Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: ~~07028~~ 07025 Applicant: **Roaring Brook Wind Power Project** Date: Sep. 10, 2007

Investigator: Jim Pippin / Sara Stebbins Town: **Martinsburg**
County: **Lewis**
State: **NY**

Do normal circumstances exist on site? (Yes) No Community: Emergent

Is the site significantly disturbed? Yes (No) Transect/Flag ID: Q

Is the area a potential Problem Area? Yes (No) Plot ID: Wetland Sampling Point @ Q

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-10"	A	5Y 25/1	—	Loam-mucky
10"+ Stone layer + auger rejected				

Hydric Soil Indicators:

___ Histisols
___ Histic Epipedon
___ Sufidic Odor
___ Reducing Conditions
___ Concretions
___ High Org. Content in Surface Layer of Sandy Soils
___ Organic Streaking in Sandy Soils
✓ Gleyed or Low Chroma color
___ Listed on Local Hydric Soils List
___ Listed as Potential for Hydric Inclusions Only
___ Other (Explain in Remarks)
___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat ___ undulating X

Remarks: Organic mucky soils, high organic content

HYDROLOGY

X Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
X Aerial Photographs

Field Observations

NO Ground Surface Inundated ___ inches.
Yes Soil Saturated.
Depth to Free Water 4 inches.
Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
✓ Saturated in upper 12 inches.
✓ Water Marks
___ Drift Lines
___ Sediment Deposits
✓ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___ Oxidized Root Channels in upper 12 inches
X Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks: Hummocky emergent wetland w/ some areas standing water

Project Number: ~~07028~~ 07025

Applicant: Roaring Brook Wind Power Project

Date: 9/10/07

Plot ID Number: WP-Q

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	Cattails - wide	(H) S/S T V	OBL	50%
2	Joe Pye weed	(H) S/S T V	FACW	20%
3	purple-stemmed aster	(H) S/S T V	OBL	10%
4		H S/S T V		
5		H S/S T V		
6		H S/S T V		
7		H S/S T V		
8		H S/S T V		
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 100%

50/20 Rule Applied? (Yes) No

Remarks: turtlehead present both sides road (not dominant)
jewelweed, sensitive fern

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

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Rochester, New York 14607

Project No: ~~07028~~ 07025 Applicant: Roaring Brook Wind Power Project Date: 9/10/07

Investigator: Jim Pippin / Sara Stebbins Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? (Yes) No Community: upland forest

Is the site significantly disturbed? Yes (No) Transect/Flag ID: Q - upland

Is the area a potential Problem Area? Yes (No) Plot ID: upland point @ Q

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-16"+	A	10YR 4/4	—	silty loam

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____

flat _____ undulating ✓

Remarks: no hydric indicators

HYDROLOGY

_____ Recorded Data (Describe in Remarks)

_____ No Recorded Data Available

_____ Stream, Lake or Tide Gauge

_____ Aerial Photographs

Field Observations

_____ Ground Surface Inundated_____inches.

_____ Soil Saturated.

Depth to Free Water_____inches.

Depth to Saturated Soils_____inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated

___ Saturated in upper 12 inches.

___ Water Marks

___ Drift Lines

___ Sediment Deposits

___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

___ Oxidized Root Channels in upper 12 inches

___ Water-Stained leaves

___ Local Soil Survey

___ Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks:

no hydrology observed

Project Number: ~~07028~~ 07025

Applicant: **Roaring Brook Wind Power Project**

Date: 9/10/07

Plot ID Number: USP - Q

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	yellow birch	H S/S (T) V	FAC	30%
2		H S/S T V		
3	beech	H (S/S) T V	FACU	25%
4	black cherry	H (S/S) T V	FACU	25%
5	hobblebush	H (S/S) T V	FAC	25%
6	striped maple	H (S/S) T V	FACU	5%
7	red maple	H (S/S) T V	FAC	10%
8		H S/S T V		
9	intermediate wood fern	(H) S/S T V	FACU	30%
10	Canada mayflower	(H) S/S T V	FAC-	10%
11	sarsaparilla	(H) S/S T V	FACU	10%
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 43%

Percent of Dominant Species OBL, FACW ~~0~~

50/20 Rule Applied? (Yes) No

Remarks: Hydrophytic vegetation mostly lacking

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

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Project No: ~~07028~~ 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/10/07

Investigator: Sara Stebbins / Jim Pippin Town: **Martinsburg**

County: **Lewis**

State: **NY**

Do normal circumstances exist on site? (Yes) No Community: forested wetland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: R1

Is the area a potential Problem Area? Yes (No) Plot ID: wetland point @ R

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-6"	A	10YR 2/2	—	silty loam
6"+	stony substrate			

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ____ convex ____ sloping ____ Approximate slope: ____

flat ____ undulating X

Remarks: hydric soils, shallow rock

HYDROLOGY

____ Recorded Data (Describe in Remarks)

____ No Recorded Data Available

____ Stream, Lake or Tide Gauge

____ Aerial Photographs

Field Observations

NO Ground Surface Inundated ____ inches.

Yes Soil Saturated.

Depth to Free Water ____ inches.

Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated

X Saturated in upper 12 inches.

___ Water Marks

___ Drift Lines

___ Sediment Deposits

X Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

X Oxidized Root Channels in upper 12 inches

___ Water-Stained leaves

___ Local Soil Survey

___ Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks:

Project Number: ~~07028~~ 07025
Applicant: Roaring Brook Wind Power Project

Date: 9/10/07
Plot ID Number: WSP-R

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	jewelweed	(H) S/S T V	FACW	50%
2	sensitive fern	(H) S/S T V	FACW	25%
3	tussock sedge	(H) S/S T V	OBL	25%
4	beggar ticks (B. frondosa)	(H) S/S T V	FACW	10%
5		H S/S T V		
* 6	yellow birch	H S/S (T) V	FAC	30%
* 7	red maple	H S/S (T) V	FAC	15%
* 8	sugar maple	H S/S (T) V	FACU-	50%
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 80%

Percent of Dominant Species OBL, FACW 60%

50/20 Rule Applied? (Yes) No

Remarks: * wetland is narrow - canopy trees growing in upland but shading wetland *

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

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Project No: ~~07028~~ 07025 Applicant: Roaring Brook Wind Power Project Date: 9/10/07

Investigator: Jim Pippin / Sara Stebbins Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? (Yes) No Community: forested upland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: R1

Is the area a potential Problem Area? Yes (No) Plot ID: upland point @ R

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-10"	A	10YR 2/1	10YR 6/2 - many distinct	silt loam
10" +	B	10YR 4/4	—	

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____

flat _____ undulating X

Remarks: no hydric soils

HYDROLOGY

_____ Recorded Data (Describe in Remarks)

_____ No Recorded Data Available

_____ Stream, Lake or Tide Gauge

_____ Aerial Photographs

Field Observations

_____ Ground Surface Inundated _____ inches.

_____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated

___ Saturated in upper 12 inches.

___ Water Marks

___ Drift Lines

___ Sediment Deposits

___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

___ Oxidized Root Channels in upper 12 inches

___ Water-Stained leaves

___ Local Soil Survey

___ Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks: no hydrology indicators

Project Number: ~~07028~~ 07025
Applicant: Roaring Brook Wind Power Project

Date: 9/10/07
Plot ID Number: USP-R

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	Sugar maple	H S/S T (V)	FACU-	30 %
2		H S/S T V		
3	beech	H (S/S) T V	FACU	25 %
4	blackberry	H (S/S) T V	FACU-	50 %
5		H S/S T V		
6	lady fern	(H) S/S T V	FAC	20 %
7	flat-topped aster	(H) S/S T V	FACW	15 %
8	wood fern	(H) S/S T V	FACU	15 %
9	hay scented fern	(H) S/S T V	UPL	60 %
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 0

Percent of Dominant Species OBL, FACW 0

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

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Project No: ~~07028~~ 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/10/07

Investigator: J.M Pippin / Sara Stebbins Town: **Martinsburg**

County: **Lewis**

State: **NY**

Do normal circumstances exist on site? (Yes) No Community: mixed wetlands

Is the site significantly disturbed? Yes (No) Transect/Flag ID: S1

Is the area a potential Problem Area? Yes (No) Plot ID: wetland point S

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-16"+	A	10YR 3/1	—	Silty loam

Hydric Soil Indicators:

- ___ Histisols
- ___ Histic Epipedon
- ___ Sufidic Odor
- ___ Reducing Conditions
- ___ Concretions
- ___ High Org. Content in Surface Layer of Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ✓ Gleyed or Low Chroma color
- ___ Listed on Local Hydric Soils List
- ___ Listed as Potential for Hydric Inclusions Only
- ___ Other (Explain in Remarks)
- ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat ___ undulating X

Remarks: Mucky organic soils - woody debris

HYDROLOGY

- ___ Recorded Data (Describe in Remarks)
- ___ No Recorded Data Available
- ___ Stream, Lake or Tide Gauge
- ___ Aerial Photographs

Field Observations

No Ground Surface Inundated ___ inches.

Yes Soil Saturated.

Depth to Free Water 7/16" inches.

Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
- ___ Inundated
- X Saturated in upper 12 inches.
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- X Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
- ___ Oxidized Root Channels in upper 12 inches
- ___ Water-Stained leaves
- ___ Local Soil Survey
- ___ Morphological Plant Adaptations
- ___ Other (Explain in Remarks)

Remarks: hummocky

Project Number: ~~07028~~ 07025
Applicant: Roaring Brook Wind Power Project

Date: 9/10/07
Plot ID Number: WSP - S

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	green ash	H S/S (T) V	FACW	25%
2	yellow birch	H S/S (T) V	FAC	25%
3		H S/S T V		
4	winterberry	H (S/S) T V	FACW+	30%
5	velvetleaf blueberry	H (S/S) T V	FAC	10%
6	red maple	H (S/S) T V	FAC	25%
7		H S/S T V		
8	sensitive fern	(H) S/S T V	FACW	30%
9	willowherb	(H) S/S T V	OBL	10%
10	flat topped aster	(H) S/S T V	FACW	15%
11	cinnamon fern	(H) S/S T V	FACW	30%
12	beggars tick (B. frondosa)	(H) S/S T V	FACW	5%
13	Sphagnum	(H) S/S T V	FACW/OBL	5%
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 67%

50/20 Rule Applied? (Yes) / No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks: wetland vegetation

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Project No: ~~07028~~ 07025 Applicant: Roaring Brook Wind Power Project Date: 9/10/07

Investigator: Jim Pippin / Sara Stebbins Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? (Yes) No

Is the site significantly disturbed? Yes (No)

Is the area a potential Problem Area? Yes (No)

Community: forested upland

Transect/Flag ID: S1

Plot ID: upland point @ S

SOILS

Series and Phase: Drainage Class: WD MWD SPD PD VPD

Subgroup: Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-16"+	A	7.5YR 4/4	—	silty loam

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ____ convex ____ sloping ____ Approximate slope: ____

flat ____ undulating X

Remarks: high organic content
no hydric indicators

HYDROLOGY

____ Recorded Data (Describe in Remarks)

____ No Recorded Data Available

____ Stream, Lake or Tide Gauge

____ Aerial Photographs

Field Observations

____ Ground Surface Inundated ____ inches.

____ Soil Saturated.

Depth to Free Water ____ inches.

Depth to Saturated Soils ____ inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated
___ Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:

no wetland hydrology

Project Number: ~~07028~~ 07025

Applicant: Roaring Brook Wind Power Project

Date: 9/10/07

Plot ID Number: USP-5

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	balsam fir	H S/S (T) V	FAC	40%
2	beech	H S/S (T) V	FACU	70%
3		H S/S T V		
4		H S/S T V		
5	beech	H (S/S) T V	FACU	25%
6	striped maple	H (S/S) T V	FACU	10%
7	hobblebush	H (S/S) T V	FAC	30%
8		H S/S T V		
9		H S/S T V		
10	canada mayflower	(H) S/S T V	FAC-	5%
11	intermediate wood fern	(H) S/S T V	FACU	20%
12	sarsaparilla	(H) S/S T V	FACU	10%
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 33%

Percent of Dominant Species OBL, FACW ~~0~~

50/20 Rule Applied? (Yes) No

Remarks:

upland vegetation

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

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Investigator: Sara Stebbins/Jim Pippin Town: **Martinsburg**
County: **Lewis**
State: **NY**

Do normal circumstances exist on site? (Yes) No Community: emergent

Is the site significantly disturbed? Yes (No) Transect/Flag ID: T1

Is the area a potential Problem Area? Yes (No) Plot ID: wetland point @ T

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-12"	A	10YR 2/2	—	
12"+	stony layer rejects auger			silty loam

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____
flat _____ undulating X

Remarks: high organic content

HYDROLOGY

_____ Recorded Data (Describe in Remarks)
_____ No Recorded Data Available
_____ Stream, Lake or Tide Gauge
_____ Aerial Photographs

Field Observations
NO Ground Surface Inundated _____ inches.
YES Soil Saturated.
Depth to Free Water _____ inches.
Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
X Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
X Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks: hummocky terrain

Project Number: ~~07028~~ 07025
Applicant: Roaring Brook Wind Power Project

Date: 9/10/07
Plot ID Number: WSP-T

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	joe pye weed	(H) S/S T V	FACW	60%
2	turtlehead	(H) S/S T V	OBL	10%
3	sensitive fern	(H) S/S T V	FACW	25%
4	purple stemmed aster	(H) S/S T V	OBL	10%
5	cinnamon fern	(H) S/S T V	FACW	10%
6	cattails	(H) S/S T V	OBL	10%
7	jewelweed	(H) S/S T V	FACW	20%
8	lady fern	(H) S/S T V	FAC	5%
9		H S/S T V		
10		H S/S T V		
11	dwarf raspberry	H (S/S) T V	FACW	30%
12	red maple	H (S/S) T V	FAC	10%
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 67%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: [redacted] 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/10/07

Investigator: Sara Stebbins / Jim Pippin Town: **Martinsburg**
County: **Lewis**
State: **NY**

Do normal circumstances exist on site? (Yes) No Community: forested upland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: T 1

Is the area a potential Problem Area? Yes (No) Plot ID: upland point @ T

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-16"	O	black	organic soil	

Hydric Soil Indicators:

___Histisols	___Concretions	___ Listed on Local Hydric Soils List
___Histic Epipedon	___High Org. Content in Surface Layer of Sandy Soils	___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor	___Organic Streaking in Sandy Soils	___ Other (Explain in Remarks)
___Reducing Conditions	___Gleyed or Low Chroma color	___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____
flat _____ undulating X

Remarks: soil dry crumbly, non hydric
high organic content, lots woody debris

HYDROLOGY

_____ Recorded Data (Describe in Remarks)
_____ No Recorded Data Available
_____ Stream, Lake or Tide Gauge
_____ Aerial Photographs

Field Observations
_____ Ground Surface Inundated _____ inches.
_____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators
- ___ Inundated
- ___ Saturated in upper 12 inches.
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
- ___ Oxidized Root Channels in upper 12 inches
- ___ Water-Stained leaves
- ___ Local Soil Survey
- ___ Morphological Plant Adaptations
- ___ Other (Explain in Remarks)

Remarks:
no hydrology

Project Number: ~~07028~~ 07025

Applicant: Roaring Brook Wind Power Project

Date: 9/10/07

Plot ID Number: USP-T

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	yellow birch	H S/S (T) V	FAC	20% -
2	red maple	H S/S (T) V	FAC	20% -
3	balsam fir	H S/S (T) V	FAC	10% -
4	hobblebush	H (S/S) T V	FAC	30% -
5	black cherry	H (S/S) T V	FACU	10%
6	striped maple	H (S/S) T V	FACU	5%
7	red maple	H (S/S) T V	FAC	15% -
8		H S/S T V		
9	intermediate woodfern	(H) S/S T V	FACW*	10% -
10	canada mayflower	(H) S/S T V	FAC-	5%
11	goldthread	(H) S/S T V	FACW	5%
12	robin runaway	(H) S/S T V	FAC	5%
13	bluebead lily	(H) S/S T V	FAC	5%
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 83%

Percent of Dominant Species OBL, FACW 0

50/20 Rule Applied? (Yes) No

Remarks: upland vegetation, sparse herb layer

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

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DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: ~~07028~~ 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/10/07

Investigator: Sara Stebbins/Jim Piggin/Brian Schwabenbauer Town: **Martinsburg**
County: **Lewis**
State: **NY**

Do normal circumstances exist on site? (Yes) No Community: forested wetland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: U1 –

Is the area a potential Problem Area? Yes (No) Plot ID: wetland point @ U1

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-14"	A	10YR 2/1	—	silty loam
14"+	stony layer rejects auger			

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____
flat _____ undulating ✓

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)
_____ No Recorded Data Available
_____ Stream, Lake or Tide Gauge
_____ Aerial Photographs

Field Observations
NO Ground Surface Inundated _____ inches.
YES Soil Saturated.
Depth to Free Water _____ inches.
Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
X Saturated in upper 12 inches.
X Water Marks
___ Drift Lines
___ Sediment Deposits
✓ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:

Project Number: ~~07028~~ 07025

Applicant: Roaring Brook Wind Power Project

Date: 9/10/07

Plot ID Number: WSP-4

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	Carex sp.	(H) S/S T V	FACW/OBL	30%
2	Sensitive fern	(H) S/S T V	FACW	60%
3	Sphagnum	(H) S/S T V	FACW/OBL	10%
4	soft rush	(H) S/S T V	FACW+	5%
5		H S/S T V		
6	red maple	H S/S (T) V	FAC	30%
7	yellow birch	H S/S (T) V	FAC	25%
8		H S/S T V		
9		H S/S T V		
10	red maple	H (S/S) T V	FAC	20%
11	black spruce	H (S/S) T V	FACW-	5%
12	beech	H (S/S) T V	FACU	10%
13	Striped maple	H (S/S) T V	FACU	10%
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 71%

Percent of Dominant Species OBL, FACW 29%

50/20 Rule Applied? (Yes) No

Remarks: some upland plants on hummocks

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: ~~07028~~ 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/10/07

Investigator: Sara Stebbins/Jim Pippin/Brian Schwaegler Town: **Martinsburg**

County: **Lewis**

State: **NY**

Do normal circumstances exist on site? (Yes) No Community: forested upland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: U1

Is the area a potential Problem Area? Yes (No) Plot ID: upland plot @ U1

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-4"	O		organic	
4"-10"	A	2.5Y 7/2	—	silt sand
10"+	rocky stone layer			

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sulfidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____

flat _____ undulating X

Remarks: no hydric soils

HYDROLOGY

_____ Recorded Data (Describe in Remarks)

_____ No Recorded Data Available

_____ Stream, Lake or Tide Gauge

_____ Aerial Photographs

Field Observations

_____ Ground Surface Inundated _____ inches.

_____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated

___ Saturated in upper 12 inches.

___ Water Marks

___ Drift Lines

___ Sediment Deposits

___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

___ Oxidized Root Channels in upper 12 inches

___ Water-Stained leaves

___ Local Soil Survey

___ Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks: no wetland hydrology

Project Number: ~~07028~~ 07025

Applicant: Roaring Brook Wind Power Project

Date: 9/10/07

Plot ID Number: USP-4

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	red maple	H S/S (T) V	FAC	40%
2	beech	H S/S (T) V	FACU	20%
3		H S/S T V		
4	striped maple	H (S/S) T V	FACU	10%
5	hobblebush	H (S/S) T V	FAC	40%
6	fern	H (S/S) T V	FACU	20%
7		H S/S T V		
8		H S/S T V		
9	Canada mayflower	(H) S/S T V	FAC-	5%
10	gold thread	(H) S/S T V	FACW	5%
11	intermediate wood fern	(H) S/S T V	FACU	20%
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 40%

Percent of Dominant Species OBL, FACW 0

50/20 Rule Applied? (Yes) No

Remarks: no wetland plants
sparse herb layer

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

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DATA FORM
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274 North Goodman Street
Rochester, New York 14607

Project No: ~~07028~~ 07025 Applicant: Roaring Brook Wind Power Project Date: 9/11/07

Investigator: Stebbins/Pippin/Schwabenbauer Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? (Yes) No Community: Forested wetland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: V1 – V17

Is the area a potential Problem Area? Yes (No) Plot ID: Wetland point @ V

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0/16"+	A	10YR 2/1	—	silty loam

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sulfidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ✓ Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____

flat _____ undulating X

Remarks: black soil, high organic content

HYDROLOGY

_____ Recorded Data (Describe in Remarks)

_____ No Recorded Data Available

_____ Stream, Lake or Tide Gauge

_____ Aerial Photographs

Field Observations

NO Ground Surface Inundated _____ inches.

