

## Site Results for Pennsylvania-Maryland Border Sites

### Big Branch Deer Creek at Fawn Grove, Pa. (BBDC 4.1)



**Water Quality:** No parameters exceeded water quality standards.

**Biological Condition:** Slightly Impaired

**Habitat Assessment:** Supporting

**Trends:** Water quality remained the same; habitat and biological conditions showed a slight decline from last year.

**Other Notes:** This site on Big Branch Deer Creek lacked sufficient instream cover, and the predominant substrate material was sand and silt.

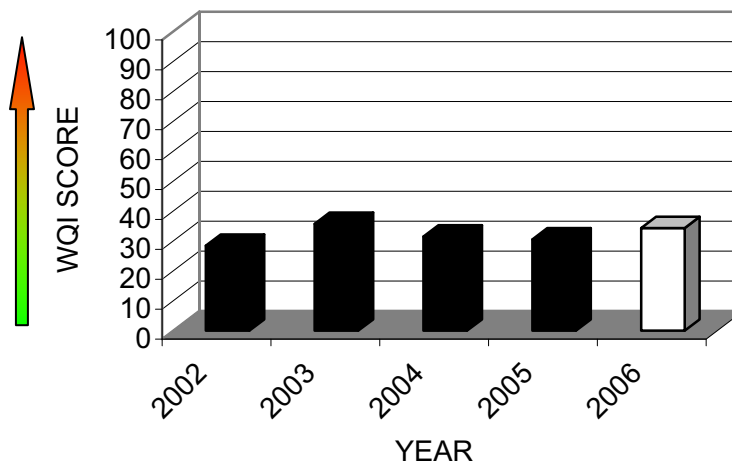
Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
None				

Date	WQI	Parameters Exceeding 90 <sup>th</sup> Percentile						
07/24/2006	34.3	None						

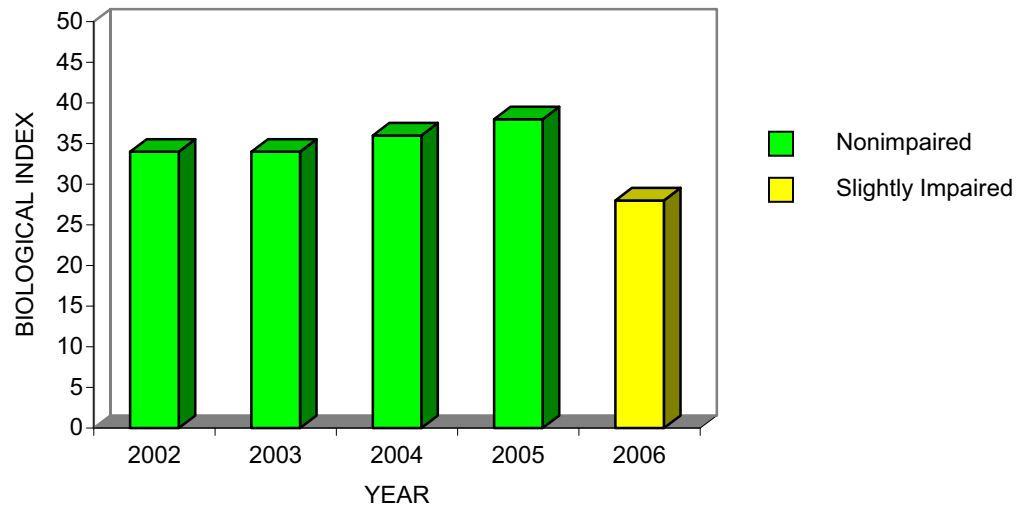
For information on the parameter abbreviations used above and data analysis procedures, go to [Methods](#).

Biological and Habitat Summary	
Number of Taxa	20
Diversity Index	2.13
RBP Score	28
RBP Condition	Slightly Impaired
Total Habitat Score	121
Habitat Condition Category	Supporting

**Water Quality Index**



**Biological Index**



**Conowingo Creek at Pleasant Grove, Pa. (CNWG 4.4)**



**Water Quality:** Nitrate plus Nitrite continued to exceed water quality parameters.

**Biological Condition:** Moderately Impaired

**Habitat Assessment:** Excellent

**Trends:** Water quality showed a slight decline, with the major problems still revolving around nitrogen and its compounds. Biological condition also was worse than last year, as it was downgraded to moderately impaired for the first time in the last five years. Habitat at this location remained ranked as excellent.

**Other Notes:** Bank conditions and riparian zone width were the primary habitat concerns noted by staff.

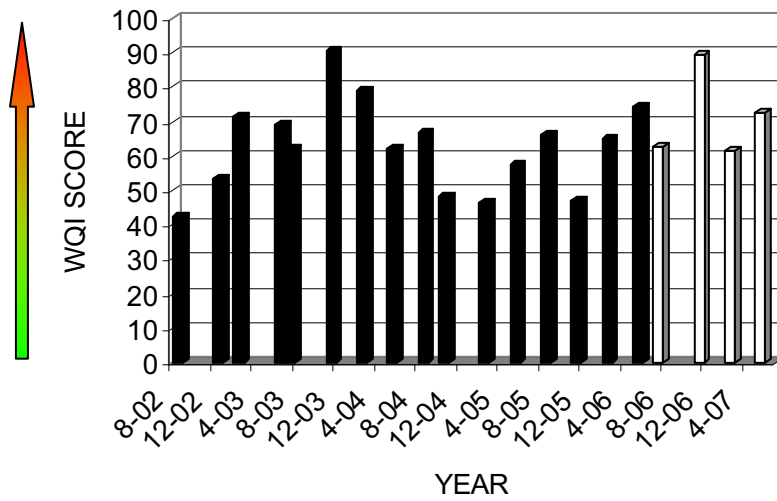
Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
Nitrate + Nitrite	07/25/2006	10.34 mg/l	10 mg/l	Pa. public water supply
Nitrate + Nitrite	05/10/2007	11.14 mg/l	10 mg/l	Pa. public water supply

Date	WQI	Parameters Exceeding 90 <sup>th</sup> Percentile							
07/25/2006	62.7	TNO3	TN	TURB	TS	TAI	CON D		
10/18/2006	89.5	TNO3	TN	TURB	TS	Tal	TFe	TP	TPO4
		TNH3	TOC	SS					
02/21/2007	61.7	TNO3	TN						
05/10/2007	72.5	TNO3	TN	TNO2	TS	COND	TNH3		

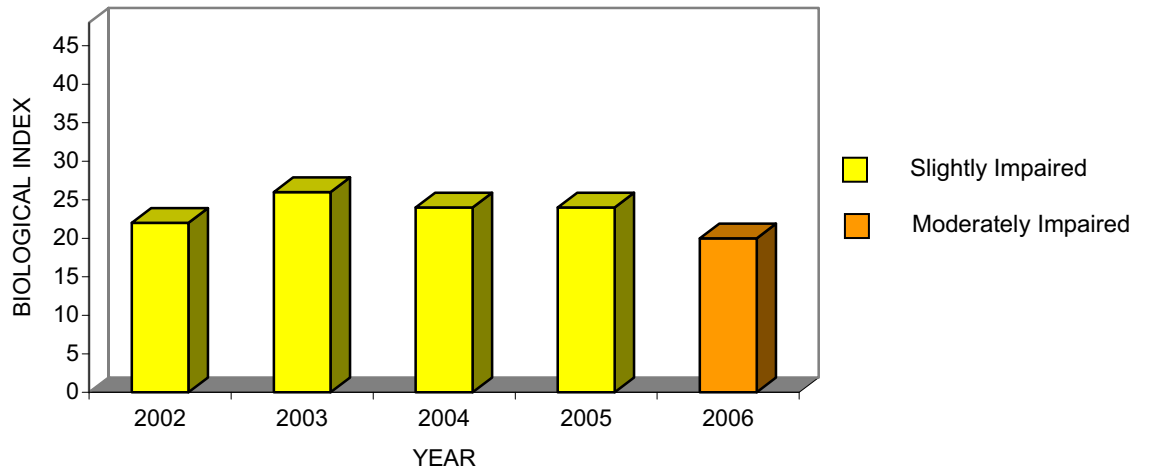
For information on the parameter abbreviations used above and data analysis procedures, go to [Methods](#).

Biological and Habitat Summary	
Number of Taxa	13
Diversity Index	1.55
RBP III Score	20
RBP III Condition	Moderately Impaired
Total Habitat Score	133
Habitat Condition Category	Excellent

### Water Quality Index



### Biological Index



**Deer Creek at Gorsuch Milles, Md. (DEER 44.2)**



**Water Quality:** No parameters exceeded water quality standards.

**Biological Condition:** Reference (Nonimpaired)

**Habitat Assessment:** Reference (Nonimpaired)

**Trends:** Water quality remained similar to last year. Habitat showed some improvement, and biological conditions remained nonimpaired, as they have been for the past five years.

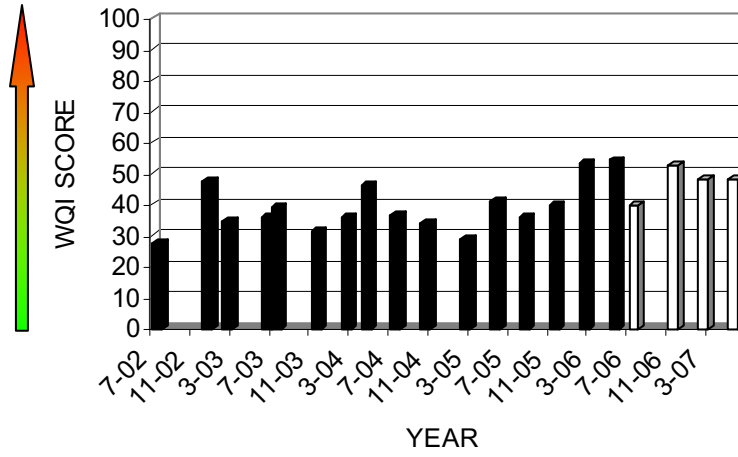
**Other Notes:** Deer Creek was used as a reference site this year, and as such, all other Pennsylvania-Maryland border sites were compared to the conditions here.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
None				

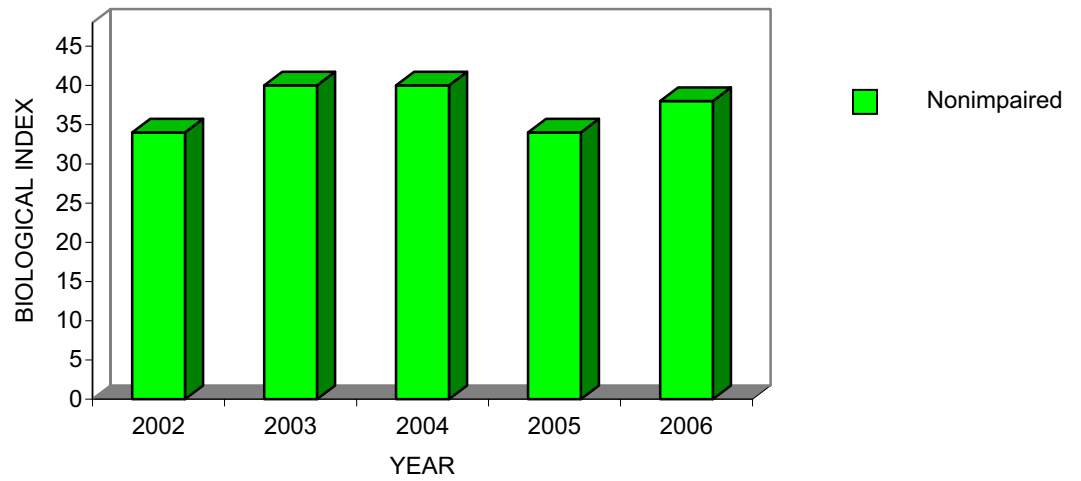
Date	WQI	Parameters Exceeding 90 <sup>th</sup> Percentile						
07/24/2006	39.6	TCI						
10/17/2006	52.5	TP	TPO4					
02/20/2007	47.9							
05/09/2007	48.2							

Biological and Habitat Summary	
Number of Taxa	26
Diversity Index	2.59
RBP Score	38
RBP Condition	Reference
Total Habitat Score	140
Habitat Condition Category	Reference

### Water Quality Index



### Biological Index



**Ebaughs Creek at Stewartstown, Pa. (EBAU 1.5)**



**Water Quality:** Total chlorine continues to be the only parameter that exceeds standards.

**Biological Condition:** Nonimpaired

**Habitat Assessment:** Excellent

**Trends:** Water quality and habitat conditions remained the same as last year. Biological condition improved to rank as nonimpaired for the first time in the last five years.

**Other Notes:** EBAU 1.5 is located downstream of the Stewartstown Treatment Plant.

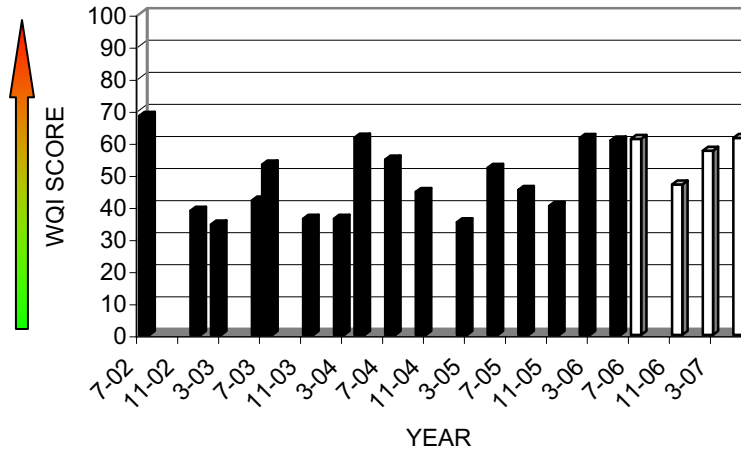
Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
TCln	07/24/2006	0.02 mg/l	0.019 mg/l	Md. aquatic life
TCln	02/20/2007	0.08 mg/l	0.019 mg/l	Md. aquatic life
TCln	05/10/2007	0.11 mg/l	0.019 mg/l	Md. aquatic life

Date	WQI	Parameters Exceeding 90 <sup>th</sup> Percentile						
07/24/2006	61.1	TNO2	TPO4	TCI				
10/17/2006	46.9							
02/20/2007	57.4	DO	TPO4					
05/09/2007	61.4	TP	TPO4					

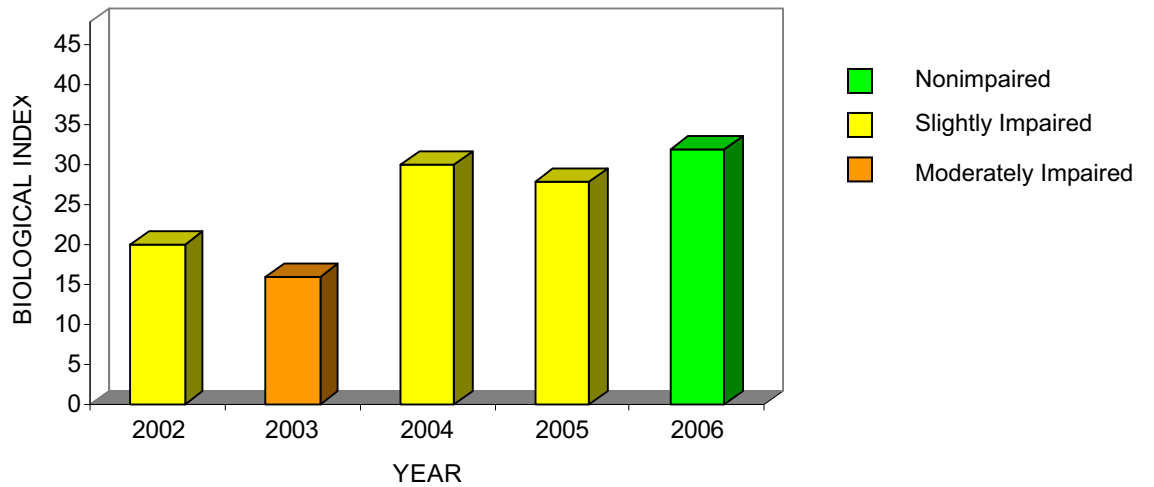
For information on the parameter abbreviations used above and data analysis procedures, go to [Methods](#).

Biological and Habitat Summary	
Number of Taxa	22
Diversity Index	2.42
RBP Score	32
RBP Condition	Nonimpaired
Total Habitat Score	133
Habitat Condition Category	Excellent

### Water Quality Index



### Biological Index



**Falling Branch Deer Creek at Fawn Grove, Pa. (FBDC 4.1)**



**Water Quality:** Alkalinity was the only parameter that did not meet water quality standards.

**Biological Condition:** Slightly Impaired

**Habitat Assessment:** Excellent

**Trends:** Biological conditions declined slightly from last year. Water quality and habitat remained the same.

**Other Notes:** Falling Branch Deer Creek was rated as having the best overall habitat conditions of all the Pennsylvania-Maryland border sites.

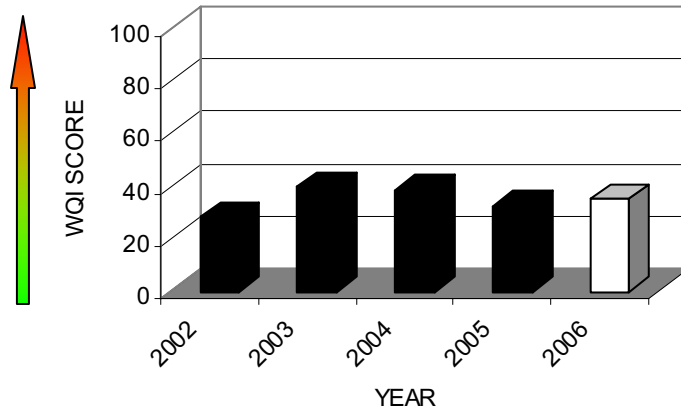
Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
ALK	07/24/2006	12 mg/l	20 mg/l	Pa. aquatic life

Date	WQI	Parameters Exceeding 90 <sup>th</sup> Percentile						
07/24/2006	35.3	None						

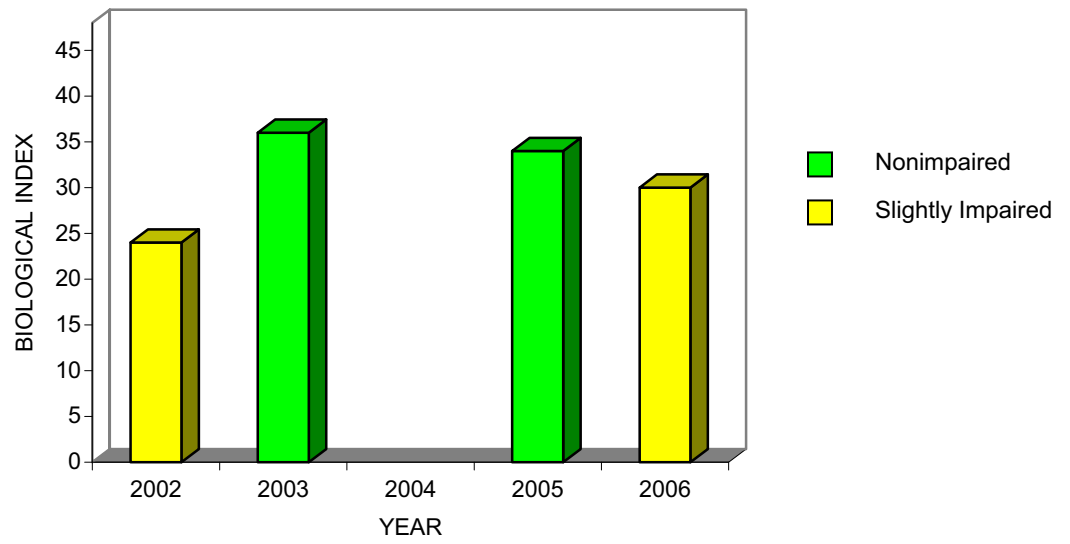
For information on the parameter abbreviations used above and data analysis procedures, go to [Methods](#).

Biological and Habitat Summary	
Number of Taxa	26
Diversity Index	2.49
RBP Score	30
RBP Condition	Slightly Impaired
Total Habitat Score	147
Habitat Condition Category	Excellent

**Water Quality Index**



**Biological Index**



**Long Arm Creek at Bandanna, Pa. (LNGA 2.5)**



**Water Quality:** No parameters exceeded water quality standards.

**Biological Condition:** Slightly Impaired

**Habitat Assessment:** Partially supporting

**Trends:** Biological condition was improved from last year. Water quality remained about the same, and habitat conditions declined from last year.

**Other Notes:** LNGA 2.5 was previously used as a cow pasture, but SRBC staff noted in July 2004 that there was no evidence of recent use as a pasture, and that the stream banks were re-vegetated. In 2006, staff again noted that the area was not being used as a pasture; however, overall habitat conditions were worse than in 2005.

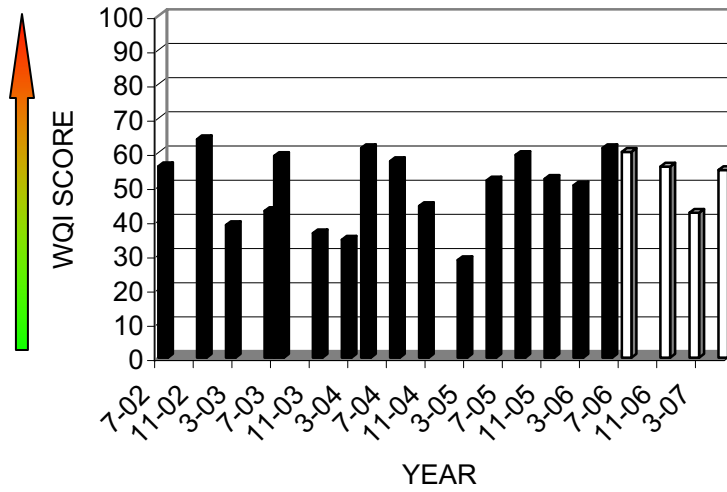
Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
None				

Date	WQI	Parameters Exceeding 90 <sup>th</sup> Percentile							
07/24/2006	60.2	TPO4	TURB	SS					
10/17/2006	55.9	TMn							
02/20/2007	42.4								
05/09/2007	54.9								

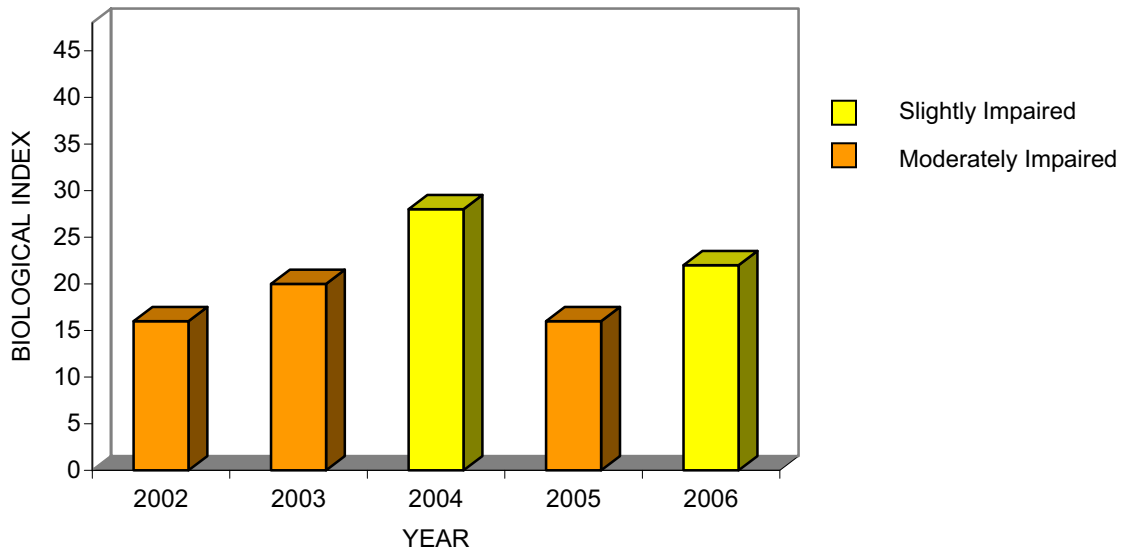
For information on the parameter abbreviations used above and data analysis procedures, go to [Methods](#).

Biological and Habitat Summary	
Number of Taxa	18
Diversity Index	1.89
RBP III Score	22
RBP III Condition	Slightly Impaired
Total Habitat Score	95
Habitat Condition Category	Partially Supporting

### Water Quality Index



### Biological Index



**Octoraro Creek at Rising Sun, Md. (OCTO 6.6)**



**Water Quality:** No parameters exceeded water quality standards.

**Biological Condition:** Slightly Impaired

**Habitat Assessment:** Excellent

**Trends:** Water quality conditions showed some improvement from last year, while habitat remained ranked as excellent. Biological conditions declined to slightly impaired after one year of being nonimpaired.

**Other Notes:** SRBC is currently working on a Total Maximum Daily Load (TMDL) for the Pennsylvania portion of Octoraro Creek.

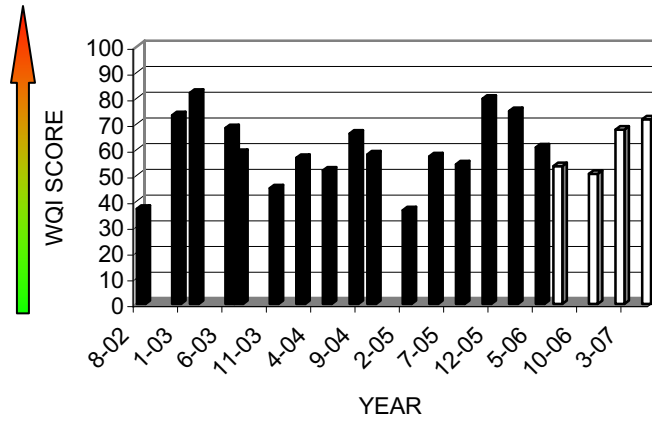
Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
None				

Date	WQI	Parameters Exceeding 90 <sup>th</sup> Percentile						
07/25/2006	53.6	COND						
10/18/2006	50.6							
02/21/2007	67.8	TP	TURB	TEMP				
05/10/2007	71.8	COND	TS	TOC	DO			

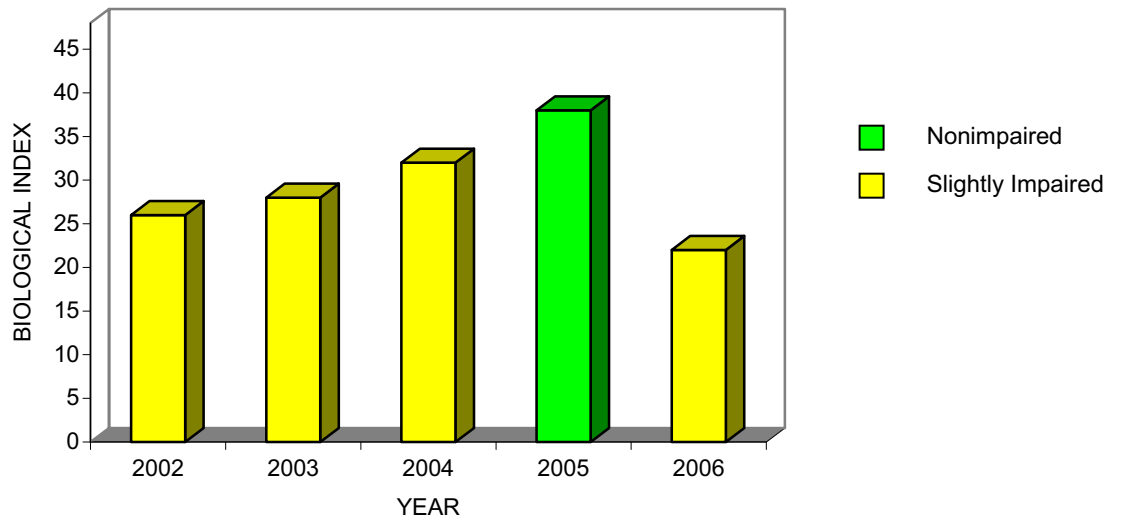
For information on the parameter abbreviations used above and data analysis procedures, go to [Methods](#).

Biological and Habitat Summary	
Number of Taxa	17
Diversity Index	1.63
RBP III Score	22
RBP III Condition	Slightly Impaired
Total Habitat Score	145
Habitat Condition Category	Excellent

### Water Quality Index



### Biological Index



**Scott Creek at Delta, Pa. (SCTT 3.0)**



**Water Quality:** Dissolved oxygen did not meet water quality standards.

**Biological Condition:** Slightly Impaired

**Habitat Assessment:** Supporting

**Trends:** Water quality remained about the same as last year. Biological conditions have improved considerably over the last 5 years.

**Other Notes:** Scott Creek is typically one of the most impaired sites on the Pennsylvania-Maryland border, but it has shown some improvement in recent years. PADEP released a cause and effect survey on Scott Creek in March 2007, which concluded that Scott Creek is failing to attain its fish and aquatic life uses near the Delta Borough sewage treatment plant discharge. The main concerns are nutrients, siltation, and flow variability.

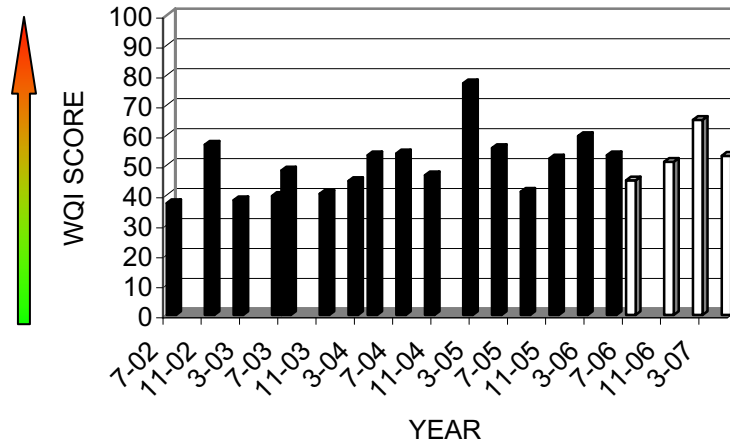
Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
DO	10/17/2006	4.88 mg/l	5.0 mg/l	Pa. aquatic life

Date	WQI	Parameters Exceeding 90 <sup>th</sup> Percentile							
07/25/2006	44.9								
10/17/2006	51.1	TS	TCI	DO	COND				
02/20/2007	65.1	TS	TCI	SS	COND				
05/09/2007	53.1	TS	TCI	COND					

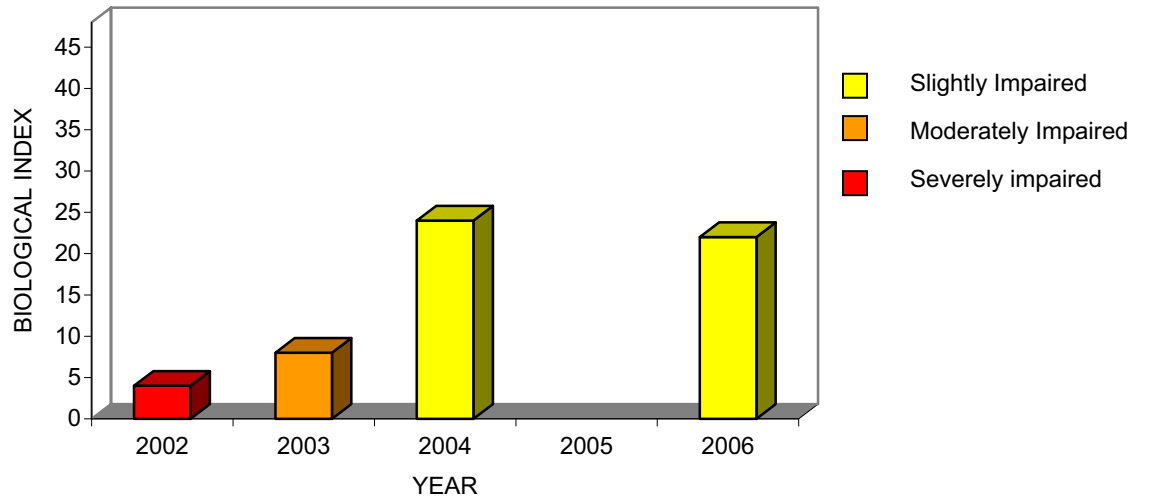
For information on the parameter abbreviations used above and data analysis procedures, go to [Methods](#).

Biological and Habitat Summary	
Number of Taxa	11
Diversity Index	1.76
RBP III Score	24
RBP III Condition	Slightly Impaired
Total Habitat Score	114
Habitat Condition Category	Supporting

### Water Quality Index



### Biological Index



**South Branch Conewago Creek at Bandanna, Pa. (SBCC 20.4)**



**Water Quality:** No parameters exceeded water quality standards.

**Biological Condition:** Slightly Impaired

**Habitat Assessment:** Excellent

**Trends:** Water quality, biology, and habitat all remained the same as last year.

**Other Notes:** Conditions of banks and sediment deposition were the main habitat concerns in this section of South Branch Conewago Creek.

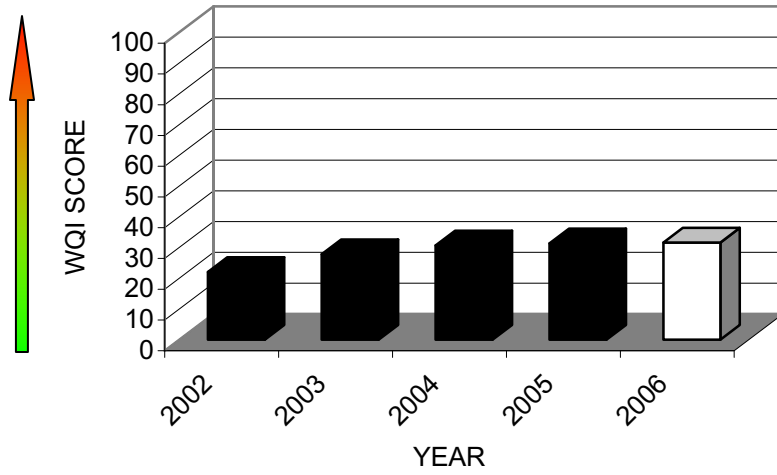
Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
None				

Date	WQI	Parameters Exceeding 90 <sup>th</sup> Percentile							
07/24/206	31.6								

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

Biological and Habitat Summary	
Number of Taxa	24
Diversity Index	2.35
RBP III Score	32
RBP III Condition	Slightly Impaired
Total Habitat Score	141
Habitat Condition Category	Excellent

**Water Quality Index**



**Biological Index**

