

Site Results for New York-Pennsylvania Border Sites

Apalachin Creek at Little Meadows, Pa. (APAL 6.9)

Group 2



Water Quality:

Temperature and total iron exceeded water quality standards.

Biological Condition:

2007 Slightly Impaired

2008 Slightly Impaired

Habitat Assessment:

2007 Supporting

2008 Supporting

Trends:

Water quality remained similar to past years in 2007 and 2008. However, increased water temperatures recently have been exceeding standards, possibly due to a poor riparian zone. Habitat declined from excellent in 2006, to supporting in 2007 and 2008. Additionally, biological assessments show that Apalachin Creek has declined from its nonimpaired status in 2006, as APAL 6.9 was rated slightly impaired in both 2007 and 2008.

Other notes:

Velocity/depth regimes, sediment deposition, and riparian vegetative width were all at levels of significant concern during 2007 and 2008 habitat assessments.

Habitat in Apalachin Creek could be stressed due to siltation, which may be caused by construction and associated streambank erosion (NYSDEC, 2001). SRBC staff noted similar concerns in 2007 and 2008, as sediment deposition was rated marginal.

APAL 6.9 will be electrofished in 2009 to add a fish component to biological assessments.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
Temperature	8/01/2007	28.4° C	25.0° C	Pa. aquatic life
TFe	8/01/2007	477 ug/l	300 ug/l	N.Y. aquatic life (chronic)
Temperature	7/22/2008	25.1° C	25.0° C	Pa. aquatic life
TFe	7/22/2008	618 ug/l	300 ug/l	N.Y. aquatic life (chronic)

Date	WQI	Parameters Exceeding 90 th Percentile							
8/01/2007	42.1	TEMP							
7/22/2008	28.8								

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

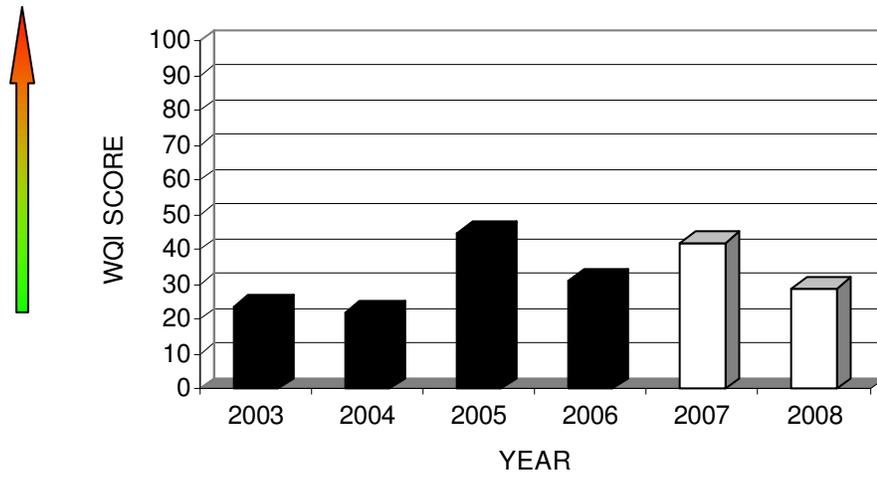
2007

Biological and Habitat Summary	
Number of Taxa	19
Diversity Index	2.29
Biological Score	24
Biological Condition	Slightly Impaired
Total Habitat Score	137
Habitat Condition Category	Supporting

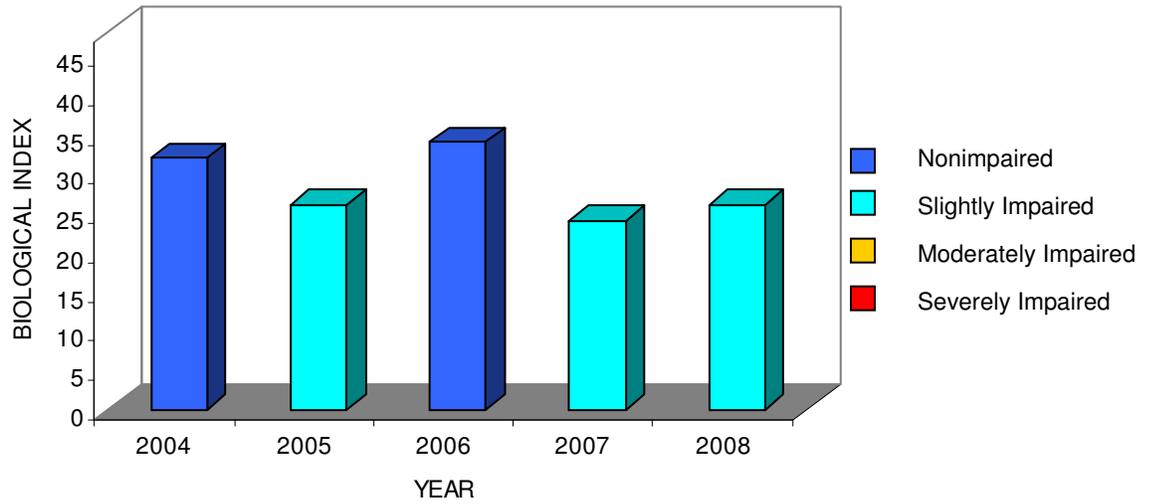
2008

Biological and Habitat Summary	
Number of Taxa	24
Diversity Index	2.29
Biological Score	26
Biological Condition	Slightly Impaired
Total Habitat Score	142
Habitat Condition Category	Supporting

Water Quality Index



Biological Index



Bentley Creek at Wellsburg, N.Y. (BNTY 0.9)

Group 1



Water Quality:

Total iron and total aluminum exceeded water quality standards.

Biological Condition:

2007	Nonimpaired
2008	Slightly Impaired

Habitat Assessment:

2007	Excellent
2008	Excellent

Trends:

Water quality showed no major change while habitat improved from supporting in 2006 to excellent in 2007 and 2008. Biological conditions remained stable from 2006 to 2007, receiving a nonimpaired rating both years. However, in 2008, the biological conditions were downgraded to slightly impaired.

Other Notes:

The Bradford County Conservation District in Pennsylvania and the U.S. Fish and Wildlife Service conducted a stream stabilization project on this stream. Rock structures, such as cross vanes and single rock vanes, have been constructed in portions of the stream to redirect the force of the flow. Habitat ratings have improved in subsequent years. The habitat at Bentley Creek still has room for improvement with regard to instream cover, velocity/depth regimes, and channel flow status.

Fish sampling will be conducted at BNTY 0.9 in 2009, adding value to the existing biological assessments.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
TFe	2/13/2008	341 ug/l	300 ug/l	N.Y. aquatic (chronic)
TAl	2/13/2008	272 ug/l	100 ug/l	N.Y. aquatic (chronic)

Date	WQI	Parameters Exceeding 90 th Percentile							
7/31/2007	35.5								
10/16/2007	45.0								
2/13/2008	36.3	DO							
5/21/2008	49.3	DO							
7/21/2008	32.9								
10/28/2008	45.5								

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

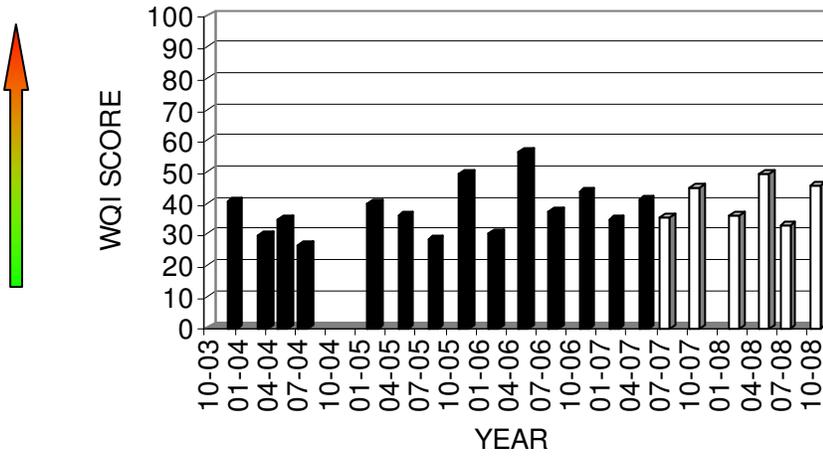
2007

Biological and Habitat Summary	
Number of Taxa	24
Diversity Index	2.44
RBP III Score	38
RBP III Condition	Nonimpaired
Total Habitat Score	160
Habitat Condition Category	Excellent