YES Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated

X Saturated in upper 12 inches.

___ Water Marks

___ Drift Lines

___ Sediment Deposits

X Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

___ Oxidized Root Channels in upper 12 inches

X Water-Stained leaves

___ Local Soil Survey

___ Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks: hummocky terrain

Project Number: ~~07028~~ 07025

Applicant: Roaring Brook Wind Power Project

Date: 9/11/07

Plot ID Number: WSP - V

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	black spruce	H S/S (T) V	FACW-	30%
2	red maple	H S/S (T) V	FAC	20%
3		H S/S T V		
4		H S/S T V		
5	black spruce	H (S/S) T V	FACW-	25%
6	red maple	H (S/S) T V	FAC	15%
7	yellow birch	H (S/S) T V	FAC	5%
8	mountain holly	H (S/S) T V	OBL	20%
9		H S/S T V		
10		H S/S T V		
11	tussock sedge	(H) S/S T V	OBL	40%
12	cinnamon fern	(H) S/S T V	FACW	25%
13	bluebead lily	(H) S/S T V	FAC	5%
14	sphagnum	(H) S/S T V	FACW/OBL	40%
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 75%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

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274 North Goodman Street
Rochester, New York 14607

Project No: ~~07028~~ 07025 Applicant: Roaring Brook Wind Power Project Date: 9/11/07

Investigator: Stebbins/Pippin/Schwabenbauer Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? (Yes) No Community: forested upland

Is the site significantly disturbed? (Yes) No Transect/Flag ID: V

Is the area a potential Problem Area? Yes (No) Plot ID: upland point @ V

SOILS

Series and Phase: _____ Drainage Class: WD MWD SPD PD VPD

Subgroup: _____ Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-10"	O	Organic woody debris, organic soils		
10"+		Stony layer rejects auger		

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____

flat _____ undulating X

Remarks:

* no hydric soils *

upland area along roadside has fairly heavy disturbance, fresh cut mowers

HYDROLOGY

_____ Recorded Data (Describe in Remarks)

_____ No Recorded Data Available

_____ Stream, Lake or Tide Gauge

_____ Aerial Photographs

Field Observations

_____ Ground Surface Inundated _____ inches.

_____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated

___ Saturated in upper 12 inches.

___ Water Marks

___ Drift Lines

___ Sediment Deposits

___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

___ Oxidized Root Channels in upper 12 inches

___ Water-Stained leaves

___ Local Soil Survey

___ Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks:

no wetland hydrology

Project Number: ~~07028~~ 07025

Applicant: Roaring Brook Wind Power Project

Date: 7/11/07

Plot ID Number: USP-V

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	yellow birch	H S/S (T) V	FAC	40%
2	balsam fir	H S/S (T) V	FAC	30%
3	red maple	H S/S (T) V	FAC	30%
4		H S/S T V		
5	hobblebush	H (S/S) T V	FAC	20%
6	red maple	H (S/S) T V	FAC	10%
7		H S/S T V		
8	partridgeberry	(H) S/S T V	FACU	25%
9	bunchberry	(H) S/S T V	FAC-	25%
10	intermediate woodfern	(H) S/S T V	FACU	10%
11	goldthread	(H) S/S T V	FACW	10%
12	Canada mayflower	(H) S/S T V	FAC-	5%
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 86%

Percent of Dominant Species OBL, FACW 0

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

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Rochester, New York 14607

Project No: ~~07028~~ 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/11/07

Investigator: Stebbins/Pippin/Schwabenbauer Town: **Martinsburg**

County: **Lewis**

State: **NY**

Do normal circumstances exist on site? (Yes) No Community: emergent

Is the site significantly disturbed? Yes (No) Transect/Flag ID: W1 - W14

Is the area a potential Problem Area? Yes (No) Plot ID: wetland point @ W

SOILS

Series and Phase: _____ **Drainage Class:** **WD MWD SPD PD VPD**

Subgroup: _____ **Confirm Mapped Type:** **Yes No**

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-4"	A	10YR 4/2	—	Silty loam
4"+	B	10YR 3/1	—	Silty loam

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____

flat X undulating _____

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)

_____ No Recorded Data Available

_____ Stream, Lake or Tide Gauge

_____ Aerial Photographs

Field Observations

Yes Ground Surface Inundated 0-4" inches.

Yes Soil Saturated.

Depth to Free Water 0 inches.

Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators

X Inundated

X Saturated in upper 12 inches.

X Water Marks

___ Drift Lines

___ Sediment Deposits

___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

X Oxidized Root Channels in upper 12 inches

___ Water-Stained leaves

___ Local Soil Survey

___ Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks:

Project Number: ~~07028~~ 07025

Applicant: Roaring Brook Wind Power Project

Date: 9/11/07

Plot ID Number: WSP-W

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	narrow leaf cattails	(H) S/S T V	OBL	75%
2	purple stemmed aster	(H) S/S T V	OBL	5%
3	soft rush	(H) S/S T V	FACW+	10%
4	tussock sedge	(H) S/S T V	OBL	10%
5	eleocharis	(H) S/S T V	FACW/OBL	10%
6		H S/S T V		
7		H S/S T V		
8		H S/S T V		
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 100%

50/20 Rule Applied? (Yes) No

Remarks: also not dominant narrow leaved goldenrod, sensitive fern

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

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Rochester, New York 14607

Project No: ~~07028~~ 07025 Applicant: Roaring Brook Wind Power Project Date: 9/11/07

Investigator: Stebbins/Rippin/Schwakenbauer Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? Yes (No)

Is the site significantly disturbed? (Yes) No

Is the area a potential Problem Area? Yes (No)

Community: forested upland/edge

Transect/Flag ID: W

Plot ID: upland point @ W

SOILS

Series and Phase: Drainage Class: WD MWD SPD PD VPD

Subgroup: Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-12"	O	organic dry crumbly		

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___

flat ___ undulating X

Remarks: Upland area adjacent to wetland very disturbed, soil pushed up from roadside, no soil horizons

HYDROLOGY

___ Recorded Data (Describe in Remarks)

___ No Recorded Data Available

___ Stream, Lake or Tide Gauge

___ Aerial Photographs

Field Observations

NO Ground Surface Inundated ___ inches.

NO Soil Saturated.

Depth to Free Water ___ inches.

Depth to Saturated Soils ___ inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated

___ Saturated in upper 12 inches.

___ Water Marks

___ Drift Lines

___ Sediment Deposits

___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

___ Oxidized Root Channels in upper 12 inches

___ Water-Stained leaves

___ Local Soil Survey

___ Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks: no wetland hydrology

Project Number: ~~07028~~ 07025
Applicant: Roaring Brook Wind Power Project

Date: 9/11/07
Plot ID Number: USP-W

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	blackberry	H (S/S) T V	FACU-	40%
2	red maple	H (S/S) T V	FAC	10%
3	raspberry	H (S/S) T V	FAC-	40%
4	sugar maple	H (S/S) T V	FACU-	10%
5	black cherry	H S/S (T) V	FACU	25%
6	yellow birch	H S/S (T) V	FAC	10%
7		H S/S T V		
8		H S/S T V		
9	flat topped aster	(H) S/S T V	FACW	15%
10	intermediate woodfern	(H) S/S T V	FACU	5%
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 50%

Percent of Dominant Species OBL, FACW 25%

50/20 Rule Applied? (Yes) No

Remarks: thick brambles, little herbaceous vegetation

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: ~~07028~~ 07025 Applicant: Roaring Brook Wind Power Project Date: 9/11/07

Investigator: Stebbins/Pippin/Schwabenbauer Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? (Yes) No Community: emergent

Is the site significantly disturbed? Yes (No) Transect/Flag ID: X

Is the area a potential Problem Area? Yes (No) Plot ID: wetland point @ X

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-4"	A	2.5Y 2.5/1	—	silty loam
4-16"+	B	2.5Y 5/3	—	sandy silty clay

Hydric Soil Indicators:

- ___ Histisols
- ___ Histic Epipedon
- X Sufidic Odor
- ___ Reducing Conditions
- ___ Concretions
- ___ High Org. Content in Surface Layer of Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Gleyed or Low Chroma color
- ___ Listed on Local Hydric Soils List
- ___ Listed as Potential for Hydric Inclusions Only
- ___ Other (Explain in Remarks)
- ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat ___ undulating X

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations

NO Ground Surface Inundated ___ inches.
YES Soil Saturated.
Depth to Free Water ___ inches.
Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
- ___ Inundated
- X Saturated in upper 12 inches.
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
- X Oxidized Root Channels in upper 12 inches
- X Water-Stained leaves
- ___ Local Soil Survey
- ___ Morphological Plant Adaptations
- ___ Other (Explain in Remarks)

Remarks:
hummocky terrain

Project Number: ~~07028~~ 07025
Applicant: **Roaring Brook Wind Power Project**

Date: 9/11/07
Plot ID Number: WSP-X

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	wool grass	(H) S/S T V	FACW	60%
2	sensitive fern	(H) S/S T V	FACW	50%
3	mad cap skullcap	(H) S/S T V	FACW+	5%
4	sedges	(H) S/S T V	FACW/OBL	20%
5		H S/S T V		
6		H S/S T V		
7		H S/S T V		
8		H S/S T V		
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 100%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: ~~07028~~ 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/11/07

Investigator: Stebbins/Pippin/Schwabenbauer Town: **Martinsburg**

County: **Lewis**

State: **NY**

Do normal circumstances exist on site? (Yes) No Community: forested upland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: X

Is the area a potential Problem Area? Yes (No) Plot ID: upland point @ X

SOILS

Series and Phase: _____ **Drainage Class:** **WD MWD SPD PD VPD**

Subgroup: _____ **Confirm Mapped Type:** **Yes No**

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-4"	O	organic matter		
4-8"	A	7.5 YR 7/2	—	sand
8" +	B	7.5 YR 4/6	—	sand

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____

flat _____ undulating X

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)

_____ No Recorded Data Available

_____ Stream, Lake or Tide Gauge

_____ Aerial Photographs

Field Observations

_____ Ground Surface Inundated _____ inches.

_____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated

___ Saturated in upper 12 inches.

___ Water Marks

___ Drift Lines

___ Sediment Deposits

___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

___ Oxidized Root Channels in upper 12 inches

___ Water-Stained leaves

___ Local Soil Survey

___ Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks:

no wetland hydrology

Project Number: ~~07028~~ 07025

Applicant: Roaring Brook Wind Power Project

Date: 9/11/07

Plot ID Number: USP - X

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	yellow birch	H S/S (T) V	FAC	20%
2	sugar maple	H S/S (T) V	FACU-	20%
3	red maple	H S/S (T) V	FAC	40% -
4	black cherry	H S/S (T) V	FACU	10%
5		H S/S T V		
6	hobblebush	H (S/S) T V	FAC	40% -
7	blackberry	H (S/S) T V	FACU-	10%
8	beech	H (S/S) T V	FACU	10%
9	red maple	H (S/S) T V	FAC	10%
10		H S/S T V		
11	hayscented fern	(H) S/S T V	UPL	40% -
12	canada mayflower	(H) S/S T V	FAC-	5%
13	flat topped aster	(H) S/S T V	FACW	5%
14	gold thread	(H) S/S T V	FACW	5%
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 67%

Percent of Dominant Species OBL, FACW 0

50/20 Rule Applied? (Yes) No

Remarks: no wetland vegetation

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: ~~07028~~ 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/11/07

Investigator: Stebbins/Pippin/Schwabenbauer Town: **Martinsburg**

County: **Lewis**

State: **NY**

Do normal circumstances exist on site? (Yes) No Community: emergent, scrub/shrub

Is the site significantly disturbed? Yes (No) Transect/Flag ID: Y - west

Is the area a potential Problem Area? Yes (No) Plot ID: wetland point @ Y (west)

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-16"+	A	10YR 2/1	none	silt loam

Hydric Soil Indicators:

- ___ Histisols
- ___ Histic Epipedon
- ___ Sufidic Odor
- ___ Reducing Conditions
- ___ Concretions
- ___ High Org. Content in Surface Layer of Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Gleyed or Low Chroma color
- ___ Listed on Local Hydric Soils List
- ___ Listed as Potential for Hydric Inclusions Only
- ___ Other (Explain in Remarks)
- ___ Aquic Moisture Regime

Landscape position: concave ____ convex ____ sloping ____ Approximate slope: ____
flat X undulating ____

Remarks: black soil, high organic content

HYDROLOGY

- ____ Recorded Data (Describe in Remarks)
- ____ No Recorded Data Available
- ____ Stream, Lake or Tide Gauge
- ____ Aerial Photographs

Field Observations

- NO Ground Surface Inundated ____ inches.
- YES Soil Saturated.

Depth to Free Water ____ inches.

Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
- ___ Inundated
- X Saturated in upper 12 inches.
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
- ___ Oxidized Root Channels in upper 12 inches
- X Water-Stained leaves
- ___ Local Soil Survey
- ___ Morphological Plant Adaptations
- ___ Other (Explain in Remarks)

Remarks:

Project Number: ~~07028~~ 07025

Applicant: Roaring Brook Wind Power Project

Date: 9/11/07

Plot ID Number: WSP-YW

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	yellow birch	H (S/S) T V	FAC	10% ✓
2	balsam fir	H (S/S) T V	FAC	10% ✓
3	speckled alder	H (S/S) T V	FACW+	30% ✓
4		H S/S T V		
5	cattails	(H) S/S T V	OBL	10%
6	wetland grass	(H) S/S T V	FACW/OBL	95% ✓
7	joe pye weed	H S/S T V	FACW	5%
8		H S/S T V		
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 50%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: ~~07028~~ 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/11/07

Investigator: Stubbs/Pippin/Schwabenbauer Town: **Martinsburg**

County: **Lewis**

State: **NY**

Do normal circumstances exist on site? (Yes) No Community: forested upland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: Y — west

Is the area a potential Problem Area? Yes (No) Plot ID: upland point @ Y (west)

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-10"	O	organic, dry crumbly		
10"+		stony layer rejects auger		

Hydric Soil Indicators:

- ___Histisols
- ___Histic Epipedon
- ___Sufidic Odor
- ___Reducing Conditions
- ___Concretions
- ___High Org. Content in Surface Layer of Sandy Soils
- ___Organic Streaking in Sandy Soils
- ___Gleyed or Low Chroma color
- ___ Listed on Local Hydric Soils List
- ___ Listed as Potential for Hydric Inclusions Only
- ___ Other (Explain in Remarks)
- ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat ___ undulating X

Remarks: no hydric soils

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations
___ Ground Surface Inundated ___ inches.
___ Soil Saturated.

Depth to Free Water ___ inches.

Depth to Saturated Soils ___ inches.

Wetland Hydrology Indicators:

Primary Indicators
- ___ Inundated
- ___ Saturated in upper 12 inches.
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
- ___ Oxidized Root Channels in upper 12 inches
- ___ Water-Stained leaves
- ___ Local Soil Survey
- ___ Morphological Plant Adaptations
- ___ Other (Explain in Remarks)

Remarks: no wetland hydrology

Project Number: ~~07028~~ 07025

Applicant: **Roaring Brook Wind Power Project**

Date: 9/11/07

Plot ID Number: USP-YW

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	balsam fir	H S/S (T) V	FAC	60%
2	yellow birch	H S/S (T) V	FAC	10%
3	black cherry	H S/S (T) V	FACU	20%
4	red maple	H S/S (T) V	FAC	10%
5		H S/S T V		
6	hobblebush	H (S/S) T V	FAC	30%
7	black cherry	H ~~S/S~~ T V	FACU	10%
8	red maple	H (S/S) T V	FAC	20%
9	beech	H (S/S) T V	FACU	10%
10		H S/S T V		
11	intermediate wood fern	(H) S/S T V	FACU	10%
12	Canada mayflower	(H) S/S T V	FAC-	5%
13	birch berry	(H) S/S T V	FAC-	5%
14	gold thread	(H) S/S T V	FACW	10%
15	sarsaparilla	(H) S/S T V	FACU	5%
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 67%

Percent of Dominant Species OBL, FACW 17%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

Environmental Design & Research
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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: ~~07028~~ 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/11/07

Investigator: Stebbins/Pippin/Schwesterbauer Town: **Martinsburg**

County: **Lewis**

State: **NY**

Do normal circumstances exist on site? (Yes) No Community: Emergent

Is the site significantly disturbed? Yes (No) Transect/Flag ID: 4 (east)

Is the area a potential Problem Area? Yes (No) Plot ID: wetland point at 4 least

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-5"	O	organic		
5-8"	A	10YR 2/1	—	sandy loam
8"+	Stony layer			

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave X convex _____ sloping _____ Approximate slope: _____

flat _____ undulating _____

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)

_____ No Recorded Data Available

_____ Stream, Lake or Tide Gauge

_____ Aerial Photographs

Field Observations

NO Ground Surface Inundated _____ inches.

YES Soil Saturated.

Depth to Free Water 5 inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated

X Saturated in upper 12 inches.

