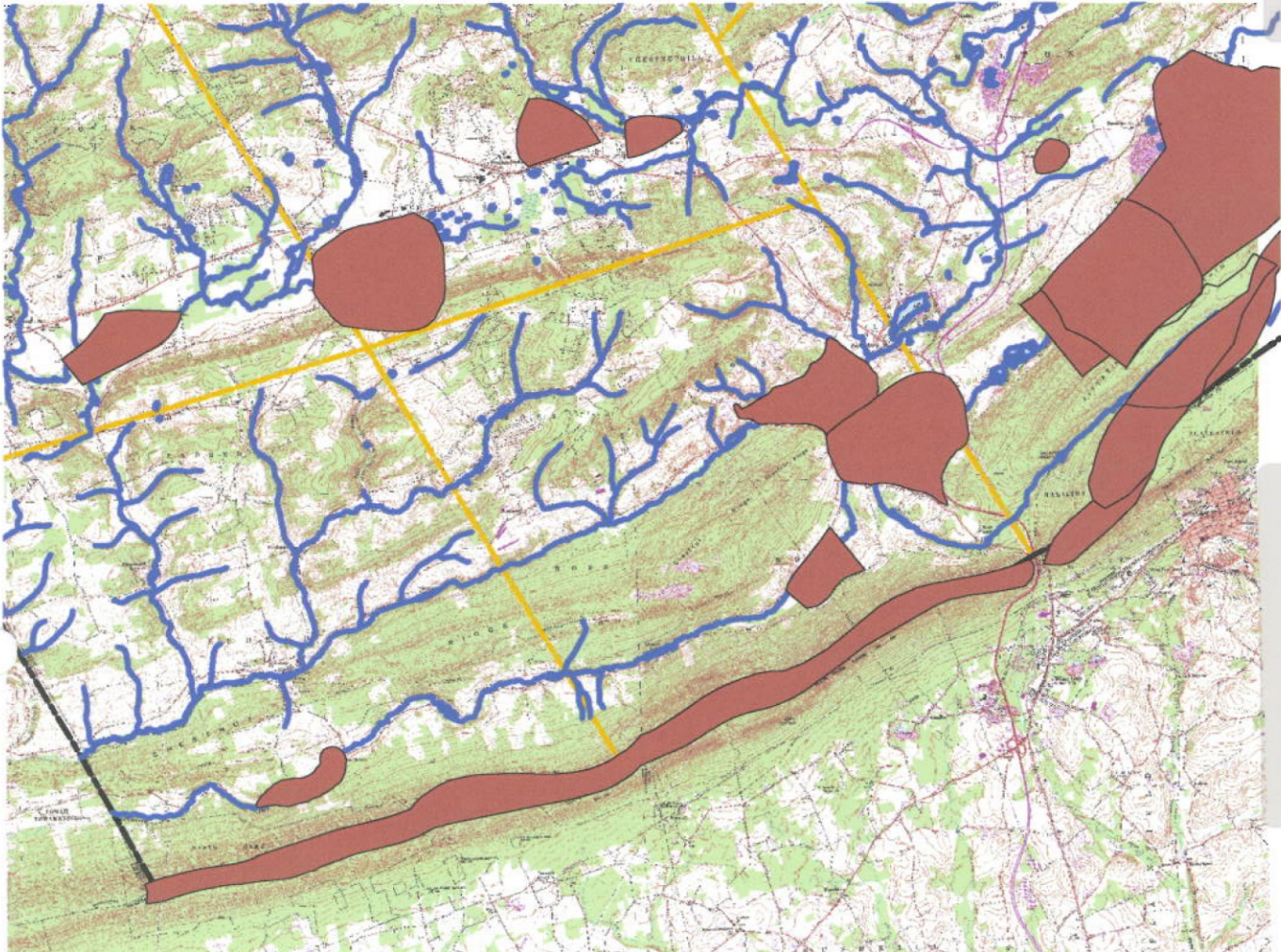
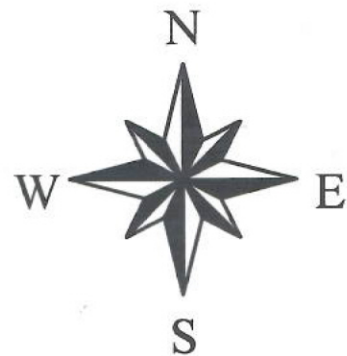


