

Site Results for Large River Sites

Chemung River at Chemung, N.Y. (CHEM 12.0)



Water Quality: Total aluminum exceeded water quality standards.

Biological Condition: Nonimpaired

Habitat Assessment: Excellent

Trends: Water quality showed overall improvement over last year. Habitat and biological conditions remained the same.

Other Notes: The condition of banks and lack of adequate riparian buffer were the two main problem areas identified in the habitat assessment.

| Parameters Exceeding Standards | | | | |
|--------------------------------|------------|----------|----------|------------------------|
| Parameter | Date | Value | Standard | State |
| TAI | 08/15/2006 | 214 ug/l | 100 ug/l | N.Y. aquatic (chronic) |
| TAI | 11/07/2006 | 236 ug/l | 100 ug/l | N.Y. aquatic (chronic) |

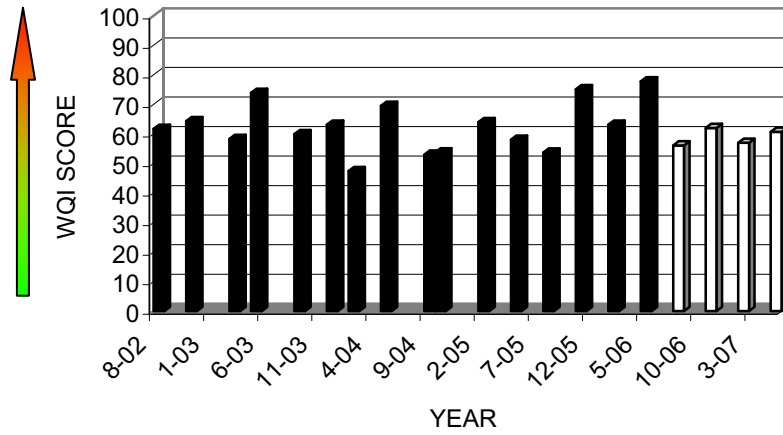
| Date | WQI | Parameters Exceeding 90 th Percentile | | | | | | |
|------------|------|--|-----|----|------|------|------|----|
| 08/15/2006 | 56.1 | TN | TCI | TS | COND | | | |
| 11/07/2006 | 62.0 | TN | TCI | TS | COND | TNO3 | TSO4 | DO |
| 02/13/2007 | 57.0 | TN | TCI | TS | COND | TNO3 | | |
| 05/15/2007 | 60.7 | TOC | TCI | TS | COND | DO | | |

For information on the parameter abbreviations used above and data analysis procedures, go to [Methods](#).

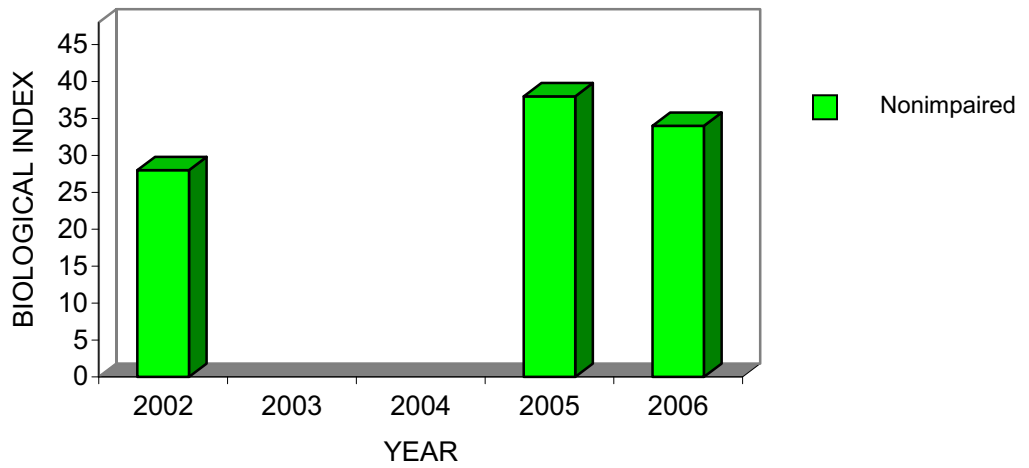
| Biological and Habitat Summary | |
|--------------------------------|------|
| Number of Taxa | 21 |
| Diversity Index | 2.67 |
| RBP Score | 34 |

| | |
|----------------------------|-------------|
| RBP Condition | Nonimpaired |
| Total Habitat Score | 148 |
| Habitat Condition Category | Excellent |

Water Quality Index



Biological Index



Cowanesque River at Lawrenceville, Pa. (COWN 1.0)



Water Quality: Total aluminum and total iron exceeded water quality standards.

Biological Condition: Moderately Impaired

Habitat Assessment: Excellent

Trend: Water quality and biological conditions remained about the same at this location. Habitat showed some improvement from last year.

Other Notes: This site is a little more than a mile downstream of the Cowanesque Reservoir.

