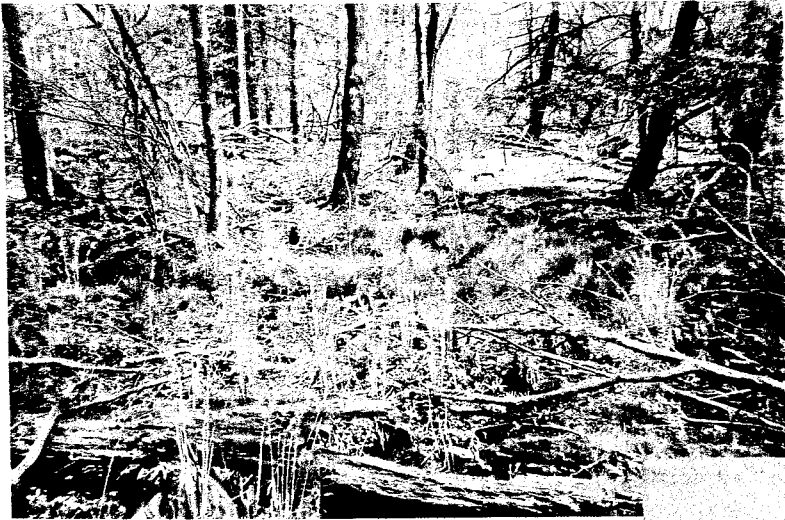


**APPENDIX C -
WETLAND IDENTIFICATION/DELINEATION REPORT**

MOUNT AIRY LODGE PROJECT
PARADISE TOWNSHIP
MONROE COUNTY, PENNSYLVANIA

WETLAND IDENTIFICATION/DELINEATION REPORT



Prepared For

Mount Airy No.1 L.L.C.

&

CECO Associates, Inc.

Prepared By



JUNE 2005

**MOUNT AIRY LODGE PROJECT
PARADISE TOWNSHIP
MONROE COUNTY, PENNSYLVANIA**

WETLAND IDENTIFICATION/DELINEATION REPORT

PREPARED FOR

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JUNE 9, 2005

TABLE OF CONTENTS

	PAGE
I. INTRODUCTION	1
II. METHODOLOGY	3
III. EXISTING CONDITIONS	7
A. THREATENED AND ENDANGERED SPECIES	7
B. SOILS CHARACTERISTICS	7
C. WATERCOURSE AND WETLAND HABITAT DESCRIPTIONS	9
D. WETLAND HABITATS	10
E. WETLAND DELINEATION PROCEDURES AND INTERPRETATIONS ..	18
IV. APPENDICES	
APPENDIX A - JURISDICTIONAL WETLAND DETERMINATION CHECKLIST	
APPENDIX B - RESUMES	
APPENDIX C - ROUTINE ON-SITE WETLAND DETERMINATION DATA FORMS	
APPENDIX D - PHOTOGRAPH LOG	
APPENDIX E - THREATENED AND ENDANGERED SPECIES COORDINATION	
APPENDIX F - WETLAND LOCATION MAP	

LIST OF FIGURES

NO.	DESCRIPTION	PAGE
1	PROJECT LOCATION MAP	2
2	NWI MAP	4
3	SOILS MAP	5

LIST OF TABLES

NO.	DESCRIPTION	PAGE
1	SOIL CHARACTERISTICS	7
2	WATERCOURSE CLASSIFICATION AND LENGTH	10
3	WETLAND CLASSIFICATION, SIZE, COORDINATES, AND CONNECTIVITY	12
4	SEEP AND VERNAL POOL SUMMARY TABLE	18

I. INTRODUCTION

I. INTRODUCTION

Skelly and Loy, Inc. has prepared the following wetland delineation report as part of the engineering and environmental studies associated with the Mount Airy Lodge in Paradise Township, Monroe County, Pennsylvania. The project study area is bordered by S.R. 611 to the west, Red Rock Road to the east, Bowman and Meadowside Roads to the south, and S.R. 940 to the north. The Mount Airy Lodge project will include improvements to existing facilities and the construction of new structures.

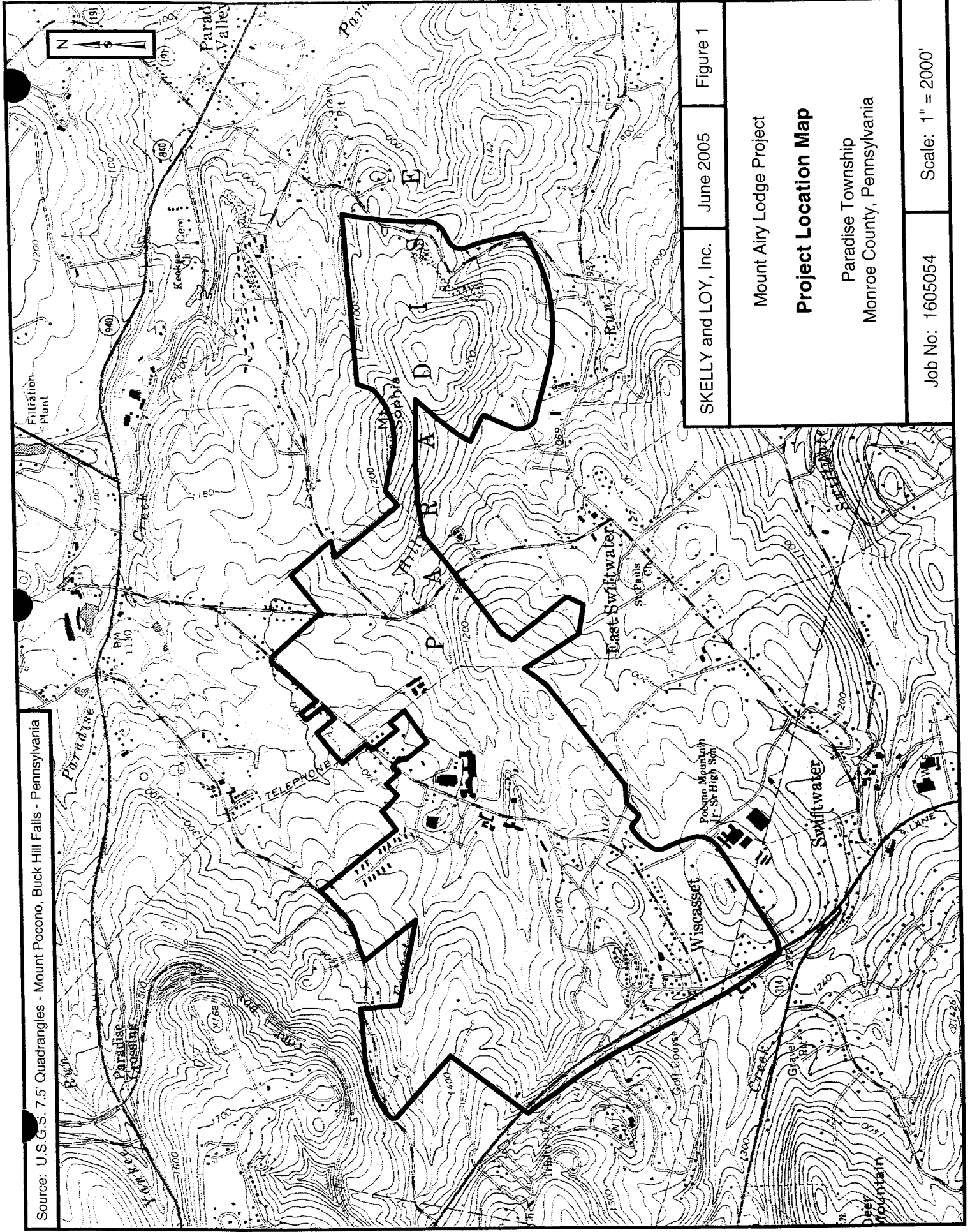
The project study area is located at approximately 41 degrees, 06 minutes, 42 seconds north latitude and 75 degrees, 19 minutes, 23 seconds west longitude according to the U.S.G.S. topographic quadrangle (Mount Pocono, Pennsylvania) (see Figure 1). The project study area is approximately 891 acres. The existing land use adjacent to the project study area includes golf courses, forest, macadam roads, commercial buildings, and single-family residences.

The wetland/watercourse study identified 73 wetlands, 35 watercourses, 15 open water habitats, three seeps, and seven vernal pools within the project study limits. The wetlands are identified by number and are labeled Wetlands 1 through 73.

The main watercourse through the project study area is Forest Hills Run. There are 33 unnamed tributary channels to Forest Hills Run. There is one watercourse (CHN-022) that drains to Indian Run Creek. Forest Hills Run and all the unnamed tributaries, including Channel 022, are protected under Pennsylvania Department of Environmental Protection (PA DEP), Chapter 93 Water Quality Regulations as a High Quality Cold Water Fishes (HQ - CWF) Resource.

This report documents descriptive information regarding the physical and biological characteristics of the wetland habitats identified in the project area. The report will serve as a supporting technical document for the project. The report includes a description of the existing conditions, methodologies used, and existing wetland habitats and watercourse. The resumes of the wetland scientists performing the investigation are provided in Appendix B. The following supportive information is also appended to the report: routine on-site wetland delineation data forms (Appendix C), photograph log (Appendix D), threatened and endangered species coordination (Appendix E) and wetland location map (Appendix F).

Source: U.S.G.S. 7.5' Quadrangles - Mount Pocono, Buck Hill Falls - Pennsylvania



SKELLY and LOY, Inc.	June 2005	Figure 1
Project Location Map		
Mount Airy Lodge Project		
Paradise Township Monroe County, Pennsylvania		
Job No: 1605054	Scale: 1" = 2000'	

II. METHODOLOGY

II. METHODOLOGY

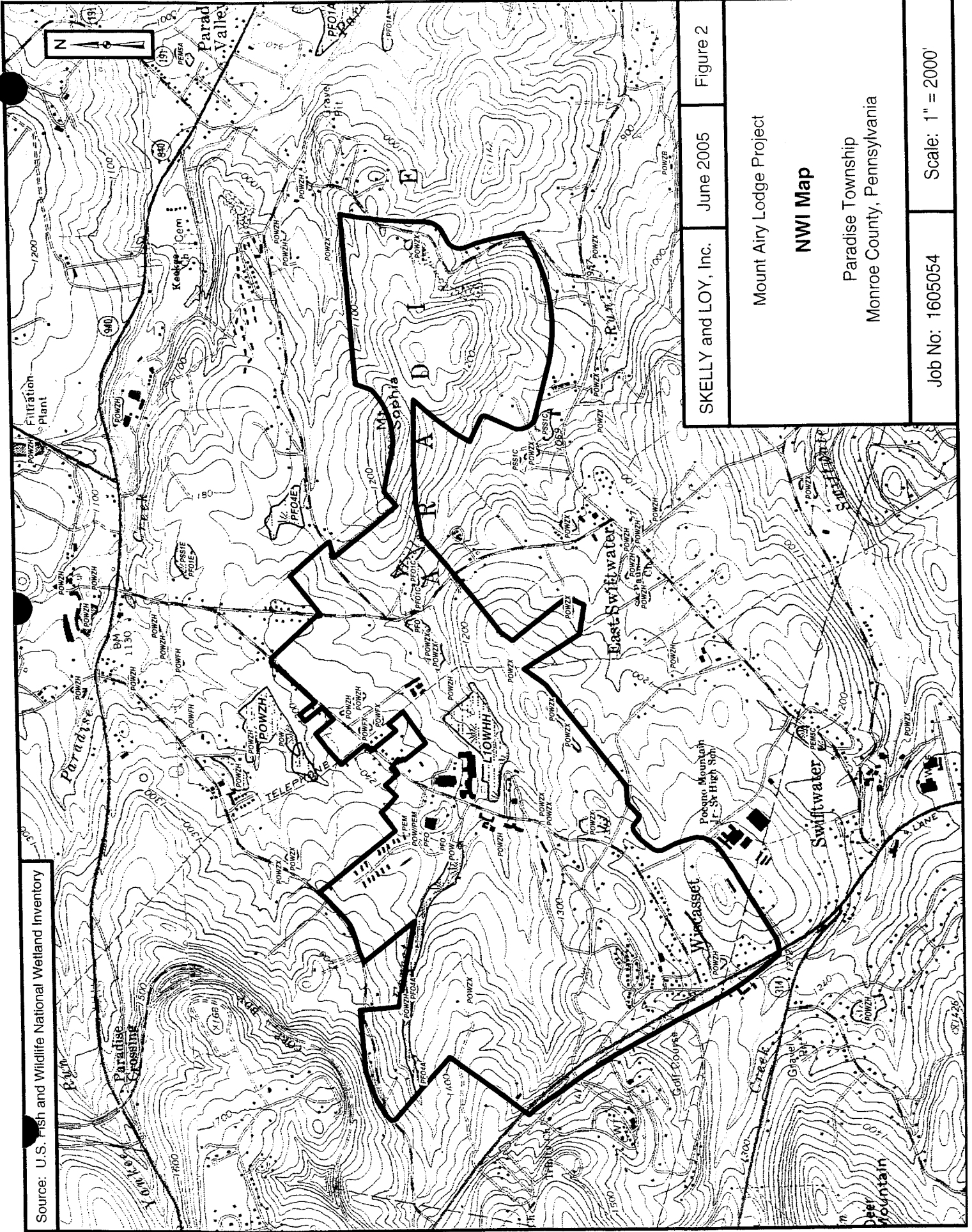
Potential wetland habitats and watercourses located within the project study area were identified, delineated, and mapped through the combined use of existing information and field investigations. Existing information including 7.5 minute quadrangle U.S.G.S. Topographic Mapping (Mount Pocono, Pennsylvania quadrangle), U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) mapping (Mount Pocono, Pennsylvania, quadrangle) (Figure 2), U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Soil Conservation Service (SCS) Monroe County Soil Survey (Figure 3), and the Monroe County Soil Conservation List of Hydric Soils was reviewed to identify potential wetland habitat areas.

The on-site field investigation was conducted on April 12, 14, 20, 21, 22, and 28, 2005. Seventy-three palustrine wetland habitats were identified and delineated in the project study area using the Routine Wetland Delineation Method for Small Areas described in the U.S. Army Corps of Engineers' Wetland Delineation Manual, Technical Report Y-87-1 (1987). The wetland habitats identified were classified in accordance with the USFWS' "Classification of Wetlands and Deepwater Habitats of the United States" (Cowardin, et al., 1979). Wetland boundaries were identified by consecutively numbered flags to facilitate surveying.

Vegetation, soil, and hydrology information were recorded by the investigators for both wetland and upland habitats present within the project study area. This information was recorded on data forms for the Routine On-Site Determination Method (Appendix C). Representative photographs were taken of the wetland and watercourse habitats (Appendix D). Each wetland and watercourse habitat was surveyed and mapped to show the extent of the wetland boundary and location within the project study area (Appendix F). Locations of the representative photographs are provided on the Wetland Location Map (Appendix F).

Dominant vegetation was evaluated on percent aerial cover for each vegetation stratum (tree, scrub-shrub, herbaceous, woody vine), assigned a dominance ranking, and recorded. Each dominant species was assigned an indicator status based on the species' frequency of occurrence in wetlands under normal conditions as published by the USFWS (1988) in the National List of Plant Species that Occur in Wetlands: Northeast (Region 1). The appropriate indicator status for each plant species is identified on the data forms (Appendix C) as either obligate (OBL), facultative wet (FACW), facultative (FAC), facultative upland (FACU), upland (UPL), no status (NS), or not indicted (NI).

Source: U.S. Fish and Wildlife National Wetland Inventory



SKELLY and LOY, Inc.

June 2005

Figure 2

Mount Airy Lodge Project

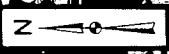
NWI Map

Paradise Township
Monroe County, Pennsylvania

Job No: 1605054

Scale: 1" = 2000'

Source: Natural Resources Conservation Service Soil Data Mart



SKELLY and LOY, Inc. June 2005 Figure 3

Soils Map

Mount Airy Lodge Project
Paradise Township
Monroe County, Pennsylvania

Job No: 1605054 Scale: 1" = 1500'

Soil samples for each wetland habitat and adjacent areas were collected by digging corresponding soil pits. Soil information was collected to a depth of 18 inches when possible. The coloration of the soil matrix and mottling, if present, was described using the Munsell Soil Color notation. This information, along with any other appropriate soil characteristics, iron, manganese concretions, peraquic or aquic moisture regime, hydrogen sulfide odor, etc., was recorded on the Routine On-Site Determination Data Forms (Appendix C). Soil types in the wetlands were compared to soils as mapped by the NRCS (SCS) in the soil survey.

The hydrology of each potential wetland was evaluated by visual inspection during the field assessment. Field indicators such as inundation, saturation in upper 12 inches, water marks, drift lines, sediment deposits, wetland drainage patterns, oxidized rhizospheres, and water-stained leaves were recorded on the Routine On-Site Determination Data Forms (Appendix C).

III. EXISTING CONDITIONS

III. EXISTING CONDITIONS

A. THREATENED AND ENDANGERED SPECIES

Coordination has been undertaken with the Pennsylvania Department of Conservation and Natural Resources (DCNR) Bureau of Forestry (PNDI), Pennsylvania Fish and Boat Commission (PFBC), Pennsylvania Game Commission (PGC), and U.S. Fish and Wildlife Service (USFWS). Responses from PNDI, PFBC, and PGC have indicated no potential conflicts with species of special concern (including threatened/endangered species) and the proposed project (Appendix E). Responses from the USFWS indicate that the proposed project is within the known range of the bog turtle (*Clemmys muhlenbergii*), a species that is federally listed as threatened (Appendix E). A Phase I survey was completed and conclusions will be provided in the near future. Also, there are no sanctuaries or refuges in the vicinity of the project area.

B. SOIL CHARACTERISTICS

The Monroe County Soil Survey (1981) was reviewed in order to determine the soil types within the project study area. Table 1 identifies the characteristics associated with the soil types occurring in the project study area.

**TABLE 1
SOIL CHARACTERISTICS**

SOIL TYPE	DEPTH TO SEASONAL HIGH WATER TABLE (FEET)	DRAINAGE CLASSIFICATION	HYDRIC COMPONENT
Alluvial land (As)	0 to 3.0	Variable	Holly, Wayland
Braceville gravelly loam, 0 to 3% slopes (BrA)	0.5 to 3.0	Moderately well-drained	Rexford
Chenango gravelly loam, 3 to 8% slopes (ChB)	>6.0	Well-drained and somewhat excessively well-drained	Rexford
Chippewa and Norwich silt loams, 0 to 5% slopes (CmA)	0 to 0.5	Poorly drained	Chippewa/Norwich

**TABLE 1
(CONTINUED)**

SOIL TYPE	DEPTH TO SEASONAL HIGH WATER TABLE (FEET)	DRAINAGE CLASSIFICATION	HYDRIC COMPONENT
Chippewa and Norwich extremely stony soils, 0 to 8% slopes (CnB)	0 to 0.5	Poorly drained	Chippewa/Norwich
Cut and fill land (Cy)	1.0 to 6.0	Not rated	Wet spots
Dekalb extremely stony loam, 25 to 80% slopes (DxE)	>6.0	Well-drained	NA
Lackawanna channery loam, 2 to 8% slopes (LaB)	3.0 to 6.0	Well-drained	NA
Lackawanna channery loam, 15 to 25% slopes (LaD)	3.0 to 6.0	Well-drained	NA
Lackawanna extremely stony loam, 0 to 8% slopes (LbB)	2.0 to 3.0	Well-drained	NA
Lackawanna extremely stony loam, 8 to 25% slopes (LbC)	2.0 to 3.0	Well-drained	NA
Lackawanna and Bath extremely stony soils, steep (LBE)	3.0 to 6.0	Well-drained	NA
Lordstown and Oquaga extremely stony soils, 25 to 70% slopes (LyE)	>6.0	Well-drained	NA
Morris channery silt loam, 2 to 10% slopes (MgB)	0.5 to 1.5	Somewhat poorly drained	Norwich
Morris extremely stony silt loam, 0 to 8% slopes (MoB)	0.5 to 1.5	Somewhat poorly drained	Norwich
Oquaga-Lackawanna channery loams, 3 to 8% slopes (OkB)	2.0 to >6.0	Well-drained	NA
Oquaga-Lackawanna channery loams, 8 to 15% slopes (OkC)	2.0 to >6.0	Well-drained	NA
Oquaga-Lackawanna channery loams, 15 to 25% slopes (OkD)	3.0 to >6.0	Well-drained	NA
Oquaga-Lackawanna extremely stony loams, 0 to 8% slopes (OxB)	2.0 to >6.0	Well-drained	NA

**TABLE 1
(CONTINUED)**

SOIL TYPE	DEPTH TO SEASONAL HIGH WATER TABLE (FEET)	DRAINAGE CLASSIFICATION	HYDRIC COMPONENT
Oquaga-Lackawanna extremely stony loams, 8 to 25% slopes (OxC)	2.0 to >6.0	Well-drained	NA
Philo silt loam (Ph)	1.5 to 3.0	Moderately well-drained	Holly
Rexford gravelly silt loam, 0 to 3% slopes (ReA)	0.5 to 1.5	Somewhat poorly drained	Rexford
Swartwood channery sandy loam, 3 to 8% slopes (SwB)	3.0 to 4.0	Well-drained	NA
Volusia extremely stony silt loam, 0 to 8% slopes (VxB)	0.5 to 1.5	Somewhat poorly drained	Chippewa
Wellsboro channery loam, 3 to 8% slopes (WmB)	1.5 to 3.0	Moderately well-drained	Norwich
Wellsboro extremely stony loam, 0 to 8% slopes (WpB)	1.5 to 3.0	Moderately well-drained	Norwich
Wellsboro extremely stony loam, 8 to 25% slopes (WpC)	1.5 to 3.0	Moderately well-drained	Norwich
Wyoming gravelly sandy loam, 0 to 3% slopes (WyA)	>6.0	Somewhat excessively drained	Wet spots
Wyoming gravelly sandy loam, 3 to 8% slopes (WyB)	>6.0	Somewhat excessively drained	Wet spots
Wyoming gravelly sandy loam, 8 to 15% slopes (WyC)	>6.0	Somewhat excessively drained	Wet spots
Source: Soil Survey of Monroe County (1981) and Monroe County List of Hydric Soils			

C. WATERCOURSE AND WETLAND HABITAT DESCRIPTIONS

Watercourse Habitat

The majority of the project study area is located within the Forest Hills Run watershed. Forest Hills Run is a tributary to Paradise Creek. The main stem of Forest Hills Run flows through the central portion of the project area, including the large on-stream lake at the Mount Airy Lodge

facility, and has a drainage area of approximately 2.77 square miles. The Pennsylvania Department of Environmental Protection, Chapter 93 Water Quality Regulations, identify Forest Hills Run as part of the Paradise Creek drainage basin and as a High Quality Cold Water Fishes (HQ-CWF) Resource. The adjacent watersheds include Paradise Creek to the northeast and Indian Run Creek to the southwest. Paradise Creek and its drainage basin are protected under PA DEP Chapter 93 as High Quality Cold Water Fishes Resources. Indian Run Creek is a tributary to Swiftwater Creek. Swiftwater Creek and its tributaries are also protected under the PA DEP Chapter 93 water quality regulations as High Quality Cold Water Fishes resource.

According to the Pennsylvania Scenic River Program Brochure (PA DCNR, June 1996), Forest Hills Run is not part of the Commonwealth’s Scenic Rivers System nor is classified as priority 1-A for inclusion in the system. Forest Hills Run and its unnamed tributaries within the project area are not listed as Approved Trout Waters (for stocking) according to the Pennsylvania Fish and Boat Commission (PFBC, 2005); however the main stem of Forest Hills Run is identified on the List of Surveyed Stream Having Verified Trout Production (PFBC, 2005).

Forest Hills Run (Channel 004) flows in a northwest to southeast direction and has a wetted width of approximately 20 to 30 feet. Water depth in the channel varies from one to three feet, and the substrate composition is a mix of cobble and gravel. The following watercourse table summarizes the flow regime and length of the channels through the project area.

**TABLE 2
WATERCOURSE CLASSIFICATION AND LENGTH**

CHANNEL I.D.	FLOW REGIME	WATERSHED
Channel 001	Perennial	Forest Hills Run
Channel 002	Intermittent	Forest Hills Run
Channel 003	Intermittent	Forest Hills Run
Channel 004	Perennial	Forest Hills Run
Channel 005	Intermittent	Forest Hills Run
Channel 006	Intermittent	Forest Hills Run
Channel 007	Intermittent	Forest Hills Run
Channel 008	Intermittent	Forest Hills Run

**TABLE 2
(CONTINUED)**

CHANNEL I.D.	FLOW REGIME	WATERSHED
Channel 009	Intermittent	Forest Hills Run
Channel 010	Ephemeral	Forest Hills Run
Channel 011	Intermittent	Forest Hills Run
Channel 012	Intermittent	Forest Hills Run
Channel 013	Intermittent	Forest Hills Run
Channel 014	Perennial/Intermittent	Forest Hills Run
Channel 015	Intermittent	Forest Hills Run
Channel 016	Intermittent	Forest Hills Run
Channel 017	Intermittent	Forest Hills Run
Channel 018	Intermittent	Forest Hills Run
Channel 019	Intermittent	Forest Hills Run
Channel 020	Intermittent	Forest Hills Run
Channel 021	Ephemeral	Forest Hills Run
Channel 022	Perennial	Indian Run Creek
Channel 023	Perennial	Forest Hills Run
Channel 024	Intermittent	Forest Hills Run
Channel 025	Ephemeral	Forest Hills Run
Channel 026	Intermittent	Forest Hills Run
Channel 027	Intermittent	Forest Hills Run
Channel 028	Intermittent	Forest Hills Run
Channel 029	Intermittent	Forest Hills Run
Channel 030	Intermittent	Forest Hills Run
Channel 031	Ephemeral	Forest Hills Run
Channel 032	Intermittent	Forest Hills Run

**TABLE 2
(CONTINUED)**

CHANNEL I.D.	FLOW REGIME	WATERSHED
Channel 033	Intermittent	Forest Hills Run
Channel 034	Intermittent	Forest Hills Run
Channel 035	Intermittent	Forest Hills Run
Total	35	

D. WETLAND HABITATS

An off-site review of the USFWS NWI Map revealed four wetlands and 15 open water habitats within the project study area. An on-site field investigation resulted in the identification and delineation of 73 wetlands (Wetlands 1 through 73) and 15 open water resources in the project study area. Information regarding vegetation, soils, and hydrology characteristics for each delineated wetland habitat and adjacent upland habitat was recorded on the Routine On-Site Determination Data Forms (Appendix C). Wetland habitats are illustrated on the Wetland Location Map (Appendix F). The delineated wetland and open water habitats are summarized below in Table 3.

**TABLE 3
WETLAND CLASSIFICATION, SIZE, COORDINATES, AND CONNECTIVITY**

WETLAND I.D.	VEGETATIVE CLASSIFICATION	SIZE (ACRES)	LATITUDE AND LONGITUDE	CONNECTIVITY
Wetland 001	PEM	0.0162	41° 06' 58.8" N, 75° 19' 25.6" W	Isolated
Wetland 002	PEM	0.0439	41° 06' 56.2" N, 75° 19' 28.9" W	Isolated
Wetland 003	PEM	0.0618	41° 06' 55.0" N, 75° 19' 29.7" W	Connected
Wetland 004	30% PEM, 70% POW	0.0876	41° 06' 53.6" N, 75° 19' 31.0" W	Connected
Wetland 005	PFO	0.0387	41° 06' 58.6" N, 75° 19' 46.6" W	Isolated
Wetland 006	PEM	0.0653	41° 06' 51.7" N, 75° 19' 36.8" W	Isolated

**TABLE 3
(CONTINUED)**

WETLAND I.D.	VEGETATIVE CLASSIFICATION	SIZE (ACRES)	LATITUDE AND LONGITUDE	CONNECTIVITY
Wetland 007	50% PEM, 50% PFO	0.0686	41° 06' 52.3" N, 75° 19' 32.5" W	Connected
Wetland 008	PFO	0.1579	41° 06' 55.5" N, 75° 19' 37.9" W	Connected
Wetland 009	PFO	0.0271	41° 06' 56.9" N, 75° 19' 44.5" W	Isolated
Wetland 010	PFO	0.0353	41° 06' 57.2" N, 75° 19' 42.0" W	Isolated
Wetland 011	PFO	0.1292	41° 06' 48.7" N, 75° 19' 34.7" W	Connected
Wetland 012	POW	0.0966	41° 06' 47.6" N, 75° 19' 35.8" W	Connected
Wetland 013	50% PEM, 50% PSS	0.0308	41° 06' 45.6" N, 75° 19' 32.6" W	Connected
Wetland 014	PEM	0.0215	41° 06' 45.4" N, 75° 19' 31.6" W	Connected
Wetland 015	PEM	0.0629	41° 06' 46.6" N, 75° 19' 29.5" W	Isolated
Wetland 016	PFO	0.0687	41° 06' 48.0" N, 75° 19' 38.9" W	Connected
Wetland 017	PEM	0.0108	41° 06' 49.6" N, 75° 19' 40.9" W	Connected
Wetland 018	PFO	5.3075	41° 06' 47.0" N, 75° 19' 39.8" W	Connected
Wetland 019	PFO	0.4252	41° 06' 51.0" N, 75° 20' 03.3" W	Connected
Wetland 020	PFO	0.6340	41° 06' 51.2" N, 75° 20' 07.3" W	Connected
Wetland 021	PFO	1.5549	41° 06' 53.7" N, 75° 20' 10.8" W	Connected
Wetland 022	PEM	0.0285	41° 06' 55.2" N, 75° 20' 15.0" W	Connected
Wetland 023	PFO	0.0038	41° 06' 46.1" N, 75° 19' 45.5" W	Isolated

**TABLE 3
(CONTINUED)**

WETLAND I.D.	VEGETATIVE CLASSIFICATION	SIZE (ACRES)	LATITUDE AND LONGITUDE	CONNECTIVITY
Wetland 024	PFO	7.8222	41° 06' 36.4" N, 75° 19' 56.4" W	Connected
Wetland 025	PEM	0.0209	41° 06' 42.4" N, 75° 19' 55.4" W	Isolated
Wetland 026	50% PEM, 50% POW	0.4501	41° 06' 45.1" N, 75° 20' 06.7" W	Isolated
Wetland 027	POW	0.3346	41° 06' 34.2" N, 75° 20' 23.5" W	Connected
Wetland 028	50% PEM, 50% PFO	0.0285	41° 06' 31.9" N, 75° 20' 18.4" W	Isolated
Wetland 029	PFO	0.1221	41° 06' 28.0" N, 75° 19' 42.8" W	Isolated
Wetland 030	PFO	0.4920	41° 06' 23.9" N, 75° 20' 08.8" W	Connected
Wetland 031	PFO	0.1714	41° 06' 03.6" N, 75° 20' 02.4" W	Connected
Wetland 032	50% PFO, 50% POW	1.3928	41° 06' 06.4" N, 75° 20' 04.3" W	Connected
Wetland 033	PFO	1.4497	41° 06' 08.3" N, 75° 19' 57.2" W	Connected
Wetland 034	PFO	0.2400	41° 06' 37.5" N, 75° 19' 34.4" W	Connected
Wetland 035	50% PFO, 50% POW	0.3146	41° 06' 39.6" N, 75° 19' 36.0" W	Connected
Wetland 036	PEM	0.0051	41° 06' 39.5" N, 75° 19' 36.5" W	Connected
Wetland 037	PEM	0.0189	41° 06' 40.0" N, 75° 28' 19.8" W	Connected
Wetland 038	PEM	0.0482	41° 06' 58.3" N, 75° 20' 24.2" W	Isolated
Wetland 039	PFO	0.2935	41° 06' 57.2" N, 75° 20' 15.0" W	Connected
Wetland 040	PEM	0.7056	41° 06' 55.5" N, 75° 20' 19.6" W	Connected

**TABLE 3
(CONTINUED)**

WETLAND I.D.	VEGETATIVE CLASSIFICATION	SIZE (ACRES)	LATITUDE AND LONGITUDE	CONNECTIVITY
Wetland 041	PFO	0.1111	41° 06' 52.7" N, 75° 20' 24.6" W	Connected
Wetland 042	PFO	1.0201	41° 06' 55.2" N, 75° 20' 24.1" W	Connected
Wetland 043	PFO	0.3895	41° 06' 54.8" N, 75° 18' 46.2" W	Connected
Wetland 044	PFO	0.1631	41° 07' 05.6" N, 75° 18' 29.9" W	Connected
Wetland 045	PEM	0.0382	41° 06' 45.6" N, 75° 19' 25.8" W	Connected
Wetland 046	PEM	0.0530	41° 06' 57.0" N, 75° 17' 50.5" W	Isolated
Wetland 047	PEM	0.0518	41° 06' 46.8" N, 75° 17' 26.6" W	Isolated
Wetland 048	PEM	0.0313	41° 06' 48.2" N, 75° 17' 27.6" W	Isolated
Wetland 049	PFO	0.9054	41° 06' 48.9" N, 75° 17' 33.5" W	Connected
Wetland 050	PEM	0.0052	41° 06' 47.0" N, 75° 17' 36.7" W	Connected
Wetland 051	PEM	0.0102	41° 06' 44.9" N, 75° 17' 34.2" W	Connected
Wetland 052	POW	0.0762	41° 06' 43.3" N, 75° 17' 34.1" W	Connected
Wetland 053	50% PEM, 50% PSS	0.0071	41° 06' 43.2" N, 75° 17' 34.8" W	Connected
Wetland 054	PEM	0.0073	41° 06' 45.7" N, 75° 18' 04.6" W	Isolated
Wetland 055	PEM	0.0320	41° 06' 32.7" N, 75° 19' 30.1" W	Isolated
Wetland 056	PEM	0.0085	41° 06' 31.4" N, 75° 19' 05.1" W	Isolated
Wetland 057	PEM	0.0236	41° 06' 27.5" N, 75° 18' 47.5" W	Connected

**TABLE 3
(CONTINUED)**

WETLAND I.D.	VEGETATIVE CLASSIFICATION	SIZE (ACRES)	LATITUDE AND LONGITUDE	CONNECTIVITY
Wetland 058	PEM	0.0019	41° 06' 47.0" N, 75° 18' 40.1" W	Connected
Wetland 059	15% PEM, 85% PFO	0.1433	41° 06' 53.2" N, 75° 18' 44.8" W	Connected
Wetland 060	PFO	1.6565	41° 06' 50.1" N, 75° 18' 43.4" W	Connected
Wetland 061	PEM	0.0044	41° 06' 50.8" N, 75° 18' 36.1" W	Connected
Wetland 062	50% PSS, 50% PFO	0.5641	41° 06' 51.4" N, 75° 18' 34.4" W	Connected
Wetland 063	PFO	0.0121	41° 06' 48.4" N, 75° 18' 34.8" W	Connected
Wetland 064	PFO	4.1228	41° 06' 53.5" N, 75° 18' 35.5" W	Connected
Wetland 065	PEM	0.0496	41° 06' 47.6" N, 75° 18' 31.7" W	Connected
Wetland 066	PFO	0.6187	41° 06' 50.8" N, 75° 18' 44.7" W	Connected
Wetland 067	PEM	0.0098	41° 06' 50.4" N, 75° 18' 50.2" W	Isolated
Wetland 068	PEM	0.4352	41° 06' 46.7" N, 75° 18' 48.9" W	Connected
Wetland 069	PEM	0.0163	41° 06' 46.5" N, 75° 18' 58.9" W	Connected
Wetland 070	PEM	0.0313	41° 06' 47.9" N, 75° 19' 00.7" W	Connected
Wetland 071	PEM	0.0846	41° 06' 47.4" N, 75° 19' 04.2" W	Connected
Wetland 072	PEM	0.0445	41° 06' 49.0" N, 75° 18' 43.5" W	Connected
Wetland 073	PEM	0.0092	41° 06' 44.0" N, 75° 19' 27.9" W	Connected
POW 1	POW	0.4100	41° 06' 46.1" N, 75° 19' 00.4" W	Connected

**TABLE 3
(CONTINUED)**

WETLAND I.D.	VEGETATIVE CLASSIFICATION	SIZE (ACRES)	LATITUDE AND LONGITUDE	CONNECTIVITY
POW 2	POW	1.5600	41° 06' 47.9" N, 75° 18' 54.4" W	Connected
POW 3	POW	0.2500	41° 06' 49.1" N, 75° 18' 51.4" W	Connected
POW 4	POW	0.4700	41° 06' 32.4" N, 75° 19' 27.3" W	Isolated
POW 5	POW	0.2400	41° 06' 31.9" N, 75° 19' 28.8" W	Isolated
POW 6	POW	1.8500	41° 06' 24.7" N, 75° 19' 30.9" W	Isolated
POW 7	POW	0.5300	41° 06' 27.5" N, 75° 18' 45.4" W	Connected
POW 8	POW	0.2600	41° 06' 36.6" N, 75° 18' 57.7" W	Connected
POW 9	POW	0.1700	41° 06' 31.6" N, 75° 19' 06.1" W	Isolated
POW 10	POW	1.6300	41° 06' 29.6" N, 75° 19' 08.5" W	Isolated
POW 11	POW	0.3500	41° 07' 03.1" N, 75° 19' 05.0" W	Isolated
POW 12	POW	0.5600	41° 07' 00.6" N, 75° 19' 02.2" W	Isolated
POW 13	POW	0.6000	41° 06' 59.8" N, 75° 19' 08.7" W	Isolated
POW 14	POW	0.4700	41° 06' 58.2" N, 75° 19' 07.4" W	Isolated
LOW 1	POW	16.7600	41° 06' 42.1" N, 75° 19' 09.7" W	Connected
Total		59.7349		

In addition to the wetlands described above, several seeps and vernal pools were identified within the project study area. The delineated seep and vernal pool habitats are summarized below in Table 4.

**TABLE 4
SEEP AND VERNAL POOL SUMMARY TABLE**

I.D.	SIZE (ACRES)	LATITUDE AND LONGITUDE	CONNECTIVITY
SEEP 1	0.0035	41° 06' 57.0" N, 75° 19' 43.6" W	Connected
SEEP 2	0.0421	41° 06' 41.4" N, 75° 19' 56.3" W	Connected
SEEP 3	0.0069	41° 06' 55.5" N, 75° 18' 46.8" W	Connected
VERNAL POOL 1	0.0344	41° 06' 56.4" N, 75° 19' 45.4" W	Isolated
VERNAL POOL 2	0.0065	41° 06' 57.6" N, 75° 19' 46.7" W	Isolated
VERNAL POOL 3	0.0069	41° 06' 57.6" N, 75° 19' 47.5" W	Isolated
VERNAL POOL 4	0.0871	41° 06' 57.6" N, 75° 19' 45.5" W	Isolated
VERNAL POOL 5	0.0028	41° 06' 56.4" N, 75° 19' 43.3" W	Isolated
VERNAL POOL 6	0.0064	41° 06' 57.4" N, 75° 19' 42.8" W	Connected
VERNAL POOL 7	0.1245	41° 06' 59.2" N, 75° 19' 24.3" W	Connected
TOTAL	0.3211		

E. WETLAND DELINEATION PROCEDURES AND INTERPRETATIONS

The majority of the wetlands identified in the wetland delineation study contained indicators of the three parameters, in accordance with the routine three-parameter approach methodology outlined in the U.S. Army Corps of Engineers' 1987 Wetland Delineation Manual. However, there are a few delineation situations that warranted atypical/problem area delineation interpretations, including wet-spring season conditions, rocky substrate terrain, vernal pools, seeps and disturbed areas.

Wet-Spring Season

The delineation study was completed during the beginning of the growing season, April 2005. The timing of the study allowed for the observation of field conditions under discharge and or “wet” hydrologic conditions. The Mount Pocono area received over 51 inches of snow through the winter and spring season from 2004 to early April 2005. There was snow pack observed on the property as late as early April 2005. The delineation study was not initiated until the snow cover had melted and the bare ground surface could be observed.

When the snow pack melted, there were saturated and ponded water areas within both the uplands and wetlands. The wet conditions provided a good indication of the potential for an area to be contain hydrology (i.e. it an area did not contain evidence of hydrology in this spring season, it most likely does not contain wetland hydrology). Careful consideration was given to the seasonality of the water with respect to the beginning of the growing season for the Monroe County area. Distinction needed to be made between conditional and event hydrology. Areas determined to contain wetland hydrology contained conditional wetland hydrology. Conditional wetland hydrology is described hydrology that lasts for at least the two week minimum duration during the growing season and is sufficient to support a hydrophytic community. Field indicators of conditional hydrology inundation, saturation, water stained (black decomposed) leaves, watermarks, oxidized rhizopheres, and fac-neutral test. Event hydrology is short-term hydrology that lasts for a brief period of time after a weather event (i.e., snow melt, precipitation). Event hydrology does not last for the two-week minimum period during the growing season.

Wetlands with Rock Substrate

Portions of the Mount Airy project area contain rocky/extremely stony soil conditions. The extremely stony nature of the soils presents a Problem Area wetland delineation situation. In many of the areas, the substrate consists of large 6- to 24-inch rocks from the surface to a depth of 24 inches. In these areas, it was often impossible to dig a soil pit. Screw augers were used to find soil material between the rocks. There were both organic and mineral soils identified in some of these rocky areas, but in other areas, there was no observable soil within the upper 24 inches. In the absence of soil material, a reduced emphasis was placed on using soil color to evaluate the hydric soil criterion. Other indicators of hydric soils were used to evaluate this parameter, such as hydrogen sulfide odor, aquic moisture regime, presence of histic epipedon, organic soil. In

addition, in the absence of soil material and the presence of a rock substrate, increased emphasis was placed on the other two wetland parameters, hydrophytic vegetation and wetland hydrology. If the indicators for hydrophytic vegetation and wetland hydrology were strong then an area was delineated as a wetland.

Vernal Pools and Seeps

During the wetland delineation study, a few areas were encountered that contained shallow ponded water (1-6 inches), but not all of the areas were identified as wetland habitats. Areas that contained hydrophytic vegetation, contained evidence of conditional wetland hydrology, and contained evidence of hydric soils were identified as wetlands. Common hydrophytic vegetation included red maple, sphagnum moss, osmunda fern, jewelweed, sedge, yellow birch, and green ash. Common upland plants included red maple, oak, beech, eastern hemlock, shagbark hickory, black cherry, hay-scented fern, true moss, witch-hazel, Canada mayflower, and sweet birch. Many of the seasonal shallow water areas contained soil matrix chromas of 2 with no mottling, 3, or 4 and the areas lacked evidence of water staining or watermarks. Areas that contained the seasonal shallow water were not identified as wetlands if the soil matrix chroma was 2 with no mottles, 3, or 4, vegetation consisted of common upland plants, and there was no indication of conditional wetland hydrology. These areas were not considered to contain sufficient evidence of the three-wetland parameters. Therefore, areas with ponded water that did not contain evidence of the three-wetland parameters were identified as **vernal pools**. Areas that contained seep discharge but lacked evidence of the three-wetland parameters were identified as **seeps**. These areas were flagged in the field, surveyed and are illustrated on the project mapping.

Wetlands in Disturbed Areas

Areas that have been disturbed by earthmoving activities represent a problem area wetland delineation situation because the soil horizon is disturbed. In the disturbed areas, a reduced emphasis was placed on soil color at the A/B interface in the horizon. Increased emphasis was placed on identifying reducing conditions in the surface horizon, strength of the hydrophytic vegetation, and indicators of wetland hydrology.

Additionally, there are horse and mule trails within the wooded areas that are disturbed by the heavy trail traffic. The soils are disturbed and compacted, thus these areas collect and

temporarily pond precipitation and runoff. These areas were not included as wetlands if the subsoil contained matrix chroma colors above 2. There are a few small areas in which the trails are located adjacent to wetlands and the trails expand the wetlands. These areas were only included in the wetland delineation if the areas was considered to connect or convey wetland hydrology to another portion of a wetland.

IV. APPENDICES

**APPENDIX A -
JURISDICTIONAL WETLAND
DETERMINATION CHECKLIST**

MOUNT AIRY LODGE PROJECT

Jurisdictional Wetland Determination – Checklist

1. Written permission from property owner to access the site.
 - Attached.
2. Vicinity map including the exact location of the proposed project.
 - Provided in the Wetland Identification/Delineation Report as Figure 1.
3. Property lines with measurements
 - Extent of property lines and project study area boundary identified on Wetland Location Map provided in the Wetland Identification/Delineation Report as Appendix F – Wetland Location Map.
4. Area of review
 - Provided in the Wetland Identification/Delineation Report as Appendix F – Wetland Location Map.
5. Current property owners
 - Mount Airy No. 1 L.L.C.
42 Woodland Road
Mount Pocono, PA 18344
6. Name of adjacent waterway (s)
 - Provided in the Wetland Identification/Delineation Report. The main watercourse through the project study area is Forest Hills Run. There are 33 unnamed tributary channels to Forest Hills Run. There is one watercourse (Channel 022) that drains to Indian Run Creek in the eastern portion of the project study area.
7. Location of all watercourses and/or drainage features.
 - Provided in the Wetland Identification/Delineation Report as Appendix F – Wetland Location Map.
8. Longitude and latitude
 - Longitude = 76 degrees, 19 minutes, 23 seconds
 - Latitude = 41 degrees, 06 minutes, 42 seconds
9. Plans to scale
 - Provided in the Wetland Identification/Delineation Report as Appendix F – Wetland Location Map.
10. Reference information (USGS, NWI, Soils mapping)
 - Provided in the Wetland Identification/Delineation Report as Figure 1, Figure 2, and Figure 3.
11. Aerial photography
 - Provided in the Wetland Identification/Delineation Report in Appendix A

12. Onsite, ground level photographs
 - Provided in the Wetland Identification/Delineation Report as Appendix D – Photograph Log.

13. 1987 Corps of Engineers Wetlands Delineation Manual
 - The Wetland Determination was completed in accordance with the methodologies outlined in the 1987 Corps of Engineers Wetland Delineation Manual.

14. Data forms of both upland and wetland points
 - Provided in the Wetland Identification/Delineation Report as Appendix C – Routine On Site Wetland Determination Data Forms.

15. Map and survey of the jurisdictional boundary line
 - Provided in the Wetland Identification/Delineation and Functional Assessment Report as Appendix F – Wetland Location Map.

16. Total Acreage
 - Wetland Sizes:

WETLAND I.D.	SIZE (ACRES)	WETLAND I.D.	SIZE (ACRES)	WETLAND I.D.	SIZE (ACRES)
Wetland 001	0.0162	Wetland 030	0.4920	Wetland 059	0.1433
Wetland 002	0.0439	Wetland 031	0.1714	Wetland 060	1.6565
Wetland 003	0.0618	Wetland 032	1.3928	Wetland 061	0.0044
Wetland 004	0.0876	Wetland 033	1.4497	Wetland 062	0.5641
Wetland 005	0.0387	Wetland 034	0.2400	Wetland 063	0.0121
Wetland 006	0.0653	Wetland 035	0.3146	Wetland 064	4.1228
Wetland 007	0.0686	Wetland 036	0.0051	Wetland 065	0.0496
Wetland 008	0.1579	Wetland 037	0.0189	Wetland 066	0.6187
Wetland 009	0.0271	Wetland 038	0.0482	Wetland 067	0.0098
Wetland 010	0.0353	Wetland 039	0.2935	Wetland 068	0.4352
Wetland 011	0.1292	Wetland 040	0.7056	Wetland 069	0.0163
Wetland 012	0.0966	Wetland 041	0.1111	Wetland 070	0.0313
Wetland 013	0.0308	Wetland 042	1.0201	Wetland 071	0.0846
Wetland 014	0.0215	Wetland 043	0.3895	Wetland 072	0.0445
Wetland 015	0.0629	Wetland 044	0.1631	Wetland 073	0.0092
Wetland 016	0.0687	Wetland 045	0.0382	POW 1	0.4100
Wetland 017	0.0108	Wetland 046	0.0530	POW 2	1.5600
Wetland 018	5.3075	Wetland 047	0.0518	POW 3	0.2500
Wetland 019	0.4252	Wetland 048	0.0313	POW 4	0.4700
Wetland 020	0.6340	Wetland 049	0.9054	POW 5	0.2400
Wetland 021	1.5549	Wetland 050	0.0052	POW 6	1.8500
Wetland 022	0.0285	Wetland 051	0.0102	POW 7	0.5300
Wetland 023	0.0038	Wetland 052	0.0762	POW 8	0.2600
Wetland 024	7.8222	Wetland 053	0.0071	POW 9	0.1700
Wetland 025	0.0209	Wetland 054	0.0073	POW 10	1.6300
Wetland 026	0.4501	Wetland 055	0.0320	POW 11	0.3500
Wetland 027	0.3346	Wetland 056	0.0085	POW 12	0.5600
Wetland 028	0.0285	Wetland 057	0.0236	POW 13	0.6000
Wetland 029	0.1221	Wetland 058	0.0019	POW 14	0.4700
				LOW 1	16.7600

17. Optional items

- Current land use, total acreage of wetlands, and general topographical conditions are provided in the Wetland Identification/Delineation Report.

18. Agricultural lands

- Not applicable.

June 8, 2005

Mr. Richard Hassel
Assistant Chief, Regulatory Branch
U.S. Army Corps of Engineers
Wanamaker Building, 100 Penn Square East
Philadelphia, Pennsylvania 19107-3390

RE: Mount Airy Lodge – Permission
to Access Property for JD

Dear Mr. Hassel:

This letter is provided by Mount Airy No.1 L.L.C. to give permission to U.S. Army Corps of Engineers and PA DEP with the accompaniment of Skelly and Loy, Inc. to access the Mount Airy Lodge Project in Paradise Township, Monroe County to perform the jurisdictional wetland determination field view. If you have any questions, please contact me at your convenience at (570) 947-9026.

Sincerely

Robert McNicols Sr.
Project Manager

Source: U.S.G.S., DOQQ - Buck Hill Falls SW and SE, Mount Pocono NE and NW, Pennsylvania

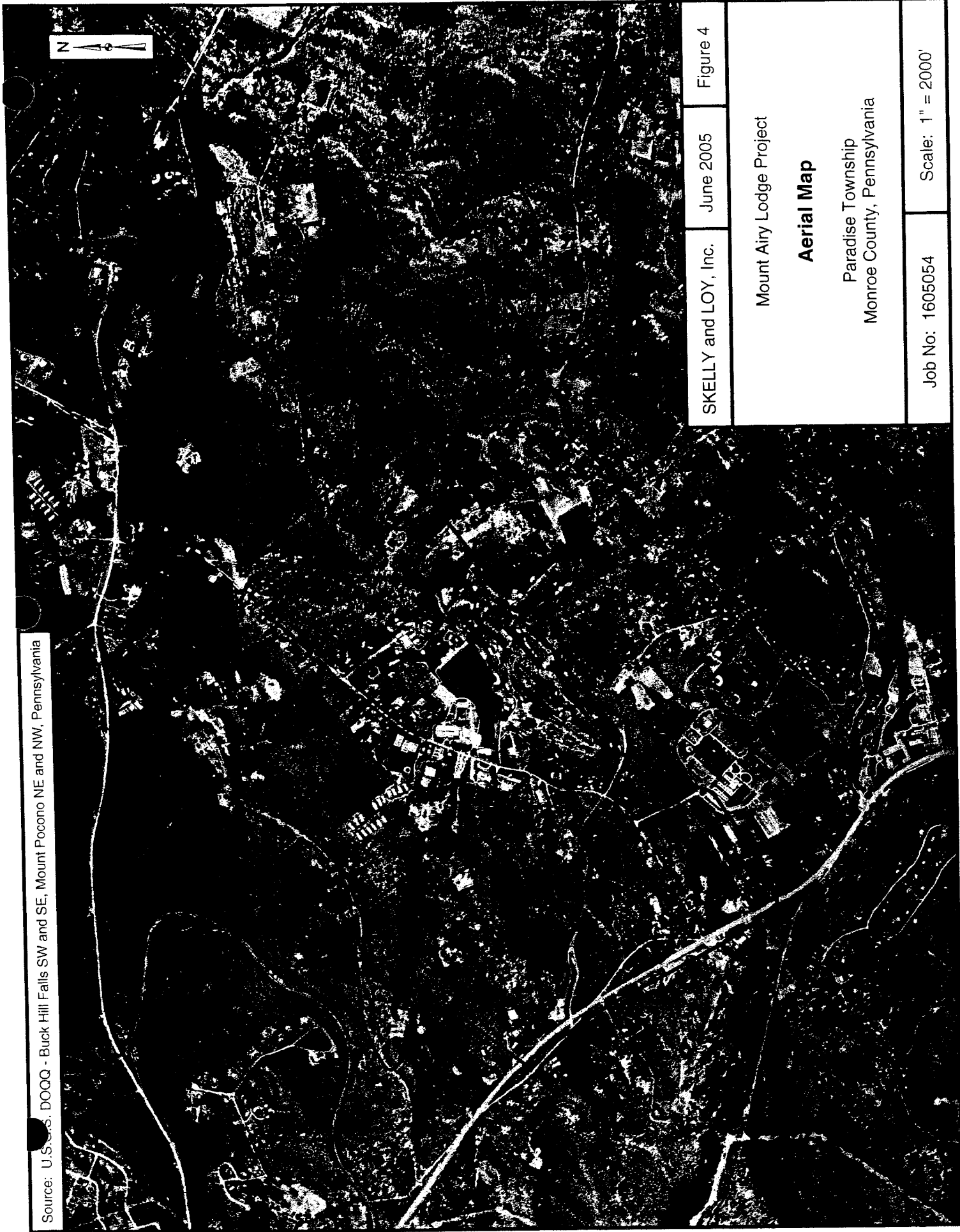


Figure 4

June 2005

SKELLY and LOY, Inc.

Mount Airy Lodge Project

Aerial Map

Paradise Township
Monroe County, Pennsylvania

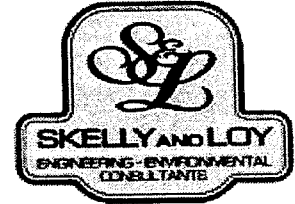
Job No: 1605054

Scale: 1" = 2000'

**APPENDIX B -
RESUMES**

PAUL J. DEANGELO

Director of Natural Resources Analysis



EDUCATION:

M.S., Environmental Pollution Control, 2005, The Pennsylvania State University
B.S., Environmental Biology, 1991, Millersville University

PROFESSIONAL REGISTRATIONS AND CERTIFICATIONS:

USACE, Baltimore District, Certified Wetland Delineator, MD

For fourteen years, Mr. DeAngelo has been performing professional ecological assessment services for environmental assessments and Environmental Impact Statements in compliance with the National Environmental Policy Act. The focus of his career has been on Aquatic Ecosystems, Wetland Delineation Studies, Wetland Mitigation Design/Monitoring, Ecological Resources, and Environmental Permitting.

PROFESSIONAL EXPERIENCE

Mr. DeAngelo oversees technical aspects of wetland and aquatic resource projects and has served as Project Manager and/or Principal Investigator on more than 100 projects throughout Pennsylvania and the eastern United States.

Mr. DeAngelo serves as a field team leader for the evaluation of wetland habitats and aquatic ecosystems. He has conducted numerous wetland delineation studies in Pennsylvania. These studies include the Corridor O Project, S.R. 2001, Sections 401 and 402 in the Delaware Water Gap National Recreation Area, I-99 / U.S. Route 220 improvements project, Covington Industrial Park, Pike County Economic Development, Conewago Industrial Park, and bridge replacement (i.e., SR 030, 0196, SR 3007, SR 4011) and rehabilitation projects. He is experienced in using the 1987 Army Corps of Engineers Manual for Identifying and Delineating Wetlands. In the identification and delineation of wetland habitats, his assignments involve plant identification for the characterization of vegetative communities, examination of soil characteristics, and identifying indicators of hydrology. Mr. DeAngelo has received his Provisional Certification for Identifying and Delineating Jurisdictional Wetlands from the USACE, Baltimore District (USACE Wetland Delineator Certification Program, Baltimore District, Certification #WDCP94MD0310147B).

In addition to field investigations, Mr. DeAngelo participates in field views with the U.S. Army Corps of Engineers for their Jurisdictional Wetland Determination. Furthermore, Mr. DeAngelo is experienced in conducting wetland functional assessments utilizing the methods described in the USACE Wetland Evaluation Technique (WET): Volume II: Methodology (Operational Draft Technical Report Y-87) and the USACE, New England Division's Descriptive Method.

Mr. DeAngelo's experience includes evaluating the physical, chemical, and biological conditions of aquatic ecosystems, specifically lotic systems (streams). His experience in evaluating the chemical conditions includes proper water sampling, flows measurement techniques, and Water Quality Assessment. His experience in evaluating the biological conditions includes performing Kick-net sampling techniques to characterize the macroinvertebrate community and electrofishing sampling techniques to characterize the fin fish community. In addition, Mr. DeAngelo has utilized the aquatic assessment techniques outlined in the 1989 EPA Rapid BioAssessment Protocols for Streams and Rivers Manual.

Mr. DeAngelo has been involved in numerous aquatic resource assessment studies including Corridor O, S.R. 2001, Section 401 and 402 Improvements Project, Lackawanna Valley Industrial Highway, I-99 / U.S. Route 220, S.R. 0015, Section G-20-G22, and Central Susquehanna Valley Transportation Projects. In addition, Mr. DeAngelo has completed the Dry Creek and Rocky River (Acid Mine Drainage) Aquatic Assessment for the Sequatchie Valley Coal Company in Tennessee and the Watershed Assessment in the Nesquehoning Creek Watershed for Dual Valley Recreation Association. Mr. DeAngelo has performed the

taxonomic identification of macroinvertebrates (to genus level) for several different benthic studies, including the Dry Creek and Rocky River Stream Assessments in Tennessee, S.R. 0015, Section G20-G22 Benthic study in Tioga County, Pennsylvania, and the S.R. 2001, Section 401 and 402 in Pike County, PA. His Masters Thesis involved the comparison of acidity load capacity to stream environments.

Mr. DeAngelo is experienced with wetland permitting. He has completed numerous Federal/State Joint Permit Applications necessary for obtaining a wetland and waterway encroachment permit. As part of the Joint Permit Application, Mr. DeAngelo is experienced with evaluating the environmental constraints (PA DEP Environmental Assessment Form) necessary to obtain State Water Quality Certification.

S.R. 2001, Sections 401 and 402 Improvements Project – Mr. DeAngelo serves as Project Manager and lead natural resource investigator for the project. This project is a seventeen mile roadway improvement project through high-quality watersheds along the Delaware Water Gap National Recreation Area in Pike County. The natural resource studies involved the delineations of over 100 wetlands and the aquatic surveys evaluated numerous high quality – wild trout resources.

S.R. 0322, Corridor O Improvement Project – Mr. DeAngelo coordinated and supervised the Natural Resource studies associated with the wetland and aquatic resource investigations for the 25-mile project. The project involved detailed wetland delineations of more than 1300 wetland systems and aquatic resource sampling of more than 30 water resources. Mr. DeAngelo was involved in the development of project alternatives, providing expertise regarding avoidance and minimization measures consistent with the 404 / 105 permitting process.

U.S. Route 322, Section 100 Improvement Project - Mr. DeAngelo supervised and conducted the natural resource studies, including the wetland delineation study, bog turtle habitat assessment, mitigation package for the project. The project extends for approximately six miles and 65 wetlands were delineated within the project limits.

I-99 / U.S. Route 220 Improvements Project - Field Team leader for the completion of wetland delineations and aquatic surveys for the entire project area. The wetland study involved the delineation of over 500 wetlands. The aquatic resource surveys involved numerous stream resources along the Bald Eagle Valley. The aquatic assessments involved techniques outlined in the 1989 EPA Rapid BioAssessment Protocols for Streams and Rivers Manual.

Relevant Training

Problem Area Wetland Delineations, U.S. Army Corps of Engineers, Baltimore District, 1997

Aquatic Entomology, Shippensburg University of Pennsylvania, 1998

Aerial Photography Interpretation, U.S. Army Corps of Engineers, Baltimore District, 2000

Environmental Aquatic Chemistry – Penn State, 2003

Master Thesis (2005)– Penn State University – Comparison of Acidity Load Capacity between North Bald Eagle Creek and Buffalo Run

BENJAMIN T. BERRA
Environmental Scientist



EDUCATION:

M.S., Geoenvironmental Studies, 1998, Shippensburg University
B.S., Geoenvironmental Studies, 1996, Shippensburg University

With over 6 years of Service at Skelly and Loy, Mr. Berra's project experience has focused primarily in the area of jurisdictional wetland identification and delineation, but also included the study and evaluation of aquatic ecosystems, wetland mitigation design/monitoring, stream and river classification, threatened/endangered/rare species investigations, and environmental permitting and documentation.

Mr. Berra has completed many wetland identification / delineation, and permitting projects for transportation, infrastructure, commercial, industrial, and residential development projects in Pennsylvania, New York, Maryland, and North Carolina. He has experience in wetland function evaluation using the USACOE Wetland Evaluation Technique II, Hydrogeomorphic Classification, and New England USACOE Descriptive Method. He has experience in the identification of potential wetland mitigation sites and their subsequent design, as well as experience in natural and constructed wetland monitoring.

Mr. Berra is on the U.S. Fish and Wildlife Service/Pennsylvania Fish and Boat Commission list of Recognized Qualified Bog Turtle Surveyors (for Pennsylvania). Mr. Berra has conducted numerous potential habitat evaluations and field surveys for the bog turtle (*Clemmys muhlenbergii*), a Federally listed threatened species and State listed endangered species, and has experience with radio telemetry research for the species.

Mr. Berra has also been involved with the biological evaluations for benthic macroinvertebrates, fish, and freshwater mussel communities, ambient water quality evaluations, and physical aquatic habitat evaluations. He has participated in surveys and research for the green floater (*Lasmigona subviridis*), a State listed rare species and other freshwater mussels; the rough greensnake (*Opheodrys aestivus*), a State listed threatened species, and numerous other amphibians and reptiles associated with wetlands, vernal pools, and waterways. Additionally, Mr. Berra has experience in the design, restoration, and enhancement of streams using the methodologies and techniques of Applied River Morphology (fluvial geomorphology.)

PROFESSIONAL EXPERIENCE

Field Crew Leader, Wetland Delineator, and Water Quality/Aquatic Resources Assistant, Route 322-B02, Corridor O Project, Centre and Clearfield County, PA - Responsible for the daily organization and operation of wetland delineation crew, identification and delineation of wetlands within the project area, and assisting with the water quality and aquatic sampling evaluations. Conducted field views, coordination, and meetings with Pennsylvania DOT, state and federal regulatory agencies, and the general public regarding project development, and alternative modification and selection. Assisted staff and teaming consultants in the development of environmental documentation and reports. Approximately 1,300 wetlands and 200 watercourses were identified and delineated in the 12,000 acre study area.

Field Crew Leader, Wetland Delineator, and Water Quality/Aquatic Resources Assistant, State Route 2001, Sections 401/402, Improvement Project, Pike County, PA - Responsible for the daily organization and operation of wetland delineation crew, identification and delineation of wetlands, and assisting with the water quality and aquatic sampling evaluations. Approximately 125 wetlands and 40 watercourses were identified and delineated within the 17 mile long project area.

Wetland Delineator, Surveyor, and Water Quality/Aquatic Resources Assistant, Central Susquehanna Valley Transportation Improvement Project, Snyder County, PA - Responsible for the

BENJAMIN T. BERRA
Environmental Scientist
Page 2 of 2

identification and delineation of wetlands within the project area. Also responsible for the GPS surveying of delineated wetlands, and assisting with the water quality and aquatic sampling evaluations.

Field Crew Leader, Wetland Delineator, Freestone Golf Course, Centre County, PA - Responsible for field reconnaissance, and wetland delineations on this 270 acre site. More than 90 wetlands were delineated along with over 50 watercourses. Also assisted with the project development and layout, and permit application package and regulatory agency coordination.

Wetland Delineator, Surveyor, and Water Quality/Aquatic Resources Assistant, Route 15 Construction Project, Tioga County, PA and Steuben County, NY - Responsible for the identification and delineation of wetlands within the project area, the surveying of delineated wetlands, and assisting with the water quality and aquatic sampling evaluations. Mr. Berra also conducted the preliminary analysis and investigations for potential wetland mitigation sites.

Project Manager and Wetland Delineator, Hershey Trust Property #148, Conewago Township, Dauphin County, PA - Responsible for assisting with proposal development, initial field reconnaissance, and wetland delineations on this 500+ acre site. More than 85 acres of wetlands were delineated. Was also responsible for the preparation of the Wetlands Identification / Delineation and Functional Assessment Report.

Wetland Delineator and Assistant Field Crew Leader, Covington Industrial Park, Lackawanna County - Responsible for field reconnaissance, and wetland delineations on the 850 acre project area. Approximately 25 wetlands were delineated totaling over 43 acres.

Aquatic Resources Assistant, Rush Township Aquatic Survey, Schuylkill County, PA - Responsible for assisting with the in-field sampling for water quality and benthic macroinvertebrates at select sites on township streams. Also assisted with the lab processing of the benthic macroinvertebrates, and the report preparation.

Aquatic Resources and Wetland Monitoring Assistant, S.R. 0220, Sections C10, C11, and C12 Highway Improvement Project, Centre and Blair Counties, PA - Responsible for assisting in the establishment of permanent monitoring points throughout the South Bald Eagle Creek, North Bald Eagle Creek, and Buffalo Run Watersheds. Included with the monitoring were evaluations of stream flow, ambient water quality, aquatic biota, and fluvial geomorphic conditions. Wetland monitoring consists of routine monitoring of conditions in select wetlands (pre, during, post construction).

Pennsylvania Department of Conservation and Natural Resources - While a student, Mr. Berra was employed for three years with the Bureau of Recreation and Conservation, Division of Conservation Partnerships. His duties included coordinating and administering Rivers Conservation Grants for the Rivers Conservation Program, and performing Scenic River Reviews for projects located within the corridors of Pennsylvania's designated Scenic and Priority 1A Rivers.

ANDREW J. LONGENECKER
Wetland Delineator/Stream Assessment
Specialist/Aquatic and Terrestrial Biologist



EDUCATION:

M.S., Biological Sciences, 2000, Marshall University
B.S., Wildlife and Fisheries, 1997, West Virginia University

Mr. Longenecker has been involved in numerous projects in a variety of roles over the past 3 years at Skelly and Loy. He has experience in many wetland Identification and delineation projects as well as studies and evaluations of aquatic ecosystems. As an integral member of Skelly and Loy's multidisciplinary watershed management team, Mr. Longenecker applied the principles of fluvial geomorphology (FGM) to natural stream channel design projects. To support the long-term success of these stream restoration and relocation projects, he routinely participates in site evaluation, stream type classification, regional curve development, restoration plan design, and construction management. From individual stream projects to comprehensive watershed assessments, Mr. Longenecker has employed FGM principles in both rural and urban environments.

Mr. Longenecker's watershed management capabilities are further strengthened by his expertise in the areas of aquatic and terrestrial biology. He has completed wide-ranging biological baseline surveys dealing with multiple flora and fauna. As a result, Mr. Longenecker is experienced in implementing today's widely used assessment protocols including the U.S. Environmental Protection Agency's Rapid Bioassessment Protocols (RBP III), U.S. Department of Agriculture's Stream Visual Assessment Protocol (SVAP), Stream Reach Inventory and Channel Stability Evaluation, Habitat Evaluation Protocols (HEP), and the Wildlife Habitat Assessment Guide (WHAG). In addition, Mr. Longenecker has written successful grant applications, conducted environmental education workshops, and participated in community outreach projects.

PROFESSIONAL EXPERIENCE

Wetland Delineator, South Valley Parkway, S.R. 3046, Section 301, Luzerne County - Mr. Longenecker was responsible for the identification and delineation of wetlands and watercourses in the study area for this project. The study area of this project, approximately 5 miles long, consisted of mostly abandoned mine land and most of the wetland delineations occurred in disturbed landscapes.

Wetland Delineator, U.S. Route 220 Improvement Project/Interstate 99, Centre County - Mr. Longenecker was responsible for the identification and delineation of wetlands and watercourses in numerous areas associated with an expanded project area as a result of construction. These delineations enabled the highway construction project to continue to progress towards completion.

Wetland Delineator and Assistant Project Manager, Lehigh Gorge State Park Improvements, Luzerne County - Working for the Department of General Services on this project, Mr. Longenecker conducted a reconnaissance of the expanded project area, and a review and redelineation of previously identified systems.