Monroe County Natural Areas Inventory (overview map)



3 0 3 6 Miles

-  County Natural Areas Inventory Site
-  Water Features
-  County Bounds
-  Municipal Bounds



A NATURAL AREAS INVENTORY
OF MONROE COUNTY, PENNSYLVANIA
Update -- 1999

Submitted to:
The Monroe County Planning Commission
Monroe County Courthouse
Middletown, PA 17057

Pennsylvania Science Office
of
The Nature Conservancy
208 Airport Drive
Middletown, Pennsylvania 17057

INTRODUCTION

These data are supplementary to the Monroe County Natural Areas Inventory (NAI) completed in 1991. Included are new findings of species of special concern and natural communities in the county since the time of the NAI. There are also updates on species and communities (elements) reported in the original document. In some cases the site quality rank has changed and /or the state rarity rank (S rank) has changed, or additional species of concern have been identified at sites listed in the original report.

The format of this update follows that of the Monroe County NAI Report, and the reader is referred to that document for a summary of the Natural Areas identified in the county as well as for an explanation of the ranks and codes contained in this update. The Summary and Recommendations reviews the importance and conservation status of the six top priority sites for conservation identified in the original NAI report. These sites still represent the most critical sites for maintaining ecological diversity in Monroe County. Table 1 of the update lists each of the new or updated sites in order of priority for conservation, compared to all NAI sites identified in the county. Following Table 1 the update is arranged alphabetically by USGS quadrangle map. The corresponding page number from the original NAI is given for each USGS quadrangle table. Each table provides the global and state rarity ranks, state legal status, site quality, and the date last observed for each element. Following the table is a brief narrative for each site, noting whether it is a NEW occurrence or an UPDATE.

Sections of USGS maps accompany the map tables, showing the location of each NEW site only. The area outlined on the maps represents the species' locations as well as the watershed or subwatershed area where the elements (species or natural communities) are located. Proposed development activities within the encircled areas should be carefully assessed to determine the impact of the project on the species or communities before approval is granted. Consultation with the biologists of the Pennsylvania Science Office of The Nature Conservancy may be necessary to assess potential impacts.

These maps can be transcribed onto the original maps produced for the 1991 NAI. The new site boundaries are also included in GIS format on the enclosed disk. These boundaries are included as polygons in an Arc-View file titled "monrpoly.shp". The USGS quadrangle, township, and associated elements for each polygon are included in this file. The text of this report is saved to an MS-Word file titled "monupd.doc". Questions about this update or the original NAI can be directed to Aura Stauffer, assistant ecologist, or Richard Ring, Natural Areas Inventory Coordinator, at the address on the title page.

County Rank ¹	Site Name or Code (municipality)	USGS Topo. Map	TNC and Ranks ² , Importance and Recommendations
1	Cherry Creek Valley UPDATE / NEW	Saylorsburg Stroudsburg	The site was revisited from 1994-1999. Five plant species of concern were still observed at the "Cherry Creek Fen Site." Three new populations of plant species of concern and two populations of a PA Endangered animal species were identified in the same watershed. These areas combined make up "Cherry Creek Valley;" one of the most important sites for conservation in the state. Threats include invasion by aggressive plant species (e.g., cattails).
2	Two Mile Run Swamp UPDATE	Blakeslee	Two plant species of concern were monitored in 1992. The population of a State Rare rush (SP549) is still marginal, and the Pennsylvania Endangered sedge (SP565) population was still ranked as "good." The biggest threat to the sedges is disturbance by ATVs. No threats to the rush population were identified.
2	Tannersville Cranberry Bog UPDATE	Mount Pocono	This site was revisited in 1992. A good populations of a PA Rare plant species (SP507) was found still growing at the site. Two new records of plant species of concern (SP530 a and b) were identified during the field visit. SP530a is a marginal population. Additional surveys are needed to the size and condition of SP530b. The greatest threat to the site appears to be natural succession.
2	Big Offset Barren UPDATE	Saylorsburg Wind Gap	A good to marginal quality population of a State Endangered plant species (SP517) was revisited in 1993 and 1997. The population seems to be doing well and the growth of the plants was vigorous.
3	Pocono Lake Preserve Site UPDATE	Blakeslee	This site was revisited in 1993. A new population of a State Rare plant (SP566) was found south of Pocono Lake. There are no apparent threats to this population and no special management is needed.