X Water Marks

X Drift Lines

___ Sediment Deposits

X Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

___ Oxidized Root Channels in upper 12 inches

X Water-Stained leaves

___ Local Soil Survey

___ Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks:

Project Number: ~~07028.~~ 07025

Applicant: Roaring Brook Wind Power Project

Date: 9/11/07

Plot ID Number: WSP-YE

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	Carex (wet)	(H) S/S T V	FACW/OBL	70%
2	Wetland grass	(H) S/S T V	FACW/OBL	50 20
3	Bidens cernua	(H) S/S T V	OBL	5 %
4	Soft rush	(H) S/S T V	FACW+	10%
5	Wool rush	(H) S/S T V	FACW+	10%
6		H S/S T V		
7	Meadowsweet	H (S/S) T V	FACW+	5%
8		H S/S T V		
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 100%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: ~~07028~~ 07025 Applicant: Roaring Brook Wind Power Project Date: 9/11/07

Investigator: Stebbins / Rippin / Schwabenbauer Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? (Yes) No Community: upland forest

Is the site significantly disturbed? Yes (No) Transect/Flag ID: Y - east

Is the area a potential Problem Area? Yes (No) Plot ID: upland point @ Y (east)

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SFD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-8"	O			
8-12"	A	7.5YR 6/2		silty sand
12"+	B	7.5YR 3/2		silty sand

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____

flat _____ undulating _____

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)

_____ No Recorded Data Available

_____ Stream, Lake or Tide Gauge

_____ Aerial Photographs

Field Observations

_____ Ground Surface Inundated _____ inches.

_____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated

___ Saturated in upper 12 inches.

___ Water Marks

___ Drift Lines

___ Sediment Deposits

___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

___ Oxidized Root Channels in upper 12 inches

___ Water-Stained leaves

___ Local Soil Survey

___ Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks:

no wetland hydrology

Project Number: ~~07028~~ 07025

Applicant: Roaring Brook Wind Power Project

Date: 9/11/07

Plot ID Number: USP-YE

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	black cherry	H S/S (T) V	FACU	40% -
2	yellow birch	H S/S (T) V	FAC	15% -
3	red maple	H S/S (T) V	FAC	10%
4		H S/S T V		
5	blackberry	H (S/S) T V	FACU-	25% -
6	velvetleaf blueberry	H (S/S) T V	FAC	40% -
7	hobblebush	H (S/S) T V	FAC	10%
8	red maple	H (S/S) T V	FAC	20%
9		H S/S T V		
10	bunchberry	(H) S/S T V	FAC-	5% -
11	canada mayflower	(H) S/S T V	FAC-	5% -
12	goldthread	(H) S/S T V	FACW	5% -
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 71%

Percent of Dominant Species OBL, FACW 14%

50/20 Rule Applied? (Yes) No

Remarks: sparse herb layer

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

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Syracuse, New York 13202

DATA FORM
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274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/11/07

Investigator: Stebbins/Rippin/Schwabenbauer Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? (Yes) No Community: emergent

Is the site significantly disturbed? Yes (No) Transect/Flag ID: Z1 – Z8

Is the area a potential Problem Area? Yes (No) Plot ID: wetland point @ Z

SOILS

Series and Phase: _____ Drainage Class: WD MWD SPD PD VPD

Subgroup: _____ Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-16"+	A	7.5YR 2.5/1	—	silty loam

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sulfidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave X convex _____ sloping _____ Approximate slope: _____

flat _____ undulating _____

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)

_____ No Recorded Data Available

_____ Stream, Lake or Tide Gauge

_____ Aerial Photographs

Field Observations

NO Ground Surface Inundated _____ inches.

Yes Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated

X Saturated in upper 12 inches.

___ Water Marks

___ Drift Lines

___ Sediment Deposits

X Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

X Oxidized Root Channels in upper 12 inches

___ Water-Stained leaves

___ Local Soil Survey

___ Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks:

hummocky terrain, wetland is in basin of bowl

Project Number: 07025

Applicant: Roaring Brook Wind Power Project

Date: 9/11/07

Plot ID Number: WSP-2

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	balsam fir	H (S/S) T V	FAC	10%
2	yellow birch	H (S/S) T V	FAC	10%
3	red maple	H (S/S) T V	FAC	10%
4		H S/S T V		
5	carex (sp.)	(H) S/S T V	FACW/OBL	70%
6	wetland grass	(H) S/S T V	FACW/OBL	40%
7	cinnamon fern	(H) S/S T V	FACW	20%
8	sphagnum	(H) S/S T V	FACW/OBL	30%
9	wool grass	(H) S/S T V	FACW+	10%
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 20%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 070285 Applicant: Roaring Brook Wind Power Project Date: 9/11/07

Investigator: Stebbins/Pippin/Schwabenbauer Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? (Yes) No Community: forested upland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: Z

Is the area a potential Problem Area? Yes (No) Plot ID: upland point @ Z

SOILS

Series and Phase: _____ Drainage Class: WD MWD SPD PD VPD

Subgroup: _____ Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-3"	O	organic matter		
3-6"	A	7.5YR 25/1	———	silty loam
6"	B			

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping X Approximate slope: 10%
flat _____ undulating _____

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)
_____ No Recorded Data Available
_____ Stream, Lake or Tide Gauge
_____ Aerial Photographs

Field Observations

_____ Ground Surface Inundated_____inches.
_____ Soil Saturated.

Depth to Free Water_____inches.

Depth to Saturated Soils_____inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
___ Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:

no wetland hydrology

Project Number:	0702[illegible]S	Date:	9/11/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	USP-Z

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	blackberry	H (S/S) T V	FACU-	90%
2	black cherry	H (S/S) T V	FACU	10%
3	red maple	H (S/S) T V	FAC	10%
4		H S/S T V		
5	intermediate wood fern	(H) S/S T V	FACU	5%
6		H S/S T V		
7		H S/S T V		
8		H S/S T V		
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 0

Percent of Dominant Species OBL, FACW 0

50/20 Rule Applied? (Yes) No

Remarks: - very sparse herb layer - few oxalis (<5%)
- site heavily logged - no canopy trees @ sample point, forest was maple, birch, balsam

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07028 5 Applicant: Roaring Brook Wind Power Project Date: 9/11/07

Investigator: Stebbins/Pippin/Schuebelbauer Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? (Yes) No Community: emergent

Is the site significantly disturbed? Yes (No) Transect/Flag ID: AA

Is the area a potential Problem Area? Yes (No) Plot ID: wetland point @ AA

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-8"	A	10YR 3/1	—	Silty loam
8" +	Stony layer rejects auger			

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave X convex _____ sloping _____ Approximate slope: _____
flat _____ undulating _____

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)
_____ No Recorded Data Available
_____ Stream, Lake or Tide Gauge
_____ Aerial Photographs

Field Observations

NO Ground Surface Inundated _____ inches.
YES Soil Saturated.

Depth to Free Water — inches.

Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
X Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
X Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
X Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:

Project Number: 07028.5

Applicant: Roaring Brook Wind Power Project

Date: 9/11/07

Plot ID Number: WSP-AA

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	Cinnamon fern	(H) S/S T V	FACW	10%
2	nodding bur marigold	(H) S/S T V	OBL	5%
3	narrow leaved goldenrod	(H) S/S T V	FAC	5%
4	tussock sedge	(H) S/S T V	OBL	15%
5	jewelweed	(H) S/S T V	FACW	10%
6	flattopped aster	(H) S/S T V	FACW	5%
7	purple stemmed aster	(H) S/S T V	OBL	15%
8	sensitive fern	(H) S/S T V	FACW	25%
9	jewelweed	(H) S/S T V	FACW	5%
10	boneset	(H) S/S T V	FACW+	20%
11	woolgrass	(H) S/S T V	FACW+	10%
12	cattails	(H) S/S T V	OBL	30%
13		H S/S T V		
14		H S/S T V		
15	meadowsweet	H (S/S) T V	FACW+	5%
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 100%

50/20 Rule Applied? (Yes) No

Remarks:

diverse vegetation present

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07028.5 Applicant: Roaring Brook Wind Power Project Date: 9/11/07

Investigator: Stebbins / Pippin / Schwabenbauer Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? (Yes) No Community: forested upland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: AA

Is the area a potential Problem Area? Yes (No) Plot ID: upland point @ AA

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-4"	O	organic matter - dry crumbly		
4" +		rocky substrate rejects auger		

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping X Approximate slope: _____

flat _____ undulating _____

Remarks: no hydric soils

HYDROLOGY

_____ Recorded Data (Describe in Remarks)

_____ No Recorded Data Available

_____ Stream, Lake or Tide Gauge

_____ Aerial Photographs

Field Observations

_____ Ground Surface Inundated _____ inches.

_____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated

___ Saturated in upper 12 inches.

___ Water Marks

___ Drift Lines

___ Sediment Deposits

___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

___ Oxidized Root Channels in upper 12 inches

___ Water-Stained leaves

___ Local Soil Survey

___ Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks: no wetland hydrology

Project Number: 07028 5
Applicant: Roaring Brook Wind Power Project

Date: 9/11/07
Plot ID Number: USP - AA

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	yellow birch	H S/S (T) V	FAC	20%
2	red maple	H S/S (T) V	FAC	30%
3	Sugar maple	H S/S (T) V	FACU-	20%
4		H S/S T V		
5	beech	H (S/S) T V	FACU	40%
6	blackberry	H (S/S) T V	FACU-	10%
7	striped maple	H (S/S) T V	FACU	20%
8	yellow birch	H (S/S) T V	FAC	10%
9	red maple	H (S/S) T V	FAC	20%
10		H S/S T V		
11	hayscented fern	(H) S/S T V	UPL	40%
12	sasaparilla	(H) S/S T V	FACU	5%
13	intermediate wood fern	(H) S/S T V	FACU	10%
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 33%

Percent of Dominant Species OBL, FACW 0

50/20 Rule Applied? (Yes) No

Remarks:

sparse herb layer

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/20/07

Investigator: Enders/Stebbins Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? (Yes) No Community: emergent marsh

Is the site significantly disturbed? Yes (No) Transect/Flag ID: CC1 - CC10

Is the area a potential Problem Area? Yes (No) Plot ID: CC5 wetland

SOILS

Series and Phase: Drainage Class: WD MWD SPD PD VPD

Subgroup: Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-6"	O		organic material -	dead grasses
6-12"	A	5YR 25/1	none	Muck
12"+	auger rejected			

Hydric Soil Indicators:

- ___ Histisols
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Reducing Conditions
- ___ Concretions
- ___ High Org. Content in Surface Layer of Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Gleyed or Low Chroma color
- ___ Listed on Local Hydric Soils List
- ___ Listed as Potential for Hydric Inclusions Only
- ___ Other (Explain in Remarks)
- ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat X undulating ___

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations
Some Ground Surface Inundated 0-5" inches.
Yes Soil Saturated.
Depth to Free Water 0 inches.
Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
- X Inundated
- X Saturated in upper 12 inches.
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- X Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
- ___ Oxidized Root Channels in upper 12 inches
- X Water-Stained leaves
- ___ Local Soil Survey
- ___ Morphological Plant Adaptations
- ___ Other (Explain in Remarks)

Remarks:
- hummocky terrain

Project Number: 07025	Date: 9/20/07
Applicant: Roaring Brook Wind Power Project	Plot ID Number: CC5 - wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	wetland grass	(H) S/S T V	FACW/OBL	90%
2	Sphagnum	(H) S/S T V	FACW/OBL	50%
3		H S/S T V		
4		H S/S T V		
5		H S/S T V		
6		H S/S T V		
7	balsam fir	H (S/S) T V	FAC	10
8	Nemopanthus	H (S/S) T V	OBL	10
9	speckled alder	H (S/S) T V	FACW+	10
10	red maple	H (S/S) T V	FAC	10
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 67%

50/20 Rule Applied? (Yes) No

Remarks:

- many dead trees, no living canopy
- cattails beyond sample plot, scattered nannyberry

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photos 7650 - (flag)
7651 - 7656

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/20/07

Investigator: Enders/Stebbins Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? Yes (No)
Is the site significantly disturbed? (Yes) No
Is the area a potential Problem Area? Yes (No)

Community: forested upland
Transect/Flag ID: CC1 - CC10
Plot ID: CC-5 UPL

SOILS

Series and Phase: Drainage Class: WD MWD SPD PD VPD

Subgroup: Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-3"	O			coarse organic matter
3-11"	A	10YR 2/2	No mottling, full of roots	silt loam
11"+	B	10YR 5/3	—	sandy loam

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sulfidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ____ convex ____ sloping ____ Approximate slope: ____
flat ____ undulating X

Remarks: area extremely disturbed

HYDROLOGY

____ Recorded Data (Describe in Remarks)
____ No Recorded Data Available
____ Stream, Lake or Tide Gauge
____ Aerial Photographs

Field Observations

____ Ground Surface Inundated____ inches.
____ Soil Saturated.

Depth to Free Water____ inches.

Depth to Saturated Soils____ inches.

Wetland Hydrology Indicators:

Primary Indicators
- ___ Inundated
- ___ Saturated in upper 12 inches.
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
- ___ Oxidized Root Channels in upper 12 inches
- ___ Water-Stained leaves
- ___ Local Soil Survey
- ___ Morphological Plant Adaptations
- ___ Other (Explain in Remarks)

Remarks:

No wetland hydrology

Project Number: 07025
Applicant: Roaring Brook Wind Power Project

Date: 9/20/07
Plot ID Number: CC5- UPL

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	balsam fir	H S/S (T) V	FAC	40
2	black cherry	H S/S (T) V	FACU	30
3	yellow birch	H S/S (T) V	FAC	10
4	balsam	H (S/S) T V	FAC	20
5	black cherry	H (S/S) T V	FACU	5
6	red maple	H (S/S) T V	FAC	10
7	black spruce	H (S/S) T V	FACW-	5
8	intermediate wood fern	(H) S/S T V	FACU	10
9	gold thread	(H) S/S T V	FACW	5
10	Canada mayflower	(H) S/S T V	FAC-	5
11	sarsaparilla	(H) S/S T V	FACU	5
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 63%

Percent of Dominant Species OBL, FACW 13%

50/20 Rule Applied? (Yes) No

Remarks: sparse ground layer herbaceous

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks: Photo 7650 (flag)
7657-58

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/20/07

Investigator: Enders/Stebbins Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? (Yes) No Community: emergent

Is the site significantly disturbed? Yes (No) Transect/Flag ID: EE

Is the area a potential Problem Area? Yes (No) Plot ID: EE 6 WET

SOILS

Series and Phase: _____ Drainage Class: WD MWD SPD PD VPD

Subgroup: _____ Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0–9"	A	10YR 2/1	none	silty-clay
9"-12"	B	10YR 5/1	10YR 5/4 some	
12"+		rocky layer rejects auger		

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sulfidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ____ convex ____ sloping ____ Approximate slope: ____
flat X undulating ____

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
X Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations
NO Ground Surface Inundated ____ inches.
YES Soil Saturated.

Depth to Free Water ____ inches.

Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
X Saturated in upper 12 inches.
X Water Marks
___ Drift Lines
___ Sediment Deposits
X Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
X Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks: upstream (east) side of road – just stream channel
downstream (west) side of road broadens out to marsh

Project Number:	07025	Date:	9/20/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	EF6wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	wetland grass	(H) S/S T V	FACW/OBL	75 -
2	joe pye weed	(H) S/S T V	FACW	15
3	purple stemmed aster	(H) S/S T V	OBL	10
4		H S/S T V		
5		H S/S T V		
6		H S/S T V		
7	meadowsweet	H (S/S) T V	FACW+	20 -
8	speckled alder	H (S/S) T V	FACW+	10 -
9	red raspberry	H (S/S) T V	FAC-	10 -
10	wetland willow	H (S/S) T V	FACW/OBL	5
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100 %

Percent of Dominant Species OBL, FACW 75 %

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks: Stream 4-6 feet wide
substrate cobble w/ gravel
north side abrupt bank
south side bank - gradient 4-6 feet wide
brook shaded, surrounded by
upland forest - mixed hardwood/balsam

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/20/07

Investigator: Enders/Stebbins Town: **Martinsburg**

County: **Lewis**

State: **NY**

Do normal circumstances exist on site? **Yes No** Community: forested upland

Is the site significantly disturbed? **Yes No** Transect/Flag ID: EE

Is the area a potential Problem Area? **Yes No** Plot ID: EE 6 UPL

SOILS

Series and Phase: _____ **Drainage Class:** **WD MWD SPD PD VPD**

Subgroup: _____ **Confirm Mapped Type:** **Yes No**

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-3"	O	—	organic matter	—
3"-8"	A	5YR 2/2	none	silty loam
8"-16"	B	5YR 3/3	5YR 5/2 – sandy mottle	clay loam

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sulfidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____

flat _____ undulating X

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)

_____ No Recorded Data Available

_____ Stream, Lake or Tide Gauge

_____ Aerial Photographs

Field Observations

_____ Ground Surface Inundated _____ inches.

_____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated

___ Saturated in upper 12 inches.

___ Water Marks

___ Drift Lines

___ Sediment Deposits

___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

___ Oxidized Root Channels in upper 12 inches

___ Water-Stained leaves

___ Local Soil Survey

___ Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks:

no wetland hydrology

Project Number: 07025	Date: 9/20/07
Applicant: Roaring Brook Wind Power Project	Plot ID Number: EE 6 UPL

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	beech	H S/S (T) V	FACU	60 -
2	red maple	H S/S (T) V	FAC	40 -
3		H S/S T V		
4		H S/S T V		
5	striped maple	H (S/S) T V	FACU	10
6	black cherry	H (S/S) T V	FACU	20 -
7	beech	H (S/S) T V	FACU	30 -
8	hobblebush	H (S/S) T V	FAC	10
9		H S/S T V		
10		H S/S T V		
11	intermediate woodfern	(H) S/S T V	FACU	5 -
12	Mitchella repens	(H) S/S T V	FACU	5 -
13	blueberry	(H) S/S T V	FAC	5 -
14	shining club moss	(H) S/S T V	FACW-	5 -
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 38%

Percent of Dominant Species OBL, FACW 13%

50/20 Rule Applied? (Yes) No

Remarks: sparse herb layer

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/20/07

Investigator: Brazell / Stebbins / Schwabenbauer

Town: **Martinsburg**
County: **Lewis**
State: **NY**

Do normal circumstances exist on site? (Yes) No
Is the site significantly disturbed? Yes (No)
Is the area a potential Problem Area? Yes (No)

Community: emergent / SS / forested
Transect/Flag ID: GG
Plot ID: GG - 3 WCT

SOILS

Series and Phase: (PbA) Peat and Muck, deep
Drainage Class: "permanently wet" WD MWD SPD PD VPD
Subgroup:
Confirm Mapped Type: (Yes) No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-10"	A	10YR 4/2	none	clay loam
10"+	B	10YR 2/1	none	silty loam

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat X undulating ___

Remarks: 10% of organic matter

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations
NO Ground Surface Inundated ___ inches.
YES Soil Saturated.

Depth to Free Water ___ inches.
Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
X Saturated in upper 12 inches.
X Water Marks
___ Drift Lines
___ Sediment Deposits
X Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
X Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:

Project Number:	07025	Date:	9/20/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	GG3wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	hardhack	(H) S/S T V	OBL	10
2	purple-stemmed aster	(H) S/S T V	OBL	10
3	cattails	(H) S/S T V	OBL	60 –
4	cinnamon fern	(H) S/S T V	FACW	25
5	joe pye weed	(H) S/S T V	FACW	20
6	royal fern	(H) S/S T V	OBL	15
7	wetland grass	(H) S/S T V	FACW/OBL	60 –
8	sphagnum	(H) S/S T V	FACW/OBL	25
9		H S/S T V		
10	red maple	H S/S (T) V	FAC	20 –
11	balsam fir	H S/S (T) V	FAC	20
12		H S/S T V		
13	balsam	H (S/S) T V	FAC	20 –
14	red maple	H (S/S) T V	FAC	20 –
15	wetland willow	H (S/S) T V	FACW/OBL	20 –
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 43%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/20/07

Investigator: Brazell/Stebbins/Schwadtbauer Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? Yes (No)
Is the site significantly disturbed? (Yes) No
Is the area a potential Problem Area? Yes (No)

Community: forested upland
Transect/Flag ID: GG
Plot ID: GG 3 upL

SOILS

Series and Phase: (PbA) Pratt and Muck, deep → "permanently wet"
Drainage Class: WD MWD SPD PD VPD
Subgroup:
Confirm Mapped Type: (Yes) No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-6"	O		organic matter	
6-14"	A	10YR 2/1	some 10YR 3/6	loam, organic
14+		rocky layer rejects auger		

Hydric Soil Indicators:

___Histisols
___Histic Epipedon
___Sulfidic Odor
___Reducing Conditions
___Concretions
___High Org. Content in Surface Layer of Sandy Soils
___Organic Streaking in Sandy Soils
___Gleyed or Low Chroma color
___ Listed on Local Hydric Soils List
___ Listed as Potential for Hydric Inclusions Only
___ Other (Explain in Remarks)
___ Aquic Moisture Regime

Landscape position: concave ____ convex ____ sloping ____ Approximate slope: ____
flat ____ undulating X

Remarks: high organic content, dry crumbly disturbed upland

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations

___ Ground Surface Inundated ____ inches.
___ Soil Saturated.

Depth to Free Water ____ inches.

