
Attachment 28 to PLA-6219
Ecology III, Inc. May 5, 2004.
Wetland Delineation for West Building Area
Susquehanna Steam Electric Station

(NRC Document Request 74)

**WETLAND DELINEATION
FOR
WEST BUILDING AREA
SUSQUEHANNA STEAM
ELECTRIC STATION**

Prepared by

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5 May 2004

WETLAND DELINEATION FOR WEST BUILDING AREA SUSQUEHANNA STEAM ELECTRIC STATION

A delineation of wetlands was made for a possible parking lot expansion near the West Building at the Susquehanna Steam Electric Station on 29 March and 27 April 2004. The survey included lands surrounding the West Building, west of TR438 (Confers Lane), and around the Towers Club, east of TR438, in Salem Township, Luzerne County, Pennsylvania.

Wetlands occur north of the West Building, west of the building except for an upland ridge, and south of the building. Wetlands also occur east of TR438 in a depression between the Towers Club driveway and the Gate 50 access road and south of the Gate 50 access road.

Wetlands north and west of the West Building are classified as emergent perennial palustrine wetlands according to Cowardin et al. (1979). Dominants include arrowwood, broad-leaf meadowsweet, red canary grass, wrinkle-leaf goldenrod, giant goldenrod, sensitive fern, and Asiatic tearthumb. Wetland status of species and additional species used in delineation are listed in Table 1. Soils are mapped as Chenango gravelly loam (U. S. Department of Agriculture 1981). This is not listed as a hydric soil by the U. S. Department of Agriculture (1987), but it may have hydric inclusions. Soil tests indicated hydric soil, 10YR 5/2, with bright chroma mottles. Data from this community are given in Appendix I, Plot No. 1.

Wetlands west of the West Building are classified as emergent perennial and scrub shrub wetlands (Cowardin et al. 1979). Dominants include red maple, arrowwood, broad-leaf meadowsweet, reed canary grass, and giant goldenrod. Soils are mapped as Rexford loam (U. S. Department of Agriculture 1981), which is listed as a hydric soil (U. S. Department of Agriculture 1987). Soil tests indicated hydric soil, 10YR 4/1, with bright chroma mottles. Data from this community are given in Appendix I, Plot No. 2.

Wetlands south of the West Building and south of the Towers Club are classified as forested palustrine wetlands (Cowardin et al. 1979). Dominants include pin oak, red maple, arrowwood, northern spicebush, high-bush blueberry, skunk cabbage, cinnamon fern, and sensitive fern (Table 1). Soils are mapped as Rexford silt loam and Atherton silt loam (U. S. Department of Agriculture 1981); both are listed as hydric soils (U. S. Department of Agriculture 1987). Soil tests indicated saturated soil, 10YR 4/1, with bright chroma mottles. Data from this community are given in Appendix I, Plot No. 3 (south of West Building) and No. 4 (south of Towers Club).

Wetlands were delineated in accordance with the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987). The wetland boundaries were marked with red wire flags as follows (see map):

- 1-48 South and west of West Building
- 49-80 North of West Building
- T1-15 Between Towers Club and Gate 50 access
- T16-27 South of Gate 50 access

The hillside north of the wetland at the West Building and north of the Towers Club is upland. Vegetation consists of northern red oak, black oak, black cherry, red maple, flowering dogwood, northern spicebush (Towers Club side only), garlic mustard, and hay-scented fern. Soils are mapped as Oquagga and Lordstown extremely stony silt loam (U. S. Department of Agriculture 1981). These are not listed as hydric soils (U. S. Department of Agriculture 1987). Soil tests indicated stony soil, 10YR 4/4-4/6, with no mottles or other hydric soil features. Data from this community are given in Appendix A, Plot No. 5 and No. 6.