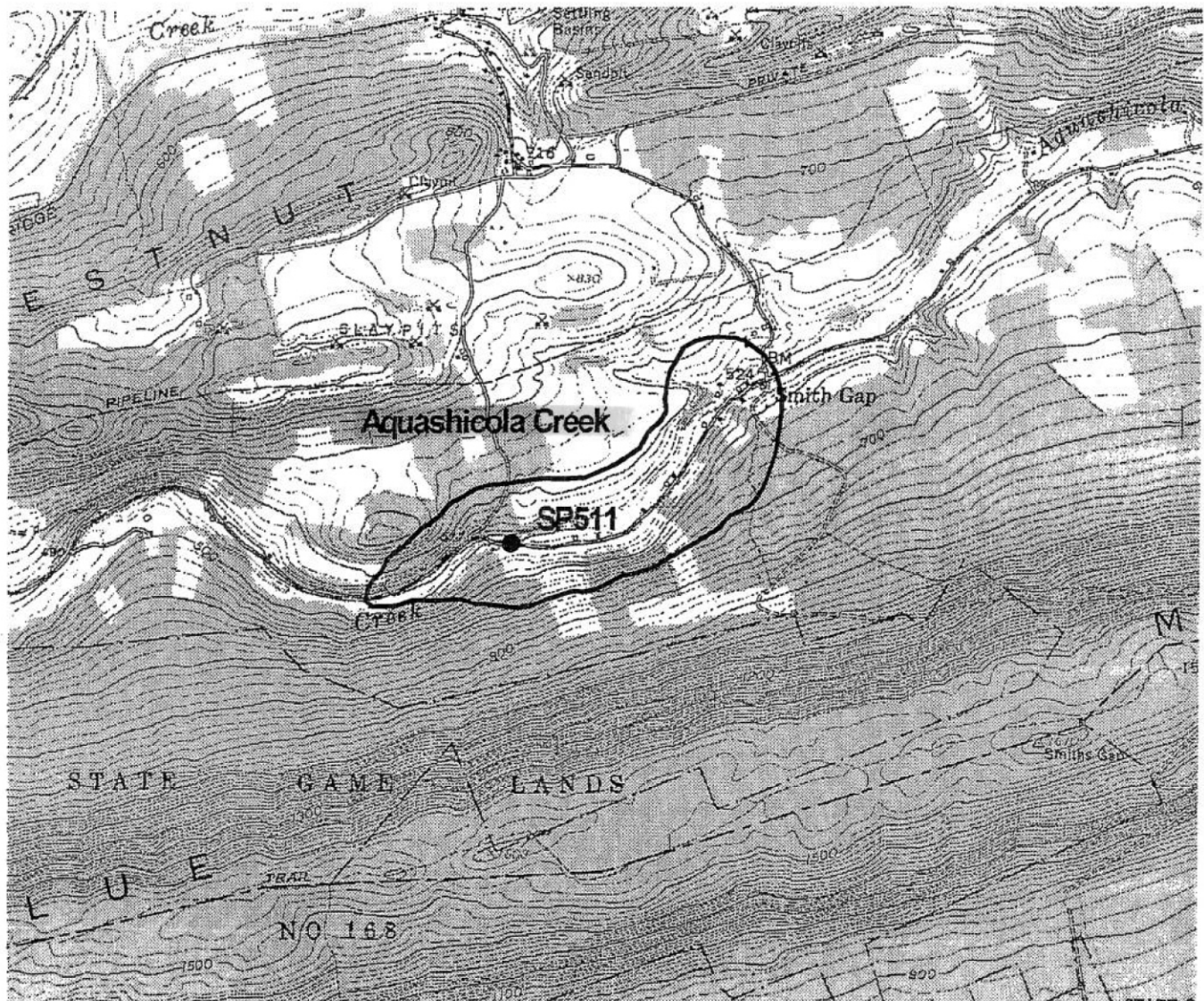
County Rank ¹	Site Name or Code (municipality)	USGS Topo. Map	TNC and Ranks ² , Importance and Recommendations
5	Aquashicola Creek NEW	Kunkletown	A good to marginal population of a Pennsylvania tentatively undetermined plant species (SP511) was identified in an open portion of Aquashicola Creek on a pebble/cobble bottom. No obvious threats to this population were noted in the field.
5	Camelback Mountain UPDATE	Mount Pocono	A new record of a small population of a Pennsylvania Rare shrub (SP547) was identified within Big Pocono State Park. Potential threats include deer and natural competition. This natural barren should be kept intact. The use of fire may be warranted.
5	Delaware Water Gaps UPDATE	Portland Stroudsburg	A good example of an Acidic Cliff Natural Community (NC505) was found above the Delaware River in 1997. The community is nearly vertical and is 25-50 acres in size. This site is protected as part of the Delaware Water Gap National Recreation Area.
5	Aquashicola Creek Wetland NEW	Saylorsburg Wind Gap	A marginal population of a State Threatened plant (SP523) and a good to marginal population of another PA Threatened plant species (SP522) were mapped at this site in 1993. The vegetation is quite diverse, consisting of marshy areas and marshy areas interspersed with shrub thickets. Threats to the site include beaver activity and some grazing by cattle.
5	Buckwha Creek NEW	Saylorsburg	A marginal population of a plant species of concern (SP521) was identified at the site in 1993. The main threat to the site appears to be succession/competition. Site management recommendations include mowing every other year.

