# SWATARA CREEK BASIN

## 01571774  LORBERRY CREEK, SITE E2-0, AT LORBERRY, PA
### (Swatara Creek Project)

**LOCATION**.--Lat 40°35'32", long 76°26'22", Schuylkill County, Hydrologic Unit 02050301, on left bank 350 ft downstream from Rowe Drainage Tunnel. Located on Schuylkill County property.

**DRAINAGE AREA**.--1.15 mi$^2$.

**PERIOD OF RECORD**.--November 1997 to current year.

**PERIOD OF DAILY RECORD**.--
SPECIFIC CONDUCTANCE:  April 1999 to current year.
pH:  April 1999 to current year.
WATER TEMPERATURE:  April 1999 to current year.

**INSTRUMENTATION**.--Water-quality monitor (in situ system).

**REMARKS**.--Interruptions in the record were due to malfunctions of the instrumentation.  Some values for "*dissolved*" parameters exceed values for the corresponding "*total*" parameter.  These results are within the limits of analytical precision and methods.  Instantaneous discharge data provided by the Pottsville Mining office of the Pennsylvania Department of Environmental Protection.  Other data for this project presented in tables on pages 342-386. Figure 8 shows the location of sites sampled as part of the Swatara Creek Project. Abbreviations used: E, estimated.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

| DATE | TIME | AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028) | AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027) | DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061) | OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301) | OXYGEN, DIS- SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400) | SPE- CIFIC CON- DUCT- ANCE (µS/CM) (00095) | TEMPER- ATURE WATER (DEG C) (00010) | CALCIUM DIS- SOLVED (MG/L AS CA) (00915) |
|---|---|---|---|---|---|---|---|---|---|---|
| MAR 1999 |  |  |  |  |  |  |  |  |  |  |
| 17... | 1330 | 9813 | 1028 | 7.5 | 100 | 15.0 | 6.4 | 179 | 3.5 | 10 |
| APR |  |  |  |  |  |  |  |  |  |  |
| 12... | 1415 | 9813 | 1028 | 6.6 | 120 | 13.0 | 5.9 | 273 | 12.0 | 12 |
| MAY |  |  |  |  |  |  |  |  |  |  |
| 25... | 1245 | 9813 | 1028 | 4.8 | 94 | 10.0 | 6.3 | 279 | 12.0 | 15 |
| JUN |  |  |  |  |  |  |  |  |  |  |
| 30... | 1430 | 9813 | 1028 | -- | 97 | 10.0 | 6.6 | 241 | 12.5 | 16 |
| JUL |  |  |  |  |  |  |  |  |  |  |
| 14... | 0945 | 9813 | 1028 | 2.1 | -- | 11.0 | 6.6 | 264 | 12.5 | 13 |
| AUG |  |  |  |  |  |  |  |  |  |  |
| 13... | 1545 | 9813 | 1028 | 2.9 | 85 | 8.8 | 5.0 | 462 | 13.5 | 30 |
| SEP |  |  |  |  |  |  |  |  |  |  |
| 16... | 1545 | 9813 | 1028 | 6.4 | 73 | 7.4 | 5.2 | 234 | 14.5 | 12 |

| DATE | CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925) | MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935) | POTAS- SIUM, TOTAL RECOV- ERABLE (MG/L AS K) (00937) | SODIUM, DIS- SOLVED (MG/L AS NA) (00930) | SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) | ANC WATER UNFLTRD FET LAB MG/L AS CACO3 (00417) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940) |
|---|---|---|---|---|---|---|---|---|---|---|
| MAR 1999 |  |  |  |  |  |  |  |  |  |  |
| 17... | 11 | 16 | 17 | -- | -- | 3.2 | 3.2 | .00 | 13 | -- |
| APR |  |  |  |  |  |  |  |  |  |  |
| 12... | 22 | 18 | 20 | -- | -- | 3.8 | 3.8 | .80 | 7 | -- |
| MAY |  |  |  |  |  |  |  |  |  |  |
| 25... | 15 | 22 | 22 | -- | -- | 3.2 | 3.4 | 14 | 5 | -- |
| JUN |  |  |  |  |  |  |  |  |  |  |
| 30... | 20 | 20 | 20 | -- | -- | 3.2 | 3.2 | 13 | 22 | -- |
| JUL |  |  |  |  |  |  |  |  |  |  |
| 14... | 22 | 15 | 16 | -- | -- | 3.3 | 3.3 | .00 | 22 | -- |
| AUG |  |  |  |  |  |  |  |  |  |  |
| 13... | 34 | 32 | 34 | -- | -- | 5.3 | 5.3 | 14 | 3 | -- |
| SEP |  |  |  |  |  |  |  |  |  |  |
| 16... | 20 | 18 | 19 | 2.5 | 2.6 | 2.7 | 2.9 | 7.8 | 4 | 2.2 |