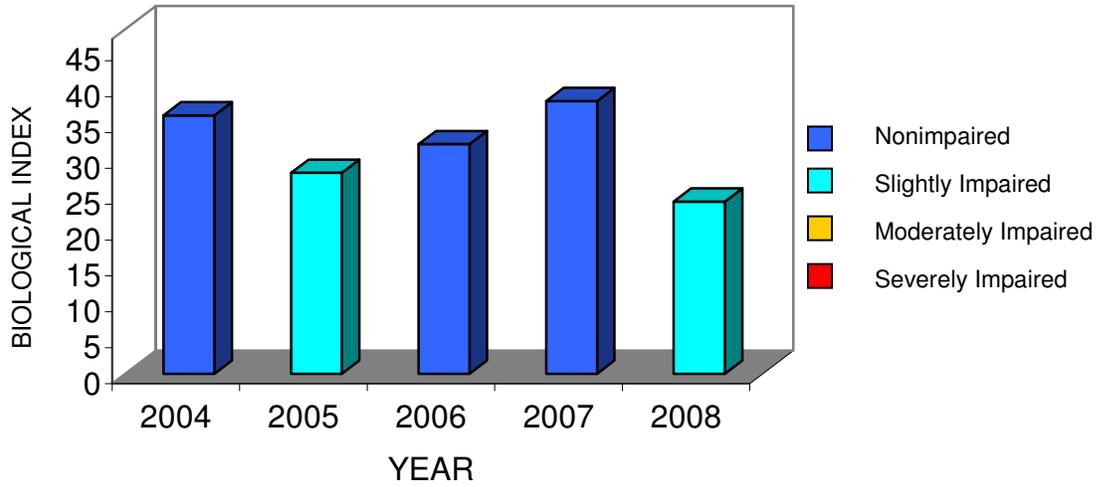
2008

Biological and Habitat Summary	
Number of Taxa	16
Diversity Index	1.97
RBP III Score	24
RBP III Condition	Slightly Impaired
Total Habitat Score	162
Habitat Condition Category	Excellent

Water Quality Index



Biological Index



Cascade Creek at Lanesboro, Pa. (CASC 1.6)

Group 1



Water Quality:

Alkalinity, pH, total iron, and total aluminum all failed to meet water quality standards during 2007 and 2008.

Biological Condition:

2007	Reference (Nonimpaired)
2008	Slightly Impaired

Habitat Assessment:

2007	Reference (Excellent)
2008	Excellent

Trends:

Water quality index values increased in 2007 and 2008, meaning water quality decreased in comparison to previous years. In 2007, habitat and biological conditions were the best of all New York Group 1 and 2 streams despite the slight decline in water quality. Habitat remained excellent in 2008, while biological conditions declined to receive a slightly impaired ranking.

Other Notes:

Laboratory analysis of February 2008 water quality samples was not completed due to logistical complications. High metal concentrations are routinely observed in Cascade Creek, which is characteristic of many New York–Pennsylvania interstate streams, possibly due to regional geology.

Staff will be collecting fish community data at CASC 1.6 in 2009, which will add another component to the biological assessments.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
TFe	7/31/2007	824 ug/l	300 ug/l	N.Y. aquatic (chronic)
TAl	7/31/2007	267 ug/l	100 ug/l	N.Y. aquatic (chronic)
TFe	10/15/2007	767 ug/l	300 ug/l	N.Y. aquatic (chronic)
TAl	10/15/2007	456 ug/l	100 ug/l	N.Y. aquatic (chronic)
ALK	2/11/2008	6 ug/l	20 mg/l	Pa. aquatic life
ALK	5/22/2008	10 ug/l	20 mg/l	Pa. aquatic life
pH	5/22/2008	6.15	6.5-8.5	N.Y. general
TFe	7/21/2008	570 ug/l	300 ug/l	N.Y. aquatic (chronic)
ALK	10/27/2008	12 ug/l	20 mg/l	Pa. aquatic life
TFe	10/27/2008	367 ug/l	300 ug/l	N.Y. aquatic (chronic)

Date	WQI	Parameters Exceeding 90 th Percentile						
7/31/2007	43.7	TFe						
10/15/2007	43.2	TFe	TAl					
2/11/2008	NA							
5/22/2008	41.1	DO						
7/21/2008	25.7	DO						
10/27/2008	36.3							

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

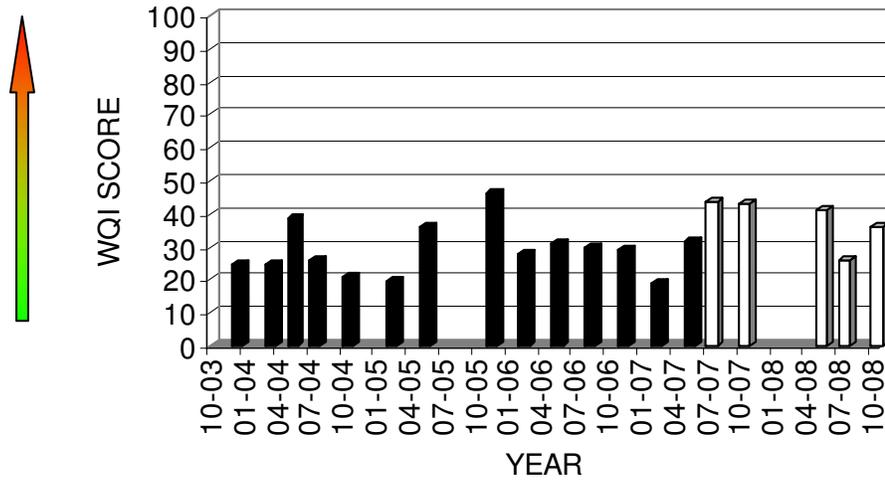
2007

Biological and Habitat Summary	
Number of Taxa	31
Diversity Index	2.72
RBP III Score	38
RBP III Condition	Reference (Nonimpaired)
Total Habitat Score	161
Habitat Condition Category	Reference (Nonimpaired)

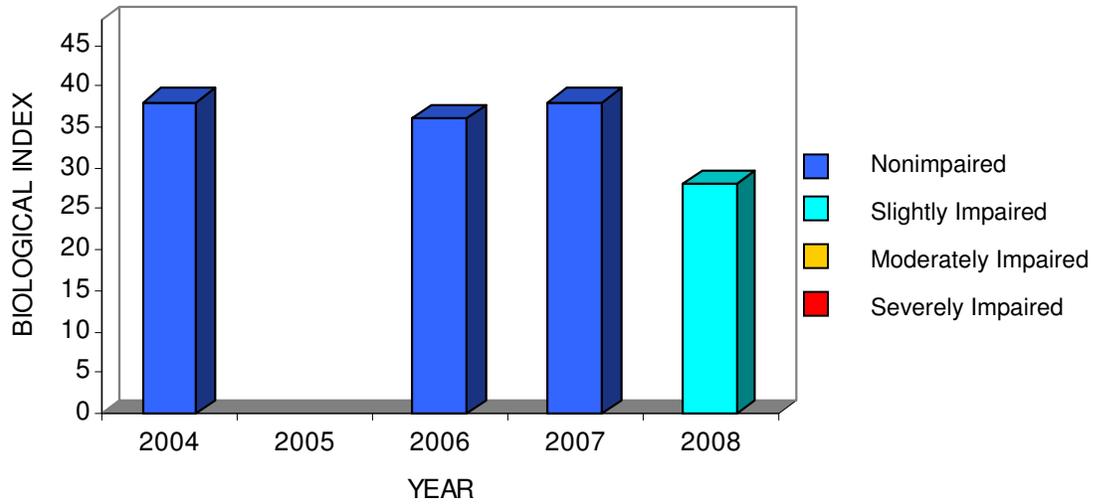
2008

Biological and Habitat Summary	
Number of Taxa	21
Diversity Index	2.18
RBP III Score	28
RBP III Condition	Slightly Impaired
Total Habitat Score	175
Habitat Condition Category	Excellent

Water Quality Index



Biological Index



Cayuta Creek at Waverly, N.Y. (CAYT 1.7)

Group 1



Water Quality:

Total chlorine continues to consistently exceed standards. Total aluminum, turbidity, and total iron also intermittently exceeded acceptable limits.

Biological Condition:

2007	Slightly Impaired
2008	Nonimpaired

Habitat Assessment:

2007	Not Assessed
2008	Excellent

Trends:

The average water quality index value has increased slightly over the past five years, indicating a possible downward trend in water quality. Biological conditions declined to slightly impaired in 2007 after CAYT 1.7 served as the reference site in 2006. However, biological conditions rebounded to regain nonimpaired status in 2008.