Upland field vegetation occurs between the West Building and the dikes surrounding the pond (and on the dikes) and on a low ridge west of the fence. Vegetation consists of Virginia pine and gray birch on the low ridge, with multiflora rose, Allegheny blackberry, staghorn sumac, autumn olive, wrinkle-leaf goldenrod, orchard grass, broom-sedge, and Asiatic tearthumb. Soils are mapped as Chenango gravelly loam and Rexford loam. Rexford is listed as a hydric soil; Chenango is not listed as hydric (U. S. Department of Agriculture 1987). Soil tests indicated non-hydric soils, 10YR 4/3-4/4, with no mottles or other hydric soil features. Data from these areas are given in Appendix I, Plot No. 7 and No. 8.

The lawn areas around the buildings are also mostly upland (probably on fill around the West Building). Vegetation consists of lawn grasses. Soils are mapped as Rexford loam, but did not match this soil description. Soil tests indicated non-hydric soils, 10YR 4/4-4/5. Data from this area are given in Appendix I, Plot No. 9.

Upland areas could be used for the parking lot expansion where wetlands would not need to be disturbed for access. The best would appear to be the low ridge west of the existing fence. There is also some area behind the Towers Club that might be utilized. The area around the existing pond would not be large enough and the hillsides to the north are too steep. South of both buildings is nearly all forested wetlands which should not be considered. Crossing, filling, or encroaching on wetlands would require permits from the U. S. Army Corps of Engineers and the PA Department of Environmental Protection.

References

- Cowardin, L. M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. Classification of wetland and deepwater habitats of the United States. U. S. Fish and Wildlife Service, U. S. Department of the Interior.
- Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Technical. Report. Y-87-1, U. S. Army Engineer Waterways Experiment Station, Vicksburg, MS.
- Reed, P. N. 1988. National list of plant species that occur in wetlands: Pennsylvania. National Wetlands Inventory, U. S. Fish and Wildlife Service, St. Petersburg, FL.
- U. S. Department of Agriculture. 1981. Soil survey of Luzerne County, Pennsylvania. Soil Conservation Service.
- U. S. Department of Agriculture. 1987. Hydric soils of the United States. Soil Conservation Service.

Table 1

Plant species (common and scientific names) used in wetland delineation for West Building Area, Susquehanna Steam Electric Station, Salem Township, Pennsylvania, 29 March and 27 April 2004.

Common Name	Scientific Name	Wetland Status*
Red maple	<i>Acer rubrum</i>	Fac
Brookside alder	<i>Alnus serrulata</i>	Obl
Northern spicebush	<i>Lindera benzoin</i>	Facw
Sensitive fern	<i>Onoclea sensibilis</i>	Facw
Cinnamon fern	<i>Osmunda cinnamomea</i>	Facw
Reed canary grass	<i>Phalaris arundinacea</i>	Facw
Asiatic tearthumb	<i>Polygonum perfoliatum</i>	Fac
Pin oak	<i>Quercus palustris</i>	Facw
Silky willow	<i>Salix sericea</i>	Obl
Giant goldenrod	<i>Solidago gigantea</i>	Facw
Wrinkle-leaf goldenrod	<i>Solidago rugosa</i>	Fac
Broad-leaf meadowsweet	<i>Spiraea latifolia</i>	Fac
Skunk cabbage	<i>Symplocarpus foetidus</i>	Obl
Common cattail	<i>Typha latifolia</i>	Obl
High-bush blueberry	<i>Vaccinium corymbosum</i>	Facw
Arrowwood	<i>Viburnum dentatum</i>	Fac

* Classification according to U. S. Fish and Wildlife Service (Reed 1988).