# SWATARA CREEK BASIN

## 01571774  LORBERRY CREEK, SITE E2-0, AT LORBERRY, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

| DATE | SULFATE DIS- SOLVED (MG/L AS SO4) (00945) | OXID- ATION RED- UCTION POTEN- TIAL (MV) (00090) | RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530) | ALUM- INUM, DIS- SOLVED (µG/L AS AL) (01106) | ALUM- INUM, TOTAL RECOV- ERABLE (µG/L AS AL) (01105) | IRON, DIS- SOLVED (µG/L AS FE) (01046) | IRON, TOTAL RECOV- ERABLE (µG/L AS FE) (01045) | MANGA- NESE, DIS- SOLVED (µG/L AS MN) (01056) | MANGA- NESE, TOTAL RECOV- ERABLE (µG/L AS MN) (01055) |
|---|---|---|---|---|---|---|---|---|---|
| MAR 1999 |
| 17... | 87 | 582 | 22 | <200 | 710 | 7100 | 7800 | 1600 | 1600 |
| APR |
| 12... | 120 | 438 | 30 | <200 | 1400 | 5200 | 10000 | 1900 | 2000 |
| MAY |
| 25... | 130 | 305 | 10 | 240 | 1200 | 9800 | 9800 | 2700 | 2700 |
| JUN |
| 30... | 100 | 173 | 26 | <200 | 790 | 7400 | 9200 | 1800 | 1900 |
| JUL |
| 14... | 95 | 145 | -- | <200 | 940 | 7200 | 12000 | 1800 | 1800 |
| AUG |
| 13... | 230 | 398 | 10 | 830 | 1400 | 4900 | 7500 | 3100 | 3100 |
| SEP |
| 16... | 110 | 364 | 190 | 340 | 3700 | 3600 | 15000 | 1200 | 1600 |

# SWATARA CREEK BASIN

## 01571774  LORBERRY CREEK, SITE E2-0, AT LORBERRY, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|-----|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|
| | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | |
| 1 | --- | --- | --- | --- | --- | --- | 288 | 240 | 277 | 239 | 236 | 238 |
| 2 | --- | --- | --- | --- | --- | --- | 240 | 234 | 235 | 287 | 237 | 247 |
| 3 | --- | --- | --- | --- | --- | --- | 236 | 234 | 235 | 316 | 240 | 293 |
| 4 | --- | --- | --- | --- | --- | --- | 237 | 233 | 235 | 241 | 238 | 239 |
| 5 | --- | --- | --- | --- | --- | --- | 285 | 236 | 267 | 241 | 238 | 239 |
| 6 | --- | --- | --- | --- | --- | --- | 298 | 236 | 284 | 241 | 239 | 240 |
| 7 | --- | --- | --- | --- | --- | --- | 238 | 236 | 237 | 317 | 239 | 283 |
| 8 | --- | --- | --- | --- | --- | --- | 239 | 235 | 236 | 320 | 246 | 293 |
| 9 | --- | --- | --- | --- | --- | --- | 301 | 238 | 282 | 249 | 247 | 248 |
| 10 | --- | --- | --- | --- | --- | --- | 297 | 237 | 248 | 249 | 246 | 248 |
| 11 | --- | --- | --- | --- | --- | --- | 242 | 232 | 238 | 335 | 248 | 304 |
| 12 | --- | --- | --- | --- | --- | --- | 301 | 236 | 267 | 328 | 246 | 262 |
| 13 | --- | --- | --- | --- | --- | --- | 321 | 244 | 273 | 248 | 246 | 247 |
| 14 | --- | --- | --- | --- | --- | --- | 244 | 239 | 241 | 318 | 246 | 265 |
| 15 | --- | --- | --- | --- | --- | --- | 275 | 233 | 244 | 341 | 250 | 307 |
| 16 | --- | --- | --- | --- | --- | --- | 297 | 235 | 280 | 251 | 247 | 249 |
| 17 | --- | --- | --- | --- | --- | --- | 235 | 232 | 233 | 249 | 247 | 248 |
| 18 | --- | --- | --- | --- | --- | --- | 233 | 230 | 231 | 333 | 248 | 296 |
| 19 | --- | --- | --- | --- | --- | --- | 295 | 230 | 272 | 334 | 250 | 278 |
| 20 | --- | --- | --- | --- | --- | --- | 292 | 228 | 242 | 255 | 252 | 254 |
| 21 | --- | --- | --- | --- | --- | --- | 230 | 228 | 229 | 308 | 250 | 258 |
| 22 | --- | --- | --- | --- | --- | --- | 286 | 225 | 248 | 346 | 260 | 326 |
| 23 | --- | --- | --- | --- | --- | --- | 297 | 228 | 266 | 260 | 252 | 255 |
| 24 | --- | --- | --- | --- | --- | --- | 232 | 229 | 231 | 258 | 246 | 253 |
| 25 | --- | --- | --- | --- | --- | --- | 268 | 229 | 234 | 318 | 257 | 282 |
| 26 | --- | --- | --- | --- | --- | --- | 299 | 238 | 287 | 333 | 241 | 284 |
| 27 | --- | --- | --- | --- | --- | --- | 238 | 231 | 233 | 252 | 240 | 242 |
| 28 | --- | --- | --- | --- | --- | --- | 234 | 230 | 232 | 245 | 242 | 243 |
| 29 | --- | --- | --- | --- | --- | --- | 303 | 231 | 267 | 339 | 243 | 315 |
| 30 | --- | --- | --- | --- | --- | --- | 314 | 236 | 266 | 332 | 244 | 254 |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 249 | 245 | 247 |
| MONTH | --- | --- | --- | --- | --- | --- | 321 | 225 | 252 | 346 | 236 | 266 |

