Exhibit 11B Delineation Field Forms

Project/Site: 195600522 / Bowers		City/County: Carroll F	lt / Penobscot	Sampling Date: 9/22/2010
Applicant/Owner:			State: ME	Sampling Point: W015 (01aay)
Investigator(s): ATA / BPE	Sec	ction, Township, Range	:	
Landform (hillslope, terrace, etc.):		Local relief (concave,	convex, none):	
Slope (%): Lat:		Long:	Da	atum:
Soil Map Unit Name:		-	NWI Classifica	tion:
Are climatic/hydrologic conditions on the site th	voical for this time of year?	(es⊠No∏ (If no exr	lain in remarks)	
			,	
Are Vegetation , Soil , or Hydrology si	o	Are "Normal Circums	•	
Are Vegetation , Soil , or Hydrology and	aturally problematic?	(If needed, explain an	y answers in Rema	arks)
SUMMARY OF FINDINGS – Attach s	ite map showing sam	pling point locati	ons, transects	, important features, etc.
Hydrophytic Vegetation Present?	Yes 🗌 No 🖂	Is the Sampled Area		
Hydric Soil Present?	Yes 🗌 No 🖂	Within a wetland?		No 🖂
Wetland Hydrology Present?	Yes 🗌 No 🖂	If yes, optional Wetla	nd Site ID:	
Remarks (Explain alternative procedures here	or in a separate report):			
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum of one is required	d; check all that apply)		Surface Soil C	racks (B6)
Surface Water (A1)	Water-Stained Leaves	(B9)	Drainage Patter	erns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		🗌 Moss Trim Lin	es (B16)
Saturation (A3)	Marl Deposits (B15)		Dry-Season W	/ater Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor	. ,	Crayfish Burro	
Sediment Deposits (B2)	Oxidized Rhizospheres	on Living Roots (C3)	Saturation Vis	ible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced I	. ,		essed Plants (D1)
☐ Algal Mat or Crust (B4)	Recent Iron Reduction	in Tilled Soils (C6)	Geomorphic P	osition (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquita	ard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remaining Content of Co	arks)	Microtopograp	hic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-Neutral T	lest (D5)

Sparsely Vegetated Concav	e Surface (B8)	FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present?	Yes 🗌 No🛛 Depth (Inches):	
Water Table Present?	Yes 🗌 No🛛 Depth (Inches):	
Saturation Present? (includes capillary fringe)	Yes 🗌 No🛛 Depth (Inches):	Wetland Hydrology Present? Yes 🗌 No 🖂
Describe Recorded Data (strea	m guage, monitoring well, aerial photos, previous	inspections), if available:
Remarks: no wetland hydrology	/ observed	

US Army Corps of Engineers

Tree Stratum (Plot size: 30')	Absolute <u>%</u> <u>Cover</u>	Dominant Species?	Indicator <u>Status</u>	Dominance Test worksheet:
1. Picea rubens 2. Acer saccharum	20 50	Yes Yes	FACU FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
3.	50	165	TACO	Total Number of Dominant
4.				Species Across All Strata: 6 (B)
5.				Percent of Dominant Species
6.				That Are OBL, FACW, or FAC: 0 (A/B)
7.				Prevalence Index worksheet:
	70	= Total Cov	er	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				Total % Cover of:Multiply by:OBL Speciesx 1 =
	40		540	FACW Species x 2 =
1. Betula alleghaniensis	10	No	FAC	FAC Species x 3 =
2. Fagus grandifolia	75	Yes	FACU	FACU Species x 4 =
3. Picea rubens	5 2	No	FACU FACU	UPL species x 5 =
 Acer pensylvanicum 5. 	2	No	FACU	Column Totals (A) (B)
6.				Prevalence Index = B/A =
7.				Hydrophytic Vegetation Indicators:
	92	= Total Cov	or	Rapid Test for Hydrophytic Vegetation
	52		CI	Dominance Test is > 50%
Herb Stratum (Plot size: 5')				Prevalence Index is $\leq 3.0^{1}$
1. Aralia nudicaulis	2	Yes	FACU	— Morphological Adaptations ¹ (Provide supporting
2. Acer pensylvanicum	2	Yes	FACU	data in Remarks or on a separate sheet)
3. Dryopteris intermedia	3	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
4. Equisetum sylvaticum	1	No	FACW	¹ Indicators of hydric soil and wetland hydrology must be
5. Uvularia sessifolia	1	No	FACU	present, unless disturbed or problematic.
6.				Definitions of Vegetation Strata:
7. 8.				Tree – Woody plants 3 in. (76 cm) or more in diameter
9.				(DBH), regardless of height.
10.				Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
11. 12.				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
	9	= Total Cov	er	Woody vines – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size:)				
1.				
2.				
3.				Hydrophytic
4.				Vegetation
		= Total Cov	er	Present? Yes 🗌 No 🛛
Remarks (Include photo numbers here or on a s	eparate sheet	.):		
		·,·		

US Army Corps of Engineers

	Matrix		Redox Features							
Depth (Inches)	Color (moist)	noist) % Color (moist) % Type ¹ Loc ²					Texture	Remarks		
5.5 - 5							duff			
5-0							Oe			
0-5"	2.5Y 4/3	100					loam			
5-6.5	5Y 5/3	100					silt loam	refusal @ 6.5"		
Type: C=Co	ncentration, D=Dep	oletion, R	M=Reduced Matrix,	CS=Cover	ed or Coated	Sand Gra	ns. ² Location: P	PL=Pore Lining, M=Matrix.		
lydric Soil I	ndicators:						Indicators for Pro	blematic Hydric Soils ³ :		
Histosol (A	,		Polyvalue Bel	ow Surface	(S8) (LRR R	, MLRA		0) (LRR K, L, MLRA 149B)		
Histic Epip	· · /		149B)	face (60) (I		A 440B)		edox (A16) (LRR, K, L, R)		
Black Hist Hydrogen	· ·		Thin Dark Sur Loamy Mucky	. , .		,	•	5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L)		
Stratified I	. ,		Loamy Gleyed	•	, , , ,			Polyvalue Below Surface (S8) (LRR K, L)		
	Below Dark Surface	e (A11)	Depleted Matr		,			Thin Dark Surface (S9) (LRR K, L)		
•	Surface (A12)	()	Redox Dark S	()				Iron-Manganese Masses (F12) (LRR K, L, R)		
	cky Mineral (S1)		Depleted Dark	< Surface (F	6)		Piedmont Flood	plain Soils (F19) (MLRA 149 B)		
•	yed Matrix (S4)		Redox Depres	ssions (F8)	,			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
] Sandy Re	dox (S5)						Red Parent Mat	Red Parent Material (TF2)		
Stripped N	latrix (S6)						Very Shallow Da	Very Shallow Dark Surface (TF12)		
						Other (Explain ii	n Remarks)			
Indicators of	hydrophytic vegeta	ation and	wetland hydrology	must be pre	esent, unless	disturbed	or problematic.			
Restrictive L	ayer (if observed)):								
Type: dens	e till									
Depth (inches): 6.5"						Hydric Soil P	resent? Yes 🗌 No 🛛			

US Army Corps of Engineers

Project/Site: 195600522 / Bowers		City/County: Carroll P	lt / Penobscot	Sampling Date: 9/22/2010
Applicant/Owner:			State: ME	Sampling Point: W015 (01aay)
Investigator(s): ATA / BPE	Sec	ction, Township, Range		
Landform (hillslope, terrace, etc.):		Local relief (concave,	convex, none):	
Slope (%): Lat:		Long:	Da	atum:
Soil Map Unit Name:		-	NWI Classifica	tion:
·	a turniant for this time of year?			
Are climatic/hydrologic conditions on the site			,	
Are Vegetation \Box , Soil \Box , or Hydrology \Box	significantly disturbed?	Are "Normal Circumst	ances" present? Y	res 🖾 No 🗌
Are Vegetation 🔲, Soil 🔲, or Hydrology 🗌	naturally problematic?	(If needed, explain an	y answers in Rema	arks)
SUMMARY OF FINDINGS – Attach	site map showing sam	pling point location	ons, transects	, important features, etc.
Hydrophytic Vegetation Present?	Yes 🛛 No 🗌	Is the Sampled Area		
Hydric Soil Present?	Yes 🛛 No 🗌	Within a wetland?	Yes 🛛	No 🗌
Wetland Hydrology Present?	Yes 🛛 No 🗌	If yes, optional Wetlar	nd Site ID: 01aay	
Remarks (Explain alternative procedures he	ere or in a separate report):			
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum of one is requi	red; check all that apply)		Surface Soil C	racks (B6)
Surface Water (A1)	Water-Stained Leaves	(B9)	Drainage Patte	erns (B10)
🛛 High Water Table (A2)	🗌 Aquatic Fauna (B13)		🗌 Moss Trim Lin	es (B16)
Saturation (A3)	Marl Deposits (B15)		Dry-Season W	/ater Table (C2)
🖾 Water Marks (B1)	Hydrogen Sulfide Odor	(C1)	Crayfish Burro	ws (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres	on Living Roots (C3)	Saturation Vis	ible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced I	ron (C4)	Stunted or Str	essed Plants (D1)
☐ Algal Mat or Crust (B4)	Recent Iron Reduction	in Tilled Soils (C6)	Geomorphic P	osition (D2)
Iron Deposits (B5)	Thin Muck Surface (C7))	Shallow Aquita	ard (D3)

Other (Explain in Remarks)

Yes I No Depth (Inches):

Yes 🛛 No 🗌 Depth (Inches): 2"

Yes 🛛 No 🗌 Depth (Inches): 0"

Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

US Army Corps of Engineers

Field Observations: Surface Water Present?

Water Table Present?

(includes capillary fringe)

Saturation Present?

Remarks:

Inundation Visible on Aerial Imagery (B7)

Sparsely Vegetated Concave Surface (B8)

Northcentral and Northeast Region - Interim Version

☐ Microtopographic Relief (D4)

□ FAC-Neutral Test (D5)

Wetland Hydrology Present? Yes 🛛 No

Tree Stratum (Plot size: 30')	Absolute <u>%</u> <u>Cover</u>	Dominant Species?	Indicator <u>Status</u>	Dominance Test worksheet:
1. None 2.				Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)
3. 4.				Total Number of Dominant Species Across All Strata: 5 (B)
5. 6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
7.	0	= Total Cove	er	Prevalence Index worksheet:
				Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL Species x 1 =
1. Betula alleghaniensis	2	No	FAC	FACW Species x 2 =
2. Salix bebbiana	20	Yes	FACW	FAC Species x 3 =
3.				FACU Species x 4 =
4.				UPL species x 5 =
5.				Column Totals (A) (B)
6.				Prevalence Index = B/A =
7.				Hydrophytic Vegetation Indicators:
	22	= Total Cove	er	Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5')				Dominance Test is > 50%
				Prevalence Index is $\leq 3.0^{1}$
1. Onoclea sensibilis	15	Yes	FACW	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Impatiens capensis	10	Yes	FACW	data in remarks of on a separate sheet)
3. Carex crinita	10	Yes	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
4. Fragaria virginiana	8	No	FACU	¹ Indicators of hydric soil and wetland hydrology must be
5. Epilobium ciliatum	8	No	FAC	present, unless disturbed or problematic.
6. Equisetum sylvaticum	15	Yes	FACW	Definitions of Vegetation Strata:
7. Parathelypteris novaboracensis	2	No	FAC	Tree – Woody plants 3 in. (76 cm) or more in diameter
8. Osmunda claytonia	2	No	FAC	(DBH), regardless of height.
9. Juncus effusus	2	No	FACW	Sapling/shrub – Woody plants less than 3 in. DBH and
10. Carex gynandra	2	No	OBL	greater than 3.28 ft (1 m) tall.
11. Arisaema triphyllum 12.	2	No	FACW	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
	76	= Total Cove	er	Woody vines – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size:)				
1.				
2.				
3.				Hydrophytic
4.				Vegetation
		= Total Cove	er	Present? Yes 🛛 No 🗌
Remarks (Include photo numbers here or on a	senarate sheet).		
	Separate Sheet	· /·		

