

Response to Agency Comments
Stetson Wind Project
LURC # ZP713
June 22, 2007

This *Response to Agency Comments* addresses those comments by agencies that were provided with LURC's comment letter dated June 11, 2007. Comments are addressed agency by agency.

1. Maine Department of Inland Fisheries and Wildlife (2 documents)

Document 1. Memo of June 1, 2007

Section 3 Part E Section 3-E Lighting Plan

Specifics regarding the lighting plan are informative and detailed. However, there is no mention in the last paragraph that wildlife (avian) concerns will be taken into account when the final lighting plan is submitted with the final application. Although "Lighting" is discussed in Section 3-N (Wildlife), MDIFW requests that considerations be made to minimize potential impacts on night migrating animals and that language be added to this Section stating that wildlife concerns will also be taken into account in the final lighting plan.

The final aviation safety lighting plan for the project will be designed to meet FAA standards. These standards were recently revised to minimize avian impacts (US DOT Advisory Circular 70/7460-1K; effective 2/1/07). As noted in the application, the type and location of the lighting required is likely to pose a low risk of attraction to migrating animals. Evergreen will continue to review relevant literature and consult with MDIFW on the risk and reasonable mitigation for risk posed by lighting. In addition, other operations and maintenance lighting will be kept to the minimum necessary to maintain safe working conditions. Exterior lighting will be shielded downward and fitted with motion sensors or automatic shutoff switches.

Section 3 Part I Buffers-Vernal Pools

MDIFW agrees with the 250 ft. (safe guard) buffer placed around all potential vernal pools as identified by James Sewall Co. during their wetland evaluation investigation. MDIFW also understands that during the spring of 2007, that these potential vernal pools as previously identified will be surveyed to determine if they indeed meet the criteria to be classified as vernal pools. If any of these wetlands meet the NRPA criteria for vernal pools, consideration should be given to expanding the terrestrial habitat buffer zone around these pools to a maximum of 750 feet as noted pursuant to the Natural Resources Protection Act (NRPA), Chapter 335 (Significant Wildlife Habitat), Section 9 (Vernal Pools).

As noted in the response to LURC comments, all areas identified as potential vernal pools that might be impacted by the project were evaluated during the appropriate spring season. Only one of these potential vernal pools meets the definition of a Significant Vernal Pool (see Section 3.R, Figure 5). There are no turbines or other structures within 750 feet of this vernal pool, and the vernal pool is more than 150 feet from any disturbance caused by the project. The disturbance in the area will be widening of the existing road, almost entirely within an existing cleared area. The new and proposed cleared area will be less than 25 percent of the area within 250 feet of the Significant Vernal Pool. Likewise, there will be disturbance and clearing within 750 feet associated with the widening of an existing road (see Exhibit L, Sheet C12). The total pre- and post-construction clearing and disturbance will be less than 25 percent of the 750-foot

radius, as recommended in Calhoun (2002).¹ Realigning this road segment into a new corridor would not be a reasonable alternative due to the significant upland and wetland impacts associated with that new segment.

Section 3-N Part 5.2.2

It should be noted that the 2006 fall songbird, raptor, and bat surveys were designed and implemented without prior discussions with, and input from MDIFW.

Noted.

Section 3-N Part 5.2.2-Songbirds

MDIFW considered 2006 fall NEXRAD and Marine Radar studies to be minimal, and during subsequent consultation with the applicant and their consultants, requested increased survey effort for 2007 spring surveys. The increased spring survey effort would be more consistent with other recent Maine studies. Understanding that the fall survey effort was minimal, and that spring surveys are ongoing, MDIFW considers it premature to suggest that the project area is “not believed to be a particularly important migration corridor or an area of concentrated migration activity”.

It is also understood that post construction surveys that have yet to be finalized will provide additional information that will help to determine the extent of potential negative impacts to both migrating and resident songbird populations.

The comment regarding the importance of the migration corridor is based on existing regional and local landscape conditions and experience to date involving past and ongoing migration studies in the northeast. Regardless, spring 2007 studies have been completed, and a report of those studies will be available in July. A post-construction survey plan has been developed in consultation with MDIFW and submitted with the response to LURC comments.

Section 3-N Part 5.2.2-Raptors

MDIFW considered 2006 fall daytime raptor migration studies to be minimal, and requested increased survey effort for 2007 spring surveys. The increased spring survey effort would be more consistent with other recent Maine studies. It is also understood that post construction surveys that have yet to be finalized will provide additional information that will help to determine the extent of any negative impacts to both migrating and resident raptor populations.

See response above.

Section 3-N Part 5.2.3.2-Bats

Again, continued spring surveys and post-construction monitoring will provide additional information that will more accurately determine if indeed both bat activity and fatalities will be minimal as suggested in this Section.

See response above.

¹ Calhoun, A.J.K. and M.W. Klemens. 2002. *Best development practices: Conserving pool-breeding amphibians in residential and commercial developments in the northeastern United States*. MCA Technical Paper No. 5, Metropolitan Conservation Alliance, Wildlife Conservation Society, Bronx, New York.

Additional Comments

Overall, we recommend continued consultation between the applicant and MDIFW as details of the actual Development Plan are finalized. We would particularly note lighting, vernal pool buffers and the results of ongoing avian studies. Development of post-construction avian monitoring study plans, and plans/commitments for subsequent actions depending upon results are especially important.

Evergreen, through Woodlot Alternatives, Inc., has continued to discuss studies with MDIFW, and will continue that dialog through the permitting process, and into and through post-construction monitoring.

**Document 2. Email from Steve Timpano to Marcia Spencer Famous regarding fisheries
June 4, 2007**

“Have now confirmed with Regional Fisheries Biologist Mike Smith; No additional Fisheries comments on the LURC-application portion of the Evergreen-UPC/Stetson Mtn. wind power project.”

Noted.

**2. Maine Department of Agriculture, Food and Rural Resources
Memo of David Rocque, April 29, 2007**General

Unlike the previous mountain top windfarm rezoning applications I have reviewed recently, this project does not involve construction on sensitive Cryic soils, which are associated with higher mountain areas. I have no objections to this rezoning application as it has a greater percentage of suitable soils and slopes than would be generally found in mountain top areas. It does however, still require road construction over areas of hydric soils and steep slopes with some of the same hydrology concerns I have previously expressed with construction on higher mountains. My specific comments are focused on looking for assurances that the project will be constructed in such a way as to minimize environmental impacts.

Noted.