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|-----|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|
| | | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 327 | 247 | 268 | 264 | 257 | 261 | 430 | 250 | 298 | 281 | 269 | 276 |
| 2 | 350 | 247 | 312 | 399 | 262 | 371 | 255 | 249 | 252 | 272 | 267 | 270 |
| 3 | 251 | 249 | 250 | 328 | 259 | 265 | 254 | 247 | 251 | 385 | 266 | 301 |
| 4 | 252 | 247 | 249 | 263 | 259 | 261 | 407 | 248 | 318 | 429 | 294 | 371 |
| 5 | 346 | 248 | 298 | 342 | 260 | 268 | 432 | 253 | 333 | 294 | 191 | 259 |
| 6 | 357 | 248 | 287 | 406 | 272 | 375 | 264 | 253 | 256 | 281 | 200 | 243 |
| 7 | 250 | 246 | 248 | 272 | 261 | 265 | 258 | 252 | 255 | 586 | 205 | 354 |
| 8 | 252 | 246 | 248 | 271 | 262 | 264 | 399 | 250 | 293 | 605 | 434 | 563 |
| 9 | 375 | 252 | 340 | 321 | 262 | 272 | 451 | 258 | 373 | 434 | 389 | 412 |
| 10 | 354 | 255 | 262 | 330 | 261 | 282 | 260 | 253 | 257 | 396 | 376 | 387 |
| 11 | 255 | 250 | 253 | 392 | 282 | 359 | 257 | 253 | 256 | 385 | 372 | 381 |
| 12 | 331 | 251 | 268 | 282 | 259 | 265 | 365 | 256 | 265 | 563 | 371 | 489 |
| 13 | 365 | 253 | 328 | 261 | 246 | 255 | 480 | 84 | 395 | 555 | 348 | 396 |
| 14 | 254 | 210 | 250 | 341 | 246 | 262 | 659 | 179 | 544 | 352 | 335 | 346 |
| 15 | 261 | 251 | 256 | 398 | 251 | 356 | 480 | 410 | 451 | 535 | 336 | 414 |
| 16 | 349 | 255 | 290 | 251 | 246 | 249 | 410 | 348 | 381 | 690 | 183 | 410 |
| 17 | 377 | 236 | 310 | 251 | 244 | 248 | 476 | 343 | 426 | 924 | 690 | 781 |
| 18 | 291 | 250 | 278 | 343 | 243 | 257 | 473 | 328 | 358 | 828 | 809 | 822 |
| 19 | 277 | 269 | 274 | 432 | 257 | 366 | 332 | 319 | 328 | 821 | 806 | 817 |
| 20 | 369 | 268 | 322 | 257 | 245 | 251 | 324 | 291 | 318 | 821 | 671 | 785 |
| 21 | 383 | 263 | 305 | 248 | 241 | 246 | 438 | 314 | 366 | 837 | 600 | 703 |
| 22 | 267 | 261 | 264 | 311 | 239 | 243 | 461 | 304 | 377 | 759 | 597 | 693 |
| 23 | 264 | 260 | 262 | 413 | 269 | 379 | 305 | 291 | 300 | 760 | 734 | 752 |
| 24 | 387 | 261 | 337 | 269 | 243 | 249 | 294 | 289 | 292 | 734 | 710 | 722 |
| 25 | 387 | 260 | 288 | 247 | 242 | 245 | 362 | 278 | 300 | 768 | 662 | 714 |
| 26 | 264 | 260 | 262 | 249 | 243 | 246 | 420 | 288 | 378 | 691 | 634 | 659 |
| 27 | 263 | 259 | 262 | 421 | 244 | 378 | 288 | 269 | 274 | 647 | 609 | 628 |
| 28 | 390 | 260 | 357 | 405 | 242 | 262 | 274 | 269 | 272 | 609 | 518 | 573 |
| 29 | 381 | 259 | 270 | 246 | 241 | 244 | 279 | 272 | 276 | 643 | 289 | 594 |
| 30 | 267 | 260 | 263 | 246 | 243 | 245 | 430 | 279 | 370 | 642 | 176 | 511 |
| 31 | --- | --- | --- | 427 | 245 | 351 | 426 | 281 | 321 | --- | --- | --- |
| MONTH | 390 | 210 | 282 | 432 | 239 | 285 | 659 | 84 | 327 | 924 | 176 | 521 |