US Army Corps of Engineers

	Matrix		Redox Features							
Depth (Inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
2-0							Oa			
0-3	gley 2 6/5B	95	2.5Y 5/6	5	с	м	silty clay Ioam			
3-8"	5Y 4/4	98	5Y 6/3	2	D	м	silt loam	refusal @ 8"		
Type: C=Cor	ncentration, D=Dep	oletion, R	M=Reduced Matrix	, CS=Covere	ed or Coated	Sand Grai	ns. ² Location	: PL=Pore Lining, M=Matrix.		
lydric Soil li	ndicators:						Indicators for P	roblematic Hydric Soils ³ :		
☐ Histosol (<i>A</i> ☐ Histic Epip	\1)		Polyvalue Be 149B)	low Surface	(S8) (LRR R	, MLRA	2 cm Muck (A	10) (LRR K, L, MLRA 149B) Redox (A16) (LRR, K, L, R)		
Black Hist	· · ·		Thin Dark Su	. , .	•	,		Peat or Peat (S3) (LRR K, L, R)		
Hydrogen	()		Loamy Mucky		, ,)	Dark Surface			
Stratified L	₋ayers (A5) 3elow Dark Surface	≏ (A11)	Loamy Gleye)] Polyvalue Below Surface (S8) (LRR K, L)] Thin Dark Surface (S9) (LRR K, L)		
	Surface (A12)	0 (711)	Redox Dark	()				Iron-Manganese Masses (F12) (LRR K, L, R)		
 Sandy Mu	cky Mineral (S1)		Depleted Dar	k Surface (F	6)			Piedmont Floodplain Soils (F19) (MLRA 149 B)		
	yed Matrix (S4)		Redox Depre	ssions (F8)				(TA6) (MLRA 144A, 145, 149B)		
Sandy Re	. ,							Red Parent Material (TF2)		
Stripped M	latrix (S6) ace (S7) (LRR R, N						Other (Explain	Dark Surface (TF12)		
			wetland hydrology	must be pre	sent unless	disturbed o	— 、			
	, , , , ,		Wetterine Hydrology							
Type: rock	ayer (if observed)).								
Depth (incl	·						Hydric Soil	Present? Yes 🛛 No		
Deput (inci	ies). 0						Hyunc Son			

US Army Corps of Engineers

Project Title: Bo	owers Wind Project Transect Num	nber: W097 (02	MAV) Plot Num	ber: 1 - Upland					
Delineators: MPA Date: 11/18/2009									
VEGETATION	Stratum and Species	Dominance Ratio	Percent Dominance	NWI Status					
Trees:									
	ck (Tsuga canadensis)	6/10	60	FACU					
red spruce (Pic		3/10	30	FACU					
balsam fir (Abie	es balsamea)	1/10	10						
Poles:	atula allaghanianaia)	20/60	22						
	etula alleghaniensis)	20/60 40/60	33 66	FAC FACU					
Shrubs:	ck (Tsuga canadensis)	40/00	00	FACU					
red spruce (<i>Pic</i>	ea rubens)	15/25	60	FACU					
	etula alleghaniensis)	10/25	40	FAC					
Herbs:		10/20	40	17.0					
	d fern (Dryopteris intermedia)	20/23	87	FACU					
red spruce (Pic		3/23	13						
			_						
Plants reco	k * to indicate plants with adaptations to wetland hydrology. rded with asterisks should be considered as "other hydrophyte h NA or NI status are reported, but are not calculated in the ta		DW.						
	000 ACW FAC OTHER HYDROPHYTES Hydrophytes Subtotal:2	0 FAC- Non-hyd	5 FACU rophytes Subtotal:	0 UPL 5					
_		=29	= Perce	nt Hydrophytes					
Su	ubtotal Hydrophytes + Subtotal Non-Hydrophytes								
Describe Vegetation	Disturbance: no disturbance observed								
HYDROLOGY 1. 2. 3.	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:									
	aturated in upper 12" Water Marks Drift Lines s within Wetland OTHER (explain):								



SOIL	Sketch Lan	dscape Positio	n		
			Dedevine mehic Foot	USDA Texture and I	nodules, concretions, masses,
Depth	Horizon	Matrix Color	Redoximorphic Featu Color, Abundance, Size & C	pore linings, restrictiv	e layers, root distribution, soil vater, etc.
3"-0"	0				
0"-2"	B1	2.5Y 4/4		fine sandy loam)
2"-8"	B2	5Y 5/3	10YR 5/6 10%	silt loam	
8"	refusal				
		non hudrio			
HYDRIC SOIL I	NDICATOR(5):	non-nyaric			
		dric Soils Technical Control Commission		d Indicators for Identifying Hydric	s Soils in New England. New
Eligiand interstati		Control Commissi	JII, LOWEII, MA.		
OPTIONAL SOIL	DATA				
TAXONOMIC S					
SOIL DRAINAG					
DEPTH TO ACT		ABLE:			
CONCLUSION		aon.			
		YES NO			
Greater than 5	50% Hydrophy	tes?□ X			
Hydric Soils Criterion Met?			IS T	HIS DATAPOINT WITHIN A	WETLAND?
Wetland Hydrology Met?				YES NO	
-					
		REMARKS			
PROJECT TIT			ANSECT:	PLOT:	
Bowers Wind	Project	02	MAV	1 - Upland	



Project Title: Bo	owers Wind Project Tran	Transect Number: W097 (02MAV) Plot Number: 2 - Wetland							
Delineators: MPA Date: 11/18/2009									
VEGETATION	Stratum and Species	Dominance Ratio	e Percent Dominance	NWI Status					
Trees:									
	etula alleghaniensis)	4/11	36	FAC					
	k (Tsuga canadensis)*	2/11	18						
red spruce (Pic	/	3/11	27	FACU*					
balsam fir (Abie	es balsamea)	2/11	18						
Poles:	atula allaghanianaia)	15/18	83	FAC					
	etula alleghaniensis) k (Tsuga canadensis)	3/18	17						
Shrubs:	k (Tsuya canadensis)	5/10	17						
	etula alleghaniensis)	25/40	63	FAC					
	k (Tsuga canadensis)	15/40	38	FACU					
Herbs:	(Tougu burnationolo)								
	d fern (<i>Dryopteris intermedia</i>)	5/5	100	FACU					
Ŭ									
Plants reco Note 2: Species wit	k * to indicate plants with adaptations to wetland hy rded with asterisks should be considered as "other h NA or NI status are reported, but are not calculat	hydrophytes" in the tally b red in the tally below.							
	031 CW FAC OTHER HYDRO Hydrophytes Subtotal:4		2 FACU rdrophytes Subtota						
_	100 x Subtotal Hydrophytes	_ =67	= Perce	ent Hydrophytes					
	ibtotal Hydrophytes + Subtotal Non-Hydrophytes								
Describe Vegetation	Disturbance: no disturbance observed								
 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 Aerial photography Other Identification: Identif									
	Saturated in upper 12" ⊠ Water Marks □ Dr s within Wetland ⊠ OTHER (explain): water-s	ift Lines □ Sediment De tained leaves	posits						



SOIL	Sketch Lan	dscape Positio	n		
Depth	Horizon	Matrix Color	Redoximorphic		USDA Texture and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil
			Color, Abundance, S	lize & Contrast	water, etc.
1"-0"	0				
0"-10"	A	2.5Y 3/1			silt loam
10"-18"+	В	Gley 2 5/10BG			loamy sand
HYDRIC SOIL I	NDICATOR(S):	VII. Depleted Belo	w Dark Surface / Na	tional Indicator	A11
REFERENCE: N	New England Hyd	tric Soils Technical	Committee, 2004, 3 rd e	d Field Indicato	ors for Identifying Hydric Soils in New England. New
		Control Commissio			······································
OPTIONAL SOIL	DATA:				
TAXONOMIC S SOIL DRAINAG					
DEPTH TO ACT	TIVE WATER TA				
NTCHS HYDRIC		RION:			
CONCLUSION	10	YES NO			
Greater than 5	0% Hydrophy	tes? 🗙 🗆			
Hydric Soils C				IS THIS DA	TAPOINT WITHIN A WETLAND?
Wetland Hydro					YES NO
				REMARKS:	
PROJECT TIT			ANSECT:		PLOT:
Bowers Wind I	Project	021	VAV		2 - Wetland



Project Title: Bowers Wind Project Transect Number: W109 (01MAF) Plot Number: 1 - Upla							
Delineators: MP	A Date: 11/10/20	09					
VEGETATION	Stratum and Species	Dominance Ratio	Percent Dominance	NWI Status			
Trees:	h (Fagua grandifalia)	3/3	100	FACU			
Poles:	h (<i>Fagus grandifolia</i>)	3/3	100	FACU			
	h (Fagus grandifolia)	80/140	57	FACU			
	etula alleghaniensis)	40/140	29	FAC			
	Acer pensylvanicum)	20/140	14				
Shrubs:			••				
red spruce (Pic	ea rubens)	20/80	25	FACU			
	h (Fagus grandifolia)	30/80	38	FACU			
	burnum lantanoides)	10/80	13				
yellow birch (Be	etula alleghaniensis)	20/80	25	FAC			
Herbs:							
evergreen woo	d fern (Dryopteris intermedia)	10/10	100	FAC+			
Plants reco	k * to indicate plants with adaptations to wetland hydrology. rded with asterisks should be considered as "other hydrophy th NA or NI status are reported, but are not calculated in the		elow.	1			
	00 ACW FAC OTHER HYDROPHYTES Hydrophytes Subtotal: _3	0 FAC- Non-hy	4 FACU /drophytes Subtot				
	100 x Subtotal Hydrophytes	= 4	43 = Per	cent Hydrophytes			
Su	ubtotal Hydrophytes + Subtotal Non-Hydrophytes						
Describe Vegetation	Disturbance: no disturbance observed						
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: Other Identification: Other Identification: Other Identification: Other Identification: Depth to RECORDED DATA ⊠ OBSERVATIONS: Depth to Free Water:no free water observed Depth to Saturation (including capillary fringe):soils not saturated Altered Hydrology (explain):no altered hydrology Inundated □ Saturated in upper 12" □ Water Marks □ Drift Lines □ Sediment Deposits 							
Drainage Pattern	s within Wetland D OTHER (explain):						



SOIL	Sketch Lan	dscape Positic	n					
Depth	Horizon	Matrix Color	Redoximorph Color, Abundance,		USDA Texture and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.			
1"-0"	duff							
0"-1"	E	2.5Y 6/1						
1"-10"	Bhs	10YR 5/6						
10"	refusal							
HYDRIC SOIL I	NDICATOR(S):	non-hydric						
REFERENCE	New England Hyd	dric Soils Technical	Committee 2004 3 rd	ed Field Indicato	rs for Identifying Hydric Soils in New England. New			
		Control Commissi		ea., i teta mateato				
OPTIONAL SOIL	DATA:							
TAXONOMIC S								
SOIL DRAINAG		ABLE:						
NTCHS HYDRI	C SOIL CRITER	RION:						
CONCLUSION	NS	YES NO						
Creator than 5	00/ Hudrophy	•						
Greater than 5								
Hydric Soils Criterion Met?				IS THIS DAT	TAPOINT WITHIN A WETLAND?			
Wetland Hydro	ology Met?				YES NO			
				REMARKS:				
PROJECT TIT	1 E·	т	ANSECT:		PLOT:			
Bowers Wind			MAF		1 - Upland			



Project Title: Bowers Wind Project Transect Number: W109 (01MAF) Plot Number:						
Delineators: MP	A Date: 11/10/20	09				
VEGETATION	Stratum and Species	Dominance Ratio	Percent Dominance	NWI Status		
Trees: none						
Poles: none						
Shrubs:		00/05	~~~	FAOL		
red spruce (Pic		60/65	92	FACU		
black spruce (F	ricea mariana)	5/65	8			
Herbs:	a (Clucaria vlava)	40/106	38	OBL		
	ss (Glyceria xlaxa)	25/106	24	FACW+		
	edge (Scirpus cyperinus) rass (Calamagrostis canadensis)	35/106	33	FACW+		
	perry (Rubus allegheniensis)	2/106	2	FACVV+		
	(Osmunda claytoniana)	4/106	4			
		4/100				
	k * to indicate plants with adaptations to wetland hydrology. rded with asterisks should be considered as "other hydrophyte	as" in the tally be	low			
	h NA or NI status are reported, but are not calculated in the ta		10W.			
	200	0	1	0		
OBL FA	ACW FAC OTHER HYDROPHYTES Hydrophytes Subtotal:3_	FAC-	FACU stophytes Subtota			
		•				
Su	100 x Subtotal Hydrophytes ubtotal Hydrophytes + Subtotal Non-Hydrophytes	=7	5 = Perc	ent Hydrophytes		
Describe Vegetation						
HYDROLOGY 1.	Hydrology is often the most difficult feature to observe.	5 .0				
2.	Interpretation must consider the validity of the observation in light c alterations, etc.	of the season, recei	nt weather condition	is, watershed		
3.	Interpretation of hydrology may require repeated observations over	r more than one sea	ason.			
	D DATA					
	e, or tidal gage Identification:					
Aerial photo Other	ography Identification: Identification:					
NO RECORD	RDED DATA					
⊠OBSERVATI Depth to Fr	ONS: ee Water:standing water on surface					
	aturation (including capillary fringe):soils saturated at mine	eral soil surface				
	rology (explain):no apparent altered hydrology					
⊠ Inundated ⊠	Saturated in upper 12"	Sediment Dep	osits			
	s within Wetland					