Pennsylvania Department of Transportation, Adams County, PA - As Field Team Leader, Mr. Longenecker directed data collection activities for the development of detailed design drawings to restore more than 4,000 linear feet of stream associated with 4 individual bridge replacement projects. Using the principles of FGM, he classified the streams and verified their natural channel dimension, pattern, and profile. The final restoration design will include plans, profiles, cross sections, and details for the proposed stream route, width, depth, and slope; habitat structures; and energy-dissipating structures.

RYAN C. LEIBERHER
Wildlife Biologist
USFWS Certified Indiana Bat Surveyor



EDUCATION:

B.S., Environmental Biology, 2000, Edinboro University
A.S., Wildlife Technology, 1998, The Pennsylvania State University

Mr. Leiberher, with over 4 years of service at Skelly and Loy, has gained experience through many wetland identification and delineation projects as well as wetland monitoring and land surveying using conventional apparatus and Global Positioning Systems (GPS). He has also been involved in many wildlife/threatened and endangered species projects for transportation, infrastructure, commercial, industrial, and residential development project clients and is a USFWS-certified Indiana bat surveyor. He has experience doing surveys for the Indiana bat, a federally and state endangered species and has training and experience specific to various bat species working in conjunction with the Pennsylvania Game Commission and Bat Conservation International. This training includes but is not limited to mist netting surveys, harp trap surveys, habitat assessment, bat handling and identification, mine opening surveys, flyway surveys, hibernacula surveys, maternity colony surveys, and radio telemetry surveys. In addition, Mr. Leiberher is experienced with species including osprey, rough green snake, great blue heron, and bog turtle, a federally and state listed endangered species. He has completed land cover surveys for various wildlife species and habitats. Mr. Leiberher has been involved with the studies and evaluations of aquatic ecosystems. These activities include biosurveys of aquatic resources, water quality assessments, and individual surveys for the eastern spadefoot toad. Mr. Leiberher also has experience in the design, restoration, and enhancement of streams using the methodologies and techniques of Applied River Morphology (Fluvial Geomorphology [FGM]).

PROFESSIONAL EXPERIENCE

Wetland Delineator, Surveyor, Water Quality/Aquatic Resource Assistant - Corridor O, Clearfield County, PA - Mr. Leiberher was responsible for the identification and delineation of wetlands in the 1,300 acre project area. He was also responsible for the surveying of wetlands and assisting with the water quality and aquatic sampling evaluations.

Wetland Delineator - Covington Industrial Site, Lackawanna County, PA - Mr. Leiberher was responsible for the identification and delineation of wetlands within the 850 acre project area.

Wetland Delineator, U.S. Route 220 Improvement Project/Interstate 99, Centre County, PA - Mr. Leiberher was responsible for the identification and delineation of wetlands and watercourses in numerous areas associated with an expanded project area as a result of construction. These delineations enabled the highway construction project to continue to progress towards completion.

Wildlife Biologist - Bear Creek Watershed Reclamation Project, Dauphin County, PA - Mr. Leiberher was responsible for preliminary mine opening surveys. Opening suitability was determined using Pennsylvania Game Commission, "Criteria for determining whether abandoned coal mines provide potentially suitable bat habitat."

Wildlife Biologist - Route 15 Construction Project, Tioga County, PA - Mr. Leiberher was responsible for the location and identification of the Indiana bat habitat and the creation of a study plan following USFWS protocol. He was responsible for studies concerning the osprey, great blue heron, and vernal pool habitat.

RYAN C. LEIBERHER

Wildlife Biologist

USFWS Certified Indiana Bat Surveyor

Page 2 of 2

Wildlife Biologist, Aquatic Resource Assistant - Central Susquehanna Valley Transportation Improvement Project, Snyder County, PA - Mr. Leiberher assisted in the mine surveys for the Indiana bat and was responsible for locating the habitat of the eastern spadefoot toad in the project area. He assisted in FGM stream work in the project area, and assisted in location and identification of the rough green snake and its habitat.

Wildlife Biologist- San Souci Parkway Project, Luzerne County, PA - Mr. Leiberher handled the field investigations pertaining to the Indiana bat; including habitat assessment and preliminary survey plans. In addition, he has handled concerns pertaining to the Virginia rail, a state threatened species. Mr. Leiberher has also conducted the wildlife habitat research and mapping for the project.

Wildlife Biologist- Route 9 Jefferson County, WV - Mr. Leiberher assisted in the identification of potential roost trees for the Indiana bat using a transect sampling method.

Wildlife Biologist- S.R. 2001 Pike County PA - Mr. Leiberher identified the land cover features and wildlife habitats throughout the project area. He also handled threatened and endangered species studies for the project.

Wildlife Biologist, Aquatic Resource Assistant, Wetland Delineator - Interstate 99 Blair and Center Counties, PA - Mr. Leiberher has conducted stream and wetland investigations throughout the project study area. Many of these investigations are mitigation projects or ongoing monitoring studies.

Wildlife Biologist- Warren Street, Berks County, PA - Mr. Leiberher has assisted in Phase I and II surveys following USFWS protocol for the bog turtle. He has also assisted in the marking and radio tagging of bog turtles.

Wildlife Biologist - Interstate 83 Master Plan, Dauphin and Cumberland Counties, PA - Mr. Leiberher has conducted wildlife and vegetative studies pertaining to roadway improvements along the I-83 highway corridor. In addition, he has completed wildlife and land cover mapping for the project area.

Aquatic Resource Assistant - Spring and Paxton Creek Watershed FGM Assessment, Dauphin County, PA - Mr. Leiberher conducted a fluvial geomorphological assessment based on the Rosgen classification methodology for both watersheds supported by Trout Unlimited and the Paxton Creek Watershed Association.

Aquatic Resource Assistant - South Branch Codorus Creek Watershed FGM Assessment, York County, PA - Mr. Leiberher conducted a fluvial geomorphological assessment based on the Rosgen classification methodology of the South Branch Codorus Creek watershed in support of the Isaac Walton League of York and their effort to determine existing and future watershed problems and development measures for the reestablishment of stream stability and reduction of non-point source pollution.

Aquatic Resource Assistant - East Branch Codorus Creek, Watershed FGM Assessment/ Restoration, York County, PA - Mr. Leiberher conducted a fluvial geomorphological assessment based on the Rosgen classification methodology of the East Branch Codorus Creek watershed in support of the Isaac Walton League of York and their effort to determine existing and future watershed problems and development measures for the reestablishment of stream stability and reduction of non-point source pollution.

ERIC R. BRUGGEMAN
Environmental Specialist



EDUCATION:

B.S., Geography Land-Use, 2004, Shippensburg University
Minor, Business, 2004, Shippensburg University

PROFESSIONAL REGISTRATIONS AND CERTIFICATIONS:

Geographic Information Systems, PA

A new addition to Skelly and Loy in 2004, Mr. Bruggeman brings a diverse background and plans to focus his expertise in land use towards environmental planning; greenways and trail planning; wetland delineation and environmental resources. In his short tenure, he has been involved in various projects with various clients and has proven professional knowledge. Mr. Bruggeman's GIS knowledge displays his enthusiasm towards comprehending current planning trends and techniques, while understanding spatial analysis in our developing environment.

PROFESSIONAL EXPERIENCE

Wetland Delineator, South Valley Parkway, S.R. 3046, Section 301, Luzerne County - Mr. Bruggeman assisted in the identification and delineation of wetlands and watercourses in the study area for this project. The study area of this project, approximately 5 miles long, consisted of mostly abandoned mine land and most of the wetland delineations occurred in disturbed landscapes.

Agricultural Analysis – Mr. Bruggeman's involvement in the Central Susquehanna Valley Transportation project allowed him to acquire agricultural security area data, agricultural zoning data, and the total farms enrolled in Clean and Green. Researching potential development information associated with this project was used in a Farmland Assessment Report.

NEPA Documentation/Alternatives Analysis – Two of the main projects that Mr. Bruggeman is actively involved in is the South Valley Parkway project and the Juniata River Bridge project. Preparing environmental documentation in compliance with NEPA requirements is a common occurrence for both projects, but he is deeply involved in the alternative analysis and secondary and cumulative impacts of the South Valley Parkway Project. In addition, Mr. Bruggeman is assisting in the wetland delineation of the preferred alignment. Mr. Bruggeman compiled an Environmental Justice Analysis for the Juniata River Bridge and performed community growth studies for this project.

Technical Intern, Department of Environmental Protection, Harrisburg – Responsible for the location of abandoned landfills with Trimble GPS units, the compilation of reports and formation of maps using ArcView/ArcGIS and the collection of water samples from residential wells.

GIS Intern, Martin and Martin, Inc., Chambersburg - Responsible for base map development using ArcView and AutoCad and data research for county comprehensive plans.

RELATED EXPERIENCE - Mr. Bruggeman is devoted to all aspects of trail planning and its future development. He has **14 years of experience riding on Pennsylvania's legal ATV trails** where he visited 80% of these trails. As a member of the Snow Shoe Rail Trail Association (SSRTA) he is aware of the opposition to expanding the first ATV legal Rail Trail in Pennsylvania. In addition, he has visited the Hatfield-McCoy National Millennium Trail located near Logan, WV. While visiting this internationally known trail system three consecutive years, Mr. Bruggeman met with the Director to learn some of the strategies used on this professionally designed and recognized trail.

GREGORY A. ORRIS
Environmental Specialist



PROFESSIONAL REGISTRATIONS AND CERTIFICATIONS:

EPA Asbestos Inspector
Certified Asbestos Inspector, PA

In his 12 years at Skelly and Loy, Mr. Orris has performed a variety of duties. Since joining the Environmental Service Group, Mr. Orris's responsibilities include surveying wetlands during wetland delineation projects, surveying and creating site maps on various projects, and surveying stream channels and cross sections for stream restoration projects. He has experience utilizing surveying equipment such as Global Positioning System (GPS) technology, conventional total station surveying, and laser level equipment. Mr. Orris is also proficient at water quality sampling and analysis.

Mr. Orris was a member of the Waste Management Service Group of Skelly and Loy. His experience with this service group consisted of environmental field sampling and research for various waste management projects. He participated in all phases of underground storage tank and waste site characterizations. Mr. Orris also participated in site investigations including asbestos inspections and monitoring.

PROFESSIONAL EXPERIENCE

Wetland Delineation Field Crew Member and Wetland Surveyor, Route 322-B02, Corridor O Project, Centre and Clearfield County, PA - Mr. Orris was a valuable member of the wetland delineation field crew due to his ability to sweep and identify wetlands, in addition to fulfilling his role as chief GPS surveyor for the project. Approximately 1,300 wetlands and 200 watercourses were identified and delineated in the 12,000 acre study area.

Wetland Delineation Field Crew Member and Wetland Surveyor, U.S. Route 220 Improvement Project/Interstate 99, Centre County - Mr. Orris was responsible for sweeping numerous areas where the project area had expanded during construction in an effort to identify wetlands and watercourses. Once identified and delineated, Mr. Orris was responsible for surveying all wetlands and watercourses in these expanded areas of study.

Pennsylvania Department of General Services - Mr. Orris was involved with on-site monitoring and coordination associated with the Commonwealth of Pennsylvania's Transportation and Safety Building project in Harrisburg, Pennsylvania. A fire in the building spread asbestos and PCBs throughout several floors of this 14-story building. His initial duties involved sampling and characterizing contaminants on the fire-impacted floors as well as sampling both high-cost equipment and furniture on the occupied floors. Before demolition, Mr. Orris performed on-site air monitoring during asbestos abatement that included personal air monitoring and background (area) monitoring. He maintained and calibrated the sampling equipment and completed appropriate chain-of-custody forms and documentation.

Pennsylvania Department of Transportation - Under an IDTC for Waste Management Services, Mr. Orris completed asbestos inspections of more than 25 residential and commercial structures. These structures were subject to acquisition and demolition to facilitate highway construction projects. These inspections included a tactile assessment of accessible ACMs and upon identification of; a sampling scheme was developed and implemented. The results of the surveys were used to complete asbestos abatement specifications and mitigation plans. Mr. Orris also monitored asbestos abatement activities of the selected contractor and collected final clearance samples.

KEVIN J. STARNER
Environmental Specialist



EDUCATION:

B.S., Geoenvironmental Studies, 1998, Shippensburg University

Since joining Skelly and Loy in 1998, Mr. Starner has participated in a wide variety of transportation improvement and environmental planning projects within many different counties across Pennsylvania. His project experience includes the preparation of environmental impact assessments and Section 4(f) evaluations for both FHWA- and PennDOT-sponsored transportation improvement projects; comprehensive plans and hazard mitigation plans for both county and municipal governments; wetland issues, watershed-level stormwater management plans for the PA DEP; and community improvement plans for multi-jurisdictional regions. As such, Mr. Starner has a working knowledge of many environmental and planning-related laws and regulations, including the National Environmental Policy Act, Section 4(f) of the U.S. Department of Transportation Act, Section 106 of the National Historic Preservation Act, Section 2002 of PA Act 120, the Pennsylvania Municipalities Planning Code, the Disaster Mitigation Act, and Pennsylvania's Stormwater Management Act.

PROFESSIONAL EXPERIENCE

Wetland Delineator, State Route 2001, Sections 401/402, Improvement Project, Pike County, PA - Mr. Starner assisted in the identification and delineation of wetlands and watercourses in the 17 mile long, 400 acre study area. Approximately 125 wetlands and 40 watercourses were identified and delineated in the study area.

Transportation Improvement Planning – Having participated in over 30 different projects in 20 Pennsylvania counties, Mr. Starner serves as Skelly and Loy's Categorical Exclusion and Section 4(f) Evaluation specialist for FHWA- and PennDOT-sponsored transportation improvement projects. Mr. Starner has authored in excess of 25 Categorical Exclusion Evaluations and 14 Section 4(f)/2002 Evaluations for projects ranging from simple bridge replacements to major roadway widening/reconstruction projects. Most recently, Mr. Starner served as the assistant project manager for the Adams County Bridges Replacement Project, which involved the completion of environment impact and Section 4(f) documents for four bridge replacements in Adams County.

Comprehensive Planning – Mr. Starner served as the assistant project manager for the recently completed Joint Comprehensive Plan for Chapman and Union Townships, Snyder County. Mr. Starner's primary responsibilities for this project included authoring a successful PA DCED Land Use Planning and Technical Assistance Program grant application, assisting with the various planning tasks, and coordinating the project steering committee meetings. Mr. Starner also assisted in the development of a comprehensive GIS-based land use mapping system for municipal use following the completion of the comprehensive planning process.

Hazard Vulnerability Assessment and Mitigation Planning – Mr. Starner has been involved in the successful completion of several hazard vulnerability assessment and mitigation planning projects for both municipal and county governments. As part of the U.S. Army Corps of Engineers' Wyoming Valley Levee Raising Project, Mr. Starner participated in the completion of 11 Flood Hazard Mitigation Plans for 12 municipalities located in Snyder, Northumberland, Montour, and Columbia Counties. Most recently, Mr. Starner served as the primary author and project planner for the completion of a multi-hazard vulnerability assessment and mitigation plan for Dauphin County, PA. This hazard mitigation plan evaluates the County's vulnerability to a wide variety of natural hazards and makes recommendations for ways to minimize and/or mitigate the damaging effects of those hazards. The hazard vulnerability assessment and mitigation plan is intended to be a multi-jurisdictional document and is to be individually adopted by all forty of Dauphin County's constituent municipalities.

Watershed Stormwater Management Planning – Mr. Starner served as the field crew leader and project planner for the Upper Yellow Breeches Watershed Act 167 Stormwater Management Plan. This watershed stormwater management plan encompassed six Cumberland County municipalities within the headwaters and upper limits of the Yellow Breeches Creek. Field efforts conducted under Mr. Starner's direction were aimed at inventorying and collecting hydraulic measurements of the numerous bridge crossings and other obstruction points within the watershed. As project planner, Mr. Starner was responsible for attending all project meetings, drafting various sections of the plan document, and incorporating watershed specific requirements into the model stormwater management ordinance.

Community Improvement Planning – Mr. Starner was a key contributor to the successful completion of the Western Berks Council of Governments Route 422 Corridor Communities Improvement Plan. Developed under the Pennsylvania State Association of Boroughs, the Plan was awarded the 1999 Sustainable Communities Partnership Award as an outstanding intermunicipal cooperation program. Mr. Starner's primary contributions to this planning effort involved the identification of various community issues, mutually agreeable solutions, and potential funding sources.

PROFESSIONAL AFFILIATIONS:

Pennsylvania Association of Environmental Professionals
Pennsylvania Planning Association
Pennsylvania Geographical Society

RELEVANT TRAINING:

PennDOT Regional Bicycle/Pedestrian Training (August, 1998)
CEC/PA and PennDOT Bureau of Environmental Quality Section 4(f) Evaluations Training (July, 1998)
Zweig White and Associates Project Management Training (May, 1998)

PUBLICATIONS:

Soil Variability Across a Topographic Gradient In Colluvial Soil of Southcentral Pennsylvania, Pennsylvania Geographer, Fall, 1998.

RICHARD S. JOHNSTON
Geologic Technician/Global Positioning Systems



EDUCATION:

Enrolled in Geology Program of HACC

PROFESSIONAL REGISTRATIONS AND CERTIFICATIONS:

Trimble Certified GPS Operations Instructor

Mr. Johnston has been with Skelly and Loy for over 13 years and currently serves as the GPS Coordinator for Skelly and Loy, Inc. His duties include supervising and conducting GPS survey and producing mapping. This includes topographic mapping, engineering design, base map production, GIS data collection, and establishment of aerial control points. In addition to his duties as GPS Coordinator, Mr. Johnston has experience with wetland mitigation design including site selection, site evaluation, conceptual design, and construction monitoring.

PROFESSIONAL EXPERIENCE

Survey Coordinator, U.S. Route 220 Improvement Project, Blair and Centre Counties, PA - Mr. Johnston coordinated the survey work required for the completion of environmental studies. This included stakeout of 30 miles of study corridor, the mapping of more than 1,200 wetland systems, and the mapping of different forest habitats.

Construction Inspector, Whitetail Ski Resort, Franklin County, PA - Mr. Johnston served as the construction inspector for eight acres of replacement wetlands.

Replacement Wetland Designer, U.S. Route 15, Section D51, Tioga County, PA - Mr. Johnston was responsible for the design of 15 acres of replacement wetlands. His duties included performing preliminary site assessment on potential replacement sites, performing detailed soils and hydrology testing on selected sites, and the compilation of the conceptual plan.

Survey Coordinator, Intercon Systems, Dauphin County, PA - Mr. Johnston served as survey coordinator for the preparation of topsoil and property mapping of an 18-acre parcel of land. Duties included the conduction and oversight of topographic and property mapping to be used for the compilation of land development plans

Survey Coordinator and Data Manager, U.S. Route 15, Tioga County, PA and Steuben County, NY - Mr. Johnston's duties included the conduction and oversight of all survey work related to the environmental study. This included stakeout of 27 miles of study corridor centerline and the survey of more than 600 individual wetland systems. In addition, Mr. Johnston was responsible for the oversight of the flow of data: processing of survey data, inclusion of the data into project CADD mapping, and transfer of data from CADD to GIS for use in calculating impacts.

**APPENDIX C -
ROUTINE ON-SITE WETLAND
DETERMINATION DATA FORMS**

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID:	Wetland 1	EVALUATOR:	PJD, BTB, KJS, ERB
DATE:	12-Apr-05	WEATHER:	sunny, clear, 50 degrees
Do normal circumstances exist on the site?	Yes		
Is the site significantly disturbed (Atypical Situation)?	No		
Is the area a potential problem area?	No		
HYDROGEOMORPHIC CLASSIFICATION:		SIZE:	0.0162 Ac 0.0066 Ha

VEGETATION	CLASSIFICATION:	100% PEM	0% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Potentilla sp.	H	NS	Tsuga canadensis	T	FACU
Scirpus cyperinus	H	FACW+	Musci sp.	H	NS
Typha latifolia	H	OBL	Comptonia peregrina	H	NG(UPL)
Juncus effusus	H	FACW+	Poaceae or Gramineae sp.	H	NS
Carex sp.	H	85% FAC-OBL	Acer rubrum	T	FAC
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Morris extremely stony silt loam (MoB)				SOURCE OF HYDROLOGY: <small>Surface water runoff collection and seasonal groundwater.</small>	
HYDRIC SOIL UNIT: Norwich					
WETLAND CORE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH OF SURFACE WATER:	
0-10"	7.5YR3/3		silt loam	DEPTH TO FREE WATER IN SOIL PIT: 1"	
10-16"	2.5Y6/2	2.5Y4/4	silt loam	DEPTH TO SATURATED SOIL:	
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE	FIELD INDICATORS	
				PRIMARY INDICATORS	
				<input checked="" type="checkbox"/> Inundation	
				<input checked="" type="checkbox"/> Saturated in Upper 12 Inches	
				Water Marks	
				Drift Lines	
				Sediment Deposits	
				<input checked="" type="checkbox"/> Drainage Patterns	
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE	SECONDARY INDICATORS	
0-10"	10YR4/6		silt loam	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches	
10-18"	10YR4/4		silt loam	<input checked="" type="checkbox"/> Water Stained Leaves	
				FAC-Neutral Test	

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows saturation, inundation and water stained leaves in a topographically defined bowl and depression adjacent to soccer field. Delineation also follows community of woolgrass, soft rush, and sedge following low chroma and mottled soils. Wetland is isolated.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID:	Wetland 2	EVALUATOR:	PJD, BTB, KJS, ERB
DATE:	12-Apr-05	WEATHER:	sunny, clear, 50 degrees
Do normal circumstances exist on the site?	Yes		
Is the site significantly disturbed (Atypical Situation)?	No		
Is the area a potential problem area?	No		
HYDROGEOMORPHIC CLASSIFICATION:		SIZE:	0.0439 Ac 0.0178 Ha

VEGETATION	CLASSIFICATION:	100% PEM	0% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Osmunda sp.	H	FAC - OBL	Tsuga canadensis	T	FACU
Carex sp.	H	85% FAC-OBL	Quercus rubra	T	FACU-
Sphagnum sp.	H	NS	Alliaria petiolata	H	FACU-
Cornus amomum	SS	FACW	Poaceae or Gramineae sp.	H	NS
			Solidago sp.	H	NS
			Allium sp.	H	NS

Percent of Dominant Species that are OBL, FACW, and FAC 100%

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Morris extremely stony silt loam (MoB)				SOURCE OF HYDROLOGY: Seasonal groundwater seep.	
HYDRIC SOIL UNIT: Norwich					
<u>WETLAND CORE SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH OF SURFACE WATER: 0-1'	
0-8"	10YR2/1		silt loam	DEPTH TO FREE WATER IN SOIL PIT:	
8-16"	10YR6/2	10YR6/8	silt loam	DEPTH TO SATURATED SOIL:	
<u>WETLAND FRINGE SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	FIELD INDICATORS	
				PRIMARY INDICATORS	
				X Inundation	
				X Saturated in Upper 12 Inches	
				Water Marks	
				Drift Lines	
				X Sediment Deposits	
				X Drainage Patterns	
SECONDARY INDICATORS					
				Oxidized Root Channels in Upper 12 inches	
				Water Stained Leaves	
				FAC-Neutral Test	
<u>UPLAND SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-2"	10YR2/1		silt loam		
2-18"	7.5YR4/8		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of hillside seep with osmunda fern and sedge community with low chroma and mottled soils. Hillside seeps go subsurface at toe of slope.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 3	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 0.0618 Ac 0.0250 Ha	

VEGETATION CLASSIFICATION: 100% PEM 0% PSS 0% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Juncus effusus	H	FACW+	Solidago sp.	H	NS
Carex sp.	H	85% FAC-OBL	Poaceae or Gramineae sp.	H	NS
Typha latifolia	H	OBL	Alliaria petiolata	H	FACU-
Epilobium sp.	H	NS	Allium sp.	H	NS
Solidago sp.	H	NS	Solidago altissima	H	FACU-
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Morris extremely stony silt loam (MoB)				SOURCE OF HYDROLOGY: <small>Surface water collection in low area. Surface/stormwater ditch and pipe contribution.</small>	
HYDRIC SOIL UNIT: Norwich					
WETLAND CORE SOIL SCORE				DEPTH OF SURFACE WATER: 0-2'	
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH TO FREE WATER IN SOIL PIT:	
0-8"	7.5YR3/3		silt loam	DEPTH TO SATURATED SOIL:	
8-16"	2.5Y6/2	7.5YR6/8	silt loam	FIELD INDICATORS	
WETLAND FRINGE SOIL SCORE				PRIMARY INDICATORS	
DEPTH	MATRIX	MOTTLE	TEXTURE	<input checked="" type="checkbox"/> Inundation	
				<input checked="" type="checkbox"/> Saturated in Upper 12 Inches	
				<input type="checkbox"/> Water Marks	
				<input type="checkbox"/> Drift Lines	
				<input type="checkbox"/> Sediment Deposits	
				<input type="checkbox"/> Drainage Patterns	
UPLAND SOIL SCORE				SECONDARY INDICATORS	
DEPTH	MATRIX	MOTTLE	TEXTURE	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches	
0-14"	7.5YR3/3		silt loam	<input type="checkbox"/> Water Stained Leaves	
				<input type="checkbox"/> FAC-Neutral Test	

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of low chroma and mottled soils with saturation and inundation (0-2') conditions and community of soft rush and sedges.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 4	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 0.0876 Ac 0.0354 Ha	

VEGETATION CLASSIFICATION: 30% PEM 0% PSS 0% PFO 70% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Carex sp.	H	85% FAC-OBL	Poaceae or Gramineae sp.	H	NS
Lemnaceae sp.	H	OBL	Schizachyrium scoparium ssp. scoparium	H	FACU
Juncus effusus	H	FACW+	Pinus strobus	T	FAC-
Typha latifolia	H	OBL			
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Morris extremely stony silt loam (MoB)				SOURCE OF HYDROLOGY: Groundwater spring (via pipe).	
HYDRIC SOIL UNIT: Norwich				DEPTH OF SURFACE WATER:	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH TO FREE WATER IN SOIL PIT:	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO SATURATED SOIL:	
0-14"	5YR3/3	7.5YR6/8	silt loam	FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
14-18"	5YR4/3		sandy loam		
<u>WETLAND FRINGE SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
<u>UPLAND SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-14"	10.5YR4/4		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of man-made pond and adjacent fringe and groundwater seep drainage pattern to pond. Area is saturated and inundated (>18") and does contain low chroma, mottled soils with duck weed, soft rush, sedge, and cattail community.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 5	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0387 Ac 0.0157 Ha

VEGETATION	CLASSIFICATION:	0% PEM	0% PSS	100% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Acer rubrum	T	FAC	Kalmia latifolia	SS	FACU
Carex sp.	H	85% FAC-OBL	Tsuga canadensis	T	FACU
Sphagnum sp.	H	NS	Quercus rubra	T	FACU-
			Kalmia angustifolia	SS	FAC
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Lackawanna extremely stony loam (LbB)				SOURCE OF HYDROLOGY: Surface water runoff collection.	
HYDRIC SOIL UNIT: 0				DEPTH OF SURFACE WATER: 1-3"	
WETLAND CORE SOIL SCORE				DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-6"	organic		organic		
6-14"	10YR4/2		silt clay loam		
>14"			rock		
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-16"	7.5YR6/3		silty clay loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of topographic depression with saturated and inundated community of sphagnum moss, red maple, and sedge with low chroma and mottled soils.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 6	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 0.0653 Ac 0.0264 Ha	

VEGETATION	CLASSIFICATION:	100% PEM	0% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Juncus effusus	H	FACW+	Pinus rigida	T	FACU
Carex sp.	H	85% FAC-OBL	Poaceae or Gramineae sp.	H	NS
Lysimachia nummularia	H	FACW-	Solidago sp.	H	NS
Nasturtium officinale	H	OBL			
Scirpus cyperinus	H	FACW+			
Saxif discolor	H	FACW			
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Wyoming gravelly sandy loam (WyC)				SOURCE OF HYDROLOGY: Groundwater and surface water runoff collection.	
HYDRIC SOIL UNIT: Wet spots					
WETLAND CORE SOIL SCORE				DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches _____ Water Marks _____ Drift Lines _____ Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS _____ Oxidized Root Channels in Upper 12 inches _____ Water Stained Leaves _____ FAC-Neutral Test	
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-3"	7.5YR3/2		disturbed		
3-14"	5YR5/3		disturbed		
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-16"	10YR3/3		silt loam		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-16"	10YR3/3		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input checked="" type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input checked="" type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of sedge and soft rush community following a topographic low drainage pattern with low chroma, red soils in a disturbed setting.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 7	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0686 Ac 0.0278 Ha

VEGETATION CLASSIFICATION: 50% PEM 0% PSS 50% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Carex sp.	H	85% FAC-OBL	Hamamelis virginiana	SS	FACU+
Sphagnum sp.	H	NS	Acer rubrum	T	FAC
Acer rubrum	T	FAC	Quercus alba	T	FACU
			Poaceae or Gramineae sp.	H	NS
			Tsuga canadensis	T	FACU
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS	HYDROLOGY
MAPPED SOIL UNIT: Morris extremely stony silt loam (MoB)	SOURCE OF HYDROLOGY: Seasonal flooding and seasonal groundwater.
HYDRIC SOIL UNIT: Norwich	

WETLAND CORE SOIL SCORE				DEPTH OF SURFACE WATER: 1-3"	DEPTH TO FREE WATER IN SOIL PIT: 0"	DEPTH TO SATURATED SOIL:
DEPTH	MATRIX	MOTTLE	TEXTURE			
0-10"	10YR3/2		silt loam			
10-16"	10YR4/2	10YR4/4	silt loam			

WETLAND FRINGE SOIL SCORE				FIELD INDICATORS	
DEPTH	MATRIX	MOTTLE	TEXTURE		
				PRIMARY INDICATORS	
				<input checked="" type="checkbox"/>	Inundation
				<input checked="" type="checkbox"/>	Saturated in Upper 12 Inches
				<input type="checkbox"/>	Water Marks
				<input type="checkbox"/>	Drift Lines
				<input type="checkbox"/>	Sediment Deposits
				<input type="checkbox"/>	Drainage Patterns
				SECONDARY INDICATORS	
				<input type="checkbox"/>	Oxidized Root Channels in Upper 12 inches
				<input type="checkbox"/>	Water Stained Leaves
				<input type="checkbox"/>	FAC-Neutral Test

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of floodplain bench palustrine forested wetland with low chroma and mottled soils in saturated low area adjacent to Channel 1.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID:	Wetland 8	EVALUATOR:	PJD, BTB, KJS, ERB
DATE:	12-Apr-05	WEATHER:	sunny, clear, 50 degrees
Do normal circumstances exist on the site?	Yes		
Is the site significantly disturbed (Atypical Situation)?	No		
Is the area a potential problem area?	No		
HYDROGEOMORPHIC CLASSIFICATION:		SIZE:	0.1579 Ac 0.0639 Ha

VEGETATION	CLASSIFICATION:	0% PEM	0% PSS	100% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Acer rubrum	T	FAC	Quercus rubra	T	FACU-
Tsuga canadensis	T	FACU	Acer rubrum	T	FAC
			Kalmia latifolia	SS	FACU
			Tsuga canadensis	T	FACU
			Pinus strobus	T	FAC-*
Percent of Dominant Species that are OBL, FACW, and FAC			50%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Lackawanna extremely stony loam (LbB)				SOURCE OF HYDROLOGY: Groundwater seep via pipe.	
HYDRIC SOIL UNIT:				DEPTH OF SURFACE WATER:	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH TO FREE WATER IN SOIL PIT:	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO SATURATED SOIL:	
0-4"	10YR2/1		silt loam	FIELD INDICATORS	
4-10"	10YR4/3		silt loam		
10-16"	10YR4/6		silt loam		
<u>WETLAND FRINGE SOIL SCORE</u>				PRIMARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
<u>UPLAND SOIL SCORE</u>				SECONDARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-5"	10YR2/1		silt loam		
5-16"	10YR4/4		silt loam	X Inundation	
				X Saturated in Upper 12 Inches	
				Water Marks	
				Drift Lines	
				Sediment Deposits	
				X Drainage Patterns	
				Oxidized Root Channels in Upper 12 inches	
				X Water Stained Leaves	
				FAC-Neutral Test	

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of red maple community with sulfidic odor in soils and ample saturation and inundation following low chroma soils.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID:	Wetland 9	EVALUATOR:	PJD, BTB, KJS, ERB
DATE:	12-Apr-05	WEATHER:	sunny, clear, 50 degrees
Do normal circumstances exist on the site?	Yes		
Is the site significantly disturbed (Atypical Situation)?	No		
Is the area a potential problem area?	No		
HYDROGEOMORPHIC CLASSIFICATION:		SIZE:	0.0271 Ac 0.0110 Ha

VEGETATION	CLASSIFICATION:
	0% PEM 0% PSS 100% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Tsuga canadensis	T	FACU	Tsuga canadensis	T	FACU
Acer rubrum	T	FAC	Acer rubrum	T	FAC
Sphagnum sp.	H	NS	Quercus alba	T	FACU
Vaccinium corymbosum	SS	FACW	Quercus rubra	T	FACU
			Kalmia angustifolia	SS	FAC

Percent of Dominant Species that are OBL, FACW, and FAC 67%

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Lackawanna extremely stony loam (LbB)				SOURCE OF HYDROLOGY: <small>Surface water collection.</small>	
HYDRIC SOIL UNIT:				DEPTH OF SURFACE WATER: 1-3'	
WETLAND CORE SOIL SCORE				DEPTH TO FREE WATER IN SOIL PIT:	
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH TO SATURATED SOIL:	
0-2"	organic		organic	FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
2-16"	10YR6/3	10YR6/8	clay loam		
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-16"	7.5YR6/3		silty clay loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of topographic low area with drainage patterns and red maple dominated community in area of water stained leaves, saturation, and inundation. Area of delineation also does have low chroma and mottled soils along with sulfidic odor.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 10	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0353 Ac 0.0143 Ha

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 100% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Acer rubrum	T	FAC	Acer rubrum	T	FAC
Sphagnum sp.	H	NS	Tsuga canadensis	T	FACU
			Kalmia latifolia	SS	FACU
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Lackawanna extremely stony loam (LBB)				SOURCE OF HYDROLOGY: Surface water runoff collection	
HYDRIC SOIL UNIT:				DEPTH OF SURFACE WATER: 1-6"	
WETLAND CORE SOIL SCORE				DEPTH TO FREE WATER IN SOIL PIT:	
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH TO SATURATED SOIL:	
0-10"	10YR3/2		silt loam	FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
10-18"	2.5Y5/1	2.5Y4/4	silt loam		
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-6"	7.5YR3/2		silt loam		
6-10"	7.5YR4/2		silt loam		
10-16"	10YR4/3		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of topographic low area with red maple and sphagnum moss community, following water stained leaves with saturation and inundated conditions. Low chroma and mottled soils are also present.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 11	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.1292 Ac 0.0523 Ha

VEGETATION	CLASSIFICATION:	0% PEM	0% PSS	100% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Acer rubrum	T	FAC	Hamamelis virginiana	SS	FACU+
Osmunda sp.	H	FAC - OBL	Acer rubrum	T	FAC
Carex sp.	H	85% FAC-OBL	Quercus alba	T	FACU
Betula alleghaniensis	T	FAC	Poaceae or Gramineae sp.	H	NS
Vaccinium corymbosum	SS	FACW-	Tsuga canadensis	T	FACU
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Morris extremely stony silt loam (MoB)				SOURCE OF HYDROLOGY: Seasonal groundwater and surface water runoff collection.	
HYDRIC SOIL UNIT: Norwich					
WETLAND CORE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH OF SURFACE WATER: 1'	
0-8"	7.5Y3/2	7.5Y4/4	sandy loam		
8-16"	7.5Y5/2	7.5Y4/4	sandy loam		
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH TO FREE WATER IN SOIL PIT:	
0-6"	10YR2/2		loam		
6-14"	7.5YR5/4	7.5YR5/6	loam		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH TO SATURATED SOIL:	
0-6"	10YR2/2		loam		
6-14"	7.5YR5/4	7.5YR5/6	loam		

- FIELD INDICATORS**
- PRIMARY INDICATORS**
- Inundation
 - Saturated in Upper 12 Inches
 - Water Marks
 - Drift Lines
 - Sediment Deposits
 - Drainage Patterns
- SECONDARY INDICATORS**
- Oxidized Root Channels in Upper 12 inches
 - Water Stained Leaves
 - FAC-Neutral Test

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination	
Hydrophytic Vegetation Present? Yes	Hydric Soil Present? Yes
Wetland Hydrology Present? Yes	Wetland? Yes

BASIS OF DELINEATION:

Delineation follows extent of drainage patterns in topographic low bowl with osmunda fern, red maple community and saturated, low chroma and mottled soils with sulfidic odor.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 12	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0966 Ac 0.0391 Ha

VEGETATION	CLASSIFICATION:	0% PEM	0% PSS	0% PFO	100% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
			Solidago altissima	H	FACU-
			Populus tremuloides	T	NI
			Acer rubrum	T	FAC

Percent of Dominant Species that are OBL, FACW, and FAC #DIV/0!

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Morris extremely stony silt loam (MoB)				SOURCE OF HYDROLOGY: Semipermanently inundated from surface water collection.	
HYDRIC SOIL UNIT: Norwich					
<u>WETLAND CORE SOIL SCORE</u>				DEPTH OF SURFACE WATER: 2'	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO FREE WATER IN SOIL PIT:	
Inundated				DEPTH TO SATURATED SOIL:	
<u>WETLAND FRINGE SOIL SCORE</u>				FIELD INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	PRIMARY INDICATORS	
				<input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns	
<u>UPLAND SOIL SCORE</u>				SECONDARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
0-14"	10YR4/3		disturbed w/ gravel		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of topographic low with inundation in man-made excavated pond.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 13	EVALUATOR: PJD, BTB, AJL, KJS, ERB
DATE: 14-Apr-05	WEATHER: sunny, clear, cool
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 0.0308 Ac 0.0125 Ha	

VEGETATION	CLASSIFICATION:	50% PEM	50% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Solidago gigantea	H	FACW	Poaceae or Gramineae sp.	H	NS
Salix nigra	T	FACW+	Polygonum cuspidatum	H	FACU-
Galium sp.	H	NS			
Carex sp.	H	85% FAC-OBL			
Phalaris arundinacea	H	FACW			
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS	HYDROLOGY
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MAPPED SOIL UNIT: Phlo silt loam (Ph) HYDRIC SOIL UNIT: Holly	SOURCE OF HYDROLOGY: Surface water collection and seasonal flooding.																
WETLAND CORE SOIL SCORE	DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS <input type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test																
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DEPTH		MATRIX	MOTTLE	TEXTURE													
0-6"		10YR3/2		sandy loam													
6-14"	10YR2/2	10YR4/6	alluvium														
>14"	rock		rock														
WETLAND FRINGE SOIL SCORE																	
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DEPTH	MATRIX	MOTTLE	TEXTURE														
0-14"	10YR3/2		sandy loam														

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of sedge/grass floodplain bench with debris line and low chroma, saturated, mottled soils.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 14	EVALUATOR: PJD, BTB, AJL, KJS, ERB
DATE: 14-Apr-05	WEATHER: sunny, clear, cool
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0215 Ac 0.0087 Ha

VEGETATION	CLASSIFICATION:	100% PEM	0% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Solidago gigantea	H	FACW	Poaceae or Gramineae sp.	H	NS
Poaceae or Gramineae sp.	H	NS	Dactylis glomerata	H	FACU
Carex sp.	H	85% FAC-OBL	Taraxacum officinale	H	FACU-
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT:		Phlo silt loam (Ph)		SOURCE OF HYDROLOGY: Stream flooding and seasonal saturation.	
HYDRIC SOIL UNIT:		Holly		DEPTH OF SURFACE WATER:	
WETLAND CORE SOIL SCORE				DEPTH TO FREE WATER IN SOIL PIT:	
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH TO SATURATED SOIL:	
0-8"	10YR3/2		alluvial sand	FIELD INDICATORS PRIMARY INDICATORS <input type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
8-12"	10YR5/2		alluvial sand		
12-18"	10YR5/2	10YR4/6	silt loam		
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-16"	10YR5/3		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of the sedge/grass floodplain bench with debris line following low chroma, mottled, and saturated soils with sulfidic odor.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 15	EVALUATOR: PJD, BTB, AJL, KJS, ERB
DATE: 14-Apr-05	WEATHER: sunny, clear, cool
Do normal circumstances exist on the site?	Yes
Is the site significantly disturbed (Atypical Situation)?	No
Is the area a potential problem area?	No
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0629 Ac 0.0254 Ha

VEGETATION CLASSIFICATION: 100% PEM 0% PSS 0% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Juncus effusus	H	FACW+	Poaceae or Gramineae sp.	H	NS
Poaceae or Gramineae sp.	H	NS	Taraxacum officinale	H	FACU-
Sphagnum sp.	H	NS	Malus sp.	T	NS
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Phlo silt loam (Ph)		HYDRIC SOIL UNIT: Holly		SOURCE OF HYDROLOGY: Groundwater seep and seasonal saturation.	
WETLAND CORE SOIL SCORE				DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: 6"	
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-6"	10YR4/2		sandy loam		
6-18"	10YR5/1	10YR3/6	sandy loam	FIELD INDICATORS PRIMARY INDICATORS <input type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-16"	10YR3/4		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of soft rush and grass community with strong saturation and low chroma, mottled soils in mowed area.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 16	EVALUATOR: PJD, BTB, AJL, KJS, ERB
DATE: 14-Apr-05	WEATHER: sunny, clear, cool
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0687 Ac 0.0278 Ha

VEGETATION	CLASSIFICATION:																																							
	0% PEM 0% PSS 100% PFO 0% POW																																							
WETLAND	UPLAND																																							
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>SPECIES</th> <th>STRATUM</th> <th>INDICATOR</th> </tr> </thead> <tbody> <tr><td>Carex sp.</td><td>H</td><td>85% FAC-OBL</td></tr> <tr><td>Rhododendron sp.</td><td>SS</td><td>NS</td></tr> <tr><td>Impatiens capensis</td><td>H</td><td>FACW</td></tr> <tr><td>Poaceae or Gramineae sp.</td><td>H</td><td>NS</td></tr> <tr><td>Betula alleghaniensis</td><td>T</td><td>FAC</td></tr> </tbody> </table>	SPECIES	STRATUM	INDICATOR	Carex sp.	H	85% FAC-OBL	Rhododendron sp.	SS	NS	Impatiens capensis	H	FACW	Poaceae or Gramineae sp.	H	NS	Betula alleghaniensis	T	FAC	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>SPECIES</th> <th>STRATUM</th> <th>INDICATOR</th> </tr> </thead> <tbody> <tr><td>Smilax sp.</td><td>H</td><td>NS</td></tr> <tr><td>Rhododendron sp.</td><td>SS</td><td>NS</td></tr> <tr><td>Acer rubrum</td><td>T</td><td>FAC</td></tr> <tr><td>Poaceae or Gramineae sp.</td><td>H</td><td>NS</td></tr> <tr><td>Solidago sp.</td><td>H</td><td>NS</td></tr> <tr><td>Alliaria petiolata</td><td>H</td><td>FACU-</td></tr> </tbody> </table>	SPECIES	STRATUM	INDICATOR	Smilax sp.	H	NS	Rhododendron sp.	SS	NS	Acer rubrum	T	FAC	Poaceae or Gramineae sp.	H	NS	Solidago sp.	H	NS	Alliaria petiolata	H	FACU-
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Smilax sp.	H	NS																																						
Rhododendron sp.	SS	NS																																						
Acer rubrum	T	FAC																																						
Poaceae or Gramineae sp.	H	NS																																						
Solidago sp.	H	NS																																						
Alliaria petiolata	H	FACU-																																						
Percent of Dominant Species that are OBL, FACW, and FAC 100%																																								

SOILS	HYDROLOGY																
MAPPED SOIL UNIT: Morris extremely stony silt loam (MoB)	SOURCE OF HYDROLOGY: Surface water runoff from adjacent wetlands and seasonal flooding. DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL:																
HYDRIC SOIL UNIT: Norwich																	
WETLAND CORE SOIL SCORE	FIELD INDICATORS PRIMARY INDICATORS <input type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test																
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DEPTH		MATRIX	MOTTLE	TEXTURE													
0-7"	10YR3/2		sandy loam														
7-10"	10YR4/4		sandy loam														
10-18"	7.5YR4/2	7.5YR4/4	sandy loam														
WETLAND FRINGE SOIL SCORE																	
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DEPTH	MATRIX	MOTTLE	TEXTURE														
0-8"	10YR3/2		silt loam														
8-16"	10YR3/3		silt loam														
UPLAND SOIL SCORE																	

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of topographic low drainage pattern adjacent to braided channel of Channel 4. This area has sandy low chroma and mottled soils that are heavily mottled. Upper portion of Wetland 16 is cutoff where area becomes well-drained even though drainage pattern is apparent. Upper portion of wetland also loses vegetative community.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID:	Wetland 17	EVALUATOR:	PJD, BTB, A.JL, KJS, ERB
DATE:	14-Apr-05	WEATHER:	sunny, clear, cool
Do normal circumstances exist on the site?	Yes		
Is the site significantly disturbed (Atypical Situation)?	No		
Is the area a potential problem area?	No		
HYDROGEOMORPHIC CLASSIFICATION:		SIZE:	0.0108 Ac 0.0044 Ha

VEGETATION	CLASSIFICATION:	100% PEM	0% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Sphagnum sp.	H	NS	Smilax sp.	H	NS
Poaceae or Gramineae sp.	H	NS	Rhododendron sp.	SS	NS
Carex sp.	H	85% FAC-OBL	Acer rubrum	T	FAC
Tussilago farfara	H	FACU	Poaceae or Gramineae sp.	H	NS
			Solidago sp.	H	NS
			Alliaria petiolata	H	FACU
Percent of Dominant Species that are OBL, FACW, and FAC			50%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Morris extremely stony silt loam (MoB)				SOURCE OF HYDROLOGY: Groundwater seep	
HYDRIC SOIL UNIT: Norwich				DEPTH OF SURFACE WATER: 1'	
WETLAND CORE SOIL SCORE				DEPTH TO FREE WATER IN SOIL PIT:	
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH TO SATURATED SOIL:	
0-2"	10YR2/2		muck	FIELD INDICATORS PRIMARY INDICATORS <input type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
2-6"	7.5Y4/2	7.5Y4/6	muck		
>6"	rock		rock		
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-8"	10YR3/2		silt loam		
8-16"	10YR3/3		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination	
Hydrophytic Vegetation Present?	Yes
Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes
Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of drainage pattern, saturated and inundated soils and groundwater seeps adjacent and on old dirt path. Area/seep zone is at toe of slope from area that was filled years ago. Wetland is very wet and delineation follows extent of saturated, low chroma and mottled soils in drainage pattern.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 18	EVALUATOR: PJD, BTB, AJL, KJS, ERB
DATE: 14-Apr-05	WEATHER: sunny, clear, cool
Do normal circumstances exist on the site?	Yes
Is the site significantly disturbed (Atypical Situation)?	No
Is the area a potential problem area?	No
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 5.3075 Ac 2.1474 Ha

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 100% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Rhododendron sp.	SS	NS	Tsuga canadensis	T	FACU
Betula alleghaniensis	T	FAC	Rhododendron sp.	SS	NS
Acer rubrum	T	FAC	Quercus rubra	T	FACU-
Osmunda sp.	H	FAC - OBL	Carya ovata	T	FACU-
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Wyoming gravelly sandy loam (WyB)				SOURCE OF HYDROLOGY: <small>Groundwater seepage and seasonal semipermanent saturation.</small>	
HYDRIC SOIL UNIT: Wet spots					
<u>WETLAND CORE SOIL SCORE</u>				DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: 4" DEPTH TO SATURATED SOIL: 0"	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-12"	2.5Y3/1		silt loam		
12-18"	5Y5/1	2.5Y4/4	sandy loam	FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
<u>WETLAND FRINGE SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-8"	10YR3/1		silt loam w/ sapric organics		
8-16"	10YR5/1	10YR4/6	silty clay loam		
<u>UPLAND SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-6"	10YR3/2		loam/sandy loam		
6-14"	7.5YR3/2		loam/sandy loam		
>14"	rock		rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of rhododendron, yellow birch, and red maple community with low chroma, mottled soils and evidence of saturation with mottles and drainage patterns.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 19	EVALUATOR: PJD, BTB, AJL, KJS, ERB
DATE: 14-Apr-05	WEATHER: sunny, clear, cool
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 0.4252 Ac 0.1720 Ha	

VEGETATION	CLASSIFICATION: 0% PEM 0% PSS 100% PFO 0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Acer rubrum	T	FAC	Berberis sp.	H	NS
Polygonum sagittatum	H	OBL	Pseudotsuga menziesii	T	NI
Musci sp.	H	NS	Poaceae or Gramineae sp.	H	NS
Poaceae or Gramineae sp.	H	NS	Acer rubrum	T	FAC
Mentha sp.	H	NS	Rhododendron sp.	SS	NS
Fraxinus pennsylvanica	T	FACW			
Carex sp.	H	85% FAC-OBL			
Juncus effusus	H	FACW+			
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS	HYDROLOGY
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<p>MAPPED SOIL UNIT: Morris extremely stony silt loam (MoB)</p> <p>HYDRIC SOIL UNIT: Norwich</p>	<p>SOURCE OF HYDROLOGY: Groundwater seeps.</p> <p>DEPTH OF SURFACE WATER:</p> <p>DEPTH TO FREE WATER IN SOIL PIT:</p> <p>DEPTH TO SATURATED SOIL: 0'</p>											
WETLAND CORE SOIL SCORE	<p>FIELD INDICATORS</p> <p>PRIMARY INDICATORS</p> <p>Inundation</p> <p><input checked="" type="checkbox"/> Saturated in Upper 12 Inches</p> <p>Water Marks</p> <p>Drift Lines</p> <p>Sediment Deposits</p> <p><input checked="" type="checkbox"/> Drainage Patterns</p> <p>SECONDARY INDICATORS</p> <p><input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 inches</p> <p><input checked="" type="checkbox"/> Water Stained Leaves</p> <p>FAC-Neutral Test</p>											
WETLAND FRINGE SOIL SCORE												
UPLAND SOIL SCORE												
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">DEPTH</th> <th style="text-align: center;">MATRIX</th> <th style="text-align: center;">MOTTLE</th> <th style="text-align: center;">TEXTURE</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">0-4"</td> <td style="text-align: center;">10YR3/1</td> <td></td> <td style="text-align: center;">silt loam</td> </tr> <tr> <td style="text-align: center;">4-16"</td> <td style="text-align: center;">10YR5/1</td> <td></td> <td style="text-align: center;">silt loam</td> </tr> </tbody> </table>	DEPTH	MATRIX	MOTTLE	TEXTURE	0-4"	10YR3/1		silt loam	4-16"	10YR5/1		silt loam
DEPTH	MATRIX	MOTTLE	TEXTURE									
0-4"	10YR3/1		silt loam									
4-16"	10YR5/1		silt loam									
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DEPTH	MATRIX	MOTTLE	TEXTURE									
0-16"	10YR3/3		silt loam									

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows groundwater seep drainage pattern perched in upland topographic low following red maple, arrow-leaved tearthumb community following saturated, low chroma soil with mottles and sulfidic odor. Wetland seeps are found at base of slope and provide hydrology. Wetland fingers discharge over steep edge to Channel 4 floodplain. Upslope discharge point forms start of Channel 11.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Welland 20	EVALUATOR: PJD, BTB, AJL, KJS, ERB
DATE: 14-Apr-05	WEATHER: sunny, clear, cool
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.6340 Ac 0.2565 Ha

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 100% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Acer rubrum	T	FAC	Poaceae or Gramineae sp.	H	NS
Fraxinus pennsylvanica	T	FACW	Acer rubrum	T	FAC
Carex sp.	H	85% FAC-OBL	Tsuga canadensis	T	FACU
Scirpus atrovirens	H	OBL	Berberis sp.	SS	NS
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Wellsboro extremely stony loam (WpC)				SOURCE OF HYDROLOGY: Groundwater seep hydrology and seasonal saturation.	
HYDRIC SOIL UNIT: Norwich					
WETLAND CORE SOIL SCORE				DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL:	
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-14"	10YR4/1	10YR3/6	silt loam		
14-18"	10YR6/3	10YR5/8	silt loam	FIELD INDICATORS PRIMARY INDICATORS <input type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-8"	10YR4/3		silt loam		
8-16"	7.5YR5/3	10YR4/6	silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of red maple, green ash, sedge community with low chroma mottled soils in upper horizon with saturation, drainage pattern and water marks.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 21	EVALUATOR: PJD, BTB, AJL, ERB, KJS
DATE: 14-Apr-05	WEATHER: Cool, clear, sunny, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 1.5549 Ac 0.6291 Ha	

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 100% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Acer rubrum	T	FAC	Quercus rubra	T	FACU-
Carex sp.	H	85% FAC-OBL	Kalmia latifolia	SS	FACU
Poaceae or Gramineae sp.	H	NS	Rhododendron sp.	SS	NS
Fraxinus pennsylvanica	T	FACW	Carya ovata	T	FACU-
Sphagnum sp.	H	NS			
Percent of Dominant Species that are OBL, FACW, and FAC 100%					

SOILS	HYDROLOGY
MAPPED SOIL UNIT: Welsboro extremely stony loam (WpC)	SOURCE OF HYDROLOGY: Groundwater and hillside seep with seasonal saturation.
HYDRIC SOIL UNIT: Norwich	

WETLAND CORE SOIL SCORE			
DEPTH	MATRIX	MOTTLE	TEXTURE
0-8"	10YR3/2	10YR4/6	silt loam
8-16"	10YR5/1	10YR4/6	silt loam

WETLAND FRINGE SOIL SCORE			
DEPTH	MATRIX	MOTTLE	TEXTURE
0-8"	10YR3/2	10YR4/4	silt loam
8-16"	7.5YR4/2	7.5YR4/4	silt loam

UPLAND SOIL SCORE			
DEPTH	MATRIX	MOTTLE	TEXTURE
0-6"	10YR3/2		silt loam
6-14"	10YR4/4		silty clay loam
>14"	rock		rock

DEPTH OF SURFACE WATER:

DEPTH TO FREE WATER IN SOIL PIT:

DEPTH TO SATURATED SOIL:

FIELD INDICATORS

PRIMARY INDICATORS

Inundation

Saturated in Upper 12 Inches

Water Marks

Drift Lines

Sediment Deposits

Drainage Patterns

SECONDARY INDICATORS

Oxidized Root Channels in Upper 12 inches

Water Stained Leaves

FAC-Neutral Test

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of red maple, ash, sedge community with low chroma, matrix soils in upper surface horizon with mottles and saturation with drainage patterns, water marks, and water stained leaves.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 22	EVALUATOR: PJD, BTB, AJL, ERB, KJS
DATE: 14-Apr-05	WEATHER: Cool, clear, sunny, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0285 Ac 0.0115 Ha

VEGETATION	CLASSIFICATION:	100% PEM	0% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Carex sp.	H	85% FAC-OBL	Carya ovata	T	FACU-
Osmunda sp.	H	FAC - OBL	Acer rubrum	T	FAC
Sphagnum sp.	H	NS	Kalmia latifolia	SS	FACU
			Tsuga canadensis	T	FACU

Percent of Dominant Species that are OBL, FACW, and FAC: 100%

SOILS				HYDROLOGY	
MAPPED SOIL UNIT:		Alluvial land (As)		SOURCE OF HYDROLOGY: Groundwater seeps and seasonal saturation.	
HYDRIC SOIL UNIT:		Holly, Wayland		DEPTH OF SURFACE WATER:	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH TO FREE WATER IN SOIL PIT:	
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH TO SATURATED SOIL:	
0-6"	10YR3/2		silt loam	FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
6-10"	10YR3/1	10YR3/4	sandy loam		
10-18"	2.5Y3/1	2.5Y3/4	sandy loam		
<u>WETLAND FRINGE SOIL SCORE</u>					
DEPTH	MATRIX	MOTTLE	TEXTURE		
<u>UPLAND SOIL SCORE</u>					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-6"	10YR2/1		silt loam		
6-12"	7.5YR4/2	0	sandy loam		
12-18"	7.5YR3/3		sandy loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of topographic low with saturated and inundated low chroma, mottled soils following sedge, osmunda fern, and sphagnum moss community. Discharge from seeps and wetland form Channel 14.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 23	EVALUATOR: PJD, BTB, AJL, ERB, KJS
DATE: 14-Apr-05	WEATHER: Cool, clear, sunny, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0038 Ac 0.0015 Ha

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 100% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Acer rubrum	T	FAC	Tsuga canadensis	T	FACU
Fraxinus pennsylvanica	T	FACW	Rhododendron sp.	SS	NS
			Quercus rubra	T	FACU-
			Carya ovata	T	FACU-
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Wyoming gravelly sandy loam (WyB)				SOURCE OF HYDROLOGY: Groundwater seeps.	
HYDRIC SOIL UNIT: Wet spots					
WETLAND CORE SOIL SCORE				DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS Oxidized Root Channels in Upper 12 inches Water Stained Leaves FAC-Neutral Test	
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-12"	2.5Y3/1		silt loam		
12-18"	5Y5/1	2.5Y4/4	sandy loam		
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-16"	7.5YR5/3, 7.5YR4/4		silt loam		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-16"	7.5YR5/3, 7.5YR4/4		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of hillside seep where the lower slope boundary follows the extent of the red maple and green ash community with low chroma, mottled, and saturated soils. Soils of 7.5YR5/3 and 7.5YR4/4 were considered part of the uplands.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 24	EVALUATOR: PJD, BTB, AJL, ERB, KJS
DATE: 14-Apr-05	WEATHER: Cool, clear, sunny, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 7.8222 Ac 3,1649 Ha

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 100% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Rhododendron sp.	SS	NS	Quercus rubra	T	FACU-
Acer rubrum	T	FAC	Quercus alba	T	FACU
Betula alleghaniensis	T	FAC	Quercus montana	T	UPL
			Tsuga canadensis	T	FACU
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNI: Morris extremely stony silt loam (MoB), Wyoming gravelly sandy loam (WyB), Chippewa and Norwich extremely stony soils (CnB)				SOURCE OF HYDROLOGY: Groundwater and seasonal flooding.	
HYDRIC SOIL UNIT: MoB = Norwich, WyB = Wet Spots, CnB = Chippewa and Norwich					
WETLAND CORE SOIL SCORE				DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input checked="" type="checkbox"/> Water Marks Drift Lines Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS Oxidized Root Channels in Upper 12 inches Water Stained Leaves FAC-Neutral Test	
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-7"	10YR3/2		organic/mineral mix		
7-14"	10YR5/2	10YR5/3 and 10YR4/6	sandy loam		
>14"	rock		rock		
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	10YR3/2		organic/mineral mix		
4-16"	10YR4/6		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of rhododendron, red maple, and yellow birch community with low chroma soil and evidence of saturation, water marks, and drainage patterns.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 25	EVALUATOR: PJD, ERB, GOO
DATE: 20-Apr-05	WEATHER: Partly cloudy and warm
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0209 Ac 0.0085 Ha

VEGETATION	CLASSIFICATION: 100% PEM 0% PSS 0% PFO 0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Carex sp.	H	85% FAC-OBL	Quercus rubra	T	FACU-
Carya ovata	T	FACU-	Quercus alba	T	FACU
Nyssa sylvatica	T	FAC	Quercus montana	T	UPL
			Tsuga canadensis	T	FACU
Percent of Dominant Species that are OBL, FACW, and FAC			67%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Wyoming gravelly sandy loam (WyC)				SOURCE OF HYDROLOGY: Groundwater seep, surface water collection, and seasonal saturation.	
HYDRIC SOIL UNIT: Wet spots					
WETLAND CORE SOIL SCORE				DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS <input type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-7"	10YR3/2		organic/mineral mix		
7-14"	10YR5/2	10YR5/3 and 10YR4/6	sandy loam		
>14"	rock		rock		
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	10YR3/2		organic/mineral mix		
4-16"	10YR4/6		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of topographic flat with low chroma, mottled soils and limited vegetation cover with water stained leaves and saturation.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 26	EVALUATOR: PJD, ERB, GOO
DATE: 20-Apr-05	WEATHER: Partly cloudy and warm
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.4501 Ac 0.1821 Ha

VEGETATION CLASSIFICATION: 50% PEM 0% PSS 0% PFO 50% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Typha latifolia	H	OBL	Berberis sp.	H	NS
Carex sp.	H	85% FAC-OBL	Carya ovata	T	FACU-
Juncus effusus	H	FACW+	Poaceae or Gramineae sp.	H	NS
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Wellsboro extremely stony loam (WpB)				SOURCE OF HYDROLOGY: Spring discharge, groundwater, and semipermanently inundated and saturated.	
HYDRIC SOIL UNIT: Norwich					
WETLAND CORE SOIL SCORE				DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-6"	10YR3/2	10YR4/4	sandy loam and organic		
6-14"	10YR5/2	5YR4/4 and 10YR4/4	heavy silt loam		
WETLAND FRINGE SOIL SCORE				<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-3"	10YR3/3	10YR4/4	silt loam		
3-12"	10YR4/6	10YR4/6	silt loam		
>12"	rock	rock	rock		
UPLAND SOIL SCORE				<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-3"	10YR3/3	10YR4/4	silt loam		
3-12"	10YR4/6	10YR4/6	silt loam		
>12"	rock	rock	rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of pond with emergent fringe with soft rush, cattail, and sedge community with low chroma mottled soils and saturation.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 27	EVALUATOR: PJD, ERB, GOO
DATE: 20-Apr-05	WEATHER: Partly cloudy and warm
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 0.3346 Ac 0.1354 Ha	

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 0% PFO 100% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Acer rubrum	T	FAC	Quercus rubra	T	FACU-
Carya ovata	T	FACU-	Berberis sp.	H	NS
			Alliaria petiolata	H	FACU-
Percent of Dominant Species that are OBL, FACW, and FAC			50%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Wellsboro extremely stony loam (WpC)				SOURCE OF HYDROLOGY: Groundwater and surface water runoff. Semipermanently inundated.	
HYDRIC SOIL UNIT: Norwich					
<u>WETLAND CORE SOIL SCORE</u>				DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input type="checkbox"/> Saturated in Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
inundated	inundated		inundated		
<u>WETLAND FRINGE SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
<u>UPLAND SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
disturbed fill material			disturbed fill		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of topographic low with standing water.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 28	EVALUATOR: FJD, ERB, GOO
DATE: 20-Apr-05	WEATHER: Partly cloudy and warm
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0285 Ac 0.0115 Ha

VEGETATION	CLASSIFICATION:	50% PEM	0% PSS	50% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Impatiens capensis	H	FACW	Quercus rubra	T	FACU-
Microstegium vimineum	H	FAC	Acer pensylvanicum	SS	FACU
Acer rubrum	T	FAC			
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Oquaga-Lackawanna extremely stony loams (OxC)				SOURCE OF HYDROLOGY: Groundwater seep discharge and seasonal saturation.	
HYDRIC SOIL UNIT:				DEPTH OF SURFACE WATER:	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH TO FREE WATER IN SOIL PIT:	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO SATURATED SOIL:	
0-6"	10YR3/1		saturated		
6-12"	10YR3/2	10YR4/6	silt loam		
>12"	rock		rock		
<u>WETLAND FRINGE SOIL SCORE</u>				FIELD INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	PRIMARY INDICATORS	
				Inundation	
				<input checked="" type="checkbox"/> Saturated in Upper 12 Inches	
				<input checked="" type="checkbox"/> Water Marks	
				Drift Lines	
				Sediment Deposits	
				Drainage Patterns	
<u>UPLAND SOIL SCORE</u>				SECONDARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	Oxidized Root Channels in Upper 12 inches	
0-4"	5YR3/3		silt loam		
4-8"	5YR4/4		silt loam	<input checked="" type="checkbox"/> Water Stained Leaves	
>8"	rock		rock	FAC-Neutral Test	

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of saturated seep area with low chroma soils, following stilt grass and jewelweed community with water staining.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 29	EVALUATOR: PJD, ERB, GOO
DATE: 20-Apr-05	WEATHER: Partly cloudy and warm
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.1221 Ac 0.0494 Ha

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 100% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Acer rubrum	T	FAC	Rosa multiflora	SS	FACU
Poaceae or Gramineae sp.	H	NS	Pinus strobus	T	FAC-
Polygonum cuspidatum	H	FACU-	Carya ovata	T	FACU-
Fraxinus pennsylvanica	T	FACW	Polygonum cuspidatum	H	FACU-
Juncus effusus	H	FACW+			
Impatiens capensis	H	FACW			
Percent of Dominant Species that are OBL, FACW, and FAC			75%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Oquaga-Lackawanna extremely stony loams (OxC)				Surface water runoff collection and seasonal flooding.	
HYDRIC SOIL UNIT:				SOURCE OF HYDROLOGY:	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH OF SURFACE WATER:	
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH TO FREE WATER IN SOIL PIT:	
0-12"	5YR3/2	5YR4/4	silt loam	DEPTH TO SATURATED SOIL: 0"	
>12"	rock		rock		
<u>WETLAND FRINGE SOIL SCORE</u>				FIELD INDICATORS	
DEPTH	MATRIX	MOTTLE	TEXTURE	PRIMARY INDICATORS	
				Inundation	
				<input checked="" type="checkbox"/> Saturated in Upper 12 inches	
				Water Marks	
				Drift Lines	
				<input checked="" type="checkbox"/> Sediment Deposits	
				<input checked="" type="checkbox"/> Drainage Patterns	
<u>UPLAND SOIL SCORE</u>				SECONDARY INDICATORS	
DEPTH	MATRIX	MOTTLE	TEXTURE	Oxidized Root Channels in Upper 12 inches	
0-4"	5YR3/3		silt loam	Water Stained Leaves	
4-8"	5YR4/4		silt loam	FAC-Neutral Test	
>8"	rock		rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of red maple, green ash, and grass community with saturated, low chroma, mottled soils with drainage patterns and sediment staining.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 30	EVALUATOR: PJD, ERB, GOO																								
DATE: 20-Apr-05	WEATHER: Partly cloudy and warm																								
Do normal circumstances exist on the site?	Yes																								
Is the site significantly disturbed (Atypical Situation)?	No																								
Is the area a potential problem area?	No																								
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.4920 Ac 0.1991 Ha																								
VEGETATION	CLASSIFICATION: 0% PEM 0% PSS 100% PFO 0% POW																								
WETLAND	UPLAND																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">SPECIES</th> <th style="width: 20%;">STRATUM</th> <th style="width: 40%;">INDICATOR</th> </tr> </thead> <tbody> <tr> <td>Acer rubrum</td> <td>T</td> <td>FAC</td> </tr> <tr> <td>Fraxinus pennsylvanica</td> <td>T</td> <td>FACW</td> </tr> <tr> <td>Berberis sp.</td> <td>H</td> <td>NS</td> </tr> </tbody> </table>	SPECIES	STRATUM	INDICATOR	Acer rubrum	T	FAC	Fraxinus pennsylvanica	T	FACW	Berberis sp.	H	NS	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">SPECIES</th> <th style="width: 20%;">STRATUM</th> <th style="width: 40%;">INDICATOR</th> </tr> </thead> <tbody> <tr> <td>Berberis sp.</td> <td>H</td> <td>NS</td> </tr> <tr> <td>Quercus rubra</td> <td>T</td> <td>FACU-</td> </tr> <tr> <td>Quercus alba</td> <td>T</td> <td>FACU</td> </tr> </tbody> </table>	SPECIES	STRATUM	INDICATOR	Berberis sp.	H	NS	Quercus rubra	T	FACU-	Quercus alba	T	FACU
SPECIES	STRATUM	INDICATOR																							
Acer rubrum	T	FAC																							
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Quercus alba	T	FACU																							
Percent of Dominant Species that are OBL, FACW, and FAC	100%																								
SOILS	HYDROLOGY																								
MAPPED SOIL UNIT: Okeaga-Lackawanna extremely stony loams (OxC)	SOURCE OF HYDROLOGY: Groundwater and seasonal flooding. DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS <input type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test																								
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<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input checked="" type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Basis of Delineation)																								
Wetland Determination																									
Hydrophytic Vegetation Present? Yes	Hydric Soil Present? Yes																								
Wetland Hydrology Present? Yes	Wetland? Yes																								
BASIS OF DELINEATION:																									
<p>Delineation follows the extent of the red maple and green ash community with strong drainage patterns with low chroma, mottled soils with saturation. Also, there is evidence of soil cracking on surface, horizontal roots, and buttressed trunks.</p>																									