# SWATARA CREEK BASIN

## 01571774  LORBERRY CREEK, SITE E2-0, AT LORBERRY, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | |
| 1 | --- | --- | --- | --- | --- | --- | 6.9 | 6.7 | 6.7 | 6.6 | 6.6 | 6.6 |
| 2 | --- | --- | --- | --- | --- | --- | 7.0 | 6.9 | 7.0 | 6.6 | 6.1 | 6.5 |
| 3 | --- | --- | --- | --- | --- | --- | 7.0 | 6.9 | 7.0 | 6.5 | 6.1 | 6.3 |
| 4 | --- | --- | --- | --- | --- | --- | 6.9 | 6.9 | 6.9 | 6.6 | 6.5 | 6.6 |
| 5 | --- | --- | --- | --- | --- | --- | 6.9 | 6.5 | 6.6 | 6.5 | 6.5 | 6.5 |
| 6 | --- | --- | --- | --- | --- | --- | 6.9 | 6.6 | 6.7 | 6.5 | 6.5 | 6.5 |
| 7 | --- | --- | --- | --- | --- | --- | 6.8 | 6.8 | 6.8 | 6.5 | 6.0 | 6.2 |
| 8 | --- | --- | --- | --- | --- | --- | 6.8 | 6.7 | 6.7 | 6.5 | 6.1 | 6.3 |
| 9 | --- | --- | --- | --- | --- | --- | 6.7 | 6.4 | 6.5 | 6.6 | 6.5 | 6.5 |
| 10 | --- | --- | --- | --- | --- | --- | 6.7 | 6.5 | 6.7 | 6.5 | 6.5 | 6.5 |
| 11 | --- | --- | --- | --- | --- | --- | 6.7 | 6.7 | 6.7 | 6.5 | 6.0 | 6.2 |
| 12 | --- | --- | --- | --- | --- | --- | 6.7 | 6.1 | 6.4 | 6.5 | 6.1 | 6.4 |
| 13 | --- | --- | --- | --- | --- | --- | 6.9 | 6.2 | 6.6 | 6.6 | 6.5 | 6.5 |
| 14 | --- | --- | --- | --- | --- | --- | 6.9 | 6.8 | 6.9 | 6.6 | 6.2 | 6.5 |
| 15 | --- | --- | --- | --- | --- | --- | 6.8 | 6.6 | 6.8 | 6.4 | 6.1 | 6.2 |
| 16 | --- | --- | --- | --- | --- | --- | 6.8 | 6.6 | 6.6 | 6.5 | 6.4 | 6.5 |
| 17 | --- | --- | --- | --- | --- | --- | 6.7 | 6.7 | 6.7 | 6.5 | 6.5 | 6.5 |
| 18 | --- | --- | --- | --- | --- | --- | 6.7 | 6.6 | 6.7 | 6.5 | 6.1 | 6.3 |
| 19 | --- | --- | --- | --- | --- | --- | 6.6 | 6.4 | 6.5 | 6.4 | 6.0 | 6.2 |
| 20 | --- | --- | --- | --- | --- | --- | 6.6 | 6.5 | 6.6 | 6.5 | 6.4 | 6.5 |
| 21 | --- | --- | --- | --- | --- | --- | 6.6 | 6.6 | 6.6 | 6.5 | 6.5 | 6.5 |
| 22 | --- | --- | --- | --- | --- | --- | 6.6 | 6.2 | 6.4 | 6.5 | 6.1 | 6.2 |
| 23 | --- | --- | --- | --- | --- | --- | 6.6 | 6.3 | 6.4 | 6.5 | 6.2 | 6.4 |
| 24 | --- | --- | --- | --- | --- | --- | 6.5 | 6.5 | 6.5 | 6.6 | 6.5 | 6.6 |
| 25 | --- | --- | --- | --- | --- | --- | 6.5 | 6.3 | 6.5 | 6.6 | 5.8 | 6.3 |
| 26 | --- | --- | --- | --- | --- | --- | 6.4 | 6.2 | 6.2 | 6.7 | 6.2 | 6.5 |
| 27 | --- | --- | --- | --- | --- | --- | 6.5 | 6.4 | 6.5 | 6.8 | 6.5 | 6.6 |
| 28 | --- | --- | --- | --- | --- | --- | 6.5 | 6.5 | 6.5 | 6.7 | 6.6 | 6.7 |
| 29 | --- | --- | --- | --- | --- | --- | 6.5 | 6.1 | 6.3 | 6.7 | 6.3 | 6.4 |
| 30 | --- | --- | --- | --- | --- | --- | 6.7 | 6.3 | 6.5 | 6.7 | 6.5 | 6.6 |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 6.7 | 6.7 | 6.7 |
| MONTH | --- | --- | --- | --- | --- | --- | 7.0 | 6.1 | 6.6 | 6.8 | 5.8 | 6.4 |