Depth to Saturated Soils ____ inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
___ Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks: no wetland hydrology

Project Number: 07025
Applicant: Roaring Brook Wind Power Project

Date: 9/20/07
Plot ID Number: G63 UPL

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	red maple	H S/S (T) V	FAC	30
2	yellow birch	H S/S (T) V	FAC	15
3		H S/S T V		
4	blackberry	H (S/S) T V	FACU-	60
5	yellow birch	H (S/S) T V	FAC	15
6	black cherry	H (S/S) T V	FACU	10
7	sugar maple	H (S/S) T V	FACU-	10
8		H S/S T V		
9	bluebead lily	(H) S/S T V	FAC	5
10	gold thread	(H) S/S T V	FACW	5
11	Brachyelytrum erectum	(H) S/S T V	UPL	5
12	Intermediate wood fern	(H) S/S T V	FACU	5
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 57%

Percent of Dominant Species OBL, FACW 14%

50/20 Rule Applied? (Yes) No

Remarks: Sparse herb layer

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/20/07

Investigator: Stebbins/Brazell/Schwab. Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? (Yes) No Community: forested/shrub wetland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: II

Is the area a potential Problem Area? Yes (No) Plot ID: II 7 wet

SOILS

Series and Phase: (PbA) Peat and Muck, deep Drainage Class: "permanently wet" WD MWD SPD PD VPD

Subgroup: Confirm Mapped Type: (Yes) No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-9"	A	10yr 4/2	none	clay loam
9"+	B	10yr 2/1	none	silty loam

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat X undulating ___

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations

no Ground Surface Inundated ___ inches.
yes Soil Saturated.
Depth to Free Water ___ inches.
Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
X Saturated in upper 12 inches.
X Water Marks
___ Drift Lines
___ Sediment Deposits
X Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
X Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:

Project Number: 07025
Applicant: Roaring Brook Wind Power Project

Date: 9/20/07
Plot ID Number: #7 wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	speckled alder	H (S/S) T V	FACW+	75 %
2	balsam fir	H (S/S) T V	FAC	25 %
3	black spruce	H (S/S) T V	FACW-	10 %
4		H S/S T V		
5	red maple	H S/S (T) V	FAC	20 %
6	balsam fir	H S/S (T) V	FAC	20 %
7		H S/S T V		
8		H S/S T V		
9	wetland grass	(H) S/S T V	FACW/OBL	60 %
10	purple stemmed aster	(H) S/S T V	OBL	5 %
11	flat topped aster	(H) S/S T V	FACW	5 %
12	cattails	(H) S/S T V	OBL	5 %
13	joe pyweed	(H) S/S T V	FACW	5 %
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 40 %

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/20/07

Investigator: Brazell/Stebbins/Schwas Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? Yes (No) Community: Forested upland

Is the site significantly disturbed? (Yes) No Transect/Flag ID: II

Is the area a potential Problem Area? Yes (No) Plot ID: II 7 upland

SOILS

Series and Phase: (PbA) Peat and Muck, deep — "permanently wet" Drainage Class: WD MWD SPD PD VPD

Subgroup: Confirm Mapped Type: (Yes) No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-4"	O	organic matter		
4"-12"	A	10YR 2/1	some 10YR 3/6	silty loam, organic
12"+		rocky layer rejects auger		

Hydric Soil Indicators:

- ___ Histisols
- ___ Histic Epipedon
- ___ Sufidic Odor
- ___ Reducing Conditions
- ___ Concretions
- ___ High Org. Content in Surface Layer of Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Gleyed or Low Chroma color
- ___ Listed on Local Hydric Soils List
- ___ Listed as Potential for Hydric Inclusions Only
- ___ Other (Explain in Remarks)
- ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat ___ undulating ___

Remarks: dry crumbly soil, high organic content site disturbed from logging

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations
___ Ground Surface Inundated ___ inches.
___ Soil Saturated.

Depth to Free Water ___ inches.

Depth to Saturated Soils ___ inches.

Wetland Hydrology Indicators:

Primary Indicators
- ___ Inundated
- ___ Saturated in upper 12 inches.
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
- ___ Oxidized Root Channels in upper 12 inches
- ___ Water-Stained leaves
- ___ Local Soil Survey
- ___ Morphological Plant Adaptations
- ___ Other (Explain in Remarks)

Remarks:

no wetland hydrology

Project Number: 07025	Date: 9/20/07
Applicant: Roaring Brook Wind Power Project	Plot ID Number: II 7 upl

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	balsam fir	H S/S (T) V	FAC	40
2	yellow birch	H S/S (T) V	FAC	30
3	red maple	H S/S (T) V	FAC	20
4		H S/S T V		
5	blueberry	H (S/S) T V	FACU-	40
6	black cherry	H (S/S) T V	FACU	10
7	yellow birch	H (S/S) T V	FAC	25
8		H S/S T V		
9	intermediate wood fern	(H) S/S T V	FACU	10
10	goldthread	(H) S/S T V	FACW	5
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 71 %

Percent of Dominant Species OBL, FACW 14 %

50/20 Rule Applied? (Yes) No

Remarks:

Sparse herb layer

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/20/07

Investigator: BRAZILL / SCHWAB, Town: **Martinsburg**
County: **Lewis**
State: **NY**

Do normal circumstances exist on site? (Yes) No Community: FO

Is the site significantly disturbed? Yes (No) Transect/Flag ID: JJ-1D

Is the area a potential Problem Area? Yes (No) Plot ID: USP-1 - JJ

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-3"		10YR 3/3	—	SILT LOAM
3-12"		10 YR 3/2	—	SILT LOAM

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____
flat _____ undulating _____

Remarks: SIGNIFICANT AMOUNT OF ORGANIC MATERIAL & ROOTS 20CM IN SOILS - EASILY FALLS APART

HYDROLOGY

_____ Recorded Data (Describe in Remarks)
_____ No Recorded Data Available
_____ Stream, Lake or Tide Gauge
_____ Aerial Photographs

Field Observations
_____ Ground Surface Inundated _____ inches.
_____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
___ Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks: NO HYDROLOGY IN ADJACENT UPLAND

Project Number: 07025
Applicant: Roaring Brook Wind Power Project

Date: 9/20/07
Plot ID Number: USP.1 - JJ

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	CINNAMON FERN	(H) S/S T V	FACW	15
2	STRIPED MAPLE	H (S/S) T V	FACU	10
3	FAGUS GRANDIFOLIA	H (S/S) T V	FACU	80
4	SPRUCE BLACK	H S/S (T) V	FACW-	5
5	RED MAPLE	H S/S (T) V	FAC	20
6	FAGUS GRANDIFOLIA	H S/S (T) V	FACU	15
7	YELLOW BIRCH	H S/S (T) V	FAC	10
8	RUBUS SP.	H S/S T (V)	FAC/FACU	10
9	[redacted] HOBBLEBUSH	H (S/S) T V	FAC	25
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 67%

Percent of Dominant Species OBL, FACW 0

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or No

Hydric Soils Present? Yes or No

Wetland Hydrology Present? Yes or No

Is this Sampling Point Within a Wetland? Yes or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/20/07

Investigator: BRAZELL/SCHWAB. Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? (Yes) No Community: FO/WM

Is the site significantly disturbed? Yes (No) Transect/Flag ID: JJ-10

Is the area a potential Problem Area? Yes (No) Plot ID: WSP-1-JJ

SOILS

Series and Phase: _____ Drainage Class: WD MWD SPD PD (VPD)

Subgroup: _____ Confirm Mapped Type: Yes (No)

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-12"		10YR 3/2	—	SILT loam

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sulfidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____
flat _____ undulating _____

Remarks:
VERY ORGANIC, LIKE GARDEN - MUCK

HYDROLOGY

_____ Recorded Data (Describe in Remarks)
_____ No Recorded Data Available
_____ Stream, Lake or Tide Gauge
__X__ Aerial Photographs

Field Observations
_____ Ground Surface Inundated_____inches.
__X__ Soil Saturated.
Depth to Free Water_____inches.
Depth to Saturated Soils_____inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
__X__ Saturated in upper 12 inches.
__X__ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks: RANDOM POOLS OF STANDING H2O IN LOW POINTS, VERY HUMMOCKY

Project Number:	07025	Date:	9/20/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	WSP-1 -JJ

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:	
1	SPHAGNUM MOSS	(H) S/S T V	FACW/OBL	95	-
2	CINNAMON FERN	(H) S/S T V	FACW	65	-
3	RHUBUS sp.	H S/S T (V)	FAC/FACU	15	-
4	SCIRPUS	(H) S/S T V	FACW/OBL	20	
5	Yellow Birch	H (S/S) T V	FAC	10	-
6	RED MAPLE	H (S/S) T V	FAC	15	-
7	Yellow Birch	H S/S (T) V	FAC	5	-
8	RED Maple	H S/S (T) V	FAC	15	-
9		H S/S T V			
10		H S/S T V			
11		H S/S T V			
12		H S/S T V			
13		H S/S T V			
14		H S/S T V			
15		H S/S T V			
16		H S/S T V			

Percent of Dominant Species OBL, FACW, FAC 100 %

Percent of Dominant Species OBL, FACW 29 %

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or No

Hydric Soils Present? Yes or No

Wetland Hydrology Present? Yes or No

Is this Sampling Point Within a Wetland? Yes or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/20/07

Investigator: Stebbins/Brazell/Schwab Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? (Yes) No Community: forested wetland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: KK

Is the area a potential Problem Area? Yes (No) Plot ID: KK 2 wet

SOILS

Series and Phase: (PbA) Peat and Muck, deep → "permanently wet" Drainage Class: WD MWD SPD PD VPD

Subgroup: Confirm Mapped Type: (Yes) No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-3"	O			
3-12"	A	10YR 4/1	none	silty loam
12"+	B	10YR 6/2	none	sand

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ____ convex ____ sloping ____ Approximate slope: ____
flat X undulating ____

Remarks:

HYDROLOGY

____ Recorded Data (Describe in Remarks)
____ No Recorded Data Available
____ Stream, Lake or Tide Gauge
____ Aerial Photographs

Field Observations

NO Ground Surface Inundated ____ inches.
YES Soil Saturated.
Depth to Free Water ____ inches.
Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
X Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
X Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
X Oxidized Root Channels in upper 12 inches
X Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:

hummocky terrain

Project Number: 07025
Applicant: Roaring Brook Wind Power Project

Date: 9/20/07
Plot ID Number: KK act

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	yellow birch	H S/S (T) V	FAC	40 -
2	red maple	H S/S (T) V	FAC	20 -
3		H S/S T V		
4	balsam fir	H (S/S) T V	FAC	30 -
5	yellow birch	H (S/S) T V	FAC	10
6	red maple	H (S/S) T V	FAC	10
7	meadowsweet	H (S/S) T V	FACW+	5
8	velvetleaf blueberry	H (S/S) T V	FAC	5
9	black spruce	H (S/S) T V	FACW-	20 -
10	sphagnum	(H) S/S T V	FACW/OBL	30 -
11	canada mayflower	(H) S/S T V	FAC-	5
12	nodding bur marigold	(H) S/S T V	OBL	5
13	fringed sedge	(H) S/S T V	OBL	20 -
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 50%

50/20 Rule Applied? (Yes) No

Remarks: forested wetland w/ emergent veg growing in tire ruts along east edge

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/20/07

Investigator: Stebbins/Boragett/Schwab Town: **Martinsburg**
County: **Lewis**
State: **NY**

Do normal circumstances exist on site? (Yes) No
Is the site significantly disturbed? Yes (No)
Is the area a potential Problem Area? Yes (No)

Community: forested upland
Transect/Flag ID: KK
Plot ID: KK 2 UPl

SOILS

Series and Phase: (PbA) Pleat and Muck, deep — "permanently wet" Drainage Class: WD MWD SPD PD VPD

Subgroup: Confirm Mapped Type: (Yes) No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-6"	O	dry		crumby organic matter
6"+		rocky layer rejects auger		

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat ___ undulating X

Remarks: very dry hard soil's
dug several pits - all same.

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations
___ Ground Surface Inundated ___ inches.
___ Soil Saturated.
Depth to Free Water ___ inches.
Depth to Saturated Soils ___ inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
___ Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:
no wetland hydrology

Project Number:	07025	Date:	9/20/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	KK upl

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	red maple	H S/S (T) V	FAC	30 –
2	balsam fir	H S/S (T) V	FAC	20 –
3		H S/S T V		
4		H S/S T V		
5	balsam fir	H (S/S) T V	FAC	10
6	blackberry	H (S/S) T V	FACU-	40 –
7	hobblebush	H (S/S) T V	FAC	10
8	black cherry	H (S/S) T V	FACU	5
9		H S/S T V		
10		H S/S T V		
11	hay scented fern	(H) S/S T V	UPL	50 –
12	intermediate wood fern	(H) S/S T V	FACU	5
13	Canada mayflower	(H) S/S T V	FAC-	5
14	whorled aster	(H) S/S T V	UPL	15
15	Brachythecium sp.	(H) S/S T V	UPL	5
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 50 %

Percent of Dominant Species OBL, FACW 0

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/20/07

Investigator: Stubbins/Brazell/Schwab/Enders Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? (Yes) No Community: Shrub swamp/emergent

Is the site significantly disturbed? Yes (No) Transect/Flag ID: WL

Is the area a potential Problem Area? Yes (No) Plot ID: WL 12 wet

SOILS

Series and Phase: (EdB) Empeyville stony loam Drainage Class: WD (MWD) SPD PD VPD

Subgroup: Confirm Mapped Type: (Yes) No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-3"	O		organic matter - dead grass, roots	
3-10"	A	10YR 2/1	none	silty mucky loam
10"+		rocky layer rejects auger		

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat X undulating ___

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations

No Ground Surface Inundated ___ inches.
Yes Soil Saturated.

Depth to Free Water ___ inches.

Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
- ___ Inundated
- X Saturated in upper 12 inches.
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- X Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
- X Oxidized Root Channels in upper 12 inches
- ___ Water-Stained leaves
- ___ Local Soil Survey
- ___ Morphological Plant Adaptations
- ___ Other (Explain in Remarks)

Remarks:

Project Number:	07025	Date:	9/20/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	U12wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	meadowsweet	H (S/S) T V	FACW+	60
2	red raspberry	H (S/S) T V	FAC-	30
3	blackberry	H (S/S) T V	FACU-	20
4	red maple	H (S/S) T V	FAC	10
5		H S/S T V		
6		H S/S T V		
7	tussock sedge	(H) S/S T V	OBL	60
8	marsh st Johnswort	(H) S/S T V	OBL	10
9	flat topped aster	(H) S/S T V	FACW	5
10	rough leaved goldrod	(H) S/S T V	OBL	10
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 67%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/20/07

Investigator: Stebbins/Brazell/Schwab/Enders

Town: **Martinsburg**
County: **Lewis**
State: **NY**

Do normal circumstances exist on site? (Yes) No
Is the site significantly disturbed? Yes (No)
Is the area a potential Problem Area? Yes (No)

Community: forested upland
Transect/Flag ID: UL
Plot ID: UL 12 UPL

SOILS

Series and Phase: (EdB) Empeyville stony loam Drainage Class: WD (MWD) SPD PD VPD

Subgroup: Confirm Mapped Type: (Yes) No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-4"	O			
4-8"	A	10YR 2/2	dry crumbly	sandy loam
8"+	B	10YR 5/3	dry crumbly	sandy loam

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat ___ undulating X

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations
___ Ground Surface Inundated ___ inches.
___ Soil Saturated.

Depth to Free Water ___ inches.

Depth to Saturated Soils ___ inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
___ Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:

no wetland hydrology

Project Number: 07025	Date: 9/20/07
Applicant: Roaring Brook Wind Power Project	Plot ID Number: LL 12 UPL

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	red maple	H S/S (T) V	FAC	60 –
2	balsam fir	H S/S (T) V	FAC	40 –
3		H S/S T V		
4	intermediate wood fern	(H) S/S T V	FACW	10 –
5	canada may flower	(H) S/S T V	FAC-	5 –
6	shining clubmoss	(H) S/S T V	FACW	5 –
7	sarsaparilla	(H) S/S T V	FACW	5 –
8		H S/S T V		
9	black cherry	H (S/S) T V	FACW	5 –
10	red maple	H (S/S) T V	FAC	5 –
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 63%

Percent of Dominant Species OBL, FACW 13%

50/20 Rule Applied? (Yes) No

Remarks: sparse understory/herb layer

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/20/07

Investigator: Endres/Stebbins/Brazell/Schwab Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? (Yes) No Community: emergent wetland
Is the site significantly disturbed? Yes (No) Transect/Flag ID: MM
Is the area a potential Problem Area? Yes (No) Plot ID: MMS wet

SOILS

Series and Phase: (PbA) Peat and Muck, deep Drainage Class: "permanently wet" WD MWD SPD PD VPD

Subgroup: Confirm Mapped Type: (Yes) No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0–1"	O	organic layer		
1–6"	A	10YR 7/1	10YR 4/3 some sandy	silt loam w/ some stones
6"+		rocky layer rejects auger		

Hydric Soil Indicators:

___Histisols ___Concretions ___Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___Listed as Potential for Hydric Inclusions Only
___Sulfidic Odor ___Organic Streaking in Sandy Soils ___Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat ___ undulating ___

Remarks: hummocky

HYDROLOGY

___Recorded Data (Describe in Remarks)
___No Recorded Data Available
___Stream, Lake or Tide Gauge
___Aerial Photographs

Field Observations

NO Ground Surface Inundated ___ inches.
YES Soil Saturated.