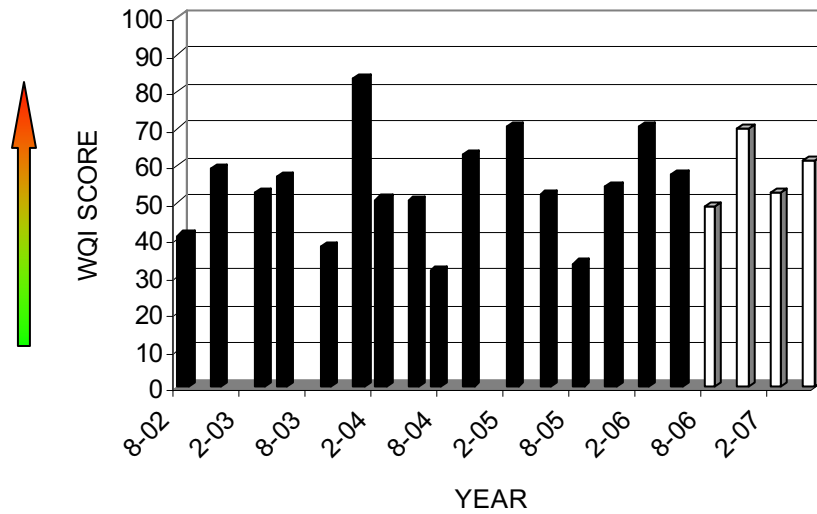
| Parameters Exceeding Standards | | | | |
|--------------------------------|------------|----------|----------|------------------------|
| Parameter | Date | Value | Standard | State |
| TAI | 08/14/2006 | 227 ug/l | 100 ug/l | N.Y. aquatic (chronic) |
| TAI | 11/07/2006 | 632 ug/l | 100 ug/l | N.Y. aquatic (chronic) |
| TFe | 11/07/2006 | 676 ug/l | 300 ug/l | N.Y. aquatic (chronic) |
| TFe | 02/22/2007 | 346 ug/l | 300 ug/l | N.Y. aquatic (chronic) |
| TAI | 02/22/2007 | 248 ug/l | 100 ug/l | N.Y. aquatic (chronic) |
| TAI | 05/16/2007 | 251 ug/l | 100 ug/l | N.Y. aquatic (chronic) |

| Date | WQI | Parameters Exceeding 90 th Percentile | | | | | | |
|------------|------|--|-----|------|----|------|----|--|
| 08/14/2006 | 49.1 | TNO2 | TOC | | | | | |
| 11/07/2006 | 70.1 | TNH3 | TOC | TURB | DO | TEMP | SS | |
| 02/22/2007 | 52.7 | TEMP | TOC | | | | | |
| 05/16/2007 | 61.5 | TNO3 | TOC | TURB | TN | | | |

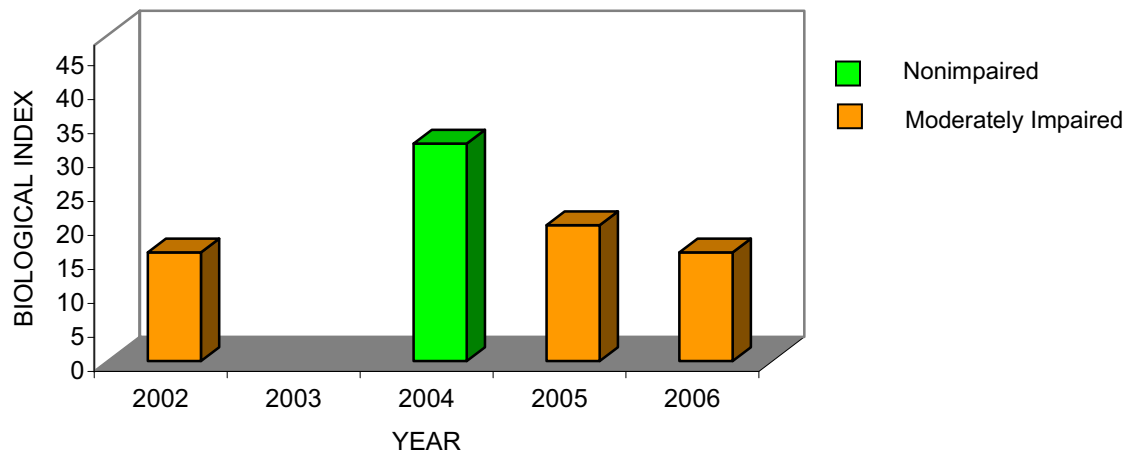
For information on the parameter abbreviations used above and data analysis procedures, go to [Methods](#).

| Biological and Habitat Summary | |
|--------------------------------|---------------------|
| Number of Taxa | 15 |
| Diversity Index | 1.80 |
| RBP Score | 16 |
| RBP Condition | Moderately Impaired |
| Total Habitat Score | 132 |
| Habitat Condition Category | Excellent |

Water Quality Index



Biological Index



Cowanesque River at Lawrenceville, Pa. (COWN 2.2)



Water Quality: Total iron, total aluminum, and dissolved oxygen failed to meet water quality standards.