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 6.8 | 6.4 | 6.6 | 6.8 | 6.7 | 6.8 | 6.8 | 5.8 | 6.3 | 6.5 | 6.4 | 6.5 |
| 2 | 6.6 | 6.4 | 6.5 | 6.8 | 6.0 | 6.1 | 6.9 | 6.8 | 6.8 | 6.6 | 6.5 | 6.6 |
| 3 | 6.7 | 6.6 | 6.7 | 6.6 | 5.9 | 6.5 | 6.9 | 6.9 | 6.9 | 6.6 | 5.4 | 6.3 |
| 4 | 6.7 | 6.6 | 6.7 | 6.7 | 6.6 | 6.6 | 6.9 | 6.2 | 6.7 | 6.1 | 5.1 | 5.4 |
| 5 | 6.6 | 6.4 | 6.5 | 6.7 | 6.5 | 6.7 | 6.7 | 6.0 | 6.3 | 6.5 | 6.1 | 6.3 |
| 6 | 6.5 | 6.4 | 6.5 | 6.5 | 6.0 | 6.1 | 6.9 | 6.7 | 6.8 | 6.5 | 6.2 | 6.4 |
| 7 | 6.5 | 6.5 | 6.5 | 6.7 | 6.2 | 6.5 | 6.9 | 6.9 | 6.9 | 6.3 | 4.1 | 5.7 |
| 8 | 6.5 | 6.3 | 6.5 | 6.8 | 6.7 | 6.7 | 6.9 | 6.4 | 6.8 | 5.2 | 3.9 | 4.1 |
| 9 | 6.3 | 5.9 | 6.1 | 6.7 | 6.4 | 6.7 | 6.4 | 5.9 | 6.1 | 6.1 | 5.2 | 5.7 |
| 10 | 6.8 | 6.3 | 6.6 | 6.7 | 6.3 | 6.5 | 6.8 | 6.3 | 6.6 | 6.2 | 6.0 | 6.1 |
| 11 | 6.7 | 6.6 | 6.7 | 6.5 | 6.1 | 6.2 | 6.8 | 6.8 | 6.8 | 6.2 | 6.0 | 6.1 |
| 12 | 6.7 | 6.3 | 6.6 | 6.7 | 6.3 | 6.6 | 6.8 | 6.8 | 6.8 | 6.0 | 3.8 | 4.5 |
| 13 | 6.7 | 6.3 | 6.4 | 6.8 | 6.7 | 6.7 | 6.8 | 5.1 | 5.9 | 6.0 | 3.9 | 5.3 |
| 14 | 6.7 | 6.7 | 6.7 | 6.7 | 5.8 | 6.6 | 6.7 | 4.5 | 5.0 | 6.0 | 5.9 | 6.0 |
| 15 | 6.7 | 6.6 | 6.7 | 6.8 | 5.8 | 6.1 | 6.0 | 5.2 | 5.5 | 6.0 | 3.8 | 5.1 |
| 16 | 6.7 | 5.6 | 6.2 | 6.8 | 6.7 | 6.8 | 6.5 | 6.0 | 6.3 | 6.2 | 3.9 | 4.9 |
| 17 | 6.8 | 5.9 | 6.5 | 6.8 | 6.7 | 6.7 | 6.5 | 4.5 | 5.1 | 4.3 | 3.4 | 3.9 |
| 18 | 6.7 | 6.6 | 6.7 | 6.7 | 6.0 | 6.6 | 6.6 | 4.9 | 6.2 | 4.1 | 4.0 | 4.0 |
| 19 | 6.7 | 6.6 | 6.6 | 6.7 | 5.7 | 6.0 | 6.6 | 6.5 | 6.6 | 4.0 | 3.8 | 3.9 |
| 20 | 6.6 | 5.7 | 6.1 | 6.8 | 6.7 | 6.8 | 6.6 | 6.6 | 6.6 | 4.0 | 3.7 | 3.8 |
| 21 | 6.6 | 5.8 | 6.3 | 6.7 | 6.7 | 6.7 | 6.6 | 5.0 | 5.9 | 4.1 | 3.4 | 3.7 |
| 22 | 6.6 | 6.6 | 6.6 | 6.7 | 6.6 | 6.7 | 6.5 | 5.0 | 5.7 | 4.2 | 3.8 | 4.0 |
| 23 | 6.6 | 6.6 | 6.6 | 6.6 | 5.5 | 5.7 | 6.6 | 6.5 | 6.5 | 3.8 | 3.8 | 3.8 |
| 24 | 6.6 | 6.0 | 6.2 | 6.7 | 6.0 | 6.6 | 6.6 | 6.5 | 6.5 | 3.8 | 3.8 | 3.8 |
| 25 | 6.7 | 6.1 | 6.5 | 6.8 | 6.7 | 6.7 | 6.5 | 5.6 | 6.4 | 3.8 | 3.3 | 3.5 |
| 26 | 6.7 | 6.6 | 6.7 | 6.8 | 6.7 | 6.8 | 6.1 | 5.0 | 5.2 | 3.9 | 3.6 | 3.8 |
| 27 | 6.7 | 6.6 | 6.7 | 6.8 | 5.6 | 5.9 | 6.5 | 6.1 | 6.4 | 4.0 | 3.9 | 3.9 |
| 28 | 6.7 | 6.1 | 6.2 | 6.8 | 5.6 | 6.5 | 6.5 | 6.4 | 6.5 | 4.2 | 4.0 | 4.1 |
| 29 | 6.7 | 6.1 | 6.6 | 6.8 | 6.8 | 6.8 | 6.6 | 6.5 | 6.6 | 4.2 | 3.5 | 3.8 |
| 30 | 6.8 | 6.7 | 6.7 | 6.8 | 6.8 | 6.8 | 6.6 | 5.1 | 5.6 | 4.9 | 4.2 | 4.6 |
| 31 | --- | --- | --- | 6.8 | 5.8 | 6.3 | 6.4 | 5.1 | 5.9 | --- | --- | --- |
| MONTH | 6.8 | 5.6 | 6.5 | 6.8 | 5.5 | 6.5 | 6.9 | 4.5 | 6.3 | 6.6 | 3.3 | 4.9 |