Specific

- 1. My greatest concerns with this project, as with all windfarm projects, are with protection of the natural groundwater hydrology, minimizing soil erosion and properly handling stormwater runoff. To the extent possible, intercepted groundwater and runoff water should be reintroduced into the soil so that downslope wetlands, streams, ponds and other resources are not adversely impacted, which will also minimize soil erosion. It should ideally be accomplished with buffers and should minimize any use of structural measures. This may be a challenge in areas with road cuts where the entire road is cut below the natural ground surface. Such cuts should be minimized and the runoff water in such road ditches should be discharged as frequently as possible.*

Noted. During the site visit with Mr. Rocque on May 31, 2007, review of anticipated road cuts and ditch design provided ideas and concepts to minimize erosion and stormwater impacts that will be reflected in the final engineering design.

2. *I did not see how the applicant intends to access new transmission line corridors. Will access roads be needed? Does the applicant intend to just cut trees and leave the low vegetation as well as stumps and organic duff? Will the applicant access new transmission lines over frozen ground or just during the dry summer months or are they intending to access these sites in the spring and fall? How will wetlands and streams be crossed? It is difficult to fully assess this project without knowing how transmission lines are to be accessed.*

Transmission line access and construction design will be reviewed as part of the transmission line application filed with the Corps and the MDEP.

3. *What time of year does the applicant intend to undertake major construction of this project? It should be restricted to times of year when the soil is not frozen or saturated, at least for major construction, or specific measures should be proposed to overcome limitations associated with wet and/or frozen soil.*

Based on the anticipated permitting and turbine equipment delivery schedule, Evergreen intends to undertake major construction during winter 2007/08 through spring 2008. As such, specific measures to address wet and/or frozen soils will be proposed in the final engineering plans. For example, construction will be restricted during late winter/early spring when the soil is partially frozen and saturated (i.e., mud season).

It is important to note, however, that given that the majority of project roads will be constructed with six inches of gravel atop existing logging roads and minimal ground disturbance, frozen soil conditions are not anticipated to be problematic. Frozen soil conditions will actually be advantageous at proposed wetland crossings to minimize impacts during construction of the permanent and temporary bridge structures.

4. *Section 3H, P. 3, discusses “erosion control mulch”. I am assuming this refers to hay mulch. Wood mulch (wood chips) is also mentioned. I would prefer to see the majority of the site stabilized with erosion control bark mulch instead of loam and seed. Loam can and does erode but the E & S control mulch does not. In addition, it provides a natural seedbed for native species, greatly reduces runoff and looks more natural. Wood chips are not the equivalent and should not be used as they can float away. E & S control mulch would also be appropriate for the part of wide roadways that are to be reclaimed.*

Discussion of “erosion control mulch” in the preliminary development plan intended to refer to the use of erosion control bark mulch, as recommended by Mr. Rocque, instead of hay mulch.

5. *Rock sandwiches are suggested as being proposed for fill areas to prevent a break in the natural hydrology (wetland areas). This is appropriate but they should also be used in areas where upslope road cuts will require ditching below the seasonal groundwater table. Also, the rock sandwich material should be 3”- 4” stone and not coarse gravel. The sandwich material needs to be coarse enough to prevent plugging from sediment or natural materials. Ditches can also be cross-drained to a stone lined downslope fill extension as an alternative to the rock sandwich technique.*

There are very few upslope road cuts anticipated with this project; however, rock sandwich road construction will be considered for these areas. The use of culverts to cross-drain roadside ditches to level spreaders and stone-lined downslope fill extensions will also be considered.

6. *I did not see a discussion of the use of rock as fill material in order to shorten up fill extensions (it can also be used to protect steep fill extensions). It can be a very effective technique in steep areas (both for road construction and turbine pad construction). The road in Elliotsville Twp. By Wilson stream is a good example of its effectiveness. I would be happy to take the project engineers to this site, if they are interested.*

During the site visit with Mr. Rocque on May 31, 2007, the use of rock as fill material to shorten fill extensions and protect steep slopes in certain areas of the project were discussed and will be incorporated where appropriate in the final design.

7. *The applicant indicates that temporary bridges will be used for stream and wetland road crossings (section 3 Q, P.2). I am not sure that temporary bridges make sense if the road system needs to remain available for maintenance. It might make more sense to cross wetlands with rock sandwiches, at least for roads that will be used after the towers have been constructed. Temporary bridging might be appropriate for some wetland crossings on the transmission line.*

Noted. During the site visit with Mr. Rocque on May 31, 2007, the use of temporary bridge structures at the proposed wetland crossings was discussed. Review of the proposed wetland crossing sites provided ideas for alternative road construction techniques in these areas; however, temporary bridges were agreed to be the best alternative for minimizing potential wetland impacts. As the project engineers progress in to final design, they will determine whether all such crossings are practicable as proposed or whether they require modification.

8. *If roads are not required to access the transmission lines, will they be open to ATV traffic? If so, how will wetland areas be protected? Snowmobile traffic should not be a concern.*

The issue of ATV traffic on the transmission line corridor will be considered as part of the Corps and MDEP applications.

**3. Maine Public Utilities Commission
Comments dated May 31, 2007**

The Maine PUC comments do not directly address the Stetson Wind Power project, but provide a rich context and explanation emphasizing the need for projects such as Stetson to diversify Maine's electrical supply. Evergreen concurs with the conclusion that this project will be a piece of a larger effort to "moderate prices and improve the integrity of the system."

**4. Maine Natural Areas Program
Comments dated April 20, 2007**

This set of comments is addressed to rare and exemplary botanical features for the transmission line portion of the project, and will be addressed in that application. As noted in the response to LURC comments, MNAP had reviewed the portion of the project before LURC and determined that it poses no concerns for known rare or exemplary botanical features (see email from Raquel Goodrich, MNAP, to Brooke Barnes, Woodlot Alternatives, dated June 14, 2007).

**5. Maine Historic Preservation Commission
Comments dated May 9, 2007**

MHPC comments reflected that Evergreen has been working with MHPC to conduct appropriate historical surveys. As noted in the response to LURC comments, those surveys and consultation with MHPC are ongoing.

**6. U.S. Army Corps of Engineers
Email comments dated May 21, 2007**

The majority of the Corps comments are related to requirements for a Corps permit application, not the LURC process or LURC regulatory requirements. Evergreen appreciates the Corps comments that will help inform the permit application filed with the Corps. Only those Corps comments that directly address the LURC application are discussed below.