Other Notes:

This site is downstream of wastewater discharges from the Waverly sewage treatment facility, which contributes to the standard exceedances for total chlorine. Habitat at CAYT 1.7

was not assessed in 2007 due to difficulties associated with high flows. Lab water quality was not analyzed in February 2008 due to logistical complications.

According to NYSDEC, aquatic life and habitat in Cayuta Creek are suspected of being stressed due to siltation and nutrient inputs from streambank erosion, agriculture, and resource extraction activities within the watershed. Local efforts to combat these sources of possible impairment include streambank stabilization with rip-rap and concrete walls, as well as removal of gravel from the stream channel (NYSDEC, 2001).

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
TCln	7/30/2007	0.05 mg/l	0.019 mg/l	N.Y. aquatic (acute)
TCln	10/16/2007	0.11 mg/l	0.019 mg/l	N.Y. aquatic (acute)
TAl	10/16/2007	278 ug/l	100 ug/l	N.Y. aquatic (chronic)
TCln	5/21/2008	0.12 mg/l	0.019 mg/l	N.Y. aquatic (acute)
TURB	7/21/2008	161.5 NTU	100 NTU	Pa. aquatic life
TFe	7/21/2008	11,600 ug/l	300 ug/l	N.Y. aquatic (chronic)
			1500 ug/l	Pa. aquatic life
TAl	7/21/2008	5,000 ug/l	100 ug/l	N.Y. aquatic (chronic)
TCln	10/27/2008	0.10 mg/l	0.019 mg/l	N.Y. aquatic (acute)

Date	WQI	Parameters Exceeding 90 th Percentile							
7/30/2007	65.9	TCln	TNO3	TP	TPO4	TNH3	TN		
10/16/2007	60.7	TP	TPO4						
2/12/2008	NA								
5/21/2008	72.7	TP	TPO4	TNH3	DO	SS	TCln		
7/21/2008	71.8	TFe	TS	TP	TPO4	TURB	TAl	TMn	TOC
10/27/2008	71.5	TS	TNO3	TP	TPO4	COND	TEMP	TCln	

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

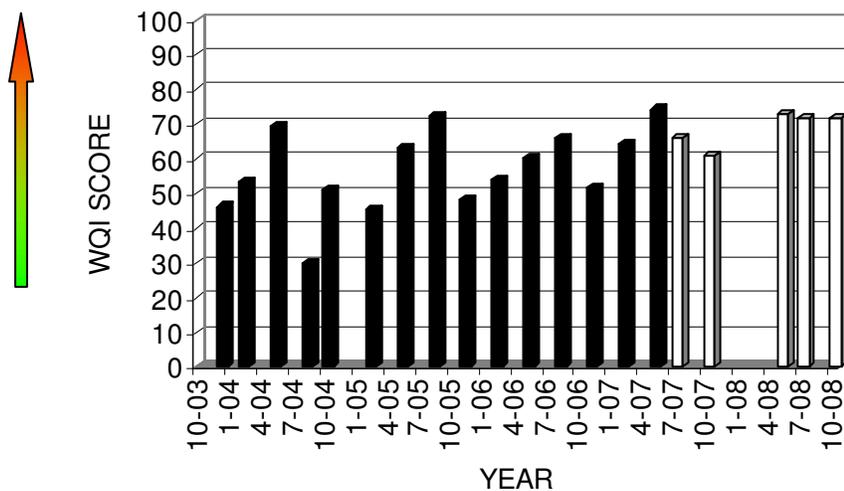
2007

Biological and Habitat Summary	
Number of Taxa	18
Diversity Index	2.26
RBP Score	26
RBP Condition	Slightly Impaired
Total Habitat Score	N/A
Habitat Condition Category	N/A

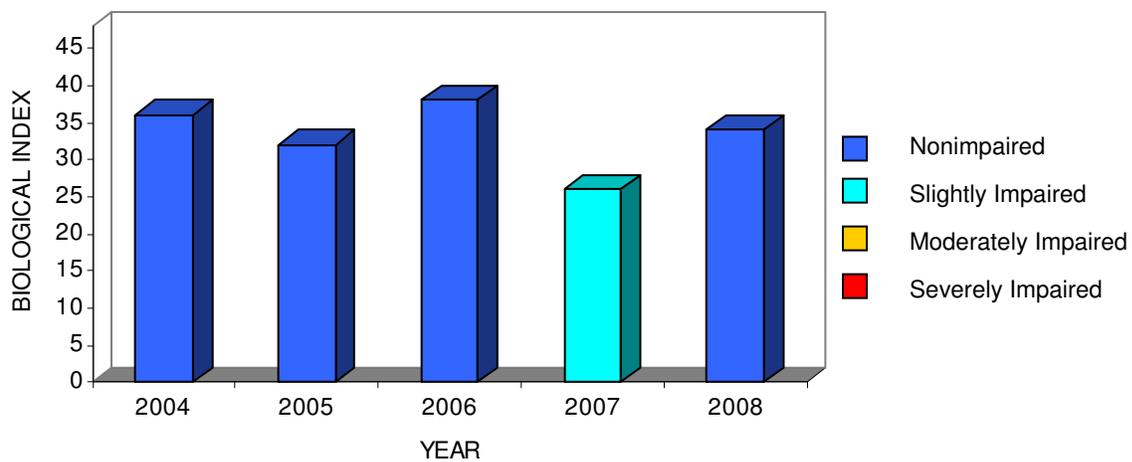
2008

Biological and Habitat Summary	
Number of Taxa	28
Diversity Index	2.42
RBP Score	34
RBP Condition	Nonimpaired
Total Habitat Score	174
Habitat Condition Category	Excellent

Water Quality Index



Biological Index



Choconut Creek at Vestal Center, N.Y. (CHOC 9.1)

Group 2



Water Quality:

No parameters exceeded water quality standards.

Biological Condition:

2007	Slightly Impaired
2008	Slightly Impaired

Habitat Assessment:

2007	Supporting
2008	Supporting

Trends:

No significant change of habitat or biological conditions took place in 2007 and 2008. Water quality also remained constant.

Other Notes:

Embeddedness, conditions of banks, and riparian buffer are areas that need improvement at Choconut Creek. Channel alteration is also evident, as rip-rap has been applied heavily to the stream channel and banks.

Fish sampling will take place at CHOC 9.1 in 2009.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State

Date	WQI	Parameters Exceeding 90 th Percentile							
8/1/2007	38.2								
7/22/2008	24.0								

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

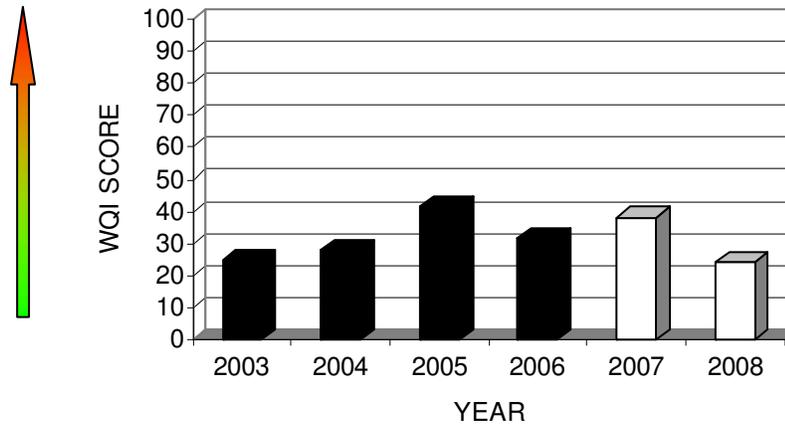
2007

Biological and Habitat Summary	
Number of Taxa	26
Diversity Index	2.25
RBP Score	24
RBP Condition	Slightly Impaired
Total Habitat Score	133
Habitat Condition Category	Supporting