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 31	EVALUATOR: PJD, ERB, GOO
DATE: 20-Apr-05	WEATHER: Partly cloudy and warm
Do normal circumstances exist on the site?	Yes
Is the site significantly disturbed (Atypical Situation)?	No
Is the area a potential problem area?	No
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 0.1714 Ac 0.0693 Ha	

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 100% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Juncus effusus	H	FACW+	Rosa multiflora	SS	FACU
Carex sp.	H	85% FAC-OBL	Poaceae or Gramineae sp.	H	NS
Acer rubrum	T	FAC	Pinus strobus	T	FAC-
Toxicodendron radicans	H	FAC	Betula populifolia	T	FAC
			Prunus serotina	T	FACU
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Wellsboro extremely stony loam (WpB)				SOURCE OF HYDROLOGY: <small>Surface water runoff and seasonal high groundwater with seasonal saturation.</small> DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL:	
HYDRIC SOIL UNIT: Norwich					
<u>WETLAND CORE SOIL SCORE</u>				FIELD INDICATORS PRIMARY INDICATORS <input type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-8"	10YR4/2	10YR4/6	silt loam		
8-14"	10YR5/2	10YR5/6	silt loam		
>14"	rock		rock		
<u>WETLAND FRINGE SOIL SCORE</u>				SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-16"	10YR3/3		disturbed		
<u>UPLAND SOIL SCORE</u>				SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-16"	10YR3/3		disturbed		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of sedge, soft rush, and red maple community along topographic low with low chroma mottled soil and evidence of saturation, drainage patterns, and sediment deposits.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 32	EVALUATOR: PJD, ERB, GOO
DATE: 20-Apr-05	WEATHER: Partly cloudy and warm
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 1.3928 Ac 0.5635 Ha	

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 50% PFO 50% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Acer rubrum	T	FAC	Acer rubrum	T	FAC
Toxicodendron radicans	H	FAC	Pinus strobus	T	FAC-*
Impatiens capensis	H	FACW	Hemerocallis fulva	H	UPL
Carex sp.	H	85% FAC-OBL	Carya ovata	T	FACU-
Juncus effusus	H	FACW+			
Poaceae or Gramineae sp.	H	NS			
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Wellsboro extremely stony loam (WpB)				SOURCE OF HYDROLOGY: Stream flooding and groundwater.	
HYDRIC SOIL UNIT: Norwich					
<u>WETLAND CORE SOIL SCORE</u>				DEPTH OF SURFACE WATER: >2	
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH TO FREE WATER IN SOIL PIT:	
inundated			inundated	DEPTH TO SATURATED SOIL:	
<u>WETLAND FRINGE SOIL SCORE</u>				FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
DEPTH	MATRIX	MOTTLE	TEXTURE		
<u>UPLAND SOIL SCORE</u>					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	10YR3/3		silt loam		
4-16"	10YR4/4		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of red maple and sedge fringe with low chroma, mottled, and saturated soils with drainage patterns. Wetland is semipermanently inundated.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID:	Wetland 33	EVALUATOR:	PJD, BTB, ERB, GOO, KJS
DATE:	21-Apr-05	WEATHER:	Clear and cool
Do normal circumstances exist on the site?	Yes		
Is the site significantly disturbed (Atypical Situation)?	No		
Is the area a potential problem area?	No		
HYDROGEOMORPHIC CLASSIFICATION:		SIZE:	1.4497 Ac 0.5865 Ha

VEGETATION	CLASSIFICATION:
	0% PEM 0% PSS 100% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Acer rubrum	T	FAC	Berberis sp.	H	NS
Rhododendron sp.	SS	NS	Acer rubrum	T	FAC
Betula alleghaniensis	T	FAC	Tsuga canadensis	T	FACU
Impatiens capensis	H	FACW	Maianthemum canadense	H	FAC-
Osmunda sp.	H	FAC - OBL			
Microstegium vimineum	H	FAC			
Scirpus cyperinus	H	FACW+			
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Welsboro extremely stony loam (WpB)				SOURCE OF HYDROLOGY: Groundwater discharge and seasonal saturation.	
HYDRIC SOIL UNIT: Norwich					
WETLAND CORE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL:	
0-6"	10YR3/2	10YR4/6	silt loam		
6-14"	10YR5/1	10YR4/6	silt loam		
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE	FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
0-6"	10YR2/2		organic/mineral		
6-12"	10YR5/2	10YR5/3 and 10YR4/6	silt loam		
>12"	rock		rock		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	10YR3/3		silt loam		
4-16"	7.5YR3/4		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of red maple community with evidence of saturation, drainage patterns, and water stained leaves with low chroma or sulfidic odor in soil.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 34	EVALUATOR: PJD, BTB, ERB, GOO, KJS
DATE: 21-Apr-05	WEATHER: Clear and cool
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.2400 Ac 0.0971 Ha

VEGETATION	CLASSIFICATION:	0% PEM	0% PSS	100% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Betula alleghaniensis	T	FAC	Tsuga canadensis	T	FACU
Poaceae or Gramineae sp.	H	NS	Liriodendron tulipifera	T	FACU
Acer rubrum	T	FAC	Rosa multiflora	SS	FACU
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT:		Phlo silt loam (Ph)		SOURCE OF HYDROLOGY: Groundwater seep and seasonal saturation.	
HYDRIC SOIL UNIT:		Holly		DEPTH OF SURFACE WATER:	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH TO FREE WATER IN SOIL PIT:	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO SATURATED SOIL: 0"	
0-8"	5Y3/1	2.5Y4/4	silt loam		
8-16"	N5/10		silt loam		
<u>WETLAND FRINGE SOIL SCORE</u>				FIELD INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	PRIMARY INDICATORS	
				Inundation	
				<input checked="" type="checkbox"/> Saturated in Upper 12 Inches	
				<input checked="" type="checkbox"/> Water Marks	
				Drift Lines	
				Sediment Deposits	
				Drainage Patterns	
<u>UPLAND SOIL SCORE</u>				SECONDARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	Oxidized Root Channels in Upper 12 inches	
0-4"	10YR3/3		silt loam		
4-8"	10YR5/6		silt loam	<input checked="" type="checkbox"/> Water Stained Leaves	
8-16"	10YR5/6		silt loam	FAC-Neutral Test	

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of topographic low with low chroma, mottled soils with water staining and saturation following yellow birch, grass, and red maple community.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 35	EVALUATOR: PJD, BTB, ERB, GOO, KJS
DATE: 21-Apr-05	WEATHER: Clear and cool
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.3146 Ac 0.1273 Ha

VEGETATION	CLASSIFICATION:	0% PEM	0% PSS	50% PFO	50% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Salix fragilis	T	FAC+	Taraxacum officinale	H	FACU-
Poaceae or Gramineae sp.	H	NS	Potentilla sp.	H	NS
Acer rubrum	T	FAC	Thuja occidentalis	T	FACW
Rhododendron sp.	SS	NS			
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT:		Phlo silt loam (Ph)		SOURCE OF HYDROLOGY: Stream flooding and semipermanently inundated.	
HYDRIC SOIL UNIT:		Holly		DEPTH OF SURFACE WATER:	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH TO FREE WATER IN SOIL PIT:	
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH TO SATURATED SOIL: 0"	
0-10"	10YR3/2	0	silt loam		
>10"	rock		rock		
<u>WETLAND FRINGE SOIL SCORE</u>				FIELD INDICATORS	
DEPTH	MATRIX	MOTTLE	TEXTURE	PRIMARY INDICATORS	
				<input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns	
<u>UPLAND SOIL SCORE</u>				SECONDARY INDICATORS	
DEPTH	MATRIX	MOTTLE	TEXTURE	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
0-6"	10YR3/3		silt loam		
6-12"	10YR3/6		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of vegetated fringe with red maple and willow community with low chroma, mottled, and saturated soils with water marks.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID:	Wetland 36	EVALUATOR:	PJD, BTB, ERB, GOO, KJS
DATE:	21-Apr-05	WEATHER:	Clear and cool
Do normal circumstances exist on the site?	Yes		
Is the site significantly disturbed (Atypical Situation)?	No		
Is the area a potential problem area?	No		
HYDROGEOMORPHIC CLASSIFICATION:		SIZE:	0.0051 Ac 0.0021 Ha

VEGETATION	CLASSIFICATION:	100% PEM	0% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Impatiens capensis	H	FACW	Quercus sp.	T	NS
Carex sp.	H	85% FAC-OBL	Acer rubrum	T	FAC
Poaceae or Gramineae sp.	H	NS	Poaceae or Gramineae sp.	H	NS
			Alliaria petiolata	H	FACU-
			Berberis sp.	H	NS
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT:		Phlo silt loam (Ph)		SOURCE OF HYDROLOGY: Seeps, seasonal groundwater table, and flooding.	
HYDRIC SOIL UNIT:		Holly		DEPTH OF SURFACE WATER: 2"	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH TO FREE WATER IN SOIL PIT:	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO SATURATED SOIL: 0"	
0-14"	10YR2/2		sandy loam	FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
14-18"	2.5Y3/2	2.5Y4/4	sandy loam		
<u>WETLAND FRINGE SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-5"	10YR3/3		silt loam		
5-15"	10YR4/4		silt loam		
<u>UPLAND SOIL SCORE</u>					

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of saturated and inundated topographic low area with community of sedges and jewelweed on floodplain bench area with seep and seasonal flooding hydrology.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 37	EVALUATOR: PJD, BTB, ERB, GOO, KJS
DATE: 21-Apr-05	WEATHER: Clear and cool
Do normal circumstances exist on the site?	Yes
Is the site significantly disturbed (Atypical Situation)?	No
Is the area a potential problem area?	No
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 0.0189 Ac 0.0076 Ha	

VEGETATION	CLASSIFICATION:	100% PEM	0% PSS	0% PFC	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Phalaris arundinacea	H	FACW	Taraxacum officinale	H	FACU-
Juncus effusus	H	FACW+	Potentilla sp.	H	NS
			Thuja occidentalis	T	FACW
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Philo silt loam (Ph)				SOURCE OF HYDROLOGY: Seasonal flooding and groundwater seeps.	
HYDRIC SOIL UNIT: Holly					
<u>WETLAND CORE SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS <input type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
0-10"	10YR3/2	10YR4/6	silt loam		
>10"	rock		rock		
<u>WETLAND FRINGE SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
<u>UPLAND SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-6"	10YR3/3		silt loam		
6-12"	10YR3/6		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of reed canary grass bench along floodplain bench with low chroma mottled soils and saturation.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 38	EVALUATOR: PJD, BTB, ERB, GOO, KJS
DATE: 21-Apr-05	WEATHER: Clear and cool
Do normal circumstances exist on the site?	Yes
Is the site significantly disturbed (Atypical Situation)?	No
Is the area a potential problem area?	No
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 0.0482 Ac 0.0195 Ha	

VEGETATION	CLASSIFICATION: 100% PEM 0% PSS 0% PFO 0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Carex sp.	H	85% FAC-OBL	Poaceae or Gramineae sp.	H	NS
Scirpus cyperinus	H	FACW+	Quercus sp.	T	NS
Juncus effusus	H	FACW+			
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Wyoming gravelly sandy loam (WyC)				SOURCE OF HYDROLOGY: Groundwater seeps from spring house.	
HYDRIC SOIL UNIT: Wet spots					
WETLAND CORE SOIL SCORE				DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-14"	10YR3/2	10YR4/4	silt loam		
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	10YR3/3		silt loam		
4-16"	10YR3/5		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of grass, sedge, and soft rush community in drainage pattern and inundated area downslope of spring box.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 39	EVALUATOR: PJD, BTB, ERB, GOO, KJS
DATE: 21-Apr-05	WEATHER: Clear and cool
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 0.2935 Ac 0.1188 Ha	

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 100% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Betula alleghaniensis	T	FAC	Tsuga canadensis	T	FACU
Carex sp.	H	85% FAC-OBL	Acer rubrum	T	FAC
Acer rubrum	T	FAC	Rhododendron sp.	SS	NS
Rhododendron sp.	SS	NS	Quercus sp.	T	NS
Tsuga canadensis	T	FACU	Musci sp.	H	NS
Poaceae or Gramineae sp.	H	NS			

Percent of Dominant Species that are OBL, FACW, and FAC 75%

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Wyoming gravelly sandy loam (WyC)				SOURCE OF HYDROLOGY: Groundwater seeps.	
HYDRIC SOIL UNIT: Wet spots					
WETLAND CORE SOIL SCORE				DEPTH OF SURFACE WATER: 1-3'	
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH TO FREE WATER IN SOIL PIT:	
0-14"	10YR2/2		silt loam	DEPTH TO SATURATED SOIL: 0'	
14-18"	10YR4/1		sandy loam	FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	10YR2/1		loam		
4-16"	10YR4/6		silt loam		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	10YR2/1		loam		
4-16"	10YR4/6		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of saturated and inundated sedge, yellow birch, and red maple community in seeps with drainage patterns with low chroma and mottled soils with sulfidic odor. These seeps and PFO discharge into Channel 4.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 40	EVALUATOR: PJD, BTB, ERB, GOO, KJS
DATE: 21-Apr-05	WEATHER: Clear and cool
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.7056 Ac 0.2855 Ha

VEGETATION CLASSIFICATION: 100% PEM 0% PSS 0% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Phalaris arundinacea	H	FACW	Tsuga canadensis	T	FACU
Carex sp.	H	85% FAC-OBL	Acer rubrum	T	FAC
Juncus effusus	H	FACW+	Rhododendron sp.	SS	NS
Impatiens capensis	H	FACW	Quercus sp.	T	NS
			Musci sp.	H	NS
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Wyoming gravelly sandy loam (WyC)				SOURCE OF HYDROLOGY: Stream flooding and groundwater seeps.	
HYDRIC SOIL UNIT: Wet spots					
WETLAND CORE SOIL SCORE				DEPTH OF SURFACE WATER:	
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH TO FREE WATER IN SOIL PIT:	
0-10"	7.5YR2.5/2		silt loam	DEPTH TO SATURATED SOIL:	
10-18"	10YR3/1		silt loam	FIELD INDICATORS	
WETLAND FRINGE SOIL SCORE				PRIMARY INDICATORS	
DEPTH	MATRIX	MOTTLE	TEXTURE	<input checked="" type="checkbox"/> Inundation	
				<input checked="" type="checkbox"/> Saturated in Upper 12 Inches	
				Water Marks	
				<input checked="" type="checkbox"/> Drift Lines	
				<input checked="" type="checkbox"/> Sediment Deposits	
				<input checked="" type="checkbox"/> Drainage Patterns	
UPLAND SOIL SCORE				SECONDARY INDICATORS	
DEPTH	MATRIX	MOTTLE	TEXTURE	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches	
0-4"	10YR2/1		loam	<input checked="" type="checkbox"/> Water Stained Leaves	
4-16"	10YR4/6		silt loam	<input type="checkbox"/> FAC-Neutral Test	

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of bermed former pond area with ample evidence of hydrology along with reed canary grass, sedge, soft rush community with seeps contributing hydrology from upslope toe of hill.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 41	EVALUATOR: PJD, BTB, ERB, GOO, KJS
DATE: 21-Apr-05	WEATHER: Clear and cool
Do normal circumstances exist on the site? 0	
Is the site significantly disturbed (Atypical Situation)?	
Is the area a potential problem area?	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.1111 Ac 0.0450 Ha

VEGETATION	CLASSIFICATION:	0% PEM	0% PSS	100% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Acer rubrum	T	FAC	Tsuga canadensis	T	FACU
Rhododendron sp.	SS	NS	Poaceae or Gramineae sp.	H	NS
Tsuga canadensis	T	FACU			
Carex sp.	H	85% FAC-OBL			

Percent of Dominant Species that are OBL, FACW, and FAC 67%

SOILS				HYDROLOGY	
MAPPED SOIL UNIT:		Alluvial land (As)		SOURCE OF HYDROLOGY: Seasonal stream flooding and groundwater associated with creek.	
HYDRIC SOIL UNIT:		Holly, Wayland			
WETLAND CORE SOIL SCORE				DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL:	
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-6"	10YR4/3		sandy loam		
6-14"	10YR3/1	10YR4/6	sandy loam	FIELD INDICATORS PRIMARY INDICATORS <input type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns	
DEPTH	MATRIX	MOTTLE	TEXTURE		
>14"	rock		rock		
WETLAND FRINGE SOIL SCORE				SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-12"	10YR4/3		silt loam w/ gravels		
>12"	rock		rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination	
Hydrophytic Vegetation Present?	Hydric Soil Present?
Wetland Hydrology Present?	Wetland?

BASIS OF DELINEATION:

Delineation follows extent of the floodplain bench with debris line and saturation with low chroma mottled soils with mix of red maple, rhododendron, and eastern hemlock.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 42	EVALUATOR: PJD, BTB, ERB, GOO, KJS
DATE: 21-Apr-05	WEATHER: Clear and cool
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 1.0201 Ac 0.4127 Ha

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 100% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Betula alleghaniensis	T	FAC	Tsuga canadensis	T	FACU
Carex sp.	H	85% FAC-OBL	Poaceae or Gramineae sp.	H	NS
Acer rubrum	T	FAC			
Tsuga canadensis	T	FACU			
Sphagnum sp.	H	NS			
Impatiens capensis	H	FACW			

Percent of Dominant Species that are OBL, FACW, and FAC 75%

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Wyoming gravelly sandy loam (WyC)				SOURCE OF HYDROLOGY: Groundwater seeps.	
HYDRIC SOIL UNIT: Wet spots				DEPTH OF SURFACE WATER: 1-5"	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH TO FREE WATER IN SOIL PIT:	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO SATURATED SOIL: 0"	
0-10"	7.5YR2.5/2		silt loam	FIELD INDICATORS	
10-18"	10YR3/1		silt loam	PRIMARY INDICATORS	
<u>WETLAND FRINGE SOIL SCORE</u>				<input checked="" type="checkbox"/> Inundation	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	<input checked="" type="checkbox"/> Saturated in Upper 12 Inches	
				<input type="checkbox"/> Water Marks	
				<input type="checkbox"/> Drift Lines	
				<input type="checkbox"/> Sediment Deposits	
<u>UPLAND SOIL SCORE</u>				<input checked="" type="checkbox"/> Drainage Patterns	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	SECONDARY INDICATORS	
0-12"	10YR4/3		silt loam w/ gravels	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches	
>12"	rock		rock	<input checked="" type="checkbox"/> Water Stained Leaves	
				<input type="checkbox"/> FAC-Neutral Test	

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineatin follows extent of groundwater seep drainage patterns and sedge, red maple, and hemlock community with low chroma and mottled soils.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 43	EVALUATOR: PJD, BTB, ERB, GOO, KJS
DATE: 21-Apr-05	WEATHER: Clear and cool
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.3895 Ac 0.1576 Ha

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 100% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Fraxinus pennsylvanica	T	FACW	Rubus allegheniensis	H	FACU-
Acer rubrum	T	FAC	Carya ovata	T	FACU-
Poaceae or Gramineae sp.	H	NS	Acer rubrum	T	FAC
Impatiens capensis	H	FACW			
Veratrum viride	H	FACW+			
Lindera benzoin	SS	FACW-			
Juncus effusus	H	FACW+			
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Rexford gravelly silt loam (ReA)				SOURCE OF HYDROLOGY: Groundwater seep discharge and seasonal saturation.	
HYDRIC SOIL UNIT: Rexford					
<u>WETLAND CORE SOIL SCORE</u>				DEPTH OF SURFACE WATER: 1"	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO FREE WATER IN SOIL PIT:	
0-4"	10YR3/2	10YR4/6	silt loam	DEPTH TO SATURATED SOIL: 0"	
>4"	rock		rock		
<u>WETLAND FRINGE SOIL SCORE</u>				FIELD INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	PRIMARY INDICATORS	
				<input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns	
<u>UPLAND SOIL SCORE</u>				SECONDARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
Rock	rock		rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of the red maple, green ash, and spicebush community with strong groundwater seep discharge and evidence of saturation, drainage patterns, and water staining with limited or no soil. This area is extremely rocky.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 44	EVALUATOR: PJD, BTB, ERB, GOO, KJS
DATE: 21-Apr-05	WEATHER: Clear and cool
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 0.1631 Ac 0.0660 Ha	

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 100% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Fraxinus pennsylvanica	T	FACW	Quercus alba	T	FACU
Acer rubrum	T	FAC	Carya ovata	T	FACU-
Lindera benzoin	SS	FACW-	Kalmia latifolia	SS	FACU
Osmunda sp.	H	FAC - OBL	Berberis sp.	H	NS
Berberis sp.	H	NS			

Percent of Dominant Species that are OBL, FACW, and FAC: 100%

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Lackawanna extremely stony loam (LbB)				SOURCE OF HYDROLOGY: Groundwater discharge, surface water runoff, and seasonal saturation.	
HYDRIC SOIL UNIT:					
WETLAND CORE SOIL SCORE				DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: 0'	
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	10YR2/2		organic		
4-12"	2.5Y5/2	2.5Y5/3 and 10YR5/6	silt loam		
WETLAND FRINGE SOIL SCORE				FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input checked="" type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
DEPTH	MATRIX	MOTTLE	TEXTURE		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	10YR3/2		organic/mineral mix		
4-12"	10YR4/4		silt loam		
>12"	rock		rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of the red maple, green ash, and spicebush community with standing water, water marks, and drainage patterns following low chroma and mottled soils.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 45	EVALUATOR: PJD, BTB, ERB, GOO, KJS
DATE: 21-Apr-05	WEATHER: Clear and cool
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0382 Ac 0.0155 Ha

VEGETATION	CLASSIFICATION:	100% PEM	0% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Poaceae or Gramineae sp.	H	NS	Poaceae or Gramineae sp.	H	NS
			Taraxacum officinale	H	FACU-
Percent of Dominant Species that are OBL, FACW, and FAC			#DIV/0!		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT:		Phlo silt loam (Ph)		SOURCE OF HYDROLOGY: Groundwater seep and seasonal saturation.	
HYDRIC SOIL UNIT:		Holo		DEPTH OF SURFACE WATER:	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH TO FREE WATER IN SOIL PIT:	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO SATURATED SOIL:	
0-12"	10YR3/1	10YR4/3	silt loam	FIELD INDICATORS	
>12"	rock		rock		
<u>WETLAND FRINGE SOIL SCORE</u>				PRIMARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-8"	10YR3/3		silt loam	SECONDARY INDICATORS	
8-16"	10YR3/4		silt loam		
<u>UPLAND SOIL SCORE</u>				<input type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-8"	10YR3/3		silt loam	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
8-16"	10YR3/4		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of seep and groundwater discharge in mowed grass area with low chroma mottled soils.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 46	EVALUATOR: PJD, BTB, AJL, RCL, ERB, GOO, KJS
DATE: 22-Apr-05	WEATHER: 50% overcast and 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 0.0530 Ac 0.0214 Ha	

VEGETATION CLASSIFICATION: 100% PEM 0% PSS 0% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Osmunda sp.	H	FAC - OBL	Quercus rubra	T	FACU-
Carya ovata	T	FACU-	Kalmia latifolia	SS	FACU
Juncus effusus	H	FACW+	Acer rubrum	T	FAC
Poaceae or Gramineae sp.	H	NS	Rubus sp.	H	NS
Percent of Dominant Species that are OBL, FACW, and FAC 67%					

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Oquaga-Lackawanna extremely stony loams (OxC)				SOURCE OF HYDROLOGY: Groundwater seeps.	
HYDRIC SOIL UNIT:				DEPTH OF SURFACE WATER: 0-2'	
WETLAND CORE SOIL SCORE				DEPTH TO FREE WATER IN SOIL PIT:	
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH TO SATURATED SOIL: 0'	
0-8"	10YR3/2		silt loam	FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
8-12"	10YR3/2	10YR6/6	silt loam		
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	10YR2/1		silt loam		
4-16"	10YR3/3		silt loam		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	10YR2/1		silt loam		
4-16"	10YR3/3		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present? Yes		Hydric Soil Present? Yes	
Wetland Hydrology Present? Yes		Wetland? Yes	

BASIS OF DELINEATION:

Delineation follows extent of sedge and sphagnum moss community in drainage pattern and topographic low area with saturated and inundated soils that have low chroma and mottled soils.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 47	EVALUATOR: PJD, BTB, AJL, RCL, ERB, GOO, KJS
DATE: 22-Apr-05	WEATHER: 50% overcast and 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 0.0518 Ac 0.0210 Ha	

VEGETATION CLASSIFICATION: 100% PEM 0% PSS 0% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Juncus effusus	H	FACW+	Comptonia peregrina	H	NG(UPL)
Carex sp.	H	85% FAC-OBL	Poaceae or Gramineae sp.	H	NS
Typha latifolia	H	OBL	Rhus typhina	SS	NG(UPL)
Epilobium sp.	H	NS	Populus tremuloides	T	NI
			Musci sp.	H	NS
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Oquaga-Lackawanna extremely stony loams (OxC)				Direct precipitation collection in topographic low and intermittent saturation.	
HYDRIC SOIL UNIT:				SOURCE OF HYDROLOGY:	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH OF SURFACE WATER:	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO FREE WATER IN SOIL PIT:	
0-10"	5YR4/2	10YR4/6	silt loam	DEPTH TO SATURATED SOIL:	
>10"	rock		rock	FIELD INDICATORS	
<u>WETLAND FRINGE SOIL SCORE</u>				PRIMARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	Inundation	
				<input checked="" type="checkbox"/> Saturated in Upper 12 Inches	
				Water Marks	
				Drift Lines	
				Sediment Deposits	
				Drainage Patterns	
<u>UPLAND SOIL SCORE</u>				SECONDARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	<input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 inches	
0-12"	5YR5/3	5YR6/8 and 5YR5/6	silt loam	Water Stained Leaves	
>12"	rock		rock	<input checked="" type="checkbox"/> FAC-Neutral Test	

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input checked="" type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of soft rush and sedge community along topographic low excavated tire rut area with low chroma, mottled, and saturated soils.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 48	EVALUATOR: PJD, BTB, A.J.L, RCL, ERB, GOO, KJS
DATE: 22-Apr-05	WEATHER: 50% overcast and 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0313 Ac 0.0127 Ha

VEGETATION	CLASSIFICATION:	100% PEM	0% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Juncus effusus	H	FACW+	Comptonia peregrina	H	NG(UPL)
Carex sp.	H	85% FAC-OBL	Poaceae or Gramineae sp.	H	NS
Typha latifolia	H	OBL	Betula populifolia	T	FAC
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Ocuaga-Lackawanna extremely stony loams (OxC)				Direct precipitation collection in topographic low and intermittent saturation.	
HYDRIC SOIL UNIT:				SOURCE OF HYDROLOGY:	
WETLAND CORE SOIL SCORE				DEPTH OF SURFACE WATER:	
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH TO FREE WATER IN SOIL PIT:	
0-8"	5YR4/2	5YR5/6	sandy silt loam	DEPTH TO SATURATED SOIL:	
8-12"	5YR4/2		silt loam	FIELD INDICATORS	
>12"	rock		rock	PRIMARY INDICATORS	
WETLAND FRINGE SOIL SCORE				Inundation	
DEPTH	MATRIX	MOTTLE	TEXTURE	X Saturated in Upper 12 Inches	
				Water Marks	
				Drift Lines	
				Sediment Deposits	
				Drainage Patterns	
UPLAND SOIL SCORE				SECONDARY INDICATORS	
DEPTH	MATRIX	MOTTLE	TEXTURE	X Oxidized Root Channels in Upper 12 inches	
0-10"	5YR5/3		sandy loam	Water Stained Leaves	
>10"	rock		rock	X FAC-Neutral Test	

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of topographic low tire rut area following soft rush and sedge community with low chroma and mottled soils.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 49	EVALUATOR: PJD, BTB, AJL, RCL, ERB, GOO, KJS
DATE: 22-Apr-05	WEATHER: 50% overcast and 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.9054 Ac 0.3663 Ha

VEGETATION	CLASSIFICATION:	0% PEM	0% PSS	100% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Carex sp.	H	85% FAC-OBL	Amelanchier sp.	SS	NS
Acer rubrum	T	FAC	Quercus rubra	T	FACU-
Vaccinium corymbosum	SS	FACW-	Acer rubrum	T	FAC
Sphagnum sp.	H	NS	Rubus sp.	H	NS
			Kalmia latifolia	SS	FACU

Percent of Dominant Species that are OBL, FACW, and FAC 100%

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Oquaga-Lackawanna extremely stony loams (OxB)				SOURCE OF HYDROLOGY: Surface water collection.	
HYDRIC SOIL UNIT:				DEPTH OF SURFACE WATER: 1-5"	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH TO FREE WATER IN SOIL PIT:	
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH TO SATURATED SOIL: 0"	
0-4"	10YR3/1		silt loam		
4-10"	10YR5/1		silt loam		
>10"	rock		rock		
<u>WETLAND FRINGE SOIL SCORE</u>				FIELD INDICATORS	
DEPTH	MATRIX	MOTTLE	TEXTURE	PRIMARY INDICATORS	
				<input checked="" type="checkbox"/> Inundation	
				<input checked="" type="checkbox"/> Saturated in Upper 12 Inches	
				<input type="checkbox"/> Water Marks	
				<input type="checkbox"/> Drift Lines	
				<input type="checkbox"/> Sediment Deposits	
				<input type="checkbox"/> Drainage Patterns	
				SECONDARY INDICATORS	
				<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches	
				<input checked="" type="checkbox"/> Water Stained Leaves	
				<input type="checkbox"/> FAC-Neutral Test	
<u>UPLAND SOIL SCORE</u>					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-3"	10YR3/2		silt loam		
3-16"	10YR4/4		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of saturated and inundated flat and topographic low area with red maple, high bush blueberry, and sphagnum moss community with water stained leaves and buttressed tree trunks.

Mt. Airy Lodge

WETLAND DATA FORM

WETLAND ID: Wetland 50	EVALUATOR: PJD, BTB, AJL, RCL, ERB, GOO, KJS
DATE: 22-Apr-05	WEATHER: 50% overcast and 50 degrees
Do normal circumstances exist on the site? Yes	Is the site significantly disturbed (Atypical Situation)? No
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 0.0052 Ac 0.0021 Ha	

VEGETATION	CLASSIFICATION:	100% PEM	0% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Carex sp.	H	85% FAC-OBL	Rosa multiflora	H	FACU
Solidago flexicaulis	H	FACU	Vaccinium corymbosum	SS	FACW-
Nasturtium officinale	H	OBL	Quercus rubra	T	FACU-
			Vitis sp.	V	NS
			Acer rubrum	T	FAC
			Quercus alba	T	FACU
			Rubus sp.	H	NS
			Quercus montana	T	UPL
Percent of Dominant Species that are OBL, FACW, and FAC			67%		

SOILS	HYDROLOGY
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MAPPED SOIL UNIT: Oquaga-Lackawanna extremely stony loams (Ox8) HYDRIC SOIL UNIT:	SOURCE OF HYDROLOGY: Groundwater seep and surface water collection. DEPTH OF SURFACE WATER: >6" DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: 0"												
<u>WETLAND CORE SOIL SCORE</u>	<u>FIELD INDICATORS</u>												
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">DEPTH</th> <th style="text-align: center;">MATRIX</th> <th style="text-align: center;">MOTTLE</th> <th style="text-align: center;">TEXTURE</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">0-4"</td> <td style="text-align: center;">2.5Y5/1</td> <td style="text-align: center;">2.5Y3/3</td> <td style="text-align: center;">silty clay loam</td> </tr> <tr> <td style="text-align: center;">4-16"</td> <td style="text-align: center;">2.5Y6/1</td> <td style="text-align: center;">2.5Y5/6</td> <td style="text-align: center;">silty clay loam</td> </tr> </tbody> </table>	DEPTH	MATRIX	MOTTLE	TEXTURE	0-4"	2.5Y5/1	2.5Y3/3	silty clay loam	4-16"	2.5Y6/1	2.5Y5/6	silty clay loam	<input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns
DEPTH	MATRIX	MOTTLE	TEXTURE										
0-4"	2.5Y5/1	2.5Y3/3	silty clay loam										
4-16"	2.5Y6/1	2.5Y5/6	silty clay loam										
<u>WETLAND FRINGE SOIL SCORE</u>	<u>PRIMARY INDICATORS</u>												
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">DEPTH</th> <th style="text-align: center;">MATRIX</th> <th style="text-align: center;">MOTTLE</th> <th style="text-align: center;">TEXTURE</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">0-8"</td> <td style="text-align: center;">10YR5/3</td> <td></td> <td style="text-align: center;">loam</td> </tr> <tr> <td style="text-align: center;">>8"</td> <td style="text-align: center;">rock</td> <td></td> <td style="text-align: center;">rock</td> </tr> </tbody> </table>	DEPTH	MATRIX	MOTTLE	TEXTURE	0-8"	10YR5/3		loam	>8"	rock		rock	<input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test
DEPTH	MATRIX	MOTTLE	TEXTURE										
0-8"	10YR5/3		loam										
>8"	rock		rock										
<u>UPLAND SOIL SCORE</u>	<u>SECONDARY INDICATORS</u>												
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">DEPTH</th> <th style="text-align: center;">MATRIX</th> <th style="text-align: center;">MOTTLE</th> <th style="text-align: center;">TEXTURE</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">0-8"</td> <td style="text-align: center;">10YR5/3</td> <td></td> <td style="text-align: center;">loam</td> </tr> <tr> <td style="text-align: center;">>8"</td> <td style="text-align: center;">rock</td> <td></td> <td style="text-align: center;">rock</td> </tr> </tbody> </table>	DEPTH	MATRIX	MOTTLE	TEXTURE	0-8"	10YR5/3		loam	>8"	rock		rock	<input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test
DEPTH	MATRIX	MOTTLE	TEXTURE										
0-8"	10YR5/3		loam										
>8"	rock		rock										

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of topographic low groundwater seep drainage pattern following inundated, low chroma, saturated and mottled soils following sedge and watercress community.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 51	EVALUATOR: PJD, BTB, AJL, RCL, ERB, GOO, KJS																						
DATE: 22-Apr-05	WEATHER: 50% overcast and 50 degrees																						
Do normal circumstances exist on the site?	Yes																						
Is the site significantly disturbed (Atypical Situation)?	No																						
Is the area a potential problem area?	No																						
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0102 Ac	0.0041 Ha																					
VEGETATION	CLASSIFICATION: 100% PEM	0% PSS 0% PFO 0% POW																					
WETLAND	UPLAND																						
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">SPECIES</th> <th style="text-align: left;">STRATUM</th> <th style="text-align: left;">INDICATOR</th> </tr> </thead> <tbody> <tr> <td>Onoclea sensibilis</td> <td>H</td> <td>FACW</td> </tr> <tr> <td>Carex sp.</td> <td>H</td> <td>85% FAC-OBL</td> </tr> </tbody> </table>	SPECIES	STRATUM	INDICATOR	Onoclea sensibilis	H	FACW	Carex sp.	H	85% FAC-OBL	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">SPECIES</th> <th style="text-align: left;">STRATUM</th> <th style="text-align: left;">INDICATOR</th> </tr> </thead> <tbody> <tr> <td>Rubus allegheniensis</td> <td>H</td> <td>FACU-</td> </tr> <tr> <td>Betula populifolia</td> <td>T</td> <td>FAC</td> </tr> <tr> <td>Comptonia peregrina</td> <td>H</td> <td>NG(UPL)</td> </tr> </tbody> </table>		SPECIES	STRATUM	INDICATOR	Rubus allegheniensis	H	FACU-	Betula populifolia	T	FAC	Comptonia peregrina	H	NG(UPL)
SPECIES	STRATUM	INDICATOR																					
Onoclea sensibilis	H	FACW																					
Carex sp.	H	85% FAC-OBL																					
SPECIES	STRATUM	INDICATOR																					
Rubus allegheniensis	H	FACU-																					
Betula populifolia	T	FAC																					
Comptonia peregrina	H	NG(UPL)																					
Percent of Dominant Species that are OBL, FACW, and FAC	100%																						
SOILS	HYDROLOGY																						
MAPPED SOIL UNIT: Oquaga-Lackawanna extremely stony loams (OxC)	SOURCE OF HYDROLOGY: Runoff, precipitation, and seasonal saturation.																						
HYDRIC SOIL UNIT:	DEPTH OF SURFACE WATER:																						
WETLAND CORE SOIL SCORE	DEPTH TO FREE WATER IN SOIL PIT:																						
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">DEPTH</th> <th style="text-align: left;">MATRIX</th> <th style="text-align: left;">MOTTLE</th> <th style="text-align: left;">TEXTURE</th> </tr> </thead> <tbody> <tr> <td>0-6"</td> <td>5YR4/2</td> <td>10YR4/4</td> <td>sandy loam</td> </tr> <tr> <td>6-12"</td> <td>5YR4/2</td> <td></td> <td>gravelly loam</td> </tr> <tr> <td>>12"</td> <td>rock</td> <td></td> <td>rock</td> </tr> </tbody> </table>	DEPTH	MATRIX	MOTTLE	TEXTURE	0-6"	5YR4/2	10YR4/4	sandy loam	6-12"	5YR4/2		gravelly loam	>12"	rock		rock	DEPTH TO SATURATED SOIL:						
DEPTH	MATRIX	MOTTLE	TEXTURE																				
0-6"	5YR4/2	10YR4/4	sandy loam																				
6-12"	5YR4/2		gravelly loam																				
>12"	rock		rock																				
WETLAND FRINGE SOIL SCORE	FIELD INDICATORS																						
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DEPTH	MATRIX	MOTTLE	TEXTURE																				
UPLAND SOIL SCORE	Inundation																						
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DEPTH	MATRIX	MOTTLE	TEXTURE																				
disturbed			disturbed																				
	Water Marks																						
	Drift Lines																						
	Sediment Deposits																						
	X Drainage Patterns																						
	SECONDARY INDICATORS																						
	Oxidized Root Channels in Upper 12 Inches																						
	Water Stained Leaves																						
	FAC-Neutral Test																						
Hydric Soil Indicators																							
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input checked="" type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Basis of Delineation)																						
Wetland Determination																							
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present? Yes																					
Wetland Hydrology Present?	Yes	Wetland? Yes																					
BASIS OF DELINEATION:																							
Delineation follows the extent of the sensitive fern and sedge community with evidence of hydrology in disturbed area with algal staining.																							

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 52	EVALUATOR: PJD, BTB, AJL, RCL, ERB, GOO, KJS
DATE: 22-Apr-05	WEATHER: 50% overcast and 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0762 Ac 0.0308 Ha

VEGETATION	CLASSIFICATION: 0% PEM 0% PSS 0% PFO 100% POW
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WETLAND	UPLAND
SPECIES STRATUM INDICATOR	SPECIES STRATUM INDICATOR
<p>Percent of Dominant Species that are OBL, FACW, and FAC</p> <p style="text-align: right;">#DIV/0!</p>	

SOILS	HYDROLOGY
MAPPED SOIL UNIT: Morris channery silt loam (MgB)	SOURCE OF HYDROLOGY: Groundwater and upslope runoff.
HYDRIC SOIL UNIT: Norwich	DEPTH OF SURFACE WATER:
<u>WETLAND CORE SOIL SCORE</u>	DEPTH TO FREE WATER IN SOIL PIT:
DEPTH MATRIX MOTTLE TEXTURE	DEPTH TO SATURATED SOIL:
inundated	FIELD INDICATORS
	PRIMARY INDICATORS
<u>WETLAND FRINGE SOIL SCORE</u>	<input checked="" type="checkbox"/> Inundation
DEPTH MATRIX MOTTLE TEXTURE	<input type="checkbox"/> Saturated in Upper 12 Inches
	<input type="checkbox"/> Water Marks
	<input type="checkbox"/> Drift Lines
	<input type="checkbox"/> Sediment Deposits
	<input type="checkbox"/> Drainage Patterns
<u>UPLAND SOIL SCORE</u>	SECONDARY INDICATORS
DEPTH MATRIX MOTTLE TEXTURE	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches
disturbed fill	<input type="checkbox"/> Water Stained Leaves
	<input type="checkbox"/> FAC-Neutral Test

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of topographic low area with standing water that is semipermanently inundated.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 53	EVALUATOR: PJD, BTB, AJL, RCL, ERB, GOO, KJS
DATE: 22-Apr-05	WEATHER: 50% overcast and 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0071 Ac 0.0029 Ha

VEGETATION	CLASSIFICATION: 50% PEM 50% PSS 0% PFO 0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Salix fragilis	T	FAC+	Comptonia peregrina	H	NG(UPL)
Carex sp.	H	85% FAC-OBL	Rosa multiflora	H	FACU
			Crataegus sp.	SS	NS
			Allium sp.	H	NS
			Poaceae or Gramineae sp.	H	NS
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Morris channery silt loam (MgB)				SOURCE OF HYDROLOGY: Surface runoff, seasonal saturation, and discharge from Wetlands 49 and 51.	
HYDRIC SOIL UNIT: Norwich					
<u>WETLAND CORE SOIL SCORE</u>				DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches Water Marks Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS Oxidized Root Channels in Upper 12 inches Water Stained Leaves FAC-Neutral Test	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-10"	5YR4/2	10YR4/6	silt loam		
<u>WETLAND FRINGE SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
<u>UPLAND SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-10"	5YR4/3		disturbed		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of sedge and crack willow community following low chroma, mottled, and saturated soils following drainage patterns and sediment deposits.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 54	EVALUATOR: PJD, BTB, AJL, RCL, ERB, GOO, KJS
DATE: 22-Apr-05	WEATHER: 50% overcast and 50 degrees
Do normal circumstances exist on the site?	Yes
Is the site significantly disturbed (Atypical Situation)?	No
Is the area a potential problem area?	No
SIZE: 0.0073 Ac 0.0030 Ha	

HYDROGEOMORPHIC CLASSIFICATION: CLASSIFICATION: 100% PEM 0% PSS 0% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Carex sp.	H	85% FAC-OBL	Quercus alba	T	FACU
Impatiens capensis	H	FACW	Acer rubrum	T	FAC
Microstegium vimineum	H	FAC			
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Ocuaga-Lackawanna extremely stony loams (OxC)				Groundwater seeps and seasonal saturation.	
HYDRIC SOIL UNIT:				SOURCE OF HYDROLOGY:	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH OF SURFACE WATER:	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO FREE WATER IN SOIL PIT:	
0-6"	10YR3/2			DEPTH TO SATURATED SOIL:	
<u>WETLAND FRINGE SOIL SCORE</u>				FIELD INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	PRIMARY INDICATORS	
				Inundation	
				X Saturated in Upper 12 Inches	
				Water Marks	
				Drift Lines	
				Sediment Deposits	
				X Drainage Patterns	
<u>UPLAND SOIL SCORE</u>				SECONDARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	Oxidized Root Channels in Upper 12 inches	
0-4"	10YR4/4		silt loam	X Water Stained Leaves	
4-12"	10YR5/4		silt loam	FAC-Neutral Test	
>12"	rock		rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input checked="" type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of small seep area with low chroma, saturated soils with water stained leaves and sulfidic odor following sedge, jewelweed, and stiltgrass community.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID:	Wetland 55	EVALUATOR:	PJD, BTB, AJL, RCL, ERB, GOO, KJS
DATE:	22-Apr-05	WEATHER:	50% overcast and 50 degrees
Do normal circumstances exist on the site?	Yes		
Is the site significantly disturbed (Atypical Situation)?	No		
Is the area a potential problem area?	No		
HYDROGEOMORPHIC CLASSIFICATION:		SIZE:	0.0320 Ac 0.0129 Ha

VEGETATION	CLASSIFICATION:	100% PEM	0% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Carex sp.	H	85% FAC-OBL	Poaceae or Gramineae sp.	H	NS
Poaceae or Gramineae sp.	H	NS	Trifolium sp.	H	NS
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Ocuaga-Lackawanna extremely stony loams (OxC)				Groundwater seep.	
HYDRIC SOIL UNIT:				SOURCE OF HYDROLOGY:	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH OF SURFACE WATER: 1'	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO FREE WATER IN SOIL PIT:	
0-4"	10YR5/2	10YR5/4	silty clay loam	DEPTH TO SATURATED SOIL:	
4-12"	10YR5/1	10YR5/4	silty clay loam	FIELD INDICATORS	
<u>WETLAND FRINGE SOIL SCORE</u>				PRIMARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	<input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits	
<u>UPLAND SOIL SCORE</u>				SECONDARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	<input checked="" type="checkbox"/> Drainage Patterns <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
0-4"	10YR4/4		silt loam		
4-12"	10YR5/4		silt loam		
>12"	rock		rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input checked="" type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input checked="" type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of sedge, grass community in groundwater seep area with saturation and inundation with low chroma and mottled soils with evidence of concretions and sulfidic odor. Wetland 55 discharges into Channel 30.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 56	EVALUATOR: PJD, BTB, AJL, RCL, ERB, GOO, KJS
DATE: 22-Apr-05	WEATHER: 50% overcast and 50 degrees
Do normal circumstances exist on the site?	Yes
Is the site significantly disturbed (Atypical Situation)?	No
Is the area a potential problem area?	No
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0085 Ac 0.0034 Ha

VEGETATION CLASSIFICATION: 100% PEM 0% PSS 0% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Polygonum sagittatum	H	OBL	Tsuga canadensis	T	FACU
Carex sp.	H	85% FAC-OBL	Trifolium sp.	H	NS
Poaceae or Gramineae sp.	H	NS	Carya ovata	T	FACU-
Acer rubrum	T	FAC	Taraxacum officinale	H	FACU-
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Oquaga-Lackawanna extremely stony loams (OxB)				Groundwater seep, surface water runoff, and seasonal saturation.	
HYDRIC SOIL UNIT:				SOURCE OF HYDROLOGY:	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH OF SURFACE WATER:	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO FREE WATER IN SOIL PIT:	
0-8"	10YR3/1		silt loam	DEPTH TO SATURATED SOIL:	
>8"	rock		rock	FIELD INDICATORS	
<u>WETLAND FRINGE SOIL SCORE</u>				PRIMARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	Inundation	
0-8"	10YR3/2		silt loam	X Saturated in Upper 12 Inches	
>8"	rock		rock	Water Marks	
<u>UPLAND SOIL SCORE</u>				Drift Lines	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	Sediment Deposits	
0-4"	10YR4/4		silt loam	Drainage Patterns	
4-12"	10YR5/4		silt loam	SECONDARY INDICATORS	
>12"	rock		rock	Oxidized Root Channels in Upper 12 inches	
				X Water Stained Leaves	
				FAC-Neutral Test	

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of arrow-leaved tearthumb, sedge, and stiltgrass community with water stained leaves and saturation following topographic low depression adjacent to golf cart path.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 57	EVALUATOR: PJD, BTB, AJL, RCL, ERB, GOO, KJS
DATE: 22-Apr-05	WEATHER: 50% overcast and 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0236 Ac 0.0095 Ha

VEGETATION	CLASSIFICATION:	100% PEM	0% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Carex sp.	H	85% FAC-OBL	Poaceae or Gramineae sp.	H	NS
Typha latifolia	H	OBL	Quercus alba	T	FACU
Poaceae or Gramineae sp.	H	NS	Kalmia latifolia	SS	FACU
Juncus effusus	H	FACW+	Taraxacum officinale	H	FACU-
			Rubus sp.	H	NS
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS	HYDROLOGY
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MAPPED SOIL UNIT: Weltsboro extremely stony loam (WpB) HYDRIC SOIL UNIT: Norwich	SOURCE OF HYDROLOGY: Groundwater seeps.																
WETLAND CORE SOIL SCORE	DEPTH OF SURFACE WATER:																
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>DEPTH</th> <th>MATRIX</th> <th>MOTTLE</th> <th>TEXTURE</th> </tr> </thead> <tbody> <tr> <td>0-14"</td> <td>2.5Y4/1</td> <td>10YR5/8</td> <td>silt loam</td> </tr> <tr> <td>>14"</td> <td>rock</td> <td></td> <td>rock</td> </tr> </tbody> </table>	DEPTH	MATRIX	MOTTLE	TEXTURE	0-14"	2.5Y4/1	10YR5/8	silt loam	>14"	rock		rock	DEPTH TO FREE WATER IN SOIL PIT:				
DEPTH	MATRIX	MOTTLE	TEXTURE														
0-14"	2.5Y4/1	10YR5/8	silt loam														
>14"	rock		rock														
WETLAND FRINGE SOIL SCORE	DEPTH TO SATURATED SOIL: 0'																
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>DEPTH</th> <th>MATRIX</th> <th>MOTTLE</th> <th>TEXTURE</th> </tr> </thead> <tbody> <tr> <td>0-4"</td> <td>10YR3/3</td> <td></td> <td>silt loam</td> </tr> <tr> <td>4-8"</td> <td>10YR4/4</td> <td></td> <td>silt loam</td> </tr> <tr> <td>8-16"</td> <td>10YR5/6</td> <td></td> <td>silt loam</td> </tr> </tbody> </table>	DEPTH	MATRIX	MOTTLE	TEXTURE	0-4"	10YR3/3		silt loam	4-8"	10YR4/4		silt loam	8-16"	10YR5/6		silt loam	FIELD INDICATORS
DEPTH	MATRIX	MOTTLE	TEXTURE														
0-4"	10YR3/3		silt loam														
4-8"	10YR4/4		silt loam														
8-16"	10YR5/6		silt loam														
	PRIMARY INDICATORS																
	<input type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns																
	SECONDARY INDICATORS																
	<input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test																

Hydric Soil Indicators	
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input checked="" type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input checked="" type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of groundwater seep following topographic low drainage pattern following saturated, low chroma, mottled soils with sulfidic odor and sedge community. Drainage pattern flows into pond adjacent to the green for hole number five.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 58	EVALUATOR: PJD, BTB, AJL, RCL, ERB, GOO, KJS
DATE: 22-Apr-05	WEATHER: 50% overcast and 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0019 Ac 0.0008 Ha

VEGETATION CLASSIFICATION: 100% PEM 0% PSS 0% PFO 0% POW

WETLAND	UPLAND
SPECIES	SPECIES
STRATUM	STRATUM
INDICATOR	INDICATOR
Impatiens capensis	Hemerocallis fulva
H	H
FACW	UPL
	Alliaria petiolata
	H
	FACU-
Percent of Dominant Species that are OBL, FACW, and FAC 100%	

SOILS	HYDROLOGY
MAPPED SOIL UNIT: Volusia extremely stony silt loam (VxB)	SOURCE OF HYDROLOGY: Strong spring discharge and semipermanently saturated.
HYDRIC SOIL UNIT: Chippewa	
<u>WETLAND CORE SOIL SCORE</u>	
DEPTH MATRIX MOTTLE TEXTURE	DEPTH OF SURFACE WATER:
0-3" gravel, alluvium	DEPTH TO FREE WATER IN SOIL PIT:
<u>WETLAND FRINGE SOIL SCORE</u>	DEPTH TO SATURATED SOIL:
DEPTH MATRIX MOTTLE TEXTURE	FIELD INDICATORS
	PRIMARY INDICATORS
<u>UPLAND SOIL SCORE</u>	<input checked="" type="checkbox"/> Inundation
DEPTH MATRIX MOTTLE TEXTURE	<input type="checkbox"/> Saturated in Upper 12 Inches
0-12" 10YR4/3 sandy loam	<input type="checkbox"/> Water Marks
	<input type="checkbox"/> Drift Lines
	<input type="checkbox"/> Sediment Deposits
	<input checked="" type="checkbox"/> Drainage Patterns
	SECONDARY INDICATORS
	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches
	<input type="checkbox"/> Water Stained Leaves
	<input type="checkbox"/> FAC-Neutral Test

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of jewelweed community following saturated spring discharge.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 59	EVALUATOR: PJD, BTB, RCL, ERB
DATE: 28-Apr-05	WEATHER: 50 degrees with rain in past 24 hours
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.1433 Ac 0.0580 Ha

VEGETATION	CLASSIFICATION: 15% PEM 0% PSS 85% PFO 0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Carex sp.	H	85% FAC-OBL	Rosa multiflora	H	FACU
Osmunda sp.	H	FAC - OBL	Malus sp.	T	NS
Onoclea sensibilis	H	FACW	Plantago major	H	FACU
Acer rubrum	T	FAC	Solidago rugosa	H	FAC
Vaccinium corymbosum	SS	FACW-	Acer rubrum	T	FAC
			Prunus serotina	T	FACU

Percent of Dominant Species that are OBL, FACW, and FAC 100%

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Rexford gravelly silt loam (ReA)				SOURCE OF HYDROLOGY: Groundwater seeps.	
HYDRIC SOIL UNIT: Rexford				DEPTH OF SURFACE WATER: 1-5'	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH TO FREE WATER IN SOIL PIT: 4'	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO SATURATED SOIL:	
0-4"	10YR3/2		silt loam	FIELD INDICATORS	
4-16"	2.5Y3/2	10YR3/3	sandy loam	PRIMARY INDICATORS	
<u>WETLAND FRINGE SOIL SCORE</u>				<input checked="" type="checkbox"/> Inundation	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	<input checked="" type="checkbox"/> Saturated in Upper 12 Inches	
				<input type="checkbox"/> Water Marks	
				<input type="checkbox"/> Drift Lines	
				<input type="checkbox"/> Sediment Deposits	
				<input checked="" type="checkbox"/> Drainage Patterns	
<u>UPLAND SOIL SCORE</u>				SECONDARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches	
0-12"	10YR5/3		sandy loam	<input checked="" type="checkbox"/> Water Stained Leaves	
>12"	rock		rock	<input type="checkbox"/> FAC-Neutral Test	

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of red maple, highbush blueberry, and osmunda fern community with saturated and inundated conditions with water stained leaves and drainage patterns. This PFO does contain low chroma and mottled soils. Upland inclusions are found in Wetland 59, including areas of Canada mayflower, but low chroma, mottled soils are still dominant.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 61	EVALUATOR: PJD, BTB, RCL, ERB
DATE: 28-Apr-05	WEATHER: 50 degrees with rain in past 24 hours
Do normal circumstances exist on the site?	Yes
Is the site significantly disturbed (Atypical Situation)?	No
Is the area a potential problem area?	No
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 0.0044 Ac 0.0018 Ha	

VEGETATION CLASSIFICATION: 100% PEM 0% PSS 0% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Osmunda sp.	H	FAC - OBL	Maianthemum canadense	H	FAC-
Carex sp.	H	85% FAC-OBL	Acer rubrum	T	FAC
Poaceae or Gramineae sp.	H	NS	Prunus serotina	T	FACU
Sphagnum sp.	H	NS	Quercus rubra	T	FACU-
			Quercus alba	T	FACU
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Rexford gravelly silt loam (ReA)				SOURCE OF HYDROLOGY: Seasonal flooding.	
HYDRIC SOIL UNIT: Rexford					
<u>WETLAND CORE SOIL SCORE</u>				DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL:	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-6"	10YR3/4		sandy loam		
6-16"	10YR3/3	10YR4/4	sandy loam		
<u>WETLAND FRINGE SOIL SCORE</u>				FIELD INDICATORS PRIMARY INDICATORS <input type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
<u>UPLAND SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-8"	10YR3/3		sandy loam		
8-16"	10YR4/3		sandy loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of small floodplain bench with sedge and sphagnum moss community adjacent to Channel 4 with moderate chroma and mottled alluvial soils following drainage patterns and drift lines.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 62	EVALUATOR: PJD, BTB, RCL, ERB
DATE: 28-Apr-05	WEATHER: 50 degrees with rain in past 24 hours
Do normal circumstances exist on the site?	Yes
Is the site significantly disturbed (Atypical Situation)?	No
Is the area a potential problem area?	No
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.5641 Ac 0.2282 Ha

VEGETATION	CLASSIFICATION:	0% PEM	50 % PSS	50 % PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Carex sp.	H	85% FAC-OBL	Maianthemum canadense	H	FAC-
Lindera benzoin	SS	FACW-	Potentilla sp.	H	NS
Caltha palustris	H	OBL	Carpinus caroliniana	SS	FAC
Sphagnum sp.	H	NS	Carya ovata	T	FACU-
Acer rubrum	T	FAC	Hamamelis virginiana	SS	FACU+
Betula alleghaniensis	T	FAC	Prunus serotina	T	FACU
Impatiens capensis	H	FACW			
Osmunda sp.	H	FAC - OBL			
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Wyoming gravelly sandy loam (WyC)				SOURCE OF HYDROLOGY: Seasonal high water table, flooding, and groundwater seeps. DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: 4" DEPTH TO SATURATED SOIL:	
HYDRIC SOIL UNIT: Wet spots					
WETLAND CORE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-6"	2.5Y3/2		silt loam		
6-16"	2.5Y3/2	10YR3/4	sandy loam		
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	10YR3/3		sandy loam		
4-12"		10YR5/6	sandy loam		
>12"	rock		rock		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	10YR3/3		sandy loam		
4-12"		10YR5/6	sandy loam		
>12"	rock		rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of channel with wide wetland fringe. This channel often becomes dominated by wetland habitat (over 50% of channel is wetland) that contains sedge, jewelweed, osmunda fern, red maple, and yellow birch with low chroma and mottled soils, water stained leaves, saturation, and inundation. Also, much of the upper portion of Wetland 62 contains side seeps with low chroma and mottled soils, with saturation and inundation and a similar vegetative community of hydrophytes. The western part of Wetland 62 (flags approximately 100 to 119) are mostly demarcating "channel" bank.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 63	EVALUATOR: PJD, BTB, RCL, ERB
DATE: 28-Apr-05	WEATHER: 50 degrees with rain in past 24 hours
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 0.0121 Ac 0.0049 Ha	

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 100% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Osmunda sp.	H	FAC - OBL	Carya ovata	T	FACU-
Nyssa sylvatica	T	FAC	Dryopteris sp.	H	NS
Acer rubrum	T	FAC	Alliaria petiolata	H	FACU-
			Acer rubrum	T	FAC
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Wyoming gravelly sandy loam (WyC)				SOURCE OF HYDROLOGY: Small groundwater seep and seasonal saturation.	
HYDRIC SOIL UNIT: Wet spots					
WETLAND CORE SOIL SCORE				DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL:	
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-8"	10YR4/1		silt loam		
8-11"	10YR4/2	1YR4/3, 2.5Y4/3, 10YR4	silt loam	FIELD INDICATORS PRIMARY INDICATORS <input type="checkbox"/> Inundation <input checked="" type="checkbox"/> X Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> X Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
11-16"	10YR4/3	10YR4/2, 10YR5/6	silt loam		
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-6"	10YR3/3		silt loam		
6-14"	10YR4/3		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> 0 Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> X Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> X Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> X Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of water stained leaves groundwater seep with saturated, low chroma and mottled soils following osmunda fern and red maple community.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 64	EVALUATOR: PJD, BTB, RCL, ERB
DATE: 28-Apr-05	WEATHER: 50 degrees with rain in past 24 hours
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 4.1228 Ac 1.6681 Ha

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 100% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Betula alleghaniensis	T	FAC	Maianthemum canadense	H	FAC-
Rhododendron sp.	SS	NS	Potentilla sp.	H	NS
Acer rubrum	T	FAC	Carpinus caroliniana	T	FAC
Symplocarpus foetidus	H	OBL	Carya ovata	T	FACU-
Sphagnum sp.	H	NS	Hamamelis virginiana	SS	FACU+
Carex sp.	H	85% FAC-OBL	Prunus serotina	T	FACU
Impatiens capensis	H	FACW			
Tsuga canadensis	T	FACU			
Percent of Dominant Species that are OBL, FACW, and FAC		100%			

SOILS	HYDROLOGY
MAPPED SOIL UNIT: Chippewa and Norwich extremely stony soils (CrB)	SOURCE OF HYDROLOGY: Groundwater seeps.
HYDRIC SOIL UNIT: Chippewa and Norwich	

WETLAND CORE SOIL SCORE				DEPTH OF SURFACE WATER:	
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH TO FREE WATER IN SOIL PIT:	0"
0-6"	2.5Y3/2		silt loam		0"
6-16"	2.5Y5/1	2.5Y3/3	sandy loam		0"

WETLAND FRINGE SOIL SCORE				FIELD INDICATORS	
DEPTH	MATRIX	MOTTLE	TEXTURE		
				<input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns	

UPLAND SOIL SCORE				SECONDARY INDICATORS	
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	10YR3/3		sandy loam	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
4-12"	10YR5/6		sandy loam		
>12"	rock		rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of primary seep channel and associated tributary following sedge, skunk cabbage, jewelweed, red maple, and yellow birch community in topographically defined drainage pattern with water stained leaves, low chroma and mottled soils and saturated and inundated conditions.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 65	EVALUATOR: PJD, BTB, RCL, ERB
DATE: 28-Apr-05	WEATHER: 50 degrees with rain in past 24 hours
Do normal circumstances exist on the site?	Yes
Is the site significantly disturbed (Atypical Situation)?	No
Is the area a potential problem area?	No
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0496 Ac 0.0201 Ha

VEGETATION	CLASSIFICATION:	100% PEM	0% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Osmunda sp.	H	FAC - OBL	Carya ovata	T	FACU-
Onoclea sensibilis	H	FACW	Populus tremuloides	T	NI
Carpinus caroliniana	T	FAC	Acer rubrum	T	FAC
Poaceae or Gramineae sp.	H	NS	Maianthemum canadense	H	FAC-
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Wyoming gravelly sandy loam (WYC)				SOURCE OF HYDROLOGY: Groundwater discharge and seasonal saturation.	
HYDRIC SOIL UNIT: Wet spots					
WETLAND CORE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: 0'	
0-8"	10YR2/2		silt loam		
8-14"	10YR3/2	10YR4/4	silt loam		
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE	FIELD INDICATORS PRIMARY INDICATORS <input type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
0-8"	10YR4/3		sandy loam		
8-14"	10YR3/2	10YR4/6	sandy loam		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-5"	10YR3/4		silt loam		
5-16"	10YR4/4		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of the osmunda fern and sensitive fern community along topographic low and floodplain bench with low chroma, mottled, and saturated soils.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 66	EVALUATOR: PJD, BTB, RCL, ERB
DATE: 28-Apr-05	WEATHER: 50 degrees with rain in past 24 hours
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.6187 Ac 0.2503 Ha

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 100% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Carex sp.	H	85% FAC-OBL	Prunus serotina	T	FACU
Lindera benzoin	SS	FACW-	Berberis sp.	H	NS
Sphagnum sp.	H	NS	Rubus sp.	H	NS
Acer rubrum	T	FAC	Acer rubrum	T	FAC
Osmunda sp.	H	FAC - OBL	Geranium maculatum	H	FACU
			Allium sp.	H	NS
			Poaceae or Gramineae sp.	H	NS
			Rosa multiflora	H	FACU

Percent of Dominant Species that are OBL, FACW, and FAC 100%

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Rexford gravelly silt loam (ReA)				SOURCE OF HYDROLOGY: Groundwater seeps and seasonal flooding.	
HYDRIC SOIL UNIT: Rexford				DEPTH OF SURFACE WATER: 1-6"	
WETLAND CORE SOIL SCORE				DEPTH TO FREE WATER IN SOIL PIT:	
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH TO SATURATED SOIL:	
0-4"	2.5Y3/2		silt loam	FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
4-16"	2.5Y4/1	10YR4/4	silty clay loam		
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-8"	10YR4/3		silt loam		
8-16"	10YR4/2, 10YR4/3	10YR4/6	silt loam		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-8"	10YR4/3		silt loam		
8-16"	10YR4/2, 10YR4/3	10YR4/6	silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of drainage patterns with saturated and inundated conditions with a community of sphagnum moss, sedge, spicebush, and red maple with seep hydrology throughout most of the wetland. Portion (south) of the wetland is hydrated by seasonal flooding and groundwater.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID:	Wetland 67	EVALUATOR:	FJD, BTB, RCL, ERB
DATE:	28-Apr-05	WEATHER:	50 degrees with rain in past 24 hours
Do normal circumstances exist on the site?	Yes		
Is the site significantly disturbed (Atypical Situation)?	No		
Is the area a potential problem area?	No		
HYDROGEOMORPHIC CLASSIFICATION:		SIZE:	0.0098 Ac 0.0040 Ha

VEGETATION	CLASSIFICATION:	100% PEM	0% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Juncus effusus	H	FACW+	Rubus allegheniensis	H	FACU-
Impatiens capensis	H	FACW	Rosa multiflora	H	FACU
Poaceae or Gramineae sp.	H	NS			
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Braceville gravelly loam (BRA)				SOURCE OF HYDROLOGY: Precipitation collection and seasonal saturation.	
HYDRIC SOIL UNIT: Rexford					
<u>WETLAND CORE SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
0-16"	10YR3/2	10YR2/1, 10YR4/4	disturbed soil		
<u>WETLAND FRINGE SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-4"	10YR4/2		organic		
4-8"	10YR5/4		loam		
<u>UPLAND SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
>8"	rock		rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of the soft rush community in a topographic low with standing water, algal staining, water stained leaves, and low chroma, mottled soils.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID:	Wetland 68	EVALUATOR:	PJD, BTB, RCL, ERB
DATE:	28-Apr-05	WEATHER:	50 degrees with rain in past 24 hours
Do normal circumstances exist on the site?	Yes		
Is the site significantly disturbed (Atypical Situation)?	No		
Is the area a potential problem area?	No		
HYDROGEOMORPHIC CLASSIFICATION:		SIZE:	0.4352 Ac 0.1761 Ha

VEGETATION	CLASSIFICATION:	100% PEM	0% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Onoclea sensibilis	H	FACW	Tsuga canadensis	T	FACU
Acer rubrum	T	FAC	Carya ovata	T	FACU-
Impatiens capensis	H	FACW	Maianthemum canadense	H	FAC-
Toxicodendron radicans	H	FAC			
Carex sp.	H	85% FAC-OBL			
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Volusia extremely stony silt loam (VxB)				SOURCE OF HYDROLOGY: Hillside seep and seasonal saturation.	
HYDRIC SOIL UNIT: Chippewa					
<u>WETLAND CORE SOIL SCORE</u>				DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS <input type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	10YR4/1	10YR5/6	silt loam		
4-8"	10YR4/1	10YR4/3, 10YR4/6	silt loam		
8-12"	10YR4/3	10YR4/1, 10YR4/6	silt loam		
<u>WETLAND FRINGE SOIL SCORE</u>					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	10YR4/2		organic		
4-8"	10YR5/4		loam		
>8"	rock		rock		
<u>UPLAND SOIL SCORE</u>					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	10YR4/2		organic		
4-8"	10YR5/4		loam		
>8"	rock		rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination	
Hydrophytic Vegetation Present?	Yes
Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes
Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of water stained leaves and saturation following sensitive fern, sedge, and red maple community following low chroma, mottled soils with sulfidic odor and drainage patterns.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 69	EVALUATOR: PJD, BTB, RCL, ERB
DATE: 28-Apr-05	WEATHER: 50 degrees with rain in past 24 hours
Do normal circumstances exist on the site?	Yes
Is the site significantly disturbed (Atypical Situation)?	No
Is the area a potential problem area?	No
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0163 Ac 0.0066 Ha

VEGETATION CLASSIFICATION: 100% PEM 0% PSS 0% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Carex sp.	H	85% FAC-OBL	Tsuga canadensis	H	FACU
Juncus effusus	H	FACW+	Rhododendron sp.	SS	NS
			Maianthemum canadense	H	FAC-
			Rubus allegheniensis	H	FACU-
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Braceville gravelly loam (BrA)				SOURCE OF HYDROLOGY: <small>Surface water runoff, precipitation collection, and seasonal saturation.</small> DEPTH OF SURFACE WATER: 0 DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL:	
HYDRIC SOIL UNIT: Rexford					
<u>WETLAND CORE SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	FIELD INDICATORS PRIMARY INDICATORS <input type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches Water Marks Drift Lines Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
0-6"	organic and fill		organic and fill		
6-14"	10YR4/1	10YR4/4	organic debris (disturbed)		
<u>WETLAND FRINGE SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
0-6"	10YR3/2		silt loam		
6-14"	10YR4/6		silt loam		
<u>UPLAND SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
0-6"	10YR3/2		silt loam		
6-14"	10YR4/6		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of the sedge community within topographic low with inundation and water staining with disturbed, low chroma and mottled soils.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 70	EVALUATOR: PJD, BTB, RCL, ERB	
DATE: 28-Apr-05	WEATHER: 50 degrees with rain in past 24 hours	
Do normal circumstances exist on the site?	Yes	
Is the site significantly disturbed (Atypical Situation)?	No	
Is the area a potential problem area?	No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0313 Ac	0.0127 Ha
VEGETATION	CLASSIFICATION: 100% PEM	0% PSS 0% PFO 0% POW
WETLAND	UPLAND	
<u>SPECIES</u> <u>STRATUM</u> <u>INDICATOR</u>	<u>SPECIES</u> <u>STRATUM</u> <u>INDICATOR</u>	
Juncus effusus H FACW+	Poaceae or Gramineae sp. H NS	
Carex sp. H 85% FAC-OBL	Taraxacum officinale H FACU-	
	Rubus allegheniensis H FACU-	
Percent of Dominant Species that are OBL, FACW, and FAC 100%		
SOILS	HYDROLOGY	
MAPPED SOIL UNIT: Braceville gravelly loam (BrA)	SOURCE OF HYDROLOGY: Hillside seep, surface water runoff, and seasonal saturation.	
HYDRIC SOIL UNIT: Rexford	DEPTH OF SURFACE WATER:	
WETLAND CORE SOIL SCORE		
<u>DEPTH</u> <u>MATRIX</u> <u>MOTTLE</u> <u>TEXTURE</u>	DEPTH TO FREE WATER IN SOIL PIT:	
0-16" 10YR4/2 10YR4/6 silt loam	DEPTH TO SATURATED SOIL: 0"	
WETLAND FRINGE SOIL SCORE		
<u>DEPTH</u> <u>MATRIX</u> <u>MOTTLE</u> <u>TEXTURE</u>	FIELD INDICATORS	
	PRIMARY INDICATORS	
	<input checked="" type="checkbox"/> Inundation	
	<input checked="" type="checkbox"/> Saturated in Upper 12 Inches	
	_____ Water Marks	
	_____ Drift Lines	
	_____ Sediment Deposits	
	_____ Drainage Patterns	
UPLAND SOIL SCORE		
<u>DEPTH</u> <u>MATRIX</u> <u>MOTTLE</u> <u>TEXTURE</u>	SECONDARY INDICATORS	
0-6" 10YR3/2 _____ silt loam	_____ Oxidized Root Channels in Upper 12 inches	
6-14" 10YR4/6 _____ silt loam	<input checked="" type="checkbox"/> Water Stained Leaves	
	_____ FAC-Neutral Test	
Hydric Soil Indicators		
_____ Histosol	_____ Concretions	
_____ Histic Epipedon	_____ High Organic Content in Surface Layers in Sandy Soils	
_____ Sulfidic Odor	_____ Organic Streaking in Sandy Soils	
_____ Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List	
<input checked="" type="checkbox"/> Reducing Conditions	_____ Listed on National Hydric Soils List	
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	_____ Other (Explain in Basis of Delineation)	
Wetland Determination		
Hydrophytic Vegetation Present? Yes	Hydric Soil Present? Yes	
Wetland Hydrology Present? Yes	Wetland? Yes	
BASIS OF DELINEATION:		
Delineation follows extent of soft rush and sedge community with low chroma, mottled and saturated soils with water staining. Small portion of wetland on golf course is inundated.		