County Rank ¹	Site Name or Code (municipality)	USGS Topo. Map	TNC and Ranks ² , Importance and Recommendations
5	Aquashicola Creek Shrub Swamp UPDATE	Wind Gap	A plant species (SP501a) of special concern, which was identified in 1982, was revisited in 1993. This poor to moderate population is still present in the pipeline right-of-way. A new record of a State Threatened plant (SP501b) was also identified in the pipeline right-of-way. Periodic spraying in the right-of-way may be preventing these populations from spreading further. Occasional mowing may actually benefit these species and is preferred to spraying as a method of keeping the right-of-way open.

USGS QUADRANGLE MAP: Kunkletown (117)

	Code	<u>TNC Ranks</u>		State Status	Last Seen	Quality
		Global	State			
NATURAL COMMUNITIES:						
SPECIAL PLANTS:	511	G5	S3	TU	9/24/93	C
SPECIAL ANIMALS:						

Kunkletown Quad



Scale 1:24,000

Kunkletown Quadrangle:

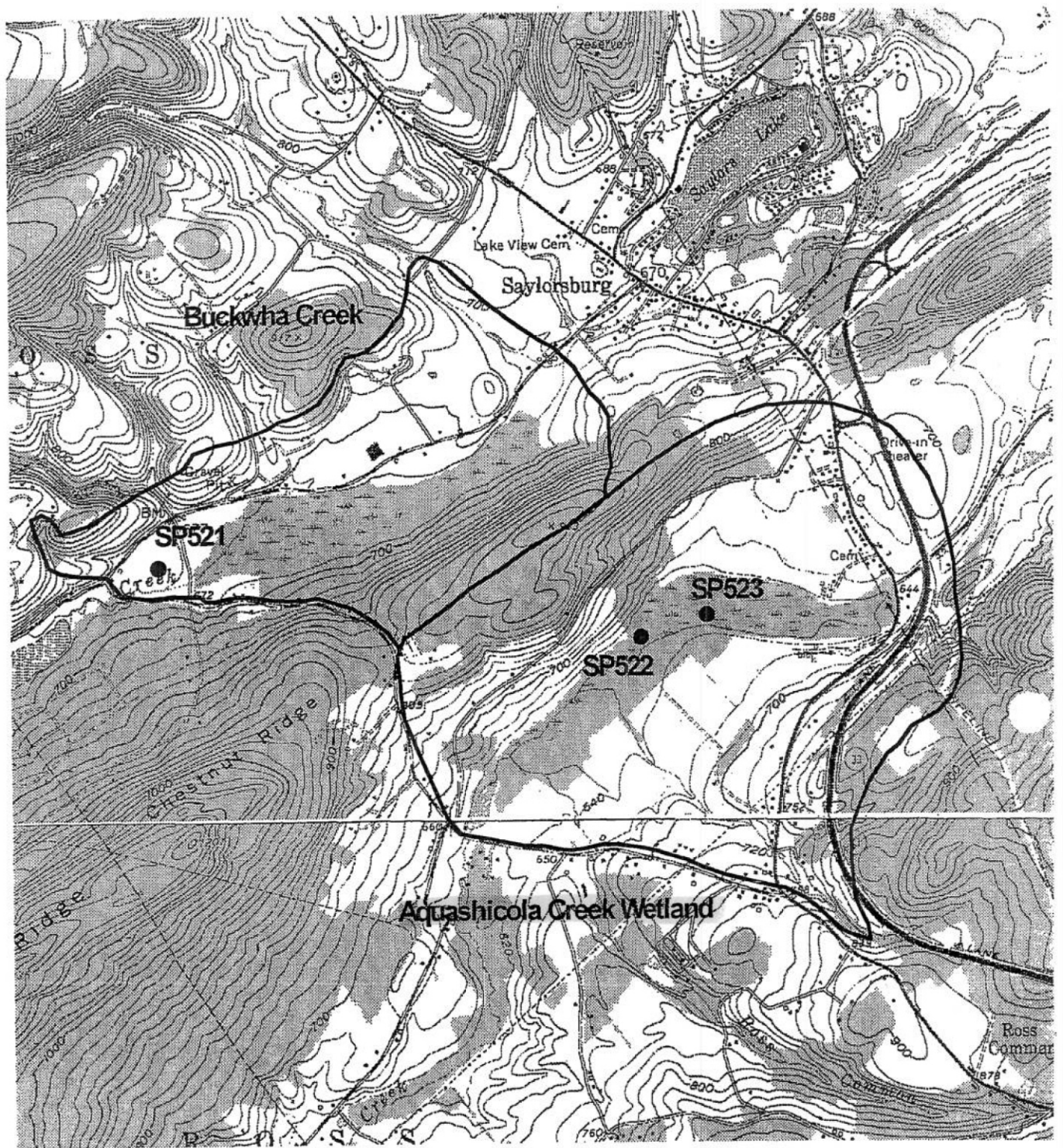