Biological Condition: Moderately Impaired

Habitat Assessment: Supporting

Trends: Biological index remained moderately impaired, habitat conditions remained supporting, and water quality did not change overall during the course of the last year.

Other Notes: Sampling site located directly downstream of the Cowanesque Reservoir.

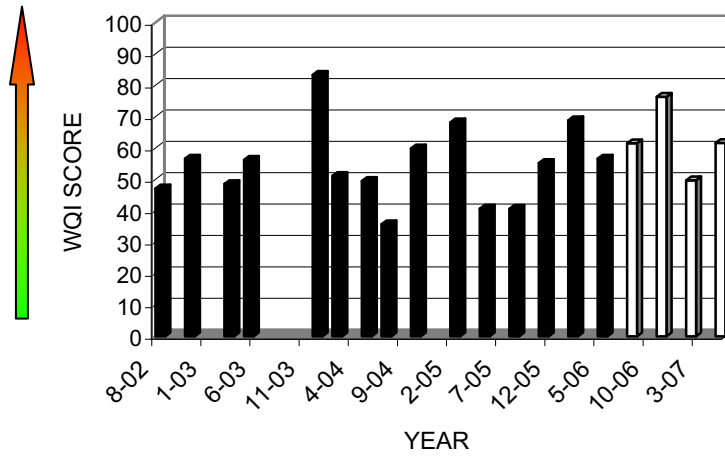
| Parameters Exceeding Standards | | | | |
|--------------------------------|------------|-----------|-----------------------|--|
| Parameter | Date | Value | Standard | State |
| DO | 08/14/2006 | 3.81 mg/l | 5.0 mg/l | Pa. aquatic life |
| TAI | 08/14/2006 | 425 ug/l | 100 ug/l | N.Y. aquatic (chronic) |
| TFe | 08/14/2006 | 540 ug/l | 300 ug/l | N.Y. aquatic (chronic) |
| TFe | 11/07/2006 | 1939 ug/l | 300 ug/l 1500 ug/l | N.Y. aquatic (chronic) Pa. aquatic life |
| TAI | 11/07/2006 | 1172 ug/l | 100 ug/l | N.Y. aquatic (chronic) |
| TFe | 02/22/2007 | 350 ug/l | 300 ug/l | N.Y. aquatic (chronic) |
| TAI | 02/22/2007 | 248 ug/l | 100 ug/l | N.Y. aquatic (chronic) |

| Date | WQI | Parameters Exceeding 90 th Percentile | | | | | | | |
|------------|------|--|------|------|-----|-----|----|------|----|
| 08/14/2006 | 61.5 | TURB | TNH3 | TAI | TMn | TOC | DO | | |
| 11/07/2006 | 76.3 | TURB | TFe | TAI | TMn | TOC | DO | TEMP | SS |
| 02/22/2007 | 49.7 | TURB | TOC | | | | | | |
| 05/15/2007 | 61.6 | TURB | TNO3 | TNH3 | | | | | |

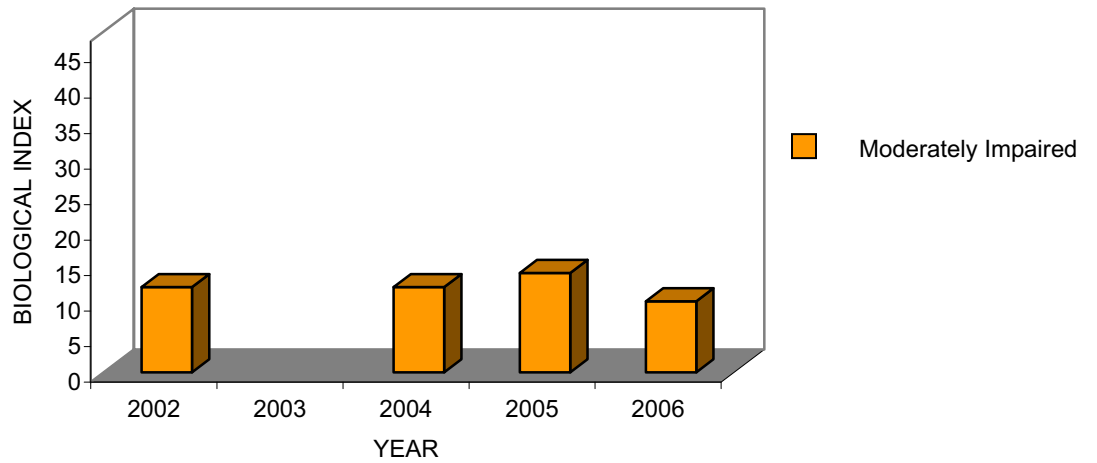
For information on the parameter abbreviations used above and data analysis procedures, go to [Methods](#).

| Biological and Habitat Summary | |
|--------------------------------|---------------------|
| Number of Taxa | 10 |
| Diversity Index | 0.87 |
| RBP Score | 10 |
| RBP Condition | Moderately Impaired |
| Total Habitat Score | 103 |
| Habitat Condition Category | Supporting |

Water Quality Index



Biological Index



Susquehanna River at Windsor, N.Y. (SUSQ 365.0)



Water Quality: Total aluminum, total iron, and dissolved oxygen all failed to meet water quality standards.