SOIL

Sketch Landscape Position

Depth	Horizon	Matrix Col		orphic Features nce, Size & Contrast	USDA Texture and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
0"-7"	A	2.5Y 3/1			Silt loam
7"-13"	В	2.5Y 7/1	7.5YR 4/6	many, coarse,	Silty clay loam
				ominent	
13"	refusal				
HYDRIC SOIL I	INDICATOR(S):	VI. Depleted	or gleyed matrix / Na	ational Indicator F3	
			nical Committee. 2004 hission, Lowell, MA	I. 3 rd ed., Field Indicato	ors for Identifying Hydric Soils in New England. New
OPTIONAL SOIL	DATA:				
TAXONOMIC S	UBGROUP:				
SOIL DRAINAG	TIVE WATER T				
NTCHS HYDRI		RION:			
CONCLUSION	NO .	YES	NO		
Greater than 5	50% Hydrophy				
Hydric Soils C					TAPOINT WITHIN A WETLAND?
-				15 THIS DA	
Wetland Hydrology Met?		×			YES NO
				REMARKS:	
PROJECT TIT			TRANSECT:		PLOT:
Bowers Wind	Project		01MAF		2-Wetland
					STA



Project/Site: 195600522 / Bowers		City/County: Carroll F	lt / Penobscot	Sampling Date: 5/17/2010	
Applicant/Owner:			State: ME	Sampling Point: W120 (03mgy)	
Investigator(s): MJG / SPD	Sec	ction, Township, Range	:		
Landform (hillslope, terrace, etc.):		Local relief (concave,	convex, none):		
Slope (%): Lat:		Long:	Di	atum:	
Soil Map Unit Name:		0	NWI Classifica	tion:	
	unical for this time of year?				
Are climatic/hydrologic conditions on the site t					
Are Vegetation , Soil , or Hydrology si	gnificantly disturbed?	Are "Normal Circums	ances" present?	∕es 🛛 No 🗌	
Are Vegetation 🔲, Soil 🛄, or Hydrology 🗌 na	aturally problematic?	(If needed, explain an	y answers in Rema	arks)	
SUMMARY OF FINDINGS – Attach s	ite map showing sam	pling point locati	ons, transects	, important features, etc.	
Hydrophytic Vegetation Present?	Yes 🛛 No 🗌	Is the Sampled Area			
Hydric Soil Present?	Yes 🗌 No 🖂	Within a wetland?		No 🖂	
Wetland Hydrology Present?	Yes 🗌 No 🛛	If yes, optional Wetland Site ID:			
Remarks (Explain alternative procedures here	or in a separate report):				
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Indica	tors (minimum of two required)	
Primary Indicators (minimum of one is required	d; check all that apply)		Surface Soil C	Cracks (B6)	
Surface Water (A1)	Water-Stained Leaves	(B9)	Drainage Patterns (B10)		
High Water Table (A2)	Aquatic Fauna (B13)		🗌 Moss Trim Lin	nes (B16)	
Saturation (A3)	Marl Deposits (B15)		🗌 Dry-Season W	Vater Table (C2)	
Water Marks (B1)	Hydrogen Sulfide Odor	· (C1)	Crayfish Burro	ows (C8)	
Sediment Deposits (B2)	on Living Roots (C3)	Saturation Vis	ible on Aerial Imagery (C9)		
Drift Deposits (B3)	Presence of Reduced I	ron (C4)	Stunted or Str	essed Plants (D1)	
Algal Mat or Crust (B4)	Recent Iron Reduction	in Tilled Soils (C6)	Geomorphic F	Position (D2)	
Iron Deposits (B5)	Thin Muck Surface (C7	<i>'</i>)	Shallow Aquita	ard (D3)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remaining Control of the second secon	arks)	Microtopograp	ohic Relief (D4)	
Sparsely Vegetated Concave Surface (B8)			FAC-Neutral 1	Fest (D5)	

Sparsely Vegetated Concave Su	face (B8)	FAC-Neutral Test (D5)				
Field Observations:						
Surface Water Present?	Yes 🗌 No🛛 Depth (Inches):					
Water Table Present?	Yes 🗌 No🛛 Depth (Inches):					
Saturation Present? (includes capillary fringe)	Yes 🗌 No🛛 Depth (Inches):	Wetland Hydrology Present? Yes 🗌 No 🛛				
Describe Recorded Data (stream gu	age, monitoring well, aerial photos, previous i	inspections), if available:				
Remarks: no wetland hydrology obse	erved					

US Army Corps of Engineers

Tree Stratum (Plot size: 30')	Absolute <u>%</u> <u>Cover</u>	Dominant Species?	Indicator <u>Status</u>	Dominance Test worksheet:
1. Acer rubrum	30	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
2. Tsuga canadensis	5	No	FACU	
3.				Total Number of Dominant Species Across All Strata: 5 (B)
4. 5.				
5. 6.				Percent of Dominant Species
o. 7.				That Are OBL, FACW, or FAC: 60 (A/B)
7.	35	= Total Cove	er	Prevalence Index worksheet:
	00	- 10101 000		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL Species x 1 =
1. Tsuga canadensis	40	Yes	FACU	FACW Species x 2 =
2. Betula alleghaniensis	20	Yes	FAC	FAC Species x 3 =
3. Betula populifolia	2	No	FAC	FACU Species x 4 =
4. Acer pensylvanicum	2	No	FACU	UPL species x 5 =
5. Abies balsamea	5	No	FAC	Column Totals (A) (B)
6.				Prevalence Index = B/A =
7.				Hydrophytic Vegetation Indicators:
	69	= Total Cove	er	Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5')				Dominance Test is > 50%
	•			Prevalence Index is $\leq 3.0^1$
1. Trientalis borealis	3	Yes	FAC	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
 Dendrolycopodium obscurum Maianthemum canadense 	3 1	Yes No	FACU FAC	data in remarks of on a separate sheety
4. Cypripedium acaule	1	No	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
5.	I	NO	1400	¹ Indicators of hydric soil and wetland hydrology must be
6.				present, unless disturbed or problematic.
7.				Definitions of Vegetation Strata:
8.				Tree – Woody plants 3 in. (76 cm) or more in diameter (DBH), regardless of height.
9. 10.				Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
11.				Herb – All herbaceous (non-woody) plants, regardless of
12.	8	= Total Cov	er	size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in
	Ũ			height.
Woody Vine Stratum (Plot size:)				
1.				
2.				
3.				Hydrophytic
4.		= Total Cov	er	Vegetation Present? Yes ⊠ No □
			-	
Remarks (Include photo numbers here or on a s	eparate sheet	.):		

US Army Corps of Engineers

Danth	Matrix			Redox Fea	atures					
Depth (Inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
4-0							duff			
0-8	10YR 5/6	100					sandy Ioam			
8-15+	10YR 5/6	100					fine sandy loam	10% coarse fragments		
							_			
Type: C=Cor	ncentration, D=Dep	oletion, R	M=Reduced Matrix	, CS=Covere	ed or Coated	Sand Gra	ins. ² Location:	PL=Pore Lining, M=Matrix.		
lydric Soil I	ndicators:						Indicators for Pr	oblematic Hydric Soils ³ :		
Histosol (A	,		Polyvalue Be	low Surface	(S8) (LRR R	, MLRA	•	10) (LRR K, L, MLRA 149B)		
Histic Epip	()		149B)	rfaga (60) (I		A 440B)		Coast Prairie Redox (A16) (LRR, K, L, R)		
Black Hist Hydrogen	()		☐ Thin Dark Su ☐ Loamy Muck	. , .		,] 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)] Dark Surface (S7) (LRR K, L)		
Stratified L					, , , ,	,		Polyvalue Below Surface (S8) (LRR K, L)		
	Below Dark Surfac	e (A11)	Depleted Mat	```)		_ ,	Thin Dark Surface (S9) (LRR K, L)		
	Surface (A12)	• (,)	Redox Dark	()				Iron-Manganese Masses (F12) (LRR K, L, R)		
	cky Mineral (S1)		Depleted Dar	· · ·	6)		_ 0	Piedmont Floodplain Soils (F19) (MLRA 149 B)		
 Sandy Gle	yed Matrix (S4)		Redox Depre	ssions (F8)	,		Mesic Spodic	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
Sandy Re	dox (S5)			· · ·				Red Parent Material (TF2)		
Stripped N	latrix (S6)						Very Shallow I	Very Shallow Dark Surface (TF12)		
Dark Surfa	ace (S7) (LRR R, N	ILRA 14	9B)				Other (Explain	in Remarks)		
Indicators of	hydrophytic veget	ation and	wetland hydrology	must be pre	sent, unless	disturbed	or problematic.			
Restrictive L	ayer (if observed):								
Type: none	observed									
Depth (incl	nes):						Hydric Soil	Present? Yes 🗌 No 🛛		

US Army Corps of Engineers

Project/Site: 195600522/ Bowers		City/County: Carroll F	Plt / Penobscot	Sampling Date: 5/17/2010		
Applicant/Owner:			State: ME	Sampling Point: W120 (03mgy)		
Investigator(s): MJG / SPD	Sec	ction, Township, Range	:			
Landform (hillslope, terrace, etc.):		Local relief (concave,	convex, none):			
Slope (%): Lat:		Long:	D	atum:		
Soil Map Unit Name:		-	NWI Classifica	tion:		
Are climatic/hydrologic conditions on the site t	voical for this time of year?	Yes 🖾 No 🗔 (If no ex	olain in remarks)			
Are Vegetation , Soil , or Hydrology s		Are "Normal Circums				
Are Vegetation , Soil , or Hydrology n	aturally problematic?	(If needed, explain ar	ny answers in Rema	arks)		
SUMMARY OF FINDINGS – Attach	site map showing sam	pling point locati	ons, transects	, important features, etc.		
Hydrophytic Vegetation Present?	Yes 🛛 No 🗌	Is the Sampled Area				
Hydric Soil Present?	Yes 🛛 No 🗌	Within a wetland? Yes 🛛 No 🗌		No 🗌		
Wetland Hydrology Present?	Yes 🛛 No 🗌	If yes, optional Wetland Site ID: 03mgy				
Remarks (Explain alternative procedures here	e or in a separate report):					
	,					
HYDROLOGY						
Wetland Hydrology Indicators:			Secondary Indica	tors (minimum of two required)		
Primary Indicators (minimum of one is require	d; check all that apply)		Surface Soil C			
Surface Water (A1)	Water-Stained Leaves	(B9)	Drainage Patterns (B10)			
High Water Table (A2)	🗌 Aquatic Fauna (B13)		Moss Trim Lines (B16)			
Saturation (A3)	Marl Deposits (B15)		Dry-Season V	Vater Table (C2)		
UWater Marks (B1)	· (C1)	_ ,				
Sediment Deposits (B2)	s on Living Roots (C3)	Saturation Vis	ible on Aerial Imagery (C9)			
Drift Deposits (B3)	Presence of Reduced I	ron (C4)	Stunted or Str	essed Plants (D1)		
☐ Algal Mat or Crust (B4)	Recent Iron Reduction	in Tilled Soils (C6)	Geomorphic F	Position (D2)		
Iron Deposits (B5)	Thin Muck Surface (C7	7)	Shallow Aquit	ard (D3)		
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Rema	arks)	Microtopograp	ohic Relief (D4)		
Sparsely Vegetated Concave Surface (B8))		FAC-Neutral	Fest (D5)		

Yes I No Depth (Inches):

Yes 🛛 No 🗌 Depth (Inches): 2"

Yes 🖾 No 🗌 Depth (Inches): 0"

Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

US Army Corps of Engineers

Field Observations: Surface Water Present?

Water Table Present?

(includes capillary fringe)

Saturation Present?