Depth to Free Water ___ inches.
Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
___Inundated
X Saturated in upper 12 inches.
___Water Marks
___Drift Lines
___Sediment Deposits
X Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___Oxidized Root Channels in upper 12 inches
X Water-Stained leaves
___Local Soil Survey
___Morphological Plant Adaptations
___Other (Explain in Remarks)

Remarks: stream channel 4–10" wide
gravel substrate
diffuse vegetated banks

Project Number:	07025	Date:	9/20/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	MMSwet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	wetland grass	(H) S/S T V	FACW/OBL	90 %
2	bentgrass	(H) S/S T V	FACW+	10 %
3	fringed sedge	(H) S/S T V	OBL	10 %
4	meadowsweet	H (S/S) T V	FACW+	20 %
5	wetland willow	H (S/S) T V	FACW/OBL	10 %
6		H S/S T V		
7		H S/S T V		
8		H S/S T V		
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100 %

Percent of Dominant Species OBL, FACW 100 %

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/20/02

Investigator: Enders/Stebbins/Brazell/Schwab Town: **Martinsburg**
County: **Lewis**
State: **NY**

Do normal circumstances exist on site? Yes (No)
Is the site significantly disturbed? (Yes) No
Is the area a potential Problem Area? Yes (No)

Community: construction spoil
Transect/Flag ID: mm
Plot ID: mm5 upl

SOILS

Series and Phase: (PbA) Pleat and Muck, deep → "permanently wet"
Drainage Class: WD MWD SPD PD VPD
Subgroup:
Confirm Mapped Type: (Yes) No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other

Hydric Soil Indicators:

___Histisols
___Histic Epipedon
___Sufidic Odor
___Reducing Conditions
___Concretions
___High Org. Content in Surface Layer of Sandy Soils
___Organic Streaking in Sandy Soils
___Gleyed or Low Chroma color
___ Listed on Local Hydric Soils List
___ Listed as Potential for Hydric Inclusions Only
___ Other (Explain in Remarks)
___ Aquic Moisture Regime

Landscape position: concave ____ convex ____ sloping ____ Approximate slope: ____
flat ____ undulating ____

Remarks: – construction spoil – extremely disturbed
no proper soil structure or layers
– bare ground scraped by dozer recently

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations
___ Ground Surface Inundated ____ inches.
___ Soil Saturated.

Depth to Free Water ____ inches.
Depth to Saturated Soils ____ inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
___ Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:
no wetland hydrology

Project Number:	07025	Date:	9/20/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	mm 5 upl

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1		H S/S T V		
2		H S/S T V		
3		H S/S T V		
4		H S/S T V		
5		H S/S T V		
6		H S/S T V		
7		H S/S T V		
8		H S/S T V		
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Bare ground

Percent of Dominant Species OBL, FACW, FAC____ Percent of Dominant Species OBL, FACW____

50/20 Rule Applied? Yes No

Remarks: bare ground, extremely disturbed spoil/rubble from construction

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or No (No) Hydric Soils Present? Yes or No (No)

Wetland Hydrology Present? Yes or (No) Is this Sampling Point Within a Wetland? Yes or (No)

Remarks: **Photo Reference Number:**

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/20/07

Investigator: Stebbins/Enders/Brazell/Shwab Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? (Yes) No Community: Shrub Swamp

Is the site significantly disturbed? Yes (No) Transect/Flag ID: NW1 - UN18

Is the area a potential Problem Area? Yes (No) Plot ID: NW2 wet

SOILS

Series and Phase: (EdB) Empeyville stony loam Drainage Class: WD MWD SPD PD VPD

Subgroup: Confirm Mapped Type: (Yes) No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-2"	O	organic matter		
2"-4"	A	7.5YR 2/2	none	loamy
4"-6"	A	7.5YR 3/0	none	loamy
6"-8"	B	10YR 4/2	10YR 5/3	clay

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat X undulating ___

Remarks: after 8" rocky layer rejects auger

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations

ND Ground Surface Inundated ___ inches.
NO Soil Saturated. — moist

Depth to Free Water ___ inches.

Depth to Saturated Soils ___ inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
___ Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
X Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
X Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:

hummocky terrain

Project Number:	07025	Date:	9/20/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	NN 2 wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	speckled alder	H (S/S) T V	FACW+	80%
2	red maple	H (S/S) T V	FAC	10%
3		H S/S T V		
4	red maple	H S/S (T) V	FAC	20%
5		H S/S T V		
6		H S/S T V		
7	wetland grass	(H) S/S T V	FACW/OBL	60
8	Impatiens	(H) S/S T V	FACW	10%
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 67%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or No

Hydric Soils Present? Yes or No

Wetland Hydrology Present? Yes or No

Is this Sampling Point Within a Wetland? Yes or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/20/07

Investigator: Stebbins/Endes/Brazell/Schnabs Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? (Yes) No Community: forested upland

Is the site significantly disturbed? (Yes) No Transect/Flag ID: NN1 – NN18

Is the area a potential Problem Area? Yes (No) Plot ID: NN2 upland

SOILS

Series and Phase: (EdB) Empeyville Stony loam Drainage Class: WD MWD (SPD) PD VPD

Subgroup: Confirm Mapped Type: (Yes) No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-3	O	Organic Matter		
3"-12"	A	10YR 3/3	none	Silty loam

Hydric Soil Indicators:

- ___ Histisols
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Reducing Conditions
- ___ Concretions
- ___ High Org. Content in Surface Layer of Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Gleyed or Low Chroma color
- ___ Listed on Local Hydric Soils List
- ___ Listed as Potential for Hydric Inclusions Only
- ___ Other (Explain in Remarks)
- ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat ___ undulating X

Remarks: disturbed from logging

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations

___ Ground Surface Inundated ___ inches.
___ Soil Saturated.

Depth to Free Water ___ inches.

Depth to Saturated Soils ___ inches.

Wetland Hydrology Indicators:

Primary Indicators
- ___ Inundated
- ___ Saturated in upper 12 inches.
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
- ___ Oxidized Root Channels in upper 12 inches
- ___ Water-Stained leaves
- ___ Local Soil Survey
- ___ Morphological Plant Adaptations
- ___ Other (Explain in Remarks)

Remarks:

no wetland hydrology

Project Number: 07025

Applicant: Roaring Brook Wind Power Project

Date: 9/20/07

Plot ID Number: NN 2 upl

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	red maple	H S/S (T) V	FAC	40 -
2	Sorbus am	H S/S (T) V	FACU	20 -
3	black cherry	H S/S (T) V	FACU	20 -
4	black cherry	H (S/S) T V	FACU	20 -
5	red maple	H (S/S) T V	FAC	20 -
6	Sorbus am	H (S/S) T V	FACU	15 -
7		H S/S T V		
8	intermediate woodfern	(H) S/S T V	FACU	10 -
9	Canada mayflower	(H) S/S T V	FAC-	5 -
10	lady fern	(H) S/S T V	FAC	5 -
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 44 %

Percent of Dominant Species OBL, FACW 0

50/20 Rule Applied? Yes No

Remarks:

upland veg - sparse herb layer

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or No

Hydric Soils Present? Yes or No

Wetland Hydrology Present? Yes or No

Is this Sampling Point Within a Wetland? Yes or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/20/07

Investigator: Stebbins/Enders/Bagell/Schwab. Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? Yes (No)
Is the site significantly disturbed? (Yes) No
Is the area a potential Problem Area? Yes (No)

Community: emergent
Transect/Flag ID: 00
Plot ID: 004 wet

SOILS

Series and Phase: (EdB) Empeyville stony loam Drainage Class: WD (MWD) SPD PD VPD

Subgroup: Confirm Mapped Type: (Yes) No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-4'	A	10YR 3/2	none	silty loam
4-8"	B	10YR 3/2	10YR 4/3 10YR 4/1 some	silty loam
8"+	rocky refuses auger			

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ___ convex X sloping X Approximate slope: 3-5 °
flat ___ undulating ___

Remarks:

Very disturbed

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations

NO Ground Surface Inundated ___ inches.
No Soil Saturated. Moist
Depth to Free Water ___ inches.
Depth to Saturated Soils ___ inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
___ Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
X Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
X Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:

Project Number:	07025	Date:	9/20/07
Applicant:	**Roaring Brook Wind Power Project**	Plot ID Number:	004 wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	green bulrush	(H) S/S T V	OBL	20
2	soft rush	(H) S/S T V	FACW+	10
3	flat topped aster	(H) S/S T V	FACW	20
4	purple stemmed aster	(H) S/S T V	OBL	5
5	narrow leaved goldenrod	(H) S/S T V	FAC	10
6	fringed sedge	(H) S/S T V	OBL	10
7		H S/S T V		
8		H S/S T V		
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 100%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/20/07

Investigator: Stebbins/Enders/Brazell/Schwab. Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? Yes (No)
Is the site significantly disturbed? (Yes) No
Is the area a potential Problem Area? Yes (No)

Community: forested upland (formerly logged)
Transect/Flag ID: 00
Plot ID: 00 4 UPL

SOILS

Series and Phase: (EdB) Empeyville stony loam Drainage Class: WD MWD SPD PD VPD

Subgroup: Confirm Mapped Type: (Yes) No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-4"	A	10YR 2/1	highly organic	silty loam
4-8"	A	10YR 2/1	10YR 4/1	
8+"	B	10YR 5/1	none	silty clay loam

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat ___ undulating X

Remarks: highly disturbed from logging/grading

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations

___ Ground Surface Inundated ___ inches.
___ Soil Saturated.

Depth to Free Water ___ inches.
Depth to Saturated Soils ___ inches.

Wetland Hydrology Indicators:

Primary Indicators
- ___ Inundated
- ___ Saturated in upper 12 inches.
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
- ___ Oxidized Root Channels in upper 12 inches
- ___ Water-Stained leaves
- ___ Local Soil Survey
- ___ Morphological Plant Adaptations
- ___ Other (Explain in Remarks)

Remarks: no wetland hydrology

Project Number:	07025	Date:	9/20/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	DD 4 upl

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	striped maple	H (S/S) T V	FACU	40
2	red maple	H (S/S) T V	FAC	30
3	yellow birch	H (S/S) T V	FAC	30
4	black cherry	H (S/S) T V	FACU	60
5	blackberry	H (S/S) T V	FACU-	30
6	sugar maple	H (S/S) T V	FACU-	20
7		H S/S T V		
8	intermediate wood fern	(H) S/S T V	FACU	5
9	canada mayflower	(H) S/S T V	FAC-	5
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 33 %

Percent of Dominant Species OBL, FACW 0

50/20 Rule Applied? Yes No

Remarks: sparse herb layer

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/20/07

Investigator: Braguli/Enders/Stebbins/Schwab. Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? Yes (No)
Is the site significantly disturbed? (Yes) No
Is the area a potential Problem Area? Yes (No)

Community: emergent PP
Transect/Flag ID:
Plot ID: PP1 wet

SOILS

Series and Phase: (EdB) Empeyville stony loam Drainage Class: WD MWD (SPD) PD VPD

Subgroup: Confirm Mapped Type: (Yes) No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-6"	A	10YR 3/2	10YR 4/4	Silty clay
6"+	10cky (cobbles)	layer rejects auger		

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat ___ undulating ___

Remarks: fire ruts - disturbed

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations
ND Ground Surface Inundated ___ inches.
ND Soil Saturated. moist
Depth to Free Water ___ inches.
Depth to Saturated Soils ___ inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
___ Saturated in upper 12 inches.
✓ Water Marks
___ Drift Lines
___ Sediment Deposits
✓ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
✓ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:

Project Number:	07025	Date:	9/20/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	PP 1 wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	soft rush	(H) S/S T V	FACW+	20 -
2	green bulrush	(H) S/S T V	OBL	10
3	narrowleaved goldenrod	(H) S/S T V	FAC	15 -
4	wool grass	(H) S/S T V	FACW+	5
5	purple stemmed aster	(H) S/S T V	OBL	5
6	flat topped aster	(H) S/S T V	FACW	5
7		H S/S T V		
8	yellow birch	H (S/S) T V	FAC	10 -
9	blackberry	H (S/S) T V	FACU-	10 -
10	red maple	H (S/S) T V	FAC	10 -
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 80 %

Percent of Dominant Species OBL, FACW 20 %

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/20/07

Investigator: Brazell/Enders/Stebbins/Schwab Town: **Martinsburg**
County: **Lewis**
State: **NY**

Do normal circumstances exist on site? Yes (No)
Is the site significantly disturbed? (Yes) No
Is the area a potential Problem Area? Yes (No)

Community: Successional Forest
Transect/Flag ID: PP
Plot ID: PP1 UP1

SOILS

Series and Phase: (EdB) Empeyville stony loam Drainage Class: WD MWD SPD PD VPD

Subgroup: Confirm Mapped Type: (Yes) No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-2"	O		Organic matter	
2"-16"	A	10YR 2/2	none	silty loam

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat ___ undulating X

Remarks: Soil dry crumbly
Very disturbed from logging/road grading

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations
___ Ground Surface Inundated ___ inches.
___ Soil Saturated.

Depth to Free Water ___ inches.
Depth to Saturated Soils ___ inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
___ Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:
no wetland hydrology

Project Number: 07025
Applicant: Roaring Brook Wind Power Project

Date: 9/20/07
Plot ID Number: PP1 UPL

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	Black cherry	H (S/S) T V	FACU	30
2	blackberry	H (S/S) T V	FACU-	50
3	yellow birch	H (S/S) T V	FAC	30
4	red maple	H (S/S) T V	FAC	30
5		H S/S T V		
6	hay scented fer	(H) S/S T V	UPL	40
7		H S/S T V		
8		H S/S T V		
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 40 %

Percent of Dominant Species OBL, FACW 0

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/20/07

Investigator: Stebbins/Erdes/Bagell/Schwab Town: **Martinsburg**
County: **Lewis**
State: **NY**

Do normal circumstances exist on site? Yes (No)
Is the site significantly disturbed? (Yes) No
Is the area a potential Problem Area? Yes (No)

Community: emergent channel *
Transect/Flag ID: QQ 1 – 5
Plot ID: QQ 2 wet

SOILS

Series and Phase: (PbA) Peat and Muck, deep → "permanently wet" Drainage Class: WD MWD SPD PD VPD

Subgroup: Confirm Mapped Type: (Yes) No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-3"	A	10YR 4/3	10YR 4/6	Silty clay loam
3"+	B	10YR 5/2	10YR 5/6	loamy silt clay
↳ after		6" 15%	gravel - more prominent rhizospheres	

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ___ convex X sloping ___ Approximate slope: ___
flat ___ undulating ___

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations

NO Ground Surface Inundated ___ inches.
Yes Soil Saturated.

Depth to Free Water ___ inches.
Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
X Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
X Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
X Oxidized Root Channels in upper 12 inches
X Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks: * channel created by draining/ditching connects PIB to PB NYDEC *

Project Number:	07025	Date:	9/20/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	DQ 2 wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	Soft rush	(H) S/S T V	FACW+	10%
2	Sensitive fern	(H) S/S T V	FACW	10
3	fringed sedge	(H) S/S T V	OBL	20%
4	eleocharis	(H) S/S T V	FACW/OBL	20
5	narrow leaved goldenrod	(H) S/S T V	FAC	10
6		H S/S T V		
7		H S/S T V		
8		H S/S T V		
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 100%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/20/07

Investigator: Stebbins/Enders/Brazell/Schmidt. Town: **Martinsburg**
County: **Lewis**
State: **NY**

Do normal circumstances exist on site? Yes (No)
Is the site significantly disturbed? (Yes) No
Is the area a potential Problem Area? Yes (No)

Community: forested upland
Transect/Flag ID: QQ
Plot ID: QQ 2 UPL

SOILS

Series and Phase: (PbA) Peat and Muck, deep → "permanently wet"
Drainage Class: WD MWD SPD PD VPD
Subgroup:
Confirm Mapped Type: (Yes) No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-10"	A	10YR 2/1	none	silty loam
10"+		rocky layer rejects auger		

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat ___ undulating ✓

Remarks: very disturbed by logging/road grading
- high organic content, dry crumbly

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations

___ Ground Surface Inundated ___ inches.
___ Soil Saturated.

Depth to Free Water ___ inches.

Depth to Saturated Soils ___ inches.

Wetland Hydrology Indicators:

Primary Indicators
- ___ Inundated
- ___ Saturated in upper 12 inches.
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
- ___ Oxidized Root Channels in upper 12 inches
- ___ Water-Stained leaves
- ___ Local Soil Survey
- ___ Morphological Plant Adaptations
- ___ Other (Explain in Remarks)

Remarks:
no wetland hydrology

Project Number: 07025	Date: 9/20/07
Applicant: Roaring Brook Wind Power Project	Plot ID Number: QQ 2 upl

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	Sugar maple	H S/S (T) V	FACU-	20 %
2	yellow birch	H S/S (T) V	FAC	10 %
3		H S/S T V		
4	lady fern	(H) S/S T V	FAC	30 %
5		H S/S T V		
6		H S/S T V		
7	red raspberry	H (S/S) T V	FAC-	40
8	beech	H (S/S) T V	FACU	5
9	red maple	H (S/S) T V	FAC	5
10	sugar maple	H (S/S) T V	FACU-	10
11	black cherry	H (S/S) T V	FACU	15
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 50%

Percent of Dominant Species OBL, FACW 0

50/20 Rule Applied? (Yes) No

Remarks: Sparse herb layer (aside from ferns)

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or No

Hydric Soils Present? Yes or No

Wetland Hydrology Present? Yes or No

Is this Sampling Point Within a Wetland? Yes or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/20/07

Investigator: Stebbins/Erdes/Braxell/Schwab Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? (Yes) No Needs culvert
Is the site significantly disturbed? Yes (No)
Is the area a potential Problem Area? Yes (No)

Community: Emergent
Transect/Flag ID: RR
Plot ID: RR 2 wet

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-16"	A	10YR 2/1	NONE	muck - suspended
			Soupy - won't stack to auger	

Hydric Soil Indicators:

___ Histisols
___ Histic Epipedon
X Sulfidic Odor
___ Reducing Conditions
___ Concretions
___ High Org. Content in Surface Layer of Sandy Soils
___ Organic Streaking in Sandy Soils
___ Gleyed or Low Chroma color
___ Listed on Local Hydric Soils List
___ Listed as Potential for Hydric Inclusions Only
___ Other (Explain in Remarks)
___ Aquic Moisture Regime

Landscape position: concave ___ convex X sloping ___ Approximate slope: ___
flat ___ undulating ___

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations
Yes Ground Surface Inundated 0-6" inches.
Yes Soil Saturated.
Depth to Free Water 0 inches.
Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
X Inundated
X Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:
* Needs Culvert *

Project Number: 07025	Date: 9/20/07
Applicant: Roaring Brook Wind Power Project	Plot ID Number: RR2 wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	Bidens frondosa	(H) S/S T V	FACW	40
2	Bur reed	(H) S/S T V	OBL	40
3	cinnamon fern	(H) S/S T V	FACW	5 20
4		H S/S T V		
5		H S/S T V		
6		H S/S T V		
7		H S/S T V		
8		H S/S T V		
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 100%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/20/07

Investigator: Stebbins/Enders/Brazell/Schwab Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? (Yes) No Community: forested upland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: RR

Is the area a potential Problem Area? Yes (No) Plot ID: RR 2 upl

SOILS

Series and Phase: _____ Drainage Class: WD MWD SPD PD VPD

Subgroup: _____ Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-4"	O	organic material		
4"	rocky layer = rejected auger			

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____

flat _____ undulating _____

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)

_____ No Recorded Data Available

_____ Stream, Lake or Tide Gauge

_____ Aerial Photographs

Field Observations

_____ Ground Surface Inundated _____ inches.

_____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated
___ Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:

no wetland hydrology

Project Number:	07025	Date:	9/20/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	RR2 UPL

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	beech	H S/S (T) V	FACU	90%
2	yellow birch	H S/S (T) V	FAC	40%
3	red maple	H S/S (T) V	FAC	30%
4		H S/S T V		
5		H S/S T V		
6	hobblebush	H (S/S) T V	FAC	40%
7	beech	H (S/S) T V	FACU	20%
8	blackspruce	H (S/S) T V	FACW-	30%
9		H S/S T V		
10		H S/S T V		
11	shining club moss	(H) S/S T V	FACW-	5
12	intermediate wood fern	(H) S/S T V	FACU	5
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 67%

Percent of Dominant Species OBL, FACW 33%

50/20 Rule Applied? (Yes) No

Remarks: pink lady slipper Indian pipe <5%
Indian cucumber root
Canada mayflower
Dwarf dogwood

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/20/07

Investigator: Stebbins/Braswell/Enders/Schwab Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? (Yes) No Community: forested/disturbed

Is the site significantly disturbed? (Yes) No trees pushed in Transect/Flag ID: SS

Is the area a potential Problem Area? Yes (No) Plot ID: SS 2 wet

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-4"	A	10YR 3/2	none	silty loam
4-6"	B?	10YR 4/2		sandy silt loam
6+	B?	10YR 2/1		silt loam

Hydric Soil Indicators:

- ___ Histisols
- ___ Histic Epipedon
- ___ Sufidic Odor
- ___ Reducing Conditions
- ___ Concretions
- ___ High Org. Content in Surface Layer of Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Gleyed or Low Chroma color
- ___ Listed on Local Hydric Soils List
- ___ Listed as Potential for Hydric Inclusions Only
- ___ Other (Explain in Remarks)
- ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat X undulating ___

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations
NO Ground Surface Inundated ___ inches.
YES Soil Saturated.