Biological Condition: Slightly Impaired

Habitat Assessment: Excellent

Trends: Habitat and water quality conditions remained about the same as last year. Biological conditions showed a bit of a decline.

Other Notes: Staff noted major bed movement from flooding event, as well as the lack of the normal shallow riffle areas present at this site.

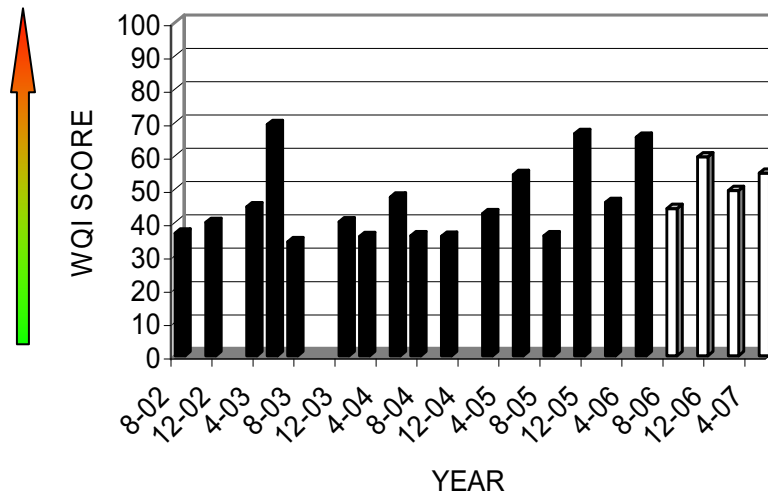
| Parameters Exceeding Standards | | | | |
|--------------------------------|------------|-----------|----------|------------------------|
| Parameter | Date | Value | Standard | State |
| TAI | 08/23/2006 | 297 ug/l | 100 ug/l | N.Y. aquatic (chronic) |
| DO | 08/23/2006 | 4.87 mg/l | 5.0 mg/l | Pa. aquatic life |
| TAI | 11/06/2006 | 218 ug/l | 100 ug/l | N.Y. aquatic (chronic) |
| TFe | 02/12/2007 | 484 ug/l | 300 ug/l | N.Y. aquatic (chronic) |
| TAI | 02/12/2007 | 233 ug/l | 100 ug/l | N.Y. aquatic (chronic) |

| Date | WQI | Parameters Exceeding 90 th Percentile | | | | | | |
|------------|------|--|------|------|--|--|--|--|
| 08/23/2006 | 44.2 | | | | | | | |
| 11/06/2006 | 59.7 | TP | TPO4 | TNH3 | | | | |
| 02/12/2007 | 49.6 | DO | | | | | | |
| 05/23/2007 | 54.8 | DO | | | | | | |

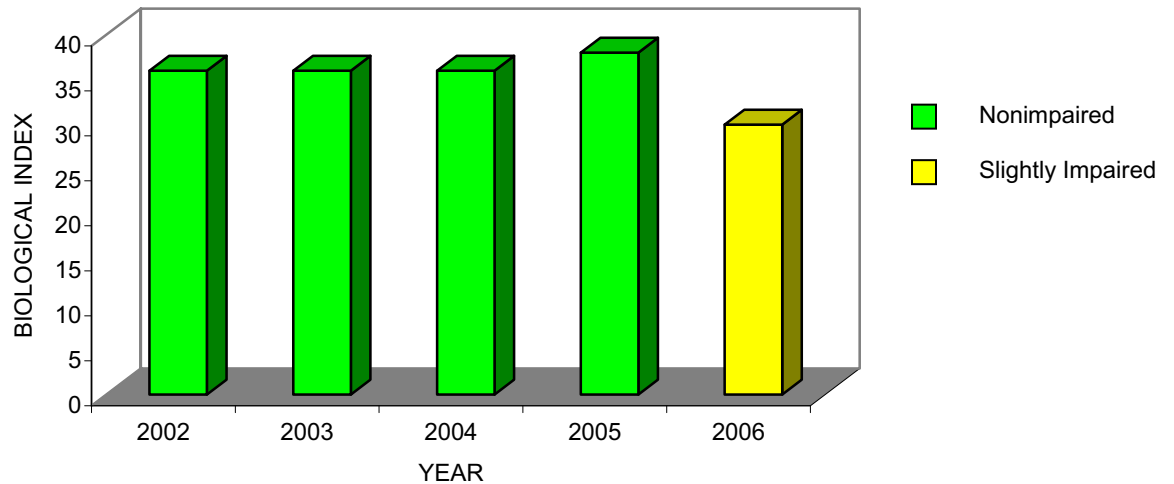
For information on the parameter abbreviations used above and data analysis procedures, go to [Methods](#).

| Biological and Habitat Summary | |
|--------------------------------|-------------------|
| Number of Taxa | 27 |
| Diversity Index | 2.43 |
| RBP Score | 30 |
| RBP Condition | Slightly Impaired |
| Total Habitat Score | 133 |
| Habitat Condition Category | Excellent |

Water Quality Index



Biological Index



Susquehanna River at Kirkwood, N.Y. (SUSQ 340.0)



Water Quality: Total aluminum and total iron both exceeded water quality standards.