Remarks:

Northcentral and Northeast Region - Interim Version

Wetland Hydrology Present? Yes 🛛 No

Tree Stratum (Plot size: 30')	Absolute <u>%</u> <u>Cover</u>	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. Picea mariana 2.	15	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
3. 4.				Total Number of Dominant Species Across All Strata: 4 (B)
5. 6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
7.	15	= Total Cove	er	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15')				Total % Cover of: Multiply by: OBL Species x 1 =
1. Picea mariana	30	Yes	FACW	FACW Species x 2 =
2. Betula alleghaniensis	30 15	Yes	FACW	FAC Species x 3 =
-	5	No	FACU	FACU Species x 4 =
 Vaccinum angustifolium 4. 	5	NU	FACU	UPL species x 5 =
4. 5.				Column Totals (A) (B)
6.				Prevalence Index = B/A =
7.				Hydrophytic Vegetation Indicators:
	50	= Total Cove	er	Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5')				Dominance Test is > 50%
				Prevalence Index is $\leq 3.0^{1}$
 Carex trisperma Scirpus cyperinus 	85 5	Yes No	OBL FACW	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3.				Problematic Hydrophytic Vegetation ¹ (Explain)
4. 5.				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6.				
7. 8.				Definitions of Vegetation Strata: Tree – Woody plants 3 in. (76 cm) or more in diameter
9.				(DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and
10. 11.				greater than 3.28 ft (1 m) tall.
12.				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
	90	= Total Cove	er	Woody vines – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size:)				
1.				
2.				
3.				Hydrophytic
4.		= Total Cove	er	Vegetation Present? Yes ⊠ No □
Remarks (Include photo numbers here or on a s	separate sheet	.):		

US Army Corps of Engineers

Denth	Matrix			Redox Fe	atures					
Depth (Inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
8-6							Oi			
6-0							Oa			
0-2	10YR 3/2	100					loam			
2-12	2.5Y 6/2	100					silt loam	>20% coarse fragments		
12-18	2.5Y 6/2	100					extremely gravelly silt loam	>50% coarse fragments		
••	ncentration, D=Dep	oletion, R	M=Reduced Matrix	, CS=Cover	ed or Coated	Sand Gra		PL=Pore Lining, M=Matrix.		
Hydric Soil Indicators: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, M Histic Epipedon (A2) 149B) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 14 Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless dis						A 149B))	 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR, K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149 B Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) 			
lestrictive L	ayer (if observed)):								
Type: non	e observed									
Depth (inches):							Hydric Soil	Hydric Soil Present? Yes 🖂 No		

US Army Corps of Engineers

Project Title: Bowers Wind Project Transect Number: W137 (02MAE) Plot Number: 1 - Upland								
Delineators: MP	A Date: 11/11/20	09						
VEGETATION	Stratum and Species	Dominance Ratio	Percent Dominance	NWI Status				
Trees:		1/0	22					
	etula alleghaniensis)	1/3 1/3	<u>33</u> 33	FAC FAC				
red maple (Ace		1/3	33	FAC				
Poles:	ck (Tsuga canadensis)	1/3	33	FACU				
red spruce (<i>Pic</i>	ea rubens)	5/10	50	FACU				
balsam fir (Abie		5/10	50	FAC				
Shrubs:	, bullattica j	0,10	00	17.0				
balsam fir (Abie	es balsamea)	35/44	80	FAC				
red spruce (Pic		5/44	11					
	h (Fagus grandifolia)	3/44	7					
red maple (Ace		1/44	2					
Herbs:								
	d fern (Dryopteris intermedia)	15/86	17					
	Lycopodium annotinum)	65/86	76	FACU				
	ornus canadensis)	5/86	6					
Three-leaved g	oldthread (Coptis trifolia)	1/86	1					
Noto 1: Lleo actoria	k * to indicate plants with adaptations to wetland hydrology.							
Plants reco	rded with asterisks should be considered as "other hydrophyte h NA or NI status are reported, but are not calculated in the tal		ow.					
	000 ACW FAC OTHER HYDROPHYTES Hydrophytes Subtotal: _4	0 FAC- Non-hyd	3 FACU rophytes Subtotal:	-				
0	100 x Subtotal Hydrophytes =		= Perce	nt Hydrophytes				
	ubtotal Hydrophytes + Subtotal Non-Hydrophytes							
Describe Vegetation	Disturbance: no disturbance observed							
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: Other Identification: Other Identification: OBSERVATIONS: Depth to Free Water: no free water observed Depth to Saturation (including capillary fringe): soil not saturated Altered Hydrology (explain): no altered hydrology Innundated □ Saturated in upper 12" □ Water Marks □ Drift Lines □ Sediment Deposits 								
	s within Wetland OTHER (explain):							



SOIL	Sketch Landscape Position				
Depth	Horizon	Matrix Color	Redoximorphic Color, Abundance, S	Features	USDA Texture and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
5"-0"	Oe				moderately decomposed
0"-4"	B1	7.5YR 4/4			fine sandy loam
4"-8"	B2	2.5Y 5/4			fine sandy loam
8"	refusal				
HYDRIC SOIL I	NDICATOR(S):	non-hydric			
		dric Soils Technical Control Commissi		d., Field Indicato	rs for Identifying Hydric Soils in New England. New
OPTIONAL SOIL	DATA:				
TAXONOMIC S SOIL DRAINAG DEPTH TO ACT NTCHS HYDRI	E CLASS: TIVE WATER TA				
CONCLUSION					
		YES NO	1		
Greater than 5	50% Hydrophy	tes?⊠ □			
Hydric Soils C	riterion Met?			IS THIS DA	TAPOINT WITHIN A WETLAND?
Wetland Hydrology Met?					YES NO
		REMARKS	:		
PROJECT TIT Bowers Wind			RANSECT: MAE		PLOT: 1 - Upland
		02			



Project Title: Bowers Wind Project Transect Number: W137 (02MAE) Plot Number: 2-Wetland							
Delineators: MP	A Date: 11/17/2	2009					
VEGETATION	Stratum and Species	Dominance Ratio	Percent Dominance	NWI Status			
Trees:							
balsam fir (Abie		3/10	30	FAC			
	etula alleghaniensis)	1/10	10				
red maple (Ace	/	5/10	50	FAC			
red spruce (Pic	ea rubens)	1/10	10				
Poles:		2/6	50				
red spruce (Pic		3/6	50	FACU			
balsam fir (<i>Abie</i> Shrubs:	es baisamea)	3/6	50	FAC			
balsam fir (Abie	s halsamaa)	20/33	61	FAC			
red spruce (Pic	1	3/33	9				
speckled alder	·	10/33	30	FACW+			
Herbs:		10/33					
tussock sedge	(Carex stricta)	80/98	82	OBL			
· · · · · · · · · · · · · · · · · · ·	ry (Rubus hispidus)	15/98	15				
balsam fir (Abie		3/98	3				
Plants reco	k * to indicate plants with adaptations to wetland hydrology. rded with asterisks should be considered as "other hydrophy th NA or NI status are reported, but are not calculated in the		DW.				
1 OBL F/	1 _4 _0 ACW FAC OTHER HYDROPHYTES Hydrophytes Subtotal: _6_		1 FACU rophytes Subtotal	0 UPL : _1			
-	100 x Subtotal Hydrophytes	=86	= Perce	nt Hydrophytes			
	ubtotal Hydrophytes + Subtotal Non-Hydrophytes						
Describe Vegetation	Disturbance: no disturbance observed						
 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:							
Altered Hyd □ Inundated ⊠ \$	 Depth to Saturation (including capillary fringe):soil saturated at the soil surface Altered Hydrology (explain):no altered hydrology Inundated IMI Saturated in upper 12" Water Marks Drainage Patterns within Wetland OTHER (explain): Water Marks Sediment Deposits 						



SOIL	SOIL Sketch Landscape Position				
Depth	Horizon	Matrix Color	Redoximorphic Color, Abundance, Siz	Features ze & Contrast	USDA Texture and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
20"-0"	Oa				
0"-4"	O/A	2.5Y 2.5/1			
4"-14"	В	2.5Y 5/2			silt loam
14"+	С	Gley 2 4/5PB			loamy clay
HYDRIC SOIL I	NDICATOR(S):	III. Histosol / Natio	onal Indicator A1		
REFERENCE	New England Hyd	dric Soils Technical	Committee 2004 3 rd ed	Field Indicato	rs for Identifying Hydric Soils in New England. New
England Interstate	e Water Pollution	Control Commissio	n, Lowell, MA.	., Field Indicalo	rs for identifying flyanc sous in new England. New
OPTIONAL SOIL	DATA:				
TAXONOMIC S					
SOIL DRAINAG					
NTCHS HYDRI					
CONCLUSION	NS				
_		YES NO			
Greater than 5	50% Hydrophy				
Hydric Soils C	riterion Met?			IS THIS DAT	TAPOINT WITHIN A WETLAND?
Wetland Hydro	ology Met?	\mathbf{X} \Box			YES NO
					\mathbf{X} \Box
				REMARKS:	
PROJECT TIT			ANSECT: MAE		PLOT: 2 - Wetland
Bowers Wind	FIUJECL	011			



Project Title: Bowers Wind Project Transect Number: W161 (01RLF) Plot Number: 1 - Upland						
Delineators: MJ	G, REL Date: 11/11/200	09				
VEGETATION	Stratum and Species	Dominance	Percent			
Tracal		Ratio	Dominance	NWI Status		
Trees:	h (Eagus grandifalia)	3/8	38	FACU		
red maple (Ace	h (Fagus grandifolia) r ruhrum)	3/8	38	FAC		
	etula alleghaniensis)	1/8	12.5			
gray birch (Bett		1/8	12.5			
Poles:			12.0			
	h (Fagus grandifolia)	50/68	74	FACU		
	etula alleghaniensis)	15/68	22	FAC		
red spruce (Pic		3/68	4			
Shrubs:						
American beec	h (<i>Fagus grandifolia</i>)	20/31	65	FACU		
	etula alleghaniensis)	5/31	16			
Eastern hemloo	k (Tsuga canadensis)	5/31	16			
red spruce (Pic	ea rubens)	1/31	3			
Seedlings and						
	moss (Dendrolycopodium dendroideum)	5/9	56	FACU		
	d fern (Dryopteris intermedia)	1/9	11			
red spruce (Pic	ea rubens)	3/9	33	FACU		
Note 1: Use asteris Plants reco	k * to indicate plants with adaptations to wetland hydrology. rded with asterisks should be considered as "other hydrophyte	es" in the tally he	low			
	h NA or NI status are reported, but are not calculated in the ta					
	000	0	5_	0		
OBL FA	CW FAC OTHER HYDROPHYTES Hydrophytes Subtotal: _2_	FAC-	FACU drophytes Subtota	_		
		-		ent Hydrophytes		
Su	<u>100 x Subtotal Hydrophytes</u> ibtotal Hydrophytes + Subtotal Non-Hydrophytes	=2	9 = Perc	ent Hydrophytes		
	Disturbance: recent logging activity					
December vegetation						
HYDROLOGY 1.	Hydrology is often the most difficult feature to observe.					
2.	Interpretation must consider the validity of the observation in light c alterations, etc.	of the season, rece	nt weather condition	s, watershed		
3.	Interpretation of hydrology may require repeated observations over	more than one se	ason.			
	D DATA					
Stream, lak	e, or tidal gage Identification:					
Aerial photography Identification: Other Identification:						
	RDED DATA					
	I OBSERVATIONS:					
Depth to Fr	Depth to Free Water:no free water observed Depth to Saturation (including capillary fringe):soils not saturated					
Altered Hyd	Irology (explain):no altered hydrology	~				
 Inundated Drainage Pattern 	aturated in upper 12"	Seament Depo	รแร			
						



SOIL	Sketch Landscape Position				
Depth	Horizon	Matrix Color	Redoximorphic Color, Abundance, S		USDA Texture and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
4"-0"	Oi				
0"-15"+	В	10YR 4/6			fine sandy loam
HYDRIC SOIL I	NDICATOR(S):	non-hydric			
		dric Soils Technical Control Commissio		d., Field Indicato	rs for Identifying Hydric Soils in New England. New
Eligiand Interstat		Control Commissio	n, Lowen, MA		
OPTIONAL SOIL	DATA				
TAXONOMIC S					
SOIL DRAINAG	GE CLASS:				
NTCHS HYDRI					
CONCLUSION	NS				
		YES NO tes?□ ⊠			
Greater than 5					
Hydric Soils C				IS THIS DAT	TAPOINT WITHIN A WETLAND?
Wetland Hydro	ology Met?				YES NO
				REMARKS:	
PROJECT TIT	TLE:	TR	ANSECT:		PLOT:
Bowers Wind	Project	011	RLF		1 - Upland
					1900