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 71	EVALUATOR: PJD, BTB, RCL, ERB
DATE: 28-Apr-05	WEATHER: 50 degrees with rain in past 24 hours
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0846 Ac 0.0342 Ha

VEGETATION	CLASSIFICATION:	100% PEM	0% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Poaceae or Gramineae sp.	H	NS	Poaceae or Gramineae sp.	H	NS
Trifolium sp.	H	NS	Trifolium sp.	H	NS
Percent of Dominant Species that are OBL, FACW, and FAC			#DIV/0!		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Braceville gravelly loam (BrA)				SOURCE OF HYDROLOGY: Hillside seep discharge and seasonal saturation.	
HYDRIC SOIL UNIT: Rexford					
WETLAND CORE SOIL SCORE				DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL:	
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-12"	10YR4/2	10YR4/6	silt loam		
>12"	rock		rock	FIELD INDICATORS PRIMARY INDICATORS <input type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-8"	10YR4/3	10YR4/6	silt loam		
>8"	rock		rock		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-8"	10YR4/3	10YR4/6	silt loam		
>8"	rock		rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of saturation in mowed lawn setting of golf course with low chroma, mottled soils. Area is planted with a mixture of vegetation for the golf course, thus the reason for lack of hydrophytic vegetation.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID:	Wetland 72	EVALUATOR:	PJD, BTB, RCL, ERB
DATE:	28-Apr-05	WEATHER:	50 degrees with rain in past 24 hours
Do normal circumstances exist on the site?	Yes		
Is the site significantly disturbed (Atypical Situation)?	No		
Is the area a potential problem area?	No		
HYDROGEOMORPHIC CLASSIFICATION:		SIZE:	0.0445 Ac 0.0180 Ha

VEGETATION	CLASSIFICATION:																											
	100% PEM 0% PSS 0% PFO 0% POW																											
WETLAND	UPLAND																											
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SOILS	HYDROLOGY																								
MAPPED SOIL UNIT: Rexford gravelly silt loam (ReA)	SOURCE OF HYDROLOGY: Discharge from Channel 035 and seasonal saturation.																								
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Hydric Soil Indicators	
<input type="checkbox"/>	Histosol
<input type="checkbox"/>	Histic Epipedon
<input type="checkbox"/>	Sulfidic Odor
<input type="checkbox"/>	Aquic Moisture Regime
<input checked="" type="checkbox"/>	Reducing Conditions
<input checked="" type="checkbox"/>	Gleyed or Low Chroma Colors
<input type="checkbox"/>	Concretions
<input type="checkbox"/>	High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/>	Organic Streaking in Sandy Soils
<input checked="" type="checkbox"/>	Listed on Local Hydric Soils List
<input type="checkbox"/>	Listed on National Hydric Soils List
<input type="checkbox"/>	Other (Explain in Basis of Delineation)

Wetland Determination	
Hydrophytic Vegetation Present?	Yes
Wetland Hydrology Present?	Yes
Hydric Soil Present?	Yes
Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of jewelweed and sedge community with saturation and water staining following low chroma, mottled soils.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 73	EVALUATOR: PJD, BTB, AJL
DATE: 11-May-05	WEATHER: Sunny and hot
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0092 Ac 0.0037 Ha

VEGETATION CLASSIFICATION: 100% PEM 0% PSS 0% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Carex sp.	H	85% FAC-OBL	Taraxacum officinale	H	FACU-
			Poaceae or Gramineae sp.	H	NS
			Trifolium sp.	H	NS
			Plantago major	H	FACU
			Veronica sp.	H	NS
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Phlo silt loam (Ph)				SOURCE OF HYDROLOGY: Groundwater seep and stream flooding	
HYDRIC SOIL UNIT: Holly				DEPTH OF SURFACE WATER:	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH TO FREE WATER IN SOIL PIT:	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO SATURATED SOIL: 0'	
0-4"	Organic		Organic		
4-16"	2.5Y3/2	10YR4/4	silty sandy loam		
<u>WETLAND FRINGE SOIL SCORE</u>				FIELD INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	PRIMARY INDICATORS	
0-16"	10YR3/2	10YR2/1, 10YR4/4	silt loam	Inundation	
				X Saturated in Upper 12 Inches	
				Water Marks	
				X Drift Lines	
				Sediment Deposits	
				X Drainage Patterns	
<u>UPLAND SOIL SCORE</u>				SECONDARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	Oxidized Root Channels in Upper 12 inches	
0-4"	10YR4/3		sandy loam	Water Stained Leaves	
4-12"	10YR4/4		loam	FAC-Neutral Test	
>12"	rock		rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of sedge community with debris lines along floodplain bench with low chroma, mottled and saturated soils.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Seep 1	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOGRAPHIC CLASSIFICATION: SIZE: 0.0035 Ac 0.0014 Ha	

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 0% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
			Tsuga canadensis	T	FACU
			Acer rubrum	T	FAC
			Quercus alba	T	FACU
			Quercus rubra	T	FACU-
Percent of Dominant Species that are OBL, FACW, and FAC			#DIV/0!		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Chenango gravelly loam (ChB)				SOURCE OF HYDROLOGY: Groundwater seeps.	
HYDRIC SOIL UNIT: Redford					
<u>WETLAND CORE SOIL SCORE</u>				DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-4"	organic		organic		
4-10"	10YR6/4	10YR6/8	silty clay loam		
<u>WETLAND FRINGE SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
<u>UPLAND SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-16"	7.5YR6/3		silty clay loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	No
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Delineation follows extent of topographic low drainage patterns with inundation and saturation.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Seep 2	EVALUATOR: PJD, BTB, KJS, ERB	
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees	
Do normal circumstances exist on the site?	Yes	
Is the site significantly disturbed (Atypical Situation)?	No	
Is the area a potential problem area?	No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0421 Ac	0.0170 Ha
VEGETATION	CLASSIFICATION: 0% PEM	0% PSS 0% PFO 0% POW
WETLAND	UPLAND	
<u>SPECIES</u> <u>STRATUM</u> <u>INDICATOR</u>	<u>SPECIES</u> <u>STRATUM</u> <u>INDICATOR</u>	
	Quercus rubra	T FACU-
	Quercus alba	T FACU
	Quercus montana	T UPL
	Tsuga canadensis	T FACU
Percent of Dominant Species that are OBL, FACW, and FAC	#DIV/0!	
SOILS	HYDROLOGY	
MAPPED SOIL UNIT: Wyoming gravelly sandy loam (Wyc)	SOURCE OF HYDROLOGY: Groundwater seeps	
HYDRIC SOIL UNIT: Wet spots	DEPTH OF SURFACE WATER:	
<u>WETLAND CORE SOIL SCORE</u>	DEPTH TO FREE WATER IN SOIL PIT:	
<u>DEPTH</u> <u>MATRIX</u> <u>MOTTLE</u> <u>TEXTURE</u>	DEPTH TO SATURATED SOIL:	
0-4" organic organic	FIELD INDICATORS	
4-10" 10YR6/4 10YR6/8 silty clay loam	PRIMARY INDICATORS	
<u>WETLAND FRINGE SOIL SCORE</u>	<input checked="" type="checkbox"/> Inundation	
<u>DEPTH</u> <u>MATRIX</u> <u>MOTTLE</u> <u>TEXTURE</u>	<input checked="" type="checkbox"/> Saturated in Upper 12 Inches	
	_____ Water Marks	
	_____ Drift Lines	
	_____ Sediment Deposits	
	_____ Drainage Patterns	
<u>UPLAND SOIL SCORE</u>	SECONDARY INDICATORS	
<u>DEPTH</u> <u>MATRIX</u> <u>MOTTLE</u> <u>TEXTURE</u>	_____ Oxidized Root Channels in Upper 12 inches	
0-4" 10YR3/2 organic/mineral mix	_____ Water Stained Leaves	
4-16" 10YR4/6 silt loam	_____ FAC-Neutral Test	
Hydric Soil Indicators		
_____ Histosol	_____ Concretions	
_____ Histic Epipedon	_____ High Organic Content in Surface Layers in Sandy Soils	
_____ Sulfidic Odor	_____ Organic Streaking in Sandy Soils	
_____ Aquic Moisture Regime	_____ Listed on Local Hydric Soils List	
_____ Reducing Conditions	_____ Listed on National Hydric Soils List	
_____ Gleyed or Low Chroma Colors	_____ Other (Explain in Basis of Delineation)	
Wetland Determination		
Hydrophytic Vegetation Present?	No	Hydric Soil Present? No
Wetland Hydrology Present?	Yes	Wetland? No
BASIS OF DELINEATION:		
Delineation follows extent of topographic low drainage patterns with inundation and saturation.		

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Seep 3	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0069 Ac 0.0028 Ha

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 0% PFO 0% POW

WETLAND	UPLAND
SPECIES	SPECIES
	Tsuga canadensis T FACU
	Trifolium sp. H NS
	Carya ovata T FACU-
	Taraxacum officinale H FACU-

Percent of Dominant Species that are OBL, FACW, and FAC #DIV/0!

SOILS	HYDROLOGY																				
MAPPED SOIL UNIT: Oquaga-Lackawanna extremely stony loams (OxB)	SOURCE OF HYDROLOGY: Groundwater seeps.																				
HYDRIC SOIL UNIT:	DEPTH OF SURFACE WATER:																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4">WETLAND CORE SOIL SCORE</th> </tr> <tr> <th>DEPTH</th> <th>MATRIX</th> <th>MOTTLE</th> <th>TEXTURE</th> </tr> </thead> <tbody> <tr> <td>0-4"</td> <td>organic</td> <td></td> <td>organic</td> </tr> <tr> <td>4-10"</td> <td>10YR6/4</td> <td>10YR6/8</td> <td>silty clay loam</td> </tr> </tbody> </table>	WETLAND CORE SOIL SCORE				DEPTH	MATRIX	MOTTLE	TEXTURE	0-4"	organic		organic	4-10"	10YR6/4	10YR6/8	silty clay loam	DEPTH TO FREE WATER IN SOIL PIT:				
WETLAND CORE SOIL SCORE																					
DEPTH	MATRIX	MOTTLE	TEXTURE																		
0-4"	organic		organic																		
4-10"	10YR6/4	10YR6/8	silty clay loam																		
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UPLAND SOIL SCORE																					
DEPTH	MATRIX	MOTTLE	TEXTURE																		
0-4"	10YR4/4		silt loam																		
4-12"	10YR5/4		silt loam																		
>12"	rock		rock																		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	No
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Delineation follows extent of topographic low drainage patterns with inundation and saturation.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Vernal Pool 1	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0344 Ac 0.0139 Ha

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 0% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
			Tsuga canadensis	T	FACU
			Acer rubrum	T	FAC
			Quercus alba	T	FACU
			Quercus rubra	T	FACU-
Percent of Dominant Species that are OBL, FACW, and FAC			#DIV/0!		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Lackawanna extremely stony loam (LbB)				SOURCE OF HYDROLOGY: Stormwater runoff collection.	
HYDRIC SOIL UNIT:				DEPTH OF SURFACE WATER: 1-12"	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH TO FREE WATER IN SOIL PIT:	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO SATURATED SOIL:	
0-8"	10YR4/1		silty clay loam		
8-16"	10YR3/2		silty clay loam		
<u>WETLAND FRINGE SOIL SCORE</u>				FIELD INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	PRIMARY INDICATORS	
				<input checked="" type="checkbox"/> Inundation	
				<input checked="" type="checkbox"/> Saturated in Upper 12 Inches	
				<input type="checkbox"/> Water Marks	
				<input type="checkbox"/> Drift Lines	
				<input type="checkbox"/> Sediment Deposits	
				<input type="checkbox"/> Drainage Patterns	
<u>UPLAND SOIL SCORE</u>				SECONDARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches	
0-16"	7.5YR6/3		silty clay loam	<input checked="" type="checkbox"/> Water Stained Leaves	
				<input type="checkbox"/> FAC-Neutral Test	

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Vernal pool follows extent of inundated and saturated conditions with water stained leaves.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Vernal Pool 2	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0065 Ac 0.0026 Ha

VEGETATION	CLASSIFICATION:	0% PEM	0% PSS	0% PFO	0% POW
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WETLAND	UPLAND
SPECIES	SPECIES
STRATUM	STRATUM
INDICATOR	INDICATOR
Musci sp.	Tsuga canadensis
H	T
NS	FACU
	Acer rubrum
	T
	FAC
	Quercus alba
	T
	FACU
	Quercus rubra
	T
	FACU

Percent of Dominant Species that are OBL, FACW, and FAC #DIV/0!

SOILS	HYDROLOGY
MAPPED SOIL UNIT: Lackawanna extremely stony loam (LbB)	SOURCE OF HYDROLOGY: Surface water collection.
HYDRIC SOIL UNIT:	DEPTH OF SURFACE WATER: 1-4'
<u>WETLAND CORE SOIL SCORE</u>	DEPTH TO FREE WATER IN SOIL PIT:
DEPTH MATRIX MOTTLE TEXTURE	DEPTH TO SATURATED SOIL:
0-16" 10YR6/2 10YR6/8 silty clay loam	FIELD INDICATORS
<u>WETLAND FRINGE SOIL SCORE</u>	PRIMARY INDICATORS
DEPTH MATRIX MOTTLE TEXTURE	<input checked="" type="checkbox"/> Inundation
<u>UPLAND SOIL SCORE</u>	<input type="checkbox"/> Saturated in Upper 12 Inches
DEPTH MATRIX MOTTLE TEXTURE	<input type="checkbox"/> Water Marks
0-16" 7.5YR6/3 silty clay loam	<input type="checkbox"/> Drift Lines
	<input type="checkbox"/> Sediment Deposits
	<input type="checkbox"/> Drainage Patterns
	SECONDARY INDICATORS
	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches
	<input checked="" type="checkbox"/> Water Stained Leaves
	<input type="checkbox"/> FAC-Neutral Test

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Vernal pool follows extent of inundated and saturated conditions with water stained leaves.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Vernal Pool 3	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site?	Yes
Is the site significantly disturbed (Atypical Situation)?	No
Is the area a potential problem area?	No
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0069 Ac 0.0028 Ha

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 0% PFO 0% POW

WETLAND	UPLAND
SPECIES STRATUM INDICATOR	SPECIES STRATUM INDICATOR
	Tsuga canadensis T FACU
	Acer rubrum T FAC
	Quercus alba T FACU
	Quercus rubra T FACU-
Percent of Dominant Species that are OBL, FACW, and FAC #DIV/0!	

SOILS	HYDROLOGY
MAPPED SOIL UNIT: Lackawanna extremely stony loam (LbB)	SOURCE OF HYDROLOGY: Stormwater runoff collection.
HYDRIC SOIL UNIT:	DEPTH OF SURFACE WATER: 1-8"
<u>WETLAND CORE SOIL SCORE</u>	DEPTH TO FREE WATER IN SOIL PIT:
DEPTH MATRIX MOTTLE TEXTURE	DEPTH TO SATURATED SOIL:
0-14" 10YR6/2 10YR6/8 silty clay loam	FIELD INDICATORS
<u>WETLAND FRINGE SOIL SCORE</u>	PRIMARY INDICATORS
DEPTH MATRIX MOTTLE TEXTURE	<input checked="" type="checkbox"/> Inundation
	<input type="checkbox"/> Saturated in Upper 12 Inches
	<input type="checkbox"/> Water Marks
	<input type="checkbox"/> Drift Lines
	<input type="checkbox"/> Sediment Deposits
	<input type="checkbox"/> Drainage Patterns
<u>UPLAND SOIL SCORE</u>	SECONDARY INDICATORS
DEPTH MATRIX MOTTLE TEXTURE	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches
0-16" 7.5YR6/3 silty clay loam	<input checked="" type="checkbox"/> Water Stained Leaves
	<input type="checkbox"/> FAC-Neutral Test

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Vernal pool follows extent of inundated and saturated conditions with water stained leaves and algae.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Vernal Pool 4	EVALUATOR: PJD, BTB, KJS, ERB	
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees	
Do normal circumstances exist on the site? Yes		
Is the site significantly disturbed (Atypical Situation)? No		
Is the area a potential problem area? No		
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0871 Ac	0.0352 Ha

VEGETATION	CLASSIFICATION:	0% PEM	0% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Musci sp.	H	NS	Tsuga canadensis	T	FACU
Kalmia angustifolia	SS	FAC	Acer rubrum	T	FAC
			Quercus rubra	T	FACU-
			Kalmia latifolia	SS	FACU
			Quercus alba	T	FACU

Percent of Dominant Species that are OBL, FACW, and FAC: 100%

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Lackawanna extremely stony loam (LdB)				SOURCE OF HYDROLOGY: Surface water collection.	
HYDRIC SOIL UNIT:				DEPTH OF SURFACE WATER: 1-4"	
WETLAND CORE SOIL SCORE				DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-14"	10YR6/1	10YR6/8	silty clay loam		
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	organic		silt loam		
4-12"	7.5YR6/8		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Vernal pool follows extent of inundated and saturated conditions with true moss and sheep laurel in and adjacent to pool.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Vernal Pool 5	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0028 Ac 0.0011 Ha

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 0% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
			Tsuga canadensis	T	FACU
			Acer rubrum	T	FAC
			Quercus rubra	T	FACU-
			Kalmia latifolia	SS	FACU
			Quercus alba	T	FACU
Percent of Dominant Species that are OBL, FACW, and FAC			#DIV/0!		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Lackawanna extremely stony loam (LbB)				Surface water runoff:	
HYDRIC SOIL UNIT:				SOURCE OF HYDROLOGY:	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH OF SURFACE WATER: 6'	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO FREE WATER IN SOIL PIT:	
0-4"	7.5YR3/2	7.5YR4/6	silty clay loam	DEPTH TO SATURATED SOIL:	
4-12"	7.5YR6/2	7.5YR5/6, 7.5YR4/6	silty clay loam	FIELD INDICATORS	
<u>WETLAND FRINGE SOIL SCORE</u>				PRIMARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	<input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns	
<u>UPLAND SOIL SCORE</u>				SECONDARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
0-4"	organic		silt loam		
4-12"	7.5YR6/8		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Vernal pool follows extent of inundated and saturated conditions.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Vernal Pool 6	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site?	Yes
Is the site significantly disturbed (Atypical Situation)?	No
Is the area a potential problem area?	No
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0064 Ac 0.0026 Ha

VEGETATION	CLASSIFICATION:	0% PEM	0% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
			Tsuga canadensis	T	FACU
			Acer rubrum	T	FAC
			Quercus rubra	T	FACU
			Kalmia latifolia	SS	FACU
			Quercus alba	T	FACU
Percent of Dominant Species that are OBL, FACW, and FAC			#DIV/0!		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Lackawanna extremely stony loam (LbB)				SOURCE OF HYDROLOGY: Surface water collection.	
HYDRIC SOIL UNIT:				DEPTH OF SURFACE WATER: 12"	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH TO FREE WATER IN SOIL PIT:	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO SATURATED SOIL:	
0-16"	10YR5/4	10YR5/6	silty clay loam	FIELD INDICATORS	
<u>WETLAND FRINGE SOIL SCORE</u>				PRIMARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	<input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns	
<u>UPLAND SOIL SCORE</u>				SECONDARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
0-4"	organic		silt loam		
4-12"	7.5YR6/8		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination	
Hydrophytic Vegetation Present?	No
Wetland Hydrology Present?	Yes
Hydric Soil Present?	No
Wetland?	No

BASIS OF DELINEATION:

Vernal pool follows extent of inundated and saturated conditions with water stained leaves in excavated rectangle.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Vernal Pool 7	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.1245 Ac 0.0504 Ha

VEGETATION	CLASSIFICATION:	0% PEM	0% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
			Tsuga canadensis	T	FACU
			Acer rubrum	T	FAC
			Quercus rubra	T	FACU
			Kalmia latifolia	SS	FACU
			Quercus alba	T	FACU
Percent of Dominant Species that are OBL, FACW, and FAC			#DIV/0!		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Morris extremely stony silt loam (MoB)				SOURCE OF HYDROLOGY: Surface water collection.	
HYDRIC SOIL UNIT: Norwich				DEPTH OF SURFACE WATER:	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH TO FREE WATER IN SOIL PIT:	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO SATURATED SOIL:	
0-16"	10YR5/4	10YR5/6	silty clay loam		
<u>WETLAND FRINGE SOIL SCORE</u>				FIELD INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	PRIMARY INDICATORS	
				<input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns	
<u>UPLAND SOIL SCORE</u>				SECONDARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	<input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
0-4"	organic		silt loam		
4-12"	7.5YR6/8		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	No
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Vernal pool follows extent of inundated and saturated conditions.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: LOW 001	EVALUATOR: PJD, BTB, KJS, ERB	
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees	
Do normal circumstances exist on the site?	Yes	
Is the site significantly disturbed (Atypical Situation)?	No	
Is the area a potential problem area?	No	
HYDROGEOGRAPHIC CLASSIFICATION:	SIZE: 16,7600 Ac	6.7811 Ha

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 0% PFO 100% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
			Poaceae or Gramineae sp.	H	NS
			Trifolium sp.	H	NS
Percent of Dominant Species that are OBL, FACW, and FAC			#DIV/0!		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Phlo silt loam (Ph)				SOURCE OF HYDROLOGY: Surface water collection.	
HYDRIC SOIL UNIT:				DEPTH OF SURFACE WATER: >6.6'	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
Inundated >6.6'					
<u>WETLAND FRINGE SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
<u>UPLAND SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-8"	10YR4/3	10YR4/6	silt loam		
>8"	rock		rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Delineation follows extent of topographic low and follows waters edge.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: POW 001	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	Is the site significantly disturbed (Atypical Situation)? No
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 0.4100 Ac 0.1659 Ha	

VEGETATION	CLASSIFICATION:	0% PEM	0% PSS	0% PFO	100% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
			Poaceae or Gramineae sp.	H	NS
			Trifolium sp.	H	NS
Percent of Dominant Species that are OBL, FACW, and FAC			#DIV/0!		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Braceville gravelly loam (BrA)				SOURCE OF HYDROLOGY: Surface water collection.	
HYDRIC SOIL UNIT: Rexford				DEPTH OF SURFACE WATER: >2'	
WETLAND CORE SOIL SCORE				DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
DEPTH	MATRIX	MOTTLE	TEXTURE		
Inundated >2'					
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-8"	10YR4/3	10YR4/6	silt loam		
>8"	rock		rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Delineation follows extent of topographic low and follows waters edge.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID:	POW 002	EVALUATOR:	PJD, BTB, KJS, ERB
DATE:	12-Apr-05	WEATHER:	sunny, clear, 50 degrees
Do normal circumstances exist on the site?	Yes		
Is the site significantly disturbed (Atypical Situation)?	No		
Is the area a potential problem area?	No		
HYDROGEOMORPHIC CLASSIFICATION:		SIZE:	1.5600 Ac 0.6312 Ha

VEGETATION	CLASSIFICATION:	0% PEM	0 % PSS	0 % PFO	100% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
			Poaceae or Gramineae sp.	H	NS
			Trifolium sp.	H	NS
Percent of Dominant Species that are OBL, FACW, and FAC		#DIV/0!			

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Braceville gravelly loam (BrA)				SOURCE OF HYDROLOGY: Surface water collection.	
HYDRIC SOIL UNIT: Rexford				DEPTH OF SURFACE WATER: >2'	
WETLAND CORE SOIL SCORE				DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
DEPTH	MATRIX	MOTTLE	TEXTURE		
Inundated >2'					
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	10YR4/2		organic		
4-8"	10YR5/4		loam		
>8"	rock		rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Delineation follows extent of topographic low and follows waters edge.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: POW 003	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.2500 Ac 0.1012 Ha

VEGETATION	CLASSIFICATION: 0% PEM 0% PSS 0% PFO 100% POW
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WETLAND	UPLAND
SPECIES	SPECIES
STRATUM	STRATUM
INDICATOR	INDICATOR
	Poaceae or Gramineae sp. H NS
	Trifolium sp. H NS
Percent of Dominant Species that are OBL, FACW, and FAC #DIV/0!	

SOILS	HYDROLOGY
MAPPED SOIL UNIT: Braceville gravelly loam (BRA)	SOURCE OF HYDROLOGY: Surface water collection.
HYDRIC SOIL UNIT: Rexford	DEPTH OF SURFACE WATER: >2'
WETLAND CORE SOIL SCORE	DEPTH TO FREE WATER IN SOIL PIT:
DEPTH MATRIX MOTTLE TEXTURE	DEPTH TO SATURATED SOIL:
Inundated >2'	FIELD INDICATORS
	PRIMARY INDICATORS
WETLAND FRINGE SOIL SCORE	<input checked="" type="checkbox"/> Inundation
DEPTH MATRIX MOTTLE TEXTURE	<input type="checkbox"/> Saturated in Upper 12 Inches
	<input type="checkbox"/> Water Marks
	<input type="checkbox"/> Drift Lines
	<input type="checkbox"/> Sediment Deposits
	<input type="checkbox"/> Drainage Patterns
UPLAND SOIL SCORE	SECONDARY INDICATORS
DEPTH MATRIX MOTTLE TEXTURE	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches
0-4" 10YR4/2 organic	<input type="checkbox"/> Water Stained Leaves
4-8" 10YR5/4 loam	<input type="checkbox"/> FAC-Neutral Test
>8" rock rock	

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Delineation follows extent of topographic low and follows waters edge.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: POW 004	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.4700 Ac 0.1902 Ha

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 0% PFO 100% POW

WETLAND	UPLAND
SPECIES	SPECIES
STRATUM	STRATUM
INDICATOR	INDICATOR
	Poaceae or Gramineae sp. H NS
	Trifolium sp. H NS
Percent of Dominant Species that are OBL, FACW, and FAC #DIV/0!	

SOILS	HYDROLOGY
MAPPED SOIL UNIT: Morris extremely stony silt loam (MoB)	SOURCE OF HYDROLOGY: Surface water collection.
HYDRIC SOIL UNIT: Norwich	DEPTH OF SURFACE WATER: >2'
WETLAND CORE SOIL SCORE	
DEPTH	MATRIX
MOTTLE	TEXTURE
Inundated >2'	
WETLAND FRINGE SOIL SCORE	
DEPTH	MATRIX
MOTTLE	TEXTURE
UPLAND SOIL SCORE	
DEPTH	MATRIX
MOTTLE	TEXTURE
0-4"	10YR4/4 silt loam
4-12"	10YR5/4 silt loam
>12"	rock rock

- FIELD INDICATORS**
- PRIMARY INDICATORS**
- Inundation
 - Saturated in Upper 12 Inches
 - Water Marks
 - Drift Lines
 - Sediment Deposits
 - Drainage Patterns
- SECONDARY INDICATORS**
- Oxidized Root Channels in Upper 12 inches
 - Water Stained Leaves
 - FAC-Neutral Test

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination

Hydrophytic Vegetation Present? No	Hydric Soil Present? Yes
Wetland Hydrology Present? Yes	Wetland? No

BASIS OF DELINEATION:

Delineation follows extent of topographic low and follows waters edge.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: POW 005	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.2400 Ac 0.0971 Ha

VEGETATION	CLASSIFICATION:	0% PEM	0% PSS	0% PFO	100% POW
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WETLAND	UPLAND	
SPECIES	STRATUM	INDICATOR
	Poaceae or Gramineae sp.	H NS
	Trifolium sp.	H NS
Percent of Dominant Species that are OBL, FACW, and FAC #DIV/0!		

SOILS	HYDROLOGY
MAPPED SOIL UNIT: Morris extremely stony silt loam (MoB)	SOURCE OF HYDROLOGY: Surface water collection.
HYDRIC SOIL UNIT: Norwich	DEPTH OF SURFACE WATER: >2'
<u>WETLAND CORE SOIL SCORE</u>	DEPTH TO FREE WATER IN SOIL PIT:
DEPTH MATRIX MOTTLE TEXTURE	DEPTH TO SATURATED SOIL:
Inundated >2'	FIELD INDICATORS
	PRIMARY INDICATORS
	<input checked="" type="checkbox"/> Inundation
	<input type="checkbox"/> Saturated in Upper 12 Inches
	<input type="checkbox"/> Water Marks
	<input type="checkbox"/> Drift Lines
	<input type="checkbox"/> Sediment Deposits
	<input type="checkbox"/> Drainage Patterns
<u>WETLAND FRINGE SOIL SCORE</u>	SECONDARY INDICATORS
DEPTH MATRIX MOTTLE TEXTURE	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches
0-4" 10YR4/4 silt loam	<input type="checkbox"/> Water Stained Leaves
4-12" 10YR5/4 silt loam	<input type="checkbox"/> FAC-Neutral Test
>12" rock rock	
<u>UPLAND SOIL SCORE</u>	

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination	
Hydrophytic Vegetation Present? No	Hydric Soil Present? Yes
Wetland Hydrology Present? Yes	Wetland? No

BASIS OF DELINEATION:

Delineation follows extent of topographic low and follows waters edge.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: POW 006	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 1.8500 Ac 0.7485 Ha

VEGETATION	CLASSIFICATION:	0% PEM	0% PSS	0% PFO	100% POW
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WETLAND	UPLAND
SPECIES STRATUM INDICATOR	SPECIES STRATUM INDICATOR
	Poaceae or Gramineae sp. H NS
	Trifolium sp. H NS
Percent of Dominant Species that are OBL, FACW, and FAC #DIV/0!	

SOILS	HYDROLOGY
MAPPED SOIL UNIT: Ocuaga-Lackawanna extremely stony loams (Ox&B)	SOURCE OF HYDROLOGY: Surface water collection.
HYDRIC SOIL UNIT:	DEPTH OF SURFACE WATER: >2'
<u>WETLAND CORE SOIL SCORE</u>	DEPTH TO FREE WATER IN SOIL PIT:
DEPTH MATRIX MOTTLE TEXTURE	DEPTH TO SATURATED SOIL:
Inundated >2'	FIELD INDICATORS
	PRIMARY INDICATORS
<u>WETLAND FRINGE SOIL SCORE</u>	<input checked="" type="checkbox"/> Inundation
DEPTH MATRIX MOTTLE TEXTURE	<input type="checkbox"/> Saturated in Upper 12 Inches
	<input type="checkbox"/> Water Marks
	<input type="checkbox"/> Drift Lines
	<input type="checkbox"/> Sediment Deposits
	<input type="checkbox"/> Drainage Patterns
<u>UPLAND SOIL SCORE</u>	SECONDARY INDICATORS
DEPTH MATRIX MOTTLE TEXTURE	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches
0-4" 10YR4/4 silt loam	<input type="checkbox"/> Water Stained Leaves
4-12" 10YR5/4 silt loam	<input type="checkbox"/> FAC-Neutral Test
>12" rock rock	

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Delineation follows extent of topographic low and follows waters edge.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: POW 007	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 0.5300 Ac 0.2144 Ha	

VEGETATION	CLASSIFICATION:	0% PEM	0% PSS	0% PFO	100% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
			Poaceae or Gramineae sp.	H	NS
			Quercus alba	T	FACU
			Kalmia latifolia	SS	FACU
			Taraxacum officinale	H	FACU-
			Rubus sp.	H	NS
Percent of Dominant Species that are OBL, FACW, and FAC			#DIV/0!		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Wetsboro extremely stony loam (WpB)				SOURCE OF HYDROLOGY: Surface water collection.	
HYDRIC SOIL UNIT:					
WETLAND CORE SOIL SCORE				DEPTH OF SURFACE WATER: >2'	
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH TO FREE WATER IN SOIL PIT:	
Inundated >2'				DEPTH TO SATURATED SOIL:	
WETLAND FRINGE SOIL SCORE				FIELD INDICATORS	
DEPTH	MATRIX	MOTTLE	TEXTURE	PRIMARY INDICATORS	
				<input checked="" type="checkbox"/> Inundation <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns	
UPLAND SOIL SCORE				SECONDARY INDICATORS	
DEPTH	MATRIX	MOTTLE	TEXTURE	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
0-4"	10YR3/3		silt loam		
4-8"	10YR4/4		silt loam		
8-16"	10YR5/6		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Delineation follows extent of topographic low and follows waters edge.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: POW 006	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.2600 Ac 0.1052 Ha

VEGETATION	CLASSIFICATION:	0% PEM	0% PSS	0% PFO	100% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
			Tsuga canadensis	T	FACU
			Trifolium sp.	H	NS
			Carya ovata	T	FACU-
			Taraxacum officinale	H	FACU-
Percent of Dominant Species that are OBL, FACW, and FAC			#DIV/0!		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Oquaga-Lackawanna extremely stony loams (OxC)				SOURCE OF HYDROLOGY: Surface water collection.	
HYDRIC SOIL UNIT:				DEPTH OF SURFACE WATER: >2	
WETLAND CORE SOIL SCORE				DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
DEPTH	MATRIX	MOTTLE	TEXTURE		
Inundated >2'					
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	10YR4/4		silt loam		
4-12"	10YR5/4		silt loam		
>12"	rock		rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination	
Hydrophytic Vegetation Present? No	Hydric Soil Present? Yes
Wetland Hydrology Present? Yes	Wetland? No

BASIS OF DELINEATION:

Delineation follows extent of topographic low and follows waters edge.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: POW 009	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 0.1700 Ac 0.0688 Ha	

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 0% PFO 100% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
			Tsuga canadensis	T	FACU
			Trifolium sp.	H	NS
			Carya ovata	T	FACU-
			Taraxacum officinale	H	FACU-
Percent of Dominant Species that are OBL, FACW, and FAC			#DIV/0!		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Oquaga-Lackawanna extremely stony loams (OxB)				Surface water collection:	
HYDRIC SOIL UNIT:				SOURCE OF HYDROLOGY:	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH OF SURFACE WATER: >2'	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO FREE WATER IN SOIL PIT:	
Inundated >2'				DEPTH TO SATURATED SOIL:	
<u>WETLAND FRINGE SOIL SCORE</u>				FIELD INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	PRIMARY INDICATORS	
				x Inundation	
				Saturated in Upper 12 Inches	
				Water Marks	
				Drift Lines	
				Sediment Deposits	
				Drainage Patterns	
<u>UPLAND SOIL SCORE</u>				SECONDARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	Oxidized Root Channels in Upper 12 inches	
0-4"	10YR4/4		silt loam	Water Stained Leaves	
4-12"	10YR5/4		silt loam	FAC-Neutral Test	
>12"	rock		rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Delineation follows extent of topographic low and follows waters edge.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: POW 010	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 1.6300 Ac 0.6595 Ha	

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 0% PFO 100% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
			Tsuga canadensis	T	FACU
			Trifolium sp.	H	NS
			Carya ovata	T	FACU-
			Taraxacum officinale	H	FACU-
Percent of Dominant Species that are OBL, FACW, and FAC			#DIV/0!		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Oquaga-Lackawanna extremely stony loams (Ox8)				Surface water collection.	
HYDRIC SOIL UNIT:				SOURCE OF HYDROLOGY:	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH OF SURFACE WATER: -2'	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO FREE WATER IN SOIL PIT:	
Inundated >2'				DEPTH TO SATURATED SOIL:	
<u>WETLAND FRINGE SOIL SCORE</u>				FIELD INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	PRIMARY INDICATORS	
				<input checked="" type="checkbox"/> Inundation <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns	
<u>UPLAND SOIL SCORE</u>				SECONDARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
0-4"	10YR4/4		silt loam		
4-12"	10YR5/4		silt loam		
>12"	rock		rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Delineation follows extent of topographic low and follows waters edge.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: POW 011	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.3500 Ac 0.1416 Ha

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 0% PFO 100% POW

WETLAND	UPLAND
SPECIES STRATUM INDICATOR	SPECIES STRATUM INDICATOR
	Poaceae or Gramineae sp. H NS Trifolium sp. H NS
Percent of Dominant Species that are OBL, FACW, and FAC #DIV/0!	

SOILS	HYDROLOGY
MAPPED SOIL UNIT: Lackawanna extremely stony loam (LbB)	SOURCE OF HYDROLOGY: Surface water collection.
HYDRIC SOIL UNIT:	DEPTH OF SURFACE WATER: >2'
<u>WETLAND CORE SOIL SCORE</u> DEPTH MATRIX MOTTLE TEXTURE Inundated >2'	DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test
<u>WETLAND FRINGE SOIL SCORE</u> DEPTH MATRIX MOTTLE TEXTURE	
<u>UPLAND SOIL SCORE</u> DEPTH MATRIX MOTTLE TEXTURE 0-8" 10YR4/3 10YR4/6 silt loam >8" rock rock	

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination	
Hydrophytic Vegetation Present? No	Hydric Soil Present? Yes
Wetland Hydrology Present? Yes	Wetland? No

BASIS OF DELINEATION:

Delineation follows extent of topographic low and follows waters edge.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: POW 012	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.5600 Ac 0.2266 Ha

VEGETATION	CLASSIFICATION:	0% PEM	0% PSS	0% PFO	100% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
			Poaceae or Gramineae sp.	H	NS
			Trifolium sp.	H	NS
Percent of Dominant Species that are OBL, FACW, and FAC			#DIV/0!		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Lackawanna extremely stony loam (LbB)				SOURCE OF HYDROLOGY: Surface water collection.	
HYDRIC SOIL UNIT:				DEPTH OF SURFACE WATER: >2'	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
DEPTH	MATRIX	MOTTLE	TEXTURE		
Inundated >2'					
<u>WETLAND FRINGE SOIL SCORE</u>					
DEPTH	MATRIX	MOTTLE	TEXTURE		
<u>UPLAND SOIL SCORE</u>					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-8"	10YR4/3	10YR4/6	silt loam		
>8"	rock		rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Delineation follows extent of topographic low and follows waters edge.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: POW 013	EVALUATOR: PJD, BTB, KJS, ERB	
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees	
Do normal circumstances exist on the site?	Yes	
Is the site significantly disturbed (Atypical Situation)?	No	
Is the area a potential problem area?	No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.6000 Ac	0.2428 Ha

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 0% PFO 100% POW

WETLAND	UPLAND
SPECIES STRATUM INDICATOR	SPECIES STRATUM INDICATOR
	Poaceae or Gramineae sp. H NS Trifolium sp. H NS
Percent of Dominant Species that are OBL, FACW, and FAC	#DIV/0!

SOILS	HYDROLOGY
MAPPED SOIL UNIT: Lackawanna extremely stony loam (LbB)	SOURCE OF HYDROLOGY: Surface water collection
HYDRIC SOIL UNIT:	DEPTH OF SURFACE WATER: >2'
<u>WETLAND CORE SOIL SCORE</u> DEPTH MATRIX MOTTLE TEXTURE Inundated >2'	DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL:
<u>WETLAND FRINGE SOIL SCORE</u> DEPTH MATRIX MOTTLE TEXTURE	FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns
<u>UPLAND SOIL SCORE</u> DEPTH MATRIX MOTTLE TEXTURE 0-8" 10YR4/3 10YR4/6 silt loam >8" rock rock	SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Delineation follows extent of topographic low and follows waters edge.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: POW 014	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site?	Yes
Is the site significantly disturbed (Atypical Situation)?	No
Is the area a potential problem area?	No
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 0.4700 Ac 0.1902 Ha	

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 0% PFO 100% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
			Poaceae or Gramineae sp.	H	NS
			Trifolium sp.	H	NS
Percent of Dominant Species that are OBL, FACW, and FAC			#DIV/0!		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Lackawanna extremely stony loam (LbB)				SOURCE OF HYDROLOGY: Surface water collection.	
HYDRIC SOIL UNIT:				DEPTH OF SURFACE WATER: >2'	
<u>WETLAND CORE SOIL SCORE</u>				DEPTH TO FREE WATER IN SOIL PIT:	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO SATURATED SOIL:	
Inundated >2'				FIELD INDICATORS	
<u>WETLAND FRINGE SOIL SCORE</u>				PRIMARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	<input checked="" type="checkbox"/> Inundation <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns	
<u>UPLAND SOIL SCORE</u>				SECONDARY INDICATORS	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
0-8"	10YR4/3	10YR4/6	silt loam		
>8"	rock		rock		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Delineation follows extent of topographic low and follows waters edge.

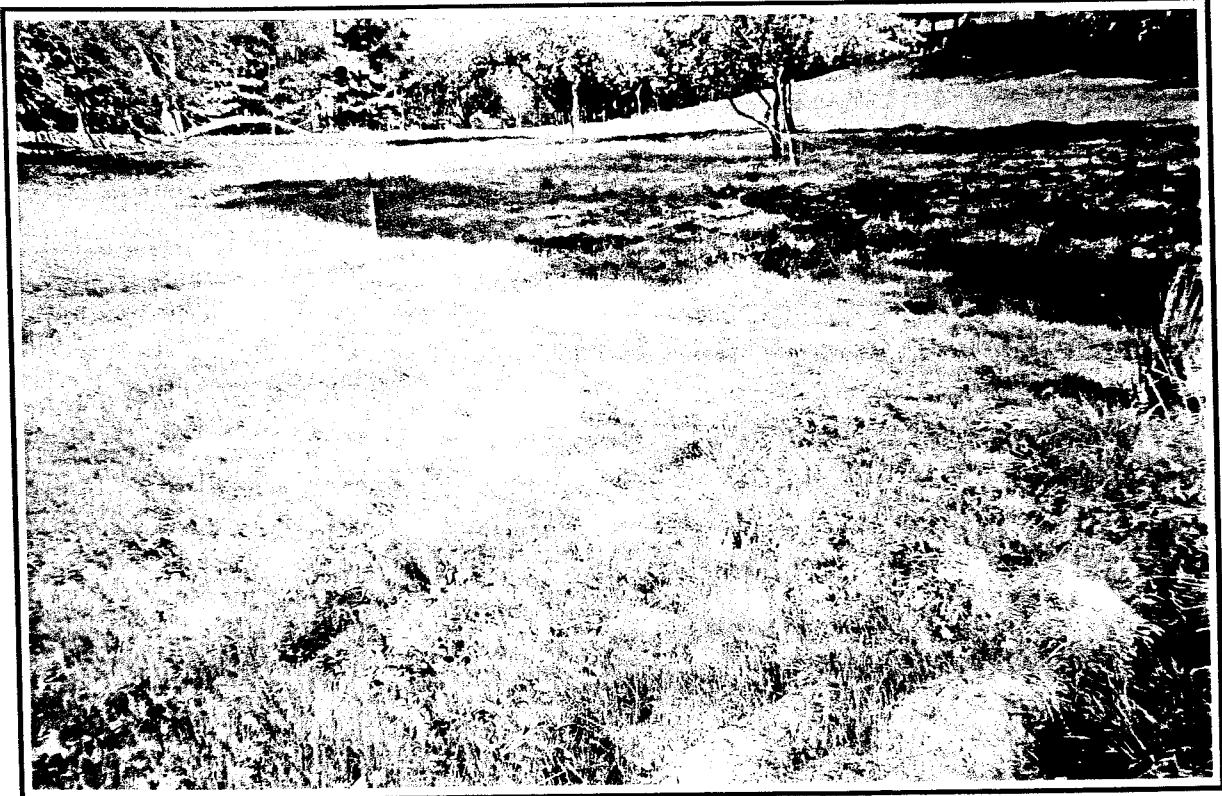
**APPENDIX D -
PHOTOGRAPH LOG**



Photograph No. 1: Wetland 13 located in the floodplain immediately adjacent to Forest Hills Run.



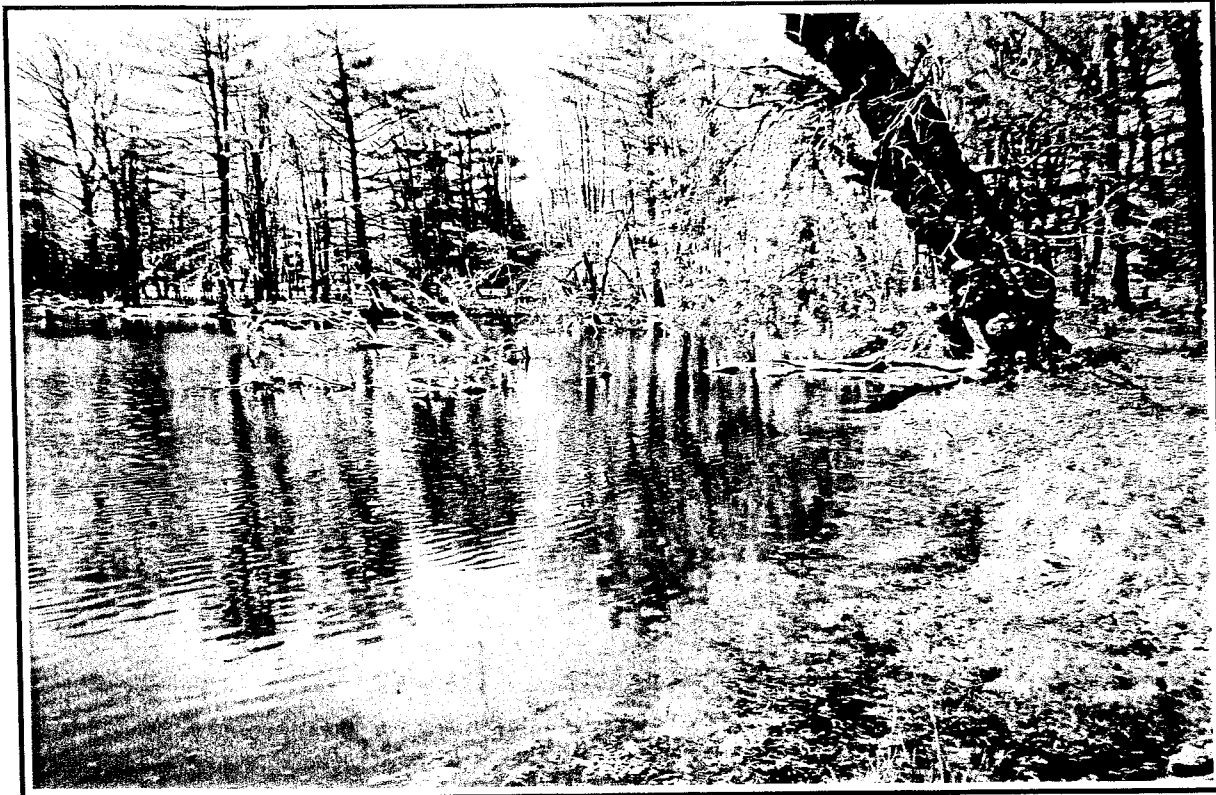
Photograph No. 2: Wetland 14 also located on a low lying floodplain bench adjacent to Forest Hills Run.



Photograph No. 3: Palustrine emergent Wetland 15 in a mowed/maintained lawn area.



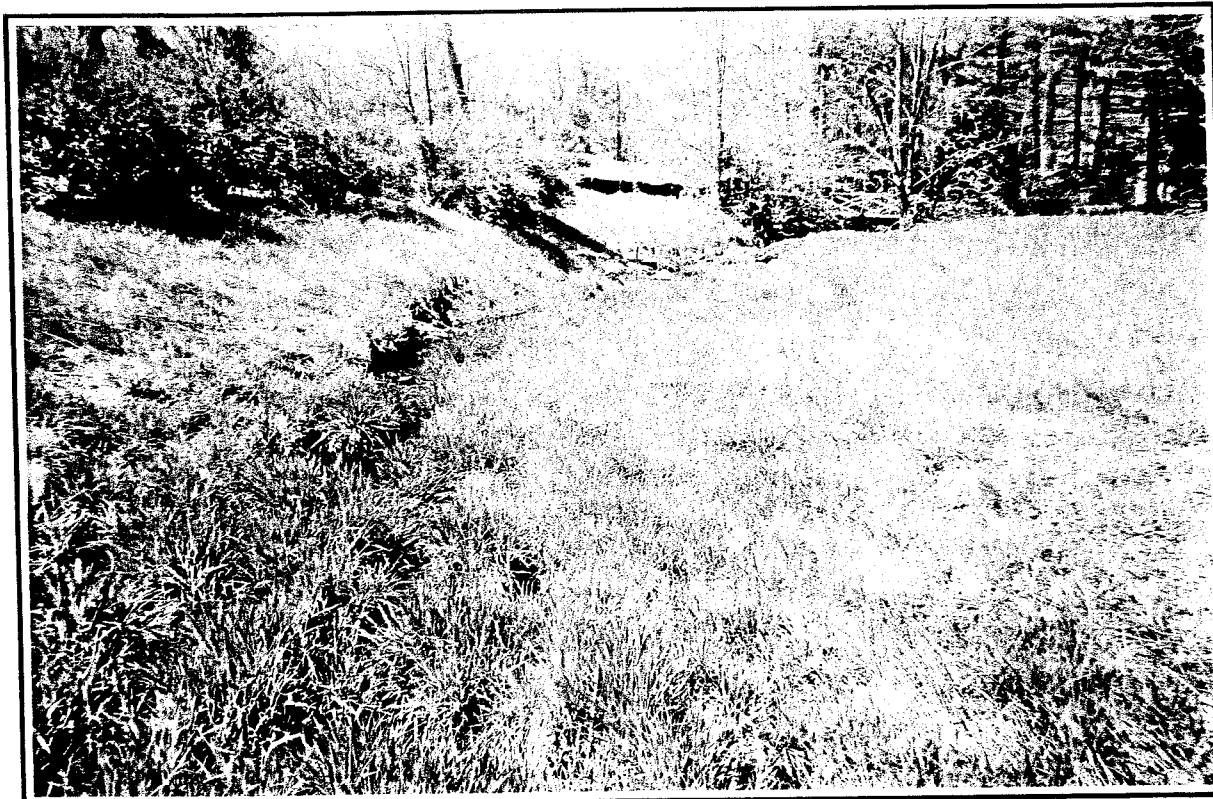
Photograph No. 4: Palustrine forested Wetland 31 near S.R. 611.



Photograph No. 5: Palustrine open-water portion of Wetland 32. A small portion of this wetland is forested and similar to WL-31.



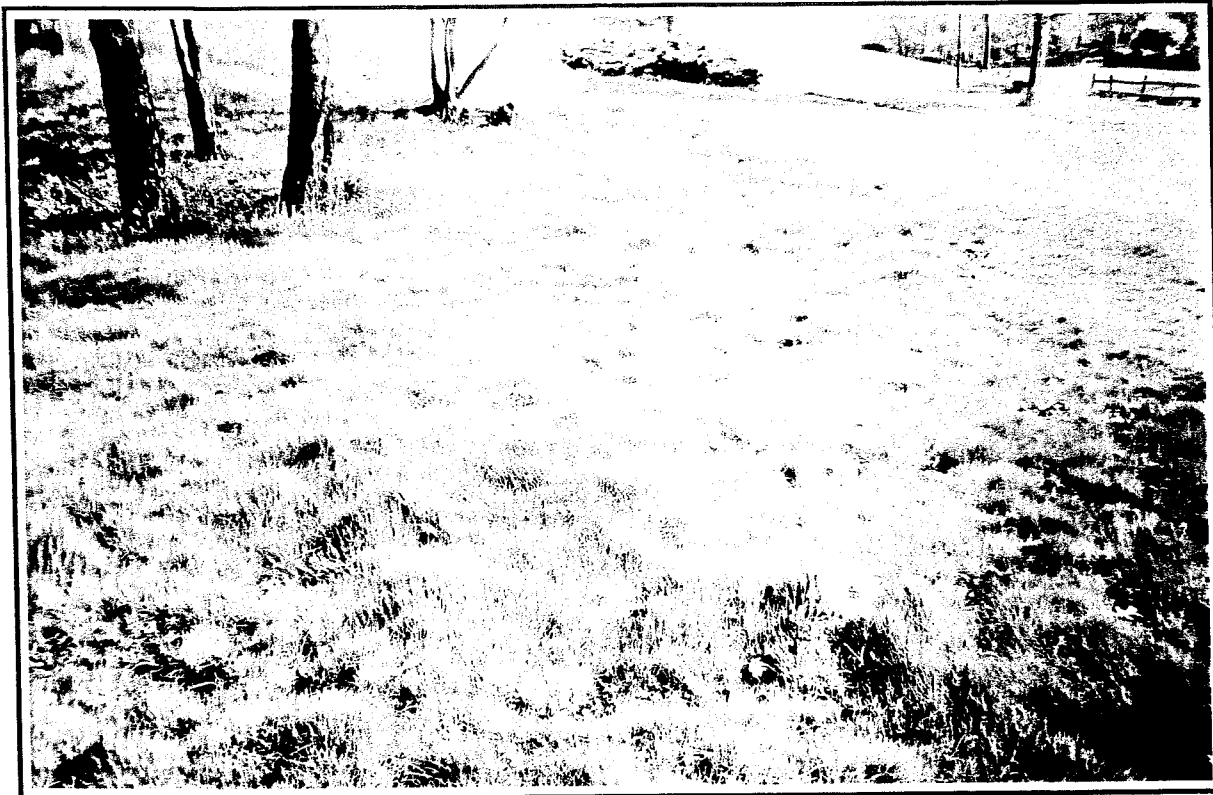
Photograph No. 6: Densely wooded palustrine forested Wetland 33.



Photograph No. 7: Palustrine emergent floodplain bench wetland (WL-37) along Channel 23.



Photograph No. 8: Drain tile outlet in Wetland 37 and drainage pattern into Channel 23 (bottom of picture).



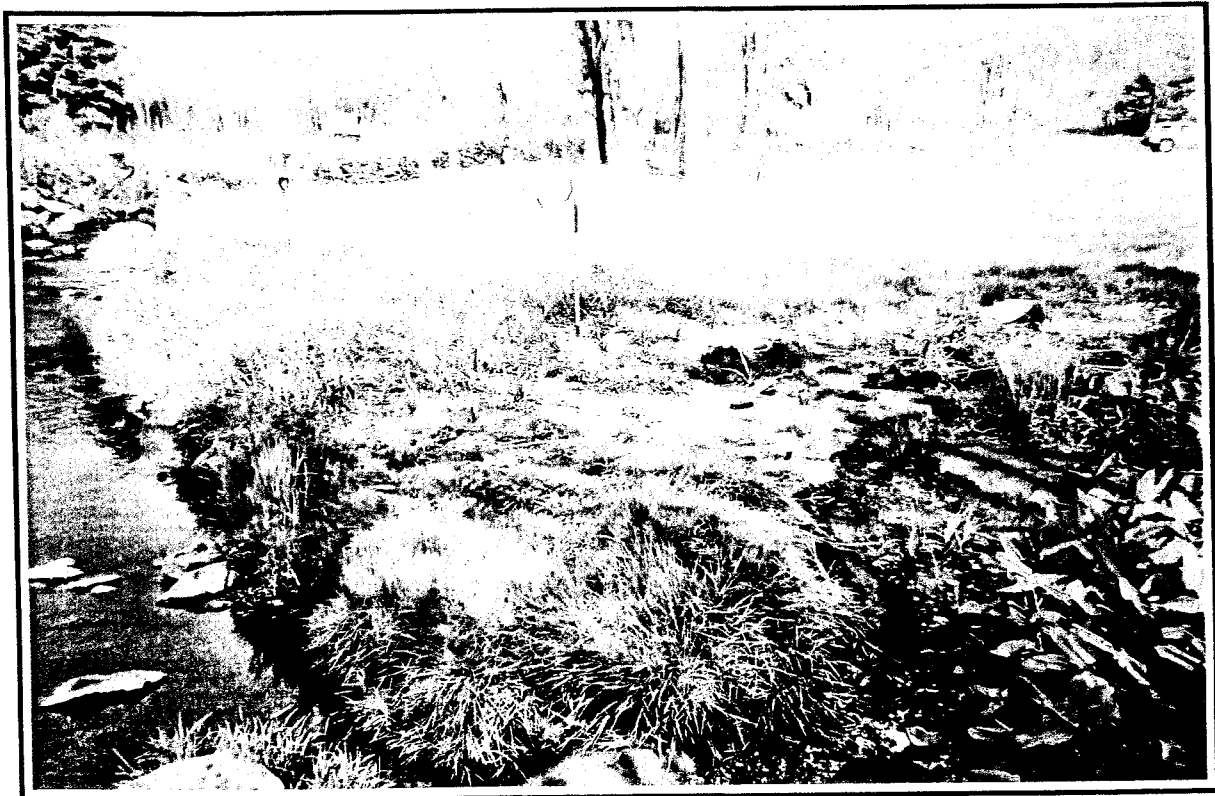
Photograph No. 9: Wetland 45 is very similar to Wetland 15.



Photograph No. 10: Wetland 55 is similar to Wetlands 15 and 45.



Photograph No. 11: Wetland 71 is similar to Wetlands 15, 45, and 71.



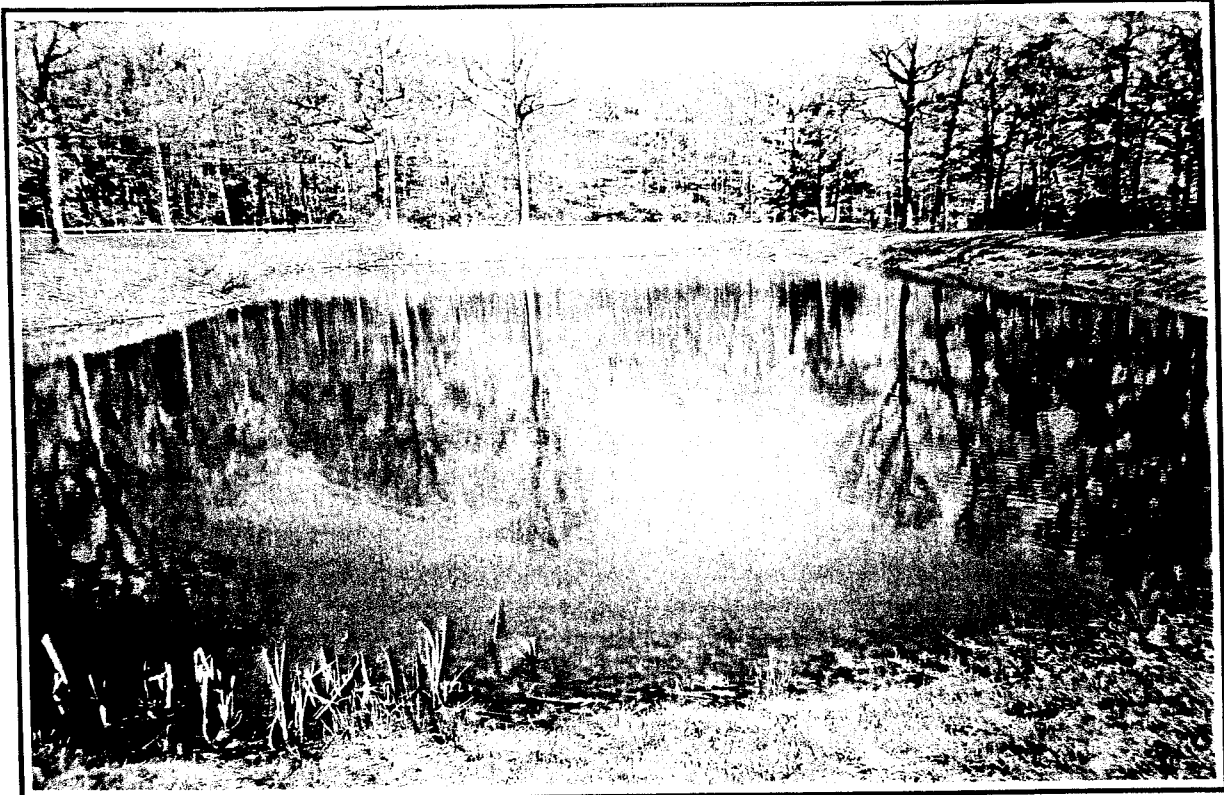
Photograph No. 12: Wetland 73 is similar to Wetlands 13 and 14, especially in its landscape position, hydrology and functions/values.



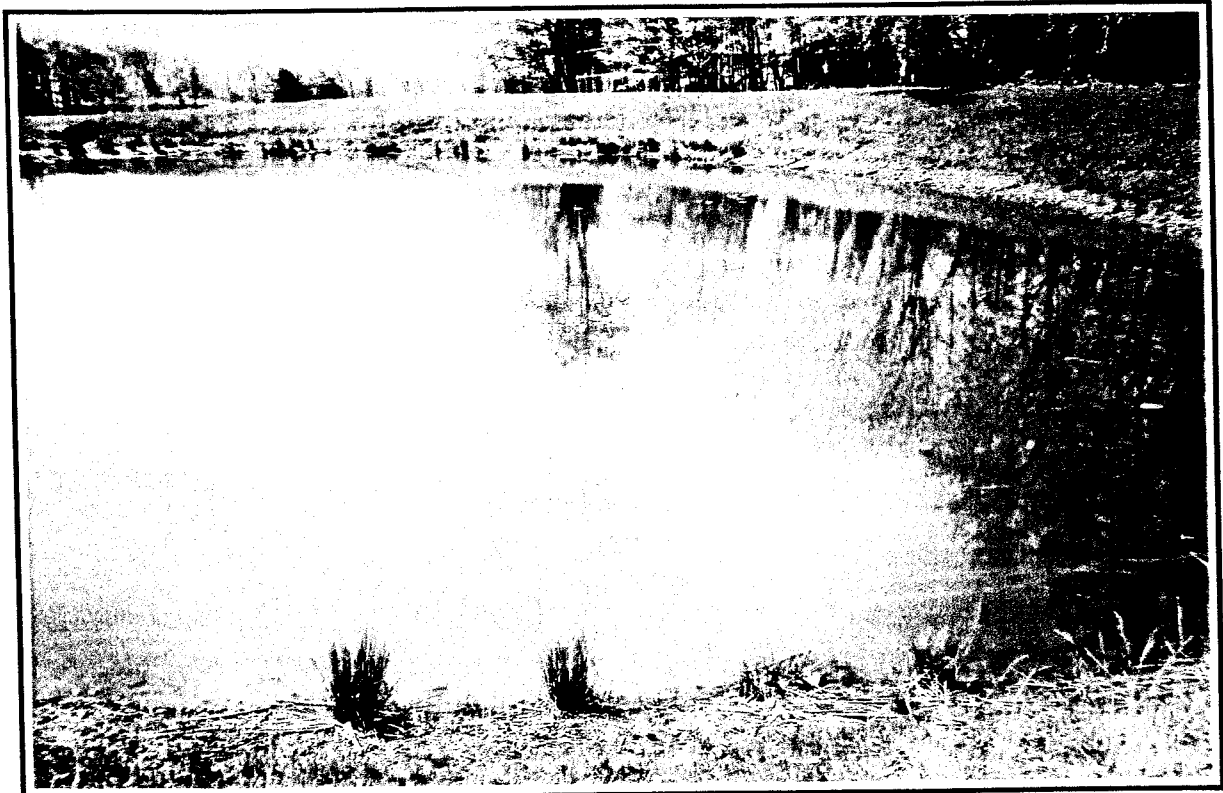
Photograph No. 13: Pond 4 is located on the golf course.



Photograph No. 14: Pond 5 is just upslope of Pond 4. Also, Pond 4 and 5 are similar to Pond 6 (not pictured).



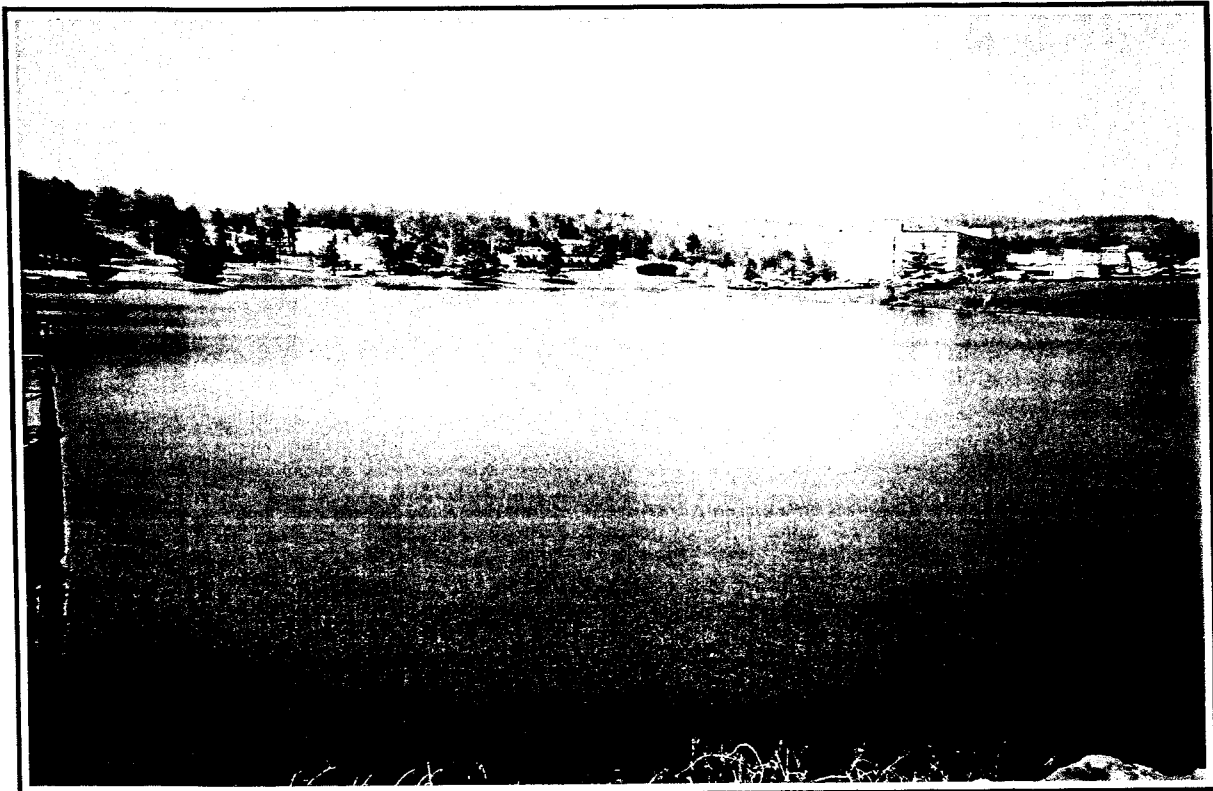
Photograph No. 15: Pond 13.