Biological Condition: Reference (Nonimpaired)

Habitat Assessment: Reference (Excellent)

Trends: Water quality showed some overall improvement. Habitat and biological indices remained at the highest rankings.

Other Notes: Site upstream of Kirkwood Park. This year, SUSQ 340 was used as a reference site for all river sites, so conditions at the seven river sites were compared to conditions here.

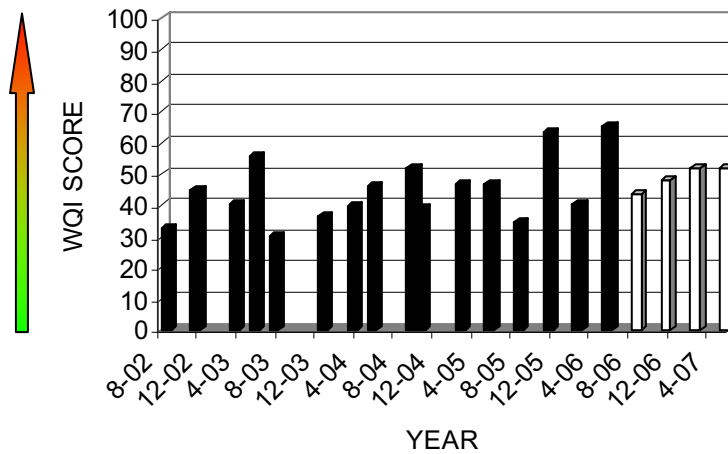
| Parameters Exceeding Standards | | | | |
|--------------------------------|------------|----------|----------|------------------------|
| Parameter | Date | Value | Standard | State |
| TAI | 08/23/2006 | 224 ug/l | 100 ug/l | N.Y. aquatic (chronic) |
| TAI | 11/06/2006 | 242 ug/l | 100 ug/l | N.Y. aquatic (chronic) |
| TFe | 02/12/2007 | 742 ug/l | 300 ug/l | N.Y. aquatic (chronic) |
| TAI | 02/12/2007 | 455 ug/l | 100 ug/l | N.Y. aquatic (chronic) |
| TAI | 05/23/2007 | 252 ug/l | 100 ug/l | N.Y. aquatic (chronic) |

| Date | WQI | Parameters Exceeding 90 th Percentile | | | | | | | |
|------------|------|--|-----|----|--|--|--|--|--|
| 08/23/2006 | 43.7 | | | | | | | | |
| 11/06/2006 | 47.9 | | | | | | | | |
| 02/12/2007 | 51.7 | TFe | TAI | SS | | | | | |
| 05/23/2007 | 52.2 | DO | | | | | | | |

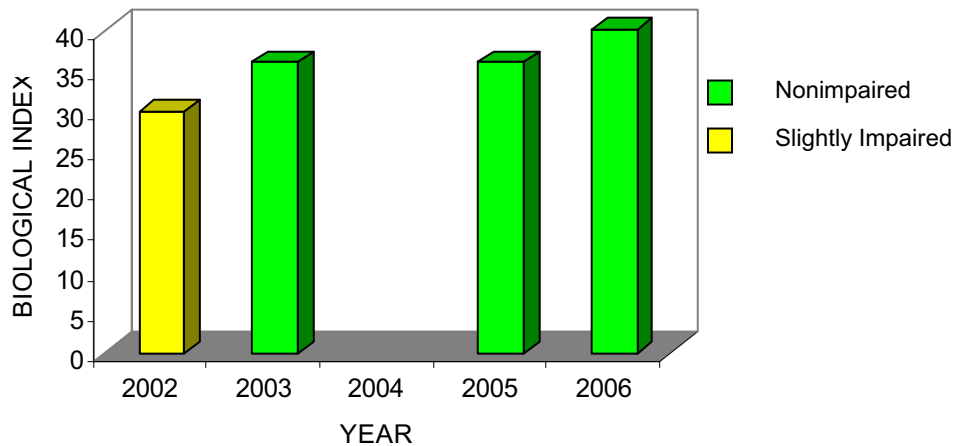
For information on the parameter abbreviations used above and data analysis procedures, go to [Methods](#).

| Biological and Habitat Summary | |
|--------------------------------|-----------|
| Number of Taxa | 26 |
| Diversity Index | 2.41 |
| RBP Score | 40 |
| RBP Condition | Reference |
| Total Habitat Score | 136 |
| Habitat Condition Category | Excellent |

Water Quality Index



Biological Index



Susquehanna River at Kirkwood, N.Y. (SUSQ 340.0)



Water Quality: Total aluminum and total iron both exceeded water quality standards.

