

Environmental and Planning Consultants

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Memorandum

To: Nicole Emmons (HH)

From: Jim Nash (AKRF)

Date: August 10th, 2012

Re: EPT Concord Resort – Resort Entry Road investigation area – Wetland Delineation

cc: C. Robbins (AKRF), N. Bourne (AKRF)

Summary:

This memorandum presents the results of a wetland delineation conducted by AKRF on June 7th, 2012 at the site of the proposed Resort Entry Road for the EPT Concord Resort Project. The investigation area included tax parcels 17.1, 19.2, 51, and 65.1. Wetlands were identified and delineated in accordance with the U.S. Army Corps of Engineers (USACE) and New York State Department of Environmental Conservation (NYSDEC) delineation methodologies.¹

One wetland area was identified located principally within tax parcel 19.2. This wetland begins at the Route 17 right-of-way and extends northwards within the investigation area and continues offsite onto adjacent parcels to the north not owned/controlled by the applicant. The upland/wetland boundary of this onsite wetland was flagged in the field numbered sequentially A-1 to W-40 on its eastern side and A-41 to A-62 on its western side. In addition, two upland exclusion areas were identified within the wetland area and flagged E1-E8 and F1-F22 respectively. The attached sketch (Figure 1) shows the approximate location of these flags for your surveyors to survey-locate in the field.

Representatives from the USACE and the NYSDEC inspected and confirmed the wetland flag locations during site inspections conducted on 7/17/12 and 7/31/12 respectively. Site inspection reveals that the onsite wetland is contiguous with the NYSDEC-regulated wetland surrounding Concord Wetland #2. Therefore, the delineated wetland within the route of the Resort Entry Road is subject to both Federal and

NYSDEC Freshwater Wetlands Delineation Manual (revised July 1995)

¹ Environmental Laboratory. 1987. "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Miss.;

U.S. Army Corps of Engineers. 2009. Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-09-19. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

State wetland regulations (Section 404 of the Clean Water Act; Article 24 of the New York State Environmental Conservation Law).

Findings:

Wetlands identified in the investigation area consist of a closed canopy, forested hemlock-red maple wetland transitioning to a shrub and graminoid-dominated wetland closer to Route 17. The wetland occurs within a topographic depression beginning in the north offsite, and extending southwards as the land descends gradually in elevation towards Route 17. Several narrow, south-flowing meandering streams transect the onsite wetland.

The forested portion of the wetland complex consists of topographically level to gently sloping bottomland with pit/mound topography. Water-stained leaves and saturated soil occupy the depressions (pits) with the majority of the overstory trees rooted on the slightly higher ground (mounds). Eastern hemlock (Tsuga Canadensis) and red maple (Acer rubrum) co-occur and form a dense canopy. Overstory tree calipers range from 12-30+ inches with a subcanopy of smaller trees (typically eastern hemlock). Understory species include highbush blueberry (Vaccinium corymbosum), New York fern (Thelypteris noveboracensis), cinnamon fern (Osmunda cinnamomea), and starflower (Trientalis borealis). Expanses of sphagnum moss (Sphagnum sp.) occur in wetter portions of the forested wetland. Due to the pit/mound topography of the forested wetland, it exhibits a habitat mosaic of hydric soil and non-hydric soil where historic tree falls have created higher areas with less saturation. However, except for two upland exclusion areas delineated within the wetland, overall the habitat is predominantly wetland and was flagged as such. The southern portion of this wetland is an emergent, scrub-shrub wetland with saturated hydric soils and evidence of more frequent inundation. Sedges are dominant, with such species as Carex intumescens, Carex scoparia, Carex stipata, and Carex crinita occurring where the shrub layer is sparse. Additional herbaceous species common to this wetland area include sensitive fern (Onoclea sensibilis), false hellebore (Veratrum viride), and jewelweed (Impatiens capensis). Shrubs scattered throughout the wetland area include winterberry (Ilex verticillata), steeplebush (Spirea tomentosa) and highbush blueberry (Vaccinium corymbosum).

The wetland transitions to uplands as elevation increases to the east and west, with facultative upland species becoming predominant, including sugar maple (*Acer saccharum*), black birch (*Betula lenta*), juneberry (*Amelanchier arborea*), blackberry (*Rubus allegheniensis*), red spruce (*Picea rubens*), hayscented fern (*Dennstaedtia punctilobula*), clubmoss (*Lycopodium obscurum*), and other species.

Soils within the wetland meet indicators F3: Depleted Matrix and less commonly TF2: Red Parent Material. Bedrock is sandstone and shale of Devonian age. Where exposed or used as bedding material for roadways, this bedrock exhibits red (5YR or redder) hue throughout the project site. Therefore, use of indicator TF2 is warranted, but found to be unnecessary within the wetland areas.

Hydrology indicators include surface water, high water table, saturation in lower portions of the wetland and water stained leaves and saturation in the northerly, hemlock-red maple dominated forested wetland.

NWI Mapped Wetlands:

As shown in <u>Figure 2</u>, wetlands within the investigation area are mapped by the U.S. Fish and Wildlife Service's National Wetlands Inventory (NWI) as:

• PSS1E: Palustrine scrub-shrub, broad-leaved deciduous, seasonally flooded/saturated.

Site inspection confirms this mapped wetland type and finds that an additional wetland type, palustrine forested wetland, extends northwards from the mapped wetland as discussed above.

NRCS Mapped Soils:

As shown in <u>Figure 3</u>, soils within the wetland area are mapped as Ra: Raynham silt loam and Ne: Neversink loam. These are both "poorly drained" soils that are classified as hydric (wetland) soils. The wetland area also encompasses a portion of the site mapped as MrB: Morris loam 3 to 8 percent slopes. This is a "somewhat poorly drained" soil.

Additional Information from JD Checklist:

• Description of any current and/or historic land uses on the site:

The investigation area shows evidence of past building foundations, possibly farming or summer bungalow structures and shows disturbance related to the construction of Route 17 immediately adjacent. The forested portions of the site to the north exhibit a mature hemlock forest which was liked used for farming/pasture in the last century. It exhibits more open (less closed canopy) conditions on historic aerial photographs dating to the 1960's. Currently, the investigation area is undeveloped.

- Watershed size, drainage area size (for each stream reach), average annual rainfall/snowfall:
 - Average annual rainfall for Monticello NY is 49 inches. As shown in Figure 4, the contributing watershed to the study area is approximately 119 acres in size.
- Discussion of whether tributaries (streams) on the site are TNWs, perennial RPWs, seasonal RPWs, or non-RPWs. Include a description of general flow patterns, volume and frequency:

The overall 1500 acre Project Site is located within a subwatershed of the Neversink River (TNW), which is tributary to the Delaware River (TNW). The major drainage feature on the Project Site is Kiamesha Creek (RPW), which roughly bisects the Site between higher ground to the east and west occupied by two rounded hillsides. The Site also contains numerous ponds and lakes associated with Kiamesha Creek. Once leaving the site, Kiamesha Creek joins with Sheldrake Stream, which flows into the Neversink River, approximately one mile from the Project Site's easternmost boundary.

However, unlike most of the Project Site, the wetlands within the Resort Entry Road investigation area discharge southward, through a 30" RCP pipe conveying flow under Route 17. Therefore these flows do not enter Kiamesha Creek but rather flows to the Neversink via an Unnamed Stream, as shown in Figure 4. The distance from the Resort Entry Road investigation area discharge point (at Route 17) to the Neversink River (TNW) is approximately 4.0 miles. From that point, the Neversink flows southwards an additional 33 miles until its confluence with the Delaware river (TNW).

- Description of whether each wetland on the site either abuts or is adjacent to a tributary, identify which tributary (e.g. Wetland A directly abuts an unnamed tributary to Kayaderosseras Creek), and provide a discussion of the justification for this determination.
 - The wetland within the inspection area contains several narrow meandering rivulets roughly 1-2 feet in width. These rivulets were seen to contain standing water on most occasions during the spring/summer of 2012 and are presumed to be RPW's. Therefore the wetlands delineated onsite are adjacent/abutting RPW's and are presumed to be subject to USACE regulations. These rivulets are conveyed southwards beneath Route 17 in a 30" RCP pipe culvert as described above.
- Description of tributary connections to a TNW for each aquatic resource on the site, including a discussion of wetland and/or other connections. Description of tributary substrate composition (e.g. silts, sands, gravel, etc.)

The wetlands delineated in the Resort Entry Road investigation area consist of scrub/shrub and wetland meadow habitat just prior to discharging beneath Route 17. The wetland contains now perennial stream, but has several small rivulets which meander through the level topography to a 30" culvert at the site boundary with Route 17. Here the flows discharge southwards, eventually

conveying runoff to an unnamed stream that is tributary to the Neversink River. The substrate of these rivulets is silt, high in organic matter. Upstream from the investigation area, these rivulets diverge into two (2) tributaries with more defined banks. These can be described are ephemeral streams and contain gravel/rock as one proceeds upslope on offsite properties.

• *Identify potential pollutants:*

There are no known pollutants in the delineated wetlands. However, odors for the large septic field servicing the seasonal bungalow colony (visible on aerials adjacent to the onsite wetlands) were noted on numerous occasions.

• *Identify potential habitat for species:*

Green frogs (*Rana clamitans*) were noted within the onsite wetland. Other herpetiles found elsewhere on the project site which may also frequent the Resort Entry Road wetland investigation area including wood frog (*Rana sylvatica*), eastern newt (*Notophthalmus viridescens*), northern dusky salamander (*Desmognathus fuscus*), and painted turtle (*Chrysemys picta*), as discussed in the EPT Concord DGEIS (7/24/12 Completeness, Lead Agency - Town of Thompson, NY).

Figures:

- 1. Approximate Wetland Flag Locations
- 2. NWI Mapped Wetlands
- 3. NRCS Mapped Soils

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- 4. Watershed and Tributaries
- 5. Representative Site Photos

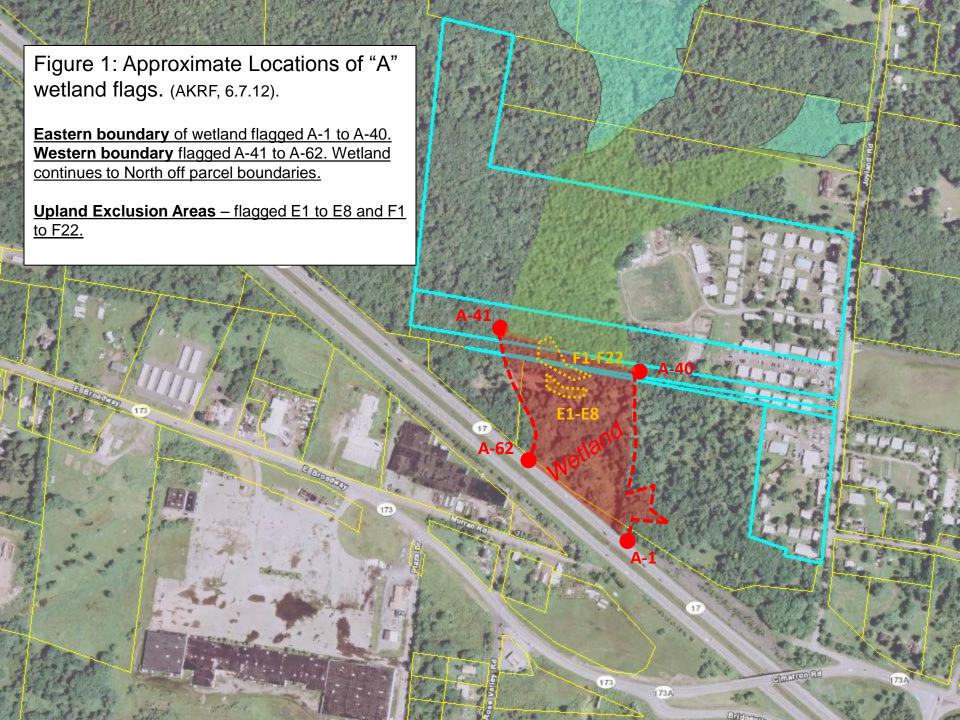
If you have any questions please don't hesitate to call.

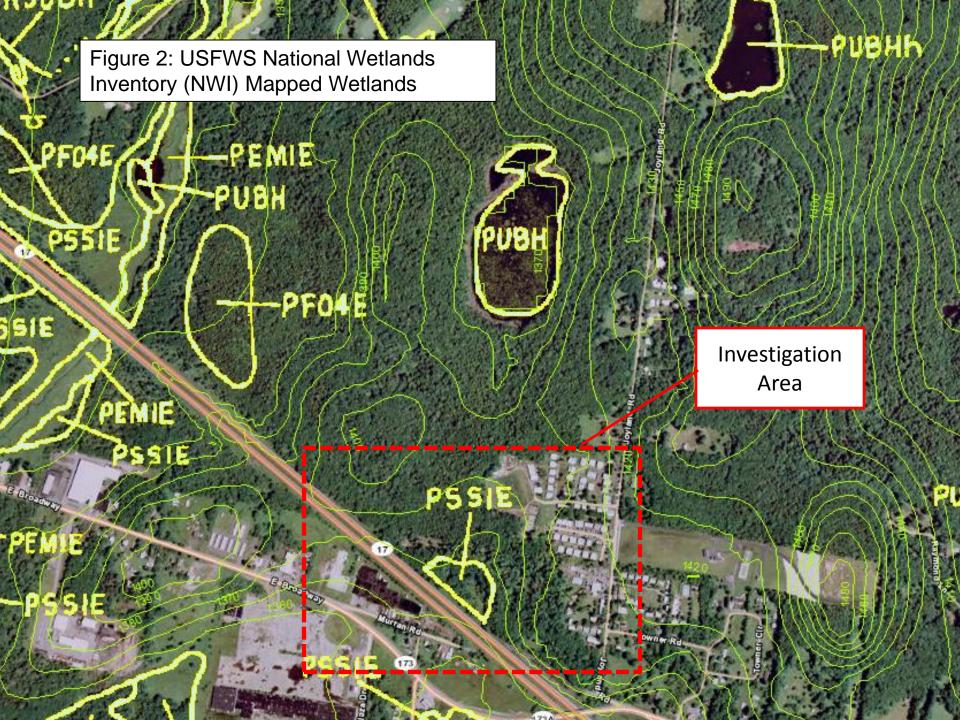
James Nash

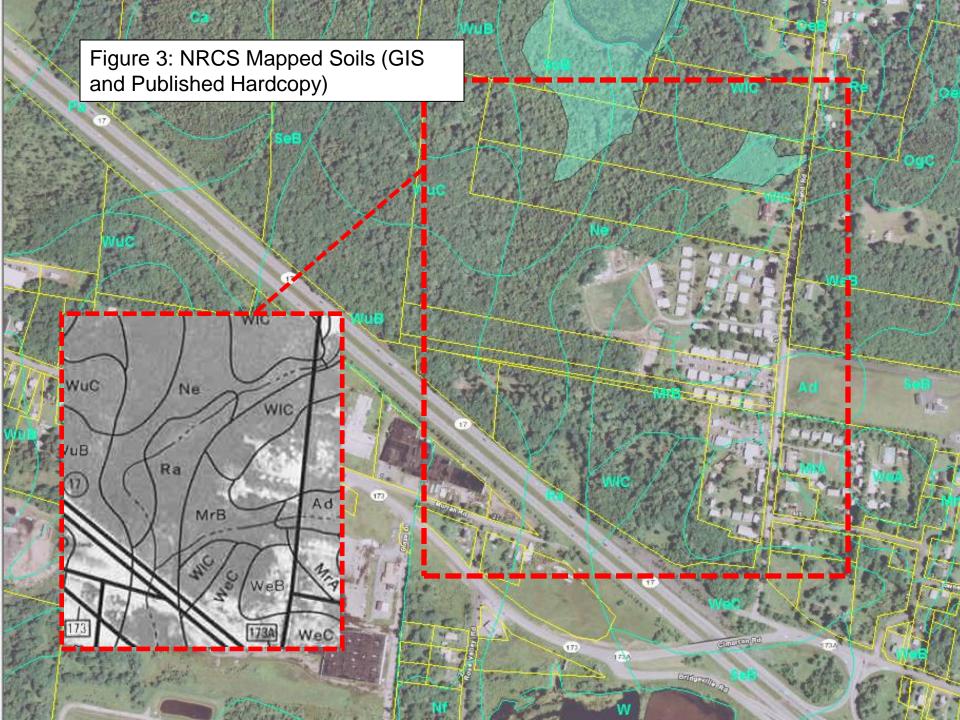
Wetland Ecologist – Technical Director

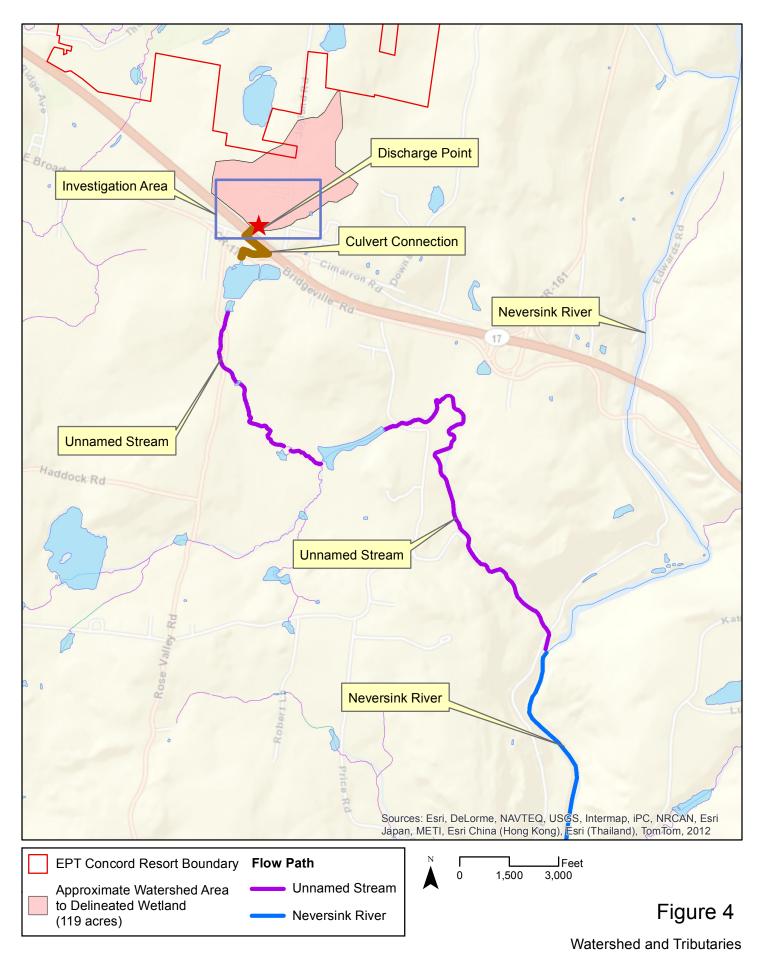
Predominant Vegetation Identified Within Option A Study Area:

red maple	Acer rubrum	FAC
sugar maple	Acer saccharum	FACU
Jack in the pulpit	Arisaema triphyllum	FACW-
yellow birch	Betula alleghaniensis	FAC
gray birch	Betula populifolia	FAC
fringed sedge	Carex crinita	OBL
bladder sedge	Carex intumescens	FACW+
broom sedge	Carex scoparia	FACW
awlfruit sedge	Carex stipata	OBL
hay scented fern	Dennstaedtia punctilobula	NL
intermediate woodfern	Dryopteris intermedia	FACU
American beech	Fagus grandifolia	FAC+
green ash	Faxinus pensylvanica	FACW
winterberry	Ilex verticillata	FACW+
jewelweed	Impatiens capensis	FACW
solf rush	Juncus effusus	FACW+
rare clubmoss	Lycopodium obscurum	FACU
shining clubmoss	Lycopodium lucidulum	FACW-
partridgeberry	Mitchella repens	FACU
sensitive fern	Onoclea sensibilis	FACW
cinnamon fern	Osmunda cinnamomea	FACW
red spruce	Picea rubens	FACU
white pine	Pinus strobus	FACU
swamp buttercup	Ranunculus hispidus	FAC-
great laurel	Rhododendron maximum	FAC
red Raspberry	Rubus idaeus	FAC-
broadleaf meadowsweet	Spirea tomentosa	FACW
New York Fern	Thelypteris noveboracensis	FAC
starflower	Trientalis borealis	FAC
eastern hemlock	Tsuga canadensis	FACU
highbush blueberry	Vaccinium corymbosum	FACW
false hellebore	Veratrum viride	FACW+











Photograph 1: Emergent/Shrub Scrub Portion of wetland – Rte 17 visible.



Photograph 3: Hemlock dominant portion with meandering stream.



Photograph 2: Emergent portion of delineated wetland.



Photograph 4: Typical pit/mound topography in hemlock wetland.

Predominant Vegetation Identified Within Option A Study Area:

red maple	Acer rubrum	FAC
sugar maple	Acer saccharum	FACU
Jack in the pulpit	Arisaema triphyllum	FACW-
yellow birch	Betula alleghaniensis	FAC
gray birch	Betula populifolia	FAC
fringed sedge	Carex crinita	OBL
bladder sedge	Carex intumescens	FACW+
broom sedge	Carex scoparia	FACW
awlfruit sedge	Carex stipata	OBL
hay scented fern	Dennstaedtia punctilobula	NL
intermediate woodfern	Dryopteris intermedia	FACU
American beech	Fagus grandifolia	FAC+
green ash	Faxinus pensylvanica	FACW
winterberry	Ilex verticillata	FACW+
jewelweed	Impatiens capensis	FACW
solf rush	Juncus effusus	FACW+
rare clubmoss	Lycopodium obscurum	FACU
shining clubmoss	Lycopodium lucidulum	FACW-
partridgeberry	Mitchella repens	FACU
sensitive fern	Onoclea sensibilis	FACW
cinnamon fern	Osmunda cinnamomea	FACW
red spruce	Picea rubens	FACU
white pine	Pinus strobus	FACU
swamp buttercup	Ranunculus hispidus	FAC-
great laurel	Rhododendron maximum	FAC
red Raspberry	Rubus idaeus	FAC-
broadleaf meadowsweet	Spirea tomentosa	FACW
New York Fern	Thelypteris noveboracensis	FAC
starflower	Trientalis borealis	FAC
eastern hemlock	Tsuga canadensis	FACU
highbush blueberry	Vaccinium corymbosum	FACW
false hellebore	Veratrum viride	FACW+

WEILAND DETERMINATION DATA FORM – Northcentral and Northeast Region
Project/Site: Convers - Option A City/County: Sallive Sampling Date: 6/7/12
Applicant/Owner: FDT State: N Sampling Point: A
Investigator(s): Section, Township, Range: Thumpsel
Landform (hillslope, terrace, etc.): bottom and Local relief (concave, convex, none): Cancave / Stable / Stable
Slope (%):
Soil Map Unit Name: Pa' Ray n NG M NWI classification: P55/E
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 naturally problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No No Is the Sampled Area within a Wetland? Yes No If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)
HYDROLOGY
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leaves (B9) Drainage Patterns (B10) And Table (A8)
→ High Water Table (A2) Aquatic Fauna (B13) Moss Trim Lines (B16) Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15) Dry-Season Water Table (C2) Water Marks (B1) Crayfish Burrows (C8)
 Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Sediment Deposits (B2) Oxidized Knizospheres on Ething Roots (C3) Statistical Visible on Aerian Imagery (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2)
Agai wat of Grast (D4) Recent from Readction in Timed Solis (Co) Section princ Tostition (D2) Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8) — SPAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches): 0-6"
Saturation Present? Yes X No Depth (inches) 6// Wetland Hydrology Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Section (all call gauge, maintaining main, abilia product, products in specific to), in a rainas a
Remarks:
Graminaid, sorus / shrub wellow w/ weardering
, , , , , , , , , , , , , , , , , , , ,
stream /rivolets.

/EGETATION – Use scientific names of plants.	Absolute	Dominant	Indicator	Sampling Point: A
Tree Stratum (Plot size:)	% Cover	Species?		Dominance Test worksheet:
1. Red Made (Azer Moran) 2. Betula glegheniensis			TAC	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
3		7	IMC	Total Number of Dominant Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 40 (A/B
				Prevalence Index worksheet:
7	LVA		(———)	Total % Cover of: Multiply by:
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Sapling/Shrub Stratum (Plot size:)		`	- 12	FACW species x 2 =
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2. Vo carymbalin	11000000	1	FAIN	FACU species x 4 =
1	-00	7	110	UPL species x 5 =
3, 4,				Column Totals: (A) (B)
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				Rapid Test for Hydrophytic Vegetation
	60	= Total Cov	/Or	Dominance Test is >50%
Heat Olivina (District		- Total Cov		Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size:) 1	20	4_	FACW	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Carly scriping	20	V	FALL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Carey Towentosa		×	FALW	
4 Carry Crinite	15	N	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Onoclea Sensibilis	30	4	TACW	Definitions of Vegetation Strata:
3				Tree – Woody plants 3 in. (7.6 cm) or more in diamete
7 3				at breast height (DBH), regardless of height.
)				Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10				Herb All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3,28 ft tall.
11	-			Woody vines – All woody vines greater than 3.28 ft in
	105	= Total Cov	er	height.
Noody Vine Stratum (Plot size:)				
l				
2				
3				Undendrutin
				Hydrophytic Vegetation
		Total Cove	er	Present? Yes No No
Remarks: (Include photo numbers here or on a separate sh		. 5.2 500	-	
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Sampling Point:

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(inches)	Color (moist)	% (Color (moist)	%	Type ¹	Loc ²	Texture	-	Remarks	
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				<u> </u>						
					_					
Type: C=Co		_	uced Matrix, CS				Indicators	s for Proble	Pore Lining, M=1 matic Hydric So (LRR K, L, MLR	oils³:
	pipedon (A2)	_	MLRA 149B) Thin Dark Surfac				Coast	Prairie Red	ox (A16) (LRR K or Peat (S3) (LR	(, L, R)
Hydroge	n Sulfide (A4)		Loamy Mucky M	ineral (F1) (LRR K		Dark :	Surface (S7)	(LRR K, L)	
	l Layers (A5) I Below Dark Surface (1	Loamy Gleyed M Depleted Matrix		t/				Surface (S8) (LR e (S9) (LRR K , L)	
	ark Surface (A12)		Redox Dark Surf						(39) (LKK K , L _, Masses (F12) (LF	
	lucky Mineral (S1)		Depleted Dark S	urface (F	7)		Piedm	ont Floodpl	ain Soils (F19) (N	/ILRA 149B)
	ileyed Matrix (S4)	\Box	Redox Depression	ons (F8)				: Spodic (TA Parent Mater	6) (MLRA 144A,	145, 149B)
	edox (S5) Matrix (S6)								iai (1F2) k Surface (TF12)	
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	hydrophytic vegetation ayer (if observed):	and wetland	hydrology must	be prese	nt, unless	disturbed	or problemati	c.		
Type:									\ ,	
Depth (inc	ches):		<u> </u>				Hydric Soi	l Present?	Yes	No
Remarks:										
	ş.									

WEILAND DETERMINATION DATA FORM - Northcentral and Northeast Region
Project/Site: Concord - Ostin A City/County: Sallivan Sampling Date: 6/7/12
Applicant/Owner: FST State: NY Sampling Point: A-2
Investigator(s): Section, Township, Range: Thomason
Landform (hillslope, terrace, etc.): Local relief (concave, convex, none):
Slope (%): Datum:
Soil Map Unit Name: NWI classification: I'M WAPD CO
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 Vegetation, Soil, or Hydrology naturally problematic? (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 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.)
Forested /old Growth w/ e. humbele regers, wdominant
w red was le.
HYDROLOGY
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leaves (B9) Drainage Patterns (B10)
Our lace Valid (A1)
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 Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4)
X Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Social Notes and Sale (of saling gauge, morning well, action process, provided inspections), in a salical sali
Remarks:
- Pit/mond topography w/ hembock on the
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That Are OBL, FACW, or FAC: Sapling/Shrub Stratum (Plot size: 1.0				Sampling Point: #2_
Number of Dominant Species Solution Species Speci				Dominance rest worksneet:
Total Number of Dominant Species Across All Strata: Percont of Dominant Species That Are OBL, FACW, or FAC: That Are OBL, FACW, or FAC: Total Scover of Multiply. Prevalence Index worksheet: Total % Cover of Multiply. OBL species x 1 = FACW species x 3 = FACU species x 3 = FACU species x 4 = UPL, species x 5 = Column Totals: (A) Prevalence Index = B/A = Prevalenc	<u> </u>		V FACI	Number of Dominant Species
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That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total & Cover of: Multiply. OBL species x 1 = FACW species x 2 = FAC species x 3 = FACW species x 4 = UPL species x 5 = Column Totals: (A)				
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FACU species)	10	I ANI.	
UPL species x 5 = Column Totals: (A) Prevalence Index = BIA = Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation Dominance Test is >50% Prevalence Index is ≤3.0¹ Morphological Adaptations' (Provide stata in Remarks or on a separate stata in Problematic Hydrophytic Vegetation' (E Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more at breast height (DBH), regardless of height Sapling/shrub – Woody plants less than 3 and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants of size, and woody plants less than 3.28 ft in Woody vines – All woody vines greater than height.			,	FACU species x 4 =
Column Totals:				UPL species x 5 =
Prevalence Index = B/A = Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation Dominance Test is >50% Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide st data in Remarks or on a separate sl Problematic Hydrophytic Vegetation¹ (E Problematic Hydrophytic Vege				Column Totals: (A) (
Rapid Test for Hydrophytic Vegetation Dominance Test is >50% Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide sudata in Remarks or on a separate st Problematic Hydrophytic Vegetation¹ (E Problematic Hydrophytic Vegetation² (E Problematic Hydrophytic Veget				Prevalence Index = B/A =
Dominance Test is >50% Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide sudata in Remarks or on a separate standard of the prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide sudata in Remarks or on a separate standard in Remarks or on a				
Prevalence Index is \$3.0¹ Morphological Adaptations¹ (Provide sudata in Remarks or on a separate stata in				Rapid Test for Hydrophytic Vegetation
Morphological Adaptations (Provide stata in Remarks or on a separate sta		10	= Total Cover	
data in Remarks or on a separate start of the problematic Hydrophytic Vegetation of the present, unless disturbed or problematic Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more at breast height (DBH), regardless of height Sapling/shrub – Woody plants less than 3 and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, of size, and woody plants less than 3.28 ft to woody vines greater than height.	rb Stratum (Plot size:)		16.	
Problematic Hydrophytic Vegetation¹ (E The Problematic Hydrophytic Vegetation¹ (E Indicators of hydric soil and wetland hydrol be present, unless disturbed or problematic Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more at breast height (DBH), regardless of height Sapling/shrub – Woody plants less than 3 and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, of size, and woody plants less than 3.28 ft to woody vines greater than height. Woody vines – All woody vines greater than height.	Coptis groenlandica	20	V FACU	data in Remarks or on a separate sheet)
Indicators of hydric soil and wetland hydrol be present, unless disturbed or problematic Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more at breast height (DBH), regardless of height Sapling/shrub – Woody plants less than 3 and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, of size, and woody plants less than 3.28 ft to woody vines – All woody vines greater than height.	Thelyptakis nove boracomis	50	V FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more at breast height (DBH), regardless of height Sapling/shrub – Woody plants less than 3 and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, of size, and woody plants less than 3.28 ft to design the size of size. Woody vines – All woody vines greater than height.	Omunda Ginamomea	30	Y FACU	Indicators of hydric soil and wetland hydrology must
Tree – Woody plants 3 in. (7.6 cm) or more at breast height (DBH), regardless of height Sapling/shrub – Woody plants less than 3 and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, of size, and woody plants less than 3.28 ft to woody vines – All woody vines greater than height.				
Sapling/shrub – Woody plants less than 3 and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, of size, and woody plants less than 3.28 ft to woody vines – All woody vines greater than height.				
and greater than 3.28 ft (1 m) fall. Herb – All herbaceous (non-woody) plants, of size, and woody plants less than 3.28 ft to Woody vines – All woody vines greater that height.				at breast height (DBH), regardless of height.
of size, and woody plants less than 3.28 ft to Woody vines — All woody vines greater that height. Woody Vine Stratum (Plot size:)				- Pinigramas Traday planta loca than a lit. DB()
Woody vines – All woody vines greater that height. Oody Vine Stratum (Plot size:)				Herb – All herbaceous (non-woody) plants, regardle of size, and woody plants less than 3.28 ft tall.
loody Vine Stratum (Plot size:) height.				Woody vines – All woody vines greater than 3.28 ft
		00	Total Cover	
			·	5
Hydrophytic Vegetation				
Present? Yes V No				

CAIL	

Sampling Point: AZ

Profile Desc	ription: (Describe to	the dep	th needed to	document th	e indicator	or confirm	n the absence of indicators.)	
Depth	Matrix	0/		Redox Featu	res	. 2		
(inches)	Color (moist)	%	Color (mo	ist) %	Type ¹	Loc ²	Texture Remarks	
0-3	10/12/1			100	<i>.</i> h			
3-5	10VR 5/1		SUR 6	18 31	solo			
1-12×	18/2013		NO TI	1				
0	10/10/12		3/1-1	0			0. 	
							Acar	_
							·	
					_		S	
							v. 	-
							0.=	
-							2	
Type: C=Co	oncentration, D=Deple	tion, RM=	Reduced Ma	trix, CS=Cove	red or Coate	ed Sand Gr	rains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :	
Histosol			D Polymolu	e Below Surfa	oo (S9) (I B	D D	2 cm Muck (A10) (LRR K, L, MLRA 149B	,
	pipedon (A2)			149B)	ce (SO) (LIX	ix ix,	Coast Prairie Redox (A16) (LRR K, L, R)	,
Black Hi				k Surface (S9)	(LRR R, M	LRA 149B)		R)
	n Sulfide (A4)			lucky Mineral		(, L)	Dark Surface (S7) (LRR K, L)	
	Layers (A5)	(0.4.4)		Bleyed Matrix (F2)		Polyvalue Below Surface (S8) (LRR K, L)	
	Below Dark Surface irk Surface (A12)	(ATT)		l Matrix (F3) ark Surface (F	·6)		Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L)	R)
	lucky Mineral (S1)			Dark Surface	,		Piedmont Floodplain Soils (F19) (MLRA 1	
	leyed Matrix (S4)			epressions (F			Mesic Spodic (TA6) (MLRA 144A, 145, 14	
	edox (S5)						Red Parent Material (TF2)	
	Matrix (S6)	D4 4400					Very Shallow Dark Surface (TF12)	
Dark Sui	face (S7) (LRR R, MI	-KA 149E	5)				Other (Explain in Remarks)	
3Indicators of	hydrophytic vegetation	n and we	tland hydrolog	gy must be pre	esent, unles	s disturbed	d or problematic.	
	ayer (if observed):							
Туре:								
Depth (inc	:hes):						Hydric Soil Present? Yes No	_
Remarks:								,
	0		Le G		La	22	Man a second	
	2011	10	SAT)	me	1 > 1) ,	Mounds in variable	Le
			lle .			w		
	to a		Î	01.		1.		
	TOPO	9 100	MARIN	3/1	70 7	14	\$ 5/6 w/5x+	
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	, . M. d	120	b //4	75%	Ja	o Hour	han	
	MA	THEN'Y C	00	70 6	CV T	C. Fred	7.796 (2.4)	
			1	-				
						5		

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CONCARD - Option A City/County: _ S	Sampling Date: 6/7/12
Applicant/Owner: Eir	State: NM Sampling Point: A 3
Investigator(s): Section, Townshi	p, Range: Thompson
Landform (hillslope, terrace, etc.):	1 - I
Slone (%): Long:	Datum
Soil Map Unit Name: 131(; Wolloboro 4 Works or w strong to state	NWI classification: UN WAS A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes	
Are Vegetation, Soil, or Hydrology significantly disturbed?	
Are Vegetation, Soil, or Hydrology naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling po	int locations, transects, important features, etc.
Hydric Soil Present? Yes No Within a W	No
Forested slape immediately east	f wetland.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
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 Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospheres on Living	
Drift Deposits (B3) Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled S	
Iron Deposits (B5) Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No X
(includes capillary fringe)	,
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspe	cions), it available.
Remarks:	

V	/EGETA	TION -	Use	scientific	names	of	nlants
	LOLIZ		USC	SCICITUIL	Hallics	OI.	pianto.

Sampling Point: <u>A 3</u>

	Absolute	Dominant Inc	dicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species? S		Number of Dominant Species
1. Acer Soccharum	30	4 5	ACU	That Are OBL, FACW, or FAC: (A)
2. Botola Centa	15	_N_ ?	HW	Total Number of Dominant
3. Pines strobus	20	V	FACE)	Species Across All Strata: (B)
4. Pagus grandifilia	30		PACX	Power of Power of State of Sta
5.		7	<i>p</i> - <i>a</i>	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
				(1-)
6		———		Prevalence Index worksheet:
7	150			Total % Cover of: Multiply by:
	75	= Total Cover		OBL species x 1 =
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =
1. Rubus ideur	40	V.F	AC-	FAC species x 3 =
2. Berberis Humbergii	20	VIT	ACU	FACU species x 4 =
3		7		UPL species x 5 =
4.				Column Totals: (A) (B)
				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
	-			Rapid Test for Hydrophytic Vegetation
7	10			Dominance Test is >50%
	- 60	= Total Cover		Prevalence Index is ≤3.0¹
1. Autho Xanthum adoyatu	n 20	1/ F	TACU	Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
ac 1 1 · · · · · · · · · · · · · · · · ·	20	T	Hew	Problematic Hydrophytic Vegetation¹ (Explain)
3. Dennstaed tis quetilobyla			NL	
		7	11-	¹ Indicators of hydric soil and wetland hydrology must
4	===			be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub - Woody plants less than 3 in. DBH
9				and greater than 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11.				of size, and woody plants less than 3.28 ft tall.
12,				Woody vines – All woody vines greater than 3.28 ft in
	100	= Total Cover		height.
Woody Vine Stratum (Plot size:)				
1				
2				
3				Hydrophytic Vegetation
4				Present? Yes No
		= Total Cover		
Remarks: (Include photo numbers here or on a separate s	heet.)			

_	_	
G.	7	

Sampling Point: A3

Depth Matrix Redox Features Color (moist) % Type Loc Texture Remarks O-1 SYR 3/1 1-2 SYR 4/4 2-4 SYR 4/3 1-10 Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Re						
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Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Thistosof (A1) Histosof (A1) Histosof (A1) Histosof (A1) Histosof (A2) Black Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Thin Dark Surface (S9) (LRR R, MLRA 149B) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, R) Dark Surface (S7) (LRR K, L, R)						
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: Histosol (A1) Histosol (A1) Histosol (A1) Histosol (A2) Black Histic (A3) Hydrogen Sulfide (A4) Hydrogen Sulfide (A4) Dark Surface (S7) (LRR K, L, R) Dark Surface (S7) (LRR K, L)						
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Polyalization: PL=Pore Lining, M=Matrix. Indicators: Indicators for Problematic Hydric Soils³: Indic						
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Polyalization: PL=Pore Lining, M=Matrix. Indicators: Indicators for Problematic Hydric Soils³: Indic						
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Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) 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)						
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) Hydrogen Sulfide (A4) Thin Dark Surface (S9) (LRR R, MLRA 149B) Loamy Mucky Mineral (F1) (LRR K, L) Thin Dark Surface (S7) (LRR K, L)						
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L)						
Stratified Layers (AE) Learny Cloud Metrix (E2)						
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)						
Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Redox Dark Surface (F6) Depleted Dark Surface (F7) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B)						
Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)						
Sandy Redox (S5) Red Parent Material (TF2)						
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)						
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)						
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.						
Restrictive Layer (if observed):						
Type:						
Depth (inches): No No						
Remarks:						
- Although some areas mut TTZ Red Parent Waterial, this						
data point on slope east of welland shows no						
hydrology and fails the lightestion but.						
a la						

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: OMIND OFTIGN A City/County: Jul	Wa 12 Sampling Date: 6/7/12		
Applicant/Owner: F?T	State: Sampling Point:		
Investigator(s): Section, Pownship.			
Landform (hillslope, terrace, etc.): Bearing stables Local rel			
Slope (%): Lat: Long:	Datum:		
Soil Map Unit Name: WuB Warts bons loam	NWI classification: UN MAPPLE		
	lo (If no, explain in Remarks.)		
	re "Normal Circumstances" present? Yes No		
	If needed, explain any answers in Remarks,)		
SUMMARY OF FINDINGS – Attach site map showing sampling poin			
Trydrophytic vegetation resent:			
Hydric Soil Present? res No			
Wetland Hydrology Present? Yes No If yes, option Remarks: (Explain alternative procedures here or in a separate report.)	nal Wetland Site ID:		
Tremains. (Explain alternative procedures here of in a separate report.)			
Upland Grest at werternedge of d	lelineated wetland.		
Transitions to S. maple /o bec	cl		
HYDROLOGY			
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)		
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 Water Table (C2)		
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)		
Sediment Deposits (B2) Oxidized Rhizospheres on Living R	Roots (C3) Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3) Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soil			
Iron Deposits (B5) Thin Muck Surface (C7)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Microtopographic Relief (D4)		
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)		
Field Observations:			
Surface Water Present? Yes No Depth (inches):			
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No		
(includes capillary fringe)	Wetlatid Hydrology Fresent: Tes No		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection	ons), if available:		
Remarks:			
romano.			

EGETATION – Use scientific names of plants.			Sampling Point: 49
Tree Stratum (Plot size:)	Absolute % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:
	30	J FAC	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
Pines stribus	20	I FACU	,
Preservices	10	Y FACU	Total Number of Dominant Species Across All Strata: (B)
l			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B
·			Prevalence Index worksheet:
•	20		Total % Cover of: Multiply by:
	10	= Total Cover	OBL species x 1 =
apling/Shrub Stratum (Plot size:)			FACW species x 2 =
-			FAC species x 3 =
			FACU species x 4 =
			UPL species x 5 =
			Column Totals: (A) (B)
			Prevalence Index = B/A =
	-		Hydrophytic Vegetation Indicators:
			Rapid Test for Hydrophytic Vegetation
		= Total Cover	Dominance Test is >50%
erb Stratum (Plot size:)			Prevalence Index is ≤3.0 ¹
Dennstaed fia puntilobolo	30	Y NL	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Lyco polium phocurrin	20	Y FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
Dryopteus intermedis		Y FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
			Definitions of Vegetation Strata:
			Tree – Woody plants 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.
			Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
0			Herb – All herbaceous (non-woody) plants, regardless
1			of size, and woody plants less than 3.28 ft tall.
2	15		Woody vines – All woody vines greater than 3.28 ft in height.
Voody Vine Stratum (Plot size:)	6)	= Total Cover	-
·)			
	-	53	Hydrophytic
			Hydrophytic Vegetation
		= Total Cover	Present? Yes No

Sampling Point: A 4

Profile Description: (Describe to the de	pth needed to docur	nent the in	dicator	or confirm	the absence of indicators.)
Depth Matrix		x Features	- 1	1 - 2	Textos
(inches) Color (moist) %	Color (moist)	<u> </u>	Type ¹	Loc ²	Texture Remarks
0-1 345 0/					/sam
1-6 3/4		-9())			
6-12 5/2 3/8	SUR 4/4	SOL)		
12+ 542414					11
	*/				
	···	·			
	2°				
	•5,				· · · · · · · · · · · · · · · · · · ·
	223				
¹ Type: C=Concentration, D=Depletion, RI	M=Reduced Matrix, CS	S=Covered	or Coate	d Sand Gra	
Hydric Soil Indicators:		0 5 "	00) // DE		Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Histic Epipedon (A2)	Polyvalue Belov MLRA 149B)		58) (LKF	к к,	2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3)	Thin Dark Surfa		RR R, ML	RA 149B)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)	Loamy Mucky N		(LRR K	, L)	Dark Surface (S7) (LRR K, L)
Stratified Layers (A5) Depleted Below Dark Surface (A11)	Loamy Gleyed I Depleted Matrix				Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12)	Redox Dark Sur				Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1)	Depleted Dark S		')		Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Sandy Redox (S5)	Redox Depress	ions (⊢8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (TF2)
Stripped Matrix (S6)					Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149	3B)				Other (Explain in Remarks)
Indicators of hydrophytic vegetation and w	vetland hydrology mus	t he nresen	nt unless	disturbed	or problematic
Restrictive Layer (if observed):	voluna nyarology mao	t bo procen	11, 0111000	diotarboa	on problemate.
Туре:					V
Depth (inches):	-5				Hydric Soil Present? Yes No
Remarks:					Ĭ.