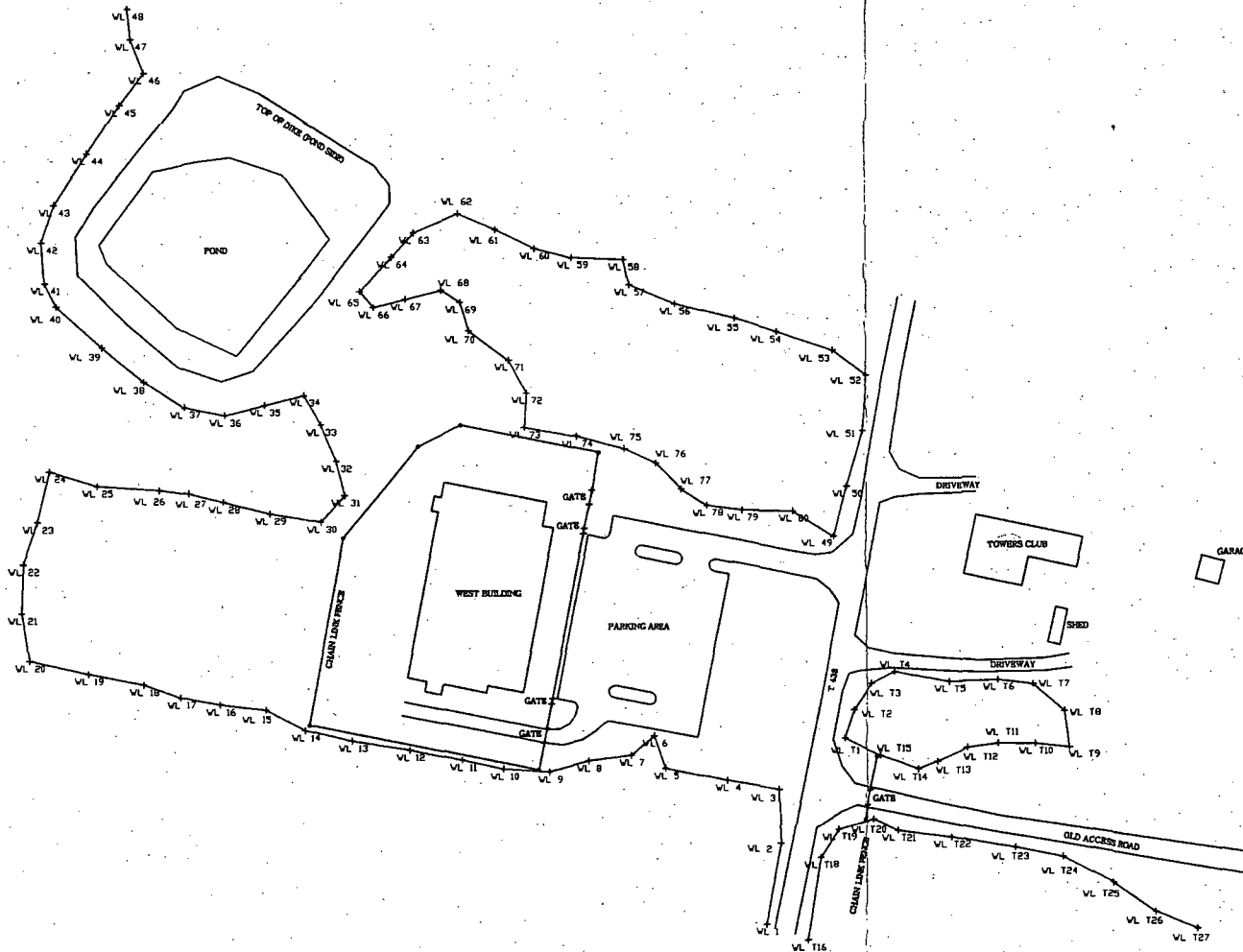
Obl = Obligate wetland species (almost always occur in wetlands)

Facw = Facultative wetland species (usually occur in wetlands)

Fac = Facultative species (equally likely to occur in wetlands or nonwetlands)

Facu = Facultative upland species (usually occur in uplands)

Upl = Upland species (not listed in wetland inventory)



SUSQUEHANNA S.E.S. WEST BUILDING

WETLAND DELINEATION SURVEY
FOR DR. JAMES MONTGOMERY
SURVEY DATED 4/27/04
FILE 742130.DWG
SCALE: 1"=100'
NOTE: SURVEY PERFORMED USING ASSUMED
COORDINATE'S AND ELEVATION DATUM.