Photograph No. 16: Pond 14 (slightly downslope from Pond 13).



Photograph No. 17: Delta created by confluence of Forest Hills Run with Lake at Mt. Airy.



Photograph No. 18: Lake at Mt. Airy as viewed from dam.

**APPENDIX E -
THREATENED AND ENDANGERED
SPECIES COORDINATION**

2601 North Front Street
Harrisburg, PA 17110-1185
E-mail: skellyloy@skellyloy.com
Internet: www.skellyloy.com



Phone: 717-232-0593
800-892-6532
Fax: 717-232-1799

January 19, 2005

Mr. Justin Newell
Pennsylvania Department of Conservation
and Natural Resources
Bureau of Forestry
Post Office Box 8552
Harrisburg, Pennsylvania 17105-8552

Re: Threatened and Endangered Species
Assessment Request, Mount Airy
Lodge Improvement Project

Dear Mr. Newell:

Skelly and Loy, Inc. is in the process of conducting environmental studies pertaining to the Mount Airy Lodge Improvement Project in Paradise Township, Monroe County, Pennsylvania. Skelly and Loy is compiling all the data that are necessary for a Pennsylvania Department of Environmental Protection and U.S. Army Corps of Engineers Joint Permit Application for the project area. Part of the requirements for these documents is to determine the presence of threatened and endangered species within the project area.

Please review the enclosed map and identify any known threatened and endangered plant or animal species that may occur in the project area. Thank you for your time and attention to this project. If you have any questions regarding the project, please call me at the above number.

Sincerely yours,

SKELLY and LOY, Inc.

Karen M. Johnston
Botanist

Enclosures

cc: Paul DeAngelo
Andrew Longenecker ✓
1605054
File: T&E_LTRS_KMJ.wpd



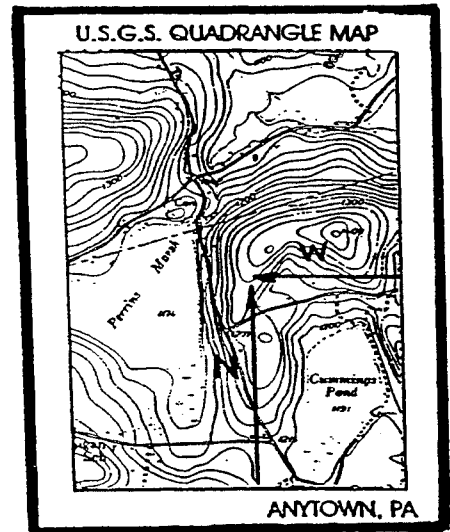
FOR OFFICIAL USE ONLY	
PNDI Screening	
Reviewer	_____
Date	_____
Phone No.	_____

SUPPLEMENT NO. 1 PENNSYLVANIA NATURAL DIVERSITY INVENTORY SEARCH FORM

This form provides site information necessary to perform a computer screening for species of special concern listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, the Pennsylvania Fish and Boat Code or the PA Game and Wildlife Code. Records regarding species of special concern are maintained by PA DCNR in a computer database called the "Pennsylvania Natural Diversity Inventory" (PNDI). Results from this search are not intended to be a conclusive compilation of all potential special concern resources located within a proposed project site. On-site biological surveys may be recommended to provide a definitive statement on the presence or absence, or degree of natural integrity of any project site. Results of this PNDI search are valid for one year after the initial search or conclusion of coordination with the jurisdictional agency (whichever is later), then a new PNDI coordination process must be initiated, and a new PNDI search is required. The search area should include the entire area that presently or in the future requires a permit or authorization.

Please complete the information below, attach an 8½" x 11" photocopy (DO NOT REDUCE) of the portion of the U.S.G.S. Quadrangle Map that identifies the project location and outlines the approximate boundaries of the project and mail to the appropriate DEP regional office or delegated County Conservation District prior to completing a Chapter 105 environmental assessment or any other DEP permit application. (SEE REVERSE SIDE FOR LIST OF OFFICES AND ADDRESSES).

NAME: Karen Johnston
 ADDRESS: Skelly and Lay, Inc.
2601 North Front Street
Harrisburg, PA 17110
 PHONE: (717) 232-0593
 COUNTY: Monroe County
 MUNICIPALITY: Paradise Township
 U.S.G.S. 7½ Minute Quadrangle
Mount Pocono, PA



Latitude 41° 06' 41" Longitude 75° 19' 23"
 (OR) North (Up) _____ inches
 West (to the left) _____ inches
 - INDICATE BY LATITUDE AND LONGITUDE; - OR -
 - INDICATE PROJECT LOCATION TO THE NEAREST ONE TENTH INCH MEASURING FROM THE EDGE OF THE MAP IMAGE FROM THE LOWER RIGHT CORNER.

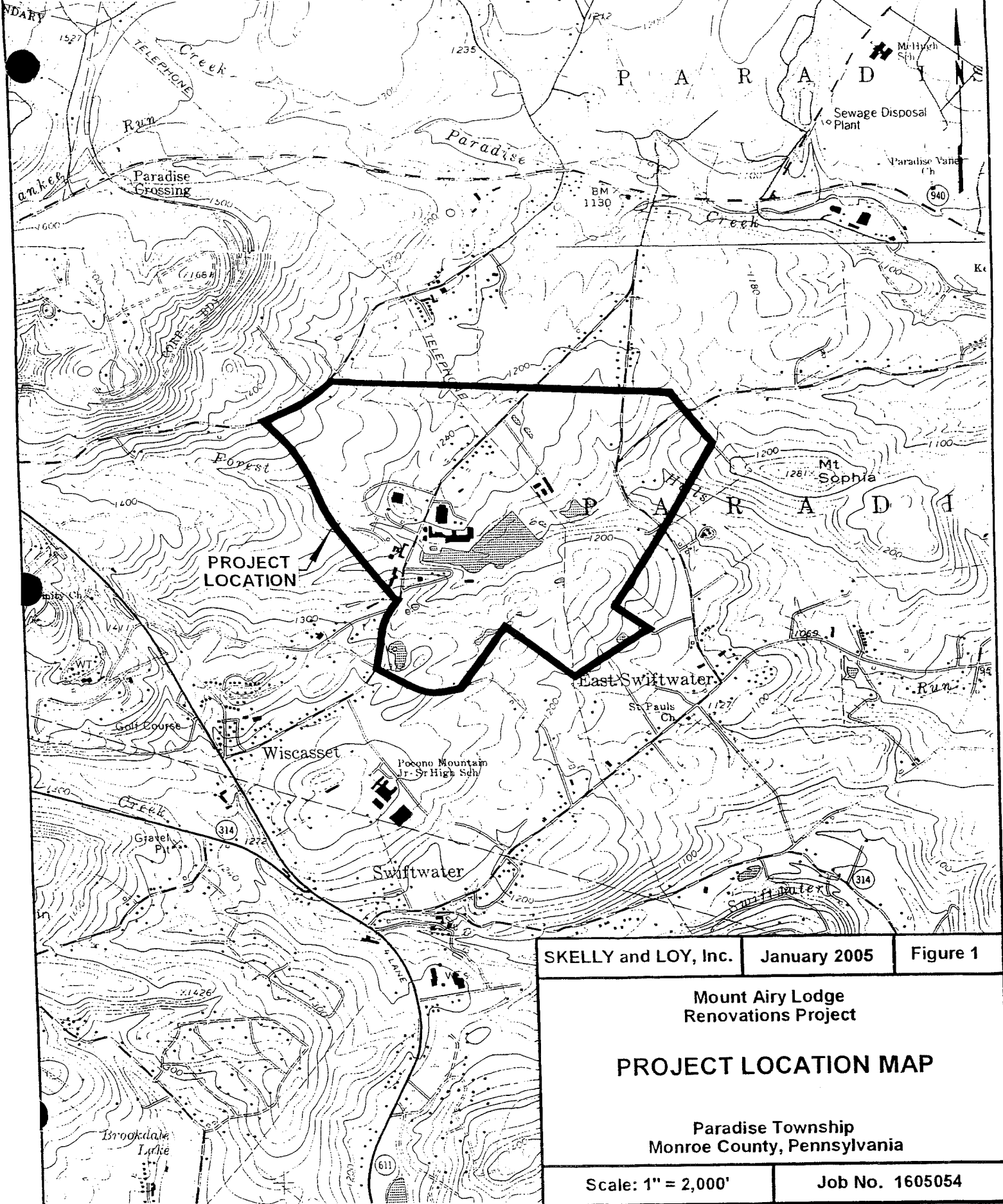
PROJECT DESCRIPTION AND SIZE (Briefly describe entire area relevant to your project, including acreage.)

The Mount Airy Lodge Improvement project involves the refurbishing and expansion of the existing facility. Total project area = 456 acres.

SCREENING RESULTS - Follow the directions of the checked block.

- No potential conflicts were encountered during the PNDI inquiry. Include this form and the PNDI receipt with your Chapter 105 environmental assessment or other DEP permit application submissions.
- Potential conflicts must be resolved by contacting the natural resource agencies listed on the PNDI receipt. Please provide a copy of this form and the PNDI receipt along with a brief description of your project to the listed agency for consultation and recommendations. Include this form, the printed PNDI search results and the natural resource agency's written recommendation with your Chapter 105 environmental assessment or other DEP permit application submissions.

Source: U.S.G.S. 7.5' Quadrangles - Mount Pocono and Buck Hill Falls, Pennsylvania



PROJECT LOCATION

SKELLY and LOY, Inc.	January 2005	Figure 1
Mount Airy Lodge Renovations Project		
PROJECT LOCATION MAP		
Paradise Township Monroe County, Pennsylvania		
Scale: 1" = 2,000'	Job No. 1605054	

2601 North Front Street
Harrisburg, PA 17110-1185
E-mail: skellyloy@skellyloy.com
Internet: www.skellyloy.com



Phone: 717-232-0593
800-892-6532
Fax: 717-232-1799

January 19, 2005

Mr. James Leigey
Wildlife Impact Review Coordinator
Pennsylvania Game Commission
Bureau of Land Management
Division of Environmental Planning
and Habitat Protection
2001 Elmerton Avenue
Harrisburg, Pennsylvania 17110-9797

Re: Threatened and Endangered Species
Assessment Request, Mount Airy
Lodge Improvement Project

Dear Mr. Leigey:

Skelly and Loy, Inc. is in the process of conducting environmental studies pertaining to the Mount Airy Lodge Improvement Project in Paradise Township, Monroe County, Pennsylvania. Skelly and Loy is compiling all the data that are necessary for a Pennsylvania Department of Environmental Protection and U.S. Army Corps of Engineers Joint Permit Application for the project area. Part of the requirements for these documents is to determine the presence of threatened and endangered species within the project area.

Please review the enclosed map and identify any known threatened and endangered plant or animal species that may occur in the project area. Thank you for your time and attention to this project. If you have any questions regarding the project, please call me at the above number.

Sincerely yours,

SKELLY and LOY, Inc.

Karen M. Johnston
Botanist

Enclosures

cc: Paul DeAngelo
Andrew Longenecker
1605054
File: T&E_LTRS_KMJ.wpd



FOR OFFICIAL USE ONLY

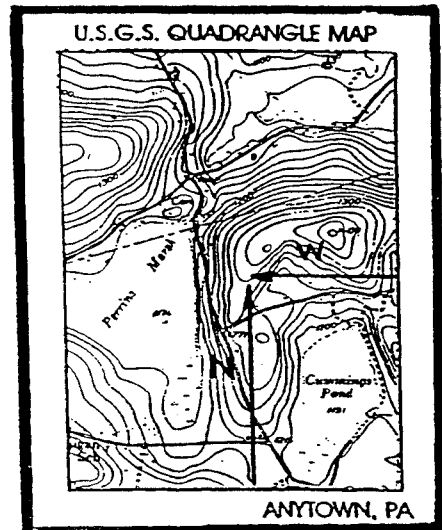
PNDI Screening
 Reviewer _____
 Date _____
 Phone No. _____

SUPPLEMENT NO. 1
PENNSYLVANIA NATURAL DIVERSITY INVENTORY SEARCH FORM

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NAME: Karen Johnston
 ADDRESS: Skelly and Lay, Inc.
2601 North Front Street
Harrisburg, PA 17110
 PHONE: (717) 232-0593
 COUNTY: Monroe County
 MUNICIPALITY: Paradise Township
 U.S.G.S. 7½ Minute Quadrangle
Mount Pocono, PA



Latitude 41° 06' 41" Longitude 75° 19' 23"
 (OR) North (Up) _____ inches
 West (to the left) _____ inches
 - INDICATE BY LATITUDE AND LONGITUDE; -- OR --
 - INDICATE PROJECT LOCATION TO THE NEAREST ONE TENTH INCH MEASURING FROM THE EDGE OF THE MAP IMAGE FROM THE LOWER RIGHT CORNER.

PROJECT DESCRIPTION AND SIZE (Briefly describe entire area relevant to your project, including acreage.)

The Mount Airy Lodge Improvement project involves the refurbishing and expansion of the existing facility. Total project area = 456 acres.

SCREENING RESULTS - Follow the directions of the checked block.

- No potential conflicts were encountered during the PNDI inquiry. Include this form and the PNDI receipt with your Chapter 105 environmental assessment or other DEP permit application submissions.
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2601 North Front Street
Harrisburg, PA 17110-1185

E-mail: skellyloy@skellyloy.com
Internet: www.skellyloy.com



Phone: 717-232-0593
800-892-6532
Fax: 717-232-1799

January 19, 2005

Mr. David Densmore
U.S. Fish and Wildlife Service
315 South Allen Street, Suite 322
State College, Pennsylvania 16801

Re: Threatened and Endangered Species
Assessment Request, Mount Airy
Lodge Improvement Project

Dear Mr. Densmore:

Skelly and Loy, Inc. is in the process of conducting environmental studies pertaining to the Mount Airy Lodge Improvement Project in Paradise Township, Monroe County, Pennsylvania. Skelly and Loy is compiling all the data that are necessary for a Pennsylvania Department of Environmental Protection and U.S. Army Corps of Engineers Joint Permit Application for the project area. Part of the requirements for these documents is to determine the presence of threatened and endangered species within the project area.

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Sincerely yours,

SKELLY and LOY, Inc.

Karen M. Johnston
Botanist

Enclosures

cc: Paul DeAngelo
Andrew Longenecker
1605054
File: T&E_LTRS_KMJ.wpd



FOR OFFICIAL USE ONLY

PNDI Screening

Reviewer _____

Date _____

Phone No. _____

SUPPLEMENT NO. 1
PENNSYLVANIA NATURAL DIVERSITY INVENTORY SEARCH FORM

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NAME: Karen Johnston

ADDRESS: Skelly and Lay, Inc.
2601 North Front Street
Harrisburg, PA 17110

PHONE: (717) 232-0593

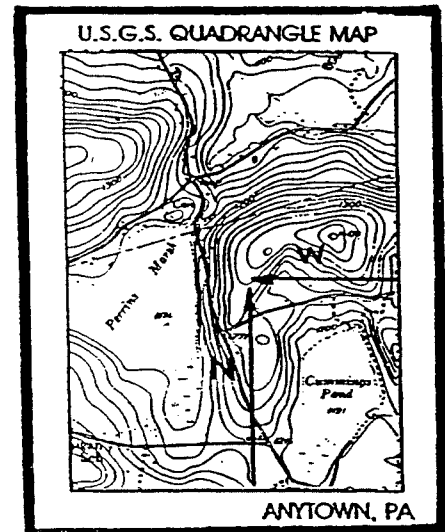
COUNTY: Monroe County

MUNICIPALITY: Paradise Township

U.S.G.S. 7½ Minute Quadrangle
Mount Pocono, PA

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(OR) North (Up) _____ inches

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SCREENING RESULTS - Follow the directions of the checked block.

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2601 North Front Street
Harrisburg, PA 17110-1185

E-mail: skellyloy@skellyloy.com
Internet: www.skellyloy.com



Phone: 717-232-0593
800-892-6532

Fax: 717-232-1799

January 19, 2005

Ms. Kathy Derge
Natural Diversity Section
Division of Environmental Services
Pennsylvania Fish and Boat Commission
450 Robinson Lane
Bellefonte, Pennsylvania 16823

Re: Threatened and Endangered Species
Assessment Request, Mount Airy
Lodge Improvement Project

Dear Ms. Derge:

Skelly and Loy, Inc. is in the process of conducting environmental studies pertaining to the Mount Airy Lodge Improvement Project in Paradise Township, Monroe County, Pennsylvania. Skelly and Loy is compiling all the data that are necessary for a Pennsylvania Department of Environmental Protection and U.S. Army Corps of Engineers Joint Permit Application for the project area. Part of the requirements for these documents is to determine the presence of threatened and endangered species within the project area.

Please review the enclosed map and identify any known threatened and endangered plant or animal species that may occur in the project area. Thank you for your time and attention to this project. If you have any questions regarding the project, please call me at the above number.

Sincerely yours,

SKELLY and LOY, Inc.

Karen M. Johnston
Botanist

Enclosures

cc: Paul DeAngelo
Andrew Longenecker
1605054
File: T&E_LTRS_KMJ.wpd



Pennsylvania Natural Diversity Inventory

Scientific information and expertise for the conservation of Pennsylvania's native biological diversity

DCNR, Bureau of Forestry

March 4, 2005

Karen Johnston
Skelly and Loy
2601 North Front Street
Harrisburg, PA 17110

Re: Pennsylvania Natural Diversity Inventory Review, PER NO: 17301
Mount Airy Lodge Improvement Project
Paradise Twp, Monroe County

Dear Ms. Johnston:

In response to the request received January 20, 2005 to perform a PNDI Database Search of the above-mentioned project, we have reviewed the area using the Pennsylvania Natural Diversity Inventory (PNDI) information system.

PNDI records indicate that no occurrences of species of special concern are known to exist within the project area referenced above, therefore we do not anticipate any impact on endangered, threatened, or rare species at this location.

PNDI attempts to be a complete information resource on species of special concern located within the Commonwealth. However, it may not contain all location information for species within the jurisdiction of other agencies. Please contact the Fish and Boat Commission, the Game Commission and US Fish and Wildlife Service for more information on species within their purview.

PNDI is the environmental review function of the Pennsylvania Natural Heritage Program, and uses a site-specific information system that describes significant natural resources within the Commonwealth. This system includes data descriptive of plant and animal species of special concern, exemplary natural communities and unique geological features. PNDI is a cooperative project of the Department of Conservation and Natural Resources, The Nature Conservancy and the Western Pennsylvania Conservancy. This response represents the most up-to-date summary of the PNDI data files and is good for one year. An absence of recorded information does not necessarily imply actual conditions on-site. A field survey of any site may reveal previously unreported populations.

Feel free to phone our office if you have questions concerning this response or the PNDI system, and please refer to the P.E.R. Reference Number at the top of the letter in future correspondence concerning this project.

Sincerely,

Ellen M. Shultzabarger
Environmental Review Specialist

P: 717-772-0258
F: 717-772-0271



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Pennsylvania Field Office
315 South Allen Street, Suite 322
State College, Pennsylvania 16801-4850



February 18, 2005

FEB 22 2005

Karen M. Johnston
Skelly and Loy, Inc.
2601 North Front Street
Harrisburg, PA 17110-1185

Re: USFWS Project #20050380

Dear Ms. Johnston:

This responds to your letter of January 19, 2005, requesting information about federally listed and proposed endangered and threatened species within the area affected by the proposed Mount Airy Lodge Improvements Project located in Paradise Township, Monroe County, Pennsylvania. The following comments are provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of endangered and threatened species.

The proposed project is within the known range of the bog turtle (*Clemmys muhlenbergii*), a species that is federally listed as threatened. Bog turtles inhabit shallow, spring-fed fens, sphagnum bogs, swamps, marshy meadows, and pastures characterized by soft, muddy bottoms; clear, cool, slow-flowing water, often forming a network of rivulets; high humidity; and an open canopy. Bog turtles usually occur in small, discrete populations occupying suitable wetland habitat dispersed along a watershed. The occupied "intermediate successional stage" wetland habitat is usually a mosaic of micro-habitats ranging from dry pockets, to areas that are saturated with water, to areas that are periodically flooded. Some wetlands occupied by bog turtles are located in agricultural areas and are subject to grazing by livestock.

To determine the potential effects of the proposed project on bog turtles and their habitat, begin by identifying all wetlands in, and within 300 feet of, the project area. The project area includes all areas that will be permanently or temporarily affected by any and all project features, including building, roads, staging areas, utility lines, outfall and intake structures, wells, stormwater retention or detention basins, parking lots, driveways, lawns, etc. The area of investigation should be expanded when project effects might extend more than 300 feet from the project footprint. For example, the hydrological effects of some projects (e.g., large residential or commercial developments; golf courses; community water supply wells) might extend well beyond the project footprint due to the effects that impervious surfaces or groundwater pumping may have on the hydrology of nearby groundwater-dependent wetlands. Wetlands should be included on a map showing existing as well as proposed project features.

If someone qualified to identify and delineate wetlands has, through a field investigation, determined that no wetlands are located in or within 300 feet of the project area (or within the expanded investigation area, as described above), it is not likely that your project will adversely affect the bog turtle. If this is the case, no further consultation with the Fish and Wildlife Service is necessary, although we would appreciate receiving a courtesy copy of the wetland investigator's findings for our files.

If wetlands have been identified in or within 300 feet of the project area (or in an expanded investigation area, as described above), their potential suitability as bog turtle habitat should be assessed, as described under "*Bog Turtle Habitat Survey*" (Phase 1 survey) of the enclosed *Guidelines for Bog Turtle Surveys*. A list of qualified bog turtle surveyors is enclosed, although the habitat survey could also be conducted by someone not on this list (e.g., a biologist or wetland scientist with training in bog turtle habitat identification). A Phase 1 field form and report template are enclosed for your convenience and use. Survey results should be submitted to the Service for review and concurrence.

If potential bog turtle habitat is found in or near the project area, efforts should be made to avoid any direct or indirect impacts to those wetlands (see enclosed *Bog Turtle Conservation Zones*). Avoidance of direct and indirect effects means no disturbance to or encroachment into the wetlands (e.g., filling, ditching or draining) for any project-associated features or activities. Adverse effects may also be anticipated to occur when lot lines include portions of the wetland; when an adequate upland buffer is not retained around the wetland (see *Bog Turtle Conservation Zones*); or when roads, stormwater/sedimentation basins, impervious surfaces, or wells affect the hydrology of the wetland.

We recommend that if potential habitat is found, you submit (along with your Phase 1 survey results) a detailed project description and detailed project plans documenting how direct and indirect impacts to the wetlands will be avoided. If adverse effects to these wetlands cannot be avoided, a more detailed and thorough survey should be done, as described under "*Bog Turtle Survey*" (Phase 2 survey) of the *Guidelines*. The Phase 2 survey should be conducted by a qualified biologist with bog turtle field survey experience (see enclosed list of qualified surveyors), and survey results should be submitted to the Service for review and concurrence.

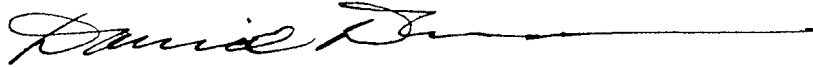
In cases where adverse effects to federally listed species cannot be avoided, further consultation with the Service would be necessary to avoid potential violations of section 9 (prohibiting "take" of listed species) and/or section 7 (requiring federal agencies to consult) of the Endangered Species Act. Information about the section 7 and section 10 consultation processes (for federal and non-federal actions, respectively) can be obtained by contacting this office or accessing the Service's Endangered Species Home Page (<http://endangered.fws.gov>).

This response relates only to endangered and threatened species under our jurisdiction based on an office review of the proposed project's location. No field inspection of the project area has been conducted by this office. Consequently, this letter is not to be construed as addressing potential Service concerns under the Fish and Wildlife Coordination Act or other authorities. A compilation of certain federal status species in Pennsylvania is enclosed for your information.

To avoid potential delays in reviewing your project, please use the above-referenced USFWS project tracking number in any future correspondence regarding this project.

Please contact Jennifer Dombroskie of my staff at 814-234-4090 if you have any questions or require further assistance regarding this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "David Densmore", followed by a long horizontal line extending to the right.

David Densmore
Supervisor

Enclosures

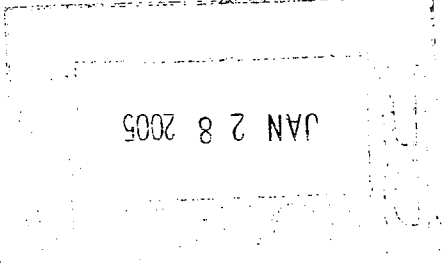


established 1866

Pennsylvania Fish & Boat Commission

Division of Environmental Services
Natural Diversity Section
450 Robinson Lane
Bellefonte, PA 16823-9620
(814) 359-5237 Fax: (814) 359-5175

January 25, 2005



IN REPLY REFER TO
SIR # 18068

SKELLY AND LOY
KAREN JOHNSTON
2601 N FRONT STREET
HARRISBURG, PA 17110-1185

**RE: Species Impact Review (SIR) - Rare, Candidate, Threatened and Endangered Species
MOUNT AIRY LODGE IMPROVEMENT PROJECT
PARADISE Township/Borough, MONROE County, Pennsylvania**

This responds to your inquiry about a Pennsylvania Natural Diversity Inventory (PNDI) Internet Database search "potential conflict" or a threatened and endangered species impact review. These projects are screened for potential conflicts with rare, candidate, threatened or endangered species under Pennsylvania Fish & Boat Commission jurisdiction (fish, reptiles, amphibians, aquatic invertebrates only) using the Pennsylvania Natural Diversity Inventory (PNDI) database and our own files. These species of special concern are listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, and the Pennsylvania Fish & Boat Code (Chapter 75), or the Wildlife Code. The absence of recorded information from our files does not necessarily imply actual conditions on site. Future field investigations could alter this determination. The information contained in our files is routinely updated. A Species Impact Review is valid for one year only.

NO ADVERSE IMPACTS EXPECTED FROM THE PROPOSED PROJECT

— Except for occasional transient species, rare, candidate, threatened or endangered species under our jurisdiction are not known to exist in the vicinity of the project area. Therefore, no biological assessment or further consultation regarding rare species is needed with the Commission. Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered.

— An element occurrence of a rare, candidate, threatened, or endangered species under our jurisdiction is known from the vicinity of the proposed project. However, given the nature of the proposed project, the immediate location, or the current status of the nearby element occurrence(s), no adverse impacts are expected to the species of special concern.

If you have any questions regarding this review, please contact the biologist indicated below:

Jeff Schmid 814-359-5236 J.R. Holtsmaster 814-359-5194
 Kathy Derge 814-359-5186

I am enclosing a copy of our "SIR Request Form", which is to be used for all future species impact review requests. Please make copies of the attached form and use with all future project reviews. Thank you in advance for your cooperation and attention to this important matter of species conservation and habitat protection.

SIGNATURE: _____

DATE: January 25, 2005

Christopher A. Urban
Chief, Natural Diversity Section

Our Mission:

www.fish.state.pa.us

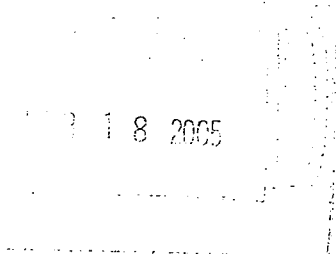
To provide fishing and boating opportunities through the protection and management of aquatic resources.



COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA GAME COMMISSION
2001 ELMERTON AVENUE, HARRISBURG, PA 17110-9797

February 16, 2005

Ms. Karen M. Johnston
Skelly and Loy, Inc.
2601 North Front Street
Harrisburg, PA 17110



Re: Mount Airy Lodge Improvement Project
456-Acre Site
Paradise Township, Monroe County, PA

Dear Ms. Johnston:

This is in response to your letter dated January 19, 2005, requesting information concerning endangered and threatened species of birds and mammals and impacts to State Game Lands as related to the proposed project.

Our office review has determined that no state listed endangered or threatened species of birds or mammals are known to occur within the proposed project area. Except for occasional transient individuals, this project should not impact any endangered or threatened species of birds or mammals recognized by the Pennsylvania Game Commission. Also, no State Game Lands are located close enough that any impacts to them are anticipated by the proposed project. However, should project plans change or if additional information on endangered or threatened species or State Game Lands becomes available, this determination may be reconsidered.

The proposed project may impact wetlands which this agency considers as critical and unique habitat. You should be aware that any impacts to wetlands or other bodies of water will require permits from the Department of Environmental Protection under Chapter 105 and the U.S Army Corps of Engineers under Section 404 of the Clean Water Act.

ADMINISTRATIVE BUREAUS:

PERSONNEL: 717-787-7836 ADMINISTRATION: 717-787-5670 AUTOMOTIVE AND PROCUREMENT DIVISION: 717-787-6594
LICENSE DIVISION: 717-787-2084 WILDLIFE MANAGEMENT: 717-787-5529 INFORMATION & EDUCATION: 717-787-6286 LAW ENFORCEMENT: 717-787-574
LAND MANAGEMENT: 717-787-6818 REAL ESTATE DIVISION: 717-787-6566 AUTOMATED TECHNOLOGY SYSTEMS: 717-787-4076 FAX: 717-772-2411

WWW.PGC.STATE.PA.US

AN EQUAL OPPORTUNITY EMPLOYER

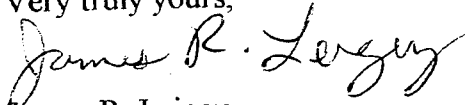
Ms. Karen M. Johnston

-2-

February 16, 2005

If you have any questions, please contact me at (717) 783-5957.

Very truly yours,



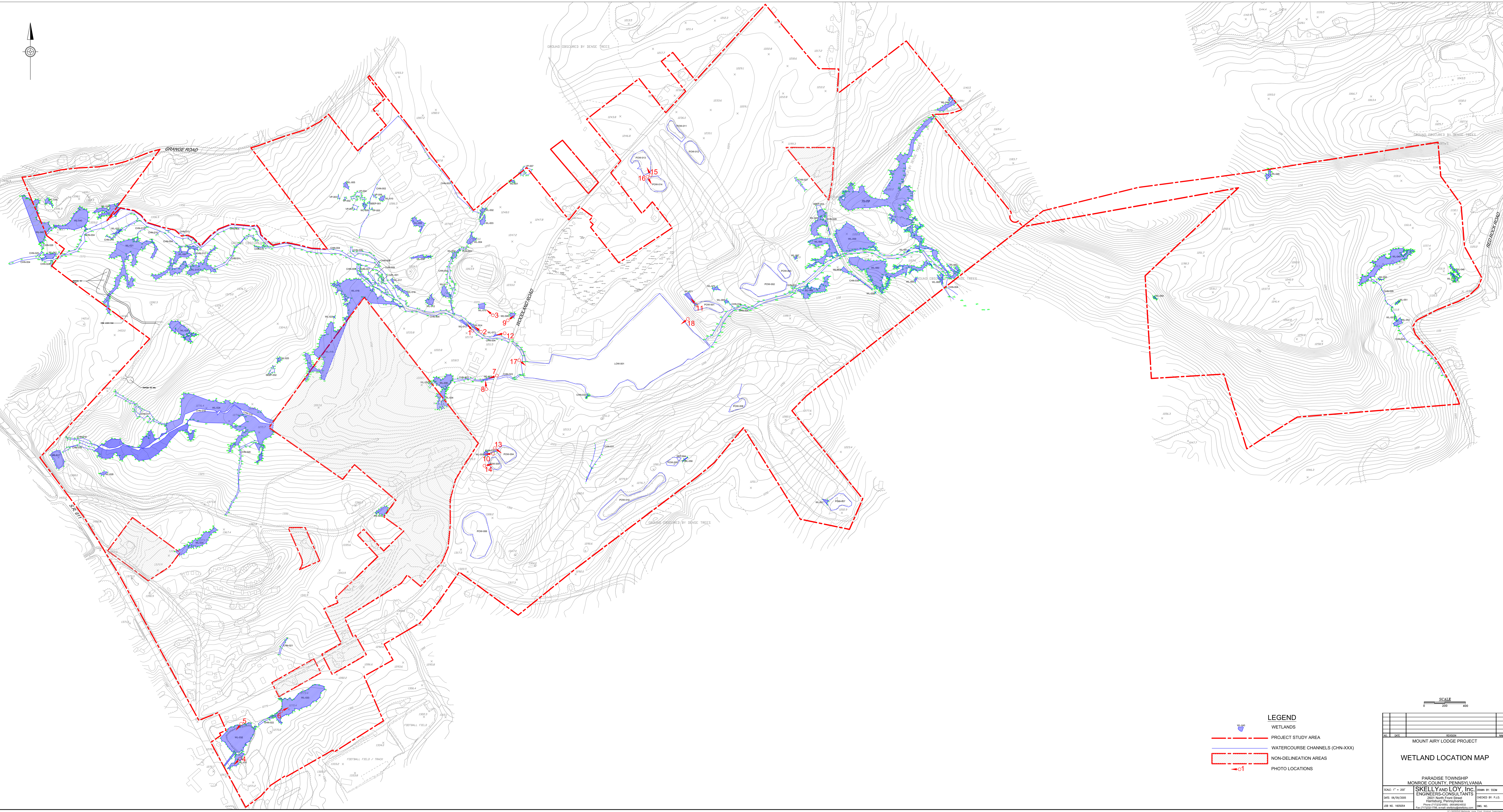
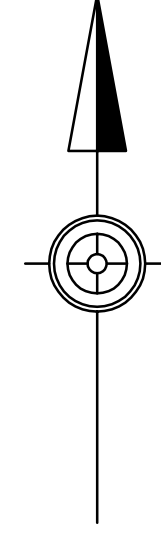
James R. Leigey
Wildlife Impact Review Coordinator
Division of Environmental Planning
And Habitat Protection
Bureau of Land Management

JRL/pfb



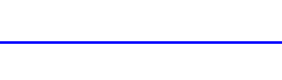

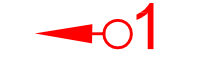
Attachment

Cc: File
Schweitzer
Zindell

**APPENDIX F -
WETLAND LOCATION MAP**



LEGEND

-  WETLANDS
-  PROJECT STUDY AREA
-  WATERCOURSE CHANNELS (CHN-XXX)
-  NON-DELINEATION AREAS
-  PHOTO LOCATIONS

SCALE
0 200 400

DATE: 06/19/2020		DRAWN BY: SSM	
JOB NO. 1402024		CHECKED BY: P.A.D.	
PROJECT: MOUNT AIRY LODGE PROJECT		JOB NO. 1402024	
TITLE: WETLAND LOCATION MAP		JOB NO. 1402024	
PARADISE TOWNSHIP MONROE COUNTY, PENNSYLVANIA		JOB NO. 1402024	
SKELLY AND LOY, Inc. ENGINEERS-CONSULTANTS 2501 North Front Street Harrisburg, Pennsylvania Phone: 717.233.4399, 717.659.8922 Fax: 717.233.1799, e-mail: info@skelly.com		JOB NO. 1402024	

**APPENDIX D -
CULTURAL RESOURCE ASSESSMENT
AND COORDINATION LETTERS**



Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Commonwealth Keystone Building, 2nd Floor
400 North Street
Harrisburg, PA 17120-0093
www.phmc.state.pa.us

July 25, 2005

Douglas Dinsmore
Skelly and Loy
2601 North Front Street
Harrisburg, PA 17110-1185

TO EXPEDITE REVIEW USE
BHP REFERENCE NUMBER

Re: ER 05-2325-089-A
COE: Mount Airy Lodge Project, Paradise Twp., Monroe Co.

Dear Mr. Dinsmore:

The Bureau for Historic Preservation (the State Historic Preservation Office) has reviewed the above named project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980 and 1992, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation as revised in 1999. These requirements include consideration of the project's potential effect upon both historic and archaeological resources.

In our opinion no archaeological investigations are necessary in this project area.

Your request does not include sufficient information. We are unable to proceed with our review for historic structures. Although you have provided a good history of the property, the photographs, physical description, and site map are not adequate. You will need to provide this information on a Pennsylvania Historic Resource Survey Form. Please provide 35mm or digital photographs, set on high resolution, of each building, keyed to a site map. Photographs should be no smaller than 3x5. Some buildings may require more than one view. In addition, please explain which buildings will be affected by the proposed project.

If you need further information please consult Ann Safley at (717) 787-9121.

Sincerely,

Ann Safley for
Douglas McLearn, Chief
Division of Archaeology & Protection

DMcL/ras

2601 North Front Street
Harrisburg, PA 17110-1185

E-mail: skellyloy@skellyloy.com
Internet: www.skellyloy.com



Phone: 717-232-0593
800-892-6532

Fax: 717-232-1799

June 14, 2005

Ms. Jean Cutler
The Bureau for Historic Preservation
The Pennsylvania Historical and Museum Commission
Commonwealth Keystone Building, Second Floor
400 North Street
Harrisburg, Pennsylvania 17120-0093

Re: Mount Airy Lodge Project
Paradise Township
Monroe County, Pennsylvania

Dear Ms. Cutler:

Skelly and Loy, Inc. is assisting Mount Airy No. 1 LLC and CECO Associates, Inc. with environmental work for the Mount Airy Lodge Project. Mount Airy No. 1 LLC proposes to demolish the existing Mount Airy Lodge main building complex and, in its place, construct a seven-story hotel and casino. The highway (S.R. 1013, Woodland Road) leading from S.R. 0611 to the new hotel and casino will also be improved. Skelly and Loy conducted background research and a windshield survey to identify and evaluate the historic resources within and near the proposed project.

PHMC FILE REVIEW

The investigation of potential historic properties began with a review of Pennsylvania Archaeological Site Survey files at the Bureau for Historic Preservation, part of the Pennsylvania Historical and Museum Commission (PHMC) in Harrisburg, Pennsylvania. The review revealed no previously identified archaeological sites within the Mount Airy project area. In 1991, Skelly and Loy conducted archeological studies and completed a Phase I report for a project just south of the Mount Airy project area and found no significant archaeological remains.

Within the Mount Airy project area, there are no properties previously listed or determined eligible for listing in the National Register of Historic Places. No properties within the Mount Airy project area were recorded on the 1996 Monroe County Historical Association historic building survey.

Three properties near the project area have been previously surveyed as a part of a Monroe County Planning Commission Comprehensive Historic Sites Survey. No determinations were made regarding their eligibility.

AREA OF POTENTIAL EFFECTS

The development of the Area of Potential Effects (APE) began with a windshield survey of the area of the proposed project. The APE is defined as "the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist" [36 CFR §800.16(d)]. Additionally, the APE "is influ-

enced by the scale and nature of an undertaking and may be different for different kinds of effects" [36 CFR §800.16(d)].

The proposed project consists of the demolition of the existing main building of Mount Airy Lodge and the construction of a new hotel and casino. The highway connection between the proposed hotel and casino, S.R. 1013 (Woodland Road), and its intersection with S.R. 0611 will also be improved. The APE includes the approximate area where construction would occur (Figures 1 and 2). It begins at the intersection of S.R. 0611 and S.R. 1013 and runs to the south-southeast along the eastern edge of pavement of S.R. 0611 for approximately 300 feet. The APE then parallels S.R. 1013 to the east and northeast for approximately 4,500 feet. It then turns to the east, making a wide arc to the north, for approximately 750 feet. The APE then turns to the east, again making a slow curve to the northeast for approximately 1,800 feet, across the lake besides the main lodge building.

The APE then turns to the north for approximately 600 feet. It then turns to the northwest then west for approximately 650 feet, then to the northwest for approximately 800 feet. The APE then turns to the southwest for approximately 550 feet, then to the northwest again for approximately 525 feet. It then turns to the southwest for approximately 750 feet. The APE then follows a long curve to the south and southeast for approximately 950 feet. From there, the APE turns south for approximately 700 feet, and then jogs east for approximately 55 feet. The APE then turns south and southeast for approximately 4,600 feet back to the eastern edge of pavement of S.R. 0611. From there, it follows the eastern edge of pavement of S.R. 0611 back to the point of origin.

The APE encompasses the proposed construction and its immediate environs.

ON-SITE REVIEW

Skelly and Loy undertook a windshield survey of the Mount Airy project area, which consisted of the Mount Airy Lodge and Strickland's Mountain Inn properties. Approximately 56 buildings that are at least 50 years old stand on the Mount Airy Lodge and Strickland's Mountain Inn property. Some of the Strickland's Mountain Inn buildings date from the 1890 to 1910 period. The Mount Airy buildings began circa 1920. Both properties experienced extensive expansion beginning about 1954. This expansion resulted in many new buildings, and the old ones were remodeled. Mount Airy Lodge acquired Strickland's Mountain Inn about this time.

Mount Airy began as the concept of John and Suzanne Martens, Slovak-born entrepreneurs from Brooklyn. According to two newspaper articles (December 31, 2004, in the *Scranton Times Tribune* by David Falchek, and March 6, 2005, in *The Morning Call* by Matt Birkbeck), the Martens purchased a 15-room boarding house in 1936. They converted the boarding house into a hotel, the originally called Mount Airy House. The Martens operated Mount Airy House by themselves for about 15 years.

In 1951, Suzanne's nephew, Emil Wagner, joined the Martens' operation at Mount Airy House. Wagner, according to his obituary published in the *Pocono Record* on November 5,

1999, had escaped Czechoslovakia before the Communist coup of 1948, moving to Switzerland. Wagner's father had been in the hotel business, and this experience had been further strengthened by attendance at the Hotel School in Lausanne, Switzerland. There, Wagner learned the business styles of the great Swiss resorts.

Wagner's education and experience became a catalyst for a transformation of Mount Airy House. Wagner reformed the House into a European-styled Mount Airy Lodge. With the Martens, Wagner pioneered the concept of the Pocono resort. They advertised in New York City and Philadelphia area papers, offering inexpensive, activity-filled, romantic getaways. Wagner and the Martens became the first to equip their resort with novelty tubs and mirror-ceiling rooms. After the Martens' deaths, Wagner operated Mount Airy Lodge and Strickland's Mountain Inn until his death in 1999. By then, competition from a renovated Atlantic City, cruise ships, and newer Pocono resorts had edged Mount Airy Lodge and Strickland's Mountain Inn near bankruptcy. The combined resort operated under Chapter 11 of the Bankruptcy Code after 1999; after a sharp decrease in bookings following the terrorist attacks of September 11, 2001, it closed. The resort has been closed since 2001, although the golf course remains operating.

Consideration of Criterion A

Looking at Criterion A, Mount Airy Lodge made a contribution to the long-term trend of Pocono resorts. The Martens and Wagner pioneered the concept of romantic getaways. However, the Pocono Mountains had been a tourist destination for half a century prior to Mount Airy. According to Monroe County's Web site (under *History*), hotels to accommodate tourists began to be built following the arrival of the railroad in what is now East Stroudsburg in 1871. By 1900, a special fast train brought tourists from New York City. Although the Martens' and Wagner's contributions changed the face of Pocono resorts, it does not reach the level of a significant contribution to the broad patterns of our nation's history. Mount Airy Lodge should not be considered significant under Criterion A.

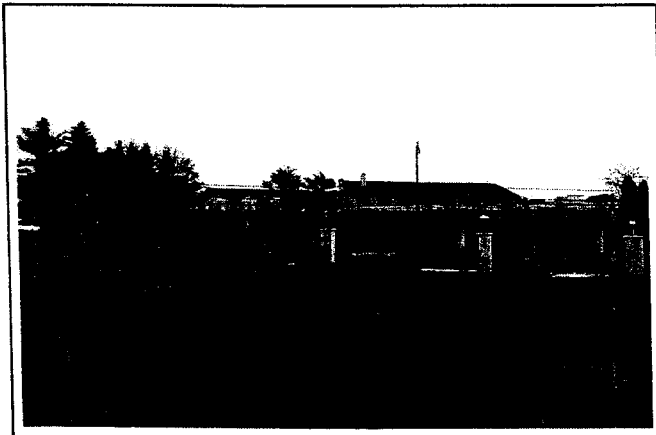
Strickland's Mountain Inn began as a few resort homes at a crossroads, now called East Swiftwater, in the period between 1890 and 1900. Additional buildings were added slowly until after World War II, when several additional buildings, including the main buildings, were constructed. Catering to couples, Strickland's Mountain Inn was acquired by Mount Airy Lodge in the mid-1950's. As such, Strickland's Mountain Inn does not pose a significant contribution to the broad patterns of our nation's history and should not be considered significant under Criterion A.

Consideration of Criterion B

Looking at Criterion B, John and Suzanne Martens and Emil Wagner became locally important persons, and their contribution, as noted in the discussion of Criterion A, changed the area from small crossroads hotels into sprawling resorts. However important to the local area the Martens' and Wagner's contributions were, it does not reach the level of a significant person in our nation's history. As a result, the Martens, Wagner, and Mount Airy Lodge should not be considered significant under Criterion B.

Consideration of Criterion C

Looking at Criterion C, the buildings of Mount Airy Lodge that are 50 years old and over have either been extensively altered or are common examples of unremarkable buildings. For example, the original Mount Airy Lodge is barely recognizable behind a circa 1970 reception area and porte-cochère (Photograph Nos. 1 and 2). Other buildings, like the circa 1930 gable-end cottage along S.R. 1013 (Photograph No. 3) and the camp buildings across the road from the lodge (Photograph No. 4), retain their original form and fabric but are undistinguished examples of common resort buildings of the period. As a result, Mount Airy Lodge should not be considered significant under Criterion C.



Photograph No. 1 – The main entrance of Mount Airy Lodge, looking east. The original boarding house is visible at the left center with its gable-end dormers.



Photograph No. 2 – The northern end of the main building, looking south. The original boarding house can be seen in the right center, with the gable-end dormers. This view shows the back of the original boarding house while the view in Photograph No. 1 shows the front.



Photograph No. 3 – A circa 1930 resort cottage, looking south.



Photograph No. 4 – Circa 1930 resort lodges, looking northwest.

Strickland's Mountain Inn followed a similar course to the Mount Airy Lodge. Older buildings were extensively altered; porches were enclosed, additions grafted onto older fabric. One of the earlier buildings, for example, a late Victorian cottage near to the intersection of Carlton and Upper Swiftwater Roads, has an enclosed porch that obscures its detailed entrance and first-floor windows (Photograph No. 5). It has an addition on the back; its layout, fabric, and fenestration have all been altered. The original Strickland's Mountain Inn, circa 1920, with its gable-end dormers, has been extensively altered with additions on the back and the one-story full-front porch enclosed (Photograph No. 6). All of the buildings 50 years old and older of Strickland's Mountain Inn have been extensively altered. As a result, it should not be considered significant under Criterion C.



Photograph No. 5 – Late Victorian cottage, looking southeast. This is one of the properties of Strickland's Mountain Resort.



Photograph No. 6 – Original main building of Strickland's Mountain Resort, looking northeast. The gambrel roof and gable-end dormers suggest a date of circa 1920.

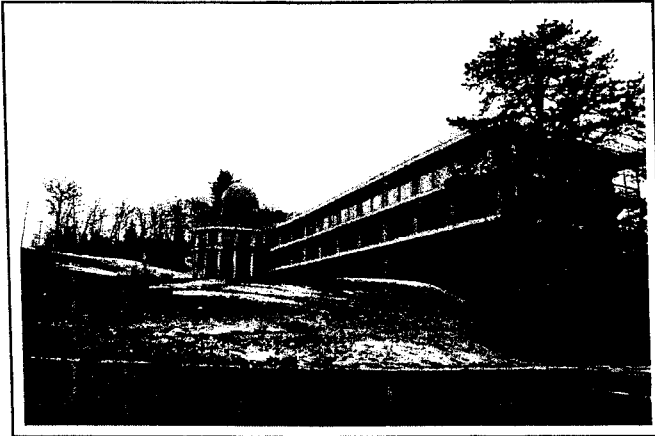
Consideration of Criterion D

Looking at Criterion D, little potential exists for historic archaeological remains. The original landscape has been altered by continuous construction through the years. The proposed construction will occur in areas that have or have recently had buildings on them. The area of the main building of Mount Airy Lodge has been extensively altered by the construction of the resort buildings and parking areas. Skelly and Loy recommends that no additional survey occur.

Consideration of Historic Districts

Considering historic districts, neither Mount Airy Lodge nor Strickland's Mountain Inn qualifies as historic districts. Both have collections of buildings 50 years old and over; however, modern buildings stand among the historic ones. Immediately to the southwest of the main building of Mount Airy Lodge stands a circa 1965 hotel (Photograph No. 7). The circa 1975

southern façade of the main building of the Mount Airy Lodge, facing the lake, exhibits the Post-Modern style (Photograph No. 8).



Photograph No. 7 – A circa 1965 hotel with a gold dome, looking south.



Photograph No. 8 – Circa 1975 southern façade of the main lodge, looking northeast.

Similarly, at Strickland's Mountain Inn, modern cottages form the outer of three concentric circles of construction (Photograph No. 9). Near the center of Strickland's Mountain Inn, a modern recreational complex stands across a path from the original Inn (Photograph No. 10). In addition, as noted above, many of the historic ones are virtually unrecognizable as historic buildings because of the many alterations. As a result, historic districts do not exist at Mount Airy Lodge or Strickland's Mountain Inn.



Photograph No. 9 – Circa 1975 resort buildings at Strickland's Mountain Resort, looking west. Modern buildings are scattered among older ones.



Photograph No. 10 – Modern recreation buildings, circa, 1980, looking southeast. The dome in the foreground encloses a swimming pool.

Consideration of Designed Landscapes

Designed landscapes are another type of property recognized by the National Park Service as potentially eligible for the National Register. A portion of Mount Airy Lodge around the main building is a designed landscape, anchored by the Mount Airy Golf Club. In addition to the golf club, a 46-acre lake, statuary, and trails fill a valley in which Forest Hills Run flows (Photograph Nos. 11 and 12). However, most of this designed landscape, including the golf club and the lake, dates from the 1972 construction of the golf course.



Photograph No. 11 – The Hal Purdy-designed golf course, looking north.



Photograph No. 12 – A circa 1960 building with lights and statuary in front, looking northeast.

Noted golf course architect Hal Purdy designed the Mount Airy Golf Club. However, its 1972 date means that it post-dates the 1955 cutoff for historic consideration by 17 years. Although properties younger than the 50-year-old cutoff can be considered to be eligible for inclusion in the National Register, the property must be shown to be exceptional. Although picturesque, the designed landscape adjacent to the main building of Mount Airy Lodge is not exceptional and should not be considered to be significant or eligible for inclusion in the National Register.

SUMMARY OF HISTORIC RESOURCE EVALUATION

In summary, the Mount Airy Lodge and Strickland's Mountain Inn, which include the buildings within the APE, have approximately 56 buildings at least 50 years old or older. These buildings have either been extensively altered or they do not possess enough significance to qualify them as eligible for inclusion in the National Register. There is no National Register-eligible historic district or designed landscape within the Mount Airy project area.

A 1996 Monroe County Historical Association survey did not include any Mount Airy Lodge or Strickland's Mountain Inn buildings. Skelly and Loy recommends that no additional cultural resource work be performed within the Area of Potential Effects.

Ms. Jean Cutler
Page 8
June 14, 2005

Please do not hesitate to contact me if you have any questions.

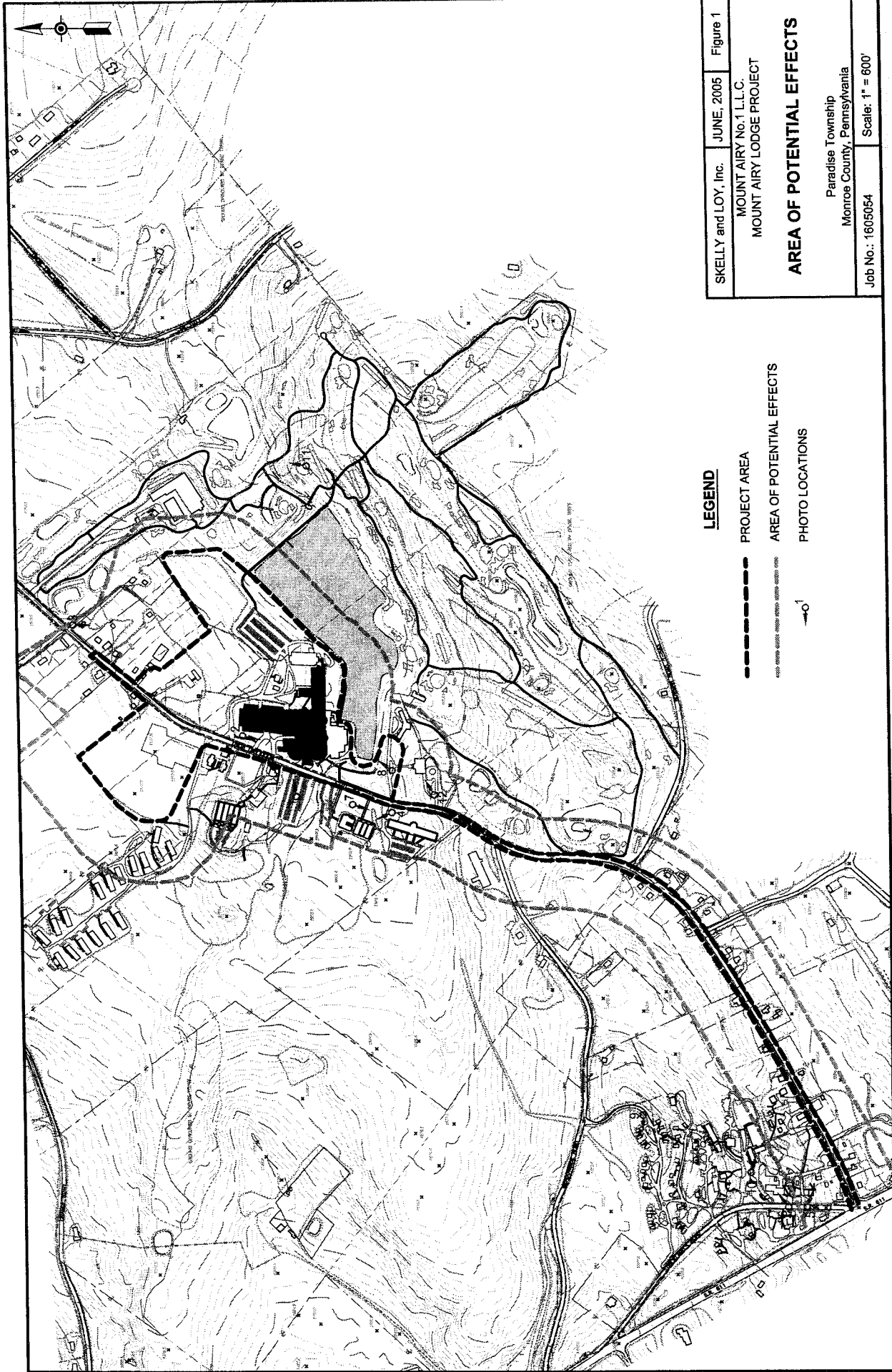
Sincerely yours,

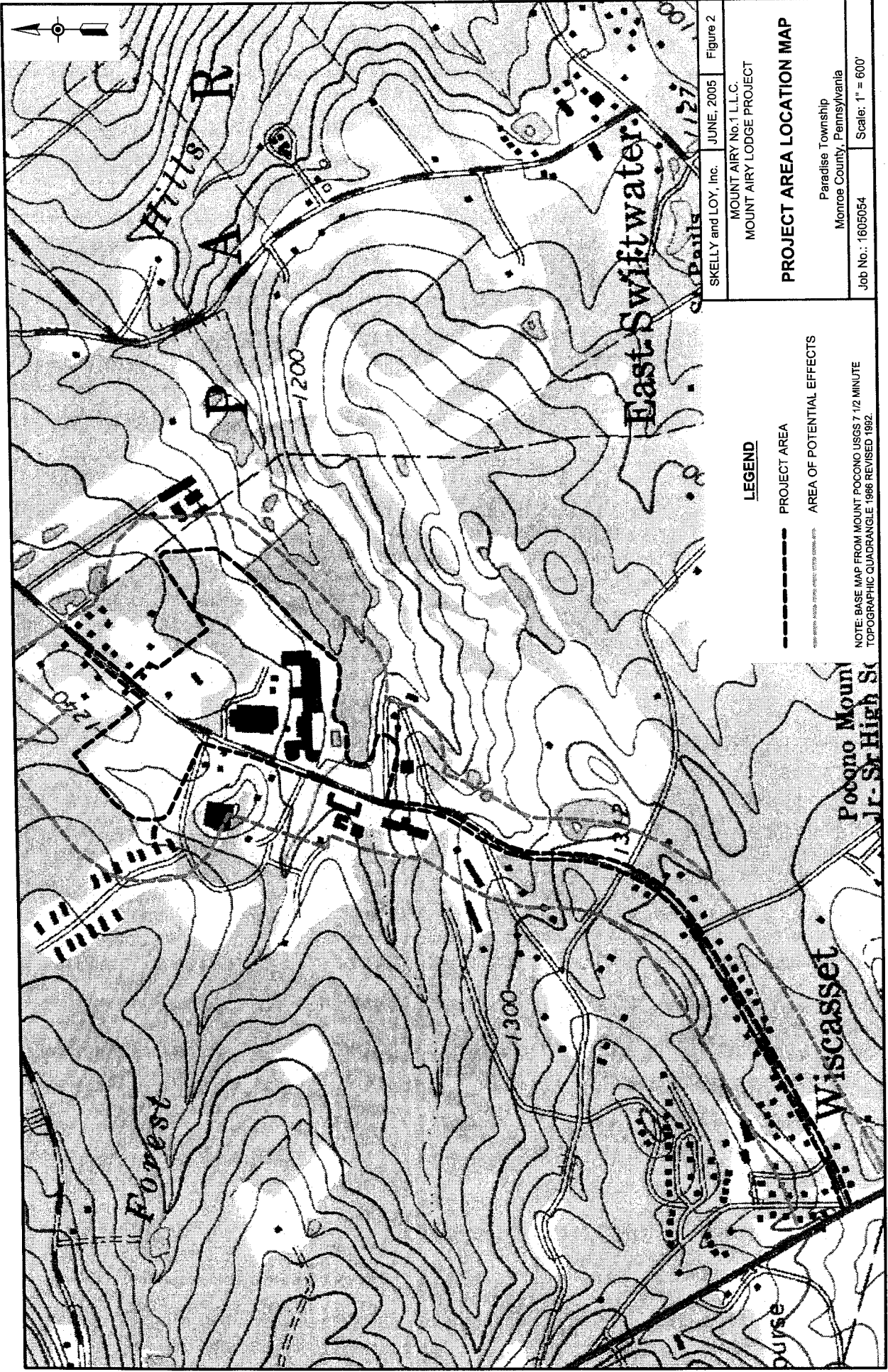
SKELLY and LOY, Inc.

A handwritten signature in black ink, appearing to read "Douglas Dinsmore". The signature is fluid and cursive, with a prominent initial "D".

Douglas Dinsmore, Ph.D.
Cultural Resource Specialist

cc: Paul DeAngelo
Albert Magnotta, P.E. CECO
1605054
File: Mount Airy PHMC Letter.doc





SKELLY and LOY, Inc. JUNE, 2005 Figure 2

MOUNT AIRY No.1 L.L.C.
MOUNT AIRY LODGE PROJECT

PROJECT AREA LOCATION MAP

Paradise Township
Monroe County, Pennsylvania
Job No.: 1605054
Scale: 1" = 600'

LEGEND

- PROJECT AREA
- AREA OF POTENTIAL EFFECTS

NOTE: BASE MAP FROM MOUNT POCONO USGS 7 1/2 MINUTE TOPOGRAPHIC QUADRANGLE, 1986 REVISED 1982.

**APPENDIX E -
THREATENED AND ENDANGERED
SPECIES COORDINATION LETTERS**



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Pennsylvania Field Office
315 South Allen Street, Suite 322
State College, Pennsylvania 16801-4850

July 6, 2005

Andy Brookens
Skelly and Loy
18028 Maugans Avenue
Hagerstown, MD 21740

Re: USFWS Project #2005-0380

Dear Mr. Brookens:

This responds to your letter of June 17, 2005, which provided the Fish and Wildlife Service with information regarding the Mount Airy Lodge project in Paradise Township, Monroe County, Pennsylvania. The proposed project is within the known range of the bog turtle (*Clemmys muhlenbergii*), a species that is federally listed as threatened. The following comments are provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of endangered and threatened species.

A Phase 1 bog turtle habitat assessment was conducted on April 12 and May 11, 2005. According to the Phase 1 report, none of the wetlands occurring within the property boundaries has the combination of hydrology, soils, and vegetation characteristic of suitable bog turtle habitat. Therefore, based on our review of this report, we conclude that implementation of the proposed project will not affect the bog turtle.

This determination is valid for two years from the date of this letter. If the proposed project has not been fully implemented prior to this, an additional review by this office is recommended. Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered.

If the Phase 1 habitat assessment did not include all wetlands in all areas that will be directly or indirectly affected by the proposed project and project-associated features (*e.g.*, roads, water and sewer lines, utility lines, stormwater and sedimentation basins, buildings and other structures, driveways, parking lots, yards/lawns, wells), the scope of the Phase 1 survey should be expanded to include these areas. If any wetlands are located, the results of the expanded wetland and Phase 1 investigation should be submitted to our office for review so that we can confirm whether the above determination is still valid.

This response relates only to endangered and threatened species under our jurisdiction, based on an office review of the proposed project's location. No field inspection of the project area has been conducted by this office. Consequently, this letter is not to be construed as addressing potential Service concerns under the Fish and Wildlife Coordination Act or other authorities.

To avoid potential delays in reviewing your project, please use the above-referenced USFWS project tracking number in any future correspondence regarding this project.

Please contact Bonnie Dershem of my staff at 814-234-4090 if you have any questions or require further assistance regarding this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "David Densmore", followed by a long horizontal line extending to the right.

David Densmore
Supervisor



Pennsylvania Fish & Boat Commission

Division of Environmental Services
Natural Diversity Section
450 Robinson Lane
Bellefonte, PA 16823-9620
(814) 359-5237 Fax: (814) 359-5175

June 30, 2005

IN REPLY REFER TO
SIR# 18068

SKELLY AND LOY
KAREN JOHNSTON
2601 N FRONT STREET
HARRISBURG, PA 17110-1185


**RE: Secondary Species Impact Review (SIR) #18068
MOUNT AIRY LODGE IMPROVEMENT PROJECT
Bog Turtle Habitat Survey
PARADISE Township/Borough, MONROE County, Pennsylvania**

Dear Ms. JOHNSTON:

The staff of the Natural Diversity Section reviewed your recent correspondence regarding the above-referenced project and its potential to impact the bog turtle (*Clemmys muhlenbergii*, state endangered, federal threatened).

You conducted a bog turtle habitat evaluation at the project site and concluded that suitable habitat for bog turtles did not occur on-site. According to your report, the vegetation, hydrology, and soils are not consistent with wetlands known to support bog turtles. I concur with the conclusions of the Phase 1 habitat assessment; the habitat is not suitable for bog turtles. Therefore, I do not foresee the proposed project resulting in adverse impacts to the bog turtle or any other rare or protected species under Pennsylvania Fish and Boat Commission jurisdiction.

Please contact Kathy Derge of my staff at (814) 359-5186 if you have any additional concerns regarding this response. Thank you for your cooperation and attention to this matter of threatened and endangered species conservation.

Sincerely,

Christopher A. Urban, Chief
Natural Diversity Section

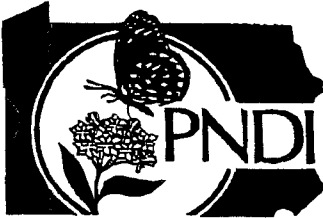
KLD/ma

cc: B. Dershem, USFWS

Our Mission:

www.fish.state.pa.us

To provide fishing and boating opportunities through the protection and management of aquatic resources.



Pennsylvania Natural Diversity Inventory

Scientific Information and expertise for the conservation of Pennsylvania's native biological diversity

DCNR, Bureau of Forestry

March 4, 2005

Karen Johnston
Skelly and Loy
2601 North Front Street
Harrisburg, PA 17110

**Re: Pennsylvania Natural Diversity Inventory Review, PER NO: 17301
Mount Airy Lodge Improvement Project
Paradise Twp, Monroe County**

Dear Ms. Johnston:

In response to the request received January 20, 2005 to perform a PNDI Database Search of the above-mentioned project, we have reviewed the area using the Pennsylvania Natural Diversity Inventory (PNDI) information system.

PNDI records indicate that no occurrences of species of special concern are known to exist within the project area referenced above, therefore we do not anticipate any impact on endangered, threatened, or rare species at this location.

PNDI attempts to be a complete information resource on species of special concern located within the Commonwealth. However, it may not contain all location information for species within the jurisdiction of other agencies. Please contact the Fish and Boat Commission, the Game Commission and US Fish and Wildlife Service for more information on species within their purview.

PNDI is the environmental review function of the Pennsylvania Natural Heritage Program, and uses a site-specific information system that describes significant natural resources within the Commonwealth. This system includes data descriptive of plant and animal species of special concern, exemplary natural communities and unique geological features. PNDI is a cooperative project of the Department of Conservation and Natural Resources, The Nature Conservancy and the Western Pennsylvania Conservancy. This response represents the most up-to-date summary of the PNDI data files and is good for one year. An absence of recorded information does not necessarily imply actual conditions on-site. A field survey of any site may reveal previously unreported populations.

Feel free to phone our office if you have questions concerning this response or the PNDI system, and please refer to the P.E.R. Reference Number at the top of the letter in future correspondence concerning this project.

Sincerely,

Ellen M. Shultzabarger
Environmental Review Specialist

P: 717-772-0258
F: 717-772-0271



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Pennsylvania Field Office
315 South Allen Street, Suite 322
State College, Pennsylvania 16801-4850



February 18, 2005

Karen M. Johnston
Skelly and Loy, Inc.
2601 North Front Street
Harrisburg, PA 17110-1185

FEB 22 2005

Re: USFWS Project #20050380

Dear Ms. Johnston:

This responds to your letter of January 19, 2005, requesting information about federally listed and proposed endangered and threatened species within the area affected by the proposed Mount Airy Lodge Improvements Project located in Paradise Township, Monroe County, Pennsylvania. The following comments are provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of endangered and threatened species.

The proposed project is within the known range of the bog turtle (*Clemmys muhlenbergii*), a species that is federally listed as threatened. Bog turtles inhabit shallow, spring-fed fens, sphagnum bogs, swamps, marshy meadows, and pastures characterized by soft, muddy bottoms; clear, cool, slow-flowing water, often forming a network of rivulets; high humidity; and an open canopy. Bog turtles usually occur in small, discrete populations occupying suitable wetland habitat dispersed along a watershed. The occupied "intermediate successional stage" wetland habitat is usually a mosaic of micro-habitats ranging from dry pockets, to areas that are saturated with water, to areas that are periodically flooded. Some wetlands occupied by bog turtles are located in agricultural areas and are subject to grazing by livestock.

To determine the potential effects of the proposed project on bog turtles and their habitat, begin by identifying all wetlands in, and within 300 feet of, the project area. The project area includes all areas that will be permanently or temporarily affected by any and all project features, including building, roads, staging areas, utility lines, outfall and intake structures, wells, stormwater retention or detention basins, parking lots, driveways, lawns, etc. The area of investigation should be expanded when project effects might extend more than 300 feet from the project footprint. For example, the hydrological effects of some projects (*e.g.*, large residential or commercial developments; golf courses; community water supply wells) might extend well beyond the project footprint due to the effects that impervious surfaces or groundwater pumping may have on the hydrology of nearby groundwater-dependent wetlands. Wetlands should be included on a map showing existing as well as proposed project features.

If someone qualified to identify and delineate wetlands has, through a field investigation, determined that no wetlands are located in or within 300 feet of the project area (or within the expanded investigation area, as described above), it is not likely that your project will adversely affect the bog turtle. If this is the case, no further consultation with the Fish and Wildlife Service is necessary, although we would appreciate receiving a courtesy copy of the wetland investigator's findings for our files.

If wetlands have been identified in or within 300 feet of the project area (or in an expanded investigation area, as described above), their potential suitability as bog turtle habitat should be assessed, as described under "*Bog Turtle Habitat Survey*" (Phase 1 survey) of the enclosed *Guidelines for Bog Turtle Surveys*. A list of qualified bog turtle surveyors is enclosed, although the habitat survey could also be conducted by someone not on this list (e.g., a biologist or wetland scientist with training in bog turtle habitat identification). A Phase 1 field form and report template are enclosed for your convenience and use. Survey results should be submitted to the Service for review and concurrence.