Depth to Free Water ___ inches.

Depth to Saturated Soils ___ inches.

Wetland Hydrology Indicators:

Primary Indicators
- ___ Inundated
- X Saturated in upper 12 inches.
- X Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
- X Oxidized Root Channels in upper 12 inches
- ___ Water-Stained leaves
- ___ Local Soil Survey
- ___ Morphological Plant Adaptations
- ___ Other (Explain in Remarks)

Remarks:

Project Number: 07025
Applicant: Roaring Brook Wind Power Project

Date: 9/20/07
Plot ID Number: SS2 wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	Arrowed sedge	(H) S/S T V	OBL	60%
2	wetland grass	(H) S/S T V	FACW/OBL	50%
3	Bidens frondosa	(H) S/S T V	FACW	10%
4	yellow birch	H S/S (T) V	FAC	20%
5	red maple	H S/S (T) V	FAC	40%
6	yellow birch	H ~~S/S~~ T V	FAC	20%
7		H S/S T V		
8		H S/S T V		
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 40%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/20/07

Investigator: Stebbins/Erdos/Bazell/Schaab Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? Yes (No)
Is the site significantly disturbed? (Yes) No
Is the area a potential Problem Area? Yes (No)

Community: forested upland
Transect/Flag ID: SS
Plot ID: SS2 UPL

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-6"	O		organic matter	
6-9"	A	10YR 4/6	10YR 5/1	Sandy clay loam
9"+		10YR 4/6	none	silt loam

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat ___ undulating X

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations
___ Ground Surface Inundated ___ inches.
___ Soil Saturated.

Depth to Free Water ___ inches.

Depth to Saturated Soils ___ inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
___ Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:

No wetland hydrology

Project Number: 07025
Applicant: Roaring Brook Wind Power Project

Date: 9/20/07
Plot ID Number: SS 2 up2

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	yellow birch	H S/S (T) V	FAC	40 -
2	sugar maple	H S/S (T) V	FACU-	20
3	balsam	H S/S (T) V	FAC	20
4	hemlock	H S/S (T) V	FACU	40 -
5	hobblebush	H (S/S) T V	FAC	60 -
6	beech	H (S/S) T V	FACU	10
7	red maple	H (S/S) T V	FAC	10
8		H S/S T V		
9	bunchberry	(H) S/S T V	FAC-	5 -
10	goldthread	(H) S/S T V	FACW	5 -
11	intermediate wood fern	(H) S/S T V	FACU	10 -
12	canada mayflower	(H) S/S T V	FAC-	5 -
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 71 %

Percent of Dominant Species OBL, FACW 14 %

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/21/07

Investigator: Stebbins/Brassell/Enders Town: **Martinsburg**
County: **Lewis**
State: **NY**

Do normal circumstances exist on site? (Yes) No Community: emergent wetland in field (PEM)

Is the site significantly disturbed? Yes (No) Transect/Flag ID: TT1 – 8

Is the area a potential Problem Area? Yes (No) Plot ID: TT2 wet

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-3	O	Organic matter		
3-8"	A	10YR 2/2	none	clay loam
8"+		rocky layer reject auger		

Hydric Soil Indicators:

___ Histisols ___ Concretions ___ Listed on Local Hydric Soils List
___ Histic Epipedon ___ High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___ Sufidic Odor ___ Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___ Reducing Conditions ___ Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ____ convex X sloping ____ Approximate slope: ____
flat ____ undulating ____

Remarks: high organic content

HYDROLOGY

____ Recorded Data (Describe in Remarks)
____ No Recorded Data Available
____ Stream, Lake or Tide Gauge
____ Aerial Photographs

Field Observations
NO Ground Surface Inundated ____ inches.
YES Soil Saturated.

Depth to Free Water ____ inches.

Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
X Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
X Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
X Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks: Isolated wetland

Project Number:	07025	Date:	9/21/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	TT 2 wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	Brasenia frondosa	(H) S/S T V	FACW	90%
2	maddog skullcap	(H) S/S T V	FACW+	20%
3	Sphagnum	(H) S/S T V	FACW/OBL	30%
4		H S/S T V		
5		H S/S T V		
6		H S/S T V		
7		H S/S T V		
8		H S/S T V		
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100

Percent of Dominant Species OBL, FACW 100%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/21/07

Investigator: Stebbins/Bragdell/Endres Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? (Yes) No Community: forested wetland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: TT

Is the area a potential Problem Area? Yes (No) Plot ID: TT 2 WPL

SOILS

Series and Phase: _____ Drainage Class: WD MWD SPD PD VPD

Subgroup: _____ Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-4"	O	leaf litter organic matter		
4"	rocky layer rejects auger			

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ____ convex ____ sloping ____ Approximate slope: ____
flat ____ undulating X

Remarks: From road cuts can see soil under rocky layer - trees grow through there auger comm.

HYDROLOGY

____ Recorded Data (Describe in Remarks)
____ No Recorded Data Available
____ Stream, Lake or Tide Gauge
____ Aerial Photographs

Field Observations
____ Ground Surface Inundated____ inches.
____ Soil Saturated.

Depth to Free Water____ inches.

Depth to Saturated Soils____ inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
___ Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:

no wetland hydrology

Project Number: 07025
Applicant: Roaring Brook Wind Power Project

Date: 9/21/07
Plot ID Number: TT2 UPL

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	Beech	H S/S (T) V	FACU	30
2	Sugar maple	H S/S (T) V	FACU-	30
3	red maple	H S/S (T) V	FAC	40
4	yellow birch	H S/S (T) V	FAC	20
5		H S/S T V		
6	hobblebush	H (S/S) T V	FAC	20
7	beech	H (S/S) T V	FACU	30
8		H S/S T V		
9	wood fern	(H) S/S T V	FACU	40
10	hay scented fern	(H) S/S T V	UPL	40
11	sessile bellwort	(H) S/S T V	FACU-	20
12	Running clubmoss	(H) S/S T V	FACW-	10
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 29 %

Percent of Dominant Species OBL, FACW 0

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/21/07

Investigator: Enders/Brazell/Stebbins Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? Yes (No) old road skid trail
Is the site significantly disturbed? (Yes) No
Is the area a potential Problem Area? Yes (No)

Community: emergent
Transect/Flag ID: U47 – 6
Plot ID: U43 wet

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-6"	A	10YR 3/2	none	sandy clay loam
6"+		rocky layer rejects auger		

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ____ convex ____ sloping ____ Approximate slope: ____
flat X undulating ____

Remarks: Soils not hydric
low area caused by skidder

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations

___ Ground Surface Inundated ____ inches.
___ Soil Saturated.

Depth to Free Water ____ inches.

Depth to Saturated Soils ____ inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
___ Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:

isolated ~~wetland~~ not wetland
soils don't hold up

Project Number: 07025	Date: 9/4/07
Applicant: Roaring Brook Wind Power Project	Plot ID Number: WW3 wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1		H S/S T V		
2		H S/S T V		
3		H S/S T V		
4		H S/S T V		
5		H S/S T V		
6		H S/S T V		
7		H S/S T V		
8		H S/S T V		
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC____ Percent of Dominant Species OBL, FACW____

50/20 Rule Applied? Yes No

Remarks:

no data collected

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or No

Hydric Soils Present? Yes or No

Wetland Hydrology Present? Yes or No

Is this Sampling Point Within a Wetland? Yes or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/11/07

Investigator: Enders/Brazell/Stebbins Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? Yes (No)
Is the site significantly disturbed? (Yes) No
Is the area a potential Problem Area? Yes (No)

Community: forested upland
Transect/Flag ID: UU
Plot ID: UU 3 UPL

SOILS

Series and Phase: _____ Drainage Class: WD MWD SPD PD VPD

Subgroup: _____ Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other

Hydric Soil Indicators:

___Histisols
___Histic Epipedon
___Sulfidic Odor
___Reducing Conditions
___Concretions
___High Org. Content in Surface Layer of Sandy Soils
___Organic Streaking in Sandy Soils
___Gleyed or Low Chroma color
___ Listed on Local Hydric Soils List
___ Listed as Potential for Hydric Inclusions Only
___ Other (Explain in Remarks)
___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____
flat _____ undulating _____

Remarks:

no data collected
adjacent area lacks hydric soils

HYDROLOGY

_____ Recorded Data (Describe in Remarks)
_____ No Recorded Data Available
_____ Stream, Lake or Tide Gauge
_____ Aerial Photographs

Field Observations

_____ Ground Surface Inundated _____ inches.
_____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
___ Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:

Project Number: 07025	Date: 9/21/07
Applicant: Roaring Brook Wind Power Project	Plot ID Number: WL3 UPL

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1		H S/S T V		
2		H S/S T V		
3		H S/S T V		
4		H S/S T V		
5		H S/S T V		
6		H S/S T V		
7		H S/S T V		
8		H S/S T V		
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC_____ Percent of Dominant Species OBL, FACW_____

50/20 Rule Applied? Yes No

Remarks:

no data collected

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or No Hydric Soils Present? Yes or No

Wetland Hydrology Present? Yes or No Is this Sampling Point Within a Wetland? Yes or No

Remarks: Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/21/07

Investigator: Stubbins/Brazill/Enders Town: **Martinsburg**

County: **Lewis**

State: **NY**

Do normal circumstances exist on site? Yes No

Is the site significantly disturbed? Yes No Needs culvert

Is the area a potential Problem Area? Yes No

Community: Emergent w/some shrubs

Transect/Flag ID: W

Plot ID: W 3 Wet

SOILS

Series and Phase: **Drainage Class:** WD MWD SPD PD VPD

Subgroup: **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-6"	A	10YR 2/1	none	Muck
6"-16"	A	10YR 2/1	none	silty clay

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sulfidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___

flat X undulating ___

Remarks: hummocky terrain

HYDROLOGY

___ Recorded Data (Describe in Remarks)

___ No Recorded Data Available

___ Stream, Lake or Tide Gauge

___ Aerial Photographs

Field Observations

Y/S Ground Surface Inundated 0-8" inches.

Y/S Soil Saturated.

Depth to Free Water 0 inches.

Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators

X Inundated

X Saturated in upper 12 inches.

___ Water Marks

___ Drift Lines

___ Sediment Deposits

___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

X Oxidized Root Channels in upper 12 inches

___ Water-Stained leaves

___ Local Soil Survey

X Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks: Needs culvert

Project Number: 07025	Date: 9/21/07
Applicant: Roaring Brook Wind Power Project	Plot ID Number: VV 3 wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:	
1	Wetland grass	(H) S/S T V	FACW/OBL	60	+
2	tussock sedge	(H) S/S T V	OBL	40	-
3	flat topped aster	(H) S/S T V	FACW	5	
4	marsh St John's wort	(H) S/S T V	OBL	10	
5	Sphagnum	(H) S/S T V	FACW/OBL	30	-
6	wool grass	(H) S/S T V	FACW+	10	
7		H S/S T V			
8	black spruce	H (S/S) T V	FACW-	10	-
9	speckled alder	H (S/S) T V	FACW+	20	-
10	meadowsweet	H (S/S) T V	FACW+	10	-
11	red maple	H (S/S) T V	FAC	10	-
12		H S/S T V			
13		H S/S T V			
14		H S/S T V			
15		H S/S T V			
16		H S/S T V			

Percent of Dominant Species OBL, FACW, FAC 100 %

Percent of Dominant Species OBL, FACW 86 %

50/20 Rule Applied? (Yes) No

Remarks: cattails further out (beyond sample point

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/21/07

Investigator: Stebbins/Bragell/Enders Town: **Martinsburg**
County: **Lewis**
State: **NY**

Do normal circumstances exist on site? **Yes No** Community: Forested upland

Is the site significantly disturbed? **Yes No** Transect/Flag ID: VV

Is the area a potential Problem Area? **Yes No** Plot ID: VV 3 upl

SOILS

Series and Phase: _____ **Drainage Class:** **WD MWD SPD PD VPD**

Subgroup: _____ **Confirm Mapped Type:** **Yes No**

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-6"	O	organic matter - dry		crumbs
6-8"	A	10YR 2/1	none	loam
8"+	rocky layer refusal			

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ____ convex ___/___ sloping ____ Approximate slope: ____
flat ____ undulating ___X___

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)
_____ No Recorded Data Available
_____ Stream, Lake or Tide Gauge
_____ Aerial Photographs

Field Observations
_____ Ground Surface Inundated _____ inches.
_____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
___ Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:
no wetland hydrology

Project Number:	07025	Date:	9/21/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	VV3 upl

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:	
1	yellow birch	H S/S (T) V	FAC	30	-
2	balsam fir	H S/S (T) V	FAC	20	-
3	red maple	H S/S (T) V	FAC	40	-
4		H S/S T V			
5	beech	H (S/S) T V	FACU	30	-
6	hobblebush	H (S/S) T V	FAC	10	-
7		H S/S T V			
8	bunchberry	(H) S/S T V	FAC-	10	-
9	gold thread	(H) S/S T V	FACW	20	-
10	intermediate wood fern	(H) S/S T V	FACU	5	
11		H S/S T V			
12		H S/S T V			
13		H S/S T V			
14		H S/S T V			
15		H S/S T V			
16		H S/S T V			

Percent of Dominant Species OBL, FACW, FAC 86 % Percent of Dominant Species OBL, FACW 40 %

50/20 Rule Applied? (Yes) No

Remarks: also blue bead lily, sessile bellwort, Canada mayflower, Indian pipe < 5 %

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No) Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No) Is this Sampling Point Within a Wetland? Yes or (No)

Remarks: Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/21/07

Investigator: Brazell/Erdus/Stebbins Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? (Yes) No

Is the site significantly disturbed? Yes (No) needs culvert

Is the area a potential Problem Area? Yes (No)

Community: emergent shrub swamp

Transect/Flag ID: WW

Plot ID: WW6 wet

SOILS

Series and Phase: Drainage Class: WD MWD SPD PD VPD

Subgroup: Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-16"	A	10YR 2/1	none	muck
16"				

Hydric Soil Indicators:

- ___ Histisols
- ___ Histic Epipedon
- ___ Sufidic Odor
- ___ Reducing Conditions
- ___ Concretions
- ___ High Org. Content in Surface Layer of Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Gleyed or Low Chroma color
- ___ Listed on Local Hydric Soils List
- ___ Listed as Potential for Hydric Inclusions Only
- ___ Other (Explain in Remarks)
- ___ Aquic Moisture Regime

Landscape position: concave ___ convex X sloping ___ Approximate slope: ___

flat ___ undulating ___

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks)

___ No Recorded Data Available

___ Stream, Lake or Tide Gauge

___ Aerial Photographs

Field Observations

No Ground Surface Inundated ___ inches.

Yes Soil Saturated.

Depth to Free Water ___ inches.

Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators

- ___ Inundated
- X Saturated in upper 12 inches.
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- X Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

- ___ Oxidized Root Channels in upper 12 inches
- ___ Water-Stained leaves
- ___ Local Soil Survey
- X Morphological Plant Adaptations
- ___ Other (Explain in Remarks)

Remarks:

Project Number:	07025	Date:	9/21/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	WW6 wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	Speckled alder	H (S/S) T V	FACW+	40
2	balsam fir	H (S/S) T V	FAC	20
3		H S/S T V		
4	joe pye weed	(H) S/S T V	FACW	30
5	wetland grass	(H) S/S T V	FACW/OBL	60
6	flat topped aster	(H) S/S T V	FACW	10
7	cattails	(H) S/S T V	OBL	30
8		H S/S T V		
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100 %

Percent of Dominant Species OBL, FACW 83%

50/20 Rule Applied? (Yes) No

Remarks: State protected Turtlehead present (not dominant)

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/21/07

Investigator: Brazell/Erdes/Stebbins Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? (Yes) No Community: forested upland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: WW

Is the area a potential Problem Area? Yes (No) Plot ID: WW6 upland

SOILS

Series and Phase: _____ Drainage Class: WD MWD SPD PD VPD

Subgroup: _____ Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-12"	O/A	10YR 2/1	none	Organic matter

Hydric Soil Indicators:

- ___Histisols
- ___Histic Epipedon
- ___Sufidic Odor
- ___Reducing Conditions
- ___Concretions
- ___High Org. Content in Surface Layer of Sandy Soils
- ___Organic Streaking in Sandy Soils
- ___Gleyed or Low Chroma color
- ___ Listed on Local Hydric Soils List
- ___ Listed as Potential for Hydric Inclusions Only
- ___ Other (Explain in Remarks)
- ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat ___ undulating X

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations
___ Ground Surface Inundated ___ inches.
___ Soil Saturated.

Depth to Free Water ___ inches.

Depth to Saturated Soils ___ inches.