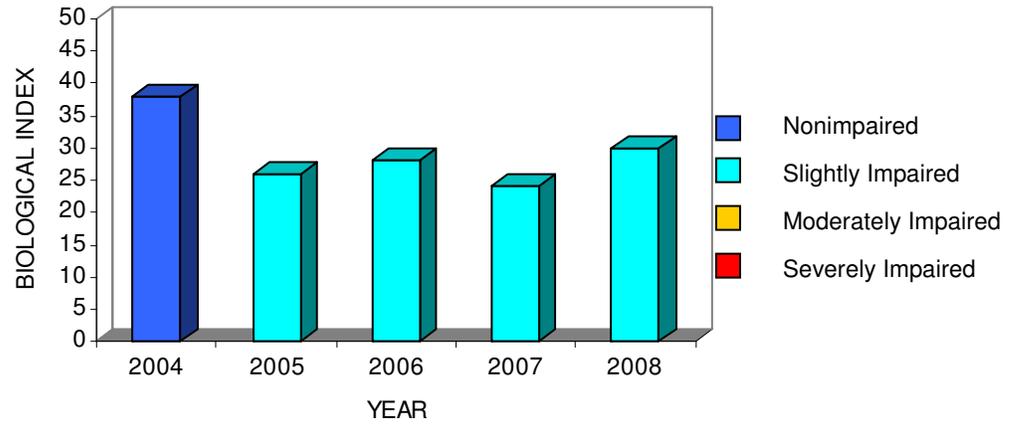
2008

Biological and Habitat Summary	
Number of Taxa	27
Diversity Index	2.54
RBP Score	30
RBP Condition	Slightly Impaired
Total Habitat Score	136
Habitat Condition Category	Supporting

Water Quality Index



Biological Index



Holden Creek at Woodhull, N.Y. (HLDN 3.5)

Group 2



Water Quality:

Total aluminum and total iron exceeded water quality standards.

Biological Condition:

2007	Nonimpaired
2008	Nonimpaired

Habitat Assessment:

2007	Supporting
2008	Supporting

Trends:

After a very dry summer in 2005, HLDN 3.5 received a moderately impaired biological condition rating in 2006. However, Holden Creek rebounded strongly in 2007 and 2008, receiving a nonimpaired rating both years. Habitat also improved from 2006, receiving a supporting rating in 2007 and 2008.

Other Notes:

Staff noted low flow conditions at this site, as well as cows in the stream and the presence of brown algae.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
TAI	8/01/2007	388 ug/l	100 ug/l	N.Y. aquatic life (chronic)
TFe	8/01/2007	550 ug/l	300 ug/l	N.Y. aquatic life (chronic)

Date	WQI	Parameters Exceeding 90 th Percentile							
8/01/2007	49.6	TAI							
7/22/2008	30.5								

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

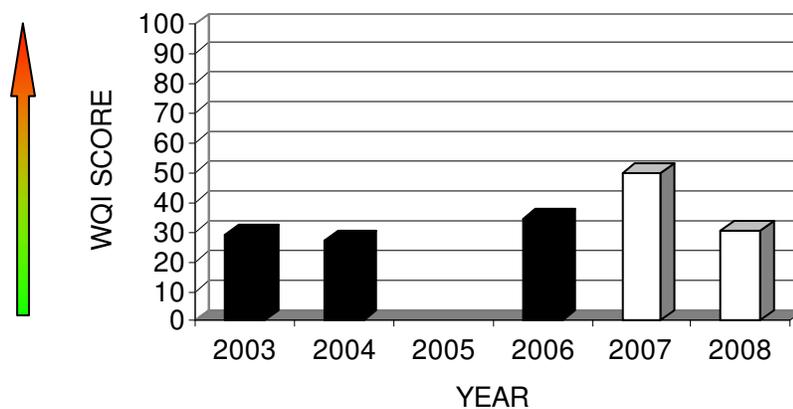
2007

Biological and Habitat Summary	
Number of Taxa	22
Diversity Index	2.32
RBP III Score	32
RBP III Condition	Nonimpaired
Total Habitat Score	154
Habitat Condition Category	Supporting

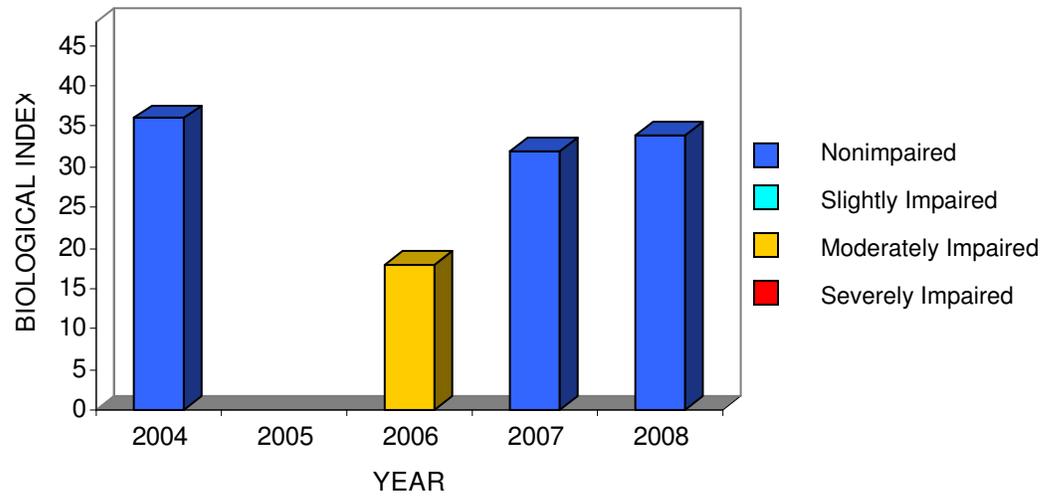
2008

Biological and Habitat Summary	
Number of Taxa	29
Diversity Index	2.22
RBP III Score	34
RBP III Condition	Nonimpaired
Total Habitat Score	160
Habitat Condition Category	Supporting

Water Quality Index



Biological Index



Little Snake Creek at Brackney, Pa. (LSNK 7.6)

Group 1



Little Snake Creek in February and May 2009, respectively.

Water Quality:

Total iron, total aluminum, pH, and alkalinity exceeded water quality standards in 2007 and 2008.

Biological Condition:

2007	Slightly Impaired
2008	Slightly Impaired

Habitat Assessment:

2007	Excellent
2008	Excellent

Trends:

Water quality, biology, and habitat conditions have remained consistent over the past five years at Little Snake Creek.

Other Notes:

Little Snake Creek is a pleasant stream with optimal habitat located in a forested area. Water quality parameters exceeded acceptable limits more often during 2007 and 2008 compared to previous years. Water quality samples were not analyzed in the laboratory in February 2008 due to logistical complications.

Fish sampling will occur at LSNK 7.6 in 2009.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
TFe	8/01/2007	442 ug/l	300 ug/l	N.Y. aquatic (chronic)
TAl	10/15/2007	299 ug/l	100 ug/l	N.Y. aquatic (chronic)
TFe	10/15/2007	360 ug/l	300 ug/l	N.Y. aquatic (chronic)
ALK	2/12/2008	16 ug/l	20 ug/l	Pa. aquatic life
pH	5/22/2008	6.40	6.5-8.5	N.Y. general
TFe	7/22/2008	552 ug/l	300 ug/l	N.Y. aquatic (chronic)
TFe	10/27/2008	312 ug/l	300 ug/l	N.Y. aquatic (chronic)

Date	WQI	Parameters Exceeding 90 th Percentile							
8/01/2007	35.4								
10/15/2007	35.8	TOC							
2/12/2008	NA								
5/22/2008	43.4	TFe	DO						
7/22/2008	29.9								
10/27/2008	46.8								

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

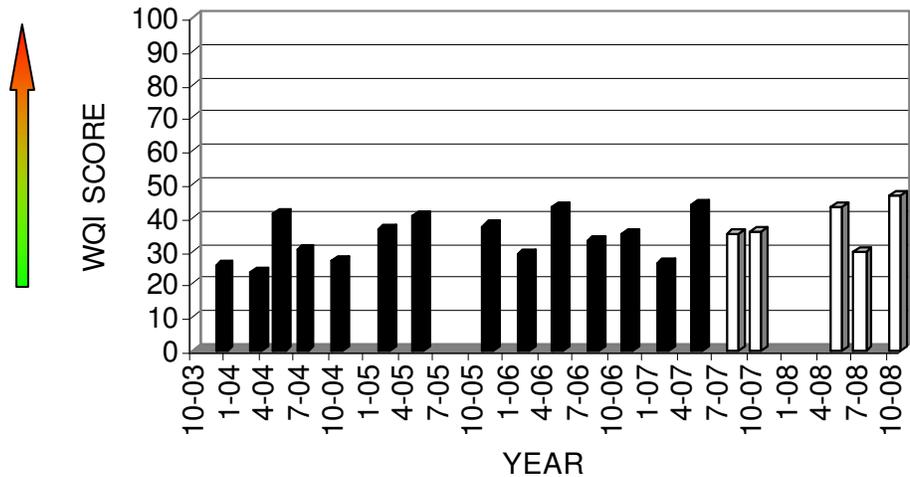
2007

Biological and Habitat Summary	
Number of Taxa	25
Diversity Index	2.46
RBP III Score	28
RBP III Condition	Slightly Impaired
Total Habitat Score	161
Habitat Condition Category	Excellent

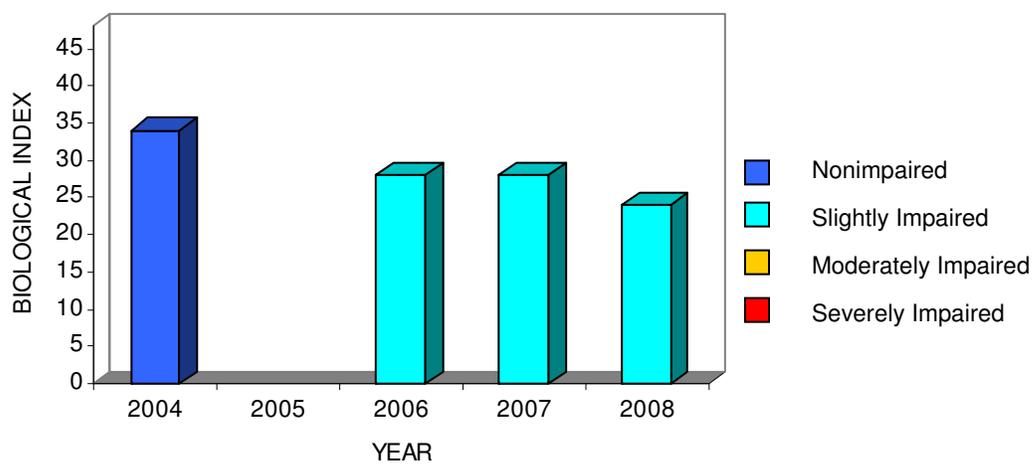
2008

Biological and Habitat Summary	
Number of Taxa	18
Diversity Index	2.49
RBP III Score	24
RBP III Condition	Slightly Impaired
Total Habitat Score	157
Habitat Condition Category	Excellent

Water Quality Index



Biological Index



North Fork Cowanesque River at North Fork, PA (NFCR 7.6)

Group 2

Water Quality:

Total aluminum and total iron exceeded water quality standards.

Biological Condition:

2007 Moderately Impaired
2008 Reference (Nonimpaired)

Habitat Assessment:

2007 Excellent
2008 Reference (Excellent)

Trends:

After having a nonimpaired biological condition in 2006, NFCR 7.6 declined significantly in 2007 to moderately impaired. However, the macroinvertebrate population improved in 2008 and regained nonimpaired biological status, serving as the reference stream to which all other New York–Pennsylvania Group 1 and 2 streams were compared. Habitat at North Fork Cowanesque River remained excellent during 2007 and 2008. Water quality also remained relatively stable.

Other Notes:

Channel flow status and velocity depth regimes are marginal in NFCR 7.6.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
TAl	7/22/2008	228 ug/l	100 ug/l	N.Y. aquatic (chronic)
TFe	7/22/2008	462 ug/l	300 ug/l	N.Y. aquatic (chronic)

Date	WQI	Parameters Exceeding 90 th Percentile						
8/01/2007	40.4							
7/22/2008	45.6	TPO4	TN					

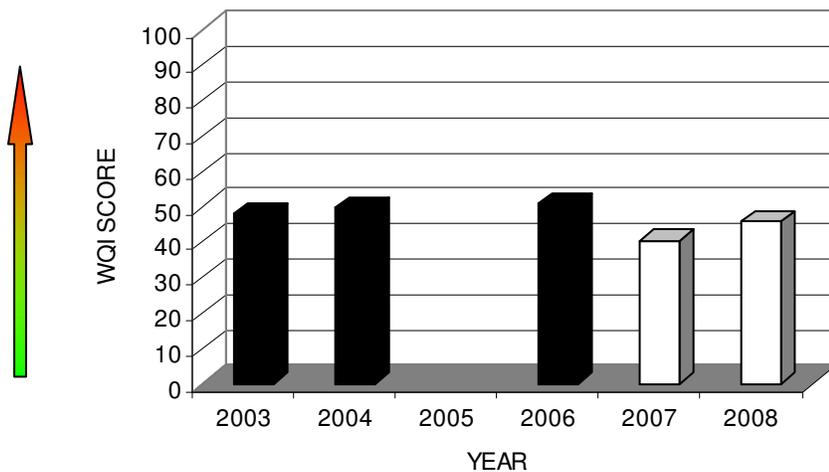
2007

Biological and Habitat Summary	
Number of Taxa	19
Diversity Index	1.88
RBP III Score	18
RBP III Condition	Moderately Impaired
Total Habitat Score	168
Habitat Condition Category	Excellent

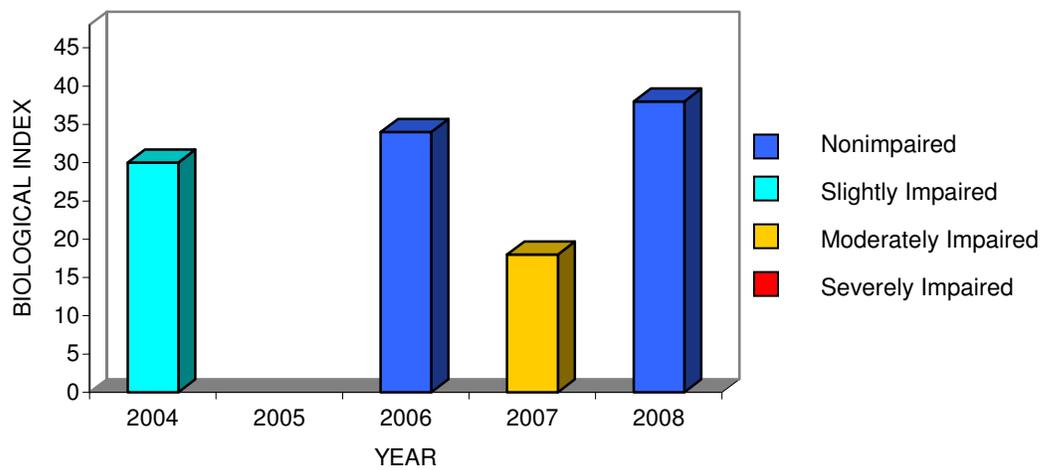
2008

Biological and Habitat Summary	
Number of Taxa	24
Diversity Index	2.49
RBP III Score	38
RBP III Condition	Reference (Nonimpaired)
Total Habitat Score	175
Habitat Condition Category	Reference (Excellent)

Water Quality Index



Biological Index



Seeley Creek at Seeley Creek, N.Y. (SEEL 10.3)

Group 1



Water Quality:

No parameters exceeded water quality standards.

Biological Condition:

2007	Moderately Impaired
2008	Moderately Impaired

Habitat Assessment:

2007	Supporting
2008	Supporting

Trends:

Water quality remained consistent during 2007 and 2008. Although biological conditions continued to be moderately impaired, taxonomic richness showed signs of recovery with 17 and 21 taxa found in 2007 and 2008, respectively, compared to only 12 taxa in 2006. Habitat ratings have showed slight improvement since large scale flooding in 2006 that widened and dramatically altered many New York–Pennsylvania interstate streams.

Other Notes:

New York State Department of Conservation (NYSDEC) listed Seeley Creek as “threatened” in its publication, The 2004 Chemung River Basin Waterbody Inventory and Priority Waterbodies List (NYSDEC, 2007). Hydrologic modifications to Seeley Creek’s stream channel are thought to have reduced flow capacity of the creek, resulting in bank erosion and

new channel formation. Streambank erosion, and subsequent sand, gravel, and cobble deposition, have adversely affected habitat and aquatic life. SRBC's habitat assessment identified lack of adequate riparian buffer zone and channel flow status to be major issues in Seeley Creek.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
None				

Date	WQI	Parameters Exceeding 90 th Percentile							
7/31/2007	36.6								
10/16/2007	50.0	SS	TEMP						
2/13/2008	43.0	DO							
5/21/2008	53.1	DO							
7/22/2008	37.1								
10/28/2008	53.6	DO							

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

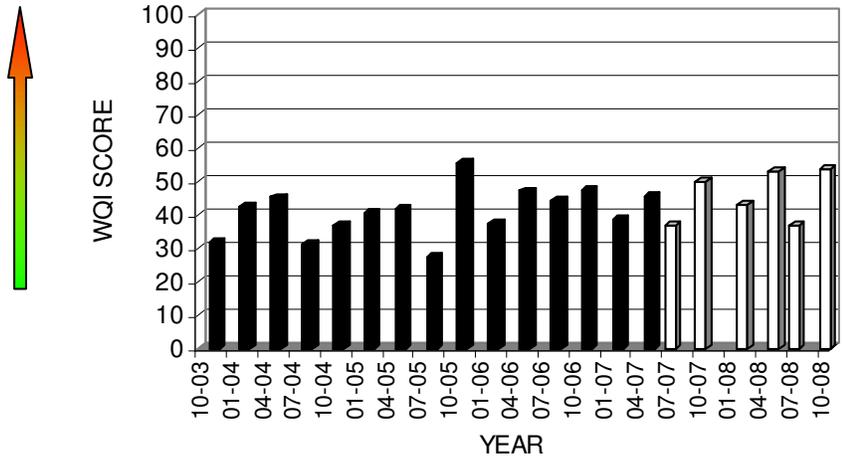
2007

Biological and Habitat Summary	
Number of Taxa	17
Diversity Index	2.01
RBP III Score	18
RBP III Condition	Moderately Impaired
Total Habitat Score	157
Habitat Condition Category	Supporting

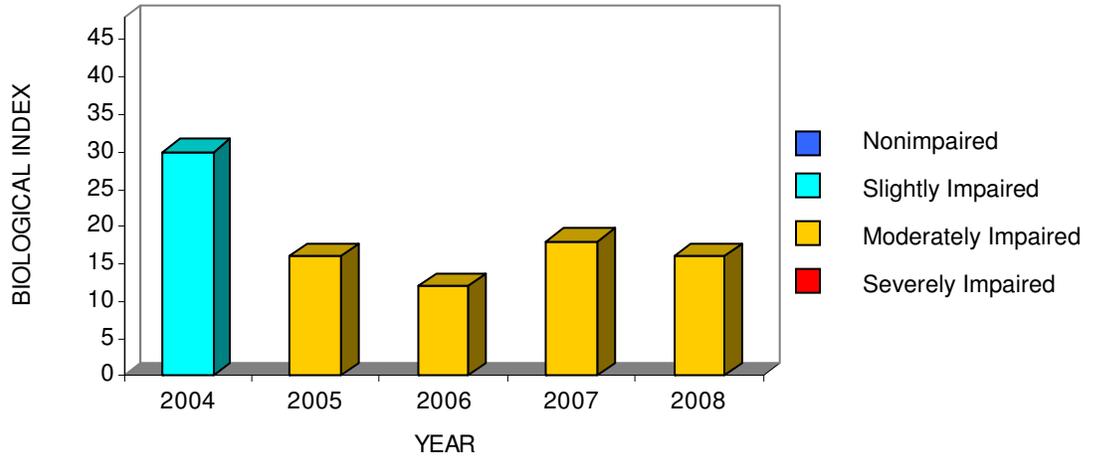
2008

Biological and Habitat Summary	
Number of Taxa	21
Diversity Index	1.84
RBP III Score	16
RBP III Condition	Moderately Impaired
Total Habitat Score	151
Habitat Condition Category	Supporting

Water Quality Index



Biological Index



Snake Creek at Brookdale, Pa. (SNAK 2.3)

Group 2



Water Quality:

Temperature exceeded acceptable limits.

Biological Condition:

2007	Nonimpaired
2008	Slightly Impaired

Habitat Assessment:

2007	Excellent
2008	Supporting

Trends:

After not being sampled in 2006 due to a washed out bridge, SNAK 2.3 maintained its nonimpaired biological condition in 2007. However, biology declined in 2008, as Snake Creek received a slightly impaired rating. Habitat was excellent in 2007, but declined with biological condition in 2008 to receive a supporting rating. Water quality has remained stable.

Other Notes:

In 2000, SRBC staff conducted a small watershed study on the Snake Creek Watershed during the second year of the Upper Susquehanna Subbasin Survey (Diehl and Sitlinger, 2001). The study concluded that the Snake Creek Watershed was healthy and recommended that this watershed be protected.

Habitat at Snake Creek has recovered somewhat after a major bridge reconstruction in 2006. Rip-rap has been placed along banks to stabilize residential properties upstream of the newly constructed bridge.

SNAK 2.3 will be electrofished in 2009 to add a fish component to biological assessment.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
Temperature	7/21/2008	27.0° C	25.0° C	Pa. aquatic life

Date	WQI	Parameters Exceeding 90 th Percentile						
8/01/2007	34.6							
7/21/2008	28.7	DO	TEMP					

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

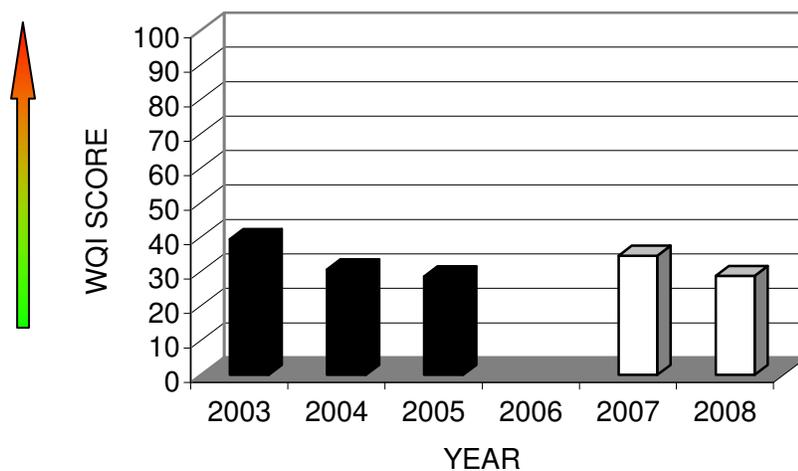
2007

Biological and Habitat Summary	
Number of Taxa	24
Diversity Index	2.44
RBP III Score	32
RBP III Condition	Nonimpaired
Total Habitat Score	151
Habitat Condition Category	Excellent

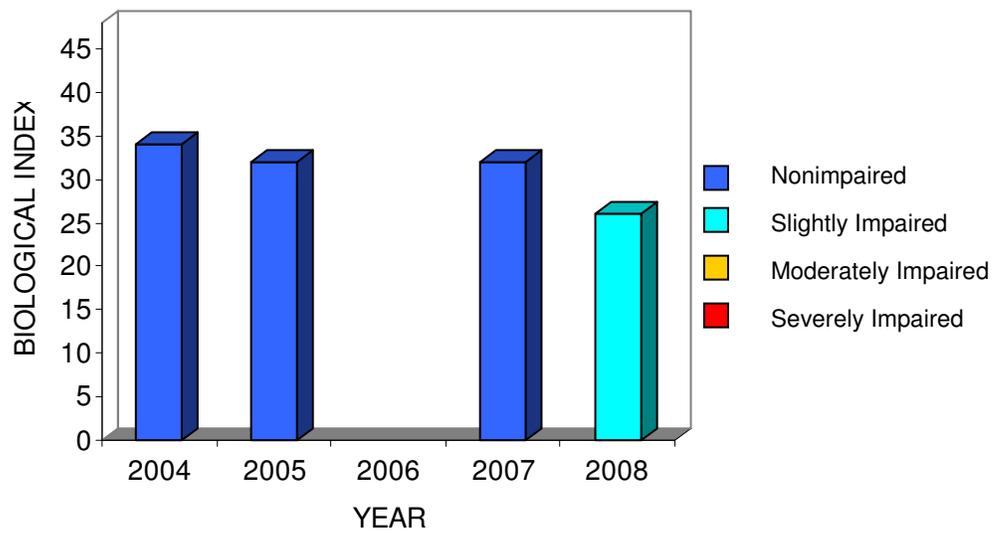
2008

Biological and Habitat Summary	
Number of Taxa	21
Diversity Index	2.18
RBP III Score	26
RBP III Condition	Slightly Impaired
Total Habitat Score	151
Habitat Condition Category	Supporting

Water Quality Index



Biological Index



South Creek at Fassett, Pa. (SOUT 7.6)

Group 2



Water Quality:

Total iron exceeded water quality standards.

Biological Condition:

2007	Slightly Impaired
2008	Slightly Impaired

Habitat Assessment:

2007	Excellent
2008	Excellent

Trends:

Water quality remained steady throughout 2007 and 2008. Biological conditions also remained stable, while habitat improved from supporting in 2006 to excellent in 2007 and 2008.

Other Notes:

Channel flow status was marginal at SOUT 7.6 in 2007, but no major impairments were observed at this site in 2008.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
TFe	7/31/2007	319 ug/l	300 ug/l	N.Y. aquatic (chronic)
TFe	7/22/2008	362 ug/l	300 ug/l	N.Y. aquatic (chronic)

Date	WQI	Parameters Exceeding 90 th Percentile							
7/31/2007	44.3	TOC							
7/22/2008	38.7	DO							

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

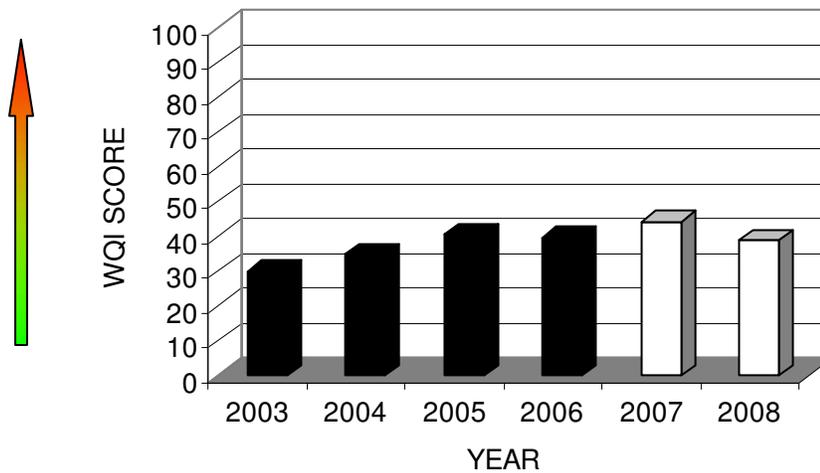
2007

Biological and Habitat Summary	
Number of Taxa	19
Diversity Index	2.05
RBP III Score	22
RBP III Condition	Slightly Impaired
Total Habitat Score	167
Habitat Condition Category	Excellent

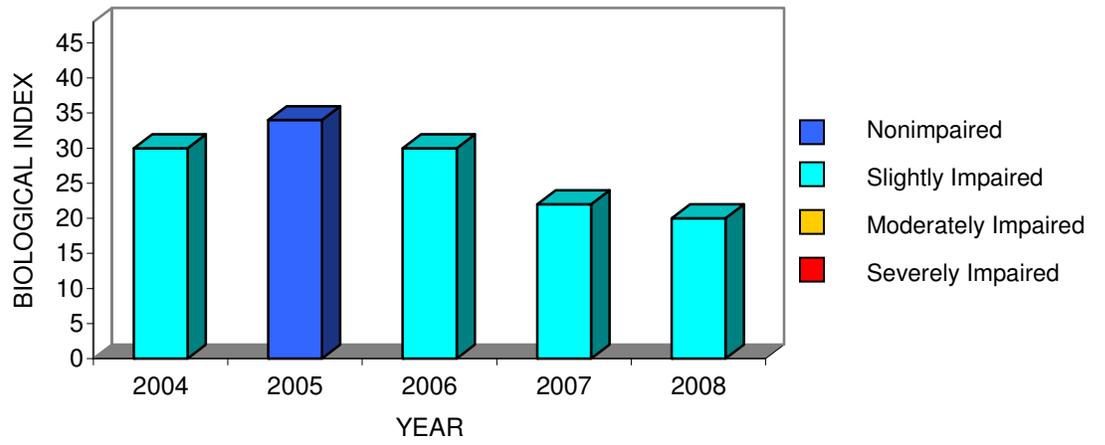
2008

Biological and Habitat Summary	
Number of Taxa	18
Diversity Index	1.90
RBP III Score	20
RBP III Condition	Slightly Impaired
Total Habitat Score	186
Habitat Condition Category	Excellent

Water Quality Index



Biological Index



Troups Creek at Austinburg, Pa. (TRUP 4.5)
Group 1



High February 2009 flows.



Troups Creek in May 2009.

Water Quality:

Total aluminum, total iron, and temperature exceeded water quality standards.

Biological Condition:

2007 Slightly Impaired
 2008 Slightly Impaired

Habitat Assessment:

2007 Supporting
 2008 Supporting

Trends:

Water quality and biological conditions remained the same in 2007 and 2008. Habitat rankings increased in numeric value, but remained classified as supporting.

Other Notes:

In 2004, a new wastewater treatment plant began operating in Troupsburg, N.Y., approximately five miles upstream of the interstate streams sampling site. This project decreased raw sewage and septic tank effluent discharges to Troups Creek and could improve water quality at TRUP 4.5 (NYSDEC, 2007).

The right descending bank of Troups Creek is highly erodible and noticeably recedes yearly due to undercutting. Instream cover and channel flow status are also poor at TRUP 4.5.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
TAI	10/17/2007	223 ug/l	100 ug/l	N.Y. aquatic (chronic)
TAI	2/14/2008	1030 ug/l	100 ug/l	N.Y. aquatic (chronic)
TFe	2/14/2008	856 ug/l	300 ug/l	N.Y. aquatic (chronic)
Temperature	7/22/2008	25.4° C	25.0° C	Pa. aquatic life

Date	WQI	Parameters Exceeding 90 th Percentile							
8/07/2007	45.9								
10/17/2007	42.9								
2/14/2008	41.2	DO							
5/21/2008	48.9	DO							
7/22/2008	32.0	TEMP							
10/28/2008	45.2								

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

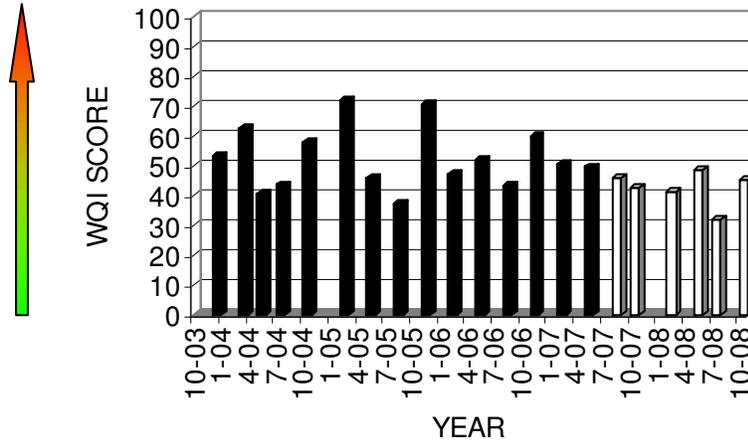
2007

Biological and Habitat Summary	
Number of Taxa	21
Diversity Index	2.07
RBP Score	24
RBP Condition	Slightly Impaired
Total Habitat Score	147
Habitat Condition Category	Supporting

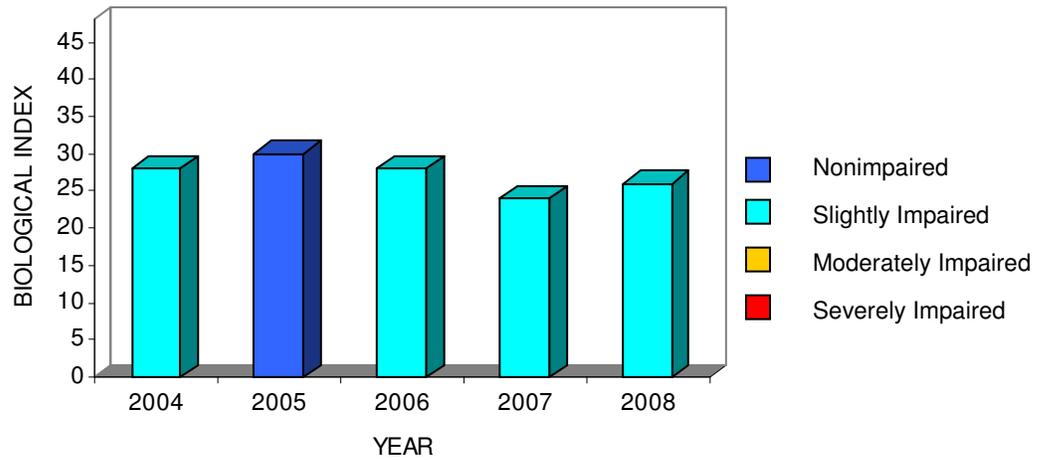
2008

Biological and Habitat Summary	
Number of Taxa	19
Diversity Index	2.06
RBP Score	26
RBP Condition	Slightly Impaired
Total Habitat Score	160
Habitat Condition Category	Supporting

Water Quality Index



Biological Index



Trowbridge Creek at Great Bend, Pa. (TROW 1.8)

Group 2



Water Quality:

Total aluminum, temperature, alkalinity, and pH exceeded water quality standards.

Biological Condition:

2007	Moderately Impaired
2008	Slightly Impaired

Habitat Assessment:

2007	Nonsupporting
2008	Nonsupporting

Trends:

No samples of any kind were taken at Trowbridge Creek in 2005 or 2006 due to dry conditions and dredging activity. During summer 2007 and 2008, TROW 1.8 possessed the best overall water quality (WQI value) of all New York Group 1 and 2 streams. Habitat, however, was rated nonsupporting in 2007 and 2008. After having a nonimpaired biological condition in 2004, TROW 1.8 was moderately impaired in 2007 with the worst bioassessment score of all New York Group 1 and 2 streams. TROW 1.8 rebounded slightly in 2008 to slightly impaired biological status.

Other Notes:

In 2007 and 2008, TROW 1.8 scored poor to marginal in nearly every habitat parameter, with especially poor conditions of banks, riparian buffers, and channel flow status.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
TAI	7/31/2007	261 ug/l	100 ug/l	N.Y. aquatic (chronic)
Temperature	7/31/2007	28.2° C	25.0° C	Pa. aquatic life
ALK	7/21/2008	18 mg/l	20 mg/l	Pa. aquatic life
pH	7/21/2008	8.8	6.5-8.5	N.Y. general
Temperature	7/21/2008	25.8° C	25.0° C	Pa. aquatic life

Date	WQI	Parameters Exceeding 90 th Percentile						
7/31/2007	34.1	TEMP						
7/21/2008	22.6	TEMP						

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

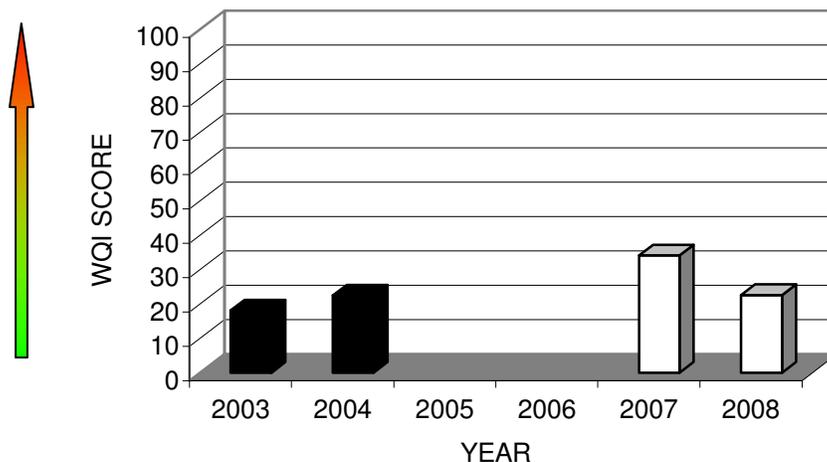
2007

Biological and Habitat Summary	
Number of Taxa	18
Diversity Index	1.41
RBP III Score	14
RBP III Condition	Moderately Impaired
Total Habitat Score	91
Habitat Condition Category	Nonsupporting

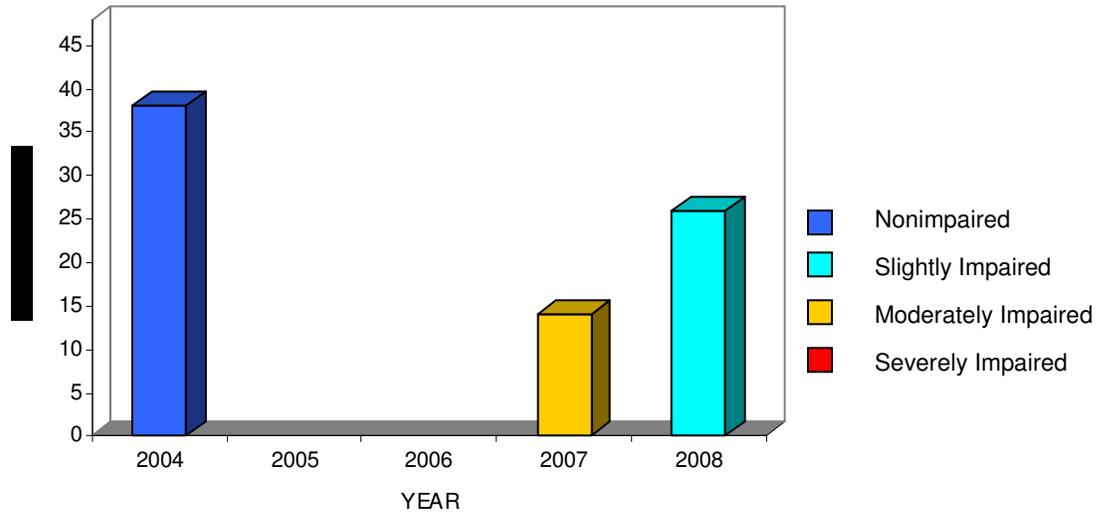
2008

Biological and Habitat Summary	
Number of Taxa	20
Diversity Index	2.20
RBP III Score	26
RBP III Condition	Slightly Impaired
Total Habitat Score	96
Habitat Condition Category	Nonsupporting

Water Quality Index



Biological Index



Wappasening Creek at Nichols, N.Y. (WAPP 2.6)

Group 2



Water Quality:

Total iron and temperature exceeded water quality standards.

Biological Condition:

2007	Nonimpaired
2008	Slightly Impaired

Habitat Assessment:

2007	Supporting
2008	Supporting

Trends:

Water quality remained stable from 2006 to 2007, but showed improvement in 2008. Temperature has become an issue at WAPP 2.6, with temperature exceeding acceptable limits the past two years. Biological condition, which was rated moderately impaired in 2006, rebounded to nonimpaired status in 2007, but declined again in 2008 to slightly impaired.

Other Notes:

The major flood of 2006 has drastically altered the stream channel at WAPP 2.6. Channel flow status is poor, with exposed cobble prevalent during summer base flow. In 2007 and 2008, staff noted that 75% of the channel was dry, with very little downstream flow and much pooled water. Instream cover has been practically eliminated.

Fish sampling will occur at Wappasening Creek in 2009.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
TFe	8/01/2007	366 ug/L	300 ug/l	N.Y. aquatic (general)
Temperature	8/01/2007	30.6° C	25.0° C	Pa. aquatic life
Temperature	7/22/2008	25.1° C	25.0° C	Pa. aquatic life

Date	WQ I	Parameters Exceeding 90 th Percentile						
8/01/2007	39.8	DO	TEMP					
7/22/2008	24.3							

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

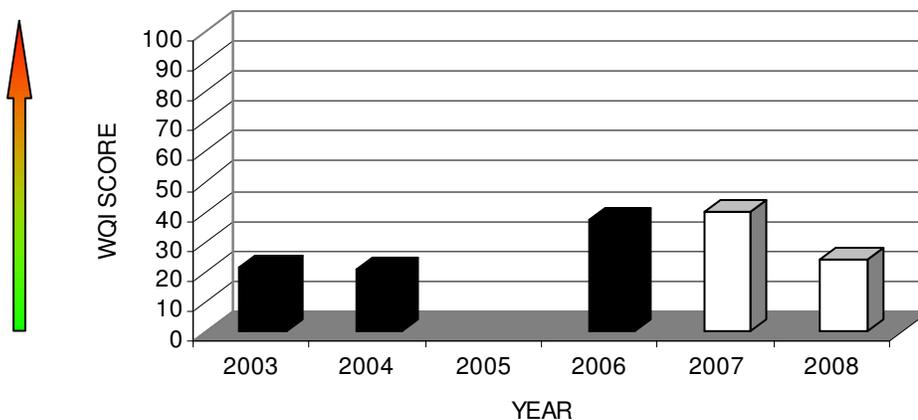
2007

Biological and Habitat Summary	
Number of Taxa	22
Diversity Index	2.45
RBP Score	32
RBP Condition	Nonimpaired
Total Habitat Score	136
Habitat Condition Category	Supporting

2008

Biological and Habitat Summary	
Number of Taxa	18
Diversity Index	2.34
RBP Score	30
RBP Condition	Slightly Impaired
Total Habitat Score	140
Habitat Condition Category	Supporting

Water Quality Index



Biological Index