SP511 - NEW - (Eldred Twp.) "Aquashicola Creek" A good to marginal population of a Pennsylvania Tentatively Undetermined plant species (SP511) was identified in an open portion of Aquashicola Creek on a pebble/cobble bottom. Associated species include waterweed, pondweed, algae, and aquatic bryophytes. No obvious threats to this population were noted in the field.

USGS QUADRANGLE MAP: Saylorsburg (103)

	Code	TNC Ranks		State Status	Last Seen	Quality
		Global	State			
NATURAL COMMUNITIES:						
SPECIAL PLANTS:						
	509a	G5	S1	PE	8/23/94	B
	509b	G5	S2	PE	8/23/94	B
	509c	G5	S2	PT	6/8/94	B
	510a	G5	S2	PT	6/8/94	CD
	510b	G5?	S2S3	PE	8/23/94	E
	517	G3	S2	PE	7/3/97	BC
	519a	G4G5	S2	PT	6/16/93	B
	519b	G5	S3	TU	6/16/93	BC
	521	G5	S3	TU	6/17/93	C
	522	G5	S2	PT	8/4/93	BC
	523	G5	S1	PT	8/4/93	C
	528	G5	S3	TU	6/4/97	BC
	529a	G5	S2	PE	6/4/97	C
	529b	G5	S2	PT	6/4/97	C
SPECIAL ANIMALS:						
	SA530	G3	S2	PE	1999	E
OTHER:						
	Cherry Creek Valley; see Stroudsburg quadrangle for sa506 and					