Wetland Hydrology Indicators:

Primary Indicators
- ___ Inundated
- ___ Saturated in upper 12 inches.
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
- ___ Oxidized Root Channels in upper 12 inches
- ___ Water-Stained leaves
- ___ Local Soil Survey
- ___ Morphological Plant Adaptations
- ___ Other (Explain in Remarks)

Remarks:

no wetland hydrology

Project Number:	07025	Date:	9/21/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	WW6 UPL

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	red maple	H S/S (T) V	FAC	85
2	beech	H S/S (T) V	FACU	15
3	yellow birch	H S/S (T) V	FAC	5
4	balsam fir	H (S/S) T V	FAC	5
5	black spruce	H (S/S) T V	FACW-	10
6	striped maple	H (S/S) T V	FACU	10
7	red maple	H (S/S) T V	FAC	10
8	black cherry	H (S/S) T V	FACU	20
9	intermediate wood fern	(H) S/S T V	FACU	10
10	gold thread	(H) S/S T V	FACW	40
11	sarsaparilla	(H) S/S T V	FACU	5
12	red maple	(H) S/S T V	FAC	40
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 75 %

Percent of Dominant Species OBL, FACW 25 %

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/21/07

Investigator: Stubbins/Brazell/Enders Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? (Yes) No needs culvert replacement Community: emergent
Is the site significantly disturbed? Yes (No) Transect/Flag ID: XX
Is the area a potential Problem Area? Yes (No) Plot ID: XX 15 wet

SOILS

Series and Phase: _____ Drainage Class: WD MWD SPD PD VPD

Subgroup: _____ Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-6"	O	organic matter - mostly sphagnum		
6-8"	A	10YR 6/1	none	sandy clay
8"+	rocky layer rejects auger			

Hydric Soil Indicators:

- ___ Histisols
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Reducing Conditions
- ___ Concretions
- ___ High Org. Content in Surface Layer of Sandy Soils
- ___ Organic Streaking in Sandy Soils
- X Gleyed or Low Chroma color
- ___ Listed on Local Hydric Soils List
- ___ Listed as Potential for Hydric Inclusions Only
- ___ Other (Explain in Remarks)
- ___ Aquic Moisture Regime

Landscape position: concave ____ convex ____ sloping ____ Approximate slope: ____
flat X undulating ____

Remarks: beaver dam between flags 3 and 7

HYDROLOGY

- ___ Recorded Data (Describe in Remarks)
- ___ No Recorded Data Available
- ___ Stream, Lake or Tide Gauge
- ___ Aerial Photographs

Field Observations
- 1/4.5 Ground Surface Inundated ____ inches.
- 1/1.5 Soil Saturated.

Depth to Free Water 0 inches.

Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
- X Inundated
- X Saturated in upper 12 inches.
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- X Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
- X Oxidized Root Channels in upper 12 inches
- ___ Water-Stained leaves
- ___ Local Soil Survey
- ___ Morphological Plant Adaptations
- ___ Other (Explain in Remarks)

Remarks: beaver dam in wetland, deep standing water pooled on south side road, channel through wetland on north side, needs culvert replacement

Project Number:	07025	Date:	9/21/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	XX 15 wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	soft rush	(H) S/S T V	FACW+	30
2	wetland grass	(H) S/S T V	FACW/OBL	60
3	tussock sedge	(H) S/S T V	OBL	30
4	fringed sedge	(H) S/S T V	OBL	20
5	sphagnum	(H) S/S T V	FACW/OBL	80
6		H S/S T V		
7		H S/S T V		
8		H S/S T V		
9	shrub	H (S/S) T V	FACW	10
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 100%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/21/07

Investigator: Stebbins/Brazell/Enders Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? (Yes) No Community: forested wetland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: XX

Is the area a potential Problem Area? Yes (No) Plot ID: XX 15 UPL

SOILS

Series and Phase: _____ Drainage Class: WD MWD SPD PD VPD

Subgroup: _____ Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-6"	O	—		organic matter - dry crumbly
6-8"	A	10YR 2/1		silty loam
8"+		rocky layer rejects auger		

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____

flat _____ undulating X

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)

_____ No Recorded Data Available

_____ Stream, Lake or Tide Gauge

_____ Aerial Photographs

Field Observations

_____ Ground Surface Inundated _____ inches.

_____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated

___ Saturated in upper 12 inches.

___ Water Marks

___ Drift Lines

___ Sediment Deposits

___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

___ Oxidized Root Channels in upper 12 inches

___ Water-Stained leaves

___ Local Soil Survey

___ Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks: no wetland hydrology

Project Number: 07025	Date: 9/21/07
Applicant: Roaring Brook Wind Power Project	Plot ID Number: XY 15 upl

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	black cherry	H S/S (T) V	FACU	40 –
2	red maple	H S/S (T) V	FAC	80 –
3	balsam fir	H S/S (T) V	FAC	20
4		H S/S T V		
5		H S/S T V		
6	yellow birch	H (S/S) T V	FAC	30 –
7	red maple	H (S/S) T V	FAC	50 –
8	hobblebush	H (S/S) T V	FAC	15
9	balsam fir	H (S/S) T V	FAC	20
10		H S/S T V		
11		H S/S T V		
12	bracken fern	(H) S/S T V	FACU	30 –
13	Intermidiate wood fern	(H) S/S T V	FACU	5
14	Cinnamon fern	(H) S/S T V	FAC-	5
15	gold thread	(H) S/S T V	FACW	5
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 60%

Percent of Dominant Species OBL, FACW 0

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/21/07

Investigator: Cubbus/Bragdell/Enders Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? (Yes) No Community: Shrub/Scrub

Is the site significantly disturbed? Yes (No) Transect/Flag ID: 44

Is the area a potential Problem Area? Yes (No) Plot ID: 44 2 wet

SOILS

Series and Phase: _____ Drainage Class: WD MWD SPD PD VPD

Subgroup: _____ Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-6"	A	10YR 2/1	none	clayey loam
6-9"	B	10YR 4/2	organic streaks	clay loam
9+"		2.5Y 4/3	10YR 4/2	clay loam clay

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ____ convex ____ sloping ____ Approximate slope: ____

flat X undulating ____

Remarks:

HYDROLOGY

____ Recorded Data (Describe in Remarks)

____ No Recorded Data Available

____ Stream, Lake or Tide Gauge

____ Aerial Photographs

Field Observations

No Ground Surface Inundated ____ inches.

No Soil Saturated. Moist

Depth to Free Water ____ inches.

Depth to Saturated Soils ____ inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated

___ Saturated in upper 12 inches.

___ Water Marks

___ Drift Lines

___ Sediment Deposits

___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

X Oxidized Root Channels in upper 12 inches

X Water-Stained leaves

___ Local Soil Survey

___ Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks:

part of DEC wetland

Project Number: 07025
Applicant: Roaring Brook Wind Power Project

Date: 9/21/07
Plot ID Number: YY2 wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	meadowsweet	H (S/S) T V	FACW+	40 -
2	American elm	H (S/S) T V	FACW-	40 -
3	red maple	H (S/S) T V	FAC	20 -
4	sensitive fern	(H) S/S T V	FACW	60 -
5	glyceria	(H) S/S T V	OBL	10
6	wetland grass	(H) S/S T V	FACW/OBL	20
7	wetland cones	(H) S/S T V	FACW/OBL	10
8	impatiens	(H) S/S T V	FACW	10
9	heartleaves	(H) S/S T V	OBL	30 -
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 80%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/21/07

Investigator: Stebbins / Brazell / Enders Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? (Yes) No Community: forested upland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: YY

Is the area a potential Problem Area? Yes (No) Plot ID: YY 2 UPL

SOILS

Series and Phase: _____ Drainage Class: WD MWD SPD PD VPD

Subgroup: _____ Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-3"	A	10YR 2/1	none	silty loam
3-8"	B	10YR 4/4	none	silty loam
8"+		rocky layer rejects auger		

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____
flat _____ undulating X

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)
_____ No Recorded Data Available
_____ Stream, Lake or Tide Gauge
_____ Aerial Photographs

Field Observations
_____ Ground Surface Inundated _____ inches.
_____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
___ Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:
no wetland hydrology

Project Number: 07025	Date: 9/21/07
Applicant: Roaring Brook Wind Power Project	Plot ID Number: 44 2 upl

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	sugar maple	H S/S (T) V	FACU	60
2	beech	H S/S (T) V	FACU-	40
3		H S/S T V		
4	hay scented fern	(H) S/S T V	UPL	60
5	Blackberry creeper	(H) S/S T V	UPL	10
6	sarsaparilla	(H) S/S T V	FACU-	5
7	Jessill bellwort	(H) S/S T V	FACU	5
8	lady fern	(H) S/S T V	FAC	5
9	wood fern	(H) S/S T V	FACU	5
10		H S/S T V		
11	sugar maple	H (S/S) T V	FACU-	60
12	beech	H (S/S) T V	FACU	20
13	yellow birch	H (S/S) T V	FAC	10
14	Sambucus can.	H (S/S) T V	FACW-	10
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC (A)

Percent of Dominant Species OBL, FACW (0)

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/21/07

Investigator: Boogell/Evans/Stebbins Town: **Martinsburg**

County: **Lewis**

State: **NY**

Do normal circumstances exist on site? (Yes) No

Is the site significantly disturbed? Yes (No)

Is the area a potential Problem Area? Yes (No)

Community: beaver meadow complex

Transect/Flag ID: ZZ

Plot ID: ZZ1 channel

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other

Hydric Soil Indicators:

___Histisols
___Histic Epipedon
___Sufidic Odor
___Reducing Conditions
___Concretions
___High Org. Content in Surface Layer of Sandy Soils
___Organic Streaking in Sandy Soils
___Gleyed or Low Chroma color
___ Listed on Local Hydric Soils List
___ Listed as Potential for Hydric Inclusions Only
___ Other (Explain in Remarks)
___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____
flat _____ undulating _____

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)
_____ No Recorded Data Available
_____ Stream, Lake or Tide Gauge
_____ Aerial Photographs

Field Observations
_____ Ground Surface Inundated _____ inches.
_____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
___ Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks: Channel wide 10-20 feet, beaver dammed, flowing through current, substrate variously mud, cobble, sand water brown w/ tannin, diffuse banks

Project Number: 07025	Date:
Applicant: Roaring Brook Wind Power Project	Plot ID Number:

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1		H S/S T V		
2		H S/S T V		
3		H S/S T V		
4		H S/S T V		
5		H S/S T V		
6		H S/S T V		
7		H S/S T V		
8		H S/S T V		
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC_____ Percent of Dominant Species OBL, FACW_____

50/20 Rule Applied? Yes No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or No Hydric Soils Present? Yes or No

Wetland Hydrology Present? Yes or No Is this Sampling Point Within a Wetland? Yes or No

Remarks: Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/21/07

Investigator: Anders/Brazell/Stevens Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? (Yes) No Community: forested upland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: ZZ

Is the area a potential Problem Area? Yes (No) Plot ID: ZZ 11 UPL

SOILS

Series and Phase: _____ Drainage Class: WD MWD SPD PD VPD

Subgroup: _____ Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-4"	O	Organic material		
4"	No clay layer rejects Auger			

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____

flat _____ undulating X

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)

_____ No Recorded Data Available

_____ Stream, Lake or Tide Gauge

_____ Aerial Photographs

Field Observations

_____ Ground Surface Inundated _____ inches.

_____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated

___ Saturated in upper 12 inches.

___ Water Marks

___ Drift Lines

___ Sediment Deposits

___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

___ Oxidized Root Channels in upper 12 inches

___ Water-Stained leaves

___ Local Soil Survey

___ Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks: no wetland hydrology

Project Number:	07025	Date:	9/21/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	ZZ. 11 WPL

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	black cherry	H S/S (T) V	FACU	60
2	yellow birch	H S/S (T) V	FAC	20
3	red maple	H S/S (T) V	FAC	20
4		H S/S T V		
5	red maple	H (S/S) T V	FAC	50
6	balsam fir	H (S/S) T V	FAC	10
7	hobblebush	H (S/S) T V	FAC	10
8		H S/S T V		
9		H S/S T V		
10	intermediate wood fern	(H) S/S T V	FACU	25
11	goldthread	(H) S/S T V	FACW	5
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 60%

Percent of Dominant Species OBL, FACW 0

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/21/07

Investigator: Brazell/Drew Dobbins Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? (Yes) No Community: Shrub/Scrub/Forested

Is the site significantly disturbed? Yes (No) Transect/Flag ID: ZZ

Is the area a potential Problem Area? Yes (No) Plot ID: ZZ 11 wlf

SOILS

Series and Phase: _____ Drainage Class: WD MWD SPD PD VPD

Subgroup: _____ Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-3"		10YR 2/1		clayey muck
3"+		rocky layer rejects auger		

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex X sloping _____ Approximate slope: _____

flat _____ undulating _____

Remarks: high organic content

HYDROLOGY

_____ Recorded Data (Describe in Remarks)

_____ No Recorded Data Available

_____ Stream, Lake or Tide Gauge

_____ Aerial Photographs

Field Observations

NO Ground Surface Inundated _____ inches.

YES Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated

X Saturated in upper 12 inches.

___ Water Marks

___ Drift Lines

___ Sediment Deposits

X Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

___ Oxidized Root Channels in upper 12 inches

X Water-Stained leaves

___ Local Soil Survey

X Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks:

Project Number:	07025	Date:	9/21/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	ET11 wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	spruce/alder	H (S/S) T V	FACW+	75%
2	red maple	H (S/S) T V	FAC	20
3	black spruce	H (S/S) T V	FACW-	10
4	meadow sweet	H (S/S) T V	FACW+	10
5		H S/S T V		
6	yellow birch	H S/S (T) V	FAC	40
7	red maple	H S/S (T) V	FAC	20
8		H S/S T V		
9	Sphagnum	(H) S/S T V	FACW/OBL	60
10	sens. fiddlehead fern	(H) S/S T V	FACW	20
11	mad dog skullcap	(H) S/S T V	FACW+	5
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 60%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/21/07

Investigator: Erdes/Stebbins/Brazell Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? (Yes) No Community: forested wetland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: ZZ

Is the area a potential Problem Area? Yes (No) Plot ID: ZZ 30 wet

SOILS

Series and Phase: _____ Drainage Class: WD MWD SPD PD VPD

Subgroup: _____ Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-16"+	A	10YR 2/1		sandy loam

Hydric Soil Indicators:

- ___ Histisols
- ___ Histic Epipedon
- X Sulfidic Odor
- ___ Reducing Conditions
- ___ Concretions
- ___ High Org. Content in Surface Layer of Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Gleyed or Low Chroma color
- ___ Listed on Local Hydric Soils List
- ___ Listed as Potential for Hydric Inclusions Only
- ___ Other (Explain in Remarks)
- ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat X undulating ___

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations
NO Ground Surface Inundated ___ inches.
YES Soil Saturated.
Depth to Free Water ___ inches.
Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
- X Inundated
- X Saturated in upper 12 inches.
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
- X Oxidized Root Channels in upper 12 inches
- X Water-Stained leaves
- ___ Local Soil Survey
- ___ Morphological Plant Adaptations
- ___ Other (Explain in Remarks)

Remarks:

Project Number: 07025	Date: 9/21/07
Applicant: Roaring Brook Wind Power Project	Plot ID Number: ZZ 30 wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	red maple	H S/S (T) V	FAC	50
2	yellow birch	H S/S (T) V	FAC	25
3	balsam fir	H S/S (T) V	FAC	15
4		H S/S T V		
5	alder	H (S/S) T V	FACW+	40
6	balsam	H (S/S) T V	FAC	70
7	dwarf resp.	H (S/S) T V	FACW	20
8		H S/S T V		
9	fringed sedge	(H) S/S T V	OBL	70
10	Sphagnum	(H) S/S T V	FACW/OBL	50
11	Aster puniceus	(H) S/S T V	OBL	10
12	Common fern	(H) S/S T V	FACW	25
13	gold thread	(H) S/S T V	FACW	5
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 57%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/21/07

Investigator: Enders / Stebbins / Brazell Town: **Martinsburg**

County: **Lewis**

State: **NY**

Do normal circumstances exist on site? (Yes) No Community: forested upland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: ZZ

Is the area a potential Problem Area? Yes (No) Plot ID: ZZ30 upl

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-6"	O	organic		
6-8"	A	10yr 3/2	none	silty loam
8"+	rocky	layer rejects auger		

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____

flat _____ undulating X

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)

_____ No Recorded Data Available

_____ Stream, Lake or Tide Gauge

_____ Aerial Photographs

Field Observations

_____ Ground Surface Inundated _____ inches.

_____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated

___ Saturated in upper 12 inches.

___ Water Marks

___ Drift Lines

___ Sediment Deposits

___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

___ Oxidized Root Channels in upper 12 inches

___ Water-Stained leaves

___ Local Soil Survey

___ Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks:

no wetland hydrology

Project Number: 07025
Applicant: Roaring Brook Wind Power Project

Date: 9/21/07
Plot ID Number: EZ 30 wp1

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	yellow birch	H S/S (T) V	FAC	60
2	red maple	H S/S (T) V	FAC	40
3		H S/S T V		
4		H S/S T V		
5	hobblebush	H (S/S) T V	FAC	50
6	yellow birch	H (S/S) T V	FAC	20
7	balsam	H (S/S) T V	FAC	10
8		H S/S T V		
9	gold thread	(H) S/S T V	FACW	10
10	Int. wood fern	(H) S/S T V	FACU	10
11	canada mayflower	(H) S/S T V	FAC-	5
12	sarsaparilla	(H) S/S T V	FACU	20
13	bluebead lily	(H) S/S T V	FAC	20
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 83 %

Percent of Dominant Species OBL, FACW 0

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/21/07

Investigator: Anders / Bragell / Stebbins Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? (Yes) No Community: emergent marsh

Is the site significantly disturbed? Yes (No) Transect/Flag ID: ZZ

Is the area a potential Problem Area? Yes (No) Plot ID: ZZ S6 wet

SOILS

Series and Phase: _____ Drainage Class: WD MWD SPD PD VPD

Subgroup: _____ Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-6"	A	10YR 2/1	none	Silty loam
6"+		rocky layer rejects auger		

Hydric Soil Indicators:

- ___ Histisols
- ___ Histic Epipedon
- X Sulfidic Odor
- ___ Reducing Conditions
- ___ Concretions
- ___ High Org. Content in Surface Layer of Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Gleyed or Low Chroma color
- ___ Listed on Local Hydric Soils List
- ___ Listed as Potential for Hydric Inclusions Only
- ___ Other (Explain in Remarks)
- ___ Aquic Moisture Regime

Landscape position: concave ___ convex X sloping ___ Approximate slope: ___
flat ___ undulating ___

Remarks: high organic content

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations
NO Ground Surface Inundated ___ inches.
Yes Soil Saturated.
Depth to Free Water ___ inches.
Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
- ___ Inundated
- X Saturated in upper 12 inches.
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
- X Oxidized Root Channels in upper 12 inches
- ___ Water-Stained leaves
- ___ Local Soil Survey
- ___ Morphological Plant Adaptations
- ___ Other (Explain in Remarks)

Remarks:

Project Number:	07025	Date:	9/21/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	ZZ 56 wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	Sensitive fern	(H) S/S T V	FACW	60 %
2	Willow herb	(H) S/S T V	OBL	10 %
3	wetland grass	(H) S/S T V	FACW/OBL	30
4	mad dog skullcap	(H) S/S T V	FACW+	10
5	jewelweed	(H) S/S T V	FACW	20
6	cinnamon fern	(H) S/S T V	FACW	5
7		H S/S T V		
8	Meadowsweet	H (S/S) T V	FACW+	30
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100 %

Percent of Dominant Species OBL, FACW 100 %

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/21/07

Investigator: Enders/Brazell/Stebbins Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? (Yes) No Community: Forested upland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: ZZ

Is the area a potential Problem Area? Yes (No) Plot ID: ZZ Sb upl

SOILS

Series and Phase: _____ Drainage Class: WD MWD SPD PD VPD

Subgroup: _____ Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0–6"	O	Organic matter-dry		Crumbly
6–8"	A	10YR 6/2	none	Silty loam
8"+	Rocky layer rejects auger			

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____
flat _____ undulating X

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)
_____ No Recorded Data Available
_____ Stream, Lake or Tide Gauge
_____ Aerial Photographs

Field Observations
_____ Ground Surface Inundated _____ inches.
_____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
___ Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:

no wetland hydrology

Project Number:	07025	Date:	9/21/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	77 56 UPL