4. Section 2A. The applicant's stated purpose is to develop a commercially viable wind energy project on Stetson Mountain. The Corps would suggest broader project purpose - to develop a commercially viable wind energy project in Washington County. That way a more reasonable range of alternatives can be fully analyzed. And speaking of analysis, there did not appear to be a detailed analysis of alternative sites in the application. The Corps generally recommends that alternatives be discussed in terms of their overall availability, practicability, and environmental impact (Section 404(b)(1) Guidelines). Often a comparative matrix can help demonstrate that the applicant has selected the least environmentally damaging practicable alternative.

The federal standard cited by the Corps for an alternatives analysis is not the standard LURC requires under the "best reasonably available site" analysis. As noted in Section 2A of the application and in Evergreen's response to your completeness review, several sites have been and continue to be investigated for potential wind power development. These sites are being looked at not as an alternative to the Stetson Wind Project, but as additional wind power locations. Wind development is a highly competitive field, and Evergreen does not wish to disclose the details of other windpower sites that have development potential. As noted in Section 2A, the Stetson location is an ideal site for wind development.

5. Section 3L. The Corps recommends that reflagging the wetland boundary, vernal pools, and any other sensitive resources occur just before construction and that the environmental consultant conduct a walk through orientation with the contractor(s) so that inadvertent impact to these resources during construction is avoided. These steps should be added to the construction plan.

These provisions will be included in Evergreen's environmental construction protocols.

6. *Section 3X. It appears that the applicant is prepared to take reasonable steps to ensure that if abandoned or decommissioned, all facility components will be removed in their entirety and in a timely fashion. He has suggested a number of options for providing financial assurance to LURC. I suggest that you work with the AG's office to determine which option is most reasonable yet most restrictive.*

See the decommissioning plan filed with the response to LURC comments.

7. *Part R. Is there a map in the wetland report that identifies the location and orientation of the wetland delineation data forms? Is there a functional assessment contained in the application? Is there a vernal pool report?*

Attached to these comments are eight pairs of data forms for the Stetson Wind Project that are keyed to wetland numbers found on the wetland maps. Two of these forms replace two transmission line forms inadvertently included in the original application. Note that data forms are a federal regulatory requirement, and are not required by LURC regulation. No functional assessment was done because there is no wetland impact anticipated beyond vegetation clearing in a small area. Regarding vernal pool evaluations, see the response to LURC comments.

8. *The applicant indicates in a number of locations in the application that there will be no direct impact to vernal pools. The applicant should assess potential indirect impacts using the Calhoun & Klemens guidelines as a reference.*

See the vernal pool discussion in the response to LURC comments and the response to MDIFW, above.

Project Title: Stetson Wind Project Transect Number: 3 Plot Number: A
 Wetland Number: 3
 Delineators: MPA, BPE, CWF, DFK, AAF, Boyle Date: 11/1/06 Flag: MD1

VEGETATION	Stratum and Species (dominants only)	Dominance Ratio	Percent Dominance	NWI Status
Trees				
	Green Ash (<i>Fraxinus pennsylvanica</i>)	1/2	50	FACW
	Yellow Birch (<i>Betula alleghaniensis</i>)	1/2	50	FAC
Saplings				
	American Beech (<i>Fagus grandifolia</i>)	1/1	100	FACU
Shrubs				
	Yellow Birch (<i>Betula alleghaniensis</i>)	15/25	60	FAC
	Eastern Hemlock (<i>Tsuga canadensis</i>)	5/25	20	FACU
	American Beech (<i>Fagus grandifolia</i>)	5/25	20	FACU
Herbaceous				
	Wool-grass (<i>Scirpus cyperinus</i>)	40/65	62	FACW+
	Evergreen Wood Fern (<i>Dryopteris intermedia</i>)	5/65	8	
	Sensitive Fern (<i>Onoclea sensibilis</i>)	5/65	8	
	Creeping Bentgrass (<i>Agrostis stolonifera</i>)	5/65	8	
	Canada Bluejoint (<i>Calamagrostis canadensis</i>)	10/65	15	

Note 1: Use asterisk * to indicate plants with adaptations to wetland hydrology.
 Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.
 Note 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	<u>2</u>	<u>2</u>	OTHER HYDROPHYTES	<u>3</u>	UPL
	FACW	FAC		FAC- Non-hydrophytes	FACU
	Hydrophytes Subtotal: <u>4</u>			Non-hydrophytes Subtotal: <u>3</u>	
	<u>100 x Subtotal Hydrophytes</u>		=	<u>57</u>	= Percent Hydrophytes
	Subtotal Hydrophytes + Subtotal Non-Hydrophytes				

Describe Vegetation Disturbance:

HYDROLOGY 1. Hydrology is often the most difficult feature to observe.
 2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
 3. Interpretation of hydrology may require repeated observations over more than one season.

- RECORDED DATA
 - Stream, lake, or tidal gage Identification: _____
 - Aerial photography Identification: _____
 - Other Identification: _____
- NO RECORDED DATA
- OBSERVATIONS:
 - Depth to Free Water: 8"
 - Depth to Saturation (including capillary fringe): surface
 - Altered Hydrology (explain): _____

Inundated Saturated in upper 12" Water Marks Drift Lines Sediment Deposits
 Drainage Patterns within Wetland OTHER (explain): _____



Project Title: Stetson Wind Project Transect Number: 3 Plot Number: B
Wetland Number: 3
Delineators: MPA, BPE, CWF, DFK, AAF, Boyle Date: 10/26/06 Flag: MD1

VEGETATION	Stratum and Species (dominants only)	Dominance Ratio	Percent Dominance	NWI Status
Trees				
	Yellow Birch (<i>Betula alleghaniensis</i>)	1/3	33	FAC
	Sugar Maple (<i>Acer saccharum</i>)	1/3	33	FACU-
	American Beech (<i>Fagus grandifolia</i>)	1/3	3	
Saplings				
	American Beech (<i>Fagus grandifolia</i>)	40/80	50	FACU
	Red Spruce (<i>Picea rubens</i>)	10/80	13	
	Red Maple (<i>Acer rubrum</i>)	30/80	38	FAC
Shrubs				
	Red Maple (<i>Acer rubrum</i>)	30/73	41	FAC
	American Beech (<i>Fagus grandifolia</i>)	25/73	34	FACU
	Eastern Hemlock (<i>Tsuga canadensis</i>)	15/73	21	FACU
	Red Spruce (<i>Picea rubens</i>)	3/73	4	
Herbaceous				
	Evergreen Wood Fern (<i>Dryopteris intermedia</i>)	5/6	83	FACU
	Red Spruce (<i>Picea rubens</i>)	1/6	17	

Note 1: Use asterisk * to indicate plants with adaptations to wetland hydrology.
Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.
Note 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	FACW	<u>3</u> FAC	OTHER HYDROPHYTES	FAC-	<u>5</u> FACU	UPL
	Hydrophytes Subtotal: <u>3</u>			Non-hydrophytes Subtotal: <u>5</u>		
	<u>100 x Subtotal Hydrophytes</u>		=	<u>38</u>	=	Percent Hydrophytes
	Subtotal Hydrophytes + Subtotal Non-Hydrophytes					

Describe Vegetation Disturbance:

HYDROLOGY

- Hydrology is often the most difficult feature to observe.
- Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
- Interpretation of hydrology may require repeated observations over more than one season.

