

Pennsylvania- Maryland Border Streams

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



Water Quality: No parameters exceeded water quality standards.

Biological Condition: Reference (Nonimpaired)

Habitat Assessment: Reference (Excellent)

Trends: Water quality, biological condition, and physical habitat remained the same over the last year.

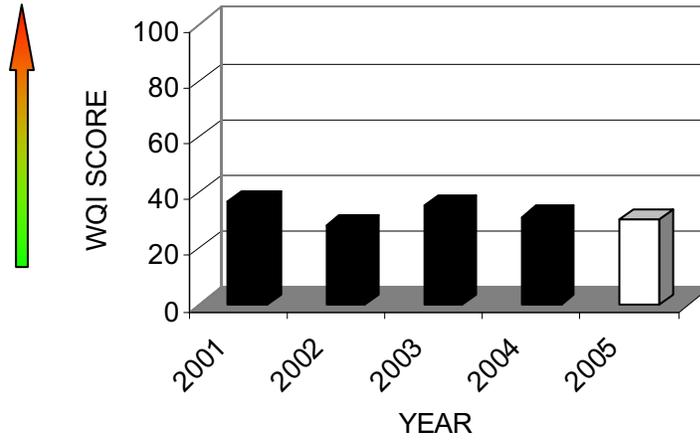
Other Notes: Big Branch Deer Creek was used as the reference site to which all the other Pennsylvania-Maryland border streams were compared.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
None				

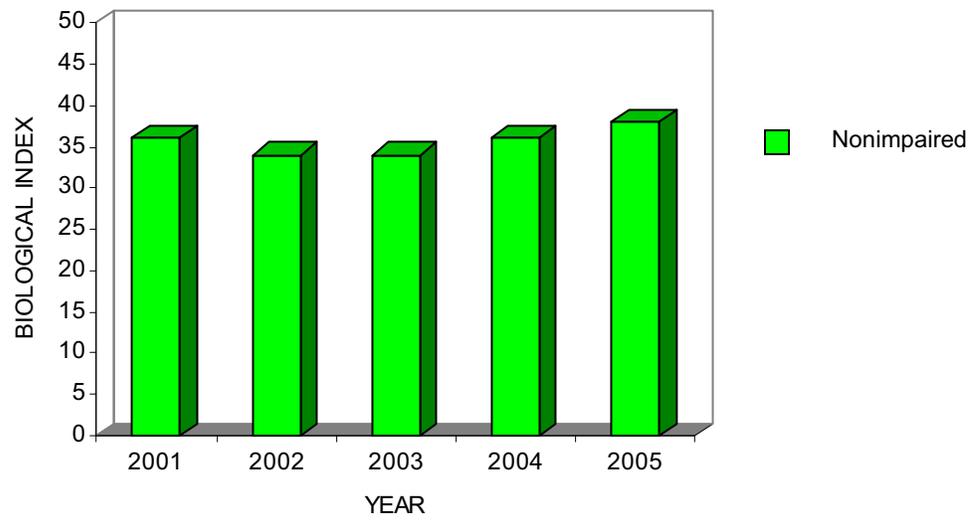
Date	WQI	Parameters Exceeding 90 th Percentile						
08/17/2005	30.5	None						

Biological and Habitat Summary	
Number of Taxa	21
Diversity Index	2.45
RBP Score	38
RBP Condition	Reference
Total Habitat Score	143
Habitat Condition Category	Reference

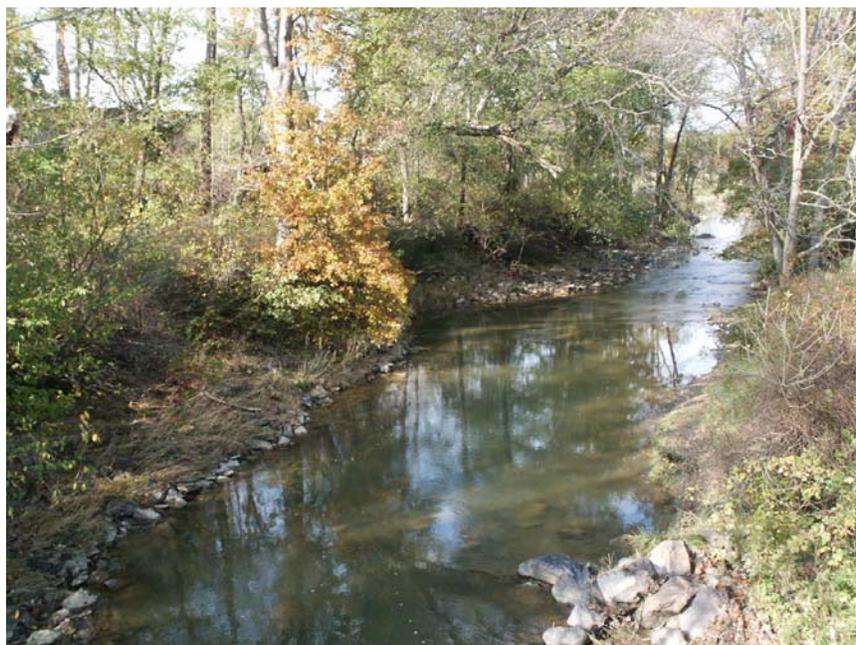
Water Quality Index



Biological Index



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



Water Quality: Nitrate plus nitrite exceeded water quality standards.

Biological Condition: Slightly impaired

Habitat Assessment: Excellent

Trends: Water quality remained about the same, as did biological condition and physical habitat over the past year.

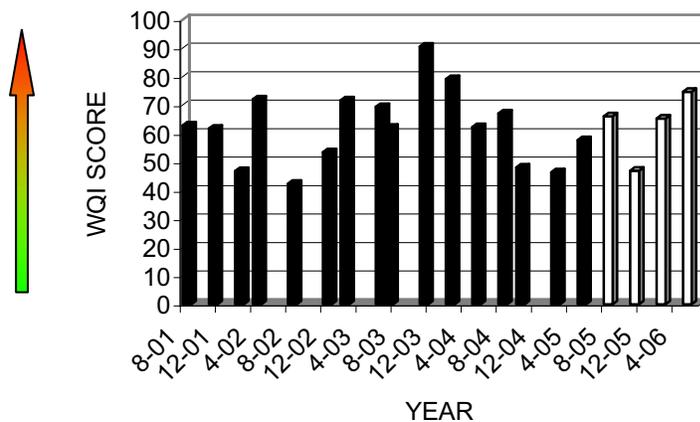
Other Notes: Staff noted poor riparian vegetative habitat at this sampling location.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
Nitrate + Nitrite	11/08/2005	11.29 mg/l	10 mg/l	Pa. public water supply
Nitrate + Nitrite	03/01/2006	12.24 mg/l	10 mg/l	Pa. public water supply
Nitrate + Nitrite	05/03/2006	11.54 mg/l	10 mg/l	Pa. public water supply

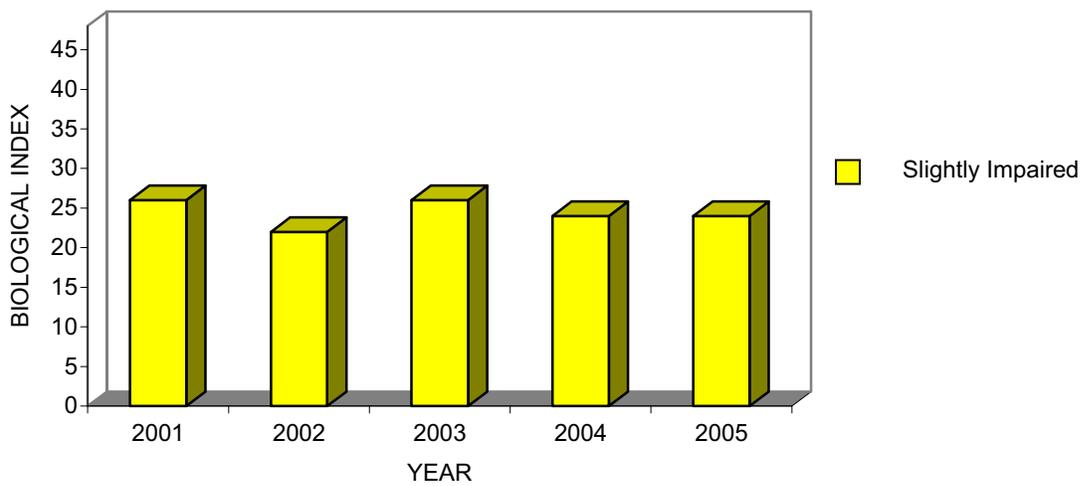
Date	WQI	Parameters Exceeding 90 th Percentile							
08/18/2005	66.1								
11/08/2005	47.0	TS	TNO3	TN					
03/01/2006	65.3	TNO3	TAI	TN	DO	TEMP			
05/03/2006	74.7	TFe	TS	TNO3	TAI	TN	DO	COND	SS

Biological and Habitat Summary	
Number of Taxa	13
Diversity Index	2.05
RBP III Score	24
RBP III Condition	Slightly Impaired
Total Habitat Score	144
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: Nonimpaired

Habitat Assessment: Supporting

Trends: Water quality showed a slight decline since last year with higher WQI scores, biological condition remained nonimpaired but habitat ranking fell to supporting.

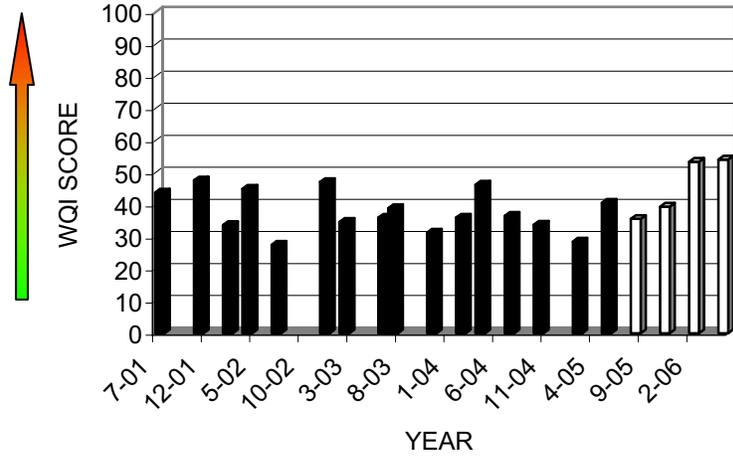
Other Notes: The macroinvertebrate community at this site has been rated nonimpaired for five consecutive years.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
None				

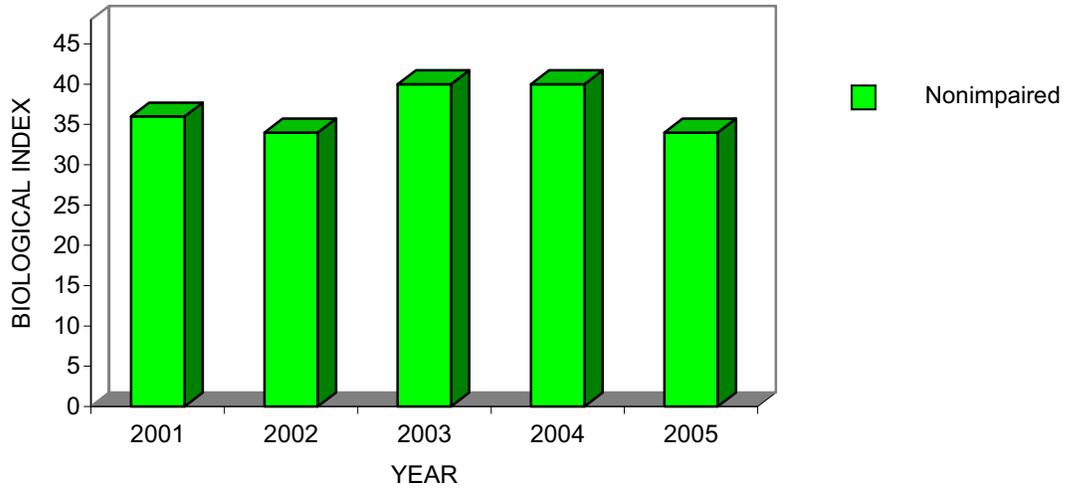
Date	WQI	Parameters Exceeding 90 th Percentile							
08/17/2005	35.7	None							
10/26/2005	39.5	None							
02/28/2006	53.5	DO	SS						
05/02/2006	54.2	TAI	DO						

Biological and Habitat Summary	
Number of Taxa	26
Diversity Index	2.63
RBP Score	34
RBP Condition	Nonimpaired
Total Habitat Score	125
Habitat Condition Category	Supporting

Water Quality Index



Biological Index



Ebaughs Creek at Stewartstown, Pa. (EBAU 1.5)



Water Quality: Chlorine exceeded water quality standards.

Biological Condition: Slightly impaired

Habitat Assessment: Excellent

Trends: Water quality, biological condition, and physical habitat all remained the same as they were in 2004-2005.

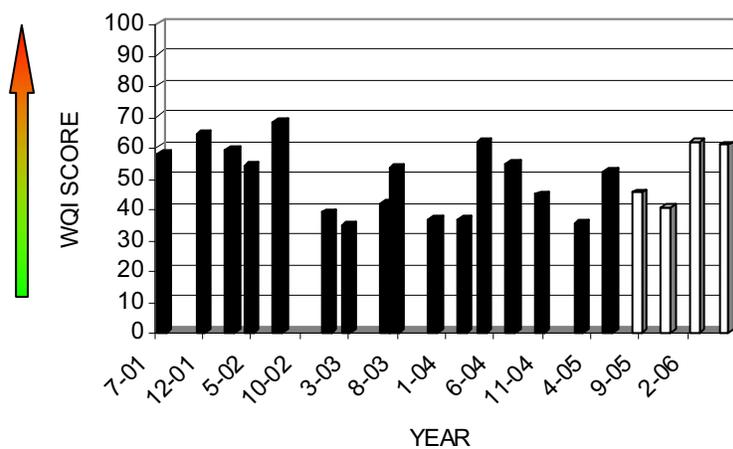
Other Notes: EBAU 1.5 is located downstream of the Stewartstown Treatment Plant.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
TCln	08/17/2005	0.06 mg/l	0.019 mg/l	Md. aquatic life
TCln	10/26/2005	0.06 mg/l	0.019 mg/l	Md. aquatic life
TCln	05/02/2006	0.02 mg/l	0.019 mg/l	Md. aquatic life

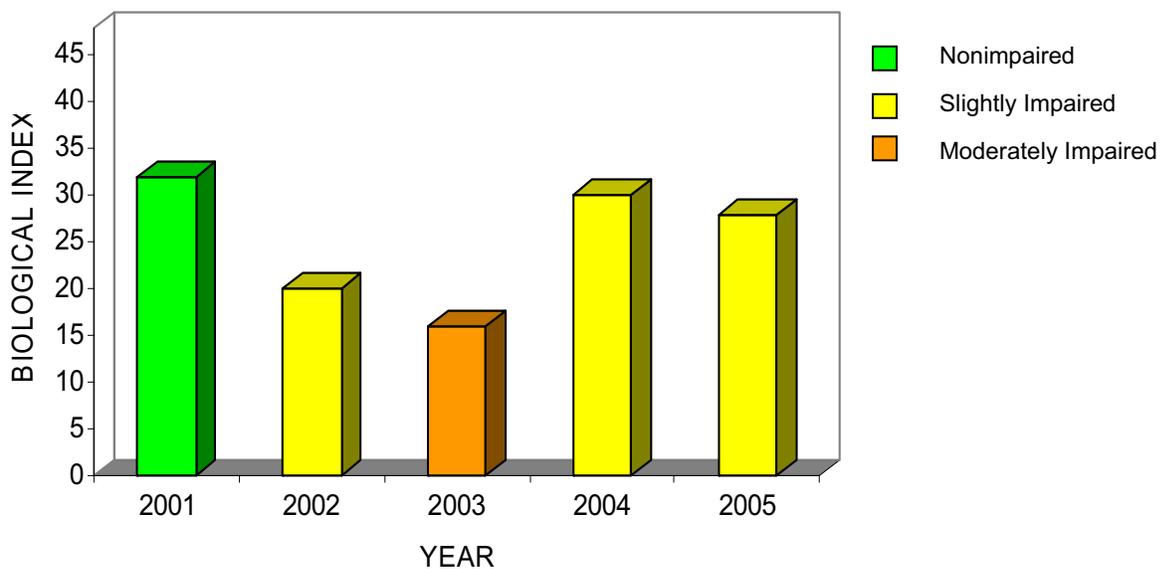
Date	WQI	Parameters Exceeding 90 th Percentile						
08/17/2005	45.2	None						
10/26/2005	40.2	None						
02/28/2006	61.4	TAI	DO	SS				
05/02/2006	60.6	TNO2	TURB	TAI				

Biological and Habitat Summary	
Number of Taxa	19
Diversity Index	2.0
RBP Score	26
RBP Condition	Slightly impaired
Total Habitat Score	161
Habitat Condition Category	Excellent

Water Quality Index



Biological Index



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



Water Quality: Alkalinity exceeded water quality standards.

Biological Condition: Nonimpaired

Habitat Assessment: Excellent

Trends: Water quality improved slightly, habitat remained excellent, and there was no macroinvertebrate sample collected last year.