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	red maple	H S/S (T) V	FAC	20
2	yellow birch	H S/S (T) V	FAC	30
3		H S/S T V		
4	yellow birch	H (S/S) T V	FAC	30
5	hobblebush	H (S/S) T V	FAC	40
6	balsam fir	H (S/S) T V	FAC	20
7	red maple	H (S/S) T V	FAC	10
8		H S/S T V		
9		H S/S T V		
10	intermediate wood fern	(H) S/S T V	FACU	15
11	bracken fern	(H) S/S T V	FACU	30
12	gold thread	(H) S/S T V	FACW	5
13	can. mayflower	(H) S/S T V	FAC-	5
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 71 % Percent of Dominant Species OBL, FACW 0

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No) Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No) Is this Sampling Point Within a Wetland? Yes or (No)

Remarks: Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/21/07

Investigator: Stebbins/Braswell/Enders Town: **Martinsburg**

County: **Lewis**

State: **NY**

Do normal circumstances exist on site? (Yes) No Community: emergent

Is the site significantly disturbed? Yes (No) Transect/Flag ID: ZZ

Is the area a potential Problem Area? Yes (No) Plot ID: ZZ 71 wet

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-3"	O	Organic matter - sedges + sphagnum		
3-16"+	A	10YR 2/1	None	mucky

Hydric Soil Indicators:

- ___ Histisols
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Reducing Conditions
- ___ Concretions
- ___ High Org. Content in Surface Layer of Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Gleyed or Low Chroma color
- ___ Listed on Local Hydric Soils List
- ___ Listed as Potential for Hydric Inclusions Only
- ___ Other (Explain in Remarks)
- ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___
flat X undulating ___

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks)
___ No Recorded Data Available
___ Stream, Lake or Tide Gauge
___ Aerial Photographs

Field Observations
NO Ground Surface Inundated ___ inches.
YES Soil Saturated.
Depth to Free Water ___ inches.
Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
- ___ Inundated
- X Saturated in upper 12 inches.
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- X Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
- X Oxidized Root Channels in upper 12 inches
- ___ Water-Stained leaves
- ___ Local Soil Survey
- ___ Morphological Plant Adaptations
- ___ Other (Explain in Remarks)

Remarks: hummocky terrain

Project Number: 07025	Date: 7/11/07
Applicant: Roaring Brook Wind Power Project	Plot ID Number: ZZ 4 wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	tussock sedge	(H) S/S T V	OBL	95
2	flat topped aster	(H) S/S T V	FACW	10
3	rough leaved goldenrod	(H) S/S T V	OBL	10
4	Lycopus uniflorus	(H) S/S T V	OBL	60
5	Sphagnum	(H) S/S T V	FACW/OBL	25
6	meadowsweet	H (S/S) T V	FACW+	10
7	Speckled alder	H (S/S) T V	FACW+	5
8		H S/S T V		
9		H S/S T V		
10		H S/S T V		
11		H S/S T V		
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 100%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/11/07

Investigator: Stebbins/Brazell/Enders Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? (Yes) No Community: Forested

Is the site significantly disturbed? Yes (No) Transect/Flag ID: ZZ

Is the area a potential Problem Area? Yes (No) Plot ID: ZZ 71 Upl

SOILS

Series and Phase: _____ Drainage Class: WD MWD SPD PD VPD

Subgroup: _____ Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-2"	O	10YR 2/1	organic	
2-15"+	A?	5YR 5/8	organic - crumbs	

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____

flat _____ undulating X

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)

_____ No Recorded Data Available

_____ Stream, Lake or Tide Gauge

_____ Aerial Photographs

Field Observations

_____ Ground Surface Inundated _____ inches.

_____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated
___ Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks: No wetland hydrology

Project Number: 07025

Applicant: Roaring Brook Wind Power Project

Date: 7/21/07

Plot ID Number: TT 71 upl

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	balsam fir	H S/S (T) V	FAC	90
2	yellow birch	H S/S (T) V	FAC	20
3		H S/S T V		
4		H S/S T V		
5		H S/S T V		
6	Int wood fern	(H) S/S T V	FACU	10
7		H S/S T V		
8		H S/S T V		
9	lowbush blueberry	H (S/S) T V	FACU-	10
10	balsam	H (S/S) T V	FAC	40
11	black spruce	H (S/S) T V	FACW-	10
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 67%

Percent of Dominant Species OBL, FACW 0

50/20 Rule Applied? (Yes) No

Remarks: sparse herb layer

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

Environmental Design & Research
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Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/21/07

Investigator: Hecklau/Schwabenbauer Town: Martinsburg
County: Lewis
State: NY

Do normal circumstances exist on site? (Yes) No Community: forested wetland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: AAAA 1-18

Is the area a potential Problem Area? Yes (No) Plot ID: AAAA-15 wet

SOILS

Series and Phase: _____ Drainage Class: WD MWD SPD PD VPD

Subgroup: _____ Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-8"	A	5YR 2.5/1	none	Organic muck
8"+	AB	10YR 2/1	none	Organic muck

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List
___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only
X Sulfidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)
___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____
flat _____ undulating _____

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)
_____ No Recorded Data Available
_____ Stream, Lake or Tide Gauge
_____ Aerial Photographs

Field Observations

_____ Ground Surface Inundated _____ inches.
Yes Soil Saturated.
Depth to Free Water 0 inches.
Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
X Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
X Oxidized Root Channels in upper 12 inches
X Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:
hummocky terrain

Project Number: 07025
Applicant: Roaring Brook Wind Power Project

Date: 9/21/07
Plot ID Number: AAAA-15 wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	red maple	H S/S (T) V	FAC	35 %
2	yellow birch	H S/S (T) V	FAC	15 %
3		H S/S T V		
4	yellow birch	H (S/S) T V	FAC	10 %
5	red maple	H (S/S) T V	FAC	10 %
6	balsam fir	H (S/S) T V	FAC	10 %
7		H S/S T V		
8	cattails	(H) S/S T V	OBL	<5 %
9	wetland Carex	(H) S/S T V	FACW/OBL	15 %
10	reed canary grass	(H) S/S T V	FACW+	80 %
11	jewelweed	(H) S/S T V	FACW	<5 %
12	cinnamon fern	(H) S/S T V	FACW	15 %
13	sensitive fern	(H) S/S T V	FACW	20 %
14	sphagnum	(H) S/S T V	FACW/OBL	<5 %
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 17%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/21/07

Investigator: Hecklau/Schwasenbauer Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? (Yes) No Community: forested upland

Is the site significantly disturbed? Yes (No) Transect/Flag ID: AAAA 1-18

Is the area a potential Problem Area? Yes (No) Plot ID: AAAA-15 upL

SOILS

Series and Phase: _____ Drainage Class: WD MWD SPD PD VPD

Subgroup: _____ Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-10"	A	5YR 3/2	none	sandy loam
10-14"	AB	10YR 3/4	none	gravelly loam
14"	rocky layer rejects auger			

Hydric Soil Indicators:

___Histisols
___Histic Epipedon
___Sufidic Odor
___Reducing Conditions
___Concretions
___High Org. Content in Surface Layer of Sandy Soils
___Organic Streaking in Sandy Soils
___Gleyed or Low Chroma color
___ Listed on Local Hydric Soils List
___ Listed as Potential for Hydric Inclusions Only
___ Other (Explain in Remarks)
___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____
flat _____ undulating _____

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)
_____ No Recorded Data Available
_____ Stream, Lake or Tide Gauge
_____ Aerial Photographs

Field Observations
_____ Ground Surface Inundated _____ inches.
_____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators
___ Inundated
___ Saturated in upper 12 inches.
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)
___ Oxidized Root Channels in upper 12 inches
___ Water-Stained leaves
___ Local Soil Survey
___ Morphological Plant Adaptations
___ Other (Explain in Remarks)

Remarks:

no wetland hydrology

Project Number: 07025
Applicant: Roaring Brook Wind Power Project

Date: 9/21/07
Plot ID Number: AAAA-15 UPL

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	red maple	H S/S (T) V	FAC	60
2	yellow birch	H S/S (T) V	FAC	30
3	American beech	H S/S (T) V	FACU	10
4		H S/S T V		
5	American beech	H (S/S) T V	FACU	20
6	hobblebush	H (S/S) T V	FAC	60
7	red maple	H (S/S) T V	FAC	5
8	yellow birch	H (S/S) T V	FAC	5
9		H S/S T V		
10	hayscented fern	(H) S/S T V	UPL	90
11	Indian cucumber root	(H) S/S T V	UPL	1
12	wood sorrel	(H) S/S T V	FAC-	1
13	hobblebush	(H) S/S T V	FAC	20
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 60%

Percent of Dominant Species OBL, FACW 0

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: Roaring Brook Wind Power Project Date: 9/21/07

Investigator: Hecklau/Schwabenbauer Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? (Yes) No

Is the site significantly disturbed? Yes (No)

Is the area a potential Problem Area? Yes (No)

Community: forested wetland

Transect/Flag ID: BBBB 1-11

Plot ID: BBBB-6 wet

SOILS

Series and Phase: Drainage Class: WD MWD SPD PD VPD

Subgroup: Confirm Mapped Type: Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-3"	A	7.5YR 2.5/1	—	organic muck
3-8"	AB	10YR 6/1	—	clay loam
8"+	B	10YR 5/1	—	clay loam

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave ___ convex ___ sloping ___ Approximate slope: ___

flat ___ undulating ___

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks)

___ No Recorded Data Available

___ Stream, Lake or Tide Gauge

___ Aerial Photographs

Field Observations

ND Ground Surface Inundated ___ inches.

Yes Soil Saturated.

Depth to Free Water N/A inches.

Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated

X Saturated in upper 12 inches.

___ Water Marks

___ Drift Lines

___ Sediment Deposits

___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

X Oxidized Root Channels in upper 12 inches

X Water-Stained leaves

___ Local Soil Survey

X Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks: hummocky terrain

Project Number: 07025	Date: 9/21/07
Applicant: Roaring Brook Wind Power Project	Plot ID Number: BBBB-6 wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	red maple	H S/S (T) V	FAC	40
2	yellow birch	H S/S (T) V	FAC	30
3		H S/S T V		
4	red maple	H (S/S) T V	FAC	<5
5	yellow birch	H (S/S) T V	FAC	<5
6		H S/S T V		
7	sensitive fern	(H) S/S T V	FACW	60
8	wetland grass	(H) S/S T V	FACW/OBL	40
9	jewelweed	(H) S/S T V	FACW	20
10	blue flag	(H) S/S T V	OBL	<5
11	cinnamon fern	(H) S/S T V	FACW	5
12	rough-stemmed goldenrod	(H) S/S T V	FAC	<5
13	juncus	(H) S/S T V	FACW/OBL	<5
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 33%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Hydrologic Connectivity to Off-site Wetlands? Yes or No

Is this Wetland Potentially Isolated? Yes or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
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274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/21/07

Investigator: Hecklau/Schwabenbauer Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? (Yes) No

Is the site significantly disturbed? Yes (No)

Is the area a potential Problem Area? Yes (No)

Community: forested upland

Transect/Flag ID: BBBB 1 - 11

Plot ID: BBBB - 6 upl

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-3"	A	7.5YR 3/3		Sandy loam
3-8"	AB	7.5YR 4/6		silty loam
8"+	B	10YR 4/6		silty loam

Hydric Soil Indicators:

- ___Histisols
- ___Histic Epipedon
- ___Sulfidic Odor
- ___Reducing Conditions
- ___Concretions
- ___High Org. Content in Surface Layer of Sandy Soils
- ___Organic Streaking in Sandy Soils
- ___Gleyed or Low Chroma color
- ___ Listed on Local Hydric Soils List
- ___ Listed as Potential for Hydric Inclusions Only
- ___ Other (Explain in Remarks)
- ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____
flat _____ undulating _____

Remarks:

HYDROLOGY

- _____ Recorded Data (Describe in Remarks)
- _____ No Recorded Data Available
- _____ Stream, Lake or Tide Gauge
- _____ Aerial Photographs

Field Observations

- _____ Ground Surface Inundated _____ inches.
- _____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators

- ____ Inundated
- ____ Saturated in upper 12 inches.
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

- ____ Oxidized Root Channels in upper 12 inches
- ____ Water-Stained leaves
- ____ Local Soil Survey
- ____ Morphological Plant Adaptations
- ____ Other (Explain in Remarks)

Remarks:

no wetland hydrology

Project Number: 07025	Date: 9/21/07
Applicant: Roaring Brook Wind Power Project	Plot ID Number: B13B3-6 WPL

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	red maple	H S/S (T) V	FAC	30
2	Beech	H S/S (T) V	FACU	10
3	yellow birch	H S/S (T) V	FAC	10
4		H S/S T V		
5	beech	H (S/S) T V	FACU	5
6	red maple	H (S/S) T V	FAC	15
7	hobblebush	H (S/S) T V	FAC	50
8	yellow birch	H (S/S) T V	FAC	5
9		H S/S T V		
10	hobblebush	(H) S/S T V	FAC	50
11	hayscented fern	(H) S/S T V	UPL	15
12	wood fern	(H) S/S T V	FACU	20
13	red maple	(H) S/S T V	FAC	5
14	goldthread	(H) S/S T V	FACW	1
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 71%

Percent of Dominant Species OBL, FACW D

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Hydrologic Connectivity to Off-site Wetlands? Yes or No

Is this Wetland Potentially Isolated? Yes or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/21/07

Investigator: Hecklau Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? Yes (No)

Is the site significantly disturbed? (Yes) No

Is the area a potential Problem Area? Yes (No)

Community: emergent in forest

Transect/Flag ID: CCCC 1-13

Plot ID: CCCC 6 wet

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-8"	A	7.5YR 2.5/1	—	Organic muck
8-12"	AB	10YR 4/1	10YR 6/2	silt loam
12"+	B	2.5Y 6/1	10YR 5/6	sandy silt loam

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____

flat _____ undulating _____

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)

_____ No Recorded Data Available

_____ Stream, Lake or Tide Gauge

_____ Aerial Photographs

Field Observations

NO Ground Surface Inundated _____ inches.

YES Soil Saturated.

Depth to Free Water N/A inches.

Depth to Saturated Soils 0 inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated

X Saturated in upper 12 inches.

___ Water Marks

___ Drift Lines

___ Sediment Deposits

___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

___ Oxidized Root Channels in upper 12 inches

X Water-Stained leaves

___ Local Soil Survey

___ Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks: hummocky terrain

Project Number: 07025
Applicant: Roaring Brook Wind Power Project

Date: 9/21/07
Plot ID Number: CCCC 6 wet

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	yellow birch	H S/S (T) V	FAC	50
2		H S/S T V		
3	yellow birch	H (S/S) T V	FAC	10
4	red maple	H (S/S) T V	FAC	5
5		H S/S T V		
6		H S/S T V		
7	Scirpus atrovirens	(H) S/S T V	OBL	25
8	wetland Carex	(H) S/S T V	FACW/OBL	20
9	Sensitive fern	(H) S/S T V	FACW	30
10	joe pye weed	(H) S/S T V	FACW	10
11	cinnamon fern	(H) S/S T V	FACW	20
12	roughstemmed goldenrod	(H) S/S T V	FAC	10
13	jewelweed	(H) S/S T V	FACW	20
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 100%

Percent of Dominant Species OBL, FACW 25%

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) or No

Hydric Soils Present? (Yes) or No

Wetland Hydrology Present? (Yes) or No

Is this Sampling Point Within a Wetland? (Yes) or No

Hydrologic Connectivity to Off-site Wetlands? Yes or No

Is this Wetland Potentially Isolated? Yes or No

Remarks:

Photo Reference Number:

Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, New York 13202

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

274 North Goodman Street
Rochester, New York 14607

Project No: 07025 Applicant: **Roaring Brook Wind Power Project** Date: 9/21/07

Investigator: Heckl/au Town: Martinsburg

County: Lewis

State: NY

Do normal circumstances exist on site? (Yes) No

Is the site significantly disturbed? Yes (No)

Is the area a potential Problem Area? Yes (No)

Community: forested upland

Transect/Flag ID: CCCC1 -13

Plot ID: CCCC-6 UPL

SOILS

Series and Phase: _____ **Drainage Class:** WD MWD SPD PD VPD

Subgroup: _____ **Confirm Mapped Type:** Yes No

Depth	Horizon	Matrix color	Mottle color/abundance	Texture, Structure, Other
0-2"	A	10YR 4/3	—	silty loam - very dry
2-6"	B	10YR 3/4		silty loam - dry + rocky
6"+	rocky layer rejects auger			

Hydric Soil Indicators:

___Histisols ___Concretions ___ Listed on Local Hydric Soils List

___Histic Epipedon ___High Org. Content in Surface Layer of Sandy Soils ___ Listed as Potential for Hydric Inclusions Only

___Sufidic Odor ___Organic Streaking in Sandy Soils ___ Other (Explain in Remarks)

___Reducing Conditions ___Gleyed or Low Chroma color ___ Aquic Moisture Regime

Landscape position: concave _____ convex _____ sloping _____ Approximate slope: _____

flat _____ undulating _____

Remarks:

HYDROLOGY

_____ Recorded Data (Describe in Remarks)

_____ No Recorded Data Available

_____ Stream, Lake or Tide Gauge

_____ Aerial Photographs

Field Observations

_____ Ground Surface Inundated _____ inches.

_____ Soil Saturated.

Depth to Free Water _____ inches.

Depth to Saturated Soils _____ inches.

Wetland Hydrology Indicators:

Primary Indicators

___ Inundated

___ Saturated in upper 12 inches.

___ Water Marks

___ Drift Lines

___ Sediment Deposits

___ Drainage Patterns in Wetland

Secondary Indicators (2 or more required)

___ Oxidized Root Channels in upper 12 inches

___ Water-Stained leaves

___ Local Soil Survey

___ Morphological Plant Adaptations

___ Other (Explain in Remarks)

Remarks:

no wetland hydrology

Project Number:	07025	Date:	9/21/07
Applicant:	Roaring Brook Wind Power Project	Plot ID Number:	CCCC-6 UPL

VEGETATION

	Dominant Plant Species:	Stratum: (circle one)	Indicator:	% Cover:
1	Sugar maple	H S/S (T) V	FACU-	35
2	yellow birch	H S/S (T) V	FAC	15
3		H S/S T V		
4	yellow birch	H (S/S) T V	FAC	40
5	Sugar maple	H (S/S) T V	FACU-	15
6	hobblebush	H (S/S) T V	FAC	10
7		H S/S T V		
8	hayscented fern	(H) T V	UPL	30
9	Rubus	(H) S/S T V	FAC/FACU	40
10	hobblebush	(H) S/S T V	FAC	20
11	Sugar maple	(H) S/S T V	FACU-	20
12		H S/S T V		
13		H S/S T V		
14		H S/S T V		
15		H S/S T V		
16		H S/S T V		

Percent of Dominant Species OBL, FACW, FAC 33%

Percent of Dominant Species OBL, FACW 0

50/20 Rule Applied? (Yes) No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes or (No)

Hydric Soils Present? Yes or (No)

Wetland Hydrology Present? Yes or (No)

Is this Sampling Point Within a Wetland? Yes or (No)

Hydrologic Connectivity to Off-site Wetlands? Yes or No

Is this Wetland Potentially Isolated? Yes or No

Remarks:

Photo Reference Number: