at Prompton, and 2,000 ft upstream from Van Auken Creek.

DRAINAGE AREA.--59.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1944 to current year. Prior to October 1952, published as Lackawaxen River at Prompton.

REVISED RECORDS.--WSP 1432: 1948-49. WDR PA-71-1: 1970(M).

GAGE.--Water-stage recorder. Datum of gage is 1,083.78 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since 1960 by Prompton Reservoir (station 01428900) 500 ft upstream. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 23, 1942 reached a stage of 16.7 ft, from floodmark, discharge not determined.

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

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | 153 | 334 | 250 | 193 | 59 | 53 | 150 | 156 | 58 | 36 | 88 | 61 |
| 2 | 125 | 269 | 221 | 177 | 58 | 57 | 178 | 137 | 57 | 35 | 78 | 52 |
| 3 | 105 | 228 | 193 | 179 | 57 | 115 | 180 | 158 | 58 | 34 | 74 | 45 |
| 4 | 96 | 197 | 171 | 244 | 57 | 198 | 174 | 161 | 56 | 32 | 65 | 42 |
| 5 | 109 | 180 | 154 | 398 | 57 | 280 | 164 | 145 | 53 | 30 | 63 | 41 |
| 6 | 105 | 202 | 143 | 424 | 58 | 406 | 151 | 136 | 57 | 29 | 58 | 39 |
| 7 | 93 | 194 | 133 | 348 | 58 | 500 | 139 | 131 | 58 | 29 | 49 | 39 |
| 8 | 82 | 172 | 124 | 283 | 60 | 436 | 128 | 129 | 54 | 29 | 43 | e45 |
| 9 | 74 | 156 | 117 | 234 | 59 | 360 | 117 | 138 | 50 | 28 | 40 | e400 |
| 10 | 67 | 145 | 109 | 187 | 58 | 295 | 106 | 146 | 48 | 26 | 38 | 492 |
| 11 | 62 | 137 | 341 | 155 | 58 | 244 | 98 | 221 | 46 | 25 | 38 | 286 |
| 12 | 57 | 133 | 790 | 142 | 57 | 208 | 92 | 236 | 42 | 24 | 38 | 195 |
| 13 | 53 | 126 | 563 | 133 | 57 | 180 | 136 | 217 | 40 | 26 | 168 | 149 |
| 14 | 49 | 105 | 411 | 125 | 57 | 156 | 271 | 192 | 39 | 27 | 225 | 116 |
| 15 | 149 | 102 | 327 | 113 | 57 | 138 | 283 | 164 | 38 | 35 | 157 | 97 |
| 16 | 210 | 99 | 269 | 100 | 56 | 125 | 233 | 156 | 38 | 40 | 178 | 81 |
| 17 | 187 | 96 | 230 | 94 | 55 | 116 | 195 | 145 | 36 | 44 | 167 | 77 |
| 18 | 157 | 93 | 232 | 90 | 54 | 109 | 166 | 125 | 40 | 44 | 123 | 1970 |
| 19 | 132 | 97 | 215 | 87 | 53 | 101 | 144 | 109 | 42 | 44 | 96 | 1870 |
| 20 | 117 | 333 | 192 | 82 | 52 | 94 | 124 | 97 | 41 | 51 | 78 | 1020 |
| 21 | 104 | 395 | 170 | 77 | 52 | 104 | 111 | 87 | 39 | 50 | 81 | 560 |
| 22 | 94 | 345 | 153 | 73 | 52 | 117 | 102 | 80 | 38 | 46 | 88 | 344 |
| 23 | 86 | 288 | 140 | 69 | 53 | 111 | 105 | 72 | 37 | 44 | 77 | 253 |
| 24 | 79 | 241 | 194 | 66 | 54 | 109 | 120 | 67 | 35 | 44 | 69 | 186 |
| 25 | 73 | 212 | 355 | 62 | 54 | 118 | 119 | 59 | 33 | 42 | 61 | 132 |
| 26 | 68 | 201 | 343 | 60 | 53 | 133 | 177 | 56 | 36 | 39 | 53 | 104 |
| 27 | 121 | 189 | 295 | 60 | 53 | 153 | 266 | 81 | 40 | 47 | 47 | 89 |
| 28 | 324 | 177 | 251 | 60 | 52 | 172 | 247 | 87 | 39 | 167 | 44 | 229 |
| 29 | 512 | 265 | 217 | 61 | 51 | 171 | 212 | 78 | 38 | 172 | 50 | 453 |
| 30 | 616 | 278 | 202 | 60 | --- | 161 | 181 | 67 | 36 | 128 | 47 | 344 |
| 31 | 448 | --- | 209 | 61 | --- | 149 | --- | 59 | --- | 101 | 59 | --- |
| TOTAL | 4707 | 5989 | 7714 | 4497 | 1611 | 5669 | 4869 | 3892 | 1322 | 1548 | 2540 | 9811 |
| MEAN | 152 | 200 | 249 | 145 | 55.6 | 183 | 162 | 126 | 44.1 | 49.9 | 81.9 | 327 |
| MAX | 616 | 395 | 790 | 424 | 60 | 500 | 283 | 236 | 58 | 172 | 225 | 1970 |
| MIN | 49 | 93 | 109 | 60 | 51 | 53 | 92 | 56 | 33 | 24 | 38 | 39 |

e Estimated.

LACKAWAXEN RIVER BASIN

01429000 WEST BRANCH LACKAWAXEN RIVER AT PROMPTON, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2004, BY WATER YEAR (WY) (SINCE REGULATION)

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|----------|------|------|------|------|------|------|------|------|------|------|------|------|
| MEAN | 64.6 | 98.6 | 118 | 103 | 121 | 213 | 226 | 132 | 76.5 | 39.2 | 31.6 | 52.5 |
| MAX (WY) | 307 | 362 | 309 | 312 | 369 | 620 | 556 | 329 | 260 | 133 | 127 | 365 |
| MIN (WY) | 1978 | 1973 | 1997 | 1979 | 1981 | 1977 | 1993 | 1989 | 1973 | 1984 | 1994 | 2003 |
| MIN (WY) | 7.15 | 7.65 | 17.3 | 19.1 | 19.0 | 60.4 | 86.5 | 45.8 | 17.5 | 9.66 | 6.82 | 6.67 |
| MIN (WY) | 1965 | 1965 | 1999 | 1981 | 1980 | 1981 | 1988 | 1965 | 1962 | 1999 | 1999 | 1964 |

SUMMARY STATISTICS FOR 2003 CALENDAR YEAR FOR 2004 WATER YEAR WATER YEARS 1961 - 2004

| | | | | |
|--------------------------|-------|--------|------|-------------|
| ANNUAL TOTAL | 69025 | 54169 | | |
| ANNUAL MEAN | 189 | 148 | 106 | |
| HIGHEST ANNUAL MEAN | | | 178 | 2003 |
| LOWEST ANNUAL MEAN | | | 49.7 | 1965 |
| HIGHEST DAILY MEAN | 1590 | Sep 4 | 1970 | Sep 18 |
| LOWEST DAILY MEAN | 31 | Aug 29 | 24 | Jul 12 |
| ANNUAL SEVEN-DAY MINIMUM | 33 | Aug 25 | 26 | Jul 8 |
| MAXIMUM PEAK FLOW | | | 2560 | Sep 18 |
| MAXIMUM PEAK STAGE | | | 5.82 | Sep 18 |
| INSTANTANEOUS LOW FLOW | | | 1.8 | Oct 22 1966 |
| 10 PERCENT EXCEEDS | 398 | 283 | 245 | |
| 50 PERCENT EXCEEDS | 121 | 105 | 58 | |
| 90 PERCENT EXCEEDS | 44 | 40 | 14 | |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1960, BY WATER YEAR (WY) (PRIOR TO REGULATION)

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|----------|------|------|------|------|------|------|------|------|------|------|------|------|
| MEAN | 62.2 | 113 | 136 | 130 | 125 | 221 | 264 | 139 | 63.6 | 54.3 | 45.8 | 47.0 |
| MAX (WY) | 376 | 213 | 243 | 245 | 230 | 409 | 539 | 301 | 155 | 190 | 304 | 153 |
| MIN (WY) | 1956 | 1946 | 1951 | 1952 | 1951 | 1945 | 1958 | 1947 | 1960 | 1947 | 1955 | 1960 |
| MIN (WY) | 15.2 | 23.7 | 28.8 | 36.2 | 46.4 | 104 | 57.4 | 38.6 | 16.4 | 10.3 | 1.33 | 11.6 |
| MIN (WY) | 1958 | 1958 | 1947 | 1948 | 1958 | 1960 | 1946 | 1951 | 1959 | 1955 | 1960 | 1957 |

SUMMARY STATISTICS WATER YEARS 1945 - 1960

| | | |
|--------------------------|-------|-------------|
| ANNUAL MEAN | 117 | |
| HIGHEST ANNUAL MEAN | 152 | 1952 |
| LOWEST ANNUAL MEAN | 78.1 | 1957 |
| HIGHEST DAILY MEAN | 2440 | Aug 19 1955 |
| LOWEST DAILY MEAN | .00 | Jul 27 1960 |
| ANNUAL SEVEN DAY MINIMUM | .00 | Jul 27 1960 |
| MAXIMUM PEAK FLOW | a5860 | Aug 18 1955 |
| MAXIMUM PEAK STAGE | 9.24 | Aug 18 1955 |
| INSTANTANEOUS LOW FLOW | b.00 | Jul 26 1960 |
| ANNUAL RUNOFF (CFSM) | 1.95 | |
| ANNUAL RUNOFF (INCHES) | 26.56 | |
| 10 PERCENT EXCEEDS | 257 | |
| 50 PERCENT EXCEEDS | 62 | |
| 90 PERCENT EXCEEDS | 15 | |

a From rating curve extended above 3,600 ft³/s.

b No flow July 26 to Aug. 25, 1960, result of construction work upstream.

LACKAWAXEN RIVER BASIN

01429000 WEST BRANCH LACKAWAXEN RIVER AT PROMPTON, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to 1987.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Water years 1987 to September 30, 2004. (discontinued)

INSTRUMENTATION.--Temperature probe interfaced with a data collection platform.