APPENDIX I

Data Sheets From

Corps of Engineers Wetland Delineation Manual
(Environmental Laboratory 1987)

For Community Types Described in This Report

DATA FORM 1
WETLAND DETERMINATION

Applicant Name: PPL Application Number: _____ Project Name: West Bldg
State: PA County: Luzerne Legal Description: _____ Township: Salem
Date: 3/29/04 Plot No.: 1 Section: N of Parking Lot

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. (none)		7. <i>Phalaris arundinacea</i>	FACW
2.		8. <i>Solidago rugosa</i>	FAC
3.		9. <i>Solidago gigantea</i>	FACW
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <i>Viburnum dentatum</i>	FAC	10. <i>Oncoclea sensibilis</i>	FACW
5. <i>Spiraea latifolia</i>	FAC	11. <i>Polygonum perfoliatum</i>	FAC
6.		12.	

% of species that are OBL, FACW, and/or FAC: 100. Other indicators: _____
Hydrophytic vegetation: Yes X No ____ Basis: 100% FAC in spp

Soil

Series and phase: Chenango gravelly loam On hydric soils list? Yes ____; No X.
Mottled: Yes X; No ____ Mottle color: 10YR 4/6; Matrix color: 10YR 5/2.
Gleyed: Yes ____ No X Other indicators: _____
Hydric soils: Yes X No ____ Basis: mottled low chrom soil

Hydrology

Inundated: Yes X; No ____ Depth of standing water: 2".
Saturated soils: Yes X; No ____ Depth to saturated soil: 0".
Other indicators: _____
Wetland hydrology: Yes X; No ____ Basis: saturated soil.
Atypical situation: Yes ____; No X.
Normal Circumstances? Yes X No ____
Wetland Determination: Wetland X; Nonwetland ____
Comments:

Determined by: J. Montgomery

DATA FORM 1
WETLAND DETERMINATION

Applicant Name: PIL Application Number: _____ Project Name: West Bldg
State: PA County: Lucerne Legal Description: _____ Township: Salem
Date: 3/29/04 Plot No.: 2 Section: W. of West Bldg

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. <u>Acer rubrum</u>	<u>Fac</u>	7. <u>Phalaris arundinacea</u>	<u>Facw</u>
2. _____		8. <u>Solidago gigantea</u>	<u>Facw</u>
3. _____		9. _____	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <u>Viburnum dentatum</u>	<u>Fac</u>	10. _____	
5. <u>Spicea latifolia</u>	<u>Fac</u>	11. _____	
6. _____		12. _____	

% of species that are OBL, FACW, and/or FAC: 100. Other indicators: _____
Hydrophytic vegetation: Yes X No ____ Basis: 100% Fac + spp

Soil

Series and phase: Rexford loam On hydric soils list? Yes X ; No ____
Mottled: Yes X ; No ____ Mottle color: 10YR4/1 ; Matrix color: 10YR4/1
Gleyed: Yes ____ No X Other indicators: _____
Hydric soils: Yes X No ____ ; Basis: mottled low chroma soil

Hydrology

Inundated: Yes ____ ; No X . Depth of standing water: _____
Saturated soils: Yes X ; No ____ . Depth to saturated soil: 6"
Other indicators: _____
Wetland hydrology: Yes X ; No ____ . Basis: saturated soil
Atypical situation: Yes ____ ; No X .
Normal Circumstances? Yes X No ____
Wetland Determination: Wetland X ; Nonwetland ____

Comments:

Determined by: J. Montgomery

DATA FORM 1
WETLAND DETERMINATION

Applicant Name: PPL Application Number: _____ Project Name: West Bldg
State: PA County: Luverne Legal Description: _____ Township: Salem
Date: 3/29/04 Plot No.: 3 Section: wet woods S of West Bldg

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. <i>Quercus palustris</i>	Facw	7. <i>Symplocarpus foetidus</i>	Obl
2. <i>Acer rubrum</i>	Fac	8. <i>Oxycodon sensibilis</i>	Facw
3.		9.	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <i>Vaccinium corymbosum</i>	Facw	10.	-
5. <i>Viburnum dentatum</i>	Fac	11.	
6. <i>Lindern benzoin</i>	Facw	12.	

% of species that are OBL, FACW, and/or FAC: 100. Other indicators: _____.
Hydrophytic vegetation: Yes X No ____ Basis: 100% Fac or > spp.

Soil

Series and phase: Atherton silt loam On hydric soils list? Yes X ; No ____.
Mottled: Yes X ; No ____ Mottle color: 10YR 4/4-4/6 ; Matrix color: 10YR 4/1.
Gleyed: Yes X No ____ Other indicators: sulfidic odor.
Hydric soils: Yes ____ No ____ ; Basis: mottled, gleyed soil.

Hydrology

Inundated: Yes X ; No ____ Depth of standing water: 2".
Saturated soils: Yes X ; No ____ Depth to saturated soil: 1".
Other indicators: _____.
Wetland hydrology: Yes X ; No ____ Basis: saturated soil.
Atypical situation: Yes ____ ; No X.
Normal Circumstances? Yes X No ____.
Wetland Determination: Wetland X ; Nonwetland ____.

Comments:

Determined by: J. Montgomery

DATA FORM 1
WETLAND DETERMINATION

Applicant Name: PPL Application Number: _____ Project Name: Towers, Ch. 6
State: PA County: Luze Legal Description: _____ Township: Salem
Date: 4/12/04 Plot No.: 4 Section: Towers Ch. 6 Side

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. <u>Acer rubrum</u>	<u>Fac</u>	7. <u>Symplectos foetidus</u>	<u>Obl</u>
2. <u>Quercus palustris</u>	<u>Facw</u>	8. <u>Osmunda cinnamomea</u>	<u>Facw</u>
3. _____	_____	9. _____	_____
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <u>Viburnum dentatum</u>	<u>Fac</u>	10. <u>Vitis sp.</u>	_____
5. <u>Lindera benzoin</u>	<u>Facw</u>	11. _____	_____
6. _____	_____	12. _____	_____

% of species that are OBL, FACW, and/or FAC: 100. Other indicators: _____
Hydrophytic vegetation: Yes X No _____. Basis: 100% Fac or > spp

Soil

Series and phase: Rexford silt loam On hydric soils list? Yes X; No _____.
Mottled: Yes X; No _____. Mottle color: 10YR 4/6; Matrix color: 10YR 4/2.
Gleyed: Yes _____ No X Other indicators: _____
Hydric soils: Yes X No _____. Basis: mod low chroma soil

Hydrology

Inundated: Yes X; No _____. Depth of standing water: 3".
Saturated soils: Yes X; No _____. Depth to saturated soil: 2".
Other indicators: tree hummocks.
Wetland hydrology: Yes X; No _____. Basis: saturated ponded soil.
Atypical situation: Yes _____; No X.
Normal Circumstances? Yes X No _____.
Wetland Determination: Wetland X; Nonwetland _____.

Comments:

Determined by: J. Montgomery

DATA FORM 1
WETLAND DETERMINATION

Applicant Name: PPL Application Number: _____ Project Name: West Bldg
State: PA County: Luzerne Legal Description: _____ Township: Salem
Date: 3/29/04 Plot No.: 5 Section: hillside N of West Bldg

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. <i>Quercus rubra</i>	Facu	7. <i>Alliaria petiolata</i>	Facu
2. <i>Prunus serotina</i>	Facu	8.	
3.		9.	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <i>Cornus florida</i>	Facu	10. <i>Toxicodendron radicans</i>	Fac
5. <i>Quercus rubra</i>	Facu	11.	
6.		12.	