# SWATARA CREEK BASIN

## 01571774  LORBERRY CREEK, SITE E2-0, AT LORBERRY, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | |
| 1 | --- | --- | --- | --- | --- | --- | 12.0 | 11.5 | 12.0 | 13.0 | 11.0 | 12.0 |
| 2 | --- | --- | --- | --- | --- | --- | 12.5 | 11.5 | 12.0 | 13.0 | 11.0 | 12.0 |
| 3 | --- | --- | --- | --- | --- | --- | 12.5 | 11.5 | 12.0 | 12.5 | 11.5 | 12.0 |
| 4 | --- | --- | --- | --- | --- | --- | 12.5 | 11.5 | 12.0 | 13.0 | 12.0 | 12.0 |
| 5 | --- | --- | --- | --- | --- | --- | 12.0 | 11.0 | 11.5 | 13.0 | 12.0 | 12.5 |
| 6 | --- | --- | --- | --- | --- | --- | 12.5 | 11.5 | 11.5 | 12.5 | 12.0 | 12.0 |
| 7 | --- | --- | --- | --- | --- | --- | 12.5 | 11.5 | 12.0 | 12.5 | 12.0 | 12.0 |
| 8 | --- | --- | --- | --- | --- | --- | 13.0 | 11.5 | 12.0 | 12.5 | 12.0 | 12.0 |
| 9 | --- | --- | --- | --- | --- | --- | 12.0 | 11.5 | 11.5 | 13.0 | 11.5 | 12.0 |
| 10 | --- | --- | --- | --- | --- | --- | 12.0 | 11.0 | 11.5 | 13.0 | 11.5 | 12.0 |
| 11 | --- | --- | --- | --- | --- | --- | 11.0 | 10.5 | 11.0 | 13.0 | 11.5 | 12.0 |
| 12 | --- | --- | --- | --- | --- | --- | 12.0 | 11.0 | 11.5 | 13.0 | 11.5 | 12.0 |
| 13 | --- | --- | --- | --- | --- | --- | 12.0 | 11.0 | 11.5 | 12.0 | 11.5 | 12.0 |
| 14 | --- | --- | --- | --- | --- | --- | 12.5 | 11.0 | 11.5 | 12.5 | 11.5 | 12.0 |
| 15 | --- | --- | --- | --- | --- | --- | 12.5 | 11.0 | 11.5 | 13.0 | 11.5 | 12.0 |
| 16 | --- | --- | --- | --- | --- | --- | 12.0 | 11.5 | 11.5 | 12.5 | 11.5 | 12.0 |
| 17 | --- | --- | --- | --- | --- | --- | 12.0 | 11.5 | 11.5 | 12.5 | 11.5 | 12.0 |
| 18 | --- | --- | --- | --- | --- | --- | 12.0 | 11.0 | 11.5 | 13.0 | 12.0 | 12.5 |
| 19 | --- | --- | --- | --- | --- | --- | 12.5 | 11.0 | 11.5 | 13.0 | 12.0 | 12.5 |
| 20 | --- | --- | --- | --- | --- | --- | 12.0 | 11.0 | 11.5 | 12.5 | 11.5 | 12.0 |
| 21 | --- | --- | --- | --- | --- | --- | 12.0 | 11.0 | 11.5 | 13.0 | 11.5 | 12.0 |
| 22 | --- | --- | --- | --- | --- | --- | 12.5 | 11.5 | 12.0 | 13.0 | 12.0 | 12.5 |
| 23 | --- | --- | --- | --- | --- | --- | 12.0 | 11.0 | 12.0 | 12.5 | 12.0 | 12.0 |
| 24 | --- | --- | --- | --- | --- | --- | 12.5 | 11.0 | 11.5 | 12.5 | 12.0 | 12.0 |
| 25 | --- | --- | --- | --- | --- | --- | 12.5 | 11.0 | 11.5 | 12.5 | 11.5 | 12.0 |
| 26 | --- | --- | --- | --- | --- | --- | 13.0 | 11.5 | 12.0 | 12.5 | 12.0 | 12.0 |
| 27 | --- | --- | --- | --- | --- | --- | 12.5 | 11.0 | 11.5 | 12.5 | 11.5 | 12.0 |
| 28 | --- | --- | --- | --- | --- | --- | 12.5 | 11.0 | 11.5 | 13.0 | 11.5 | 12.0 |
| 29 | --- | --- | --- | --- | --- | --- | 12.5 | 11.0 | 12.0 | 13.0 | 12.0 | 12.5 |
| 30 | --- | --- | --- | --- | --- | --- | 13.0 | 11.5 | 12.0 | 13.0 | 12.0 | 12.5 |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13.0 | 12.0 | 12.5 |
| MONTH | --- | --- | --- | --- | --- | --- | 13.0 | 10.5 | 11.7 | 13.0 | 11.0 | 12.1 |