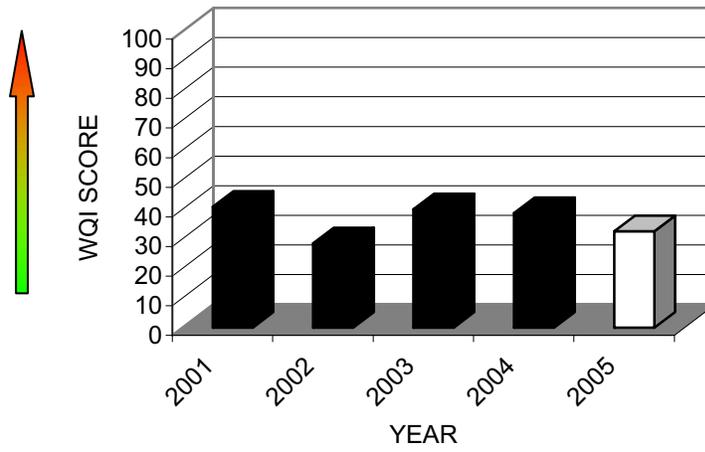
Other Notes: Staff noted excellent instream cover and vegetative protective bank cover at this sampling site.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
ALK	08/17/2005	14 mg/l	20 mg/l	Pa. aquatic life

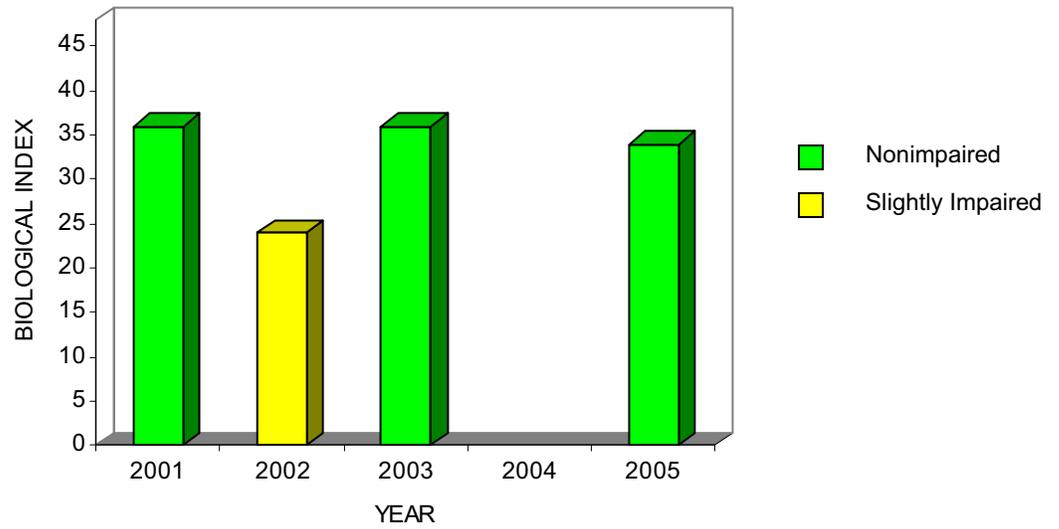
Date	WQI	Parameters Exceeding 90 th Percentile						
08/17/2005	32.5	None						

Biological and Habitat Summary	
Number of Taxa	26
Diversity Index	2.63
RBP Score	34
RBP Condition	Nonimpaired
Total Habitat Score	153
Habitat Condition Category	Excellent

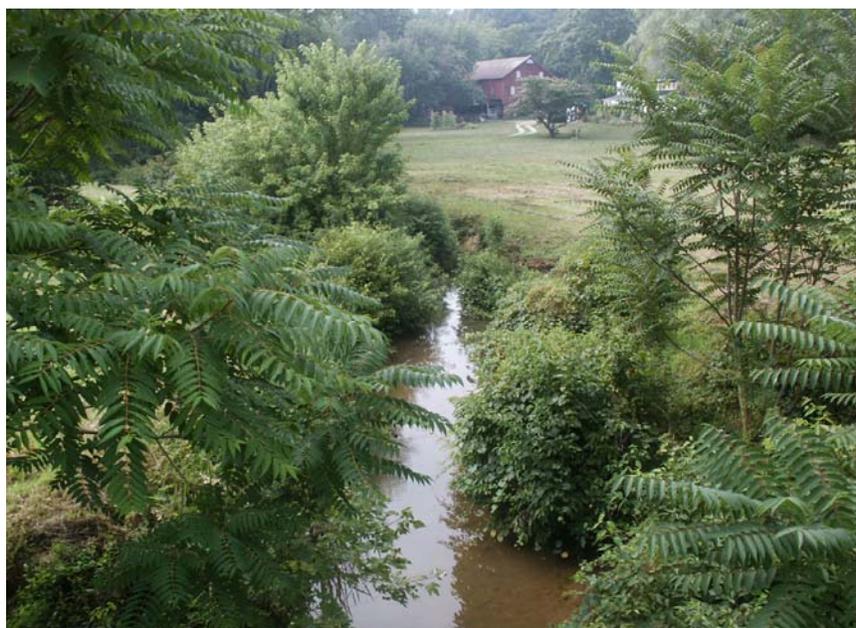
Water Quality Index



Biological Index



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



Water Quality: At LNGA 2.5, pH exceeded the water quality standard.