Biological Condition: Reference (Nonimpaired)

Habitat Assessment: Reference (Excellent)

Trends: Water quality showed some overall improvement. Habitat and biological indices remained at the highest rankings.

Other Notes: Site upstream of Kirkwood Park. This year, SUSQ 340 was used as a reference site for all river sites, so conditions at the seven river sites were compared to conditions here.

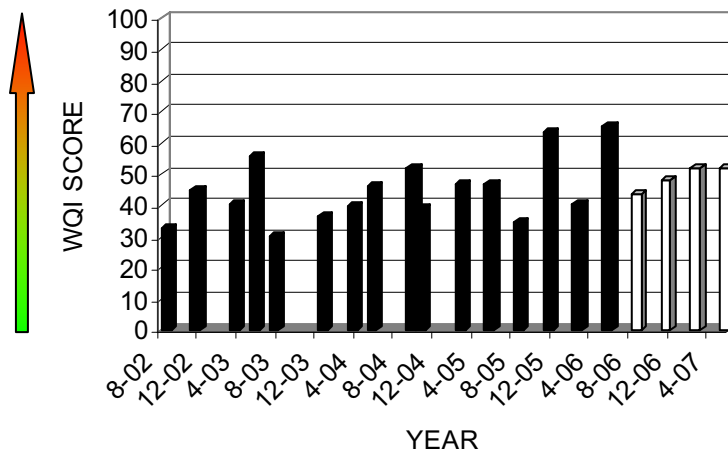
| Parameters Exceeding Standards | | | | |
|--------------------------------|------------|----------|----------|------------------------|
| Parameter | Date | Value | Standard | State |
| TAI | 08/23/2006 | 224 ug/l | 100 ug/l | N.Y. aquatic (chronic) |
| TAI | 11/06/2006 | 242 ug/l | 100 ug/l | N.Y. aquatic (chronic) |
| TFe | 02/12/2007 | 742 ug/l | 300 ug/l | N.Y. aquatic (chronic) |
| TAI | 02/12/2007 | 455 ug/l | 100 ug/l | N.Y. aquatic (chronic) |
| TAI | 05/23/2007 | 252 ug/l | 100 ug/l | N.Y. aquatic (chronic) |

| Date | WQI | Parameters Exceeding 90 th Percentile | | | | | | | |
|------------|------|--|-----|----|--|--|--|--|--|
| 08/23/2006 | 43.7 | | | | | | | | |
| 11/06/2006 | 47.9 | | | | | | | | |
| 02/12/2007 | 51.7 | TFe | TAI | SS | | | | | |
| 05/23/2007 | 52.2 | DO | | | | | | | |

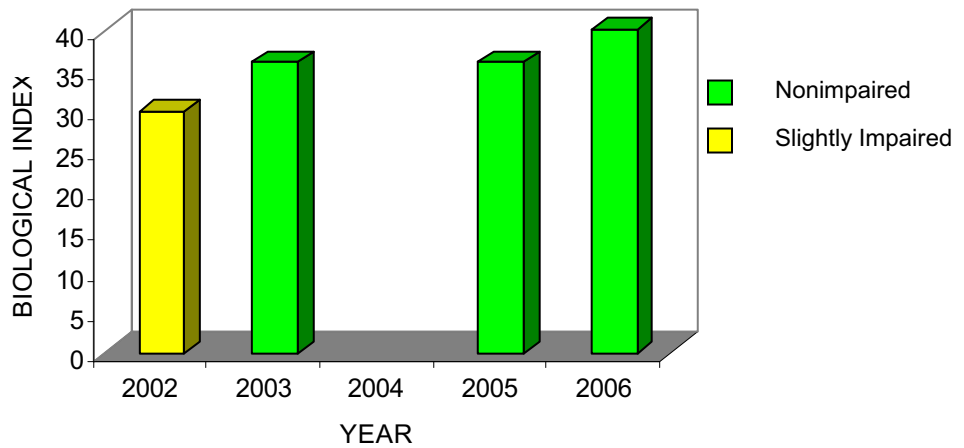
For information on the parameter abbreviations used above and data analysis procedures, go to [Methods](#).

| Biological and Habitat Summary | |
|--------------------------------|-----------|
| Number of Taxa | 26 |
| Diversity Index | 2.41 |
| RBP Score | 40 |
| RBP Condition | Reference |
| Total Habitat Score | 136 |
| Habitat Condition Category | Excellent |

Water Quality Index



Biological Index



Susquehanna River at Marietta, Pa. (SUSQ 44.5)



Water Quality: Total iron and dissolved oxygen did not meet water quality standards.

Biological Condition: NA

Habitat Assessment: NA

Trends: Water quality has remained fairly consistent over the last 5 years at SUSQ 44.5.

Other Notes: Macroinvertebrate sampling and habitat assessment are not typically performed at SUSQ 44.5 due to deep waters and lack of riffle habitat.