If potential bog turtle habitat is found in or near the project area, efforts should be made to avoid any direct or indirect impacts to those wetlands (see enclosed *Bog Turtle Conservation Zones*). Avoidance of direct and indirect effects means no disturbance to or encroachment into the wetlands (e.g., filling, ditching or draining) for any project-associated features or activities. Adverse effects may also be anticipated to occur when lot lines include portions of the wetland; when an adequate upland buffer is not retained around the wetland (see *Bog Turtle Conservation Zones*); or when roads, stormwater/sedimentation basins, impervious surfaces, or wells affect the hydrology of the wetland.

We recommend that if potential habitat is found, you submit (along with your Phase 1 survey results) a detailed project description and detailed project plans documenting how direct and indirect impacts to the wetlands will be avoided. If adverse effects to these wetlands cannot be avoided, a more detailed and thorough survey should be done, as described under "*Bog Turtle Survey*" (Phase 2 survey) of the *Guidelines*. The Phase 2 survey should be conducted by a qualified biologist with bog turtle field survey experience (see enclosed list of qualified surveyors), and survey results should be submitted to the Service for review and concurrence.

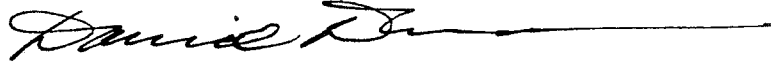
In cases where adverse effects to federally listed species cannot be avoided, further consultation with the Service would be necessary to avoid potential violations of section 9 (prohibiting "take" of listed species) and/or section 7 (requiring federal agencies to consult) of the Endangered Species Act. Information about the section 7 and section 10 consultation processes (for federal and non-federal actions, respectively) can be obtained by contacting this office or accessing the Service's Endangered Species Home Page (<http://endangered.fws.gov>).

This response relates only to endangered and threatened species under our jurisdiction based on an office review of the proposed project's location. No field inspection of the project area has been conducted by this office. Consequently, this letter is not to be construed as addressing potential Service concerns under the Fish and Wildlife Coordination Act or other authorities. A compilation of certain federal status species in Pennsylvania is enclosed for your information.

To avoid potential delays in reviewing your project, please use the above-referenced USFWS project tracking number in any future correspondence regarding this project.

Please contact Jennifer Dombroskie of my staff at 814-234-4090 if you have any questions or require further assistance regarding this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "David Densmore", followed by a long horizontal line extending to the right.

David Densmore
Supervisor

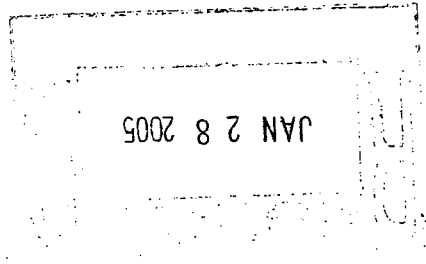
Enclosures



Pennsylvania Fish & Boat Commission

RJD

Division of Environmental Services
Natural Diversity Section
450 Robinson Lane
Bellefonte, PA 16823-9620
(814) 359-5237 Fax: (814) 359-5175



January 25, 2005

IN REPLY REFER TO
SIR # 18068

SKELLY AND LOY
KAREN JOHNSTON
2601 N FRONT STREET
HARRISBURG, PA 17110-1185

RE: **Species Impact Review (SIR) - Rare, Candidate, Threatened and Endangered Species**
MOUNT AIRY LODGE IMPROVEMENT PROJECT
PARADISE Township/Borough, MONROE County, Pennsylvania

This responds to your inquiry about a Pennsylvania Natural Diversity Inventory (PNDI) Internet Database search "potential conflict" or a threatened and endangered species impact review. These projects are screened for potential conflicts with rare, candidate, threatened or endangered species under Pennsylvania Fish & Boat Commission jurisdiction (fish, reptiles, amphibians, aquatic invertebrates only) using the Pennsylvania Natural Diversity Inventory (PNDI) database and our own files. These species of special concern are listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, and the Pennsylvania Fish & Boat Code (Chapter 75), or the Wildlife Code. The absence of recorded information from our files does not necessarily imply actual conditions on site. Future field investigations could alter this determination. The information contained in our files is routinely updated. A Species Impact Review is valid for one year only.

NO ADVERSE IMPACTS EXPECTED FROM THE PROPOSED PROJECT

— Except for occasional transient species, rare, candidate, threatened or endangered species under our jurisdiction are not known to exist in the vicinity of the project area. Therefore, no biological assessment or further consultation regarding rare species is needed with the Commission. Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered.

— An element occurrence of a rare, candidate, threatened, or endangered species under our jurisdiction is known from the vicinity of the proposed project. However, given the nature of the proposed project, the immediate location, or the current status of the nearby element occurrence(s), no adverse impacts are expected to the species of special concern.

If you have any questions regarding this review, please contact the biologist indicated below:

— Jeff Schmid 814-359-5236 — J.R. Holtmaster 814-359-5194
 Kathy Derge 814-359-5186

I am enclosing a copy of our "SIR Request Form", which is to be used for all future species impact review requests. Please make copies of the attached form and use with all future project reviews. Thank you in advance for your cooperation and attention to this important matter of species conservation and habitat protection.

SIGNATURE: _____

DATE: January 25, 2005

Christopher A. Urban
Chief, Natural Diversity Section

Our Mission:

www.fish.state.pa.us

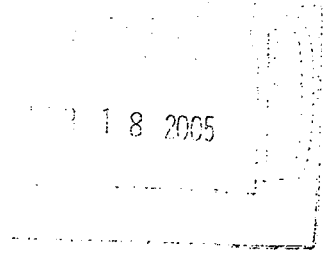
To provide fishing and boating opportunities through the protection and management of aquatic resources.



COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA GAME COMMISSION
2001 ELMERTON AVENUE, HARRISBURG, PA 17110-9797

February 16, 2005

Ms. Karen M. Johnston
Skelly and Loy, Inc.
2601 North Front Street
Harrisburg, PA 17110



Re: Mount Airy Lodge Improvement Project
456-Acre Site
Paradise Township, Monroe County, PA

Dear Ms. Johnston:

This is in response to your letter dated January 19, 2005, requesting information concerning endangered and threatened species of birds and mammals and impacts to State Game Lands as related to the proposed project.

Our office review has determined that no state listed endangered or threatened species of birds or mammals are known to occur within the proposed project area. Except for occasional transient individuals, this project should not impact any endangered or threatened species of birds or mammals recognized by the Pennsylvania Game Commission. Also, no State Game Lands are located close enough that any impacts to them are anticipated by the proposed project. However, should project plans change or if additional information on endangered or threatened species or State Game Lands becomes available, this determination may be reconsidered.

The proposed project may impact wetlands which this agency considers as critical and unique habitat. You should be aware that any impacts to wetlands or other bodies of water will require permits from the Department of Environmental Protection under Chapter 105 and the U.S Army Corps of Engineers under Section 404 of the Clean Water Act.

ADMINISTRATIVE BUREAUS:

PERSONNEL: 717-787-7836 ADMINISTRATION: 717-787-5670 AUTOMOTIVE AND PROCUREMENT DIVISION: 717-787-6594
LICENSE DIVISION: 717-787-2084 WILDLIFE MANAGEMENT: 717-787-5529 INFORMATION & EDUCATION: 717-787-6286 LAW ENFORCEMENT: 717-787-5740
LAND MANAGEMENT: 717-787-6818 REAL ESTATE DIVISION: 717-787-6568 AUTOMATED TECHNOLOGY SYSTEMS: 717-787-4076 FAX: 717-772-2411

WWW.PGC.STATE.PA.US

AN EQUAL OPPORTUNITY EMPLOYER

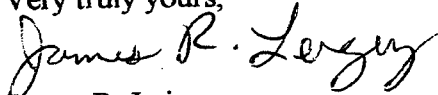
Ms. Karen M. Johnston

-2-

February 16, 2005

If you have any questions, please contact me at (717) 783-5957.

Very truly yours,



James R. Leigey

Wildlife Impact Review Coordinator
Division of Environmental Planning
And Habitat Protection
Bureau of Land Management

JRL/pfb

Attachment

Cc: File
Schweitzer
Zindell

**APPENDIX F -
PHASE I BOG TURTLE HABITAT
ASSESSMENT REPORT**

**MOUNT AIRY LODGE PROJECT
PARADISE TOWNSHIP
MONROE COUNTY, PENNSYLVANIA**

**BOG TURTLE (*Clemmys muhlenbergii*)
PHASE I HABITAT ASSESSMENT REPORT**

PREPARED FOR

**MOUNT AIRY NO. 1, LLC
AND
CECO ASSOCIATES, INC.**

PREPARED BY

**SKELLY AND LOY, INC.
ENGINEERING-ENVIRONMENTAL CONSULTANTS**

JUNE 2005

**MOUNT AIRY LODGE PROJECT
PARADISE TOWNSHIP
MONROE COUNTY, PENNSYLVANIA**

**BOG TURTLE (*Clemmys muhlenbergii*)
PHASE I HABITAT ASSESSMENT REPORT**

PREPARED FOR

**MOUNT AIRY NO. 1, LLC
42 WOODLAND ROAD
MOUNT POCONO, PENNSYLVANIA 18344
AND
CECO ASSOCIATES, INC.
SUITE 200, SCRANTON ELECTRIC BUILDING
SCRANTON, PENNSYLVANIA 18501**

PREPARED BY

**SKELLY AND LOY, INC.
ENGINEERING-ENVIRONMENTAL CONSULTANTS
2601 NORTH FRONT STREET
HARRISBURG, PENNSYLVANIA 17110**

JUNE 17, 2005

TABLE OF CONTENTS

	PAGE
PROJECT BACKGROUND	1
HABITAT ASSESSMENT METHODOLOGY	3
MOUNT AIRY LODGE PROJECT HABITAT EVALUATION	5
CONCLUSION	7
APPENDICES	
APPENDIX A - PROJECT/PHOTOGRAPH LOCATION MAPPING	
APPENDIX B - BOG TURTLE HABITAT EVALUATION FIELD FORMS	
APPENDIX C - REPRESENTATIVE PHOTOGRAPHS	
APPENDIX D - PNDI COORDINATION	
APPENDIX E - WETLAND DELINEATION DATA FORMS	
APPENDIX F - RESUME	

PROJECT BACKGROUND

PROJECT BACKGROUND

Mount Airy No. 1, LLC is proposing to demolish the existing Mount Airy Lodge main building complex and, in its place, construct a seven-story hotel and casino. The roadway (S.R. 1013, Woodland Road) leading from S.R. 0611 to the new hotel and casino will also be improved. The proposed project is located approximately 30 miles southeast of Scranton, near the town of Mount Pocono in Paradise Township, Monroe County. Also, the proposed project is located in both the Forest Hills Run and the Indian Run Creek Watersheds. The existing land use in and adjacent to the project study area includes golf course, lawn areas, forest, wetlands, ponds/lakes, macadam roads and parking lots, commercial buildings, resort property, and single-family residences.

The engineering and environmental studies completed to date for the project included agency coordination with the Pennsylvania Department of Conservation and Natural Resources' (DCNR) Pennsylvania Natural Diversity Inventory (PNDI), Pennsylvania Fish and Boat Commission (PFBC), Pennsylvania Game Commission (PGC), and the United States Fish and Wildlife Service (USFWS) in an effort to achieve project clearance for threatened and endangered species. As such, the PFBC and USFWS indicated that the project (because it is in Monroe County) is located within the extant range of the northern population of the bog turtle (*Clemmys muhlenbergii*). The northern population of the species is formally listed as threatened under the Federal Endangered Species Act and endangered under the Pennsylvania Fish and Boat Code. Both agencies requested a Phase I bog turtle habitat survey be completed to determine if the potential habitat occurs within the proposed project area and a 300-foot buffer zone around that area.

Bog turtles typically inhabit emergent wetland in meadows and pastures with a persistent source of groundwater springs and seeps which induce the development of thick, organic, mucky soil conditions. Potential habitat for the species is typically recognized by the presence of three criteria: suitable hydrology, suitable soil conditions, and suitable vegetative characteristics. Suitable hydrology, soils, and vegetation are necessary to provide critical thermoregulation and wintering sites for hibernation (soft muck, peat, burrows, root systems of woody vegetation), escape cover from predators, and nesting habitats (open areas with tussock-forming vegetation) for this species. It is important to note that one or more of these criteria may be absent from portions of a wetland supporting bog turtles. The species has also been documented in some locations to become acclimated to disturbed wetland complexes with semi-closed forest

canopies. Bog turtles have been observed to be transients in forested habitat associated with springs and small streams leading to more open marshes. These forested habitat areas may be utilized as dispersal corridors to other wetlands.

The Mount Airy Lodge Project is proposed within an 891-acre property owned by Mount Airy No. 1, LLC. The development project area encompasses approximately 50 acres, and the mapping in Appendix A demarcates the limits of disturbance associated with the proposed demolition/construction, and the improvements to Woodland Road and its intersection with S.R. 0611. The Area of Potential Effects (APE, see mapping in Appendix A) consists of a buffer area created around the development project area in order to account for secondary or incidental impacts (utilizing an approximate 300-foot buffer). This Phase I Habitat Assessment covered all wetlands and watercourses within the APE (184-acres).

The Mount Airy Lodge project as currently proposed will require the filing of a Pennsylvania Department of Environmental Protection (PA DEP)/U.S. Army Corps of Engineers (USACE) Joint Permit Application for authorization for the crossing/filling of jurisdictional wetlands and watercourses within the 184-acre APE. Impacts proposed for this project will be relatively minimal. The proposed activities discussed in the Joint Permit Application will impact wetland habitat in one of the 15 Pennsylvania counties which support extant populations of the bog turtle. These activities require the proposed project to be screened for potential impacts to species habitat prior to the issuance of a Joint Permit. In response to this requirement, a Phase I species habitat assessment was conducted to determine the presence/absence of conditions suitable for species support. All of the wetlands and watercourses located within the 184-acre APE were evaluated. This report provides the findings of the Phase I species habitat assessment conducted on these wetland and watercourse areas.

The environmental studies conducted for the project involved the completion of the wetland delineation investigation, which was performed by Skelly and Loy in April 2005. There are 21 wetlands and 6 watercourse channels located within the development project area and APE. Wetland delineation data forms for these wetlands are provided in Appendix E. All of these areas were assessed in the Phase I habitat survey. The entire area of each of these wetlands was evaluated. The wetlands and channels are located within the drainage basins of Forest Hills Run and Indian Run Creek.

HABITAT ASSESSMENT METHODOLOGY

HABITAT ASSESSMENT METHODOLOGY

Skelly and Loy conducted a Phase I bog turtle habitat assessment of wetland and watercourse habitats located in the 184-acre APE associated with the Mount Airy Lodge project on April 12 and May 11, 2005. Initial evaluations of all delineated wetlands were also made during the April wetland delineation investigation. The habitat assessment was conducted by Mr. Ben Berra, a USFWS/PFBC-Recognized Qualified Bog Turtle Surveyor. Conditions during the April 12 survey were mild (50-60 degrees Fahrenheit), clear (< 5% cloud cover), approximately 40% humidity, with a 1 mph average wind speed. During the May 11 survey, conditions were warm (65-80 degrees Fahrenheit), with minimal cloud cover (15%), 50% humidity, and 1 mph average wind speed. The habitat assessment was conducted using the *Guidelines for Bog Turtle Surveys, Bog Turtle Northern Population Recovery Plan, May 15, 2001*. Three criteria were assessed along the project alignment for the potential occurrence of the species.

- 1) Suitable Hydrology – typically spring-fed with shallow surface water or saturated soils present year-round, although in summer the wet area(s) may be restricted to near spring head(s)
- 2) Suitable Soils – a bottom substrate of at least three inches of soft muck, although in summers of dry years mucky soils may be limited to near spring head(s)
- 3) Suitable Vegetation – dominant vegetation of low grasses, sedges, and forbs (emergent wetland), often with a scrub-shrub component, or possibly adjacent forested groundwater seeps

Additional information evaluated relevant to species habitat included the physical condition and disturbance of the wetland habitat, potential disturbances resulting from the proposed project, and metapopulation concepts.

Metapopulations are defined as collections of populations that exist within a landscape matrix and are separated by areas of different or unsuitable habitat. In order for these populations to persist, an exchange of individuals must occur within the metapopulation. This exchange occurs by using travel corridors as links between the discrete populations. Knowledge of bog turtle movement patterns and utilization of diverse habitat types is still limited within the scientific community. However, wetland habitats dispersed throughout riparian stream corridors may provide travel corridors that facilitate movement within metapopulations between patches of

unfavorable habitat. The Standardized Bog Turtle Site-Quality Analysis (Klemens, 1993) defines metapopulation concepts for the species by the following factors:

- no major impediments to turtle movements between populations (impediments are defined as conditions which significantly reduce the chance of successful movement between wetland sites, such as steeply graded streams, roads with inadequate crossing design, dams, and large watercourses over third order);
- continuous corridor of stream/wetland habitat connecting populations; and
- individual populations that are separated by no more than one mile of unfragmented stream habitat.

In recognition of this concept, an evaluation of watercourses and riparian corridors associated with the identified wetland areas was completed. Additionally, a limited cursory habitat assessment was undertaken for any adjacent wetlands beyond the 184-acre APE.

**MOUNT AIRY LODGE PROJECT
HABITAT EVALUATION**

MOUNT AIRY LODGE PROJECT HABITAT EVALUATION

Wetland/watercourse habitats associated with the Mount Airy Lodge project are located throughout the 184-acre APE. Wetland delineation data forms (Appendix E) and Bog Turtle Habitat Evaluation Field Forms (Appendix B), along with color photographs (Appendix C), are included to accurately depict the characteristics of each evaluated wetland. In general, these wetlands did not possess the requisite hydrology, soils, or vegetation to be considered bog turtle habitat.

During the wetland delineation and Phase I investigation, mucky soils, suitable hydrology (spring-fed, rivulets, subsurface flow, etc.), and suitable vegetation were not observed in any of the wetlands with the exception of Wetland 4 and 33. Also, the wetlands that were delineated outside of the APE on the 891-acre Mount Airy No. 1, LLC property were briefly evaluated during their delineation. No potential bog turtle habitats were identified during this brief evaluation either. Appendices B, C, and E provide additional specific data for each wetland and justification for concluding that the wetlands were not bog turtle habitat.

Wetland 4 is a man-made pond with a groundwater seep drainage pattern hydrologic contribution at its upper end. The "seep" actually originates from a pipe (a drain tile) and then flows via a drainage pattern/ditch into the pond. The fringe of the pond is vegetated with emergent vegetation and so is the drainage pattern. Also, a shallow portion of the pond has "mucky" soils that are in excess of six inches deep. The deeper water portions of the pond contain a soft (mucky) substrate as well. Although this man-made pond/seep area wetland does contain mucky soils, these were not considered to be suitable for bog turtle habitat given their location in a man-made pond. Likewise, the spring hydrology appears to originate from a drain tile and does not develop the typical characteristics of hydrology suitable for the species. Also, the emergent vegetation observed in the drainage pattern (connecting the drain tile outlet to the pond) and around the pond was not considered suitable vegetation when coupled with the inadequate hydrology and pond habitat.

Wetland 33 also contained characteristics typical of bog turtle habitat, specifically the hydrology criterion. The hydrology in portions of Wetland 33 is associated with springs/seeps and does appear to have a perennial hydrologic regime. The soils in Wetland 33 are mostly saturated and inundated, but the majority of the wetland does not contain mucky soils. The mucky soils (three to five inches) that are located in a small, limited area have more characteristics of substrate (associated with a channel) than characteristics of soil. Also, the mucky soils areas,

like the rest of the wetland, were underlain with impenetrable rock. The other factor that contributed to the opinion that Wetland 33 was not potential bog turtle habitat was the fact that it is a forested wetland with no true, separate emergent components. The dense canopy and mature trees present in this wetland strongly contribute to the exclusion of Wetland 33 as potential bog turtle habitat. Also contributing to this opinion is the fact that Wetland 33 is located in a headwater position and there are no additional wetlands located above this system, in particular, no potential bog turtle wetlands above or adjacent to this system.

The watercourse habitats within the Mount Airy Lodge APE were also evaluated. These watercourses included Channel 1, 4, 21, 22, 23, and 30. With the exception of Channel 21 and 30, all of these channels appear to have perennial flow regimes. Channel 21 is an ephemeral channel, and Channel 30 is intermittent. These channels within the APE do not contain sufficient hydrological, vegetative, or soil characteristics to be considered suitable bog turtle habitat. Likewise, these channels are not associated with wetlands, within the confines of the Mount Airy No. 1, LLC property, that are suitable bog turtle habitat. These channels were therefore not considered travel corridors for the species.

CONCLUSION

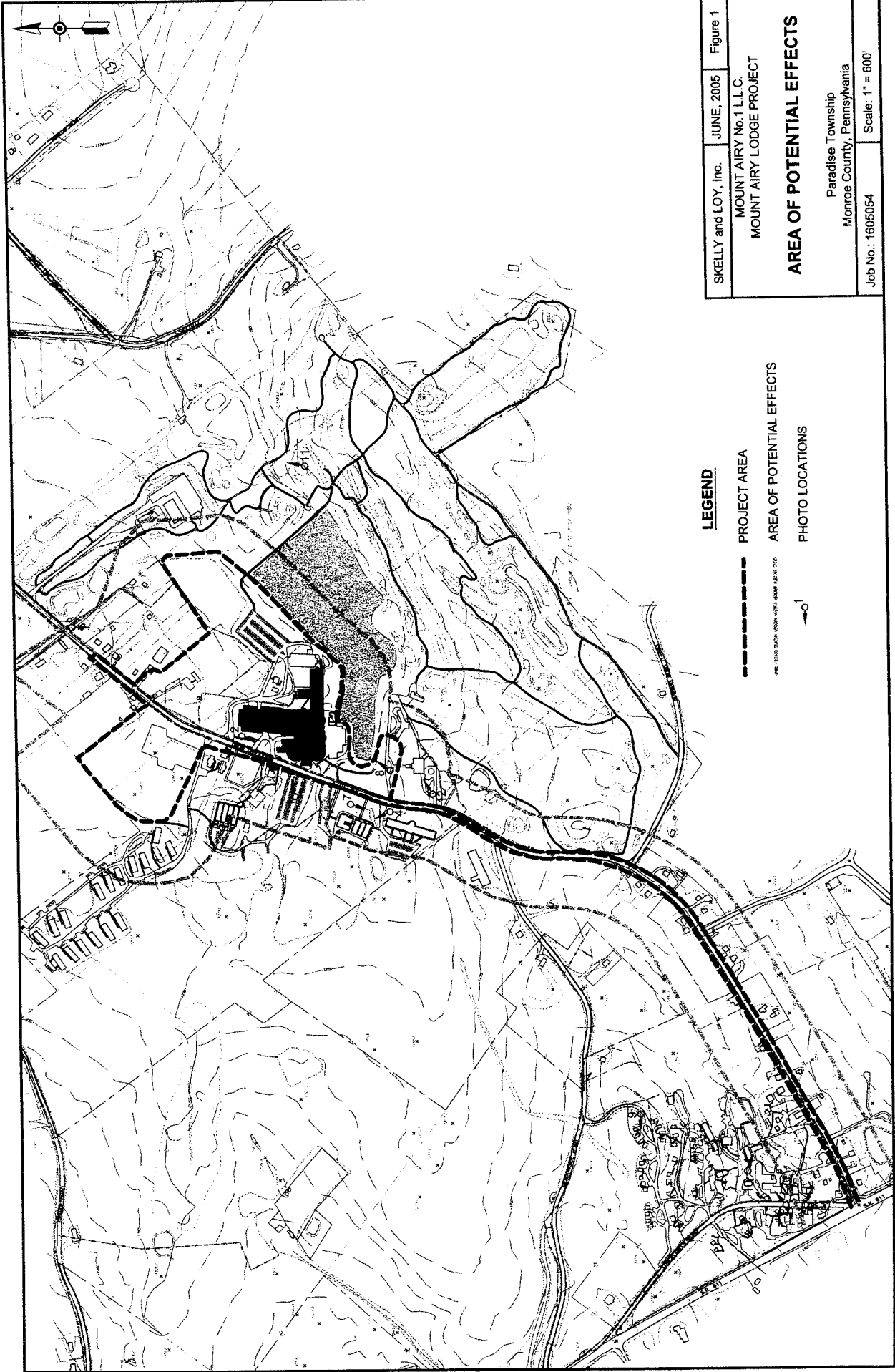
CONCLUSION

The Mount Airy Lodge project has an APE that is approximately 184-acre and is located in Paradise Township, Monroe County. A total of 21 palustrine wetlands, along with 6 watercourses, are located within the APE for the project. All of these wetlands and watercourses were evaluated for this Phase I Habitat Evaluation.

Based on observations made during the wetland delineation (April 2005) and during the April and May 2005 Phase I Habitat Evaluation, it is Skelly and Loy's assessment that potential species habitat for the bog turtle is not present on the subject property. During the wetland delineation and Phase I investigation, mucky soils, suitable hydrology (spring-fed, rivulets, subsurface flow, etc.), and suitable vegetation were not observed in any of the wetlands with the exception of Wetlands 4 and 33. Wetlands 4 and 33 were also dismissed (for the various reasons discussed in the previous sections) as suitable habitat primarily because Wetland 4 is mostly a man-made pond and Wetland 33 is a forested complex. Also, the wetlands that were delineated outside of the APE on the 891-acre Mount Airy No. 1, LLC property were, following a brief evaluation, considered to not be suitable habitat for the species as well. The channels and adjacent corridors also did not appear to possess or connect to bog turtle habitat. During the habitat evaluation no bog turtles were observed, and limited other herptiles (green frogs/bullfrogs) were observed.

APPENDICES

**APPENDIX A -
PROJECT/PHOTOGRAPH LOCATION MAPPING**



LEGEND

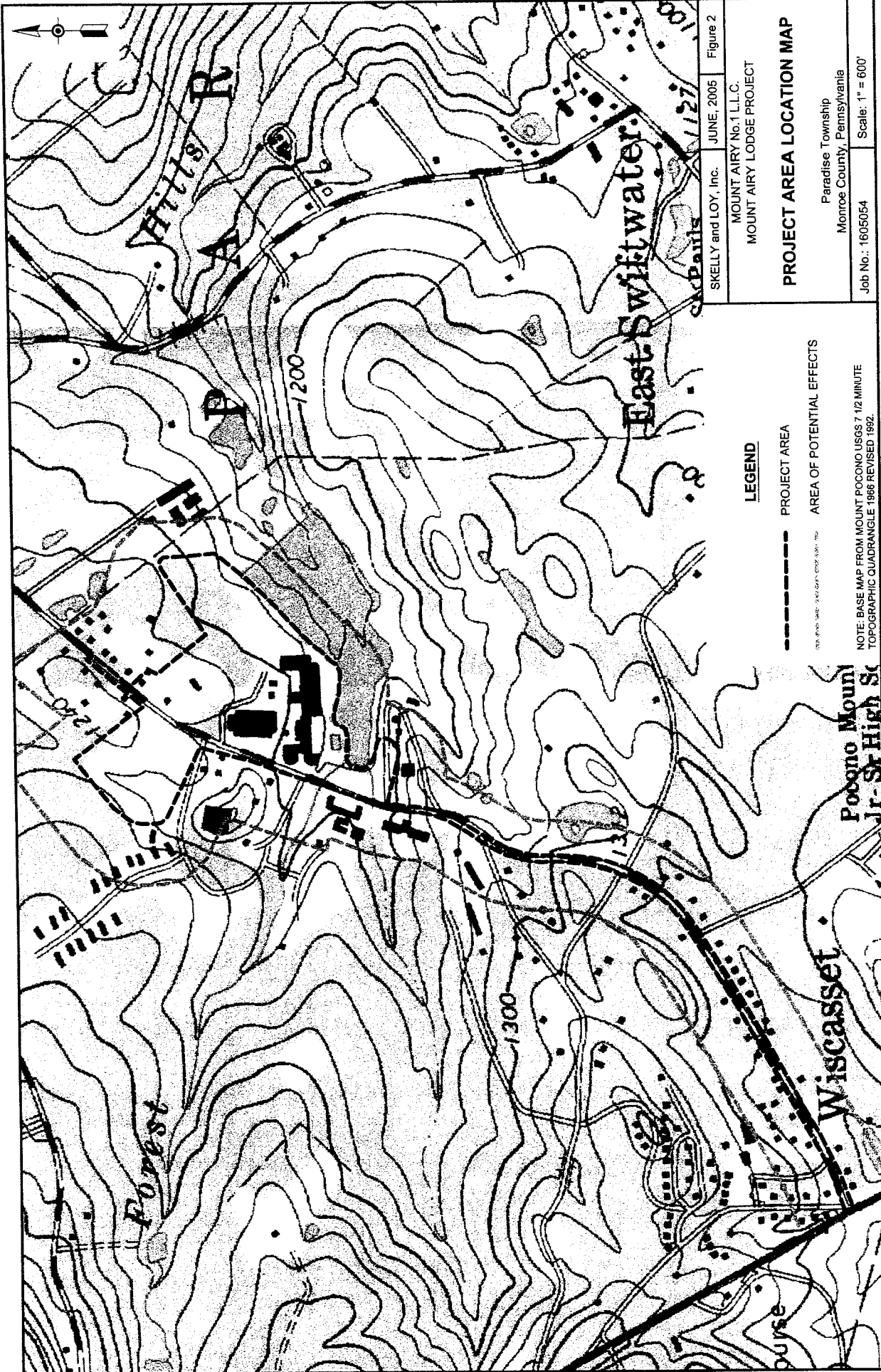
PROJECT AREA

AREA OF POTENTIAL EFFECTS

PHOTO LOCATIONS



SKELLY and LOY, Inc.	JUNE, 2005	Figure 1
MOUNT AIRY No.1 L.L.C. MOUNT AIRY LODGE PROJECT		
AREA OF POTENTIAL EFFECTS		
Paradise Township Monroe County, Pennsylvania		Job No.: 1605054
		Scale: 1" = 600'



SKELLY and LOY, Inc. JUNE, 2005 Figure 2
 MOUNT AIRY No.1 L.L.C.
 MOUNT AIRY LODGE PROJECT
PROJECT AREA LOCATION MAP
 Paradise Township
 Monroe County, Pennsylvania
 Job No.: 1605054 Scale: 1" = 600'

LEGEND
 - - - - - PROJECT AREA
 - - - - - AREA OF POTENTIAL EFFECTS

NOTE: BASE MAP FROM MOUNT POCONO USGS 7 1/2 MINUTE TOPOGRAPHIC QUADRANGLE 1966 REVISED 1992.

**APPENDIX B -
BOG TURTLE HABITAT EVALUATION
FIELD FORMS**

USFWS/PFBC Bog Turtle Habitat Evaluation – Field Form (revised 1/12/2005)

Project/Property Name: Mt. Airy
County: Monroe Quad: Mount Pocono & Buck Hill Falls
Township/Municipality: Paradise Twp.
Investigator: Ben Berra Affiliation: Skelly & Loy - Consultant

WETLAND ID: WL-1 PHOTOS TAKEN: Yes No WETLAND SIZE: 0.02 acres
Wetland size estimation – If actual acreage is not known at time of investigation, check one:
 < 0.1 acre 0.1-0.5 acre > 0.5 to < 1 acre 1-2 acres 2-4 acres 5+ acres 10+ acres

WETLAND LOCATION: Lat 41° 06.983' Long 75° 19.417'
(approximate center of wetland) GPS Datum (check one): NAD 27 NAD 83 WGS 84

SURVEY CONDITIONS & LIMITATIONS

Date of survey: 4/12/05 Time In: 10:00 Time Out: 10:20
Air temp. 50 °F. Last precipitation: < 24 hours 1-7 days > 1 week unknown
Drought conditions? YES NO Unknown

How much of this wetland is located *off-site* (i.e., outside the property boundaries or right-of-way)?
 none of it – the entire wetland is within the property boundaries (skip next 2 questions).
 some of it – _____ acres or _____ % of the wetland appears to be located off-site

If part of this wetland continues off-site, how much of the *off-site portion* was surveyed (on foot)?
 none of it all of it part of it (____ % or ____ acres of the off-site portion)

How much of the *off-site portion* of this wetland is visible (e.g., from the subject property or from a public road)? all of it part of it (at least ____ acres) none of it

Are there any *adjacent* wetlands located *off-site*? YES NO Unknown
If yes, *could* they be potential bog turtle habitat? YES NO Unknown

Describe surrounding landscape (wetlands, forest, subdivision, agricultural field, fallow field, etc.):
forest and athletic fields

WETLAND CHARACTERISTICS

Wetland type(s) present and % cover: PEM 100 PSS _____ PFO _____ POW _____

Y N Are there any signs of disturbance to *hydrology* (ditching, filling, ponds, roads, etc.)? If yes, describe ditching

Y N Are there any signs of disturbance to *vegetation* (mowing, pasturing, burning, etc.)? If yes, describe adjacent mowed athletic field

Hydrology

Y N Springs or seeps visible or likely? Watercress present? Yes No
 Y N Spring houses in or adjacent to wetland?
 Y N Saturated soils present? If yes, year-round? Likely Unlikely Unknown
 Y N Water visible on surface? Check all that apply: small puddles/depressions (5" deep)
 rivulets (____" deep) larger pools/ponds (____" deep)
 Y N Evidence of flooding? If yes, describe indicators _____

Project Name Mt. Airy

Wetland WL-1 (con't)

Soils Mapping Unit: Morris (MoB)

Field observations confirm mapped type? YES NO Unknown

Soils - PEM Portion of Wetland			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	How much of it (PEM) is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"
Firm/Hard ³ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is firm/hard? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input checked="" type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70% <u>100%</u>		

Soils - PSS and/or PFO Portions of Wetland (if wetland is 100% PFO and/or PSS, omit this section)			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input type="checkbox"/> NO	How much of it is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"

Wetland Vegetation (characterize the wetland as a whole)

Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
- sensitive fern rice cutgrass tearthumb reed canary grass *Phragmites* purple loosestrife
- alder dogwood red maple willow poison sumac multiflora rose _____

Additional dominant species: Cinquefoil, grass, rubus species, wool grass

Herptiles

Were any bog turtles observed? YES⁴ NO If yes, how many? _____

Other herptiles observed previously observed: NONE

Additional Comments/Observations: (use additional sheets if necessary)

Wetland appears to be located in a man-made ditch area adjacent to soccer field created to promote drainage.

INVESTIGATOR'S OPINION

- YES NO UNSURE The hydrology criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The soils criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The vegetation criterion⁵ for bog turtle habitat is met. - Mostly sparse
- YES NO UNSURE This wetland is potential bog turtle habitat.

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

[Signature]
Field Investigator's Signature

4/12/05
Date

- 1 Soils are considered "mucky/muddy" if one can probe them to a depth of ≥ 3".
- 2 Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
- 3 Soils are considered "firm/hard" if one can probe them to a depth of < 3".
- 4 Report observations of bog turtles to the USFWS and PFBC within 48 hours.
- 5 See attached "BOG TURTLE HABITAT CRITERIA"

USFWS/PFBC Bog Turtle Habitat Evaluation – Field Form (revised 1/12/2005)

Project/Property Name: Mt. Airy
County: Monroe Quad: Mount Pocono & Buck Hill Falls
Township/Municipality: Paradise Twp.
Investigator: Ben Berra Affiliation: Skelly & Loy - Consultant

WETLAND ID: WL-2 PHOTOS TAKEN: Yes No WETLAND SIZE: 0.04 acres
Wetland size estimation – If actual acreage is not known at time of investigation, check one:
 < 0.1 acre 0.1-0.5 acre >0.5 to <1 acre 1-2 acres 2-4 acres 5+ acres 10+ acres

WETLAND LOCATION: Lat 41° 06.950' Long 75° 19.467'
(approximate center of wetland) GPS Datum (check one): NAD 27 NAD 83 WGS 84

SURVEY CONDITIONS & LIMITATIONS

Date of survey: 4/12/05 Time In: 10:22 Time Out: 10:39
Air temp. 51 °F. Last precipitation: < 24 hours 1-7 days > 1 week unknown
Drought conditions? YES NO Unknown

How much of this wetland is located *off-site* (i.e., outside the property boundaries or right-of-way)?
 none of it – the entire wetland is within the property boundaries (skip next 2 questions).
 some of it – _____ acres or _____ % of the wetland appears to be located off-site

If part of this wetland continues off-site, how much of the *off-site portion* was surveyed (on foot)?
 none of it all of it part of it (____ % or ____ acres of the off-site portion)

How much of the *off-site portion* of this wetland is visible (e.g., from the subject property or from a public road)? all of it part of it (at least ____ acres) none of it

Are there any *adjacent* wetlands located *off-site*? YES NO Unknown
If yes, *could* they be potential bog turtle habitat? YES NO Unknown

Describe surrounding landscape (wetlands, forest, subdivision, agricultural field, fallow field, etc.):
forest & athletic field

WETLAND CHARACTERISTICS

Wetland type(s) present and % cover: PEM 100 PSS _____ PFO _____ POW _____

Y N Are there any signs of disturbance to *hydrology* (ditching, filling, ponds, roads, etc.)? If yes, describe Ditch at toe of Hillside

Y N Are there any signs of disturbance to *vegetation* (mowing, pasturing, burning, etc.)? If yes, describe historical clearing & mowing

Hydrology Seasonal/hillside

Y N Springs or seeps visible or likely? Watercress present? Yes No

Y N Spring houses in or adjacent to wetland?

Y N Saturated soils present? If yes, year-round? Likely Unlikely Unknown

Y N Water visible on surface? Check all that apply: small puddles/depressions (1" deep)
 rivulets (____" deep) larger pools/ponds (____" deep)

Y N Evidence of flooding? If yes, describe indicators _____

Project Name Mt. Airy

Wetland WL-2 (con't)

Soils Mapping Unit: Morris (MoB)

Field observations confirm mapped type? YES NO Unknown

Soils - PEM Portion of Wetland			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	How much of it (PEM) is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"
Firm/Hard ³ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is firm/hard? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70% <u>100%</u>		

Soils - PSS and/or PFO Portions of Wetland (if wetland is 100% PFO and/or PSS, omit this section)			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input type="checkbox"/> NO	How much of it is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"

Wetland Vegetation (characterize the wetland as a whole)

Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
 - sensitive fern rice cutgrass tearthumb reed canary grass *Phragmites* purple loosestrife
 - alder dogwood red maple willow poison sumac multiflora rose _____
- Additional dominant species: Osmunda fern, golden rod species, grass species,

Herptiles

Were any bog turtles observed? YES⁴ NO If yes, how many? _____
Other herptiles observed previously observed: NONE

Additional Comments/Observations: (use additional sheets if necessary)

This hillside seep wetland is dominated by osmunda fern + is on a steep sloping hillside. The seep hydrology disappears at the bottom of the hill (goes subsurface in ditch).

INVESTIGATOR'S OPINION

- YES NO UNSURE The hydrology criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The soils criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The vegetation criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE This wetland is potential bog turtle habitat.

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

[Signature]
Field Investigator's Signature

4/12/05
Date

- 1 Soils are considered "mucky/muddy" if one can probe them to a depth of ≥ 3".
- 2 Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
- 3 Soils are considered "firm/hard" if one can probe them to a depth of < 3".
- 4 Report observations of bog turtles to the USFWS and PFBC within 48 hours.
- 5 See attached "BOG TURTLE HABITAT CRITERIA"

USFWS/PFBC Bog Turtle Habitat Evaluation – Field Form (revised 1/12/2005)

Project/Property Name: Mt. Airy
 County: Monroe Quad: Mount Pocono & Buck Hill Falls
 Township/Municipality: Paradise Twp.
 Investigator: Ben Berra Affiliation: Skelly & Loy - Consultant

WETLAND ID: WL-3 PHOTOS TAKEN: Yes No WETLAND SIZE: 0.06 acres

Wetland size estimation – If actual acreage is not known at time of investigation, check one:

< 0.1 acre 0.1-0.5 acre > 0.5 to < 1 acre 1-2 acres 2-4 acres 5+ acres 10+ acres

WETLAND LOCATION: Lat 41° 06.917' Long 75° 19.483
 (approximate center of wetland) GPS Datum (check one): NAD 27 NAD 83 WGS 84

SURVEY CONDITIONS & LIMITATIONS

Date of survey: 4/12/05 Time In: 10:45 Time Out: 11:05
 Air temp. 51 ° F. Last precipitation: < 24 hours 1-7 days > 1 week unknown
 Drought conditions? YES NO Unknown

How much of this wetland is located *off-site* (i.e., outside the property boundaries or right-of-way)?
 none of it – the entire wetland is within the property boundaries (skip next 2 questions)
 some of it – _____ acres or _____ % of the wetland appears to be located off-site

If part of this wetland continues off-site, how much of the *off-site portion* was surveyed (on foot)?
 none of it all of it part of it (____ % or ____ acres of the off-site portion)

How much of the *off-site portion* of this wetland is visible (e.g., from the subject property or from a public road)? all of it part of it (at least ____ acres) none of it

Are there any *adjacent* wetlands located *off-site*? YES NO Unknown
 If yes, *could* they be potential bog turtle habitat? YES NO Unknown

Describe surrounding landscape (wetlands, forest, subdivision, agricultural field, fallow field, etc.):
forest & athletic fields

WETLAND CHARACTERISTICS

Wetland type(s) present and % cover: PEM 100 PSS _____ PFO _____ POW _____

Y N Are there any signs of disturbance to *hydrology* (ditching, filling, ponds, roads, etc.)? If yes, describe ditching to promote drainage

Y N Are there any signs of disturbance to *vegetation* (mowing, pasturing, burning, etc.)? If yes, describe Seasonal Mowing

Hydrology

Y N Springs or seeps visible or likely? Watercress present? Yes No
 Y N Spring houses in or adjacent to wetland?
 Y N Saturated soils present? If yes, year-round? Likely Unlikely Unknown
 Y N Water visible on surface? Check all that apply: small puddles/depressions (2" deep)
 rivulets (____" deep) larger pools/ponds (____" deep)
 Y N Evidence of flooding? If yes, describe indicators _____

Project Name Mt. Airy

Wetland WL-3 (con't)

Soils Mapping Unit: Morris (MoB)

Field observations confirm mapped type? YES NO Unknown

Soils - PEM Portion of Wetland			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	How much of it (PEM) is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"
Firm/Hard ³ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is firm/hard? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70% <u>100%</u>		

Soils - PSS and/or PFO Portions of Wetland (if wetland is 100% PFO and/or PSS, omit this section)			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input type="checkbox"/> NO	How much of it is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"

Wetland Vegetation (characterize the wetland as a whole)

Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
 - sensitive fern rice cutgrass tearthumb reed canary grass *Phragmites* purple loosestrife
 - alder dogwood red maple willow poison sumac multiflora rose _____
- Additional dominant species: goldenrods, grass, willow herb

Herptiles

Were any bog turtles observed? YES⁴ NO If yes, how many? _____
Other herptiles observed previously observed: NONE

Additional Comments/Observations: (use additional sheets if necessary)

Wetland is a seasonally saturated meadow-like/field-like system that is mostly fueled by surfacewater collection in a bowl/low area adjacent to athletic fields.

INVESTIGATOR'S OPINION

- YES NO UNSURE The hydrology criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The soils criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The vegetation criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE This wetland is potential bog turtle habitat.

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

[Signature]
Field Investigator's Signature

4/12/05
Date

- 1 Soils are considered "mucky/muddy" if one can probe them to a depth of ≥ 3".
- 2 Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
- 3 Soils are considered "firm/hard" if one can probe them to a depth of < 3".
- 4 Report observations of bog turtles to the USFWS and PFBC within 48 hours.
- 5 See attached "BOG TURTLE HABITAT CRITERIA"

USFWS/PFBC Bog Turtle Habitat Evaluation - Field Form (revised 1/12/2005)

Project/Property Name: Mt. Airy
County: Monroe Quad: Mount Pocono & Buck Hill Falls
Township/Municipality: Paradise Twp.
Investigator: Ben Berra Affiliation: Skelly & Loy - Consultant

WETLAND ID: WL-4 PHOTOS TAKEN: Yes No WETLAND SIZE: 0.09 acres
Wetland size estimation - If actual acreage is not known at time of investigation, check one:
 < 0.1 acre 0.1-0.5 acre >0.5 to <1 acre 1-2 acres 2-4 acres 5+ acres 10+ acres

WETLAND LOCATION: Lat 41° 06.883' Long 75° 19.500'
(approximate center of wetland) GPS Datum (check one): NAD 27 NAD 83 WGS 84

SURVEY CONDITIONS & LIMITATIONS

Date of survey: 4/12/05 Time In: 11:10 Time Out: 11:20
Air temp. 52 °F. Last precipitation: < 24 hours 1-7 days > 1 week unknown
Drought conditions? YES NO Unknown

How much of this wetland is located *off-site* (i.e., outside the property boundaries or right-of-way)?
 none of it - the entire wetland is within the property boundaries (skip next 2 questions)
 some of it - _____ acres or _____ % of the wetland appears to be located off-site

If part of this wetland continues off-site, how much of the *off-site portion* was surveyed (on foot)?
 none of it all of it part of it (_____% or _____ acres of the off-site portion)

How much of the *off-site portion* of this wetland is visible (e.g., from the subject property or from a public road)? all of it part of it (at least _____ acres) none of it

Are there any *adjacent* wetlands located *off-site*? YES NO Unknown
If yes, *could* they be potential bog turtle habitat? YES NO Unknown

Describe surrounding landscape (wetlands, forest, subdivision, agricultural field, fallow field, etc.):
macadam road, grass fields (mowed)

WETLAND CHARACTERISTICS

Wetland type(s) present and % cover: PEM 30 PSS _____ PFO _____ POW 70

Y N Are there any signs of disturbance to *hydrology* (ditching, filling, ponds, roads, etc.)? If yes, describe drain tile outlets into ditch portion of wetland, pond

Y N Are there any signs of disturbance to *vegetation* (mowing, pasturing, burning, etc.)? If yes, describe Seasonal mowing

Hydrology drain tile outlet

Y N Springs or seeps visible or likely? Watercress present? Yes No

Y N Spring houses in or adjacent to wetland?

Y N Saturated soils present? If yes, year-round? Likely Unlikely Unknown

Y N Water visible on surface? Check all that apply: small puddles/depressions (____" deep)

Ditch rivulets (2" deep) larger pools/ponds (20" deep)

Y N Evidence of flooding? If yes, describe indicators _____

Created

Project Name Mt. Airy

Wetland WL-4 (con't)

Soils Mapping Unit: Morris (MoB)

Field observations confirm mapped type? YES NO Unknown

Soils - MoB Portion of Wetland <u>PEM / POW</u>			
Mucky/Muddy ¹ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is mucky? <input type="checkbox"/> <10% <input checked="" type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: <u>3</u> to <u>8</u> "	Most of the mucky part(s) of the wetland can be probed ² : <input checked="" type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"
Firm/Hard ³ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is firm/hard? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input checked="" type="checkbox"/> >70%		

Soils - PSS and/or PFO Portions of Wetland (if wetland is 100% PFO and/or PSS, omit this section)			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input type="checkbox"/> NO	How much of it is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____ "	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"

Wetland Vegetation (characterize the wetland as a whole)

Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
- sensitive fern rice cutgrass tearthumb reed canary grass *Phragmites* purple loosestrife
- alder dogwood red maple willow poison sumac multiflora rose _____

Additional dominant species: Duckweed, S.A.V.

Herptiles

Were any bog turtles observed? YES⁴ NO If yes, how many? _____

Other herptiles observed previously observed: NONE

Additional Comments/Observations: (use additional sheets if necessary)

INVESTIGATOR'S OPINION

- YES NO UNSURE
- YES NO UNSURE
- YES NO UNSURE
- YES NO UNSURE

originates from drain tile & is ditched to pond.

The hydrology criterion⁵ for bog turtle habitat is met.

The soils criterion⁵ for bog turtle habitat is met. - Soils are located in a pond

The vegetation criterion⁵ for bog turtle habitat is met. - Veg is located in a pond.

This wetland is potential bog turtle habitat.

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

Field Investigator's Signature

[Handwritten Signature]

Date

4/12/05

- 1 Soils are considered "mucky/muddy" if one can probe them to a depth of ≥ 3".
- 2 Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
- 3 Soils are considered "firm/hard" if one can probe them to a depth of < 3".
- 4 Report observations of bog turtles to the USFWS and PFBC within 48 hours.
- 5 See attached "BOG TURTLE HABITAT CRITERIA"

USFWS/PFBC Bog Turtle Habitat Evaluation – Field Form (revised 1/12/2005)

Project/Property Name: Mt. Airy
County: Monroe Quad: Mount Pocono & Buck Hill Falls
Township/Municipality: Paradise Twp.
Investigator: Ben Berra Affiliation: Skelly & Loy - Consultant

WETLAND ID: WL-7 PHOTOS TAKEN: Yes No WETLAND SIZE: 0.03 acres
Wetland size estimation – If actual acreage is not known at time of investigation, check one:
 < 0.1 acre 0.1-0.5 acre > 0.5 to < 1 acre 1-2 acres 2-4 acres 5+ acres 10+ acres

WETLAND LOCATION: Lat 41° 06.867' Long 75° 19.533'
(approximate center of wetland) GPS Datum (check one): NAD 27 NAD 83 WGS 84

SURVEY CONDITIONS & LIMITATIONS

Date of survey: 4/12/05 Time In: 11:25 Time Out: 11:50
Air temp. 52 ° F. Last precipitation: < 24 hours 1-7 days > 1 week unknown
Drought conditions? YES NO Unknown

How much of this wetland is located *off-site* (i.e., outside the property boundaries or right-of-way)?
 none of it – the entire wetland is within the property boundaries (skip next 2 questions).
 some of it – _____ acres or _____ % of the wetland appears to be located off-site

If part of this wetland continues off-site, how much of the *off-site portion* was surveyed (on foot)?
 none of it all of it part of it (____ % or ____ acres of the off-site portion)

How much of the *off-site portion* of this wetland is visible (e.g., from the subject property or from a public road)? all of it part of it (at least ____ acres) none of it

Are there any *adjacent* wetlands located *off-site*? YES NO Unknown
If yes, *could* they be potential bog turtle habitat? YES NO Unknown

Describe surrounding landscape (wetlands, forest, subdivision, agricultural field, fallow field, etc.):
forest

WETLAND CHARACTERISTICS

Wetland type(s) present and % cover: PEM 40 PSS _____ PFO 60 POW _____

Y N Are there any signs of disturbance to *hydrology* (ditching, filling, ponds, roads, etc.)? If yes, describe Upslope Roadway

Y N Are there any signs of disturbance to *vegetation* (mowing, pasturing, burning, etc.)? If yes, describe _____

Hydrology

Y N Seasonal Springs or seeps visible or likely? Watercress present? Yes No

Y N Spring houses in or adjacent to wetland?

Y N Saturated soils present? If yes, year-round? Likely Unlikely Unknown

Y N Water visible on surface? Check all that apply: small puddles/depressions (1-3" deep)
 rivulets (____" deep) larger pools/ponds (____" deep)

Y N Evidence of flooding? If yes, describe indicators Sediment Deposits, debris lines

Project Name Mt. Airy

Wetland WL-7 (con't)

Soils Mapping Unit: Morris (MoB)

Field observations confirm mapped type? YES NO Unknown

Soils - PEM Portion of Wetland			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	How much of it (PEM) is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"
Firm/Hard ³ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is firm/hard? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input checked="" type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%		

Soils - PSS and/or PFO Portions of Wetland (if wetland is 100% PFO and/or PSS, omit this section)			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	How much of it is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"

Wetland Vegetation (characterize the wetland as a whole)

Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
 - sensitive fern rice cutgrass tearthumb reed canary grass *Phragmites* purple loosestrife
 - alder dogwood red maple willow poison sumac multiflora rose _____
- Additional dominant species: grass sp., yellow birch

Herptiles

Were any bog turtles observed? YES NO If yes, how many? _____

Other herptiles observed previously observed: NONE

Additional Comments/Observations: (use additional sheets if necessary)

Wetland is located in forested setting adjacent to Channel 1. Majority of wetland has trees in it (PFO area) and other portions were called PEM b/c no trees were actually growing in the WL habitat. There is a dense canopy.

INVESTIGATOR'S OPINION

- YES NO UNSURE The hydrology criterion⁵ for bog turtle habitat is met. - most hydro from adj. Chn-22
- YES NO UNSURE The soils criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The vegetation criterion⁵ for bog turtle habitat is met. - Mostly forest
- YES NO UNSURE This wetland is potential bog turtle habitat.

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

[Signature]
Field Investigator's Signature

4/12/05
Date

- 1 Soils are considered "mucky/muddy" if one can probe them to a depth of ≥ 3".
- 2 Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
- 3 Soils are considered "firm/hard" if one can probe them to a depth of < 3".
- 4 Report observations of bog turtles to the USFWS and PFBC within 48 hours.
- 5 See attached "BOG TURTLE HABITAT CRITERIA"

USFWS/PFBC Bog Turtle Habitat Evaluation – Field Form (revised 1/12/2005)

Project/Property Name: Mt. Airy
County: Monroe Quad: Mount Pocono + Buck Hill Falls
Township/Municipality: Paradise Twp.
Investigator: Ben Berra Affiliation: Skelly + Loy - Consultant

WETLAND ID: W-13 PHOTOS TAKEN: Yes No WETLAND SIZE: 0.03 acres
Wetland size estimation – If actual acreage is not known at time of investigation, check one:
 < 0.1 acre 0.1-0.5 acre >0.5 to <1 acre 1-2 acres 2-4 acres 5+ acres 10+ acres

WETLAND LOCATION: Lat 41° 06.752' Long 75° 19.530'
(approximate center of wetland) GPS Datum (check one): NAD 27 NAD 83 WGS 84

SURVEY CONDITIONS & LIMITATIONS

Date of survey: 5/11/05 Time In: 9:50 Time Out: 9:55
Air temp. 66 °F. Last precipitation: < 24 hours 1-7 days > 1 week unknown
Drought conditions? YES NO Unknown

How much of this wetland is located *off-site* (i.e., outside the property boundaries or right-of-way)?
 none of it – the entire wetland is within the property boundaries (skip next 2 questions).
 some of it – _____ acres or _____ % of the wetland appears to be located off-site

If part of this wetland continues off-site, how much of the *off-site portion* was surveyed (on foot)?
 none of it all of it part of it (____ % or ____ acres of the off-site portion)

How much of the *off-site portion* of this wetland is visible (e.g., from the subject property or from a public road)? all of it part of it (at least ____ acres) none of it

Are there any *adjacent* wetlands located *off-site*? YES NO Unknown
If yes, *could* they be potential bog turtle habitat? YES NO Unknown

Describe surrounding landscape (wetlands, forest, subdivision, agricultural field, fallow field, etc.):
Mowed lawn area adjacent to driving range, floodplain.

WETLAND CHARACTERISTICS

Wetland type(s) present and % cover: PEM 100 PSS _____ PFO _____ POW _____

Y N Are there any signs of disturbance to *hydrology* (ditching, filling, ponds, roads, etc.)? If yes, describe _____

Y N Are there any signs of disturbance to *vegetation* (mowing, pasturing, burning, etc.)? If yes, describe ... but adjacent area is mowed

Hydrology

- Y N Springs or seeps visible or likely? Watercress present? Yes No
- Y N Spring houses in or adjacent to wetland?
- Y N Saturated soils present? If yes, year-round? Likely Unlikely Unknown
- Y N Water visible on surface? Check all that apply: small puddles/depressions (1" deep)
 rivulets (____" deep) larger pools/ponds (____" deep)
- Y N Evidence of flooding? If yes, describe indicators Debris lines, sediment deposits.

Project Name Mt. Airy

Wetland W-13 (con't)

Soils Mapping Unit: Philo silt loam

Field observations confirm mapped type? YES NO Unknown

Soils - PEM Portion of Wetland			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	How much of it (PEM) is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"
Firm/Hard ³ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is firm/hard? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70% 100%		

Soils - PSS and/or PFO Portions of Wetland (if wetland is 100% PFO and/or PSS, omit this section)			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input type="checkbox"/> NO	How much of it is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"

Wetland Vegetation (characterize the wetland as a whole)

Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
- sensitive fern rice cutgrass tearthumb reed canary grass Phragmites purple loosestrife
- alder dogwood red maple willow poison sumac multiflora rose _____

Additional dominant species: bedstraw, grass, thistle

Herptiles

Were any bog turtles observed? YES NO If yes, how many? _____
Other herptiles observed previously observed: NONE

Additional Comments/Observations: (use additional sheets if necessary)

Floodplain bench wetland system with backwater channel component that contains stagnant inundation

INVESTIGATOR'S OPINION:

- YES NO UNSURE The hydrology criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The soils criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The vegetation criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE This wetland is potential bog turtle habitat.

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

[Signature]
Field Investigator's Signature

5/11/05
Date

- 1 Soils are considered "mucky/muddy" if one can probe them to a depth of ≥ 3".
- 2 Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
- 3 Soils are considered "firm/hard" if one can probe them to a depth of < 3".
- 4 Report observations of bog turtles to the USFWS and PFBC within 48 hours.
- 5 See attached "BOG TURTLE HABITAT CRITERIA"

USFWS/PFBC Bog Turtle Habitat Evaluation – Field Form (revised 1/12/2005)

Project/Property Name: Mt. Airy
County: Monroe Quad: Mount Pocono + Buck Hill Falls
Township/Municipality: Paradise Twp.
Investigator: Ben Berra Affiliation: Skelly + Loy - Consultant

WETLAND ID: WL-14 PHOTOS TAKEN: Yes No WETLAND SIZE: 0.02 acres
Wetland size estimation – If actual acreage is not known at time of investigation, check one:
 < 0.1 acre 0.1-0.5 acre >0.5 to <1 acre 1-2 acres 2-4 acres 5+ acres 10+ acres

WETLAND LOCATION: Lat 41° 06.751' Long 75° 19.517'
(approximate center of wetland) GPS Datum (check one): NAD 27 NAD 83 WGS 84

SURVEY CONDITIONS & LIMITATIONS

Date of survey: 5/11/05 Time In: 9:38 Time Out: 9:47
Air temp. 66 °F. Last precipitation: < 24 hours 1-7 days > 1 week unknown
Drought conditions? YES NO Unknown

How much of this wetland is located *off-site* (i.e., outside the property boundaries or right-of-way)?
 none of it – the entire wetland is within the property boundaries (skip next 2 questions).
 some of it – _____ acres or _____ % of the wetland appears to be located off-site

If part of this wetland continues off-site, how much of the *off-site portion* was surveyed (on foot)?
 none of it all of it part of it (____ % or ____ acres of the off-site portion)

How much of the *off-site portion* of this wetland is visible (e.g., from the subject property or from a public road)? all of it part of it (at least ____ acres) none of it

Are there any *adjacent* wetlands located *off-site*? YES NO Unknown
If yes, *could* they be potential bog turtle habitat? YES NO Unknown

Describe surrounding landscape (wetlands, forest, subdivision, agricultural field, fallow field, etc.):
Floodplain of Forest Hills Run, Mowed lawn, Parking lot

WETLAND CHARACTERISTICS

Wetland type(s) present and % cover: PEM 100 PSS _____ PFO _____ POW _____

Y N Are there any signs of disturbance to *hydrology* (ditching, filling, ponds, roads, etc.)? If yes, describe _____

Y N Are there any signs of disturbance to *vegetation* (mowing, pasturing, burning, etc.)? If yes, describe _____

Hydrology

Y N Springs or seeps visible or likely? Watercress present? Yes No
 Y N Spring houses in or adjacent to wetland?
 Y N Saturated soils present? If yes, year-round? Likely Unlikely Unknown
 Y N Water visible on surface? Check all that apply: small puddles/depressions (____" deep)
 rivulets (____" deep) larger pools/ponds (____" deep)
 Y N Evidence of flooding? If yes, describe indicators Sed. deposits, debris lines

Project Name Mt. Airy

Wetland WL-14(con't)

Soils Mapping Unit: Philo silt loam

Field observations confirm mapped type? YES NO Unknown

Soils - PEM Portion of Wetland			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	How much of it (PEM) is mucky ? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"
Firm/Hard ³ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is firm/hard ? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70% (100%)		

Soils - PSS and/or PFO Portions of Wetland (if wetland is 100% PFO and/or PSS, omit this section)			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input type="checkbox"/> NO	How much of it is mucky ? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"

Wetland Vegetation (characterize the wetland as a whole)

Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
 sensitive fern rice cutgrass tearthumb reed canary grass *Phragmites* purple loosestrife
 alder dogwood red maple willow poison sumac multiflora rose _____
 Additional dominant species: grass, bedstraw, thistle, dandelion

Herptiles

Were any bog turtles observed? YES⁴ NO If yes, how many? _____

Other herptiles observed previously observed: NONE

Additional Comments/Observations: (use additional sheets if necessary)

Floodplain bench wetland system with no evidence of seep/spring hydrology. Hydro appears to be seasonal flooding.

INVESTIGATOR'S OPINION

- YES NO UNSURE The hydrology criterion⁵ for bog turtle habitat is met.
 YES NO UNSURE The soils criterion⁵ for bog turtle habitat is met.
 YES NO UNSURE The vegetation criterion⁵ for bog turtle habitat is met.
 YES NO UNSURE This wetland is potential bog turtle habitat.

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

[Signature]
Field Investigator's Signature

5/11/05
Date

1 Soils are considered "mucky/muddy" if one can probe them to a depth of ≥ 3".
 2 Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
 3 Soils are considered "firm/hard" if one can probe them to a depth of < 3".
 4 Report observations of bog turtles to the USFWS and PFBC within 48 hours.
 5 See attached "BOG TURTLE HABITAT CRITERIA"

USFWS/PFBC Bog Turtle Habitat Evaluation – Field Form (revised 1/12/2005)

Project/Property Name: Mt. Airy
County: Monroe Quad: Mount Peconic & Buck Hill Falls
Township/Municipality: Paradise Township
Investigator: Ben Berra Affiliation: Skelly + Loy-Consultant

WETLAND ID: WL-15 PHOTOS TAKEN: Yes No WETLAND SIZE: 0.06 acres
Wetland size estimation – If actual acreage is not known at time of investigation, check one:
 < 0.1 acre 0.1-0.5 acre >0.5 to <1 acre 1-2 acres 2-4 acres 5+ acres 10+ acres

WETLAND LOCATION: Lat 41° 06.763' Long 75° 19.493'
(approximate center of wetland) GPS Datum (check one): NAD 27 NAD 83 WGS 84

SURVEY CONDITIONS & LIMITATIONS

Date of survey: 5/11/05 Time In: 9:05 Time Out: 9:13
Air temp. 65 °F. Last precipitation: < 24 hours 1-7 days > 1 week unknown
Drought conditions? YES NO Unknown

How much of this wetland is located *off-site* (i.e., outside the property boundaries or right-of-way)?
 none of it – the entire wetland is within the property boundaries (skip next 2 questions).
 some of it – _____ acres or _____ % of the wetland appears to be located off-site

If part of this wetland continues off-site, how much of the *off-site portion* was surveyed (on foot)?
 none of it all of it part of it (____ % or ____ acres of the off-site portion)

How much of the *off-site portion* of this wetland is visible (e.g., from the subject property or from a public road)? all of it part of it (at least ____ acres) none of it

Are there any *adjacent* wetlands located *off-site*? YES NO Unknown
If yes, *could* they be potential bog turtle habitat? YES NO Unknown

Describe surrounding landscape (wetlands, forest, subdivision, agricultural field, fallow field, etc.):
Mowed grass open space, parking lot

WETLAND CHARACTERISTICS

Wetland type(s) present and % cover: PEM 100 PSS _____ PFO _____ POW _____

Y N Are there any signs of disturbance to *hydrology* (ditching, filling, ponds, roads, etc.)? If yes, describe _____

Y N Are there any signs of disturbance to *vegetation* (mowing, pasturing, burning, etc.)? If yes, describe Mowing

Hydrology

Y N Seasonal Springs or seeps visible or likely? Watercress present? Yes No

Y N Spring houses in or adjacent to wetland?

Y N Saturated soils present? If yes, year-round? Likely Unlikely Unknown

Y N Water visible on surface? Check all that apply: small puddles/depressions (1" deep)
 rivulets (____" deep) larger pools/ponds (____" deep) → Tire Ruts

Y N Evidence of flooding? If yes, describe indicators _____

Project Name Mt. Arny

Wetland WL-15 (con't)

Soils Mapping Unit: phlo silt loam

Field observations confirm mapped type? YES NO Unknown

Soils - PEM Portion of Wetland			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	How much of it (PEM) is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"
Firm/Hard ³ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is firm/hard? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input checked="" type="checkbox"/> >70% 100%		

Soils - PSS and/or PFO Portions of Wetland (if wetland is 100% PFO and/or PSS, omit this section)			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input type="checkbox"/> NO	How much of it is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"

Wetland Vegetation (characterize the wetland as a whole)

Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
- sensitive fern rice cutgrass tearthumb reed canary grass *Phragmites* purple loosestrife
- alder dogwood red maple willow poison sumac multiflora rose _____

Additional dominant species: grass (Lawn), dandelion

Herptiles

Were any bog turtles observed? YES⁴ NO If yes, how many? _____

Other herptiles observed previously observed: NONE

Additional Comments/Observations: (use additional sheets if necessary)

Mowed lawn area of resort adjacent to parking lot.
Tire cuts in wetland.

INVESTIGATOR'S OPINION

- YES NO UNSURE The hydrology criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The soils criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The vegetation criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE This wetland is potential bog turtle habitat.

Seasonal seep hydro
minimal influence
throughout entire
wetland system.

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

Field Investigator's Signature

Date

5/11/05

- 1 Soils are considered "mucky/muddy" if one can probe them to a depth of ≥ 3".
- 2 Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
- 3 Soils are considered "firm/hard" if one can probe them to a depth of < 3".
- 4 Report observations of bog turtles to the USFWS and PFBC within 48 hours.
- 5 See attached "BOG TURTLE HABITAT CRITERIA"

USFWS/PFBC Bog Turtle Habitat Evaluation – Field Form (revised 1/12/2005)

Project/Property Name: Mt. Airy
 County: Monroe Quad: Mount Pocono + Buck Hill Falls
 Township/Municipality: Paradise Twp.
 Investigator: Ben Berra Affiliation: Skelly + Loy - Consultant

WETLAND ID: WL-31 PHOTOS TAKEN: Yes No WETLAND SIZE: 0.17 acres
 Wetland size estimation – If actual acreage is not known at time of investigation, check one:
 < 0.1 acre 0.1-0.5 acre >0.5 to <1 acre 1-2 acres 2-4 acres 5+ acres 10+ acres

WETLAND LOCATION: Lat 41° 06.080' Long 75° 20.037'
 (approximate center of wetland) GPS Datum (check one): NAD 27 NAD 83 WGS 84

SURVEY CONDITIONS & LIMITATIONS

Date of survey: 5/11/05 Time In: 11:44 Time Out: 11:52
 Air temp. 76 ° F. Last precipitation: < 24 hours 1-7 days > 1 week unknown
 Drought conditions? YES NO Unknown

How much of this wetland is located *off-site* (i.e., outside the property boundaries or right-of-way)?
 none of it – the entire wetland is within the property boundaries (skip next 2 questions).
 some of it – _____ acres or _____ % of the wetland appears to be located off-site

If part of this wetland continues off-site, how much of the *off-site portion* was surveyed (on foot)?
 none of it all of it part of it (____ % or ____ acres of the off-site portion)

How much of the *off-site portion* of this wetland is visible (e.g., from the subject property or from a public road)? all of it part of it (at least ____ acres) none of it

Are there any *adjacent* wetlands located *off-site*? YES NO Unknown
 If yes, *could* they be potential bog turtle habitat? YES NO Unknown

Describe surrounding landscape (wetlands, forest, subdivision, agricultural field, fallow field, etc.):
Adjacent to Route 611 in semi-forested area w/ cleared vacant lots.

WETLAND CHARACTERISTICS

Wetland type(s) present and % cover: PEM _____ PSS _____ PFO 100 POW _____

Y N Are there any signs of disturbance to *hydrology* (ditching, filling, ponds, roads, etc.)? If yes, describe adjacent pond (part of WL 32) + possible filling.