RECORDED DATA
Stream, lake, or tidal gage Identification: _____
Aerial photography Identification: _____
Other Identification: _____

NO RECORDED DATA

OBSERVATIONS:
Depth to Free Water: None Observed
Depth to Saturation (including capillary fringe): None Observed
Altered Hydrology (explain): _____

Inundated Saturated in upper 12" Water Marks Drift Lines Sediment Deposits

Drainage Patterns within Wetland OTHER (explain): pit-and-mound, buttressed roots



Project Title: Stetson Wind Project Transect Number: 4 Plot Number: A
Wetland Number: 81
Delineators: MPA, BPE, CWF, DFK, AAF, Boyle Date: 11/6/06 Flag: new RL376

VEGETATION	Stratum and Species (dominants only)	Dominance Ratio	Percent Dominance	NWI Status
Trees				
	Eastern Hemlock (<i>Tsuga canadensis</i>)	5/13	38	FACU*
	Yellow Birch (<i>Betula alleghaniensis</i>)	4/13	31	FAC
	Red Maple (<i>Acer rubrum</i>)	1/13	8	
	Red Spruce (<i>Picea rubens</i>)	3/13	23	FACU
Saplings				
	Red Spruce (<i>Picea rubens</i>)	3/8	38	FACU
	Eastern Hemlock (<i>Tsuga canadensis</i>)	5/8	63	FACU*
Shrubs				
	Red Spruce (<i>Picea rubens</i>)	3/16	19	
	Red Maple (<i>Acer rubrum</i>)	3/16	19	
	Green Ash (<i>Fraxinus pensylvanica</i>)	10/16	63	FACW
Herbaceous				
	Cinnamon Fern (<i>Osmunda cinnamomea</i>)	40/51	78	FACW
	Evergreen Wood Fern (<i>Dryopteris intermedia</i>)	3/51	6	
	Water Carpet (<i>Chrysosplenium americanum</i>)	3/51	6	
	Common Wood-Sorrel (<i>Oxalis montana</i>)	1/51	2	
	Eastern Hemlock (<i>Tsuga canadensis</i>)	3/51	6	
	Red Spruce (<i>Picea rubens</i>)	1/51	2	

Note 1: Use asterisk * to indicate plants with adaptations to wetland hydrology.
Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.
Note 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	<u>2</u> FACW	<u>1</u> FAC	<u>2</u> *OTHER HYDROPHYTES	<u> </u> FAC-	<u>2</u> FACU	<u> </u> UPL
	Hydrophytes Subtotal: <u> 5 </u>			Non-hydrophytes Subtotal: <u> 2 </u>		
	<u>100 x Subtotal Hydrophytes</u>			=	<u> 71 </u>	= Percent Hydrophytes
	Subtotal Hydrophytes + Subtotal Non-Hydrophytes					

Describe Vegetation Disturbance:

HYDROLOGY 1. Hydrology is often the most difficult feature to observe.
2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
3. Interpretation of hydrology may require repeated observations over more than one season.

- RECORDED DATA
 - Stream, lake, or tidal gage Identification: _____
 - Aerial photography Identification: _____
 - Other Identification: _____
- NO RECORDED DATA
- OBSERVATIONS:
 - Depth to Free Water: 3"
 - Depth to Saturation (including capillary fringe): surface
 - Altered Hydrology (explain): _____

Inundated Saturated in upper 12" Water Marks Drift Lines Sediment Deposits
 Drainage Patterns within Wetland OTHER (explain): buttressed roots



Project Title: Stetson Wind Project Transect Number: 4 Plot Number: B
 Wetland Number: 81
 Delineators: MPA, BPE, CWF, DFK, AAF, Boyle Date: 11/6/06 Flag: new RL376

VEGETATION	Stratum and Species (dominants only)	Dominance Ratio	Percent Dominance	NWI Status
Trees				
	Red Spruce (<i>Picea rubens</i>)	4/10	40	FACU*
	Eastern Hemlock (<i>Tsuga canadensis</i>)	2/10	20	FACU*
	Green Ash (<i>Fraxinus pennsylvanica</i>)	1/10	10	
	Sugar Maple (<i>Acer saccharum</i>)	1/10	10	
	Yellow Birch (<i>Betula alleghaniensis</i>)	2/10	20	FAC
Saplings				
	American Beech (<i>Fagus grandifolia</i>)	10/15	66	FACU
	Yellow Birch (<i>Betula alleghaniensis</i>)	5/15	33	FAC
Shrubs				
	Hobblebush (<i>Viburnum lantanoides</i>)	15/65	23	FAC
	Red Maple (<i>Acer rubrum</i>)	25/65	40	FAC
	American Beech (<i>Fagus grandifolia</i>)	25/65	40	FACU
Herbaceous				
	Shining Clubmoss (<i>Huperzia lucidula</i>)	1/8	13	
	Balsam Fir (<i>Abies balsamea</i>)	5/8	63	FAC
	Goldthread (<i>Coptis trifolia</i>)	1/8	13	
	Partridgeberry (<i>Mitchella repens</i>)	1/8	13	

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 Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.
 Note 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	FACW	<u>5</u> FAC	<u>2</u> *OTHER HYDROPHYTES	FAC-	<u>2</u> FACU	UPL
		Hydrophytes Subtotal: <u>7</u>		Non-hydrophytes Subtotal: <u>2</u>		
		100 x Subtotal Hydrophytes		=	<u>78</u>	= Percent Hydrophytes
		Subtotal Hydrophytes + Subtotal Non-Hydrophytes				

Describe Vegetation Disturbance:

HYDROLOGY

- Hydrology is often the most difficult feature to observe.
- Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
- Interpretation of hydrology may require repeated observations over more than one season.