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 13.0 | 12.0 | 12.5 | 13.0 | 12.5 | 12.5 | 14.0 | 12.5 | 13.0 | 13.5 | 12.0 | 12.5 |
| 2 | 13.0 | 12.0 | 12.5 | 13.0 | 12.5 | 13.0 | 14.0 | 12.5 | 13.0 | 13.5 | 12.0 | 12.5 |
| 3 | 13.0 | 12.0 | 12.5 | 13.5 | 12.5 | 13.0 | 13.5 | 12.0 | 12.5 | 13.0 | 12.0 | 12.5 |
| 4 | 13.0 | 12.0 | 12.0 | 14.0 | 12.5 | 13.0 | 13.0 | 12.0 | 12.5 | 14.0 | 12.5 | 13.0 |
| 5 | 12.5 | 11.5 | 12.0 | 14.0 | 12.5 | 13.0 | 13.5 | 12.5 | 13.0 | 15.5 | 13.0 | 13.5 |
| 6 | 13.0 | 12.0 | 12.5 | 13.5 | 12.5 | 13.0 | 13.5 | 12.0 | 13.0 | 15.0 | 13.0 | 13.5 |
| 7 | 13.5 | 12.0 | 12.5 | 13.5 | 12.5 | 13.0 | 13.5 | 12.0 | 13.0 | 17.5 | 12.5 | 14.0 |
| 8 | 13.5 | 12.5 | 12.5 | 14.0 | 12.0 | 12.5 | 13.5 | 12.5 | 13.0 | 13.0 | 12.5 | 13.0 |
| 9 | 13.0 | 12.0 | 12.5 | 13.5 | 12.0 | 12.5 | 13.5 | 12.0 | 12.5 | 13.5 | 12.5 | 13.0 |
| 10 | 12.5 | 12.0 | 12.5 | 13.0 | 12.5 | 12.5 | 13.5 | 12.0 | 12.5 | 13.5 | 12.5 | 12.5 |
| 11 | 13.0 | 12.0 | 12.5 | 13.5 | 12.0 | 12.5 | 14.0 | 12.0 | 12.5 | 13.5 | 12.0 | 12.5 |
| 12 | 13.0 | 11.5 | 12.5 | 12.5 | 12.0 | 12.5 | 14.0 | 12.5 | 13.0 | 13.0 | 12.0 | 12.5 |
| 13 | 13.0 | 12.5 | 12.5 | 13.5 | 12.0 | 12.5 | 20.0 | 12.5 | 13.5 | 13.5 | 12.0 | 12.5 |
| 14 | 14.0 | 12.5 | 12.5 | 13.0 | 12.0 | 12.5 | 16.5 | 13.0 | 13.5 | 13.0 | 12.5 | 12.5 |
| 15 | 13.0 | 12.0 | 12.5 | 13.5 | 12.0 | 12.5 | 13.5 | 12.5 | 13.0 | 12.5 | 12.5 | 12.5 |
| 16 | 12.5 | 12.0 | 12.0 | 13.5 | 12.5 | 13.0 | 13.5 | 12.0 | 12.5 | 14.5 | 12.5 | 13.5 |