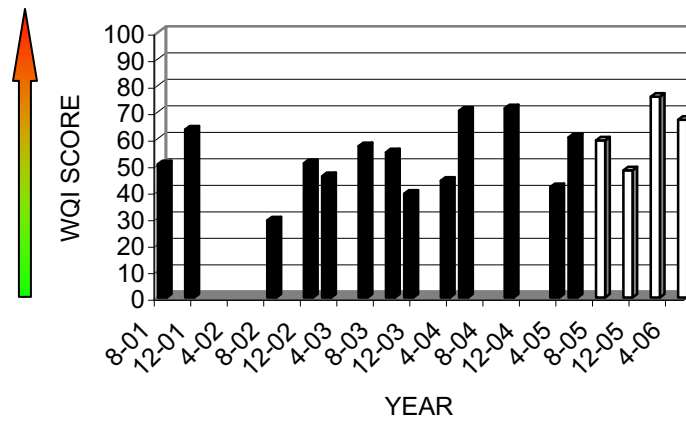
| Parameters Exceeding Standards | | | | |
|--------------------------------|------------|-----------|-----------|------------------|
| Parameter | Date | Value | Standard | State |
| DO | 07/03/2006 | 4.73 mg/l | 5.0 mg/l | Pa. aquatic life |
| TFe | 07/03/2006 | 7950 ug/l | 1500 ug/l | Pa. aquatic life |

| Date | WQI | Parameters Exceeding 90 th Percentile | | | | | | | |
|------------|------|--|------|------|------|----|------|--|--|
| 07/03/2006 | 67.8 | TFe | TP | TMn | TOC | DO | | | |
| 10/18/2006 | 46.3 | TSO4 | COND | | | | | | |
| 02/21/2007 | 58.8 | TSO4 | TOC | DO | COND | | | | |
| 05/10/2007 | 66.7 | TFe | TSO4 | TURB | TAI | DO | TEMP | | |

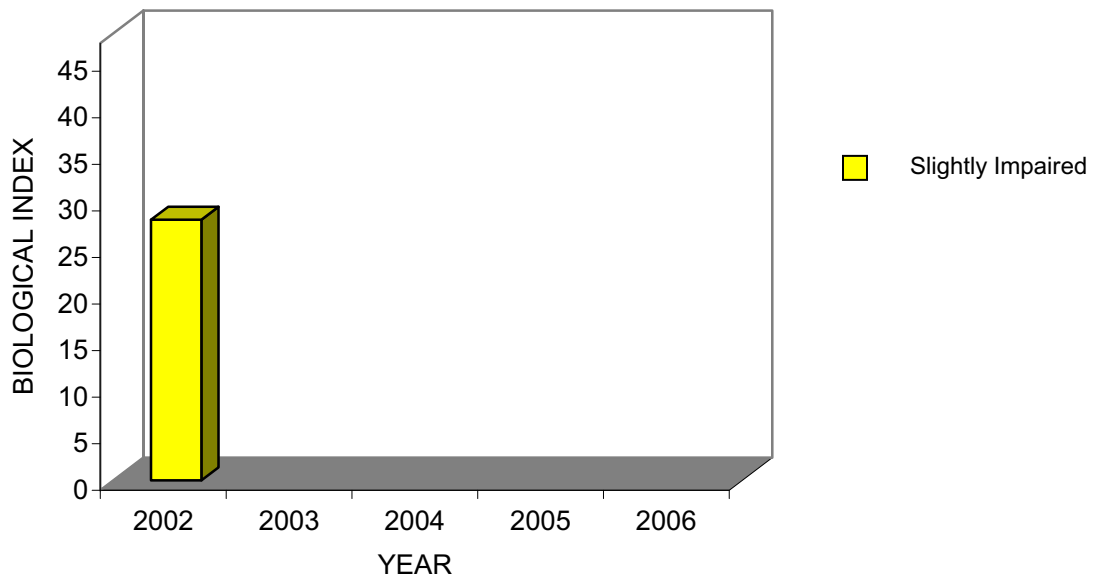
For information on the parameter abbreviations used above and data analysis procedures, go to [Methods](#).

| Biological and Habitat Summary | |
|--------------------------------|----|
| Number of Taxa | NA |
| Diversity Index | NA |
| RBP Score | NA |
| RBP Condition | NA |
| Total Habitat Score | NA |
| Habitat Condition Category | NA |

Water Quality Index



Biological Index



Susquehanna River at Conowingo, Md. (SUSQ 10.0)



Water Quality: No parameter exceeded water quality standards.

Biological Condition: NA

Habitat Assessment: NA

Trends: Water quality showed an overall slightly decline from last year.