Project Title: Bo	Project Title: Bowers Wind Project Transect Number: W161 (01RLF) Plot Number: 2-Wetland					
Delineators: MJ	G, REL Date: 11/11/200	09				
VEGETATION	Stratum and Species	Dominance Ratio	Percent Dominance	NWI Status		
Tree:						
red maple (Ace		1/3	33	FAC		
Pole:	k (Tsuga Canadensis)	2/3	66	FACU		
red maple (Ace	er rubrum)	5/5	100	FAC		
red spruce (Pic	ea rubens)	20/20	100	FACU		
Seedlings and	,					
	(Osmunda cinnamomea)	30/90	33	FAC		
	arex canescens)	50/90	56	OBL		
eastern rough s	sedge (Carex scabrada)	10/90	11			
Plants reco Note 2: Species wit	k * to indicate plants with adaptations to wetland hydrology. rded with asterisks should be considered as "other hydrophyte th NA or NI status are reported, but are not calculated in the ta	Illy below.				
	030_ ACW FAC OTHER HYDROPHYTES Hydrophytes Subtotal:4	0 FAC- Non-hyd	2 FACU drophytes Subtotal			
Sı	100 x Subtotal Hydrophytes = ubtotal Hydrophytes + Subtotal Non-Hydrophytes	=67_	= Perce	ent Hydrophytes		
Describe Vegetation	Disturbance: recent logging activity					
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:						
	aturated in upper 12" u Water Marks u Drift Lines u s within Wetland u OTHER (explain):	Sediment Depos	sits			



SOIL	

Sketch Landscape Position

Depth	Horizon	Matrix Col		orphic Features ance, Size & Contrast	USDA Texture and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
3"-0"	Oa	5YR 2.5/	1		sapric
0-8"	А	2.5Y 3/2			loam
8"- 15"	В	2.5Y 6/2	7.5YR 4/3 medium, o	,	Silt loam
15"	refusal				
HYDRIC SOIL I	NDICATOR(S)	VI Depleted (or Gleved Matrix / N	lational Indicator F3	
REFERENCE: 1	New England Hyd	dric Soils Techr	-		ors for Identifying Hydric Soils in New England. New
OPTIONAL SOIL	DATA				
TAXONOMIC S SOIL DRAINAG DEPTH TO AC	SUBGROUP: GE CLASS: TIVE WATER TA				
NTCHS HYDRI CONCLUSION		RION:			
		YES	NO		
Greater than 5	50% Hydrophy	tes?X			
Hydric Soils C					TAPOINT WITHIN A WETLAND?
-					
Wetland Hydro	ology Met?				YES NO
				REMARKS:	
			TRANOFOT		DLOT
PROJECT TIT Bowers Wind			TRANSECT: 01RLF		PLOT: 2-Wetland
					STA



Project Title: B	owers Wind Project Transect Nu	mber: W177 (01RLJ) Plot Number: 1 - Upland			
Delineators: MJ	G, REL Date: 11/11/2	2009			
VEGETATION	Stratum and Species	Dominance Ratio	Percent Dominance	NWI Status	
Trees:		4/0	= 0	= 1.0	
· ·	etula alleghaniensis)	1/2	50	FAC	
red maple (Ace	er rubrum)	1/2	50	FAC	
Poles:		4/4	100	FAOL	
red spruce (Pic	ea rubens)	1/1	100	FACU	
Shrubs:	etule ellesteriencie)	00/400	50		
	etula alleghaniensis)	60/108	56	FAC	
red maple (Ace	,	20/108	<u> </u>		
red spruce (Pic		10/108	9		
balsam fir (Abie Herbs:	es baisamea)	10/106	9		
	Onoclea sensibilis)	1/1	100	FACW	
Plants reco	k * to indicate plants with adaptations to wetland hydrology. rded with asterisks should be considered as "other hydrophy th NA or NI status are reported, but are not calculated in the		ow.		
0 OBL F/	ACW FAC OTHER HYDROPHYTES Hydrophytes Subtotal:4_		1 FACU rophytes Subtotal		
_	100 x Subtotal Hydrophytes	=80	= Perce	ent Hydrophytes	
Si	ubtotal Hydrophytes + Subtotal Non-Hydrophytes				
Describe Vegetation	Disturbance: recent logging activity				
 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:					
Altered Hyd	drology (explain):no altered hydrology aturated in upper 12" □ Water Marks □ Drift Lines is within Wetland □ OTHER (explain):				



SOIL	SOIL Sketch Landscape Position				
	1		1	1	
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.	
0"-2"	Bh	7.5YR 4/6		Loamy sand	
2"-16"	В	10YR 5/8		Loamy fine sand	
16"-19"	С	2.5Y 6/4		Loamy sand somewhat firm	
HYDRIC SOIL I		non hydric			
		dric Soils Technical Control Commission		ors for Identifying Hydric Soils in New England. New	
England Interstat		Control Commission	ni, Lowen, MA		
OPTIONAL SOIL	DATA:				
TAXONOMIC S					
SOIL DRAINAG	BE CLASS:				
DEPTH TO AC NTCHS HYDRI					
CONCLUSION					
		YES NO			
Greater than 5	50% Hydrophy	rtes?⊠ □			
Hydric Soils Criterion Met?			IS THIS DA	TAPOINT WITHIN A WETLAND?	
Wetland Hydrology Met?				YES NO	
		REMARKS:			
PROJECT TIT	LE:	TR	ANSECT:	PLOT:	
Bowers Wind			RLJ	Upland	
				Se	



Project Title: Bowers Wind Project Transect Number: W177 (01RLJ) Plot Number: 2-Wetland					
Delineators: MJ	G, REL Date: 11/12/20	009			
VEGETATION	Stratum and Species	Dominance Ratio	Percent Dominance	NWI Status	
Trees:					
red spruce (Pic	ea rubens)	2/2	100	FACU	
Poles:	noo ruhana)	5/6	0.2	FACU	
red spruce (Pic gray birch (Bet	/	5/6 1/6	<u>83</u> 17	FACU	
Shrubs:		170	17		
red spruce (Pic	ea rubens)	10/13	77	FACU	
	etula alleghaniensis)	2/13	15		
balsam fir (Abie	• /	1/13	8		
Seedlings and	Herbs:				
fowl mannagras	ss (Glyceria striata)	50/105	48	OBL	
1	ss (Glyceria xlaxa)	30/105	29	OBL	
	edge (Scirpus cyperinus)	10/105	10		
cinnamon fern	(Osmunda cinnamomea)	15/105	14		
Plants reco Note 2: Species wit	k * to indicate plants with adaptations to wetland hydrology. rded with asterisks should be considered as "other hydrophyte th NA or NI status are reported, but are not calculated in the tar	ally below.			
	000 ACW FAC OTHER HYDROPHYTES Hydrophytes Subtotal: _2	0 FAC- Non-hydi	3 FACU rophytes Subtotal	0 UPL :3	
	100 x Subtotal Hydrophytes ubtotal Hydrophytes + Subtotal Non-Hydrophytes Disturbance: recent logging activity	=40	= Perce	ent Hydrophytes	
 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 Aerial photography Other NO RECORDED DATA ☑ OBSERVATIONS: Identification: 					
Depth to Sa	ree Water:no free water observedsoil saturated at m aturation (including capillary fringe):soil saturated at m drology (explain):no altered hydrology	nineral soil surface	<u></u>		
 □ Inundated ⊠Sa □ Drainage Pattern 	aturated in upper 12" □ Water Marks □ Drift Lines □ s within Wetland □ OTHER (explain):	Sediment Deposi	ts		



SOIL	Sketch Landscape Position				
	Ι				
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.	
16"+	Oa				
		III. Histosols / Nat			
		dric Soils Technical Control Commissio		ors for Identifying Hydric Soils in New England. New	
OPTIONAL SOIL	. DATA:				
TAXONOMIC S					
SOIL DRAINAG	GE CLASS: TIVE WATER TA	ARI E'			
NTCHS HYDRI	IC SOIL CRITER				
CONCLUSIO	NS	YES NO			
Greater than I	50% Hydrophy				
Hydric Soils C			IS THIS DA	TAPOINT WITHIN A WETLAND?	
Wetland Hydr	ology Met?	\mathbf{X} \Box		YES NO	
growing in we	tlands, and wit	h strong hvdric s		Red spruce (Picea rubens) is often found tors, it was determined through best	
		this area is a we			
PROJECT TI	TI F [.]	TR	ANSECT:	PLOT:	
Bowers Wind			RLJ	2-Wetland	
				STA	



Project/Site: 195600522/ Bowers			City/County: Carroll Plt / Penobscot Sampling Date: 9/						
Applicant/Owner:				State: ME	Sampling Point: W209 (01aak)				
Investigator(s): ATA, EDB	Sec	tion, Township, Range:							
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none):							
Slope (%): Lat:	Long: Datum:								
Soil Map Unit Name:			NWI Classification:						
Are climatic/hydrologic conditions on the site typical for this time of year? Yes 🗌 No 🗌 (If no, explain in remarks)									
Are Vegetation □, Soil □, or Hydrology □ significantly disturbed?			Are "Normal Circumstances" present? Yes 🗌 No 🗌						
Are Vegetation , Soil , or Hydrology na	(If nee	(If needed, explain any answers in Remarks)							
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.									
Hydrophytic Vegetation Present?	Yes 🛛 No 🗌	Is the	Sampled Area						
Hydric Soil Present?	Yes 🗌 No 🛛	Withir	No 🖂						
Wetland Hydrology Present? Yes 🗌 No 🖂 If yes, optional				al Wetland Site ID:					
Remarks (Explain alternative procedures here or in a separate report):									
HYDROLOGY									
Wetland Hydrology Indicators:			Secondary Indica	tors (minimum of two required)					
Primary Indicators (minimum of one is required		Surface Soil Cracks (B6)							
Surface Water (A1)	Water-Stained Leaves	(B9)		Drainage Patterns (B10)					
High Water Table (A2)	🗌 Aquatic Fauna (B13)			Moss Trim Lin					
Saturation (A3)	Marl Deposits (B15)			Dry-Season Water Table (C2)					
Water Marks (B1)	Hydrogen Sulfide Odor (C1)			Crayfish Burrows (C8)					
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)			Saturation Vis	ible on Aerial Imagery (C9)				
Drift Deposits (B3)	Presence of Reduced Iron (C4)				essed Plants (D1)				
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)			Geomorphic P					
Iron Deposits (B5)	Thin Muck Surface (C7)			Shallow Aquitard (D3)					
Inundation Visible on Aerial Imagery (B7)				Microtopograp	hic Relief (D4)				
Sparsely Vegetated Concave Surface (B8)									
Field Observations:									
Surface Water Present? Yes	No🖾 Depth (Inches):								

Wetland Hydrology Present? Yes □ No⊠

Northcentral and Northeast Region - Interim Version

Yes ☐ No⊠ Depth (Inches):

Yes I No Depth (Inches):

Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

Water Table Present?

(includes capillary fringe)

US Army Corps of Engineers

Remarks: no wetland hydrology observed

Saturation Present?