Saylorsburg Quad

Wind Gap Quad



Scale 1:24,000

Saylorsburg Quadrangle

SP522 and SP523 - NEW - (Hamilton and Ross Twps.) "Aquashicola Creek Wetland" This site is a poorly-drained wetland in the bottomland along Aquashicola Creek. The vegetation is quite diverse, consisting of marshy areas and marshy areas interspersed with shrub thickets. A marginal population of a State Threatened plant (SP523) and a good to marginal population of another PA Threatened plant species (SP522) were mapped at this site in 1993. Species associated with SP522 include bur-reed, rice-cut grass, needle spike-rush, arrowhead, and sedges. Poison sumac, highbush blueberry, red maple, alder-leaved buckthorn, speckled alder, swamp rose, and swamp azalea are the plant species growing near SP523. Threats to the site include beaver activity and some grazing by cattle. This site extends into the Wind Gap quadrangle.

SP517 - UPDATE - (Hamilton Twp., Monroe County and Plainfield, Northampton County) "Big Offset Barren" A good to marginal population of a State Endangered, G3 plant species (SP517) was revisited in 1993 and 1997. The population seems to be doing well and the growth of the plants was vigorous. This site extends on to the Wind Gap quadrangle.

SP521 - NEW - (Ross Twp.) "Buckwha Creek" This site is a wet to seasonally wet marsh/shrub thicket in the bottomland of Buckwha Creek. A marginal quality population of a plant species of concern (SP521) was identified at the site in 1993. Associated species include meadow-sweet, steeple-bush, sweet vernal grass, swamp candles, New York ironweed, field-wood rush, and marsh fern. The main threat to the site appears to be succession/competition. Site management recommendations include mowing every other year.

SP509a, SP509b, SP509c, SP510a, SP510b, SP528, SP529a, SP529b, and SA530-UPDATE/NEW - (Hamilton and Stroud Twps.) "Cherry Creek Valley" This site was revisited several times from 1994 to 1997. The site extends on to the Stroudsburg quadrangle. Good populations of three previously observed plant species of concern (SP509a, b, and c) still exist at the "Cherry Creek Fen" site identified in the original 1991 report. A marginal to poor population of a PA Threatened plant species (SP510a) and a population of a state-endangered plant (SP510b) were revisited in 1994. Additional surveys are needed to determine the extent and the quality of SP510b.

A new good to marginal population of a plant species of concern (SP528) was identified in the same watershed during 1995 and revisited in 1997. The population is found in a high gradient clearwater creek, associated with watercress. Threats to the population include pollution and sedimentation of the stream. Because the species requires open light, canopy closure over the creek would be detrimental. Additional surveys are needed to determine the extent of the population.

A new population of a State Endangered plant (SP529a) and a new population of a Pennsylvania-Threatened plant (SP529b) were found at the site in 1996. Both population were found in a calcareous fen and both populations were marginal. Threats to the fen community include the invasion of cattails. A new population of a G3, PA Endangered animal species (SA530) was discovered in 1999 in the same watershed. These areas combined make up "Cherry Creek Valley," one of the most important

USGS QUADRANGLE MAP: Wind Gap (119)

Code	TNC Ranks		State Status	Last Seen	Quality
	Global	State			

NATURAL COMMUNITIES:

SPECIAL PLANTS:

501a	G5	S1	PE	8/27/93	CD
501b	G5	S2	PT	8/27/93	C
518	G3	S2	PE	7/3/97	BC

SPECIAL ANIMALS:

Wind Gap Quadrangle

SP501a, and SP501b - UPDATE - (Ross Twp.) "Aquashicola Creek Shrub Swamp" A plant species (SP501a) of special concern, which was identified in 1982, was revisited in 1993. This poor to moderate quality population is still present in the pipeline right-of-way. A new record of a State Threatened plant (SP501b) was also identified in the pipeline right-of-way. Periodic spraying in the right-of-way may be preventing these populations from spreading further. Occasional mowing may actually benefit these species and is preferred to spraying as a method of keeping the right-of-way open.

SP518 - UPDATE - (Hamilton Twp., Monroe County and Plainfield, Northampton County) "Big Offset Barren" A good to marginal population of a State Endangered plant species (SP518) was revisited in 1993 and 1997. The population seems to be doing well and the growth of the plants was vigorous. This site extends on to the Saylorsburg quadrangle.