% of species that are OBL, FACW, and/or FAC: 18. Other indicators: none.
Hydrophytic vegetation: Yes _____ No X. Basis: <50% Fac + spp.

Soil Ogunaga + Londtoun
Series and phase: ext stony silt loam On hydric soils list? Yes _____; No X.
Mottled: Yes _____; No X. Mottle color: -; Matrix color: 10YR2/4.
Gleyed: Yes _____ No X Other indicators: none.
Hydric soils: Yes _____ No X; Basis: no indicators.

Hydrology
Inundated: Yes _____; No X. Depth of standing water: -.
Saturated soils: Yes _____; No X. Depth to saturated soil: > 18".
Other indicators: none.
Wetland hydrology: Yes _____; No X. Basis: no indicators.
Atypical situation: Yes _____; No X.
Normal Circumstances? Yes X No _____.
Wetland Determination: Wetland _____; Nonwetland X.

Comments:

Determined by: J. Montgomery

DATA FORM 1
WETLAND DETERMINATION

Applicant Name: PPL Application Number: _____ Project Name: Towers Club
State: PA County: Lucerne Legal Description: _____ Township: Salmon
Date: 4/12/04 Plot No.: 6 Section: Towers Club Sid.

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. <i>Quercus velutina</i>	Obl	7. <i>Lycopodium obscurum</i>	Facu
2. <i>Fraxinus americana</i>	Facu	8. <i>Desmodium illinoense</i>	Obl
3. <i>Acer rubrum</i>	Facu	9.	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <i>Cornus florida</i>	Facu	10.	
5. <i>Lindera benzoin</i>	Facu	11.	
6.		12.	

% of species that are OBL, FACW, and/or FAC: 28. Other indicators: _____
Hydrophytic vegetation: Yes _____ No X. Basis: <50% Fac or > 50%

Soil

Series and phase: Ogongwa + Lordstown On hydric soils list? Yes _____; No X.
Mottled: Yes _____; No X. Mottle color: _____; Matrix color: 10YR4/6.
Gleyed: Yes _____ No X Other indicators: none.
Hydric soils: Yes _____ No X; Basis: no indicators

Hydrology

Inundated: Yes _____; No X. Depth of standing water: _____.
Saturated soils: Yes _____; No X. Depth to saturated soil: > 16".
Other indicators: none.
Wetland hydrology: Yes _____; No X. Basis: no indicators.
Atypical situation: Yes _____; No X.
Normal Circumstances? Yes X No _____.
Wetland Determination: Wetland _____; Nonwetland X.

Comments:

Determined by: J. Montgomery

DATA FORM 1
WETLAND DETERMINATION

Applicant Name: PPL Application Number: _____ Project Name: West Bldg
State: PA County: Lucerne Legal Description: _____ Township: Salem
Date: 3/29/04 Plot No.: 7 Section: dike + hill

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. —		7. <i>Solidago rugosa</i>	<u>Fac</u>
2.		8. <i>Dactylis glomerata</i>	<u>Facu</u>
3.		9. <i>Polygonum perfoliatum</i>	<u>fac</u>
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <i>Rubus allegheniensis</i>	<u>Facu</u>	10. —	
5. <i>Rhus typhina</i>	<u>Upl</u>	11.	
6. <i>Rosa multiflora</i>	<u>Facu</u>	12.	

% of species that are OBL, FACW, and/or FAC: 33. Other indicators: _____
Hydrophytic vegetation: Yes _____ No X. Basis: < 50% fac + spp

Soil

Series and phase: Chenango gravelly loam On hydric soils list? Yes _____; No X.
Mottled: Yes _____; No X. Mottle color: —; Matrix color: 10YR4/4.
Gleyed: Yes _____ No X Other indicators: none.
Hydric soils: Yes _____ No X; Basis: no indicators.

Hydrology

Inundated: Yes _____; No X. Depth of standing water: —.
Saturated soils: Yes _____; No X. Depth to saturated soil: > 16".
Other indicators: none.
Wetland hydrology: Yes _____; No X. Basis: no indicators.
Atypical situation: Yes _____; No X.
Normal Circumstances? Yes X No _____.
Wetland Determination: Wetland _____; Nonwetland X.

Comments:

Determined by: J. Montgomery

DATA FORM 1
WETLAND DETERMINATION

Applicant Name: PPL Application Number: _____ Project Name: West Bldg
State: PA County: LuZerne Legal Description: _____ Township: Salem
Date: 3/29/04 Plot No.: 8 Section: W of West Bldg

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. <i>Pinus virginiana</i>	<u>Upl</u>	7. <i>Solidago rugosa</i>	<u>Fac</u>
2. <i>Betula populifolia</i>	<u>Fac</u>	8. <i>Andropogon virginicus</i>	<u>Facu</u>
3.		9. <i>Dactylis glomerata</i>	<u>Facu</u>
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <i>Rosa multiflora</i>	<u>Facu</u>	10.	
5. <i>Elaeagnus angustifolia</i>	<u>Facu</u>	11.	
6.		12.	

% of species that are OBL, FACW, and/or FAC: 28. Other indicators: _____
Hydrophytic vegetation: Yes _____ No X. Basis: < 50% Fac + spec

Soil

Series and phase: Rexford loam On hydric soils list? Yes X; No _____
Mottled: Yes _____; No X. Mottle color: -; Matrix color: 10YR 4/3
Gleyed: Yes _____ No X Other indicators: none
Hydric soils: Yes _____ No X; Basis: no indicators

Hydrology

Inundated: Yes _____; No X. Depth of standing water: _____
Saturated soils: Yes _____; No X. Depth to saturated soil: > 18"
Other indicators: none
Wetland hydrology: Yes _____; No X. Basis: no indicators
Atypical situation: Yes _____; No X
Normal Circumstances? Yes X No _____
Wetland Determination: Wetland _____; Nonwetland X

Comments:

Determined by: J. Montgomery

DATA FORM 1
WETLAND DETERMINATION

Applicant Name: PPL Application Number: _____ Project Name: West Bldg
State: PA County: LuZerne Legal Description: _____ Township: Salem
Date: 3/29/04 Plot No.: 9 Section: lawn

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. <u>-</u>		7. <u>lawn grasses</u>	
2. <u>-</u>		8. <u>-</u>	
3. <u>-</u>		9. <u>-</u>	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <u>-</u>		10. <u>-</u>	
5. <u>-</u>		11. <u>-</u>	
6. <u>-</u>		12. <u>-</u>	

% of species that are OBL, FACW, and/or FAC: _____. Other indicators: _____.
Hydrophytic vegetation: Yes ____ No X. Basis: no wetland spec.

Soil
Series and phase: Fill on Bedford loam On hydric soils list? Yes ____; No ____.
Mottled: Yes ____; No X. Mottle color: -; Matrix color: 10YR 5/4.
Gleyed: Yes ____ No X Other indicators: none.
Hydric soils: Yes ____ No X; Basis: no indicators.

Hydrology
Inundated: Yes ____; No X. Depth of standing water: _____.
Saturated soils: Yes ____; No X. Depth to saturated soil: > 10" & fill.
Other indicators: none.
Wetland hydrology: Yes ____; No X. Basis: no indicators.
Atypical situation: Yes X; No _____.
Normal Circumstances? Yes X No _____.
Wetland Determination: Wetland _____; Nonwetland X.
Comments: 4-8" to red stone fill

Determined by: J. Montgomery