Tree Stratum (Plot size: 30')	Absolute <u>%</u> <u>Cover</u>	Dominant Species?	Indicator <u>Status</u>	Dominance Test worksheet:			
1. Betula alleghaniensis	25	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)			
2. Acer rubrum	30	Yes	FAC				
3. Tsuga canadensis	50	Yes	FACU	Total Number of Dominant Species Across All Strata: 7 (B)			
4. F							
5. 6.				Percent of Dominant Species			
7.				That Are OBL, FACW, or FAC: 57 (A/B)			
1.	105	= Total Cov	er	Prevalence Index worksheet:			
				Total % Cover of: Multiply by:			
Sapling/Shrub Stratum (Plot size: 15')				OBL Species x 1 =			
1. Betula alleghaniensis	30	Yes	FAC	FACW Species x 2 =			
2. Acer pennsylvanicum	20	Yes	FACU	FAC Species x 3 =			
3. Fagus grandifolia	10	No	FACU	FACU Species x 4 =			
4. Prunus pennsylvanica	15	No	FACU	UPL species x 5 =			
5.				Column Totals (A) (B)			
6.				Prevalence Index = B/A =			
7.				Hydrophytic Vegetation Indicators:			
	75	= Total Cov	er	Rapid Test for Hydrophytic Vegetation			
Horb Stratum (Plot size: 5')				Dominance Test is > 50%			
Herb Stratum (Plot size: 5')				Prevalence Index is $\leq 3.0^1$			
1. Dryopteris intermedia	2	Yes	FACU	Morphological Adaptations ¹ (Provide supporting			
2. Rubus ideaus	5	Yes	FAC	data in Remarks or on a separate sheet)			
3. Acer saccharum	1	No	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)			
4. Acer pennsylvanicum	1 1	No	FACU FACW	¹ Indicators of hydric soil and wetland hydrology must be			
 Fraxinus pennsylvanicum 6. 	I	No	FACW	present, unless disturbed or problematic.			
7.				Definitions of Vegetation Strata:			
8.				Tree – Woody plants 3 in. (76 cm) or more in diameter (DBH), regardless of height.			
9. 10.				Sapling/shrub – Woody plants less than 3 in. DBH and			
11.				greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of			
12.	10			size, and woody plants less than 3.28 ft tall.			
	10	= Total Cov	er	Woody vines – All woody vines greater than 3.28 ft in height.			
Woody Vine Stratum (Plot size:)							
1.							
2.							
3.				Hydrophytic			
4.				Vegetation			
		= Total Cover		Present? Yes 🛛 No 🗌			
Remarks (Include photo numbers here or on a separate sheet.):							

US Army Corps of Engineers

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):										
Dauth	Matrix		Redox Features							
Depth (Inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
6-5							dry duff			
5-3							Oi			
3-0							Oe			
025	2.5Y 5/3						loam	refusal @ basal till		
¹ Type: C=Cor	ncentration, D=Dep	oletion, RI	M=Reduced Matrix	, CS=Covere	ed or Coated	Sand Grai	ns. ² Location	: PL=Pore Lining, M=Matrix.		
Hydric Soil I	ndicators:						Indicators for P	roblematic Hydric Soils ³ :		
□ Histosol (A1) □ Polyvalue Below Surface (S8) (LRR R, MLRA □							2 cm Muck (A	2 cm Muck (A10) (LRR K, L, MLRA 149B)		
								Coast Prairie Redox (A16) (LRR, K, L, R)		
							5 cm Mucky Peat or Peat (S3) (LRR K, L, R)			
							Dark Surface (S7) (LRR K, L)			
						•	Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)			
— .							Iron-Manganese Masses (F12) (LRR K, L, R)			
						_ 0	Piedmont Floodplain Soils (F12) (MLRA 149 B)			
							Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
						· ·	Red Parent Material (TF2)			
								Very Shallow Dark Surface (TF12)		
							•	Other (Explain in Remarks)		
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.										
Restrictive L	ayer (if observed)):								
Type: basa	l till									
Depth (incl	nes): 0.25						Hydric Soi	I Present? Yes 🗌 No⊠		
Remarks: Soil profile almost meets Indicator A1 for Histosol, but for the thin layer of mineral soil below the organic layer.										

US Army Corps of Engineers

Project/Site: 195600522		City/County: Carroll F	Plt / Penobscot	Sampling Date: 9/14/2010	
Applicant/Owner:			State: ME	Sampling Point: W209 (01aak)	
Investigator(s): ATA / EDB	Sec	ction, Township, Range	:		
Landform (hillslope, terrace, etc.):		Local relief (concave,	convex, none):		
Slope (%): Lat:		Long:	D	atum:	
Soil Map Unit Name:			NWI Classifica	tion:	
Are climatic/hydrologic conditions on the site ty	voical for this time of year?	(es⊠No∏ (lf no exr	olain in remarks)		
Are Vegetation _, Soil _, or Hydrology _ sig	. ,	Are "Normal Circums	,		
			·		
Are Vegetation , Soil , or Hydrology na	iturally problematic?	(If needed, explain ar	iy answers in Rem	arks)	
SUMMARY OF FINDINGS – Attach s	ite map showing sam	pling point locati	ons, transects	s, important features, etc.	
Hydrophytic Vegetation Present?	Yes 🛛 No 🗌	Is the Sampled Area	1		
Hydric Soil Present?	Yes 🛛 No 🗌	Within a wetland?		No 🗌	
Wetland Hydrology Present?	Yes 🛛 No 🗌	If yes, optional Wetlar	nd Site ID: 01aak		
Remarks (Explain alternative procedures here	or in a separate report):	I			
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Indica	ators (minimum of two required)	
Primary Indicators (minimum of one is required	; check all that apply)		Surface Soil C	Cracks (B6)	
Surface Water (A1)	Water-Stained Leaves	(B9)	🗌 Drainage Patt	erns (B10)	
High Water Table (A2)	🗌 Aquatic Fauna (B13)		🗌 Moss Trim Lin	nes (B16)	
Saturation (A3)	Marl Deposits (B15)		Dry-Season V	Vater Table (C2)	
🖾 Water Marks (B1)	Hydrogen Sulfide Odor	(C1)	Crayfish Burrows (C8)		
Sediment Deposits (B2)	Oxidized Rhizospheres	on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)	Presence of Reduced I	ron (C4)	Stunted or Str	ressed Plants (D1)	
Algal Mat or Crust (B4)	Recent Iron Reduction	in Tilled Soils (C6)	n Tilled Soils (C6) Geomorphic Position (D2)		
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquit	ard (D3)	
□ Inundation Visible on Aerial Imagery (B7)	Other (Explain in Rema	arks)	Microtopograp		

Inundation Visible on Aerial Imag	ery (B7) Other (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Su	rface (B8)	FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present?	Yes 🖾 No 🗌 Depth (Inches): 1"	
Water Table Present?	Yes 🖾 No 🗌 Depth (Inches): 0"	
Saturation Present? (includes capillary fringe)	Yes 🛛 No 🗌 Depth (Inches): 0"	Wetland Hydrology Present? Yes ⊠ No⊡
Describe Recorded Data (stream gu	age, monitoring well, aerial photos, previous ir	ispections), if available:
Remarks:		

US Army Corps of Engineers

Tree Stratum (Plot size: 30')	Absolute <u>%</u> <u>Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet:	
1. Tsuga canadensis	25	Yes	UPL	Number of Dominant Species	
2. Betula alleghaniensis	35	Yes	FAC	That Are OBL, FACW, or FAC: 6	6 (A)
3. Abies balsamea	10	No	FAC	Total Number of Dominant	
4. Acer rubrum	10	No	FACW	Species Across All Strata: 7	7 (B)
5. 6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 8	36 (A/B)
7.				Prevalence Index worksheet:	
	80	= Total C	/e	Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')					< 1 =
1. Betula alleghaniensis	25	Yes	FAC		< 2 =
2. Abies balsamea	10	Yes	FAC		< 3 =
3. Acer spicatum	5	No	FACU		< 4 =
4. Fraxinus pennsylvanica	2	No	FACW	UPL species	< 5 =
5.	-			Column Totals (A)	(B)
6.				Prevalence Index = B/A	.=
7.				Hydrophytic Vegetation Indicators	5:
	42	= Total Cov	rer	Rapid Test for Hydrophytic Veg	getation
				Dominance Test is > 50%	
Herb Stratum (Plot size: 5')				Prevalence Index is $\leq 3.0^1$	
1. Impatiens capensis	40	Yes	FACW	Morphological Adaptations ¹ (Pr	
2. Chrysosplenium americanum	50 50	Yes	OBL		
3. Hydrocotyle americana	50 05	Yes	OBL	Problematic Hydrophytic Veget	tation ¹ (Explain)
4. Scutellaria laterifolia	25 10	No	FACW	¹ Indicators of hydric soil and wetland	
 Oclemena acuminata Carex trisperma 	5	No No	OBL	present, unless disturbed or problem	natic.
7. Epilobium ciliatum	2	No	FAC	Definitions of Vegetation Strata:	
8.	L	110	1710	Tree – Woody plants 3 in. (76 cm) or (DBH), regardless of height.	r more in diameter
9. 10.				Sapling/shrub – Woody plants less	than 3 in. DBH and
11.				greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody)	plants regardless of
12.				size, and woody plants less than 3.2	8 ft tall.
	182	= Total Cov	er	Woody vines – All woody vines great height.	ater than 3.28 ft in
Woody Vine Stratum (Plot size:)					
1.					
2.					
3.				Hydrophytic	
4.				Vegetation	
		= Total Cov	ver	Present? Yes 🛛 No 🗌	
Remarks (Include photo numbers here or on a	separate sheet	.):			

US Army Corps of Engineers

	Matrix			Redox Fea	tures					
Depth (Inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
20							organic	refusal below O horizon		
¹ Type: C=Cor	centration, D=Dep	oletion, R	M=Reduced Matrix	, CS=Covere	d or Coated	Sand Grai	ns. ² Location:	PL=Pore Lining, M=Matrix.		
Hydric Soil I	ndicators:						Indicators for Pr	oblematic Hydric Soils ³ :		
Histosol (A	,		Polyvalue Be	low Surface (S8) (LRR R	, MLRA	,	10) (LRR K, L, MLRA 149B)		
Histic Epip	· · ·		149B) ☐ Thin Dark Su	face (S0) (I		A 140B)		Coast Prairie Redox (A16) (LRR, K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)		
	. ,		Loamy Muck			,		Dark Surface (S7) (LRR K, L)		
Stratified L	. ,		Loamy Gleye	•				Polyvalue Below Surface (S8) (LRR K, L)		
	Below Dark Surfac	e (A11)	Depleted Mat	· · /			•	Thin Dark Surface (S9) (LRR K, L)		
	Surface (A12)	()	Redox Dark S	. ,				Iron-Manganese Masses (F12) (LRR K, L, R)		
Sandy Mu	cky Mineral (S1)		Depleted Dar	k Surface (F	6)			odplain Soils (F19) (MLRA 149 B)		
Sandy Gle	yed Matrix (S4)		Redox Depre	ssions (F8)			Mesic Spodic	(TA6) (MLRA 144A, 145, 149B)		
Sandy Re	dox (S5)						Red Parent M	aterial (TF2)		
Stripped N	, ,						•	Dark Surface (TF12)		
Dark Surfa	ice (S7) (LRR R, I	ILRA 149	9B)				Other (Explain	n in Remarks)		
³ Indicators of	hydrophytic veget	ation and	wetland hydrology	must be pres	sent, unless	disturbed o	or problematic.			
Restrictive L	ayer (if observed):								
Type: rock	or ledge									
Depth (incl	nes): 20"						Hydric Soil	Present? Yes 🛛 No 🗌		

US Army Corps of Engineers

Project/Site: 195600522 / Bowers		City/County: Carroll F	Plt / Penobscot	Sampling Date: 8/3/2010
Applicant/Owner:			State: ME	Sampling Point: W288 (10mai)
Investigator(s): MPA	Sec	ction, Township, Range	:	
Landform (hillslope, terrace, etc.):		Local relief (concave,	convex, none):	
Slope (%): Lat:		Long:	Da	atum:
Soil Map Unit Name:			NWI Classificat	tion:
Are climatic/hydrologic conditions on the site th	vpical for this time of vear?	Yes ⊠ No 🗍 (If no. exi	olain in remarks)	
Are Vegetation , Soil , or Hydrology si		Are "Normal Circums	,	′es ⊠ No □
Are Vegetation [], Soil [], or Hydrology [] na		(If needed, explain ar	-	
				,
SUMMARY OF FINDINGS – Attach s	ite map showing sam	pling point locati	ons, transects	, important features, etc.
Hydrophytic Vegetation Present?	Yes 🛛 No 🗌	Is the Sampled Area	I	
Hydric Soil Present?	Yes 🗌 No 🖂	Within a wetland?	Yes 🗌	No 🖂
Wetland Hydrology Present?	Yes 🗌 No 🖂	If yes, optional Wetland Site ID:		
Remarks (Explain alternative procedures here	or in a separate report):	I		
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum of one is required	d; check all that apply)		Surface Soil C	racks (B6)
Surface Water (A1)	Water-Stained Leaves	(B9) Drainage Patterns (B10)		
High Water Table (A2)	🗌 Aquatic Fauna (B13)		🗌 Moss Trim Lin	es (B16)
Saturation (A3)	Marl Deposits (B15)		🗌 Dry-Season W	/ater Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor	(C1)	Crayfish Burrows (C8)	
Sediment Deposits (B2)	Oxidized Rhizospheres	on Living Roots (C3)	Saturation Visi	ible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced I	ron (C4)	Stunted or Stre	essed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction	in Tilled Soils (C6)	Geomorphic P	osition (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquita	ard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remaining Content of Co	arks)	Microtopograp	hic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-Neutral T	est (D5)