Y N Are there any signs of disturbance to *vegetation* (mowing, pasturing, burning, etc.)? If yes, describe _____

Hydrology

- Y N Springs or seeps visible or likely? Watercress present? Yes No
- Y N Spring houses in or adjacent to wetland?
- Y N Saturated soils present? If yes, year-round? Likely Unlikely Unknown
- Y N Water visible on surface? Check all that apply: small puddles/depressions (____" deep)
 rivulets (____" deep) larger pools/ponds (____" deep)
- Y N Evidence of flooding? If yes, describe indicators _____

Project Name Mt. Airy

Wetland WL-31 (con't)

Soils Mapping Unit: Wellsboro

Field observations confirm mapped type? YES NO Unknown

Soils - PEM Portion of Wetland			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is mucky ? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"
Firm/Hard ³ ? <input type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is firm/hard ? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%		

Soils - PSS and/or PFO Portions of Wetland (if wetland is 100% PFO and/or PSS, omit this section)			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	How much of it is mucky ? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"

Wetland Vegetation (characterize the wetland as a whole)

Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
 - sensitive fern rice cutgrass tearthumb reed canary grass *Phragmites* purple loosestrife
 - alder dogwood red maple willow poison sumac multiflora rose _____
- Additional dominant species: grass, white pine, poison Ivy

Herptiles

Were any bog turtles observed? YES⁴ NO If yes, how many? _____

Other herptiles observed previously observed: NONE

Additional Comments/Observations: (use additional sheets if necessary)

Seasonally saturated PFO wetland complex with primary wide drainage pattern/low area with sedges & water stained leaves.

INVESTIGATOR'S OPINION

- YES NO UNSURE The hydrology criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The soils criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The vegetation criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE This wetland is potential bog turtle habitat.

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

[Signature]
Field Investigator's Signature

5/11/05
Date

- 1 Soils are considered "mucky/muddy" if one can probe them to a depth of ≥ 3".
- 2 Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
- 3 Soils are considered "firm/hard" if one can probe them to a depth of < 3".
- 4 Report observations of bog turtles to the USFWS and PFBC within 48 hours.
- 5 See attached "BOG TURTLE HABITAT CRITERIA"

USFWS/PFBC Bog Turtle Habitat Evaluation – Field Form (revised 1/12/2005)

Project/Property Name: Mt. Airy
 County: Monroe Quad: Mount Pocano + Buck Hill Falls
 Township/Municipality: Paradise Twp.
 Investigator: Ben Berra Affiliation: Skelly + Loy - Consultant

WETLAND ID: WL-32 PHOTOS TAKEN: Yes No WETLAND SIZE: 1.39 acres
 Wetland size estimation – If actual acreage is not known at time of investigation, check one:
 < 0.1 acre 0.1-0.5 acre > 0.5 to < 1 acre 1-2 acres 2-4 acres 5+ acres 10+ acres

WETLAND LOCATION: Lat 41° 06.127' Long 75° 20.018'
 (approximate center of wetland) GPS Datum (check one): NAD 27 NAD 83 WGS 84

SURVEY CONDITIONS & LIMITATIONS

Date of survey: 5/11/05 Time In: 11:55 Time Out: 12:05
 Air temp. 75 °F. Last precipitation: < 24 hours 1-7 days > 1 week unknown
 Drought conditions? YES NO Unknown

How much of this wetland is located *off-site* (i.e., outside the property boundaries or right-of-way)?
 none of it – the entire wetland is within the property boundaries (skip next 2 questions).
 some of it – _____ acres or 2 % of the wetland appears to be located off-site

If part of this wetland continues off-site, how much of the *off-site portion* was surveyed (on foot)?
 none of it all of it part of it (____% or _____ acres of the off-site portion)

How much of the *off-site portion* of this wetland is visible (e.g., from the subject property or from a public road)? all of it part of it (at least _____ acres) none of it

Are there any *adjacent* wetlands located *off-site*? YES NO Unknown
 If yes, *could* they be potential bog turtle habitat? YES NO Unknown

Describe surrounding landscape (wetlands, forest, subdivision, agricultural field, fallow field, etc.):
Weeded area, Route 611, Vacant lots

WETLAND CHARACTERISTICS

Wetland type(s) present and % cover: PEM _____ PSS _____ PFO 40 POW 60

Y N Are there any signs of disturbance to *hydrology* (ditching, filling, ponds, roads, etc.)? If yes, describe Pond created in what was likely a PFO

Y N Are there any signs of disturbance to *vegetation* (mowing, pasturing, burning, etc.)? If yes, describe _____

Hydrology – POW/PFO areas are located on Channel-22

- Y N Springs or seeps visible or likely? Watercress present? Yes No
- Y N Spring houses in or adjacent to wetland?
- Y N Saturated soils present? If yes, year-round? Likely Unlikely Unknown
- Y N Water visible on surface? Check all that apply: small puddles/depressions (____" deep)
 rivulets (____" deep) larger pools/ponds (50" deep)
- Y N Evidence of flooding? If yes, describe indicators _____

Project Name Mt. Airy

Wetland WL 32 (con't)

Soils Mapping Unit: Wellsboro

Field observations confirm mapped type? YES NO Unknown

Soils - PEM Portion of Wetland POW			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	How much of it (PEM) is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"
Firm/Hard ³ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is firm/hard? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input checked="" type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70% 100%		

Soils - PSS and/or PFO Portions of Wetland (if wetland is 100% PFO and/or PSS, omit this section)			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	How much of it is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"

Wetland Vegetation (characterize the wetland as a whole)

Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
- sensitive fern rice cutgrass tearthumb reed canary grass *Phragmites* purple loosestrife
- alder dogwood red maple willow poison sumac multiflora rose _____

Additional dominant species: white pine, poison Ivy

Herptiles

Were any bog turtles observed? YES⁴ NO If yes, how many?

Other herptiles observed previously observed: various frogs

Additional Comments/Observations: (use additional sheets if necessary)

Majority of wetland 32 is POW with a PFO fringe similar to WL 31. POW is firm + On-Stream.

INVESTIGATOR'S OPINION

- YES NO UNSURE The hydrology criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The soils criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The vegetation criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE This wetland is potential bog turtle habitat.

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

[Signature]
Field Investigator's Signature

5/11/05
Date

- 1 Soils are considered "mucky/muddy" if one can probe them to a depth of ≥ 3".
- 2 Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
- 3 Soils are considered "firm/hard" if one can probe them to a depth of < 3".
- 4 Report observations of bog turtles to the USFWS and PFBC within 48 hours.
- 5 See attached "BOG TURTLE HABITAT CRITERIA"

Project Name Mt. Airy

Wetland WL-33 (con't)

Soils Mapping Unit: Wellsboro

Field observations confirm mapped type? YES NO Unknown

Soils - PEM Portion of Wetland			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"
Firm/Hard ³ ? <input type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is firm/hard? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%		

→ Mucky Areas underlain w/ rock - More like soft sediment.

Soils - PSS and/or PFO Portions of Wetland (if wetland is 100% PFO and/or PSS, omit this section)			
Mucky/Muddy ¹ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it is mucky? <input checked="" type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: <u>3</u> to <u>5</u> "	Most of the mucky part(s) of the wetland can be probed ² : <input checked="" type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"

Wetland Vegetation (characterize the wetland as a whole)

Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
 - sensitive fern rice cutgrass tearthumb reed canary grass Phragmites purple loosestrife
 - alder dogwood red maple willow poison sumac multiflora rose _____
- Additional dominant species: Osmonda fern, Hemlock, High bush blue berry

Herptiles

Were any bog turtles observed? YES⁴ NO If yes, how many? _____

Other herptiles observed previously observed: NONE

Additional Comments/Observations: (use additional sheets if necessary)

This PFO does contain some mucky soils in limited areas, especially in proximity to seeps/springs. This forested headwaters to channel-22 contains <10% "mucky" soils w/ rock underneath. Also there is not an open-canopied emergent component to this Wetland.

INVESTIGATOR'S OPINION

- YES NO UNSURE The hydrology criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The soils criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The vegetation criterion⁵ for bog turtle habitat is met - Forest
- YES NO UNSURE This wetland is potential bog turtle habitat.

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

[Signature]
Field Investigator's Signature

5/11/05
Date

- 1 Soils are considered "mucky/muddy" if one can probe them to a depth of ≥ 3".
- 2 Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
- 3 Soils are considered "firm/hard" if one can probe them to a depth of < 3".
- 4 Report observations of bog turtles to the USFWS and PFBC within 48 hours.
- 5 See attached "BOG TURTLE HABITAT CRITERIA"

USFWS/PFBC Bog Turtle Habitat Evaluation – Field Form (revised 1/12/2005)

Project/Property Name: Mt. Airy
 County: Monroe Quad: Mount Pocano + Buck Hill Falls
 Township/Municipality: Paradise Twp.
 Investigator: Ben Berra Affiliation: Skelly + Loy - Consultant

WETLAND ID: WL 37 PHOTOS TAKEN: Yes No WETLAND SIZE: 0.02 acres
 Wetland size estimation – If actual acreage is not known at time of investigation, check one:
 < 0.1 acre 0.1-0.5 acre > 0.5 to < 1 acre 1-2 acres 2-4 acres 5+ acres 10+ acres

WETLAND LOCATION: Lat 41° 06.669' Long 75° 19.495'
 (approximate center of wetland) GPS Datum (check one): NAD 27 NAD 83 WGS 84

SURVEY CONDITIONS & LIMITATIONS

Date of survey: 5/11/05 Time In: 11:19 Time Out: 11:31
 Air temp. 74 °F. Last precipitation: < 24 hours 1-7 days > 1 week unknown
 Drought conditions? YES NO Unknown

How much of this wetland is located *off-site* (i.e., outside the property boundaries or right-of-way)?
 none of it – the entire wetland is within the property boundaries (skip next 2 questions).
 some of it – _____ acres or _____ % of the wetland appears to be located off-site

If part of this wetland continues off-site, how much of the *off-site portion* was surveyed (on foot)?
 none of it all of it part of it (____ % or ____ acres of the off-site portion)

How much of the *off-site portion* of this wetland is visible (e.g., from the subject property or from a public road)? all of it part of it (at least ____ acres) none of it

Are there any *adjacent* wetlands located *off-site*? YES NO Unknown
 If yes, could they be potential bog turtle habitat? YES NO Unknown

Describe surrounding landscape (wetlands, forest, subdivision, agricultural field, fallow field, etc.):
Floodplain of Channel 23 + Mowed Lawn area

WETLAND CHARACTERISTICS

Wetland type(s) present and % cover: PEM 100 PSS _____ PFO _____ POW _____

Y N Are there any signs of disturbance to *hydrology* (ditching, filling, ponds, roads, etc.)? If yes, describe Drain tile outlet into wetland.

Y N Are there any signs of disturbance to *vegetation* (mowing, pasturing, burning, etc.)? If yes, describe _____

Hydrology

Y N

Y N

Y N

Y N

Y N

Y N

Drain tile Pipe → Hydro for WL-37 is mostly associated to water levels in adj. creek.
 Springs or seeps visible or likely? Watercress present? Yes No
 Spring houses in or adjacent to wetland?
 Saturated soils present? If yes, year-round? Likely Unlikely Unknown
 Water visible on surface? Check all that apply: small puddles/depressions (0.5" deep)
 rivulets (1.5" deep) larger pools/ponds (____" deep)
 Evidence of flooding? If yes, describe indicators sed. deposits, drift lines

Project Name Mt. Airy

Wetland WL-37 (con't)

Soils Mapping Unit: Philo

Field observations confirm mapped type? YES NO Unknown

Soils - PEM Portion of Wetland			
Mucky/Muddy ¹ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is mucky? <input checked="" type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: <u>3</u> to <u>5</u> "	Most of the mucky part(s) of the wetland can be probed ² : <input checked="" type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"
Firm/Hard ³ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is firm/hard? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input checked="" type="checkbox"/> >70% (<u>95%</u>)		

Soils - PSS and/or PFO Portions of Wetland (if wetland is 100% PFO and/or PSS, omit this section)			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input type="checkbox"/> NO	How much of it is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____ "	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"

Wetland Vegetation (characterize the wetland as a whole)

Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
 - sensitive fern rice cutgrass tearthumb reed canary grass Phragmites purple loosestrife
 - alder dogwood red maple willow poison sumac multiflora rose _____
- Additional dominant species: grass species

Herptiles

Were any bog turtles observed? YES⁴ NO If yes, how many? _____

Other herptiles observed previously observed: NONE

Additional Comments/Observations: (use additional sheets if necessary)

Only mucky areas triangle shaped inundated area originating at drain tile outlet & fanning out towards creek - see sketch

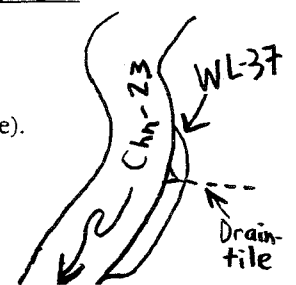
INVESTIGATOR'S OPINION →	<u>Wetland is a flood plain bench system with mucky area at pipe outlet.</u>	<u>Insufficient Source Volume</u>
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> UNSURE	The hydrology criterion ⁵ for bog turtle habitat is met.	
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> UNSURE	The soils criterion ⁵ for bog turtle habitat is met.	
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> UNSURE	The vegetation criterion ⁵ for bog turtle habitat is met.	
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> UNSURE	This wetland is potential bog turtle habitat.	

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

[Signature]
Field Investigator's Signature

5/11/05
Date

- 1 Soils are considered "mucky/muddy" if one can probe them to a depth of ≥ 3".
- 2 Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
- 3 Soils are considered "firm/hard" if one can probe them to a depth of < 3".
- 4 Report observations of bog turtles to the USFWS and PFBC within 48 hours.
- 5 See attached "BOG TURTLE HABITAT CRITERIA"



USFWS/PFBC Bog Turtle Habitat Evaluation – Field Form (revised 1/12/2005)

Project/Property Name: Mt. Airy
 County: Monroe Quad: Mount Pocono + Buck Hill Falls
 Township/Municipality: Paradise Township
 Investigator: Ben Berra Affiliation: Skelly & Loy - Consultant

WETLAND ID: WL-45 PHOTOS TAKEN: Yes No WETLAND SIZE: 0.04 acres
 Wetland size estimation – If actual acreage is not known at time of investigation, check one:
 < 0.1 acre 0.1-0.5 acre >0.5 to <1 acre 1-2 acres 2-4 acres 5+ acres 10+ acres

WETLAND LOCATION: Lat 41° 06.760' Long 75° 19.433'
 (approximate center of wetland) GPS Datum (check one): NAD 27 NAD 83 WGS 84

SURVEY CONDITIONS & LIMITATIONS

Date of survey: 5/11/05 Time In: 9:18 Time Out: 9:23
 Air temp. 65 °F. Last precipitation: < 24 hours 1-7 days > 1 week unknown
 Drought conditions? YES NO Unknown

How much of this wetland is located *off-site* (i.e., outside the property boundaries or right-of-way)?
 none of it – the entire wetland is within the property boundaries (skip next 2 questions).
 some of it – _____ acres or _____ % of the wetland appears to be located off-site

If part of this wetland continues off-site, how much of the *off-site portion* was surveyed (on foot)?
 none of it all of it part of it (____% or ____ acres of the off-site portion)

How much of the *off-site portion* of this wetland is visible (e.g., from the subject property or from a public road)? all of it part of it (at least ____ acres) none of it

Are there any *adjacent* wetlands located *off-site*? YES NO Unknown
 If yes, *could* they be potential bog turtle habitat? YES NO Unknown

Describe surrounding landscape (wetlands, forest, subdivision, agricultural field, fallow field, etc.):
Mowed lawn, roadway, Parking Lot

WETLAND CHARACTERISTICS

Wetland type(s) present and % cover: PEM 100 PSS _____ PFO _____ POW _____

Y N Are there any signs of disturbance to *hydrology* (ditching, filling, ponds, roads, etc.)? If yes, describe _____

Y N Are there any signs of disturbance to *vegetation* (mowing, pasturing, burning, etc.)? If yes, describe Mowed

Hydrology

Y N Seasonal Springs or seeps visible or likely? Watercress present? Yes No
 Y N Spring houses in or adjacent to wetland?
 Y N Saturated soils present? If yes, year-round? Likely Unlikely Unknown
 Y N Water visible on surface? Check all that apply: small puddles/depressions (1” deep)
 rivulets (____” deep) larger pools/ponds (____” deep)
 Y N Evidence of flooding? If yes, describe indicators _____

Project Name Mt. Amy

Wetland WL-45(con't)

Soils Mapping Unit: Philo silt loam

Field observations confirm mapped type? YES NO Unknown

Soils - PEM Portion of Wetland			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	How much of it (PEM) is mucky ? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"
Firm/Hard ³ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is firm/hard ? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70% 100%		

Soils - PSS and/or PFO Portions of Wetland (if wetland is 100% PFO and/or PSS, omit this section)			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input type="checkbox"/> NO	How much of it is mucky ? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"

Wetland Vegetation (characterize the wetland as a whole)

Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
 - sensitive fern rice cutgrass tearthumb reed canary grass *Phragmites* purple loosestrife
 - alder dogwood red maple willow poison sumac multiflora rose _____
- Additional dominant species: grass (Lawn), dandelion

Herptiles

Were any bog turtles observed? YES⁴ NO If yes, how many?

Other herptiles observed previously observed: NONE

Additional Comments/Observations: (use additional sheets if necessary)

Mowed Lawn on Resort Property

INVESTIGATOR'S OPINION

- YES NO UNSURE The hydrology criterion⁵ for bog turtle habitat is met.
 - YES NO UNSURE The soils criterion⁵ for bog turtle habitat is met.
 - YES NO UNSURE The vegetation criterion⁵ for bog turtle habitat is met.
 - YES NO UNSURE This wetland is potential bog turtle habitat.
- Minimal Hydro is provided by Seasonal Seep

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

Field Investigator's Signature

Date

5/11/05

- 1 Soils are considered "mucky/muddy" if one can probe them to a depth of ≥ 3".
- 2 Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
- 3 Soils are considered "firm/hard" if one can probe them to a depth of < 3".
- 4 Report observations of bog turtles to the USFWS and PFBC within 48 hours.
- 5 See attached "BOG TURTLE HABITAT CRITERIA"

USFWS/PFBC Bog Turtle Habitat Evaluation – Field Form (revised 1/12/2005)

Project/Property Name: Mt. Airy
County: Monroe Quad: Mount Pocono + Buck Hill Falls
Township/Municipality: Paradise Twp.
Investigator: Ben Berra Affiliation: Skelly + Loy - Consultant

WETLAND ID: WL-55 PHOTOS TAKEN: Yes No WETLAND SIZE: 0.03 acres
Wetland size estimation – If actual acreage is not known at time of investigation, check one:
 < 0.1 acre 0.1-0.5 acre >0.5 to <1 acre 1-2 acres 2-4 acres 5+ acres 10+ acres

WETLAND LOCATION: Lat 41° 06.550' Long 75° 19.495'
(approximate center of wetland) GPS Datum (check one): NAD 27 NAD 83 WGS 84

SURVEY CONDITIONS & LIMITATIONS

Date of survey: 5/11/05 Time In: 10:50 Time Out: 10:55
Air temp. 70 ° F. Last precipitation: < 24 hours 1-7 days > 1 week unknown
Drought conditions? YES NO Unknown

How much of this wetland is located *off-site* (i.e., outside the property boundaries or right-of-way)?
 none of it – the entire wetland is within the property boundaries (skip next 2 questions).
 some of it – _____ acres or _____ % of the wetland appears to be located off-site

If part of this wetland continues off-site, how much of the *off-site portion* was surveyed (on foot)?
 none of it all of it part of it (_____ % or _____ acres of the off-site portion)

How much of the *off-site portion* of this wetland is visible (e.g., from the subject property or from a public road)? all of it part of it (at least _____ acres) none of it

Are there any *adjacent* wetlands located *off-site*? YES NO Unknown
If yes, *could* they be potential bog turtle habitat? YES NO Unknown

Describe surrounding landscape (wetlands, forest, subdivision, agricultural field, fallow field, etc.):
Mowed lawn of Golf Course

WETLAND CHARACTERISTICS

Wetland type(s) present and % cover: PEM 100 PSS _____ PFO _____ POW _____

Y N Are there any signs of disturbance to *hydrology* (ditching, filling, ponds, roads, etc.)? If yes, describe Ditch / Drainage pattern connects WL-55 to Pond-4.

Y N Are there any signs of disturbance to *vegetation* (mowing, pasturing, burning, etc.)? If yes, describe Mowed / weed wacked

Hydrology

Y N Springs or seeps visible or likely? Watercress present? Yes No
 Y N Spring houses in or adjacent to wetland?
 Y N Saturated soils present? If yes, year-round? Likely Unlikely Unknown
 Y N Water visible on surface? Check all that apply: small puddles/depressions (____" deep)
 rivulets (____" deep) larger pools/ponds (____" deep)
 Y N Evidence of flooding? If yes, describe indicators _____

Project Name Mt. Airy

Wetland WL-55 (con't)

Soils Mapping Unit: Oquaga - Lackawanna

Field observations confirm mapped type? YES NO Unknown

Soils - PEM Portion of Wetland			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	How much of it (PEM) is mucky ? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"
Firm/Hard ³ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is firm/hard ? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70% 100%		

Soils - PSS and/or PFO Portions of Wetland (if wetland is 100% PFO and/or PSS, omit this section)			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input type="checkbox"/> NO	How much of it is mucky ? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"

Wetland Vegetation (characterize the wetland as a whole)

Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
 - sensitive fern rice cutgrass tearthumb reed canary grass *Phragmites* purple loosestrife
 - alder dogwood red maple willow poison sumac multiflora rose _____
- Additional dominant species: grass, dandelion, clover

Herptiles

Were any bog turtles observed? YES⁴ NO If yes, how many? _____

Other herptiles observed previously observed: NONE

Additional Comments/Observations: (use additional sheets if necessary)

Seep fed area on Golf Course that is routinely mowed.

INVESTIGATOR'S OPINION

- YES NO UNSURE The hydrology criterion⁵ for bog turtle habitat is met. *In sufficient Volume.*
- YES NO UNSURE The soils criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The vegetation criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE This wetland is potential bog turtle habitat.

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

[Signature]
Field Investigator's Signature

5/11/05
Date

- 1 Soils are considered "mucky/muddy" if one can probe them to a depth of ≥ 3".
- 2 Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
- 3 Soils are considered "firm/hard" if one can probe them to a depth of < 3".
- 4 Report observations of bog turtles to the USFWS and PFBC within 48 hours.
- 5 See attached "BOG TURTLE HABITAT CRITERIA"

USFWS/PFBC Bog Turtle Habitat Evaluation - Field Form (revised 1/12/2005)

Project/Property Name: Mt. Airy
 County: Monroe Quad: Mount Pocono + Buck Hill Falls
 Township/Municipality: Paradise Twp.
 Investigator: Ben Berra Affiliation: Skelly + Loy - Consultant

WETLAND ID: W-71 PHOTOS TAKEN: Yes No WETLAND SIZE: 0.08 acres
 Wetland size estimation - If actual acreage is not known at time of investigation, check one:
 < 0.1 acre 0.1-0.5 acre >0.5 to <1 acre 1-2 acres 2-4 acres 5+ acres 10+ acres

WETLAND LOCATION: Lat 41° 06.777' Long 75° 19.053'
 (approximate center of wetland) GPS Datum (check one): NAD 27 NAD 83 WGS 84

SURVEY CONDITIONS & LIMITATIONS

Date of survey: 5/11/05 Time In: 10:25 Time Out: 10:32
 Air temp. 70 °F. Last precipitation: < 24 hours 1-7 days > 1 week unknown
 Drought conditions? YES NO Unknown

How much of this wetland is located *off-site* (i.e., outside the property boundaries or right-of-way)?
 none of it - the entire wetland is within the property boundaries (skip next 2 questions).
 some of it - _____ acres or _____ % of the wetland appears to be located off-site

If part of this wetland continues off-site, how much of the *off-site portion* was surveyed (on foot)?
 none of it all of it part of it (____ % or _____ acres of the off-site portion)

How much of the *off-site portion* of this wetland is visible (e.g., from the subject property or from a public road)? all of it part of it (at least ____ acres) none of it

Are there any *adjacent* wetlands located *off-site*? YES NO Unknown
 If yes, could they be potential bog turtle habitat? YES NO Unknown

Describe surrounding landscape (wetlands, forest, subdivision, agricultural field, fallow field, etc.):
Golf Course ~~adjacent~~, toe of lake berm

WETLAND CHARACTERISTICS

Wetland type(s) present and % cover: PEM 100 PSS _____ PFO _____ POW _____

Y N Are there any signs of disturbance to *hydrology* (ditching, filling, ponds, roads, etc.)? If yes, describe Hydro appears to be from seep at the toe of lake berm.

Y N Are there any signs of disturbance to *vegetation* (mowing, pasturing, burning, etc.)? If yes, describe Mowed / weed wacked veg.

Hydrology

- Y N Springs or seeps visible or likely? Watercress present? Yes No
- Y N Spring houses in or adjacent to wetland?
- Y N Saturated soils present? If yes, year-round? Likely Unlikely Unknown
- Y N Water visible on surface? Check all that apply: small puddles/depressions (1" deep)
 rivulets (____" deep) larger pools/ponds (____" deep)
- Y N Evidence of flooding? If yes, describe indicators _____

Project Name Mt. Airy

Wetland WL-71(con't)

Soils Mapping Unit: Braceville

Field observations confirm mapped type? YES NO Unknown

Soils - PEM Portion of Wetland			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	How much of it (PEM) is mucky ? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"
Firm/Hard ³ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is firm/hard ? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input checked="" type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70% 100%		

Soils - PSS and/or PFO Portions of Wetland (if wetland is 100% PFO and/or PSS, omit this section)			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input type="checkbox"/> NO	How much of it is mucky ? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"

Wetland Vegetation (characterize the wetland as a whole)

Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
 - sensitive fern rice cutgrass tearthumb reed canary grass *Phragmites* purple loosestrife
 - alder dogwood red maple willow poison sumac multiflora rose _____
- Additional dominant species: grass (Lawn)

Herptiles

Were any bog turtles observed? YES⁴ NO If yes, how many? _____

Other herptiles observed previously observed: NONE

Additional Comments/Observations: (use additional sheets if necessary)

Mowed/weed wacked wet area at toe of Lake berm.

INVESTIGATOR'S OPINION:

- YES NO UNSURE The hydrology criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The soils criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The vegetation criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE This wetland is potential bog turtle habitat.

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

[Signature]
Field Investigator's Signature

5/11/05
Date

- 1 Soils are considered "mucky/muddy" if one can probe them to a depth of ≥ 3".
- 2 Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
- 3 Soils are considered "firm/hard" if one can probe them to a depth of < 3".
- 4 Report observations of bog turtles to the USFWS and PFBC within 48 hours.
- 5 See attached "BOG TURTLE HABITAT CRITERIA"

USFWS/PFBC Bog Turtle Habitat Evaluation – Field Form (revised 1/12/2005)

Project/Property Name: Mt. Airy
County: Monroe Quad: Mount Pocono + Buck Hill Falls
Township/Municipality: Paradise Twp.
Investigator: Ben Berra Affiliation: SKelly + Loy - Consultant

WETLAND ID: WL-73 PHOTOS TAKEN: Yes No WETLAND SIZE: 0.01 acres
Wetland size estimation – If actual acreage is not known at time of investigation, check one:
 < 0.1 acre 0.1-0.5 acre >0.5 to <1 acre 1-2 acres 2-4 acres 5+ acres 10+ acres

WETLAND LOCATION: Lat 41° 06.733' Long 75° 19.469'
(approximate center of wetland) GPS Datum (check one): NAD 27 NAD 83 WGS 84

SURVEY CONDITIONS & LIMITATIONS

Date of survey: 5/11/05 Time In: 9:26 Time Out: 9:35
Air temp. 66 °F. Last precipitation: < 24 hours 1-7 days > 1 week unknown
Drought conditions? YES NO Unknown

How much of this wetland is located *off-site* (i.e., outside the property boundaries or right-of-way)?
 none of it – the entire wetland is within the property boundaries (skip next 2 questions).
 some of it – _____ acres or _____ % of the wetland appears to be located off-site

If part of this wetland continues off-site, how much of the *off-site portion* was surveyed (on foot)?
 none of it all of it part of it (_____ % or _____ acres of the off-site portion)

How much of the *off-site portion* of this wetland is visible (e.g., from the subject property or from a public road)? all of it part of it (at least _____ acres) none of it

Are there any *adjacent* wetlands located *off-site*? YES NO Unknown
If yes, *could* they be potential bog turtle habitat? YES NO Unknown

Describe surrounding landscape (wetlands, forest, subdivision, agricultural field, fallow field, etc.):
Forest Hills Run floodplain, Mowed Lawn, Parking lot

WETLAND CHARACTERISTICS

Wetland type(s) present and % cover: PEM 100 PSS _____ PFO _____ POW _____

Y N Are there any signs of disturbance to *hydrology* (ditching, filling, ponds, roads, etc.)? If yes, describe _____

Y N Are there any signs of disturbance to *vegetation* (mowing, pasturing, burning, etc.)? If yes, describe Minor mowing on northern side - nearest parking lot

Hydrology

Y N Seasonal Springs or seeps visible or likely? Watercress present? Yes No
 Y N Spring houses in or adjacent to wetland?
 Y N Saturated soils present? If yes, year-round? Likely Unlikely Unknown
 Y N Water visible on surface? Check all that apply: small puddles/depressions (____" deep)
 Y N rivulets (0.4" deep) larger pools/ponds (____" deep)
 Y N Evidence of flooding? If yes, describe indicators Sediment deposits, debris lines

Project Name Mt. Airy

Wetland WL-73(con't)

Soils Mapping Unit: Philo silt loam

Field observations confirm mapped type? YES NO Unknown

Soils - PEM Portion of Wetland			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	How much of it (PEM) is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"
Firm/Hard ³ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is firm/hard? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70% <u>100%</u>		

Soils - PSS and/or PFO Portions of Wetland (if wetland is 100% PFO and/or PSS, omit this section)			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input type="checkbox"/> NO	How much of it is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"

Wetland Vegetation (characterize the wetland as a whole)

Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
 - sensitive fern rice cutgrass tearthumb reed canary grass *Phragmites* purple loosestrife
 - alder dogwood red maple willow poison sumac multiflora rose _____
- Additional dominant species: Knotweed, grass, bedstraw

Herptiles

Were any bog turtles observed? YES⁴ NO If yes, how many? _____

Other herptiles observed previously observed: NONE

Additional Comments/Observations: (use additional sheets if necessary)

Floodplain bench wetland system adjacent to creek + just downslope of parking lot. Small seep area is connected to creek via drainage pattern.

INVESTIGATOR'S OPINION

- YES NO UNSURE The hydrology criterion⁵ for bog turtle habitat is met. Small seep, direct discharge to adj. creek.
- YES NO UNSURE The soils criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The vegetation criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE This wetland is potential bog turtle habitat.

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

[Signature]
Field Investigator's Signature

5/11/05
Date

- 1 Soils are considered "mucky/muddy" if one can probe them to a depth of ≥ 3".
- 2 Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
- 3 Soils are considered "firm/hard" if one can probe them to a depth of < 3".
- 4 Report observations of bog turtles to the USFWS and PFBC within 48 hours.
- 5 See attached "BOG TURTLE HABITAT CRITERIA"

USFWS/PFBC Bog Turtle Habitat Evaluation - Field Form (revised 1/12/2005)

Project/Property Name: Mt. Airy
County: Monroe Quad: Mount Pocono + Buck Hill Falls
Township/Municipality: Paradise Twp.
Investigator: Ben Berra Affiliation: Skelly + Loy - Consultant

WETLAND ID: Pond 4 PHOTOS TAKEN: Yes No WETLAND SIZE: 0.47 acres
Wetland size estimation - If actual acreage is not known at time of investigation, check one:
 < 0.1 acre 0.1-0.5 acre > 0.5 to < 1 acre 1-2 acres 2-4 acres 5+ acres 10+ acres

WETLAND LOCATION: Lat 41° 06.548' Long 75° 19.471'
(approximate center of wetland) GPS Datum (check one): NAD 27 NAD 83 WGS 84

SURVEY CONDITIONS & LIMITATIONS

Date of survey: 5/11/05 Time In: 11:08 Time Out: 11:13
Air temp. 71 °F. Last precipitation: < 24 hours 1-7 days > 1 week unknown
Drought conditions? YES NO Unknown

How much of this wetland is located off-site (i.e., outside the property boundaries or right-of-way)?
 none of it - the entire wetland is within the property boundaries (skip next 2 questions).
 some of it - _____ acres or _____ % of the wetland appears to be located off-site

If part of this wetland continues off-site, how much of the off-site portion was surveyed (on foot)?
 none of it all of it part of it (____ % or ____ acres of the off-site portion)

How much of the off-site portion of this wetland is visible (e.g., from the subject property or from a public road)? all of it part of it (at least ____ acres) none of it

Are there any adjacent wetlands located off-site? YES NO Unknown
If yes, could they be potential bog turtle habitat? YES NO Unknown

Describe surrounding landscape (wetlands, forest, subdivision, agricultural field, fallow field, etc.):
Golf Course - Mowed Lawn

WETLAND CHARACTERISTICS

Wetland type(s) present and % cover: PEM 4 PSS _____ PFO _____ POW 96

Y N Are there any signs of disturbance to hydrology (ditching, filling, ponds, roads, etc.)? If yes, describe Pond Created, Ditch (CHN-30) conveying hydro from WL-55

Y N Are there any signs of disturbance to vegetation (mowing, pasturing, burning, etc.)? If yes, describe Mowing

Hydrology → Channel-30 (Ditch from WL-55) + Outlet Pipe from Pond 5
 Y N Springs or seeps visible or likely? Watercress present? Yes No
 Y N Spring houses in or adjacent to wetland?
 Y N Saturated soils present? If yes, year-round? Likely Unlikely Unknown
 Y N Water visible on surface? Check all that apply: small puddles/depressions (____" deep)
 rivulets (____" deep) larger pools/ponds (50" deep)
 Y N Evidence of flooding? If yes, describe indicators _____

Project Name Mt. Airy

Wetland Pond: 4 (con't)

Soils Mapping Unit: Morris

Field observations confirm mapped type? YES NO Unknown

Soils - PEM Portion of Wetland <u>POW</u>			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	How much of it (PEM) is mucky ? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"
Firm/Hard ³ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is firm/hard ? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70% <u>100%</u>		

Soils - PSS and/or PFO Portions of Wetland (if wetland is 100% PFO and/or PSS, omit this section)			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input type="checkbox"/> NO	How much of it is mucky ? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"

Wetland Vegetation (characterize the wetland as a whole)

Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
 sensitive fern rice cutgrass tearthumb reed canary grass *Phragmites* purple loosestrife
 alder dogwood red maple willow poison sumac multiflora rose _____
 Additional dominant species: PEM Veg on Fringe of Pond

Herptiles

Were any bog turtles observed? YES⁴ NO If yes, how many?

Other herptiles observed previously observed: bullfrog, greenfrog

Additional Comments/Observations: (use additional sheets if necessary)

INVESTIGATOR'S OPINION

- YES NO UNSURE The hydrology criterion⁵ for bog turtle habitat is met.
 YES NO UNSURE The soils criterion⁵ for bog turtle habitat is met.
 YES NO UNSURE The vegetation criterion⁵ for bog turtle habitat is met.
 YES NO UNSURE This wetland is potential bog turtle habitat.

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

[Signature]
Field Investigator's Signature

5/11/05
Date

- Soils are considered "mucky/muddy" if one can probe them to a depth of ≥ 3".
- Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
- Soils are considered "firm/hard" if one can probe them to a depth of < 3".
- Report observations of bog turtles to the USFWS and PFBC within 48 hours.
- See attached "BOG TURTLE HABITAT CRITERIA"

USFWS/PFBC Bog Turtle Habitat Evaluation – Field Form (revised 1/12/2005)

Project/Property Name: Mt. Airy
 County: Monroe Quad: Mount Pocano + Buck Hill Falls
 Township/Municipality: Paradise Twp.
 Investigator: Ben Berra Affiliation: Skelly + Loy - Consultant

WETLAND ID: Pond-5 PHOTOS TAKEN: Yes No WETLAND SIZE: 0.24 acres
 Wetland size estimation – If actual acreage is not known at time of investigation, check one:
 < 0.1 acre 0.1-0.5 acre > 0.5 to < 1 acre 1-2 acres 2-4 acres 5+ acres 10+ acres

WETLAND LOCATION: Lat 41° 06.530' Long 75° 19.491'
 (approximate center of wetland) GPS Datum (check one): NAD 27 NAD 83 WGS 84

SURVEY CONDITIONS & LIMITATIONS

Date of survey: 5/11/05 Time In: 10:58 Time Out: 11:05
 Air temp. 70 °F. Last precipitation: < 24 hours 1-7 days > 1 week unknown
 Drought conditions? YES NO Unknown

How much of this wetland is located *off-site* (i.e., outside the property boundaries or right-of-way)?
 none of it – the entire wetland is within the property boundaries (skip next 2 questions).
 some of it – _____ acres or _____ % of the wetland appears to be located off-site

If part of this wetland continues off-site, how much of the *off-site portion* was surveyed (on foot)?
 none of it all of it part of it (____ % or ____ acres of the off-site portion)

How much of the *off-site portion* of this wetland is visible (e.g., from the subject property or from a public road)? all of it part of it (at least ____ acres) none of it

Are there any *adjacent* wetlands located *off-site*? YES NO Unknown
 If yes, *could* they be potential bog turtle habitat? YES NO Unknown

Describe surrounding landscape (wetlands, forest, subdivision, agricultural field, fallow field, etc.):
Golf Course - Mowed Lawn

WETLAND CHARACTERISTICS

Wetland type(s) present and % cover: PEM 1 PSS 1 PFO _____ POW 98

Y N Are there any signs of disturbance to *hydrology* (ditching, filling, ponds, roads, etc.)? If yes, describe Pond Created + drain tile outfall at top of Pond.

Y N Are there any signs of disturbance to *vegetation* (mowing, pasturing, burning, etc.)? If yes, describe Mowed along adj. berm + weed wacked PEM area.

Hydrology

Y N Drain file (springs) or seeps visible or likely? Watercress present? Yes No
 Y N Spring houses in or adjacent to wetland?
 Y N Saturated soils present? If yes, year-round? Likely Unlikely Unknown
 Y N Water visible on surface? Check all that apply: small puddles/depressions (____" deep)
 rivulets (1-6" deep) larger pools/ponds (50" deep)
 Y N Evidence of flooding? If yes, describe indicators _____

Project Name Mt. Airy

Wetland Pond-5 (con't)

Soils Mapping Unit: Morris

Field observations confirm mapped type? YES NO Unknown

Soils - PEM Portion of Wetland <u>POW</u>			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	How much of it (PEM) is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"
Firm/Hard ³ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is firm/hard? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70% <u>100%</u>		

Soils - PSS and/or PFO Portions of Wetland (if wetland is 100% PFO and/or PSS, omit this section)			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input type="checkbox"/> NO	How much of it is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"

Wetland Vegetation (characterize the wetland as a whole)

Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
 - sensitive fern rice cutgrass tearthumb reed canary grass *Phragmites* purple loosestrife
 - alder dogwood red maple willow poison sumac multiflora rose _____
- Additional dominant species: grass

Herptiles

Were any bog turtles observed? YES⁴ NO If yes, how many?

Other herptiles observed previously observed: bullfrog, greenfrog

Additional Comments/Observations: (use additional sheets if necessary)

Drain tile flow into pond via rock-bottomed ditch + wash-out area (PEM).

INVESTIGATOR'S OPINION:

- YES NO UNSURE The hydrology criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The soils criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The vegetation criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE This wetland is potential bog turtle habitat.

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

[Signature]
Field Investigator's Signature

5/11/05
Date

- 1 Soils are considered "mucky/muddy" if one can probe them to a depth of ≥ 3".
- 2 Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
- 3 Soils are considered "firm/hard" if one can probe them to a depth of < 3".
- 4 Report observations of bog turtles to the USFWS and PFBC within 48 hours.
- 5 See attached "BOG TURTLE HABITAT CRITERIA"

USFWS/PFBC Bog Turtle Habitat Evaluation – Field Form (revised 1/12/2005)

Project/Property Name: Mt. Airy
 County: Monroe Quad: Mount Pocono + Buck Hill Falls
 Township/Municipality: Paradise Twp.
 Investigator: Ben Berra Affiliation: Skelly + Loy - Consultant

WETLAND ID: Pond-6 PHOTOS TAKEN: Yes No WETLAND SIZE: 1.85 acres
 Wetland size estimation – If actual acreage is not known at time of investigation, check one:
 < 0.1 acre 0.1-0.5 acre > 0.5 to < 1 acre 1-2 acres 2-4 acres 5+ acres 10+ acres

WETLAND LOCATION: Lat 41° 06.417' Long 75° 19.50'
 (approximate center of wetland) GPS Datum (check one): NAD 27 NAD 83 WGS 84

SURVEY CONDITIONS & LIMITATIONS

Date of survey: 5/11/05 Time In: 12:39 Time Out: 12:49
 Air temp. 80 °F. Last precipitation: < 24 hours 1-7 days > 1 week unknown
 Drought conditions? YES NO Unknown

How much of this wetland is located *off-site* (i.e., outside the property boundaries or right-of-way)?
 none of it – the entire wetland is within the property boundaries (skip next 2 questions).
 some of it – _____ acres or _____ % of the wetland appears to be located off-site

If part of this wetland continues off-site, how much of the *off-site portion* was surveyed (on foot)?
 none of it all of it part of it (_____ % or _____ acres of the off-site portion)

How much of the *off-site portion* of this wetland is visible (e.g., from the subject property or from a public road)? all of it part of it (at least _____ acres) none of it

Are there any *adjacent* wetlands located *off-site*? YES NO Unknown
 If yes, *could* they be potential bog turtle habitat? YES NO Unknown

Describe surrounding landscape (wetlands, forest, subdivision, agricultural field, fallow field, etc.):
Golf Course

WETLAND CHARACTERISTICS

Wetland type(s) present and % cover: PEM _____ PSS _____ PFO _____ POW 100

Y N Are there any signs of disturbance to *hydrology* (ditching, filling, ponds, roads, etc.)? If yes, describe Pond Created

Y N Are there any signs of disturbance to *vegetation* (mowing, pasturing, burning, etc.)? If yes, describe Mowing of adjacent areas.

Hydrology

Y N Springs or seeps visible or likely? Watercress present? Yes No
 Y N Spring houses in or adjacent to wetland?
 Y N Saturated soils present? If yes, year-round? Likely Unlikely Unknown
 Y N Water visible on surface? Check all that apply: small puddles/depressions (____" deep)
 rivulets (____" deep) larger pools/ponds (50" deep)
 Y N Evidence of flooding? If yes, describe indicators _____

Project Name Mt. Airy Wetland Pond 6 (con't)

Soils Mapping Unit: Oquaga-Lackawanna
 Field observations confirm mapped type? YES NO Unknown

Soils - PEM Portion of Wetland		POW	
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	How much of it (PEM) is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"
Firm/Hard ³ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is firm/hard? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input checked="" type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70% 100%		

Soils - PSS and/or PFO Portions of Wetland (if wetland is 100% PFO and/or PSS, omit this section)			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input type="checkbox"/> NO	How much of it is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"

Wetland Vegetation (characterize the wetland as a whole)
 Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
 - sensitive fern rice cutgrass tearthumb reed canary grass *Phragmites* purple loosestrife
 - alder dogwood red maple willow poison sumac multiflora rose _____
- Additional dominant species: All vegetation is in trace amounts

Herptiles
 Were any bog turtles observed? YES⁴ NO If yes, how many? _____
 Other herptiles observed previously observed: green frogs, bull frogs

Additional Comments/Observations: (use additional sheets if necessary)
Pond appears to have been created in uplands & taps into local groundwater.

INVESTIGATOR'S OPINION:

<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> UNSURE	The hydrology criterion ⁵ for bog turtle habitat is met.
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> UNSURE	The soils criterion ⁵ for bog turtle habitat is met.
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> UNSURE	The vegetation criterion ⁵ for bog turtle habitat is met.
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> UNSURE	This wetland is potential bog turtle habitat.

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

[Signature] 5/11/05
 Field Investigator's Signature Date

- 1 Soils are considered "mucky/muddy" if one can probe them to a depth of ≥ 3".
- 2 Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
- 3 Soils are considered "firm/hard" if one can probe them to a depth of < 3".
- 4 Report observations of bog turtles to the USFWS and PFBC within 48 hours.
- 5 See attached "BOG TURTLE HABITAT CRITERIA"

USFWS/PFBC Bog Turtle Habitat Evaluation – Field Form (revised 1/12/2005)

Project/Property Name: Mt. Airy
County: Monroe Quad: Mount Pocono + Buck Hill Falls
Township/Municipality: Paradise Twp.
Investigator: Ben Berra Affiliation: Skelly + Loy - Consultant

WETLAND ID: Pond-13 PHOTOS TAKEN: Yes No WETLAND SIZE: 0.6 acres
Wetland size estimation – If actual acreage is not known at time of investigation, check one:
 < 0.1 acre 0.1-0.5 acre >0.5 to <1 acre 1-2 acres 2-4 acres 5+ acres 10+ acres

WETLAND LOCATION: Lat 41° 06.987' Long 75° 19.141'
(approximate center of wetland) GPS Datum (check one): NAD 27 NAD 83 WGS 84

SURVEY CONDITIONS & LIMITATIONS

Date of survey: 5/11/05 Time In: 10:04 Time Out: 10:10
Air temp. 68 °F. Last precipitation: < 24 hours 1-7 days > 1 week unknown
Drought conditions? YES NO Unknown

How much of this wetland is located *off-site* (i.e., outside the property boundaries or right-of-way)?
 none of it – the entire wetland is within the property boundaries (skip next 2 questions).
 some of it – _____ acres or _____ % of the wetland appears to be located off-site

If part of this wetland continues off-site, how much of the *off-site portion* was surveyed (on foot)?
 none of it all of it part of it (_____ % or _____ acres of the off-site portion)

How much of the *off-site portion* of this wetland is visible (e.g., from the subject property or from a public road)? all of it part of it (at least _____ acres) none of it

Are there any *adjacent* wetlands located *off-site*? YES NO Unknown
If yes, could they be potential bog turtle habitat? YES NO Unknown

Describe surrounding landscape (wetlands, forest, subdivision, agricultural field, fallow field, etc.):
Golf Course

WETLAND CHARACTERISTICS

Wetland type(s) present and % cover: PEM _____ PSS _____ PFO _____ POW 100

Y N Are there any signs of disturbance to *hydrology* (ditching, filling, ponds, roads, etc.)? If yes, describe Pond Created

Y N Are there any signs of disturbance to *vegetation* (mowing, pasturing, burning, etc.)? If yes, describe Mowing of adjacent areas

Hydrology

- Y N Springs or seeps visible or likely? Watercress present? Yes No
- Y N Spring houses in or adjacent to wetland?
- Y N Saturated soils present? If yes, year-round? Likely Unlikely Unknown
- Y N Water visible on surface? Check all that apply: small puddles/depressions (____" deep)
 rivulets (____" deep) larger pools/ponds (50" deep)
- Y N Evidence of flooding? If yes, describe indicators _____

Project Name Mt. Airy

Wetland Pond-13 (con't)

Soils Mapping Unit: Lackawanna

Field observations confirm mapped type? YES NO Unknown

Soils - PEM Portion of Wetland		POW	
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	How much of it (PEM) is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"
Firm/Hard ³ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is firm/hard? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70% <u>100%</u>		

Soils - PSS and/or PFO Portions of Wetland (if wetland is 100% PFO and/or PSS, omit this section)			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input type="checkbox"/> NO	How much of it is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"

Wetland Vegetation (characterize the wetland as a whole)

Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
- sensitive fern rice cutgrass tearthumb reed canary grass *Phragmites* purple loosestrife
- alder dogwood red maple willow poison sumac multiflora rose _____

Additional dominant species: All veg. is in trace amounts

Herptiles

Were any bog turtles observed? YES⁴ NO If yes, how many? _____

Other herptiles observed previously observed: green frogs

Additional Comments/Observations: (use additional sheets if necessary)

Pond appears to have been created in uplands + taps into local groundwater.

INVESTIGATOR'S OPINION:

- YES NO UNSURE The hydrology criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The soils criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The vegetation criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE This wetland is potential bog turtle habitat.

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

[Signature]
Field Investigator's Signature

5/11/05
Date

- 1 Soils are considered "mucky/muddy" if one can probe them to a depth of ≥ 3".
- 2 Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
- 3 Soils are considered "firm/hard" if one can probe them to a depth of < 3".
- 4 Report observations of bog turtles to the USFWS and PFBC within 48 hours.
- 5 See attached "BOG TURTLE HABITAT CRITERIA"

USFWS/PFBC Bog Turtle Habitat Evaluation – Field Form (revised 1/12/2005)

Project/Property Name: Mt. Airy
 County: Monroe Quad: Mount Pocono + Buck Hill Falls
 Township/Municipality: Paradise Twp.
 Investigator: Ben Berra Affiliation: Skelly + Loy - Consultant

WETLAND ID: Pond-14 PHOTOS TAKEN: Yes No WETLAND SIZE: 0.47 acres
 Wetland size estimation – If actual acreage is not known at time of investigation, check one:
 < 0.1 acre 0.1-0.5 acre > 0.5 to < 1 acre 1-2 acres 2-4 acres 5+ acres 10+ acres

WETLAND LOCATION: Lat 41° 06.980' Long 75° 19.132'
 (approximate center of wetland) GPS Datum (check one): NAD 27 NAD 83 WGS 84

SURVEY CONDITIONS & LIMITATIONS

Date of survey: 5/11/05 Time In: 10:11 Time Out: 10:16
 Air temp. 68 ° F. Last precipitation: < 24 hours 1-7 days > 1 week unknown
 Drought conditions? YES NO Unknown

How much of this wetland is located *off-site* (i.e., outside the property boundaries or right-of-way)?
 none of it – the entire wetland is within the property boundaries (skip next 2 questions).
 some of it – _____ acres or _____ % of the wetland appears to be located off-site

If part of this wetland continues off-site, how much of the *off-site portion* was surveyed (on foot)?
 none of it all of it part of it (_____ % or _____ acres of the off-site portion)

How much of the *off-site portion* of this wetland is visible (e.g., from the subject property or from a public road)? all of it part of it (at least _____ acres) none of it

Are there any *adjacent* wetlands located *off-site*? YES NO Unknown
 If yes, *could* they be potential bog turtle habitat? YES NO Unknown

Describe surrounding landscape (wetlands, forest, subdivision, agricultural field, fallow field, etc.):
Golf Course

WETLAND CHARACTERISTICS

Wetland type(s) present and % cover: PEM _____ PSS _____ PFO _____ POW 100

Y N Are there any signs of disturbance to *hydrology* (ditching, filling, ponds, roads, etc.)? If yes, describe Pond Created (excavated 10-15" below existing ground)

Y N Are there any signs of disturbance to *vegetation* (mowing, pasturing, burning, etc.)? If yes, describe adj. area is mowed

Hydrology

- Y N Springs or seeps visible or likely? Watercress present? Yes No
- Y N Spring houses in or adjacent to wetland?
- Y N Saturated soils present? If yes, year-round? Likely Unlikely Unknown
- Y N Water visible on surface? Check all that apply: small puddles/depressions (_____ " deep)
 rivulets (_____ " deep) larger pools/ponds (50" deep)
- Y N Evidence of flooding? If yes, describe indicators _____

Project Name Mt. Airy

Wetland Pond 14 (con't)

Soils Mapping Unit: Lackawanna

Field observations confirm mapped type? YES NO Unknown

Soils - PEM Portion of Wetland <u>POW</u>			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	How much of it (PEM) is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"
Firm/Hard ³ ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	How much of it (PEM) is firm/hard? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input checked="" type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70% <u>100%</u>		

Soils - PSS and/or PFO Portions of Wetland (if wetland is 100% PFO and/or PSS, omit this section)			
Mucky/Muddy ¹ ? <input type="checkbox"/> YES <input type="checkbox"/> NO	How much of it is mucky? <input type="checkbox"/> <10% <input type="checkbox"/> 10-29% <input type="checkbox"/> 30-49% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70%	Mucky soils range in depth from: _____ to _____"	Most of the mucky part(s) of the wetland can be probed ² : <input type="checkbox"/> 3-5" <input type="checkbox"/> 6-8" <input type="checkbox"/> 9-11" <input type="checkbox"/> ≥12"

Wetland Vegetation (characterize the wetland as a whole)

Check (X) if present (≥ 5% areal coverage), and also circle if dominant (≥ 20% coverage).

- sedges rushes skunk cabbage cattail sweet flag jewelweed sphagnum moss
 - sensitive fern rice cutgrass tearthumb reed canary grass *Phragmites* purple loosestrife
 - alder dogwood red maple willow poison sumac multiflora rose _____
- Additional dominant species: All veg. is in trace amounts

Herptiles

Were any bog turtles observed? YES⁴ NO If yes, how many? _____

Other herptiles observed previously observed: green frogs

Additional Comments/Observations: (use additional sheets if necessary)

Pond created in upland, has narrow fringe of emergent veg.

INVESTIGATOR'S OPINION

- YES NO UNSURE The hydrology criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The soils criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE The vegetation criterion⁵ for bog turtle habitat is met.
- YES NO UNSURE This wetland is potential bog turtle habitat.

I certify that to the best of my knowledge, all of the information provided herein is accurate and complete.

[Signature]
Field Investigator's Signature

5/11/05
Date

- 1 Soils are considered "mucky/muddy" if one can probe them to a depth of ≥ 3".
- 2 Probing is done with an approximately 1" diameter, blunt-ended pole (e.g., a wooden broom handle).
- 3 Soils are considered "firm/hard" if one can probe them to a depth of < 3".
- 4 Report observations of bog turtles to the USFWS and PFBC within 48 hours.
- 5 See attached "BOG TURTLE HABITAT CRITERIA"

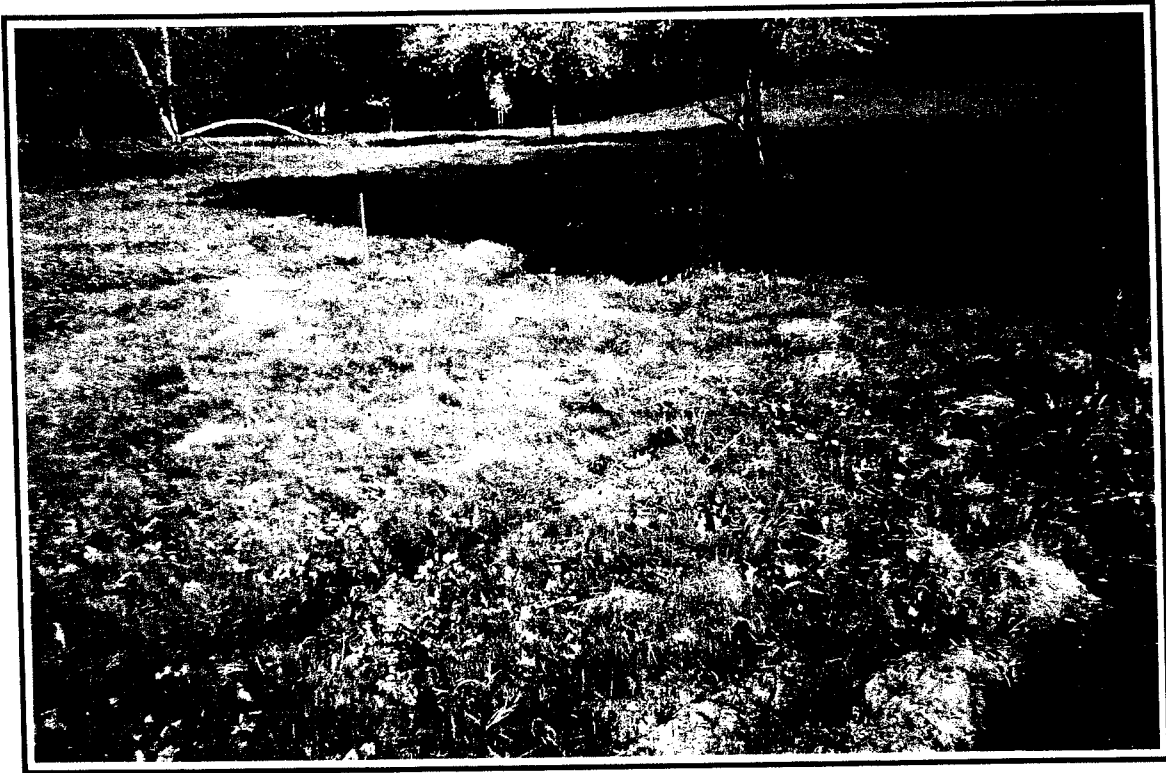
**APPENDIX C -
REPRESENTATIVE PHOTOGRAPHS**



Photograph No. 1: Wetland 13 located in the floodplain immediately adjacent to Forest Hills Run.



Photograph No. 2: Wetland 14 also located on a low lying floodplain bench adjacent to Forest Hills Run.



Photograph No. 3: Palustrine emergent Wetland 15 in a mowed/maintained lawn area.



Photograph No. 4: Palustrine forested Wetland 31 near S.R. 611.



Photograph No. 5: Palustrine open-water portion of Wetland 32. A small portion of this wetland is forested and similar to WL-31.



Photograph No. 6: Densely wooded palustrine forested Wetland 33.



Photograph No. 7: Palustrine emergent floodplain bench wetland (WL-37) along Channel 23.



Photograph No. 8: Draintile outlet in Wetland 37 and drainage pattern into Channel 23 (bottom of picture).



Photograph No. 9: Wetland 45 is very similar to Wetland 15.



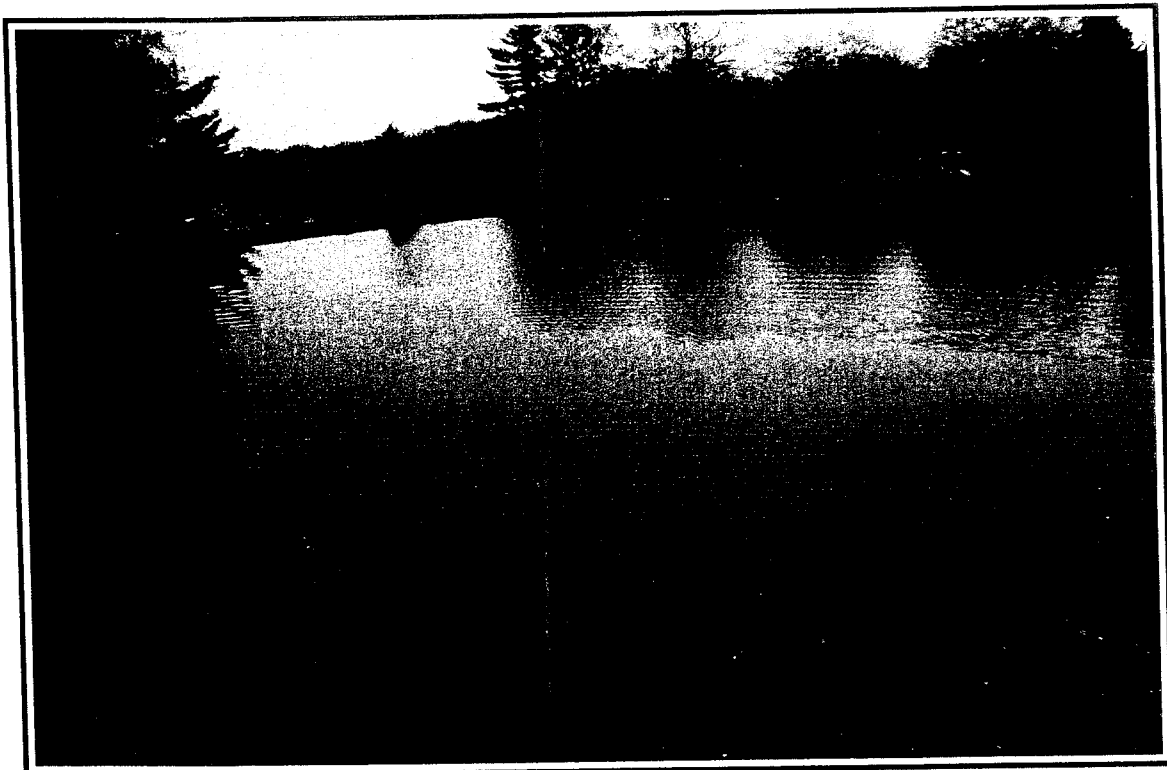
Photograph No. 10: Wetland 55 is similar to Wetlands 15 and 45.



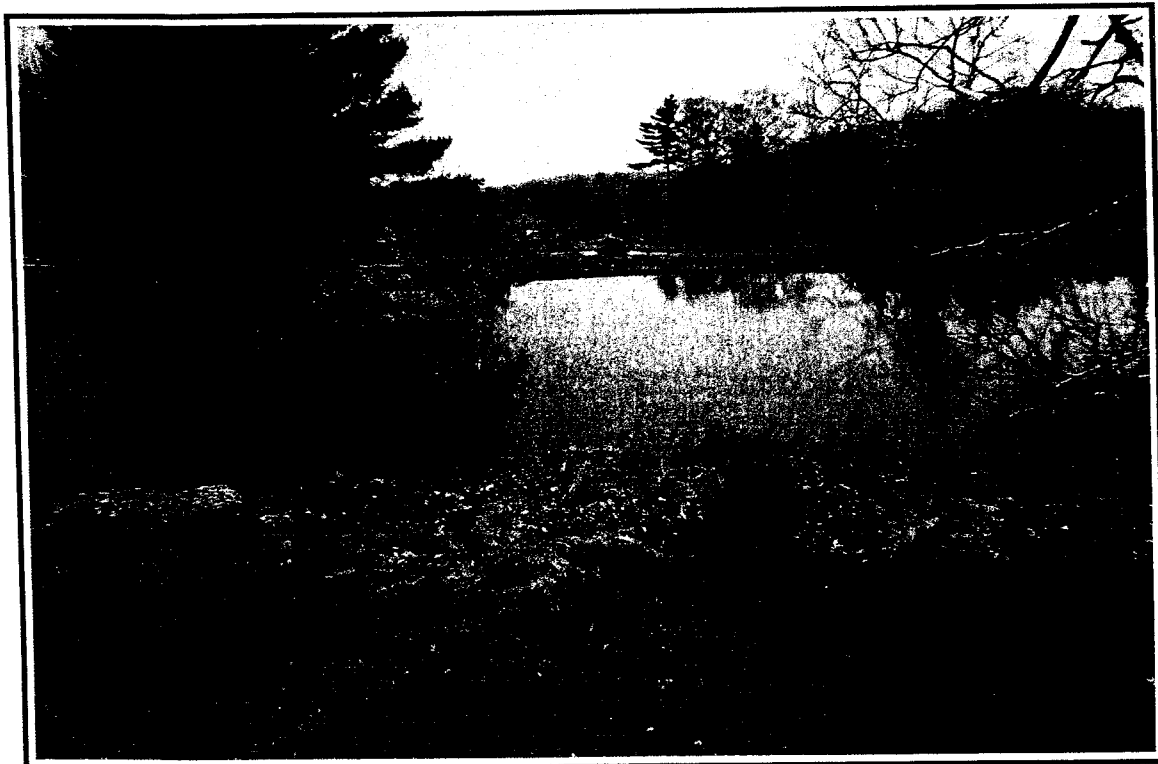
Photograph No. 11: Wetland 71 is similar to Wetlands 15, 45, and 71.



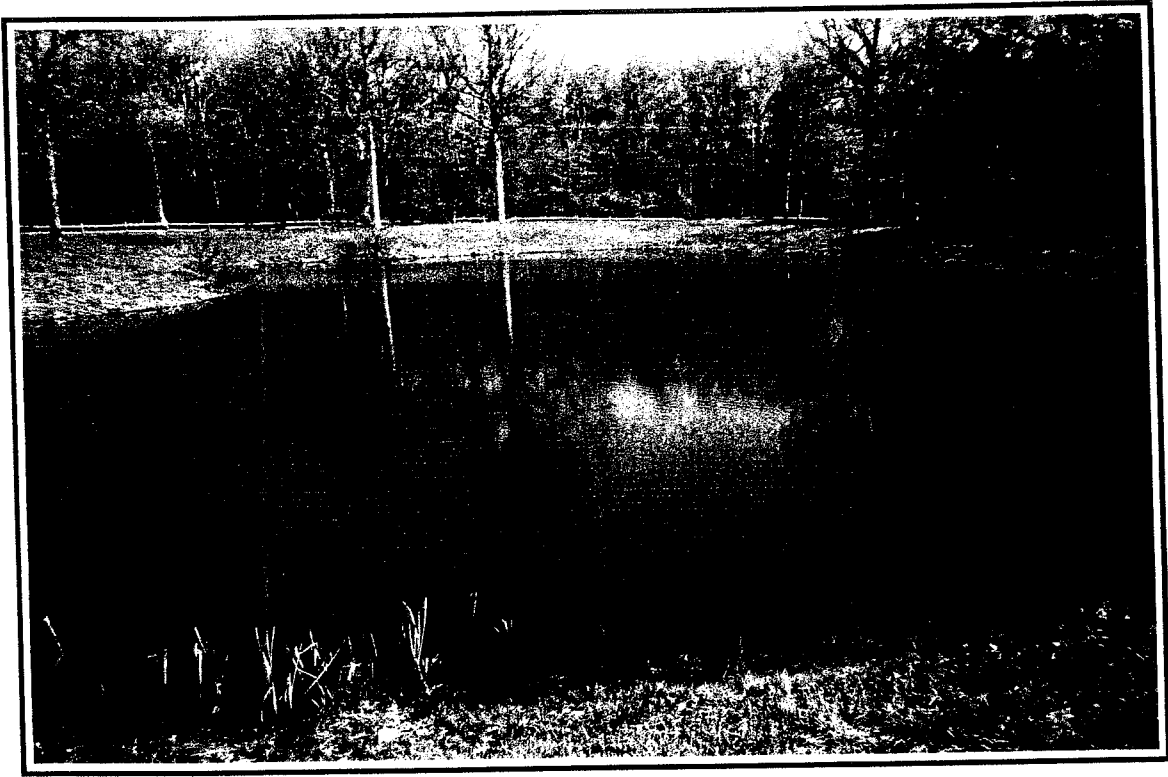
Photograph No. 12: Wetland 73 is similar to Wetlands 13 and 14, especially in its landscape position, hydrology and functions/values.



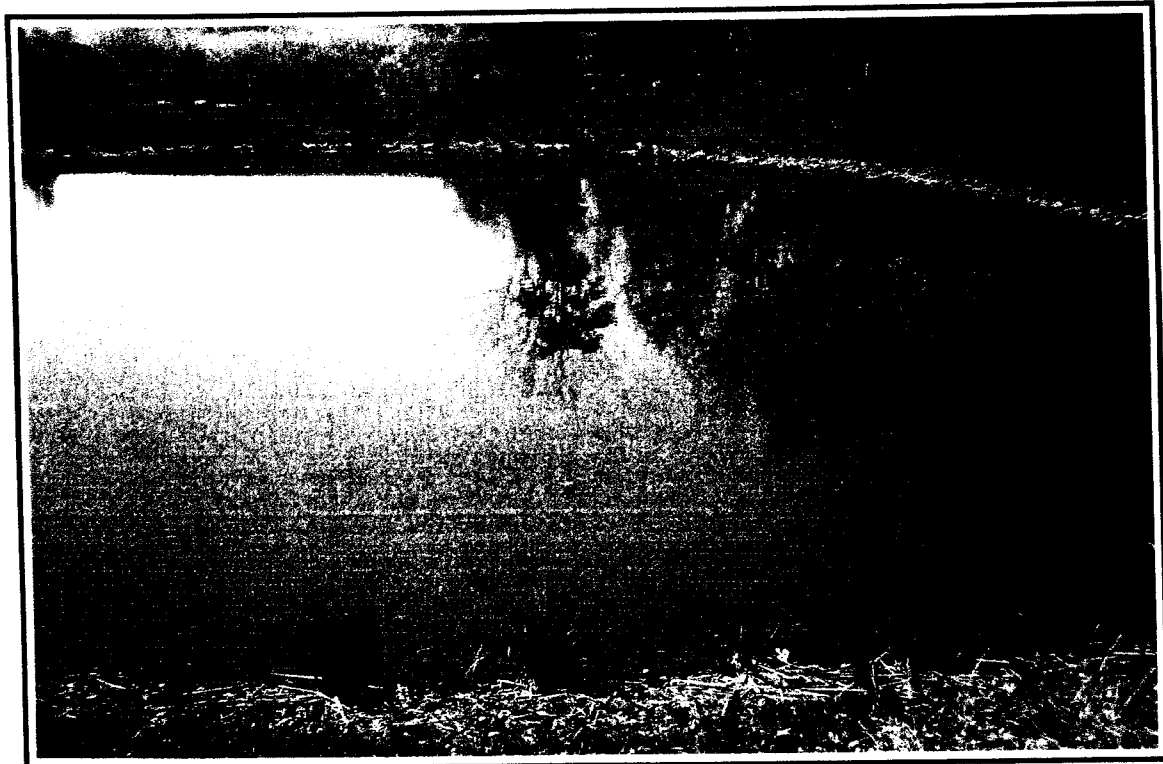
Photograph No. 13: Pond 4 is located on the golf course.