| 17 | 12.5 | 12.0 | 12.5 | 14.0 | 12.5 | 13.0 | 13.5 | 12.5 | 13.0 | 13.5 | 12.0 | 13.0 |
| 18 | 13.0 | 12.0 | 12.0 | 13.5 | 12.5 | 13.0 | 13.5 | 12.5 | 13.0 | 13.0 | 12.0 | 12.5 |
| 19 | 13.0 | 11.5 | 12.0 | 13.5 | 12.5 | 13.0 | 13.5 | 12.0 | 12.5 | 13.0 | 11.5 | 12.0 |
| 20 | 12.5 | 12.0 | 12.5 | 13.5 | 12.5 | 13.0 | 13.5 | 12.5 | 12.5 | 13.0 | 11.5 | 12.5 |
| 21 | 13.0 | 12.0 | 12.5 | 13.5 | 12.5 | 13.0 | 12.5 | 12.5 | 12.5 | 12.5 | 12.0 | 12.5 |
| 22 | 13.0 | 12.0 | 12.5 | 13.0 | 12.5 | 12.5 | 13.0 | 12.0 | 12.5 | 12.0 | 11.0 | 11.5 |
| 23 | 13.0 | 12.0 | 12.5 | 13.5 | 12.5 | 13.0 | 13.5 | 12.0 | 12.5 | 13.0 | 11.0 | 12.0 |
| 24 | 13.0 | 12.0 | 12.5 | 13.5 | 12.5 | 13.0 | 13.0 | 12.0 | 12.5 | 13.0 | 11.0 | 12.0 |
| 25 | 13.0 | 12.0 | 12.5 | 14.0 | 12.5 | 13.0 | 13.5 | 12.5 | 12.5 | 13.0 | 12.0 | 12.5 |
| 26 | 13.0 | 12.0 | 12.5 | 14.0 | 12.5 | 13.0 | 13.0 | 12.5 | 13.0 | 13.0 | 11.5 | 12.0 |
| 27 | 13.5 | 12.5 | 13.0 | 13.5 | 12.5 | 13.0 | 13.5 | 12.5 | 13.0 | 12.5 | 12.0 | 12.0 |
| 28 | 13.0 | 12.5 | 12.5 | 14.0 | 12.5 | 13.0 | 14.0 | 12.5 | 13.0 | 13.5 | 12.5 | 12.5 |
| 29 | 13.5 | 12.5 | 12.5 | 14.0 | 12.5 | 13.0 | 14.0 | 12.5 | 13.0 | 15.0 | 12.5 | 13.0 |
| 30 | 13.0 | 12.0 | 12.5 | 14.0 | 12.5 | 13.0 | 13.0 | 12.0 | 12.5 | 15.5 | 12.0 | 13.5 |
| 31 | --- | --- | --- | 13.5 | 12.5 | 13.0 | 13.0 | 11.5 | 12.5 | --- | --- | --- |
| MONTH | 14.0 | 11.5 | 12.4 | 14.0 | 12.0 | 12.8 | 20.0 | 11.5 | 12.8 | 17.5 | 11.0 | 12.6 |
| YEAR | 20.0 | 10.5 | 12.4 | | | | | | | | | |