Inundation Visible on Aerial Imag	ery (B7) Other (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Sur	face (B8)	FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present?	Yes 🗌 No🛛 Depth (Inches):	
Water Table Present?	Yes 🗌 No🖾 Depth (Inches):	
Saturation Present? (includes capillary fringe)	Yes 🗌 No🛛 Depth (Inches):	Wetland Hydrology Present? Yes 🗌 No🖂
Describe Recorded Data (stream gu	age, monitoring well, aerial photos, previous i	nspections), if available:
Remarks: no wetland hydrology obse	erved	

US Army Corps of Engineers

Tree Stratum (Plot size: 30')	Absolute <u>%</u> <u>Cover</u>	Dominant Species?	Indicator <u>Status</u>	Dominance Test worksheet:
1. Abies balsamea	20	Yes	FAC	Number of Dominant Species
2. Acer rubrum	20	Yes	FAC	That Are OBL, FACW, or FAC: 5 (A)
3. Acer saccarum	15	No	FACU	Total Number of Dominant
4.				Species Across All Strata: 7 (B)
5.				Percent of Dominant Species
6.				That Are OBL, FACW, or FAC: 71 (A/B)
7.				Prevalence Index worksheet:
	55	= Total Cov	er	Total % Cover of: Multiply by:
Sopling/Shrub Stratum (Diataiza: 15)				
Sapling/Shrub Stratum (Plot size: 15')				OBL Species x 1 =
1. Betula alleghaniensis	5	No	FAC	FACW Species x 2 =
2. Carpinus caroliniana	15	Yes	FAC	FAC Species x 3 =
3. Abies balsamea	10	Yes	FAC	FACU Species x 4 =
4. Acer rubrum	15	Yes	FAC	UPL species $x 5 =$
5. Betula populifolia	5	No	FAC	Column Totals (A) (B)
6.				Prevalence Index = B/A =
7.				Hydrophytic Vegetation Indicators:
	50	= Total Cov	er	Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5')				Dominance Test is > 50%
			54.011	Prevalence Index is $\leq 3.0^1$
1. Pteridium aquilinium	60	Yes	FACU	Morphological Adaptations ¹ (Provide supporting
 Dennstaedtia punctilobula Maianthemum canadense 	20 10	Yes No	FACU FAC	data in Remarks of on a separate sheet)
4.	10	NU	TAC	Problematic Hydrophytic Vegetation ¹ (Explain)
 5.				¹ Indicators of hydric soil and wetland hydrology must be
6.				present, unless disturbed or problematic.
7.				Definitions of Vegetation Strata:
8.				Tree – Woody plants 3 in. (76 cm) or more in diameter (DBH), regardless of height.
9. 10.				Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
11.				Herb – All herbaceous (non-woody) plants, regardless of
12.	90	= Total Cov	er	size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in
				height.
Woody Vine Stratum (Plot size:)				
1.				
2.				
3.				Hydrophytic
4.		= Total Cov	er	Vegetation Present? Yes ⊠ No □
Pomarka (Include abote numbers bars or er er	oparata cha-t).		<u> </u>
Remarks (Include photo numbers here or on a s	separate sneet	.).		

US Army Corps of Engineers

Derth	Matrix			Redox Fea	atures					
Depth (Inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
2-0							organic			
0-1	2.5Y 2/2	100					loam			
1-3	10YR 3/4	100					fine sandy Ioam			
3-5	10YR 4/4	90	2.5Y 6/4	10	D		silt loam			
5-10	10YR 5/6	100					loamy sand	refusal @ 10"		
Type: C=Co	ncentration, D=Dep	oletion, R	M=Reduced Matrix	, CS=Cover	ed or Coated	Sand Grai	ns. ² Locatior	n: PL=Pore Lining, M=Matrix.		
lydric Soil I	ndicators:						Indicators for F	Problematic Hydric Soils ³ :		
Histosol (/	,		Polyvalue Be 149B)	low Surface	(S8) (LRR R	, MLRA	•	A10) (LRR K, L, MLRA 149B) Redox (A16) (LRR, K, L, R)		
Black Hist	. ,		Thin Dark Su	. , .	•	,		5 cm Mucky Peat or Peat (S3) (LRR K, L, R)		
	Sulfide (A4)		Loamy Mucky)		Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L)		
Stratified I	₋ayers (A5) Below Dark Surface	o (A11)	Loamy Gleye Depleted Material	•)		•	Thin Dark Surface (S9) (LRR K, L)		
•	selow Dark Surface	e (ATT)	Redox Dark S	. ,				Inin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R)		
	cky Mineral (S1)		Depleted Dar	()				Piedmont Floodplain Soils (F12) (LRR K, L, R)		
	eyed Matrix (S4)		Redox Depre		-,			c (TA6) (MLRA 144A, 145, 149B)		
							· ·	Red Parent Material (TF2)		
; (),							Very Shallow	Very Shallow Dark Surface (TF12)		
Dark Surface (S7) (LRR R, MLRA 149B)							Other (Explai	in in Remarks)		
Indicators of	hydrophytic vegeta	ation and	wetland hydrology	must be pre	esent, unless	disturbed of	or problematic.			
Restrictive L	ayer (if observed)):								
Type: firm	layer									
Depth (incl	nes): 10"						Hydric Soi	il Present? Yes 🗌 No 🛛		
							1			

US Army Corps of Engineers

Project/Site: 195600522 / Bowers		City/County: Carroll P	lt / Penobscot	Sampling Date: 8/3/2010	
Applicant/Owner:			State: ME	Sampling Point: W288 (10mai)	
Investigator(s): MPA	Sec	ction, Township, Range:			
Landform (hillslope, terrace, etc.):		Local relief (concave,	convex, none):		
Slope (%):	Lat:	Long:	D	atum:	
Soil Map Unit Name:			NWI Classifica	ition:	
Are climatic/hydrologic conditions on t	the site typical for this time of year?	Yes 🖂 No 🗌 (If no, exp	lain in remarks)		
Are Vegetation , Soil , or Hydrold		Are "Normal Circumst	,	Yes ⊠ No □	
Are Vegetation \Box , Soil \Box , or Hydrold	o o	(If needed, explain an	•		
° _ , _ ,			•	,	
SUMMARY OF FINDINGS – A	ttach site map showing sam	pling point location	ons, transects	s, important features, etc.	
Hydrophytic Vegetation Present?	Yes 🛛 No 🗌	Is the Sampled Area			
Hydric Soil Present?	Yes 🛛 No 🗌	Within a wetland?	Yes 🖂	No 🗌	
Wetland Hydrology Present?	Yes 🛛 No 🗌	If yes, optional Wetlar	nd Site ID: 10mai		
Remarks (Explain alternative procedu	res here or in a separate report):				
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Indica	ators (minimum of two required)	
Primary Indicators (minimum of one is	required; check all that apply)		Surface Soil C	Cracks (B6)	
Surface Water (A1)	(B9) Drainage Patterns (B10)				
High Water Table (A2)	🗌 Aquatic Fauna (B13)		Moss Trim Lines (B16)		
Saturation (A3)	Marl Deposits (B15)		Dry-Season V	Vater Table (C2)	
Water Marks (B1)	Hydrogen Sulfide Odor	· (C1)	Crayfish Burro	ows (C8)	
Sediment Deposits (B2)	Oxidized Rhizospheres	on Living Roots (C3)	Saturation Vis	sible on Aerial Imagery (C9)	
Drift Deposits (B3)	Presence of Reduced I	ron (C4)	Stunted or Str	ressed Plants (D1)	
Algal Mat or Crust (B4)	Recent Iron Reduction	in Tilled Soils (C6)	Geomorphic Position (D2)		

Thin Muck Surface (C7)

Yes 🛛 No 🗌 Depth (Inches):

Yes 🛛 No Depth (Inches): 8

Yes 🛛 No 🗌 Depth (Inches): 0

Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

Other (Explain in Remarks)

US Army Corps of Engineers

Iron Deposits (B5)

Field Observations: Surface Water Present?

Water Table Present?

(includes capillary fringe)

Saturation Present?

Remarks:

Inundation Visible on Aerial Imagery (B7)

Sparsely Vegetated Concave Surface (B8)

Northcentral and Northeast Region - Interim Version

Shallow Aquitard (D3)

FAC-Neutral Test (D5)

Wetland Hydrology Present? Yes 🛛 No

☐ Microtopographic Relief (D4)

Tree Stratum (Plot size: 30')	Absolute <u>%</u> <u>Cover</u>	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. Fraxinus nigra	40	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)
2. Betula alleghaniensis	35	Yes	FAC	
3. Acer rubrum	30	Yes	FAC	Total Number of Dominant
4. Populus tremuloides	25	No	FACU	Species Across All Strata: 8 (B)
5. Fraxinus americana	15	No	FACU	Percent of Dominant Species
6.				That Are OBL, FACW, or FAC: 87.5 (A/B)
7.				Prevalence Index worksheet:
	145	= Total Cov	er	
				Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL Species x 1 =
1. Alnus incana	30	Yes	FACW	FACW Species x 2 =
2. Betula alleghaniensis	5	No	FAC	FAC Species x 3 =
3. Fraxinus americana	15	Yes	FACU	FACU Species x 4 =
4.				UPL species x 5 =
5.				Column Totals (A) (B)
6.				Prevalence Index = B/A =
7.				Hydrophytic Vegetation Indicators:
	50	= Total Cov	er	Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5')				Dominance Test is > 50%
Herb Stratum (Flot size, 5)				Prevalence Index is $\leq 3.0^1$
1. Onoclea sensibilis	30	Yes	FACW	Morphological Adaptations ¹ (Provide supporting
2. Athyrium angustum	40	Yes	FAC	data in Remarks or on a separate sheet)
3. Carex scabrada	40	Yes	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
4. Rubus pubescens	20	No	FACW	¹ Indicators of hydric soil and wetland hydrology must be
5. Carex intumescens	10	No	FACW	present, unless disturbed or problematic.
6. 7.				Definitions of Vegetation Strata:
7. 8.				Tree – Woody plants 3 in. (76 cm) or more in diameter
9.				(DBH), regardless of height.
10.				Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
11. 12.				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
	130	= Total Cov	er	Woody vines – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1.				
2.				
3.				
3. 4.				Hydrophytic Vegetation
		= Total Cov	er	Present? Yes 🛛 No 🗌
Remarks (Include photo numbers here or on a s	enarate sheet).		
	opulato shoel	• /•		

US Army Corps of Engineers

D (1	Matrix			Redox Fe	atures					
Depth (Inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-6	2.5Y 2/1	100					loam			
6-9	2.5Y 5/3	85	7.5Y 4/4 10YR 4/6	10 5	с		loamy sand			
9-13	2.5Y 5/2	85	7.5Y 4/4 10YR 4/6	10 5	с		silt loam	small coarse frags		
								refusal @ 13"		
Type: C=Cor	ncentration, D=Dep	oletion, RI	M=Reduced Matrix	, CS=Cover	ed or Coated	Sand Gra	ins. ² Location: I	PL=Pore Lining, M=Matrix.		
lydric Soil lı	ndicators:						Indicators for Pro	blematic Hydric Soils ³ :		
Histosol (A	edon (A2)		Polyvalue Be 149B)				Coast Prairie R	2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR, K, L, R)		
Black Histi	Sulfide (A4)		Thin Dark Su	/ Mineral (F	1) (LRR K, L)	,	Dark Surface (5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L)		
Stratified L	.ayers (A5) 3elow Dark Surface	o (A11)	Loamy Gleye)		•] Polyvalue Below Surface (S8) (LRR K, L)] Thin Dark Surface (S9) (LRR K, L)		
•	Surface (A12)	C (ATT)	Redox Dark S	. ,				Iron-Manganese Masses (F12) (LRR K, L, R)		
_ ,	cky Mineral (S1)		Depleted Dar	k Surface (F	6)		Piedmont Floor	dplain Soils (F19) (MLRA 149 B		
						— · ·	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
							Red Parent Material (TF2)			
						Other (Explain	ark Surface (TF12)			
	hydrophytic vegeta		,	must be pre	esent, unless	disturbed	_ 、.	in Kennarks)		
Restrictive L	ayer (if observed)):								
Type: firm I										
Depth (inches): 13"							Hydric Soil F	Present? Yes 🛛 No 🗌		