- RECORDED DATA
 - Stream, lake, or tidal gage Identification: _____
 - Aerial photography Identification: _____
 - Other Identification: _____
- NO RECORDED DATA
- OBSERVATIONS:
 - Depth to Free Water: None Observed
 - Depth to Saturation (including capillary fringe): None Observed
 - Altered Hydrology (explain): _____

- Inundated Saturated in upper 12" Water Marks Drift Lines Sediment Deposits
- Drainage Patterns within Wetland OTHER (explain):



Project Title: Stetson		Transect Number: LS-4 Plot Number: UP			
Wetland Number: 33					
Delineators: AAF, MPA		Date: 11/3/06			
VEGETATION	Stratum and Species (dominants only)	Dominance Ratio	Percent Dominance	NWI Status	
Tree:					
	Sugar Maple (<i>Acer saccharum</i>)	4/12	33%	FACU-	
	Red Spruce (<i>Picea rubens</i>)	5/12	42%	FACU	
	Gray Birch (<i>Betula populifolia</i>)	1/12	1%		
	Basswood (<i>Tilia americana</i>)	1/12	1%		
	Beech (<i>Fagus grandifolia</i>)	1/12	1%		
Pole:					
	Basswood (<i>Tilia americana</i>)	15/55	27%	FACU	
	Beech (<i>Fagus grandifolia</i>)	15/55	27%	FACU	
	Hop-hornbeam (<i>Ostrya virginiana</i>)	10/55	18%		
	Red Spruce (<i>Picea rubens</i>)	10/55	18%	FACU	
Shrub:					
	Striped Maple (<i>Acer pensylvanicum</i>)	17/55	31%	FACU	
	Beech (<i>Fagus grandifolia</i>)	20/55	36%	FACU	
	Red Maple (<i>Acer rubrum</i>)	5/55	1%		
	Beaked Hazelnut (<i>Corylus cornuta</i>)	10/55	2%		
	Nannyberry (<i>Viburnum lentago</i>)	3/55	1%		
Herb:					
	Balsam Fir (<i>Abies balsamea</i>)	10/21	48%	FAC	
	Evergreen Wood Fern (<i>Dryopteris intermedia</i>)	5/21	24%	FACU	
	<i>Brachyelytrum septentrionale</i>	5/21	24%	(not listed)	
	New York Fern (<i>Thelypteris novaborascensis</i>)	3/21	14%		
Note 1: Use asterisk * to indicate plants with adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below. Note 2: Species with NA or NI status are reported, but are not calculated in the tally below.					
<u>0</u> OBL	<u>0</u> FACW	<u>1</u> FAC	<u>0</u> OTHER HYDROPHYTES	<u>8</u> FAC- FACU	<u>0</u> UPL
Hydrophytes Subtotal: <u>1</u>			Non-hydrophytes Subtotal: <u>7</u>		
<u>100 x Subtotal Hydrophytes</u>			=	<u>11%</u> = Percent Hydrophytes	
Subtotal Hydrophytes + Subtotal Non-Hydrophytes					
Describe Vegetation Disturbance: Buttressed Roots					
HYDROLOGY					
1. Hydrology is often the most difficult feature to observe. 2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc. 3. Interpretation of hydrology may require repeated observations over more than one season.					
<input type="checkbox"/> RECORDED DATA Stream, lake, or tidal gage Identification: _____ Aerial photography Identification: _____ Other Identification: _____					
<input type="checkbox"/> NO RECORDED DATA <input checked="" type="checkbox"/> OBSERVATIONS: Depth to Free Water: <u>None Observed</u> Depth to Saturation (including capillary fringe): <u>None Observed</u> Altered Hydrology (explain): _____					
<input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in upper 12" <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns within Wetland <input type="checkbox"/> OTHER (explain):					

Project Title: Stetson		Transect Number: LS-4 Plot Number: Wet				
Wetland Number: 33						
Delineators: AAF, MPA		Date: 11/3/06				
VEGETATION	Stratum and Species (dominants only)	Dominance Ratio	Percent Dominance	NWI Status		
Tree:						
	Balsam Fir (<i>Abies balsamea</i>)	5/19	26	FAC		
	Green Ash (<i>Fraxinus pennsylvanica</i>)	2/19	10	---		
	Yellow Birch (<i>Betula alleghaniensis</i>)	3/19	16	---		
	Red Spruce (<i>Picea rubens</i>)	4/19	21	FACU		
	Red Spruce (<i>Picea rubens</i>) * Buttressed Roots	4/19	21	FACU		
	Sugar Maple (<i>Acer saccharum</i>)	1/19	5	---		
Pole:						
	Balsam Fir (<i>Abies balsamea</i>)	5/6	83	FAC		
	Red Spruce (<i>Picea rubens</i>)	1/6	16	---		
Shrub:						
	Yellow Birch (<i>Betula alleghaniensis</i>)	40/61	66	FAC		
	Red Spruce (<i>Picea rubens</i>)	15/61	25	FACU		
	Striped Maple (<i>Acer pennsylvanica</i>)	5/61	8	---		
	Sugar Maple (<i>Acer saccharum</i>)	1/61	2	---		
Herb:						
	Intermediate Fern (<i>Dryopteris intermedia</i>)	5/45	11	---		
	Cinnamon Fern (<i>Osmunda cinnamomea</i>)	15/45	33	FACW		
	Sensitive Fern (<i>Onoclea sensibilis</i>)	10/45	22	FACW		
	Eastern Hemlock (<i>Tsuga canadensis</i>)	5/45	11	---		
	Melic Mannagrass (<i>Glyceria melicaria</i>)	5/45	11	---		
	Red Spruce (<i>Picea rubens</i>)	5/45	11	---		
Note 1: Use asterisk * to indicate plants with adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below. Note 2: Species with NA or NI status are reported, but are not calculated in the tally below.						
<u>0</u> OBL	<u>2</u> FACW	<u>3</u> FAC	<u>1</u> OTHER HYDROPHYTES	<u>0</u> FAC-	<u>2</u> FACU	<u>0</u> UPL
Hydrophytes Subtotal: <u>6</u>			Non-hydrophytes Subtotal: <u>2</u>			
$\frac{100 \times \text{Subtotal Hydrophytes}}{\text{Subtotal Hydrophytes} + \text{Subtotal Non-Hydrophytes}} = \frac{100 \times 6}{6 + 2} = 75$		= Percent Hydrophytes				
Describe Vegetation Disturbance: Buttressed Roots						
HYDROLOGY						
1. Hydrology is often the most difficult feature to observe. 2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc. 3. Interpretation of hydrology may require repeated observations over more than one season.						
<input type="checkbox"/> RECORDED DATA Stream, lake, or tidal gage Identification: _____ Aerial photography Identification: _____ Other Identification: _____						
<input type="checkbox"/> NO RECORDED DATA <input checked="" type="checkbox"/> OBSERVATIONS: Depth to Free Water: <u>Observed at Surface</u> Depth to Saturation (including capillary fringe): <u>Saturation observed throughout profile</u> Altered Hydrology (explain): _____						
<input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in upper 12" <input checked="" type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits						
<input checked="" type="checkbox"/> Drainage Patterns within Wetland <input type="checkbox"/> OTHER (explain): _____						