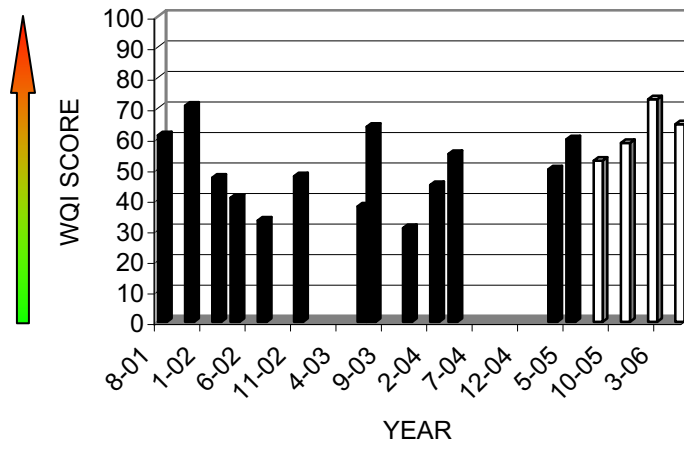
Other Notes: Macroinvertebrate collection and habitat assessments are not performed at SUSQ 10.0 due to deep waters and lack of riffle habitat. This site is only 10 miles upstream of where the Susquehanna River empties into the Chesapeake Bay.

| Parameters Exceeding Standards | | | | |
|--------------------------------|------|-------|----------|-------|
| Parameter | Date | Value | Standard | State |
| | | | | |

| Date | WQI | Parameters Exceeding 90 th Percentile | | | | | | |
|------------|------|--|------|-----|------|------|-----|--|
| 07/25/2006 | 56.4 | TSO4 | TNH3 | DO | TEMP | COND | | |
| 10/18/2006 | 56.9 | TMn | TEMP | | | | | |
| 02/21/2007 | 70.8 | TSO4 | TNH3 | TMn | TFe | | | |
| 05/10/2007 | 70.2 | TSO4 | SS | TMn | TAI | TURB | TFe | |

For information on the parameter abbreviations used above and data analysis procedures, go to [Methods](#).

Water Quality Index



Tioga River at Lindley, N.Y. (TIOG 10.8)



Water Quality: Total aluminum and total iron exceeded water quality standards.

Biological Condition: Nonimpaired

Habitat Assessment: Excellent

Trends: Water quality showed a slight decline, but habitat conditions remained ranked as excellent. Biological conditions were nonimpaired for the second consecutive year.

Other Notes: Lack of adequate riparian buffer was one major area where habitat improvements could be made.

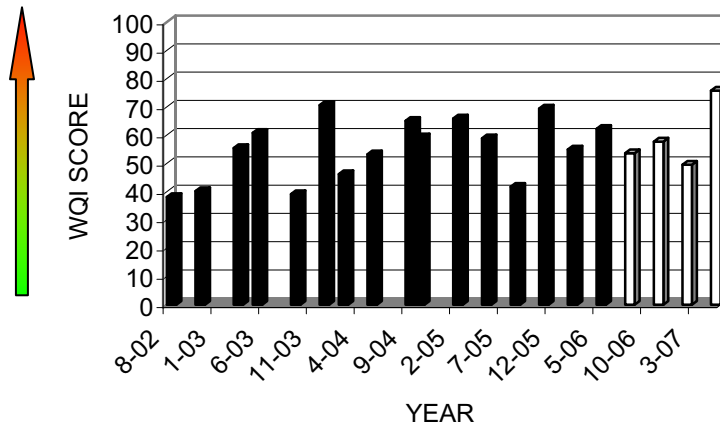
| Parameters Exceeding Standards | | | | |
|--------------------------------|------------|-----------|----------|------------------------|
| Parameter | Date | Value | Standard | State |
| TAI | 08/14/2006 | 231 ug/l | 100 ug/l | N.Y. aquatic (chronic) |
| TFe | 08/14/2006 | 2254 ug/l | 300 ug/l | N.Y. aquatic (chronic) |
| TAI | 11/07/2006 | 398 ug/l | 100 ug/l | N.Y. aquatic (chronic) |
| TFe | 11/07/2006 | 384 ug/l | 300 ug/l | N.Y. aquatic (chronic) |
| TFe | 05/16/2007 | 493 ug/l | 300 ug/l | N.Y. aquatic (chronic) |
| TAI | 05/16/2007 | 422 ug/l | 100 ug/l | N.Y. aquatic (chronic) |

| Date | WQI | Parameters Exceeding 90 th Percentile | | | | | | | |
|------------|------|--|------|------|-----|-----|----|----|--|
| 08/14/2006 | 53.6 | TFe | TSO4 | | | | | | |
| 11/07/2006 | 57.7 | TSO4 | DO | TEMP | | | | | |
| 02/22/2007 | 49.5 | TSO4 | TMn | | | | | | |
| 05/16/2007 | 75.7 | TFe | TSO4 | TURB | TAI | TMn | DO | SS | |

For information on the parameter abbreviations used above and data analysis procedures, go to [Methods](#).

| Biological and Habitat Summary | |
|--------------------------------|-------------|
| Number of Taxa | 22 |
| Diversity Index | 2.55 |
| RBP III Score | 34 |
| RBP III Condition | Nonimpaired |
| Total Habitat Score | 159 |
| Habitat Condition Category | Excellent |

Water Quality Index



Biological Index