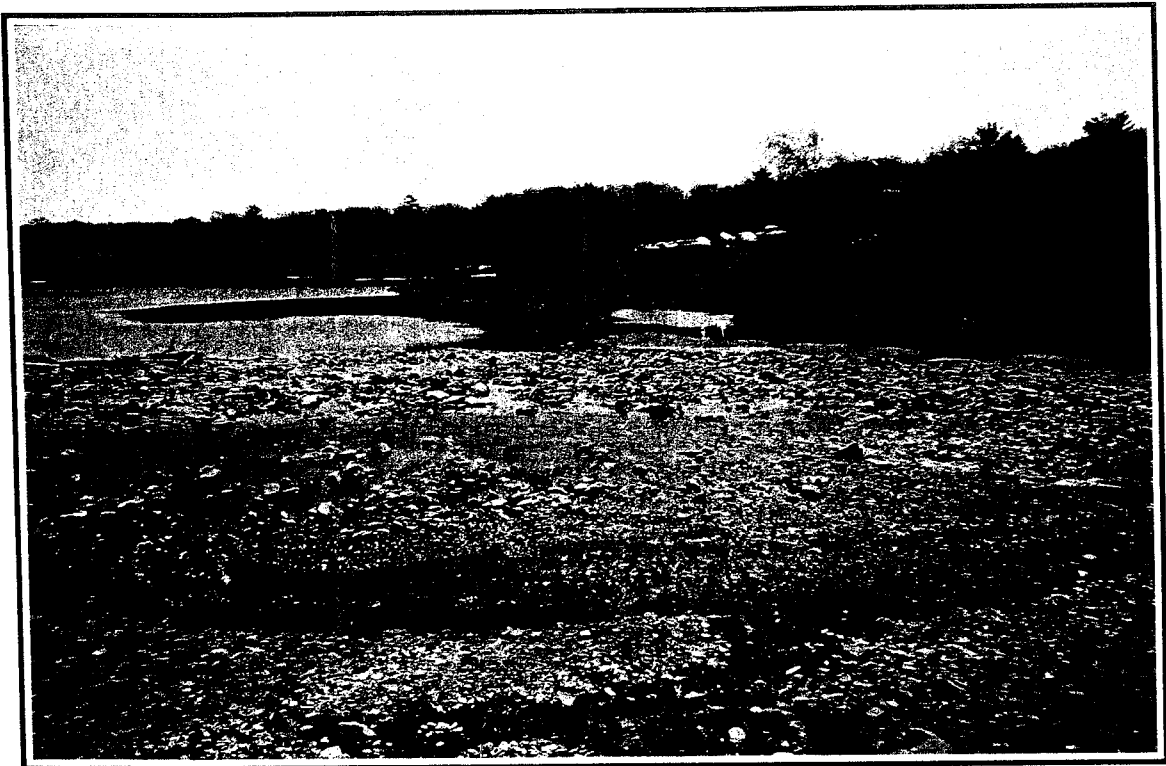
Photograph No. 14: Pond 5 is just upslope of Pond 4. Also, Pond 4 and 5 are similar to Pond 6 (not pictured).



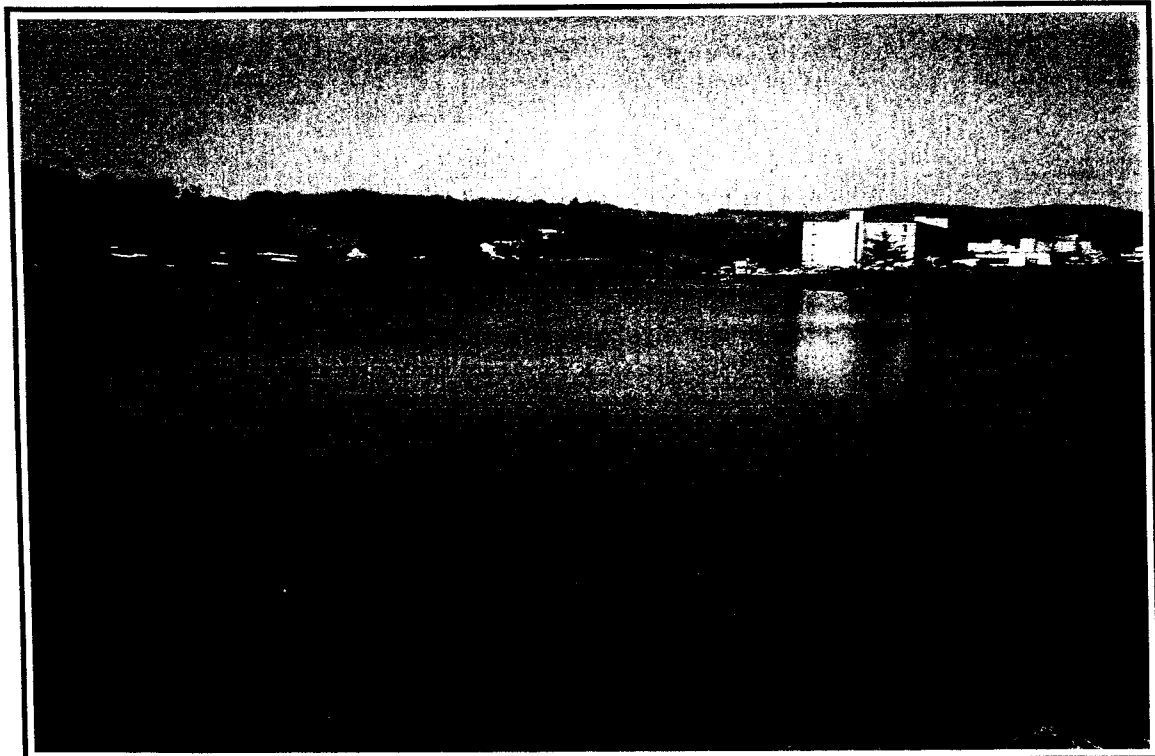
Photograph No. 15: Pond 13.



Photograph No. 16: Pond 14 (slightly downslope from Pond 13).

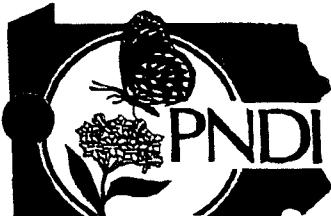


Photograph No. 17: Delta created by confluence of Forest Hills Run with Lake at Mt. Airy.



Photograph No. 18: Lake at Mt. Airy as viewed from dam.

**APPENDIX D -
PNDI COORDINATION**



Pennsylvania Natural Diversity Inventory

Scientific Information and expertise for the conservation of Pennsylvania's native biological diversity

DCNR, Bureau of Forestry

March 4, 2005

Karen Johnston
Skelly and Loy
2601 North Front Street
Harrisburg, PA 17110

Re: Pennsylvania Natural Diversity Inventory Review, PER NO: 17301
Mount Airy Lodge Improvement Project
Paradise Twp, Monroe County

Dear Ms. Johnston:

In response to the request received January 20, 2005 to perform a PNDI Database Search of the above-mentioned project, we have reviewed the area using the Pennsylvania Natural Diversity Inventory (PNDI) information system.

PNDI records indicate that no occurrences of species of special concern are known to exist within the project area referenced above, therefore we do not anticipate any impact on endangered, threatened, or rare species at this location.

PNDI attempts to be a complete information resource on species of special concern located within the Commonwealth. However, it may not contain all location information for species within the jurisdiction of other agencies. Please contact the Fish and Boat Commission, the Game Commission and US Fish and Wildlife Service for more information on species within their purview.

PNDI is the environmental review function of the Pennsylvania Natural Heritage Program, and uses a site-specific information system that describes significant natural resources within the Commonwealth. This system includes data descriptive of plant and animal species of special concern, exemplary natural communities and unique geological features. PNDI is a cooperative project of the Department of Conservation and Natural Resources, The Nature Conservancy and the Western Pennsylvania Conservancy. This response represents the most up-to-date summary of the PNDI data files and is good for one year. An absence of recorded information does not necessarily imply actual conditions on-site. A field survey of any site may reveal previously unreported populations.

Feel free to phone our office if you have questions concerning this response or the PNDI system, and please refer to the P.E.R. Reference Number at the top of the letter in future correspondence concerning this project.

Sincerely,

Ellen M. Shultzabarger
Environmental Review Specialist

P: 717-772-0258
F: 717-772-0271



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Pennsylvania Field Office
315 South Allen Street, Suite 322
State College, Pennsylvania 16801-4850



February 18, 2005

Karen M. Johnston
Skelly and Loy, Inc.
2601 North Front Street
Harrisburg, PA 17110-1185

FEB 22 2005

Re: USFWS Project #20050380

Dear Ms. Johnston:

This responds to your letter of January 19, 2005, requesting information about federally listed and proposed endangered and threatened species within the area affected by the proposed Mount Airy Lodge Improvements Project located in Paradise Township, Monroe County, Pennsylvania. The following comments are provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of endangered and threatened species.

The proposed project is within the known range of the bog turtle (*Clemmys muhlenbergii*), a species that is federally listed as threatened. Bog turtles inhabit shallow, spring-fed fens, sphagnum bogs, swamps, marshy meadows, and pastures characterized by soft, muddy bottoms; clear, cool, slow-flowing water, often forming a network of rivulets; high humidity; and an open canopy. Bog turtles usually occur in small, discrete populations occupying suitable wetland habitat dispersed along a watershed. The occupied "intermediate successional stage" wetland habitat is usually a mosaic of micro-habitats ranging from dry pockets, to areas that are saturated with water, to areas that are periodically flooded. Some wetlands occupied by bog turtles are located in agricultural areas and are subject to grazing by livestock.

To determine the potential effects of the proposed project on bog turtles and their habitat, begin by identifying all wetlands in, and within 300 feet of, the project area. The project area includes all areas that will be permanently or temporarily affected by any and all project features, including building, roads, staging areas, utility lines, outfall and intake structures, wells, stormwater retention or detention basins, parking lots, driveways, lawns, etc. The area of investigation should be expanded when project effects might extend more than 300 feet from the project footprint. For example, the hydrological effects of some projects (*e.g.*, large residential or commercial developments; golf courses; community water supply wells) might extend well beyond the project footprint due to the effects that impervious surfaces or groundwater pumping may have on the hydrology of nearby groundwater-dependent wetlands. Wetlands should be included on a map showing existing as well as proposed project features.

If someone qualified to identify and delineate wetlands has, through a field investigation, determined that no wetlands are located in or within 300 feet of the project area (or within the expanded investigation area, as described above), it is not likely that your project will adversely affect the bog turtle. If this is the case, no further consultation with the Fish and Wildlife Service is necessary, although we would appreciate receiving a courtesy copy of the wetland investigator's findings for our files.

If wetlands have been identified in or within 300 feet of the project area (or in an expanded investigation area, as described above), their potential suitability as bog turtle habitat should be assessed, as described under "*Bog Turtle Habitat Survey*" (Phase 1 survey) of the enclosed *Guidelines for Bog Turtle Surveys*. A list of qualified bog turtle surveyors is enclosed, although the habitat survey could also be conducted by someone not on this list (e.g., a biologist or wetland scientist with training in bog turtle habitat identification). A Phase 1 field form and report template are enclosed for your convenience and use. Survey results should be submitted to the Service for review and concurrence.

If potential bog turtle habitat is found in or near the project area, efforts should be made to avoid any direct or indirect impacts to those wetlands (see enclosed *Bog Turtle Conservation Zones*). Avoidance of direct and indirect effects means no disturbance to or encroachment into the wetlands (e.g., filling, ditching or draining) for any project-associated features or activities. Adverse effects may also be anticipated to occur when lot lines include portions of the wetland; when an adequate upland buffer is not retained around the wetland (see *Bog Turtle Conservation Zones*); or when roads, stormwater/sedimentation basins, impervious surfaces, or wells affect the hydrology of the wetland.

We recommend that if potential habitat is found, you submit (along with your Phase 1 survey results) a detailed project description and detailed project plans documenting how direct and indirect impacts to the wetlands will be avoided. If adverse effects to these wetlands cannot be avoided, a more detailed and thorough survey should be done, as described under "*Bog Turtle Survey*" (Phase 2 survey) of the *Guidelines*. The Phase 2 survey should be conducted by a qualified biologist with bog turtle field survey experience (see enclosed list of qualified surveyors), and survey results should be submitted to the Service for review and concurrence.

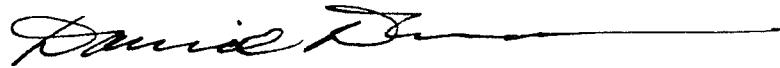
In cases where adverse effects to federally listed species cannot be avoided, further consultation with the Service would be necessary to avoid potential violations of section 9 (prohibiting "take" of listed species) and/or section 7 (requiring federal agencies to consult) of the Endangered Species Act. Information about the section 7 and section 10 consultation processes (for federal and non-federal actions, respectively) can be obtained by contacting this office or accessing the Service's Endangered Species Home Page (<http://endangered.fws.gov>).

This response relates only to endangered and threatened species under our jurisdiction based on an office review of the proposed project's location. No field inspection of the project area has been conducted by this office. Consequently, this letter is not to be construed as addressing potential Service concerns under the Fish and Wildlife Coordination Act or other authorities. A compilation of certain federal status species in Pennsylvania is enclosed for your information.

To avoid potential delays in reviewing your project, please use the above-referenced USFWS project tracking number in any future correspondence regarding this project.

Please contact Jennifer Dombroskie of my staff at 814-234-4090 if you have any questions or require further assistance regarding this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "David Densmore", followed by a long horizontal line extending to the right.

David Densmore
Supervisor

Enclosures

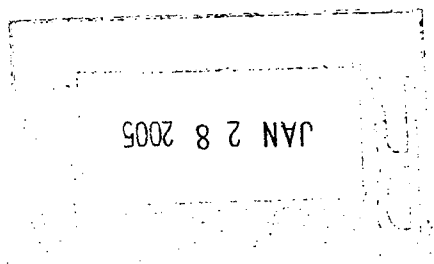


Pennsylvania Fish & Boat Commission

RJG

Division of Environmental Services
Natural Diversity Section
450 Robinson Lane
Bellefonte, PA 16823-9620
(814) 359-5237 Fax: (814) 359-5175

January 25, 2005



IN REPLY REFER TO
SIR # 18068

SKELLY AND LOY
KAREN JOHNSTON
2601 N FRONT STREET
HARRISBURG, PA 17110-1185

RE: Species Impact Review (SIR) - Rare, Candidate, Threatened and Endangered Species
MOUNT AIRY LODGE IMPROVEMENT PROJECT
PARADISE Township/Borough, MONROE County, Pennsylvania

This responds to your inquiry about a Pennsylvania Natural Diversity Inventory (PNDI) Internet Database search "potential conflict" or a threatened and endangered species impact review. These projects are screened for potential conflicts with rare, candidate, threatened or endangered species under Pennsylvania Fish & Boat Commission jurisdiction (fish, reptiles, amphibians, aquatic invertebrates only) using the Pennsylvania Natural Diversity Inventory (PNDI) database and our own files. These species of special concern are listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, and the Pennsylvania Fish & Boat Code (Chapter 75), or the Wildlife Code. The absence of recorded information from our files does not necessarily imply actual conditions on site. Future field investigations could alter this determination. The information contained in our files is routinely updated. A Species Impact Review is valid for one year only.

NO ADVERSE IMPACTS EXPECTED FROM THE PROPOSED PROJECT

Except for occasional transient species, rare, candidate, threatened or endangered species under our jurisdiction are not known to exist in the vicinity of the project area. Therefore, no biological assessment or further consultation regarding rare species is needed with the Commission. Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered.

An element occurrence of a rare, candidate, threatened, or endangered species under our jurisdiction is known from the vicinity of the proposed project. However, given the nature of the proposed project, the immediate location, or the current status of the nearby element occurrence(s), no adverse impacts are expected to the species of special concern.

If you have any questions regarding this review, please contact the biologist indicated below:

Jeff Schmid 814-359-5236 J.R. Holtmaster 814-359-5194
 Kathy Derge 814-359-5186

I am enclosing a copy of our "SIR Request Form", which is to be used for all future species impact review requests. Please make copies of the attached form and use with all future project reviews. Thank you in advance for your cooperation and attention to this important matter of species conservation and habitat protection.

SIGNATURE: _____

DATE: January 25, 2005

Christopher A. Urban
Chief, Natural Diversity Section

Our Mission:

www.fish.state.pa.us

To provide fishing and boating opportunities through the protection and management of aquatic resources.



COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA GAME COMMISSION
2001 ELMERTON AVENUE, HARRISBURG, PA 17110-9797

February 16, 2005

Ms. Karen M. Johnston
Skelly and Loy, Inc.
2601 North Front Street
Harrisburg, PA 17110

18 2005

Re: Mount Airy Lodge Improvement Project
456-Acre Site
Paradise Township, Monroe County, PA

Dear Ms. Johnston:

This is in response to your letter dated January 19, 2005, requesting information concerning endangered and threatened species of birds and mammals and impacts to State Game Lands as related to the proposed project.

Our office review has determined that no state listed endangered or threatened species of birds or mammals are known to occur within the proposed project area. Except for occasional transient individuals, this project should not impact any endangered or threatened species of birds or mammals recognized by the Pennsylvania Game Commission. Also, no State Game Lands are located close enough that any impacts to them are anticipated by the proposed project. However, should project plans change or if additional information on endangered or threatened species or State Game Lands becomes available, this determination may be reconsidered.

The proposed project may impact wetlands which this agency considers as critical and unique habitat. You should be aware that any impacts to wetlands or other bodies of water will require permits from the Department of Environmental Protection under Chapter 105 and the U.S Army Corps of Engineers under Section 404 of the Clean Water Act.

ADMINISTRATIVE BUREAUS:

PERSONNEL: 717-787-7836 ADMINISTRATION: 717-787-5670 AUTOMOTIVE AND PROCUREMENT DIVISION: 717-787-6594
LICENSE DIVISION: 717-787-2084 WILDLIFE MANAGEMENT: 717-787-5529 INFORMATION & EDUCATION: 717-787-6286 LAW ENFORCEMENT: 717-787-5740
LAND MANAGEMENT: 717-787-6818 REAL ESTATE DIVISION: 717-787-6568 AUTOMATED TECHNOLOGY SYSTEMS: 717-787-4076 FAX: 717-772-2411

WWW.PGC.STATE.PA.US

AN EQUAL OPPORTUNITY EMPLOYER

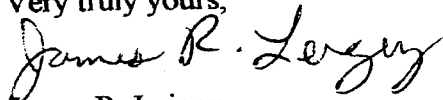
Ms. Karen M. Johnston

-2-

February 16, 2005

If you have any questions, please contact me at (717) 783-5957.

Very truly yours,



James R. Leigey

Wildlife Impact Review Coordinator
Division of Environmental Planning
And Habitat Protection
Bureau of Land Management

JRL/pfb

Attachment

Cc: File
Schweitzer
Zindell

**APPENDIX E -
WETLAND DELINEATION DATA FORMS**

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID:	Wetland 1	EVALUATOR:	PJD, BTB, KJS, ERB
DATE:	12-Apr-05	WEATHER:	sunny, clear, 50 degrees
Do normal circumstances exist on the site?	Yes		
Is the site significantly disturbed (Atypical Situation)?	No		
Is the area a potential problem area?	No		
HYDROGEOMORPHIC CLASSIFICATION:		SIZE:	0.0162 Ac 0.0066 Ha
VEGETATION	CLASSIFICATION:	100% PEM	0% PSS 0% PFO 0% POW
WETLAND	UPLAND		
<u>SPECIES</u>	<u>STRATUM</u>	<u>INDICATOR</u>	<u>SPECIES</u>
Potentilla sp.	H	NS	Tsuga canadensis
Scirpus cyperinus	H	FACW+	Musci sp.
Typha latifolia	H	OBL	Comptonia peregrina
Juncus effusus	H	FACW+	Poaceae or Gramineae sp.
Carex sp.	H	85% FAC-OBL	Acer rubrum
Percent of Dominant Species that are OBL, FACW, and FAC		100%	
SOILS	HYDROLOGY		
MAPPED SOIL UNIT:	Morris extremely stony silt loam (MoB)		
HYDRIC SOIL UNIT:	Norwich		
WETLAND CORE SOIL SCORE			
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>
0-10"	7.5YR3/3		silt loam
10-16"	2.5Y6/2	2.5Y4/4	silt loam
WETLAND FRINGE SOIL SCORE			
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>
UPLAND SOIL SCORE			
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>
0-10"	10YR4/6		silt loam
10-18"	10YR4/4		silt loam
SOURCE OF HYDROLOGY: Surface water runoff collection and seasonal groundwater.			
DEPTH OF SURFACE WATER:			
DEPTH TO FREE WATER IN SOIL PIT: 1'			
DEPTH TO SATURATED SOIL:			
FIELD INDICATORS			
PRIMARY INDICATORS			
<input checked="" type="checkbox"/> Inundation			
<input checked="" type="checkbox"/> Saturated in Upper 12 Inches			
<input type="checkbox"/> Water Marks			
<input type="checkbox"/> Drift Lines			
<input type="checkbox"/> Sediment Deposits			
<input checked="" type="checkbox"/> Drainage Patterns			
SECONDARY INDICATORS			
<input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches			
<input checked="" type="checkbox"/> Water Stained Leaves			
<input type="checkbox"/> FAC-Neutral Test			
Hydric Soil Indicators			
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions		
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils		
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils		
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List		
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List		
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)		
Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes
BASIS OF DELINEATION:			
Delineation follows saturation, inundation and water stained leaves in a topographically defined bowl and depression adjacent to soccer field. Delineation also follows community of woolgrass, soft rush, and sedge following low chroma and mottled soils. Wetland is isolated.			

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 2	EVALUATOR: PJD, BTB, KJS, ERB																																				
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees																																				
Do normal circumstances exist on the site? Yes																																					
Is the site significantly disturbed (Atypical Situation)? No																																					
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HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0439 Ac 0.0178 Ha																																				
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BASIS OF DELINEATION:																																					
Delineation follows extent of hillside seep with osmunda fern and sedge community with low chroma and mottled soils. Hillside seeps go subsurface at toe of slope.																																					

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 3	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0618 Ac 0.0250 Ha

VEGETATION CLASSIFICATION: 100% PEM 0% PSS 0% PFO 0% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Juncus effusus	H	FACW+	Solidago sp.	H	NS
Carex sp.	H	85% FAC-OBL	Poaceae or Gramineae sp.	H	NS
Typha latifolia	H	OBL	Alliaria petiolata	H	FACU-
Epilobium sp.	H	NS	Allium sp.	H	NS
Solidago sp.	H	NS	Solidago altissima	H	FACU-

Percent of Dominant Species that are OBL, FACW, and FAC 100%

SOILS				HYDROLOGY	
MAPPED SOIL UNIT: Morris extremely stony silt loam (MoB)				SOURCE OF HYDROLOGY: Surface water collection in low areas. Surface/stormwater ditch and pipe contribution.	
HYDRIC SOIL UNIT: Norwich					
WETLAND CORE SOIL SCORE				DEPTH OF SURFACE WATER: 0-2'	
DEPTH	MATRIX	MOTTLE	TEXTURE	DEPTH TO FREE WATER IN SOIL PIT:	
0-8"	7.5YR3/3		silt loam	DEPTH TO SATURATED SOIL:	
8-16"	2.5Y6/2	7.5YR6/8	silt loam	FIELD INDICATORS	
WETLAND FRINGE SOIL SCORE				PRIMARY INDICATORS	
DEPTH	MATRIX	MOTTLE	TEXTURE	<input checked="" type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns	
UPLAND SOIL SCORE				SECONDARY INDICATORS	
DEPTH	MATRIX	MOTTLE	TEXTURE	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of low chroma and mottled soils with saturation and inundation (0-2") conditions and community of soft rush and sedges.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 4	EVALUATOR: PJD, BTB, KJS, ERB																											
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees																											
Do normal circumstances exist on the site? Yes																												
Is the site significantly disturbed (Atypical Situation)? No																												
Is the area a potential problem area? No																												
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0876 Ac 0.0354 Ha																											
VEGETATION	CLASSIFICATION: 30% PEM 0% PSS 0% PFO 70% POW																											
WETLAND	UPLAND																											
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Percent of Dominant Species that are OBL, FACW, and FAC 100%																												
SOILS	HYDROLOGY																											
MAPPED SOIL UNIT: Morris extremely stony silt loam (MoB)	SOURCE OF HYDROLOGY: Groundwater spring (46 pipe).																											
HYDRIC SOIL UNIT: Norwich	DEPTH OF SURFACE WATER:																											
WETLAND CORE SOIL SCORE	DEPTH TO FREE WATER IN SOIL PIT:																											
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BASIS OF DELINEATION:																												
<p>Delineation follows extent of man-made pond and adjacent fringe and groundwater seep drainage pattern to pond. Area is saturated and inundated (>18") and does contain low chroma, mottled soils with duck weed, soft rush, sedge, and cattail community.</p>																												

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 7	EVALUATOR: PJD, BTB, KJS, ERB																														
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees																														
Do normal circumstances exist on the site? Yes	Is the site significantly disturbed (Atypical Situation)? No																														
Is the area a potential problem area? No																															
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0686 Ac 0.0278 Ha																														
VEGETATION	CLASSIFICATION: 50% PEM 0% PSS 50% PFO 0% POW																														
WETLAND	UPLAND																														
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SOILS	HYDROLOGY																														
MAPPED SOIL UNIT: Morris extremely stony silt loam (MoB)	SOURCE OF HYDROLOGY: Seasonal flooding and seasonal groundwater.																														
HYDRIC SOIL UNIT: Norwich	DEPTH OF SURFACE WATER: 1-3"																														
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Wetland Hydrology Present? Yes	Wetland? Yes																														
BASIS OF DELINEATION:																															
Delineation follows extent of floodplain bench palustrine forested wetland with low chroma and mottled soils in saturated low area adjacent to Channel 1.																															

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 13	EVALUATOR: PJD, BTB, AJL, KJS, ERB																											
DATE: 14-Apr-05	WEATHER: sunny, clear, cool																											
Do normal circumstances exist on the site? Yes																												
Is the site significantly disturbed (Atypical Situation)? No																												
Is the area a potential problem area? No																												
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0308 Ac 0.0125 Ha																											
VEGETATION	CLASSIFICATION: 50% PEM 50% PSS 0% PFO 0% POW																											
WETLAND	UPLAND																											
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MAPPED SOIL UNIT: Phlo silt loam (Ph)	SOURCE OF HYDROLOGY: Surface water collection and seasonal flooding.																											
HYDRIC SOIL UNIT: Holly	DEPTH OF SURFACE WATER:																											
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Wetland Hydrology Present? Yes	Wetland? Yes																											
BASIS OF DELINEATION:																												
Delineation follows the extent of sedge/grass floodplain bench with debris line and low chroma, saturated, mottled soils.																												

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 14		EVALUATOR: PJD, BTB, AJL, KJS, ERB				
DATE: 14-Apr-05		WEATHER: sunny, clear, cool				
Do normal circumstances exist on the site?		Yes				
Is the site significantly disturbed (Atypical Situation)?		No				
Is the area a potential problem area?		No				
HYDROGEOMORPHIC CLASSIFICATION:		SIZE: 0.0215 Ac 0.0087 Ha				
VEGETATION		CLASSIFICATION: 100% PEM 0% PSS 0% PFO 0% POW				
WETLAND			UPLAND			
<u>SPECIES</u>	<u>STRATUM</u>	<u>INDICATOR</u>	<u>SPECIES</u>	<u>STRATUM</u>	<u>INDICATOR</u>	
Solidago gigantea	H	FACW	Poaceae or Gramineae sp.	H	NS	
Poaceae or Gramineae sp.	H	NS	Dactylis glomerata	H	FACU	
Carex sp.	H	85% FAC-OBL	Taraxacum officinale	H	FACU-	
Percent of Dominant Species that are OBL, FACW, and FAC			100%			
SOILS			HYDROLOGY			
MAPPED SOIL UNIT: Phlo silt loam (Ph)			SOURCE OF HYDROLOGY: Stream flooding and seasonal saturation.			
HYDRIC SOIL UNIT: Holly			DEPTH OF SURFACE WATER:			
WETLAND CORE SOIL SCORE			DEPTH TO FREE WATER IN SOIL PIT:			
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO SATURATED SOIL:		
0-8"	10YR3/2		alluvial sand	FIELD INDICATORS		
8-12"	10YR5/2		alluvial sand			
12-18"	10YR5/2	10YR4/6	silt loam			
WETLAND FRINGE SOIL SCORE			PRIMARY INDICATORS			
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>				<u>TEXTURE</u>
UPLAND SOIL SCORE			SECONDARY INDICATORS			
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>				<u>TEXTURE</u>
0-16"	10YR5/3		silt loam	Inundation		
			X Saturated in Upper 12 Inches			
			Water Marks			
			X Drift Lines			
			Sediment Deposits			
			Drainage Patterns			
			Oxidized Root Channels in Upper 12 inches			
			Water Stained Leaves			
			FAC-Neutral Test			
Hydric Soil Indicators						
Histosol			Concretions			
Histic Epipedon			High Organic Content in Surface Layers in Sandy Soils			
X Sulfidic Odor			Organic Streaking in Sandy Soils			
Aquic Moisture Regime			X Listed on Local Hydric Soils List			
X Reducing Conditions			Listed on National Hydric Soils List			
Gleyed or Low Chroma Colors			Other (Explain in Basis of Delineation)			
Wetland Determination						
Hydrophytic Vegetation Present?		Yes		Hydric Soil Present? Yes		
Wetland Hydrology Present?		Yes		Wetland? Yes		
BASIS OF DELINEATION:						
Delineation follows the extent of the sedge/grass floodplain bench with debris line following low chroma, mottled, and saturated soils with sulfidic odor.						

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 15	EVALUATOR: PJD, BTB, AJL, KJS, ERB
DATE: 14-Apr-05	WEATHER: sunny, clear, cool
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0629 Ac 0.0254 Ha

VEGETATION	CLASSIFICATION:	100% PEM	0% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Juncus effusus	H	FACW+	Poaceae or Gramineae sp.	H	NS
Poaceae or Gramineae sp.	H	NS	Taraxacum officinale	H	FACU-
Sphagnum sp.	H	NS	Malus sp.	T	NS
Percent of Dominant Species that are OBL, FACW, and FAC			100%		

SOILS				HYDROLOGY	
MAPPED SOIL UNIT:		Photo silt loam (Ph)		SOURCE OF HYDROLOGY: Groundwater seep and seasonal saturation.	
HYDRIC SOIL UNIT:		Holly			
WETLAND CORE SOIL SCORE				DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: 6"	
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-6"	10YR4/2		sandy loam		
6-18"	10YR5/1	10YR3/6	sandy loam	FIELD INDICATORS PRIMARY INDICATORS <input type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-16"	10YR3/4		silt loam		

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of soft rush and grass community with strong saturation and low chroma, mottled soils in mowed area.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 31	EVALUATOR: PJD, ERB, GOO
DATE: 20-Apr-05	WEATHER: Partly cloudy and warm
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION: SIZE: 0.1714 Ac 0.0693 Ha	

VEGETATION	CLASSIFICATION:	0% PEM	0% PSS	100% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Juncus effusus	H	FACW+	Rosa multiflora	SS	FACU
Carex sp.	H	85% FAC-OBL	Poaceae or Gramineae sp.	H	NS
Acer rubrum	T	FAC	Pinus strobus	T	FAC*
Toxicodendron radicans	H	FAC	Betula populifolia	T	FAC
			Prunus serotina	T	FACU
Percent of Dominant Species that are OBL, FACW, and FAC 100%					

SOILS	HYDROLOGY
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MAPPED SOIL UNIT: Wellsboro extremely stony loam (WpB) HYDRIC SOIL UNIT: Norwich	SOURCE OF HYDROLOGY: <small>Surface water runoff and seasonal high groundwater with seasonal saturation.</small> DEPTH OF SURFACE WATER: DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL:																
WETLAND CORE SOIL SCORE	FIELD INDICATORS PRIMARY INDICATORS <input type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input checked="" type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test																
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>DEPTH</th> <th>MATRIX</th> <th>MOTTLE</th> <th>TEXTURE</th> </tr> </thead> <tbody> <tr> <td>0-8"</td> <td>10YR4/2</td> <td>10YR4/6</td> <td>silt loam</td> </tr> <tr> <td>8-14"</td> <td>10YR5/2</td> <td>10YR5/6</td> <td>silt loam</td> </tr> <tr> <td>>14"</td> <td>rock</td> <td></td> <td>rock</td> </tr> </tbody> </table>		DEPTH	MATRIX	MOTTLE	TEXTURE	0-8"	10YR4/2	10YR4/6	silt loam	8-14"	10YR5/2	10YR5/6	silt loam	>14"	rock		rock
DEPTH		MATRIX	MOTTLE	TEXTURE													
0-8"	10YR4/2	10YR4/6	silt loam														
8-14"	10YR5/2	10YR5/6	silt loam														
>14"	rock		rock														
WETLAND FRINGE SOIL SCORE																	
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DEPTH	MATRIX	MOTTLE	TEXTURE														
0-16"	10YR3/3		disturbed														

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of sedge, soft rush, and red maple community along topographic low with low chroma mottled soil and evidence of saturation, drainage patterns, and sediment deposits.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 32	EVALUATOR: PJD, ERB, GOO
DATE: 20-Apr-05	WEATHER: Partly cloudy and warm
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 1.3928 Ac 0.5635 Ha

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 50% PFO 50% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Acer rubrum	T	FAC	Acer rubrum	T	FAC
Toxicodendron radicans	H	FAC	Pinus strobus	T	FAC+
Impatiens capensis	H	FACW	Hemerocallis fulva	H	UPL
Carex sp.	H	85% FAC-OBL	Carya ovata	T	FACU
Juncus effusus	H	FACW+			
Poaceae or Gramineae sp.	H	NS			

Percent of Dominant Species that are OBL, FACW, and FAC 100%

SOILS **HYDROLOGY**

MAPPED SOIL UNIT: Wellboro extremely stony loam (WpB) HYDRIC SOIL UNIT: Norwich	SOURCE OF HYDROLOGY: Stream flooding and groundwater. DEPTH OF SURFACE WATER: >2 DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL:																														
WETLAND CORE SOIL SCORE	FIELD INDICATORS																														
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">DEPTH</th> <th style="text-align: center;">MATRIX</th> <th style="text-align: center;">MOTTLE</th> <th style="text-align: center;">TEXTURE</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">inundated</td> <td></td> <td></td> <td style="text-align: center;">inundated</td> </tr> </tbody> </table>	DEPTH	MATRIX	MOTTLE	TEXTURE	inundated			inundated	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">PRIMARY INDICATORS</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Inundation</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Saturated in Upper 12 Inches</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Water Marks</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Drift Lines</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Sediment Deposits</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Drainage Patterns</td> </tr> <tr> <th colspan="2" style="text-align: center;">SECONDARY INDICATORS</th> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Oxidized Root Channels in Upper 12 inches</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Water Stained Leaves</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>FAC-Neutral Test</td> </tr> </tbody> </table>	PRIMARY INDICATORS		<input checked="" type="checkbox"/>	Inundation	<input checked="" type="checkbox"/>	Saturated in Upper 12 Inches	<input type="checkbox"/>	Water Marks	<input type="checkbox"/>	Drift Lines	<input type="checkbox"/>	Sediment Deposits	<input checked="" type="checkbox"/>	Drainage Patterns	SECONDARY INDICATORS		<input type="checkbox"/>	Oxidized Root Channels in Upper 12 inches	<input checked="" type="checkbox"/>	Water Stained Leaves	<input type="checkbox"/>	FAC-Neutral Test
DEPTH	MATRIX	MOTTLE	TEXTURE																												
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WETLAND FRINGE SOIL SCORE																															
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DEPTH	MATRIX	MOTTLE	TEXTURE																												
0-4"	10YR3/3		silt loam																												
4-16"	10YR4/4		silt loam																												
UPLAND SOIL SCORE																															

Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows the extent of red maple and sedge fringe with low chroma, mottled, and saturated soils with drainage patterns. Wetland is semipermanently inundated.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 33		EVALUATOR: PJD, BTB, ERB, GOO, KJS	
DATE: 21-Apr-05		WEATHER: Clear and cool	
Do normal circumstances exist on the site?		Yes	
Is the site significantly disturbed (Atypical Situation)?		No	
Is the area a potential problem area?		No	
HYDROGEOMORPHIC CLASSIFICATION:		SIZE: 1,4497 Ac 0.5865 Ha	
VEGETATION		CLASSIFICATION: 0% PEM 0% PSS 100% PFO 0% POW	
WETLAND		UPLAND	
<u>SPECIES</u>	<u>STRATUM</u>	<u>INDICATOR</u>	
Acer rubrum	T	FAC	<u>SPECIES</u>
Rhododendron sp.	SS	NS	Berberis sp.
Betula alleghaniensis	T	FAC	Acer rubrum
Impatiens capensis	H	FACW	Tsuga canadensis
Osmunda sp.	H	FAC - OBL	Maianthemum canadense
Microstegium vimineum	H	FAC	
Scirpus cyperinus	H	FACW+	
Percent of Dominant Species that are OBL, FACW, and FAC			
100%			
SOILS		HYDROLOGY	
MAPPED SOIL UNIT: Wellsboro extremely stony loam (WpB)		SOURCE OF HYDROLOGY: Groundwater discharge and seasonal saturation.	
HYDRIC SOIL UNIT: Norwich		DEPTH OF SURFACE WATER:	
<u>WETLAND CORE SOIL SCORE</u>			
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>
0-6"	10YR3/2	10YR4/6	silt loam
6-14"	10YR5/1	10YR4/6	silt loam
<u>WETLAND FRINGE SOIL SCORE</u>			
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>
0-6"	10YR2/2		organic/mineral
6-12"	10YR5/2	10YR5/3 and 10YR4/6	silt loam
>12"	rock		rock
<u>UPLAND SOIL SCORE</u>			
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>
0-4"	10YR3/3		silt loam
4-16"	7.5YR2/4		silt loam
		FIELD INDICATORS	
		PRIMARY INDICATORS	
		X Inundation	
		X Saturated in Upper 12 Inches	
		X Water Marks	
		Drift Lines	
		Sediment Deposits	
		X Drainage Patterns	
		SECONDARY INDICATORS	
		Oxidized Root Channels in Upper 12 inches	
		X Water Stained Leaves	
		FAC-Neutral Test	
Hydric Soil Indicators			
Histosol		Concretions	
Histic Epipedon		X High Organic Content in Surface Layers in Sandy Soils	
X Sulfidic Odor		Organic Streaking in Sandy Soils	
Aquic Moisture Regime		Listed on Local Hydric Soils List	
Reducing Conditions		Listed on National Hydric Soils List	
Gleyed or Low Chroma Colors		Other (Explain in Basis of Delineation)	
Wetland Determination			
Hydrophytic Vegetation Present?		Yes	
Wetland Hydrology Present?		Yes	
		Hydric Soil Present? Yes	
		Wetland? Yes	
BASIS OF DELINEATION:			
Delineation follows the extent of red maple community with evidence of saturation, drainage patterns, and water stained leaves with low chroma or sulfidic odor in soil.			

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 37		EVALUATOR: PJD, BTB, ERB, GOO, KJS			
DATE: 21-Apr-05		WEATHER: Clear and cool			
Do normal circumstances exist on the site? Yes					
Is the site significantly disturbed (Atypical Situation)? No					
Is the area a potential problem area? No					
HYDROGEOMORPHIC CLASSIFICATION:		SIZE: 0.0189 Ac	0.0076 Ha		
VEGETATION		CLASSIFICATION:	100% PEM 0% PSS 0% PFO 0% POW		
WETLAND			UPLAND		
<u>SPECIES</u>	<u>STRATUM</u>	<u>INDICATOR</u>	<u>SPECIES</u>	<u>STRATUM</u>	<u>INDICATOR</u>
Phalaris arundinacea	H	FACW	Taraxacum officinale	H	FACU-
Juncus effusus	H	FACW+	Potentilla sp.	H	NS
			Thuja occidentalis	T	FACW
Percent of Dominant Species that are OBL, FACW, and FAC			100%		
SOILS			HYDROLOGY		
MAPPED SOIL UNIT: Philo silt loam (Ph)			SOURCE OF HYDROLOGY: Seasonal flooding and groundwater seeps.		
HYDRIC SOIL UNIT: Holly			DEPTH OF SURFACE WATER:		
<u>WETLAND CORE SOIL SCORE</u>			DEPTH TO FREE WATER IN SOIL PIT:		
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO SATURATED SOIL:	
0-10"	10YR3/2	10YR4/6	silt loam	FIELD INDICATORS PRIMARY INDICATORS <input type="checkbox"/> Inundation <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test	
>10"	rock		rock		
<u>WETLAND FRINGE SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
<u>UPLAND SOIL SCORE</u>					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-6"	10YR3/3		silt loam		
6-12"	10YR3/6		silt loam		
Hydric Soil Indicators					
<input type="checkbox"/> Histosol				<input type="checkbox"/> Concretions	
<input type="checkbox"/> Histic Epipedon				<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils	
<input type="checkbox"/> Sulfidic Odor				<input type="checkbox"/> Organic Streaking in Sandy Soils	
<input type="checkbox"/> Aquic Moisture Regime				<input checked="" type="checkbox"/> Listed on Local Hydric Soils List	
<input checked="" type="checkbox"/> Reducing Conditions				<input type="checkbox"/> Listed on National Hydric Soils List	
<input type="checkbox"/> Gleyed or Low Chroma Colors				<input type="checkbox"/> Other (Explain in Basis of Delineation)	
Wetland Determination					
Hydrophytic Vegetation Present? Yes		Hydric Soil Present? Yes			
Wetland Hydrology Present? Yes		Wetland? Yes			
BASIS OF DELINEATION:					
Delineation follows the extent of reed canary grass bench along floodplain bench with low chroma mottled soils and saturation.					

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 45		EVALUATOR: PJD, BTB, ERB, GOO, KJS	
DATE: 21-Apr-05		WEATHER: Clear and cool	
Do normal circumstances exist on the site?		Yes	
Is the site significantly disturbed (Atypical Situation)?		No	
Is the area a potential problem area?		No	
HYDROGEOMORPHIC CLASSIFICATION:		SIZE: 0.0382 Ac	0.0155 Ha
VEGETATION		CLASSIFICATION: 100% PEM 0% PSS 0% PFO 0% POW	
WETLAND		UPLAND	
<u>SPECIES</u>	<u>STRATUM</u>	<u>INDICATOR</u>	
Poaceae or Gramineae sp.	H	NS	
			<u>SPECIES</u>
			Poaceae or Gramineae sp.
			Taraxacum officinale
			<u>STRATUM</u>
			H
			H
			<u>INDICATOR</u>
			NS
			FACU-
Percent of Dominant Species that are OBL, FACW, and FAC		#DIV/0!	
SOILS		HYDROLOGY	
MAPPED SOIL UNIT: Phlo silt loam (Ph)		SOURCE OF HYDROLOGY: Groundwater seep and seasonal saturation.	
HYDRIC SOIL UNIT: Holly		DEPTH OF SURFACE WATER:	
<u>WETLAND CORE SOIL SCORE</u>		DEPTH TO FREE WATER IN SOIL PIT:	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>
0-12"	10YR3/1	10YR4/3	silt loam
>12"	rock		rock
<u>WETLAND FRINGE SOIL SCORE</u>		<u>FIELD INDICATORS</u>	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>
<u>UPLAND SOIL SCORE</u>		<u>PRIMARY INDICATORS</u>	
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>
0-8"	10YR3/3		silt loam
8-16"	10YR3/4		silt loam
		Inundation	
		X Saturated in Upper 12 Inches	
		Water Marks	
		Drift Lines	
		Sediment Deposits	
		Drainage Patterns	
		<u>SECONDARY INDICATORS</u>	
		Oxidized Root Channels in Upper 12 inches	
		Water Stained Leaves	
		FAC-Neutral Test	
Hydric Soil Indicators			
Histosol		Concretions	
Histric Epipedon		High Organic Content in Surface Layers in Sandy Soils	
Sulfidic Odor		Organic Streaking in Sandy Soils	
Aquic Moisture Regime		X Listed on Local Hydric Soils List	
X Reducing Conditions		Listed on National Hydric Soils List	
Gleyed or Low Chroma Colors		Other (Explain in Basis of Delineation)	
Wetland Determination			
Hydrophytic Vegetation Present?		Yes	
Wetland Hydrology Present?		Yes	
		Hydric Soil Present? Yes	
		Wetland? Yes	
BASIS OF DELINEATION:			
Delineation follows the extent of seep and groundwater discharge in mowed grass area with low chroma mottled soils.			

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 55		EVALUATOR: PJD, BTB, AJL, RCL, ERB, GOO, KJS	
DATE: 22-Apr-05		WEATHER: 50% overcast and 50 degrees	
Do normal circumstances exist on the site?	Yes		
Is the site significantly disturbed (Atypical Situation)?	No		
Is the area a potential problem area?	No		
HYDROGEOMORPHIC CLASSIFICATION:		SIZE: 0.0320 Ac 0.0129 Ha	

VEGETATION	CLASSIFICATION:	100% PEM	0% PSS	0% PFO	0% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
Carex sp.	H	85% FAC-OBL	Poaceae or Gramineae sp.	H	NS
Poaceae or Gramineae sp.	H	NS	Trifolium sp.	H	NS
Percent of Dominant Species that are OBL, FACW, and FAC		100%			

SOILS	HYDROLOGY
-------	-----------

MAPPED SOIL UNIT: Ocuaga-Lackawanna extremely stony loams (OxC)				SOURCE OF HYDROLOGY: Groundwater seep.	
HYDRIC SOIL UNIT:				DEPTH OF SURFACE WATER: 1'	
WETLAND CORE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	10YR5/2	10YR5/4	silty clay loam		
4-12"	10YR5/1	10YR5/4	silty clay loam		
WETLAND FRINGE SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
UPLAND SOIL SCORE					
DEPTH	MATRIX	MOTTLE	TEXTURE		
0-4"	10YR4/4		silt loam		
4-12"	10YR5/4		silt loam		
>12"	rock		rock		

FIELD INDICATORS	
PRIMARY INDICATORS	
<input checked="" type="checkbox"/>	Inundation
<input checked="" type="checkbox"/>	Saturated in Upper 12 Inches
<input type="checkbox"/>	Water Marks
<input type="checkbox"/>	Drift Lines
<input type="checkbox"/>	Sediment Deposits
<input checked="" type="checkbox"/>	Drainage Patterns
SECONDARY INDICATORS	
<input type="checkbox"/>	Oxidized Root Channels in Upper 12 inches
<input type="checkbox"/>	Water Stained Leaves
<input type="checkbox"/>	FAC-Neutral Test

Hydric Soil Indicators			
<input type="checkbox"/>	Histosol	<input checked="" type="checkbox"/>	Concretions
<input type="checkbox"/>	Histic Epipedon	<input type="checkbox"/>	High Organic Content in Surface Layers in Sandy Soils
<input checked="" type="checkbox"/>	Sulfidic Odor	<input type="checkbox"/>	Organic Streaking in Sandy Soils
<input type="checkbox"/>	Aquic Moisture Regime	<input type="checkbox"/>	Listed on Local Hydric Soils List
<input type="checkbox"/>	Reducing Conditions	<input type="checkbox"/>	Listed on National Hydric Soils List
<input type="checkbox"/>	Gleyed or Low Chroma Colors	<input type="checkbox"/>	Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	Yes	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	Yes

BASIS OF DELINEATION:

Delineation follows extent of sedge, grass community in groundwater seep area with saturation and inundation with low chroma and mottled soils with evidence of concretions and sulfidic odor. Wetland 55 discharges into Channel 30.

Mt. Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 71	EVALUATOR: PJD, BTB, RCL, ERB																		
DATE: 28-Apr-05	WEATHER: 50 degrees with rain in past 24 hours																		
Do normal circumstances exist on the site? Yes																			
Is the site significantly disturbed (Atypical Situation)? No																			
Is the area a potential problem area? No																			
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.0846 Ac 0.0342 Ha																		
VEGETATION	CLASSIFICATION: 100% PEM 0% PSS 0% PFO 0% POW																		
WETLAND	UPLAND																		
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SPECIES	STRATUM	INDICATOR																	
Poaceae or Gramineae sp.	H	NS																	
Trifolium sp.	H	NS																	
Percent of Dominant Species that are OBL, FACW, and FAC	#DIV/0!																		
SOILS	HYDROLOGY																		
MAPPED SOIL UNIT: Braceville gravelly loam (BrA)	SOURCE OF HYDROLOGY: <small>Highly seep discharge and seasonal saturation.</small>																		
HYDRIC SOIL UNIT: Redford																			
WETLAND CORE SOIL SCORE	DEPTH OF SURFACE WATER:																		
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UPLAND SOIL SCORE	PRIMARY INDICATORS																		
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DEPTH	MATRIX	MOTTLE	TEXTURE																
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	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test																		
Hydric Soil Indicators																			
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input checked="" type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input checked="" type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Basis of Delineation)																		
Wetland Determination																			
Hydrophytic Vegetation Present? Yes	Hydric Soil Present? Yes																		
Wetland Hydrology Present? Yes	Wetland? Yes																		
BASIS OF DELINEATION:																			
<p>Delineation follows the extent of saturation in mowed lawn setting of golf course with low chroma, mottled soils. Area is planted with a mixture of vegetation for the golf course, thus the reason for lack of hydrophytic vegetation.</p>																			

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: Wetland 73		EVALUATOR: PJD, BTB, AJL			
DATE: 11-May-05		WEATHER: Sunny and hot			
Do normal circumstances exist on the site?		Yes			
Is the site significantly disturbed (Atypical Situation)?		No			
Is the area a potential problem area?		No			
HYDROGEOMORPHIC CLASSIFICATION:		SIZE: 0.0092 Ac	0.0037 Ha		
VEGETATION		CLASSIFICATION:	100% PEM 0% PSS 0% PFO 0% POW		
WETLAND			UPLAND		
<u>SPECIES</u>	<u>STRATUM</u>	<u>INDICATOR</u>	<u>SPECIES</u>	<u>STRATUM</u>	<u>INDICATOR</u>
Carex sp.	H	85% FAC-OBL	Taraxacum officinale	H	FACU
			Poaceae or Gramineae sp.	H	NS
			Trifolium sp.	H	NS
			Plantago major	H	FACU
			Veronica sp.	H	NS
Percent of Dominant Species that are OBL, FACW, and FAC			100%		
SOILS			HYDROLOGY		
MAPPED SOIL UNIT: Phlo silt loam (Ph)			SOURCE OF HYDROLOGY: Groundwater seep and stream flooding		
HYDRIC SOIL UNIT: Holly			DEPTH OF SURFACE WATER:		
WETLAND CORE SOIL SCORE			DEPTH TO FREE WATER IN SOIL PIT:		
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	DEPTH TO SATURATED SOIL: 0'	
0-4"	Organic		Organic		
4-16"	2.5Y3/2	10YR4/4	silty sandy loam		
WETLAND FRINGE SOIL SCORE			FIELD INDICATORS		
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	PRIMARY INDICATORS	
0-16"	10YR3/2	10YR2/1, 10YR4/4	silt loam	Inundation	
				X Saturated in Upper 12 Inches	
				Water Marks	
				X Drift Lines	
				Sediment Deposits	
				X Drainage Patterns	
UPLAND SOIL SCORE			SECONDARY INDICATORS		
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>	Oxidized Root Channels in Upper 12 inches	
0-4"	10YR4/3		sandy loam	Water Stained Leaves	
4-12"	10YR4/4		loam	FAC-Neutral Test	
>12"	rock		rock		
Hydric Soil Indicators					
Histosol			Concretions		
Histric Epipedon			High Organic Content in Surface Layers in Sandy Soils		
Sulfidic Odor			Organic Streaking in Sandy Soils		
Aquic Moisture Regime			X Listed on Local Hydric Soils List		
X Reducing Conditions			Listed on National Hydric Soils List		
X Gleyed or Low Chroma Colors			Other (Explain in Basis of Delineation)		
Wetland Determination					
Hydrophytic Vegetation Present?		Yes		Hydric Soil Present? Yes	
Wetland Hydrology Present?		Yes		Wetland? Yes	
BASIS OF DELINEATION:					
Delineation follows extent of sedge community with debris lines along floodplain bench with low chroma, mottled and saturated soils.					

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID:	POW 004	EVALUATOR:	PJD, BTB, KJS, ERB
DATE:	12-Apr-05	WEATHER:	sunny, clear, 50 degrees
Do normal circumstances exist on the site?	Yes		
Is the site significantly disturbed (Atypical Situation)?	No		
Is the area a potential problem area?	No		
HYDROGEOMORPHIC CLASSIFICATION:		SIZE:	0.4700 Ac 0.1902 Ha

VEGETATION	CLASSIFICATION:	0% PEM	0% PSS	0% PFO	100% POW
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WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
			Poaceae or Gramineae sp.	H	NS
			Trifolium sp.	H	NS
Percent of Dominant Species that are OBL, FACW, and FAC			#DIV/0!		

SOILS	HYDROLOGY
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MAPPED SOIL UNIT: Morris extremely stony silt loam (MoB) HYDRIC SOIL UNIT: Norwich	SOURCE OF HYDROLOGY: Surface water collection.																
WETLAND CORE SOIL SCORE <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">DEPTH</th> <th style="text-align: center;">MATRIX</th> <th style="text-align: center;">MOTTLE</th> <th style="text-align: center;">TEXTURE</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Inundated >2'</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	DEPTH	MATRIX	MOTTLE	TEXTURE	Inundated >2'				DEPTH OF SURFACE WATER: >2' DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test								
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0-4"	10YR4/4		silt loam														
4-12"	10YR6/4		silt loam														
>12"	rock		rock														

Hydric Soil Indicators	
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Delineation follows extent of topographic low and follows waters edge.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: POW 005		EVALUATOR: PJD, BTB, KJS, ERB			
DATE: 12-Apr-05		WEATHER: sunny, clear, 50 degrees			
Do normal circumstances exist on the site?	Yes				
Is the site significantly disturbed (Atypical Situation)?	No				
Is the area a potential problem area?	No				
HYDROGEOMORPHIC CLASSIFICATION:		SIZE: 0.2400 Ac 0.0971 Ha			
VEGETATION		CLASSIFICATION: 0% PEM 0% PSS 0% PFO 100% POW			
WETLAND		UPLAND			
<u>SPECIES</u>	<u>STRATUM</u>	<u>INDICATOR</u>			
			<u>SPECIES</u>		
			<u>STRATUM</u>		
			<u>INDICATOR</u>		
			Poaceae or Gramineae sp. H NS		
			Trifolium sp. H NS		
Percent of Dominant Species that are OBL, FACW, and FAC		#DIV/0!			
SOILS		HYDROLOGY			
MAPPED SOIL UNIT: Morris extremely stony silt loam (MoB)		SOURCE OF HYDROLOGY: Surface water collection.			
HYDRIC SOIL UNIT: Norwich		DEPTH OF SURFACE WATER: >2			
WETLAND CORE SOIL SCORE		DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL: FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test			
<u>DEPTH</u>	<u>MATRIX</u>			<u>MOTTLE</u>	<u>TEXTURE</u>
Inundated >2'					
WETLAND FRINGE SOIL SCORE					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
UPLAND SOIL SCORE					
<u>DEPTH</u>	<u>MATRIX</u>	<u>MOTTLE</u>	<u>TEXTURE</u>		
0-4"	10YR4/4		silt loam		
4-12"	10YR5/4		silt loam		
>12"	rock		rock		
Hydric Soil Indicators					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Gleyed or Low Chroma Colors		<input type="checkbox"/> Other (Explain in Basis of Delineation)			
Wetland Determination					
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	Yes		
Wetland Hydrology Present?	Yes	Wetland?	No		
BASIS OF DELINEATION:					
Delineation follows extent of topographic low and follows waters edge.					

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: POW 006	EVALUATOR: FJD, BTB, KJS, ERB	DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site?	Yes	Is the site significantly disturbed (Atypical Situation)?	No
Is the area a potential problem area?	No	HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 1.8500 Ac 0.7485 Ha

VEGETATION	CLASSIFICATION:																											
	0% PEM 0% PSS 0% PFO 100% POW																											
WETLAND	UPLAND																											
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Poaceae or Gramineae sp.	H	NS																										
Trifolium sp.	H	NS																										
Percent of Dominant Species that are OBL, FACW, and FAC	#DIV/0!																											

SOILS	HYDROLOGY																
MAPPED SOIL UNIT: Ocuaga-Lackawanna extremely stony loams (Ox8)	SOURCE OF HYDROLOGY: Surface water collection.																
HYDRIC SOIL UNIT:	DEPTH OF SURFACE WATER: >2'																
WETLAND CORE SOIL SCORE	DEPTH TO FREE WATER IN SOIL PIT:																
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">DEPTH</th> <th style="width: 25%;">MATRIX</th> <th style="width: 25%;">MOTTLE</th> <th style="width: 25%;">TEXTURE</th> </tr> </thead> <tbody> <tr> <td>Inundated >2'</td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	DEPTH	MATRIX	MOTTLE	TEXTURE	Inundated >2'				DEPTH TO SATURATED SOIL:								
DEPTH	MATRIX	MOTTLE	TEXTURE														
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WETLAND FRINGE SOIL SCORE	FIELD INDICATORS																
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UPLAND SOIL SCORE	<input checked="" type="checkbox"/> Inundation <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns																
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DEPTH	MATRIX	MOTTLE	TEXTURE														
0-4"	10YR4/4		silt loam														
4-12"	10YR5/4		silt loam														
>12"	rock		rock														
	<input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test																

Hydric Soil Indicators	
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Delineation follows extent of topographic low and follows waters edge.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: POW 013	EVALUATOR: PJD, BTB, KJS, ERB
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees
Do normal circumstances exist on the site? Yes	
Is the site significantly disturbed (Atypical Situation)? No	
Is the area a potential problem area? No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.6000 Ac 0.2428 Ha

VEGETATION CLASSIFICATION: 0% PEM 0% PSS 0% PFO 100% POW

WETLAND			UPLAND		
SPECIES	STRATUM	INDICATOR	SPECIES	STRATUM	INDICATOR
			Poaceae or Gramineae sp.	H	NS
			Trifolium sp.	H	NS
Percent of Dominant Species that are OBL, FACW, and FAC			#DIV/0!		

SOILS	HYDROLOGY
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MAPPED SOIL UNIT: Lackawanna extremely stony loam (LbE) HYDRIC SOIL UNIT:	SOURCE OF HYDROLOGY: Surface water collection. DEPTH OF SURFACE WATER: >2' DEPTH TO FREE WATER IN SOIL PIT: DEPTH TO SATURATED SOIL:											
WETLAND CORE SOIL SCORE <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">DEPTH</th> <th style="text-align: center;">MATRIX</th> <th style="text-align: center;">MOTTLE</th> <th style="text-align: center;">TEXTURE</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Inundated >2'</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	DEPTH	MATRIX	MOTTLE	TEXTURE	Inundated >2'				FIELD INDICATORS PRIMARY INDICATORS <input checked="" type="checkbox"/> Inundation <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns SECONDARY INDICATORS <input type="checkbox"/> Oxidized Root Channels in Upper 12 inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> FAC-Neutral Test			
DEPTH	MATRIX	MOTTLE	TEXTURE									
Inundated >2'												
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DEPTH	MATRIX	MOTTLE	TEXTURE									
0-8"	10YR4/3	10YR4/6	silt loam									
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Hydric Soil Indicators	
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layers in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Other (Explain in Basis of Delineation)

Wetland Determination			
Hydrophytic Vegetation Present?	No	Hydric Soil Present?	Yes
Wetland Hydrology Present?	Yes	Wetland?	No

BASIS OF DELINEATION:

Delineation follows extent of topographic low and follows waters edge.

Mount Airy Lodge WETLAND DATA FORM

WETLAND ID: POW 014	EVALUATOR: PJD, BTB, KJS, ERB	
DATE: 12-Apr-05	WEATHER: sunny, clear, 50 degrees	
Do normal circumstances exist on the site?	Yes	
Is the site significantly disturbed (Atypical Situation)?	No	
Is the area a potential problem area?	No	
HYDROGEOMORPHIC CLASSIFICATION:	SIZE: 0.4700 Ac 0.1902 Ha	
VEGETATION		
CLASSIFICATION: 0% PEM 0% PSS 0% PFO 100% POW		
WETLAND	UPLAND	
SPECIES STRATUM INDICATOR	SPECIES STRATUM INDICATOR	
	Poaceae or Gramineae sp. H NS	
	Trifolium sp. H NS	
Percent of Dominant Species that are OBL, FACW, and FAC #DIV/0!		
SOILS		
MAPPED SOIL UNIT: Lackawanna extremely stony loam (LbB)		
HYDRIC SOIL UNIT:		
WETLAND CORE SOIL SCORE		
DEPTH MATRIX MOTTLE TEXTURE		
Inundated >2'		
WETLAND FRINGE SOIL SCORE		
DEPTH MATRIX MOTTLE TEXTURE		
UPLAND SOIL SCORE		
DEPTH MATRIX MOTTLE TEXTURE		
0-8" 10YR4/3 10YR4/6 silt loam		
>8" rock rock		
HYDROLOGY		
SOURCE OF HYDROLOGY: Surface water collection.		
DEPTH OF SURFACE WATER: >2'		
DEPTH TO FREE WATER IN SOIL PIT:		
DEPTH TO SATURATED SOIL:		
FIELD INDICATORS		
PRIMARY INDICATORS		
<input checked="" type="checkbox"/> Inundation		
<input type="checkbox"/> Saturated in Upper 12 Inches		
<input type="checkbox"/> Water Marks		
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Hydrophytic Vegetation Present? No	Hydric Soil Present? Yes	
Wetland Hydrology Present? Yes	Wetland? No	
BASIS OF DELINEATION:		
Delineation follows extent of topographic low and follows waters edge.		

**APPENDIX F -
RESUME**

BENJAMIN T. BERRA
Environmental Scientist



EDUCATION:

M.S., Geoenvironmental Studies, 1998, Shippensburg University
B.S., Geoenvironmental Studies, 1996, Shippensburg University

Throughout the past 7 years, Mr. Berra's project experience has focused in the areas of jurisdictional wetland identification and delineation, the study and evaluation of aquatic ecosystems, wetland mitigation design/monitoring, stream and river classification, threatened/endangered/rare species investigations, and environmental permitting and documentation.

Mr. Berra has completed many wetland identification / delineation, and permitting projects for transportation, infrastructure, commercial, industrial, and residential development projects in Pennsylvania, New York, Maryland, and North Carolina. He has experience in wetland function evaluation using the USACOE Wetland Evaluation Technique II, Hydrogeomorphic Classification, and New England USACOE Descriptive Method. He has experience in the identification of potential wetland mitigation sites and their subsequent design, as well as experience in natural and constructed wetland monitoring.

Mr. Berra is on the U.S. Fish and Wildlife Service/Pennsylvania Fish and Boat Commission list of Recognized Qualified Bog Turtle Surveyors (for Pennsylvania). Mr. Berra has conducted numerous potential habitat evaluations and field surveys for the bog turtle (*Clemmys muhlenbergii*), a Federally listed threatened species and State listed endangered species, and has experience with radio telemetry research for the species.

Mr. Berra has also been involved with the biological evaluations for benthic macroinvertebrates, fish, and freshwater mussel communities, ambient water quality evaluations, and physical aquatic habitat evaluations. He has participated in surveys and research for the green floater (*Lasmigona subviridis*), a State listed rare species and other freshwater mussels; the rough greensnake (*Opheodrys aestivus*), a State listed threatened species, and numerous other amphibians and reptiles associated with wetlands, vernal pools, and waterways. Additionally, Mr. Berra has experience in the design, restoration, and enhancement of streams using the methodologies and techniques of Applied River Morphology (fluvial geomorphology.)

PROFESSIONAL EXPERIENCE

Field Crew Leader, Wetland Delineator, and Water Quality/Aquatic Resources Assistant, Route 322-B02, Corridor O Project, Centre and Clearfield County, PA - Responsible for the daily organization and operation of wetland delineation crew, identification and delineation of wetlands within the project area, and assisting with the water quality and aquatic sampling evaluations. Conducted field views, coordination, and meetings with Pennsylvania DOT, state and federal regulatory agencies, and the general public regarding project development, and alternative modification and selection. Assisted staff and teaming consultants in the development of environmental documentation and reports. Approximately 1,300 wetlands and 200 watercourses were identified and delineated in the 12,000 acre study area.

Bog Turtle Species Specialist - Conducted potential habitat investigations, field surveys, and radio telemetry research for the species throughout Pennsylvania, Maryland, and New Jersey. This includes characterization of the existing vegetative community, hydrologic regime, evaluation of the soil composition, metapopulation analysis, and hydrologic connectivity assessments. While assisting other recognized qualified surveyors, he has located numerous bog turtles at various sites, along with countless other herptofauna. Mr. Berra has also received training from the USFWS and the Pennsylvania Fish and Boat Commission regarding the species.

BENJAMIN T. BERRA
Environmental Scientist
Page 2 of 2

Field Crew Leader, Wetland Delineator, and Water Quality/Aquatic Resources Assistant, State Route 2001, sections 401/402, improvement Project, Pike County, PA - Responsible for the daily organization and operation of wetland delineation crew, identification and delineation of wetlands, and assisting with the water quality and aquatic sampling evaluations. Approximately 125 wetlands and 40 watercourses were identified and delineated within the project area.

Wetland Delineator, Surveyor, and Water Quality/Aquatic Resources Assistant, Central Susquehanna Valley Transportation Improvement Project, Snyder County, PA - Responsible for the identification and delineation of wetlands within the project area. Also responsible for the GPS surveying of delineated wetlands, and assisting with the water quality and aquatic sampling evaluations.

Field Crew Leader, Wetland Delineator, Freestone Golf Course, Centre County, PA - Responsible for field reconnaissance, and wetland delineations on this 270 acre site. More than 90 wetlands were delineated along with over 50 watercourses. Also assisted with the project development and layout, and permit application package and regulatory agency coordination.

Wetland Delineator, Surveyor, and Water Quality/Aquatic Resources Assistant, Route 15 Construction Project, Tioga County, PA and Steuben County, NY - Responsible for the identification and delineation of wetlands within the project area, the surveying of delineated wetlands, and assisting with the water quality and aquatic sampling evaluations. Mr. Berra also conducted the preliminary analysis and investigations for potential wetland mitigation sites.

Project Manager and Wetland Delineator, Hershey Trust Property #148, Conewago Township, Dauphin County, PA - Responsible for assisting with proposal development, initial field reconnaissance, and wetland delineations on this 500+ acre site. More than 85 acres of wetlands were delineated. Was also responsible for the preparation of the Wetlands Identification / Delineation and Functional Assessment Report.

Aquatic Resources Assistant, Patapsco River Watershed Water Quality Management Plan, Baltimore County, MD - Conducted a fluvial geomorphological assessment based upon Rosgen Classification methodology of the Patapsco River in support of Baltimore County's effort to determine existing and future watershed problems and development measures for the reestablishment of stream stability and reduction of non-point source pollution.

Aquatic Resources Assistant, Rush Township Aquatic Survey, Schuylkill County, PA - Responsible for assisting with the in-field sampling for water quality and benthic macroinvertebrates at select sites on township streams. Also assisted with the lab processing of the benthic macroinvertebrates, and the report preparation.

Aquatic Resources and Wetland Monitoring Assistant, S.R. 0220, Sections C10, C11, and C12 Highway Improvement Project, Centre and Blair Counties, PA - Responsible for assisting in the establishment of permanent monitoring points throughout the South Bald Eagle Creek, North Bald Eagle Creek, and Buffalo Run Watersheds. Included with the monitoring were evaluations of stream flow, ambient water quality, aquatic biota, and fluvial geomorphic conditions. Wetland monitoring consists of routine monitoring of conditions in select wetlands (pre, during, post construction).

Pennsylvania Department of Conservation and Natural Resources - While a student, Mr. Berra was employed for three years with the Bureau of Recreation and Conservation, Division of Conservation Partnerships. His duties included coordinating and administering Rivers Conservation Grants for the Rivers Conservation Program, and performing Scenic River Reviews for projects located within the corridors of Pennsylvania's designated Scenic and Priority 1A Rivers.