SOIL		Sketch Landscape Position		
Depth	Horizon	Matrix Color	Redoximorphic Features Color, Abundance, Size & Contrast	USDA Texture and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
4" – 0	Oi			
0 – 4"	A	10YR 2/1		Fine sandy loam
4" – 6"	E	10YR 6/2		Fine sandy loam
6" – 13"	Bhs	7.5YR 3/4		Sandy loam
13"+	Bs	10YR 4/6		Fine sandy loam
13" refusal at bedrock				
HYDRIC SOIL INDICATOR(S): N/A				
REFERENCE: REFERENCE: Field Indicators for Identifying Hydric Soils in New England. April 2004.				
OPTIONAL SOIL DATA: TAXONOMIC SUBGROUP: SOIL DRAINAGE CLASS: DEPTH TO ACTIVE WATER TABLE: NTCHS HYDRIC SOIL CRITERION:				
CONCLUSIONS				
	YES	NO		
Greater than 50% Hydrophytes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Hydric Soils Criterion Met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		IS THIS DATAPOINT WITHIN A WETLAND?
Wetland Hydrology Met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		YES NO
				<input type="checkbox"/> <input checked="" type="checkbox"/>
REMARKS:				
PROJECT TITLE: Stetson Wind Project		TRANSECT: BB/AC		PLOT: 1A upland

Project Title: Stetson Wind Project Transect Number: BB/AC Plot Number: 1B wetland
Wetland Number: 28
Delineators: B. Emerson and A. Finamore Date: October 16, 2006

VEGETATION	Stratum and Species (dominants only)	Dominance Ratio	Percent Dominance	NWI Status
TREES				
	Black Spruce (<i>Picea mariana</i>)	16/16	100%	FACW-
POLES				
	Black Spruce (<i>Picea mariana</i>)	35/35	100%	FACW-
SHRUBS				
	Black Spruce (<i>Picea mariana</i>)	5/5	100%	FACW-
HERBS				
	Cinnamon Fern (<i>Osmunda cinnamomea</i>)	30/89	34%	FACW
	Rattlesnake Mannagrass (<i>Glyceria canadensis</i>)	10/89	11%	
	Creeping Snowberry (<i>Gaultheria hispidula</i>)	5/89	6%	
	Black Spruce (<i>Picea mariana</i>)	2/89	2%	
	Jewelweed (<i>Impatiens capensis</i>)	2/89	2%	
	Unidentified grass	40/89	45%	
	<i>Sphagnum</i> sp.			

Note 1: Use asterisk * to indicate plants with adaptations to wetland hydrology.
Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.
Note 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	4	FACW	FAC	OTHER HYDROPHYTES	FAC-	FACU	UPL
		Hydrophytes Subtotal: <u>4</u>			Non-hydrophytes Subtotal: <u>0</u>		
		$\frac{100 \times \text{Subtotal Hydrophytes}}{\text{Subtotal Hydrophytes} + \text{Subtotal Non-Hydrophytes}}$		=	<u>100%</u>	=	Percent Hydrophytes

Describe Vegetation Disturbance:

HYDROLOGY 1. Hydrology is often the most difficult feature to observe.
2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
3. Interpretation of hydrology may require repeated observations over more than one season.

- RECORDED DATA
 - Stream, lake, or tidal gage Identification: _____
 - Aerial photography Identification: _____
 - Other Identification: _____
- NO RECORDED DATA
- OBSERVATIONS:
 - Depth to Free Water: 8 inches
 - Depth to Saturation (including capillary fringe): at the surface
 - Altered Hydrology (explain): _____

- Inundated Saturated in upper 12" Water Marks Drift Lines Sediment Deposits
- Drainage Patterns within Wetland OTHER (explain): _____



Project Title: Stetson Wind Project Transect Number: BG/AH Plot Number: 1A upland
Wetland Number: 17
Delineators: B. Emerson, A. Finamore, C. Ferris Date: October 17, 2006

VEGETATION	Stratum and Species (dominants only)	Dominance Ratio	Percent Dominance	NWI Status
TREES				
	American Beech (<i>Fagus grandifolia</i>)	4/7	57%	FACU
	Sugar Maple (<i>Acer saccharum</i>)	2/7	29%	FACU-
	Red Spruce (<i>Picea rubens</i>)	1/7	14%	
POLES				
	American Beech (<i>Fagus grandifolia</i>)	35/48	73%	FACU
	Striped Maple (<i>Acer pensylvanicum</i>)	5/48	10%	
	American Elm (<i>Ulmus americana</i>)	8/48	17%	
SHRUBS				
	American Beech (<i>Fagus grandifolia</i>)	50/55	91%	FACU
	Nannyberry (<i>Viburnum lantanooides</i>)	5/55	9%	
HERBS				
	Sugar Maple (<i>Acer saccharum</i>)	15/29	52%	FACU-
	Red Spruce (<i>Picea rubens</i>)	2/29	7%	
	Balsam Fir (<i>Abies balsamea</i>)	2/29	7%	
	Evergreen Wood Fern (<i>Dryopteris intermedia</i>)	10/29	34%	FACU

Note 1: Use asterisk * to indicate plants with adaptations to wetland hydrology.
Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.
Note 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	FACW	FAC	OTHER HYDROPHYTES	FAC-	6 FACU	UPL
Hydrophytes Subtotal: <u> 0 </u>				Non-hydrophytes Subtotal: <u> 6 </u>		
<u>100 x Subtotal Hydrophytes</u>			=	<u> 0 </u> %	= Percent Hydrophytes	
Subtotal Hydrophytes + Subtotal Non-Hydrophytes						

Describe Vegetation Disturbance:

HYDROLOGY 1. Hydrology is often the most difficult feature to observe.
2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
3. Interpretation of hydrology may require repeated observations over more than one season.

- RECORDED DATA
 - Stream, lake, or tidal gage Identification: _____
 - Aerial photography Identification: _____
 - Other Identification: _____
- NO RECORDED DATA
- OBSERVATIONS:
 - Depth to Free Water: N/A
 - Depth to Saturation (including capillary fringe): N/A
 - Altered Hydrology (explain): _____

- Inundated Saturated in upper 12" Water Marks Drift Lines Sediment Deposits
- Drainage Patterns within Wetland OTHER (explain): _____



Project Title: Stetson Wind Project Transect Number: BG/AH Plot Number: 1B wetland
Wetland Number: 17
Delineators: B. Emerson, A. Finamore, C. Ferris Date: October 17, 2006

VEGETATION	Stratum and Species (dominants only)	Dominance Ratio	Percent Dominance	NWI Status
TREES				
	Green Ash (<i>Fraxinus pennsylvanica</i>)	1/6	17%	
	Yellow Birch (<i>Betula alleghaniensis</i>)	3/6	50%	FAC
	American Elm (<i>Ulmus americana</i>)	2/6	33%	FACW-
POLES				
	American Elm (<i>Ulmus americana</i>)	15/15	100%	FACW-
SHRUBS				
	American Elm (<i>Ulmus americana</i>)	15/24	63%	FACW-
	Yellow Birch (<i>Betula alleghaniensis</i>)	5/24	21%	FAC
	American Beech (<i>Fagus grandifolia</i>)	2/24	8%	
	Red Spruce (<i>Picea rubens</i>)	2/24	8%	
HERBS				
	Wool-grass (<i>Scirpus cyperinus</i>)	50/97	52%	FACW+
	Sensitive Fern (<i>Onoclea sensibilis</i>)	20/97	21%	FACW
	Bedstraw (<i>Galium</i> sp.)	20/97	21%	
	Evergreen Wood Fern (<i>Dryopteris intermedia</i>)	5/97	5%	
	Knotweed (<i>Polygonum</i> sp.)	2/97	2%	

Note 1: Use asterisk * to indicate plants with adaptations to wetland hydrology.
Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.
Note 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	5	2	OTHER HYDROPHYTES	FAC-	FACU	UPL
	FACW	FAC				
	Hydrophytes Subtotal: <u> 7 </u>			Non-hydrophytes Subtotal: <u> 0 </u>		
	100 x Subtotal Hydrophytes		=	100% = Percent Hydrophytes		
	Subtotal Hydrophytes + Subtotal Non-Hydrophytes					

Describe Vegetation Disturbance:

HYDROLOGY 1. Hydrology is often the most difficult feature to observe.
2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
3. Interpretation of hydrology may require repeated observations over more than one season.

- RECORDED DATA
 - Stream, lake, or tidal gage Identification: _____
 - Aerial photography Identification: _____
 - Other Identification: _____
- NO RECORDED DATA
- OBSERVATIONS:
 - Depth to Free Water: N/A
 - Depth to Saturation (including capillary fringe): N/A
 - Altered Hydrology (explain): _____

- Inundated Saturated in upper 12" Water Marks Drift Lines Sediment Deposits
 Drainage Patterns within Wetland OTHER (explain): **Water stained leaves**



Project Title: Stetson Wind Project Transect Number: CI Plot Number: 1B wetland
Wetland Number: 42
Delineators: C. Ferris, B. Emerson Date: October 19, 2006

VEGETATION	Stratum and Species (dominants only)	Dominance Ratio	Percent Dominance	NWI Status
TREES				
	Yellow Birch (<i>Betula alleghaniensis</i>)	1/1	100%	FAC
POLES				
	Yellow Birch (<i>Betula alleghaniensis</i>)	5/5	100%	FAC
SHRUBS				
	Speckled Alder (<i>Alnus incana</i>)	20/25	80%	FACW+
	Red Raspberry (<i>Rubus idaeus</i>)	5/25	20%	FAC-
HERBS				
	Northeastern Mannagrass (<i>Glyceria melicaria</i>)	90/125	72%	OBL
	Sensitive Fern (<i>Onoclea sensibilis</i>)	30/125	24%	FACW
	Viola sp.	5/125	4%	
	Moss (<i>Sphagnum</i> sp.)			

Note 1: Use asterisk * to indicate plants with adaptations to wetland hydrology.
Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.
Note 2: Species with NA or NI status are reported, but are not calculated in the tally below.

<u>1</u>	<u>2</u>	<u>2</u>	<u> </u>	<u>1</u>	<u> </u>	<u> </u>
OBL	FACW	FAC	OTHER HYDROPHYTES	FAC-	FACU	UPL
Hydrophytes Subtotal: <u> 5 </u>			Non-hydrophytes Subtotal: <u> 1 </u>			
<u> 100 x Subtotal Hydrophytes </u>			=	<u> 83% </u>	=	Percent Hydrophytes
<u> Subtotal Hydrophytes + Subtotal Non-Hydrophytes </u>						

Describe Vegetation Disturbance:

HYDROLOGY 1. Hydrology is often the most difficult feature to observe.
2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
3. Interpretation of hydrology may require repeated observations over more than one season.

- RECORDED DATA
 - Stream, lake, or tidal gage Identification: _____
 - Aerial photography Identification: _____
 - Other Identification: _____
- NO RECORDED DATA
- OBSERVATIONS:
 - Depth to Free Water: at the surface
 - Depth to Saturation (including capillary fringe): at the surface
 - Altered Hydrology (explain): _____

- Inundated Saturated in upper 12" Water Marks Drift Lines Sediment Deposits
- Drainage Patterns within Wetland OTHER (explain): _____



Project Title: Stetson Wind Project

Transect Number: CTT/RI/MI/AG Plot Number: 1A upland

Wetland Number: 97

Delineators: C.Ferris, A. Finamore, B. Emerson, M.Arsenault Date: November 1, 2006

VEGETATION	Stratum and Species (dominants only)	Dominance Ratio	Percent Dominance	NWI Status
TREES				
	Sugar Maple (<i>Acer saccharum</i>)	6/6	100%	FACU-
POLES				
	Sugar Maple (<i>Acer saccharum</i>)	20/20	100%	FACU-
SHRUBS				
	American Beech (<i>Fagus grandifolia</i>)	25/85	29%	FACU
	Sugar Maple (<i>Acer saccharum</i>)	20/85	24%	FACU-
	Yellow Birch (<i>Betula alleghaniensis</i>)	5/85	6%	
	White Ash (<i>Fraxinus americana</i>)	20/85	24%	FACU
	Hobblebush (<i>Viburnum lantanoides</i>)	5/85	6%	
	Striped Maple (<i>Acer pensylvanicum</i>)	10/85	12%	
HERBS				
	Christmas Fern (<i>Polystichum acrostichoides</i>)	20/57	35%	FACU-
	Evergreen Wood Fern (<i>Dryopteris intermedia</i>)	25/57	44%	FACU
	Rough-stemmed Goldenrod (<i>Solidago rugosa</i>)	10/57	18%	
	Red Raspberry (<i>Rubus idaeus</i>)	2/57	4%	

Note 1: Use asterisk * to indicate plants with adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.
 Note 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	FACW	FAC	OTHER HYDROPHYTES	FAC-	FACU	UPL
Hydrophytes Subtotal: <u> 0 </u>				Non-hydrophytes Subtotal: <u> 7 </u>		
100 x Subtotal Hydrophytes			=	Percent Hydrophytes		
Subtotal Hydrophytes + Subtotal Non-Hydrophytes						

Describe Vegetation Disturbance:

HYDROLOGY 1. Hydrology is often the most difficult feature to observe.
 2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
 3. Interpretation of hydrology may require repeated observations over more than one season.