Biological Condition: Moderately impaired

Habitat Assessment: Supporting

Trends: Water quality and biological condition both showed a decline from 2004-2005; however, there was some improvement in habitat score.

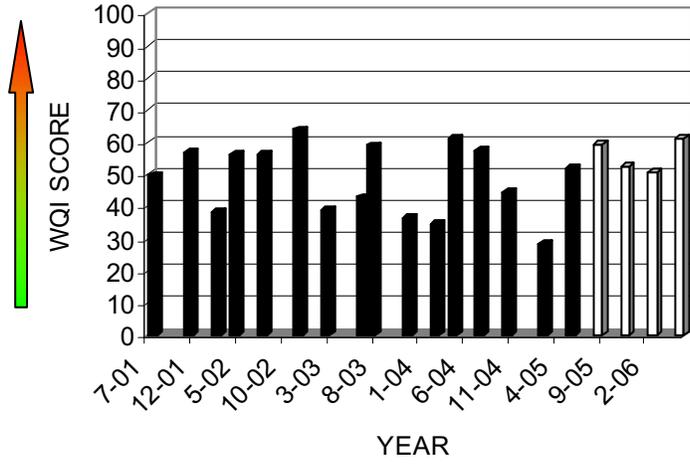
Other Notes: LNGA 2.5 was previously used as a cow pasture, but SRBC staff noted in July 2004 that there was no evidence that the area surrounding the sampling station had been used as a pasture recently and that the stream banks were re-vegetated. In 2005, staff noted that the old cow pasture continued to grow up well and conditions were improving.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
pH	10/26/2005	6.0	6.5-8.5	Pa. drinking water supply

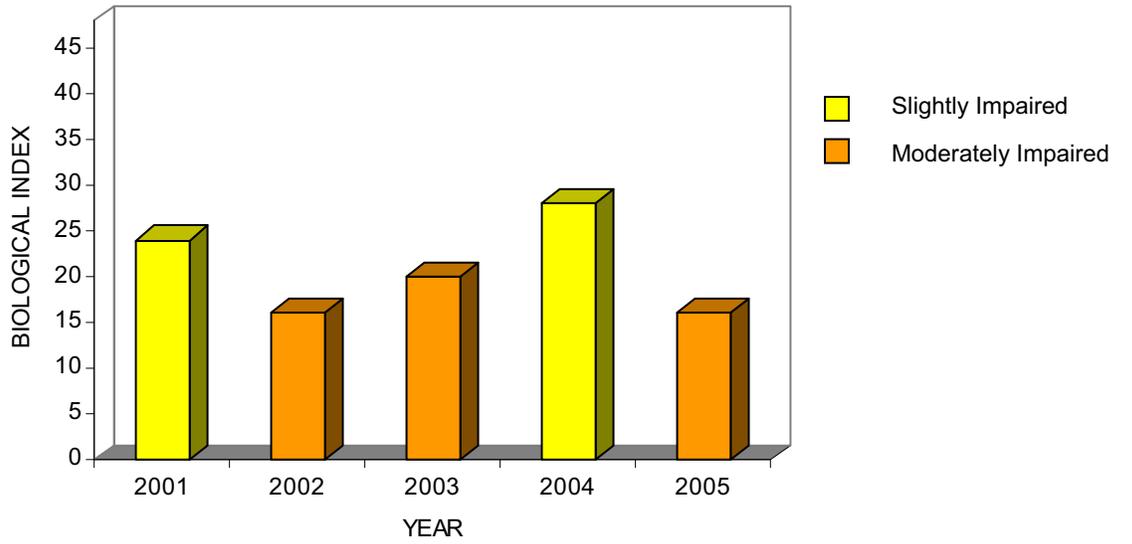
Date	WQI	Parameters Exceeding 90 th Percentile							
08/17/2005	59.3	TFe	TURB	TAI	TMn	SS			
10/26/2005	52.3	None							
02/28/2006	50.4	TAI	DO						
05/02/2006	61.3	TP	TPO4	TAI	DO				

Biological and Habitat Summary	
Number of Taxa	15
Diversity Index	1.76
RBP III Score	16
RBP III Condition	Moderately impaired
Total Habitat Score	124
Habitat Condition Category	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: Nonimpaired

Habitat Assessment: Excellent

Trends: Water quality declined slightly over the past year, biological condition showed improvement, and physical habitat remained excellent.