REMARKS.--Water temperature records rated good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 26.5°C, Sept. 10, 1989; minimum, 0.0°C, several days during March and April 1994 and January 1996.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 23.5°C, July 29; minimum, 1.0°C, Mar. 5, 6.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|-------|---------|------|------|----------|------|------|----------|-----|------|---------|-----|------|
| | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
| 1 | 16.0 | 15.0 | 15.5 | 10.0 | 8.5 | 9.0 | 5.5 | 5.0 | 5.5 | 2.5 | 2.5 | 2.5 |
| 2 | 15.0 | 14.5 | 15.0 | 9.5 | 9.5 | 9.5 | 5.0 | 4.0 | 4.5 | 2.5 | 2.5 | 2.5 |
| 3 | 14.5 | 14.0 | 14.5 | 10.5 | 9.5 | 10.0 | 4.0 | 3.5 | 3.5 | 2.5 | 2.5 | 2.5 |
| 4 | 14.0 | 13.0 | 13.5 | 10.0 | 8.5 | 9.5 | 3.5 | 3.0 | 3.5 | 2.5 | 2.5 | 2.5 |
| 5 | 13.5 | 13.0 | 13.0 | 10.0 | 8.5 | 9.0 | 3.5 | 3.0 | 3.0 | 3.0 | 2.5 | 2.5 |
| 6 | 13.5 | 12.5 | 13.0 | 10.5 | 10.0 | 10.0 | 3.5 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| 7 | 12.5 | 11.5 | 12.0 | 10.5 | 10.0 | 10.0 | 3.0 | 2.5 | 2.5 | 3.0 | 2.5 | 3.0 |
| 8 | 12.5 | 11.5 | 12.0 | 10.0 | 9.0 | 9.5 | 2.5 | 2.0 | 2.5 | 2.5 | 2.5 | 2.5 |
| 9 | 12.0 | 11.5 | 11.5 | 9.0 | 8.5 | 8.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.0 | 2.5 |
| 10 | 12.5 | 11.0 | 11.5 | 8.5 | 8.0 | 8.5 | 3.0 | 2.5 | 2.5 | 2.0 | 2.0 | 2.0 |
| 11 | 12.0 | 11.5 | 12.0 | 8.0 | 7.5 | 8.0 | 3.5 | 2.5 | 3.0 | 2.0 | 2.0 | 2.0 |
| 12 | 13.0 | 11.5 | 12.0 | 8.0 | 7.0 | 7.5 | 2.5 | 2.0 | 2.5 | 2.0 | 2.0 | 2.0 |
| 13 | 15.5 | 12.0 | 13.0 | 7.5 | 6.5 | 7.0 | 2.5 | 2.5 | 2.5 | 2.0 | 2.0 | 2.0 |
| 14 | 12.5 | 11.5 | 12.0 | 6.5 | 6.0 | 6.0 | 2.5 | 2.5 | 2.5 | 2.0 | 1.5 | 2.0 |
| 15 | 13.5 | 12.0 | 13.0 | 6.0 | 5.5 | 5.5 | 2.5 | 2.0 | 2.0 | 2.0 | 1.5 | 2.0 |
| 16 | 13.0 | 12.5 | 13.0 | 5.5 | 5.5 | 5.5 | 2.0 | 2.0 | 2.0 | 2.0 | 1.5 | 2.0 |
| 17 | 12.5 | 12.0 | 12.0 | 5.5 | 5.5 | 5.5 | 2.0 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 |
| 18 | 12.0 | 11.5 | 11.5 | 5.5 | 5.0 | 5.5 | 2.0 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 |
| 19 | 11.5 | 11.0 | 11.5 | 6.0 | 5.0 | 5.5 | 2.0 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 |
| 20 | 11.0 | 10.5 | 11.0 | 6.0 | 6.0 | 6.0 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 |
| 21 | 11.5 | 10.0 | 10.5 | 6.5 | 6.0 | 6.5 | 1.5 | 1.5 | 1.5 | 2.5 | 2.0 | 2.0 |
| 22 | 11.0 | 10.0 | 10.5 | 7.0 | 6.5 | 6.5 | 2.0 | 1.5 | 1.5 | 2.5 | 2.0 | 2.5 |
| 23 | 10.0 | 9.0 | 9.5 | 7.0 | 6.5 | 7.0 | 2.0 | 1.5 | 2.0 | 2.5 | 2.0 | 2.5 |
| 24 | 9.0 | 8.5 | 9.0 | 6.5 | 6.5 | 6.5 | 2.0 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 |
| 25 | 8.5 | 8.5 | 8.5 | 6.5 | 6.5 | 6.5 | 2.0 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 |
| 26 | 9.0 | 8.5 | 8.5 | 6.5 | 6.0 | 6.0 | 2.0 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 |
| 27 | 9.0 | 8.5 | 9.0 | 6.0 | 6.0 | 6.0 | 2.0 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 |
| 28 | 9.0 | 8.5 | 9.0 | 6.5 | 6.0 | 6.0 | 2.0 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 |
| 29 | 9.5 | 9.0 | 9.0 | 6.5 | 5.5 | 6.0 | 2.5 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 |
| 30 | 9.5 | 9.0 | 9.0 | 5.5 | 5.5 | 5.5 | 2.0 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 |
| 31 | 9.0 | 8.5 | 9.0 | --- | --- | --- | 2.5 | 2.0 | 2.5 | 2.5 | 2.0 | 2.5 |
| MONTH | 16.0 | 8.5 | 11.4 | 10.5 | 5.0 | 7.3 | 5.5 | 1.5 | 2.4 | 3.0 | 1.5 | 2.3 |

LACKAWAXEN RIVER BASIN

01429000 WEST BRANCH LACKAWAXEN RIVER AT PROMPTON, PA--Continued

CROSS-SECTION ANALYSES, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

| Date | Time | Instan- taneous dis- charge, cfs (00061) | Sam- pling depth, feet (00003) | Temper- ature, water, deg C (00010) | Loca- tion in X-sect. looking dwnstrm ft from l bank (00009) |
|----------|------|---|--|---|---|
| MAR 2004 | | | | | |
| 29... | 1400 | 170 | 2.00 | 4.3 | 10 |
| 29... | 1401 | -- | 2.00 | 4.3 | 25 |
| 29... | 1402 | -- | 1.50 | 4.3 | 40 |
| JUL | | | | | |
| 13... | 0717 | 26 | 0.40 | 21.8 | 14 |
| 13... | 0718 | -- | 0.70 | 22.1 | 29 |
| 13... | 0719 | -- | 1.20 | 22.1 | 31 |