US Army Corps of Engineers

Project/Site: 195600522 / Bowers		City/County: Carroll P	Plt / Penobscot	Sampling Date: 8/4/2010
Applicant/Owner:			State: ME	Sampling Point: W299 (10mal)
Investigator(s): MPA	Sec	ction, Township, Range		
Landform (hillslope, terrace, etc.):		Local relief (concave,	convex, none):	
Slope (%): Lat:		Long:	Da	atum:
Soil Map Unit Name:			NWI Classifica	tion:
Are climatic/hydrologic conditions on the site th	voical for this time of year?	(es⊠No∏ (lf no exr	plain in remarks)	
Are Vegetation [], Soil [], or Hydrology [] si		Are "Normal Circums	,	
5 <u> </u>	.		•	
Are Vegetation \square , Soil \square , or Hydrology \square na	aturally problematic?	(If needed, explain an	iy answers in Rema	arks)
SUMMARY OF FINDINGS – Attach s	ite map showing sam	pling point locati	ons, transects	, important features, etc.
Hydrophytic Vegetation Present?	Yes 🗌 No 🛛	Is the Sampled Area		
Hydric Soil Present?	Yes 🗌 No 🖂	Within a wetland?		No 🖂
Wetland Hydrology Present?	Yes 🗌 No 🖂	If yes, optional Wetlar	nd Site ID:	
Remarks (Explain alternative procedures here	or in a separate report):			
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum of one is required	d; check all that apply)		Surface Soil C	Cracks (B6)
Surface Water (A1)	Water-Stained Leaves	(B9)	Drainage Patt	erns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lin	es (B16)
Saturation (A3)	Marl Deposits (B15)		🗌 Dry-Season W	/ater Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor	(C1)	Crayfish Burro	ows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres	on Living Roots (C3)	Saturation Vis	ible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced I	ron (C4)	Stunted or Str	essed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction	in Tilled Soils (C6)	Geomorphic F	Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquita	ard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remaining Content of Co	arks)	Microtopograp	ohic Relief (D4)
Sparsoly Vagatated Cancava Surface (B8)			EAC Noutral 7	Cost (DE)

Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)	
Inundation Visible on Aerial Image	ery (B7) 🗌 Other (Explain in Remarks)	Microtopographic Relief (D4)	
Sparsely Vegetated Concave Sur	face (B8)	FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present?	Yes 🗌 No🛛 Depth (Inches):		
Water Table Present?	Yes 🗌 No🛛 Depth (Inches):		
Saturation Present? (includes capillary fringe)	Yes ☐ No⊠ Depth (Inches):	Wetland Hydrology Present? Yes 🗌 No 🖂	
Describe Recorded Data (stream gua	age, monitoring well, aerial photos, previous i	nspections), if available:	
Remarks: no wetland hydrology obse	erved		

US Army Corps of Engineers

Tree Stratum (Plot size: 30')	Absolute <u>%</u> <u>Cover</u>	Dominant Species?	Indicator <u>Status</u>	Dominance Test worksheet:
1. Fraxinus americana 2. Acer saccharum	10 35	No Yes	FACU FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
3. Fagus grandifolia	60	Yes	FACU	Total Number of Dominant
4.				Species Across All Strata: 8 (B)
5.				Demont of Deminent Species
6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)
7.				
	105	= Total Cov	er	Prevalence Index worksheet:
				Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL Species x 1 =
1. Fagus grandifolia	30	Yes	FACU	FACW Species x 2 =
2. Abies balsamea	10	Yes	FAC	FAC Species x 3 =
3. Acer pensylvanicum	15	Yes	FACU	FACU Species x 4 =
4.				UPL species x 5 =
5.				Column Totals (A) (B)
6.				Prevalence Index = B/A =
7.				Hydrophytic Vegetation Indicators:
	55	= Total Cov	er	Rapid Test for Hydrophytic Vegetation
				Dominance Test is > 50%
Herb Stratum (Plot size: 5')				Prevalence Index is $\leq 3.0^1$
1. Acer pensylvanicum	5	Yes	FACU	Morphological Adaptations ¹ (Provide supporting
2. Picea rubens	10	Yes	FACU	data in Remarks or on a separate sheet)
3. Acer rubrum	10	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
4.				¹ Indicators of hydric soil and wetland hydrology must be
5.				present, unless disturbed or problematic.
6.				Definitions of Vegetation Strata:
7. 8.				Tree – Woody plants 3 in. (76 cm) or more in diameter (DBH), regardless of height.
9. 10.				Sapling/shrub – Woody plants less than 3 in. DBH and
11.				greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of
12.				size, and woody plants less than 3.28 ft tall.
	25	= Total Cov	er	Woody vines – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size:)				
1.				
2.				
3.				Hydrophytic
4.				Vegetation Present? Yes □ No ⊠
		= Total Cov	er	
Remarks (Include photo numbers here or on a s	eparate sheet	.):		

US Army Corps of Engineers

	Matrix			Redox Fea	atures				
Depth (Inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
2-0							organic		
0-5	2.5Y 5/4						sandy Ioam	refusal @ 5"	
¹ Type: C=Co	ncentration, D=Dep	oletion, R	M=Reduced Matrix	, CS=Covere	ed or Coated	Sand Grai	ins. ² Location: P	L=Pore Lining, M=Matrix.	
Hydric Soil I	ndicators:						Indicators for Prot	blematic Hydric Soils ³ :	
Histosol (A1)		Polyvalue Be 149B)	low Surface	(S8) (LRR R	, MLRA	2 cm Muck (A10) (LRR K, L, MLRA 149B) edox (A16) (LRR, K, L, R)	
Black Histic (A3)			Thin Dark Su	. , .	•		at or Peat (S3) (LRR K, L, R)		
			Loamy Mucky			Dark Surface (S	7) (LRR K, L) / Surface (S8) (LRR K, L)		
			Depleted Mat	•)	Thin Dark Surface			
Thick Dark Surface (A12)				()				Iron-Manganese Masses (F12) (LRR K, L, R)	
Sandy Mucky Mineral (S1)						Piedmont Floodplain Soils (F19) (MLRA 149 B)			
						— • •	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
							☐ Red Parent Material (TF2) ☐ Very Shallow Dark Surface (TF12)		
						-	Other (Explain in Remarks)		
•			wetland hydrology	must be pre	sent, unless	disturbed of	— 、 :	(internet into)	
Restrictive I	ayer (if observed):							
Type: rock		,-							
Depth (inc	0						Hydric Soil P	resent? Yes 🗌 No🖂	
	,						•		

US Army Corps of Engineers

Project/Site: 195600522 / Bowers		City/County: Carroll Plt / Penobscot Sampling Date: 8/4/			
Applicant/Owner:			State: ME	Sampling Point: W299 (10mal)	
Investigator(s): MPA	Sec	ction, Township, Range:			
Landform (hillslope, terrace, etc.):		Local relief (concave,	convex, none):		
Slope (%):	Lat:	Long:	D	atum:	
Soil Map Unit Name:			NWI Classifica	ition:	
Are climatic/hydrologic conditions on t	he site typical for this time of year?	Yes 🖂 No 🗌 (If no, exp	lain in remarks)		
Are Vegetation , Soil , or Hydrolo	, , , , , , , , , , , , , , , , , , ,	Are "Normal Circumst	,	Yes ⊠ No □	
Are Vegetation , Soil , or Hydrolo	o, _ o ,	(If needed, explain an	•		
			•	,	
SUMMARY OF FINDINGS – At	tach site map showing sam	pling point location	ons, transects	s, important features, etc.	
Hydrophytic Vegetation Present?	Yes 🛛 No 🗌	Is the Sampled Area			
Hydric Soil Present?	Yes 🛛 No 🗌	Within a wetland?	Yes 🖂	No 🗌	
Wetland Hydrology Present?	Yes 🛛 No 🗌	If yes, optional Wetlar	nd Site ID: 10mal		
Remarks (Explain alternative procedu	es here or in a separate report):				
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Indica	ators (minimum of two required)	
Primary Indicators (minimum of one is	required; check all that apply)		Cracks (B6)		
Surface Water (A1)	(B9)	Drainage Patterns (B10)			
High Water Table (A2)	🗌 Aquatic Fauna (B13)		Moss Trim Lines (B16)		
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)			
Water Marks (B1)	Hydrogen Sulfide Odor	(C1)	Crayfish Burrows (C8)		
Sediment Deposits (B2)	Oxidized Rhizospheres	on Living Roots (C3)	Saturation Vis	sible on Aerial Imagery (C9)	
Drift Deposits (B3)	Presence of Reduced I	ron (C4)	Stunted or Str	ressed Plants (D1)	
Algal Mat or Crust (B4)	Recent Iron Reduction	in Tilled Soils (C6)	Geomorphic F	Position (D2)	

Thin Muck Surface (C7)

Yes 🛛 No 🗌 Depth (Inches): 1"

Yes 🖾 No 🗌 Depth (Inches): 0"

Yes ☐ No⊠ Depth (Inches):

Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

Other (Explain in Remarks)

US Army Corps of Engineers

Iron Deposits (B5)

Field Observations: Surface Water Present?

Water Table Present?

(includes capillary fringe)

Saturation Present?

Remarks:

Inundation Visible on Aerial Imagery (B7)

Sparsely Vegetated Concave Surface (B8)

Northcentral and Northeast Region - Interim Version

Shallow Aquitard (D3)

FAC-Neutral Test (D5)

Wetland Hydrology Present? Yes 🛛 No

☐ Microtopographic Relief (D4)

Tree Stratum (Plot size: 30')	Absolute <u>%</u> <u>Cover</u>	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. Abies balsamea	10	No	FAC	Number of Dominant Species
2. Betula alleghaniensis	50	Yes	FAC	That Are OBL, FACW, or FAC: 4 (A)
3. Acer rubrum	15	No	FAC	Total Number of Dominant
4. Fraxinus americana	5	No	FACU	Species Across All Strata: 4 (B)
5.				Percent of Dominant Species
6.				That Are OBL, FACW, or FAC: 100 (A/B)
7.				Prevalence Index worksheet:
	80	= Total C v	'e	
				Total % Cover of: <u>Multiply by:</u>
Sapling/Shrub Stratum (Plot size: 15')				OBL Species x 1 =
1. Abies balsamea	25	Yes	FAC	FACW Species x 2 =
2. Acer pensylvanicum	5	No	FACU	FAC Species x 3 =
3. Fraxinus nigra	5	No	FACW	FACU Species x 4 =
4.				UPL species x 5 =
5.				Column Totals (A) (B)
6.				Prevalence Index = B/A =
7.				Hydrophytic Vegetation Indicators:
	35	= Total Cov	er	Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5')				Dominance Test is > 50%
There Stratum (1 for size, 5)				Prevalence Index is $\leq 3.0^1$
1. Osmunda cinnamomea	55	Yes	FACW	Morphological Adaptations ¹ (Provide supporting
2. Carex stipata	10	No	OBL	data in remarks of on a separate sheet)
3. Oxalis montana	15	No	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
4. Rubus pubescens	20	Yes	FACW	¹ Indicators of hydric soil and wetland hydrology must be
 Equisetum sylvaticum Onoclea sensibilis 	3	No	FACW FACW	present, unless disturbed or problematic.
7. Dryopteris x boottii	5 3	No No	FACW	Definitions of Vegetation Strata:
8.	5	NO	TACW	Tree – Woody plants 3 in. (76 cm) or more in diameter (DBH), regardless of height.
9. 10.				Sapling/shrub – Woody plants less than 3 in. DBH and
11.				greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of
12.				size, and woody plants less than 3.28 ft tall.
	111	= Total Cove	er	Woody vines – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size:)				
1.				
2.				
3.				Hydrophytic
4.				Vegetation
		= Total Cove	er	Present? Yes 🛛 No 🗌
Remarks (Include photo numbers here or on a s	eparate sheet	.):		1

US Army Corps of Engineers

	Matrix			Redox Fe	atures				
Depth (Inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
13-0							organic		
0-3	2.5Y 3/1	100					silt loam		
3-5	2.5Y 4/1	95	2.5Y 6/1	5	D		silt loam	refusal @ 5"	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grai				Indicators for Problematic Hydric Soils ³ : 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR, K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149 B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)					
Stripped Matrix (S6)					 Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) 				
³ Indicators of	hydrophytic vegeta	ation and	wetland hydrology	must be pre	esent, unless	disturbed	or problematic.		
Restrictive L	ayer (if observed)):							
Type: rock	or ledge								
	nes): 18"						Hydric Soil Present? Yes 🛛 No 🗌		

US Army Corps of Engineers