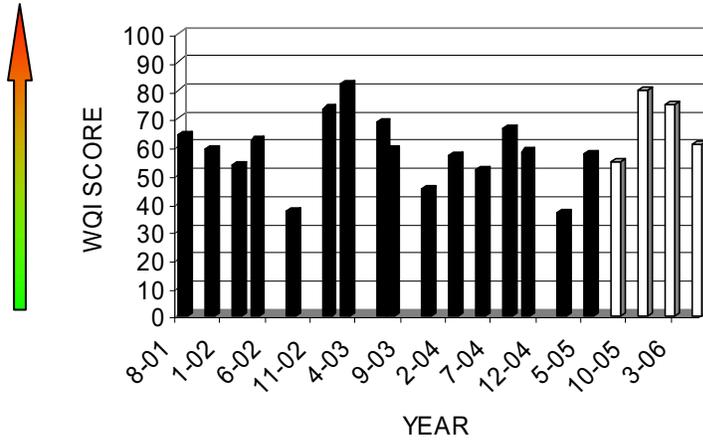
Other Notes: Staff noted that Octoraro Creek at this location had excellent habitat for macroinvertebrates and fish.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
None				

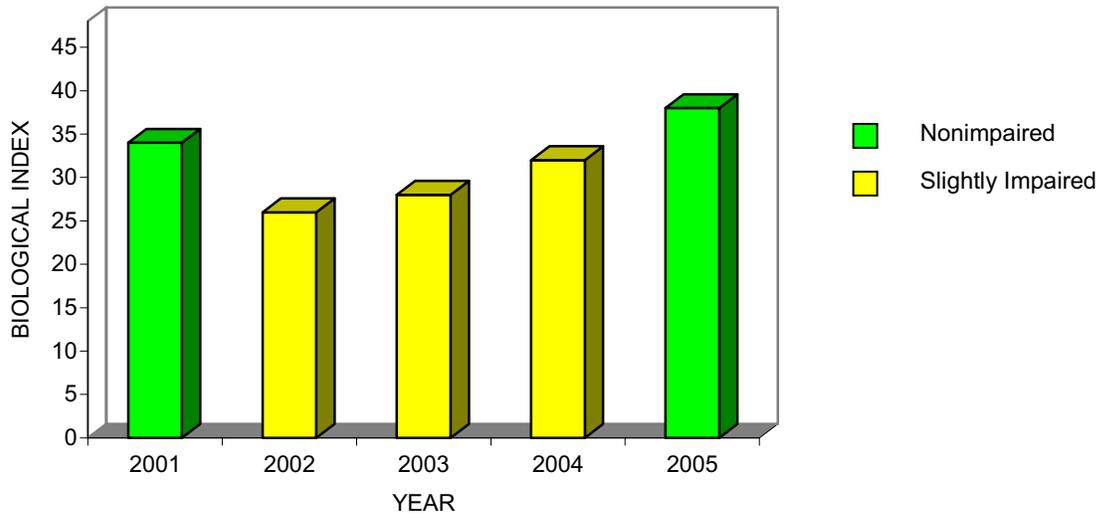
Date	WQI	Parameters Exceeding 90 th Percentile							
08/18/2005	54.3	None							
10/26/2005	79.8	TFe	TNO2	TP	TPO4	TURB	TAI	TMn	TOC
03/01/2006	75.0	TP	TPO4	TAI	TOC	DO			
05/03/2006	60.9	TS	TAI	DO	COND	TEMP			

Biological and Habitat Summary	
Number of Taxa	21
Diversity Index	2.41
RBP III Score	38
RBP III Condition	Nonimpaired
Total Habitat Score	171
Habitat Condition Category	Excellent

Water Quality Index



Biological Index



Scott Creek at Delta, Pa. (SCTT 3.0)

Water Quality: No parameters exceeded water quality standards.

Biological Condition: NA

Habitat Assessment: NA

Trends: Water quality showed some improvement over the last year. Macroinvertebrate collection and habitat assessment were not completed at this site in 2005 due to very low flow conditions.