- RECORDED DATA
 - Stream, lake, or tidal gage Identification: _____
 - Aerial photography Identification: _____
 - Other Identification: _____
- NO RECORDED DATA
- OBSERVATIONS:
 - Depth to Free Water: N/A
 - Depth to Saturation (including capillary fringe): N/A
 - Altered Hydrology (explain): _____

- Inundated Saturated in upper 12" Water Marks Drift Lines Sediment Deposits
- Drainage Patterns within Wetland OTHER (explain): _____



Project Title: Stetson Wind Project

Transect Number: CTT/RI/MI/AG Plot Number: 1B wetland

Wetland Number: 97

Delineators: C. Ferris, A. Finamore, B. Emerson, M. Arsenault Date: November 1, 2006

VEGETATION	Stratum and Species (dominants only)	Dominance Ratio	Percent Dominance	NWI Status
TREES				
	Sugar Maple (<i>Acer saccharum</i>)	6/8	75%	FACU
	Green Ash (<i>Fraxinus pennsylvanica</i>)	1/8	13%	
	Black Spruce (<i>Picea mariana</i>)	1/8	13%	
POLES				
	Sugar Maple (<i>Acer saccharum</i>)	25/35	71%	FACU
	Yellow Birch (<i>Betula alleghaniensis</i>)	10/35	29%	FAC
SHRUBS				
	Yellow Birch (<i>Betula alleghaniensis</i>)	5/5	100%	FAC
HERBS				
	Rough Sedge (<i>Carex scabrata</i>)	75/125	60%	OBL
	Sensitive Fern (<i>Onoclea sensibilis</i>)	30/125	24%	FACW
	Water Carpet (<i>Chrysosplenium americanum</i>)	10/125	8%	
	Evergreen Wood Fern (<i>Dryopteris intermedia</i>)	2/125	2%	
	Marsh Fern (<i>Thelypteris palustris var. pubescens</i>)	2/125	2%	
	Red Raspberry (<i>Rubus idaeus</i>)	1/125	1%	
	Willow-herb (<i>Epilobium sp.</i>)	5/125	4%	

Note 1: Use asterisk * to indicate plants with adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.
 Note 2: Species with NA or NI status are reported, but are not calculated in the tally below.

<u>1</u>	<u>1</u>	<u>2</u>	<u> </u>	<u> </u>	<u>2</u>	<u> </u>
OBL	FACW	FAC	OTHER HYDROPHYTES	FAC-	FACU	UPL
Hydrophytes Subtotal: <u>4</u>			Non-hydrophytes Subtotal: <u>2</u>			
<u>100 x Subtotal Hydrophytes</u>			=	<u>67%</u>	=	Percent Hydrophytes
Subtotal Hydrophytes + Subtotal Non-Hydrophytes						

Describe Vegetation Disturbance:

HYDROLOGY 1. Hydrology is often the most difficult feature to observe.
 2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
 3. Interpretation of hydrology may require repeated observations over more than one season.

- RECORDED DATA
 - Stream, lake, or tidal gage Identification: _____
 - Aerial photography Identification: _____
 - Other Identification: _____
- NO RECORDED DATA
- OBSERVATIONS:
 - Depth to Free Water: at the surface
 - Depth to Saturation (including capillary fringe): at the surface
 - Altered Hydrology (explain): _____

- Inundated Saturated in upper 12" Water Marks Drift Lines Sediment Deposits
- Drainage Patterns within Wetland OTHER (explain): _____



Project Title: Stetson Wind Project Transect Number: 1 Plot Number: 2
Wetland Number: 101
Delineators: B. Emerson, Lauren Leclerc Date: November 13, 2006

VEGETATION	Stratum and Species (dominants only)	Dominance Ratio	Percent Dominance	NWI Status
TREES				
	Red Spruce (<i>Picea rubens</i>)	4/8	50%	FACU
	Hemlock (<i>Tsuga canadensis</i>)	2/8	25%	FACU
	Sugar Maple (<i>Acer saccharum</i>)	2/8	25%	FACU-
POLES				
	Sugar Maple (<i>Acer saccharum</i>)	10/10	100%	FACU-
SHRUBS				
	Sugar Maple (<i>Acer saccharum</i>)	40/105	38%	FACU-
	Yellow Birch (<i>Betula alleghaniensis</i>)	20/105	19%	
	Hemlock (<i>Tsuga canadensis</i>)	15/105	14%	
	Balsam Fir (<i>Abies balsamea</i>)	10/105	9%	
	Striped Maple (<i>Acer pensylvanicum</i>)	10/105	9%	
	Red Raspberry (<i>Rubus idaeus</i>)	10/105	9%	
HERBS				
	Evergreen Wood Fern (<i>Dryopteris intermedia</i>)	30/40	75%	FACU
	Wood-Sorrel (<i>Oxalis montana</i>)	5/40	13%	
	Goldthread (<i>Coptis trifolia</i>)	5/40	13%	

Note 1: Use asterisk * to indicate plants with adaptations to wetland hydrology.
Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.
Note 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	FACW	FAC	OTHER HYDROPHYTES	FAC-	6 FACU	UPL
					Non-hydrophytes Subtotal: 6	
Hydrophytes Subtotal: 0						
100 x Subtotal Hydrophytes			=	0% = Percent Hydrophytes		
Subtotal Hydrophytes + Subtotal Non-Hydrophytes						

Describe Vegetation Disturbance:

HYDROLOGY 1. Hydrology is often the most difficult feature to observe.
2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
3. Interpretation of hydrology may require repeated observations over more than one season.

- RECORDED DATA
 - Stream, lake, or tidal gage Identification: _____
 - Aerial photography Identification: _____
 - Other Identification: _____
- NO RECORDED DATA
- OBSERVATIONS:
 - Depth to Free Water: N/A
 - Depth to Saturation (including capillary fringe): N/A
 - Altered Hydrology (explain): _____

- Inundated Saturated in upper 12" Water Marks Drift Lines Sediment Deposits
- Drainage Patterns within Wetland OTHER (explain):