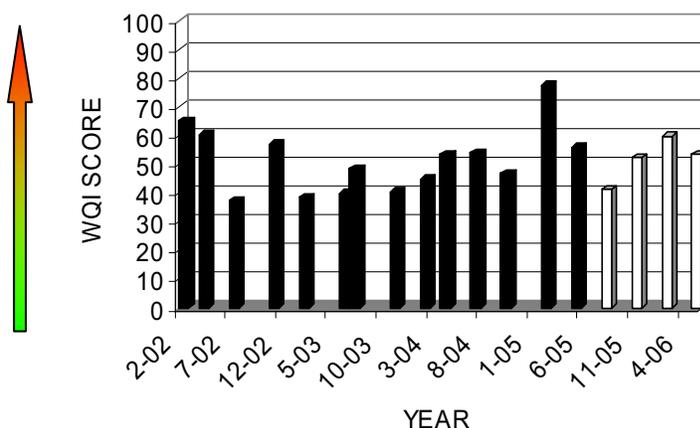
Other Notes: Scott Creek is typically one of the most impaired sites on the Pennsylvania-Maryland border but it has shown some improvement in recent years.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
None				

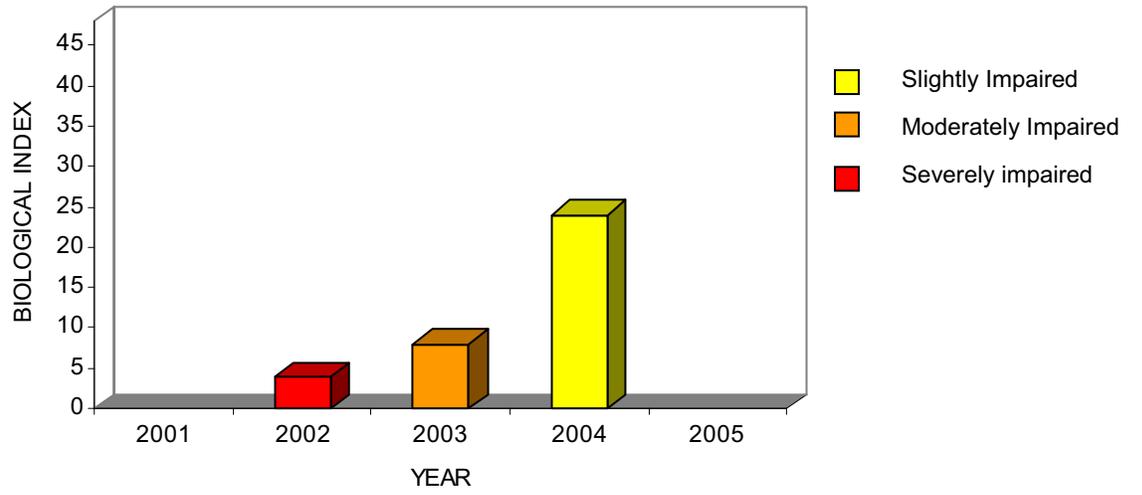
Date	WQI	Parameters Exceeding 90 th Percentile							
08/18/2005	41.1	None							
10/26/2005	52.2	TSO4	COND	TCI					
03/01/2006	59.7	TPO4	TAI	TCI	DO	TEMP			
05/02/2006	53.3	TAI	TCI	DO	COND				

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

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, biological condition, and habitat assessment were all consistent with last year's sampling results.

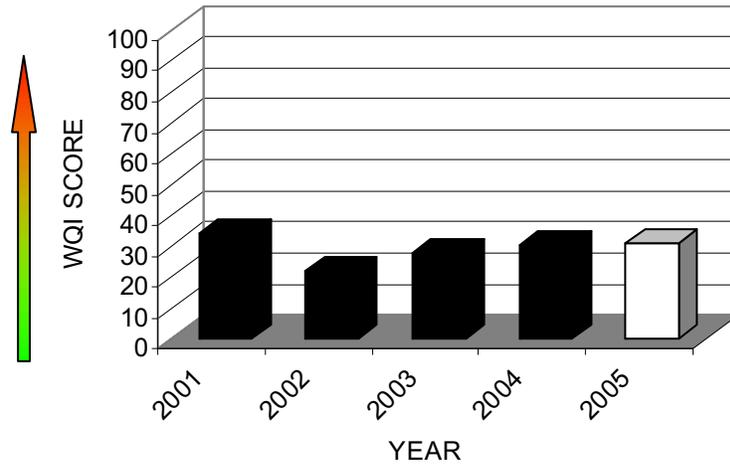
Other Notes: Staff noted a large amount of sediment deposition at this site as well as the presence of eroding bank conditions.

Parameters Exceeding Standards				
Parameter	Date	Value	Standard	State
None				

Date	WQI	Parameters Exceeding 90 th Percentile						
08/17/2005	31.3	None						

Biological and Habitat Summary	
Number of Taxa	19
Diversity Index	2.32
RBP III Score	30
RBP III Condition	Slightly Impaired
Total Habitat Score	131
Habitat Condition Category	Excellent

Water Quality Index



Biological Index

