MEMORANDUM

TO: Trafton Realty, LLC

FROM: Kleinschmidt Associates

CC: John Melrose and Richard Bostwick

DATE: 11/20/2013

RE: Trafton Road Natural Resource Inventory

1.0 Introduction

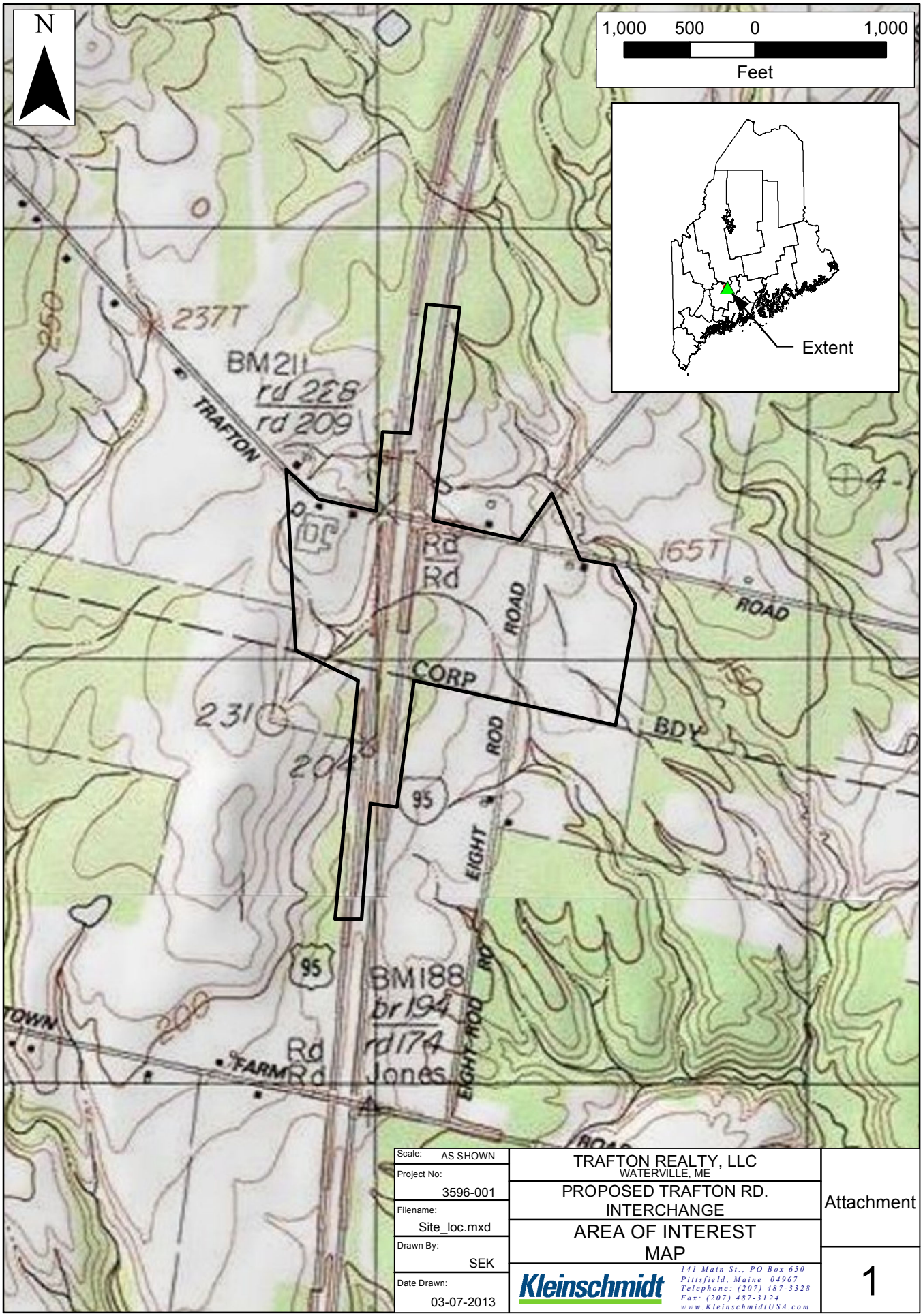
In order to complete the National Environmental Policy Act (NEPA) analysis and determine whether the project will qualify for a category 1 or 2 USACE permit, a natural resource inventory including a jurisdictional wetland delineation was completed. The wetland delineation was used to calculate impact areas and to ensure that the preferred alternative avoids and minimizes potential impacts given required design constraints and project needs as required by NEPA and U.S. Army Corps of Engineers (USACE) permitting under Section 404 of the Clean Water Act. During May - July of 2013 Kleinschmidt completed vernal pool surveys and delimitated wetlands and streams on approximately 108 acres of land in the area of the proposed interchange.

2.0 Methods

In order to complete the NEPA analysis and determine whether the project will qualify for a category 1 or 2 USACE permit, a jurisdictional wetland delineation and functional assessment was completed. In addition, a vernal pool survey was completed for State-regulated "significant" pools and amphibian breeding areas.

Field surveys were conducted over several site visits between May 3 and July 1, 2013. Specifically, vernal pools and streams were surveyed on May 3 and again in late May (May 21-23) in order to identify peak Spotted Salamander breeding. Wetlands were delineated over a several-day period during late May and June.

Wetlands were mapped using the USACE methodology (USACE, 1987) in accordance with the Regional Supplement (USACE, 2009) which relies on a three factor approach requiring wetland vegetation, hydrology, and soils. USACE data forms are included as Appendix A. Wetland functions and values were assessed for each wetland based on the USACE Highway Methodology (USACE, 2001); data forms are included as Appendix B. Streams were identified based on stream criteria outlined in MSRA Title 38 §480-B. Potential vernal pools were identified based on the Natural Resource Protection Act, Ch. 335 Significant Wildlife Habitat rules. All identified features were delineated with a Trimble ProXRT satellite receiver and Trimble TSC1 data logger. GPS positions were differentially corrected using Trimble Pathfinder software.



Scale: AS SHOWN	TRAFTON REALTY, LLC WATERVILLE, ME	Attachment
Project No: 3596-001	PROPOSED TRAFTON RD. INTERCHANGE	
Filename: Site_loc.mxd	AREA OF INTEREST MAP	
Drawn By: SEK		1
Date Drawn: 03-07-2013	Kleinschmidt 141 Main St., PO Box 650 Pittsfield, Maine 04967 Telephone: (207) 487-3328 Fax: (207) 487-3124 www.KleinschmidtUSA.com	

3.0 Results

3.1 Vernal Pools

Surveys were completed for State regulated vernal pools (i.e., Significant Vernal Pools) as well as vernal pool and amphibian breeding functions present but not regulated by the State. No vernal pools or vernal pool obligate species were identified within study area. Visits were made during both peak wood frog breeding season (April 25-May 10) and peak salamander season (May 5- May 25). Specifically, four visits were completed on May 3, May 21, May 22, and May 23. Several of the wetlands did support amphibian habitat for green frogs and bullfrogs, but no vernal pool species. These areas are considered amphibian breeding areas by the USACE, but are not State-regulated vernal pools.

3.2 Wetlands

Wetland delineations were completed in May (21, 22, and 23) and June (10). Wetland types included primarily palustrine emergent marsh (PEM), palustrine forested (PFO), with occasional sub-dominant areas of palustrine scrub-shrub (PSS) (Figure 1 and 2). The dominant wetland type is PEM which occurs as wet meadow in areas used for agriculture (hay).

Hydrologic indicators within identified wetlands were generally related to high or perched water tables (due to dense marine clay sub-soils) or saturation. Wetlands associated with streams had drainage channels as well as evidence of frequent or occasional flooding (e.g., drift lines, water staining, etc).

A complete listing of vegetation observed within delineated wetlands is presented in Table 3.2-1 along with scientific nomenclature. Vegetation within non-forested emergent wetlands was dominated by grasses, sedges, and rushes. These wet meadow wetlands occur primarily within hay fields where the vegetative community has been modified by agricultural activity. Dominant species in these wetlands included fowl meadow grass, reed canary grass, and bedstraw (Photo 1). In wetter portions of the fields sensitive fern, cattail, soft rush, or barber pole sedge were observed. These areas are wet enough that mowing occurs less frequently.

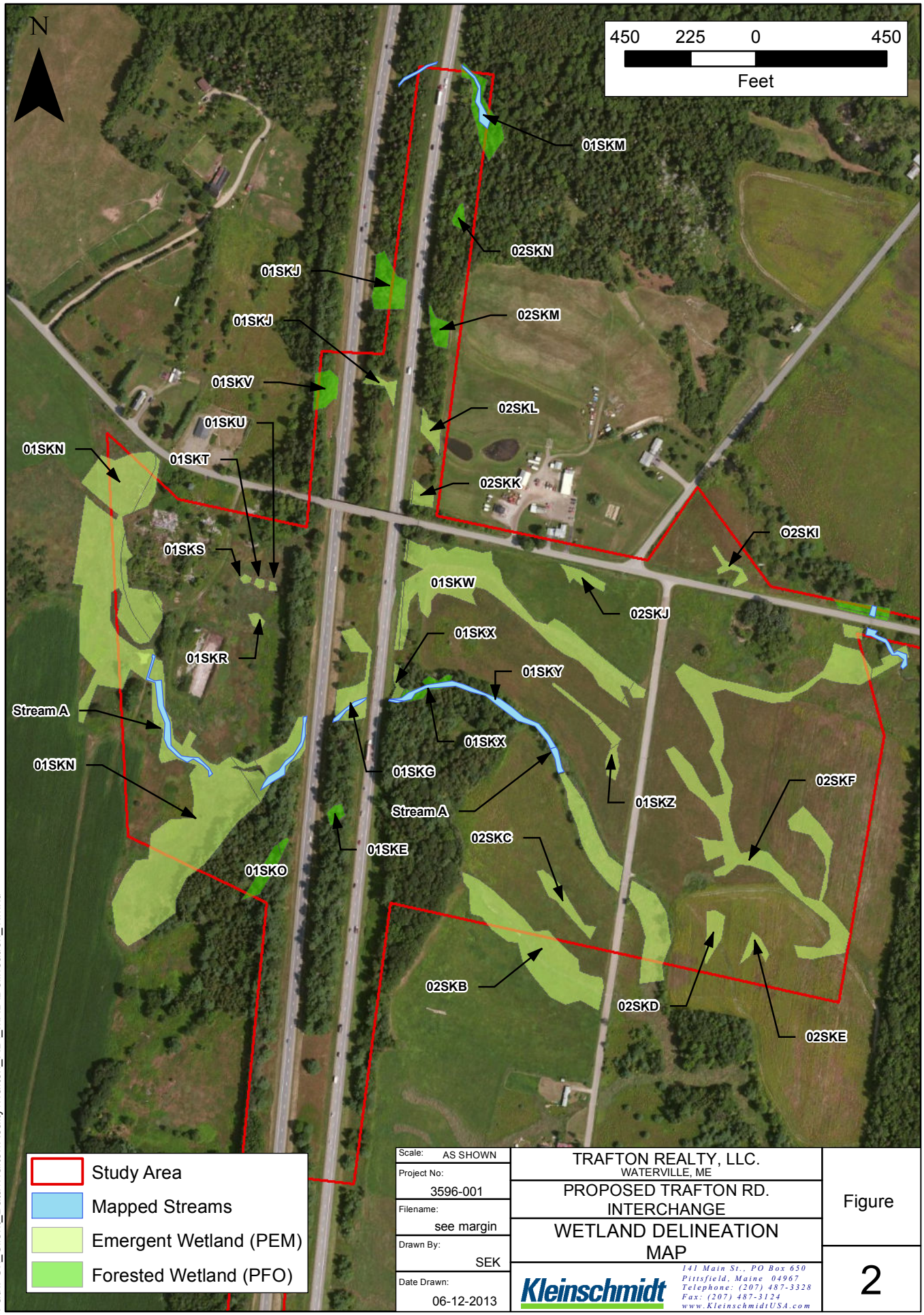
Photo 1: Representative Emergent (wet meadow) within a hay field.

Forested wetlands tended to be dominated by red maple, balsam fir, green ash, and hemlock. Herbaceous vegetation within forested wetlands was sparse but often included sensitive fern, creeping buttercup, jewel weed, and bedstraws. Shrub layer vegetation within forested habitats tended to be dominated by speckled alder, invasive non-native honeysuckle shrubs (Morrow's and Tartarian honeysuckle), and green ash saplings (Photo 2).

Photo 2: Representative Forested wetland

Scrub-shrub wetlands were uncommon, and associated with Trafton Brook this area was dominated by speckled alder, winterberry, and willow. Occasional over story species consisting of green ash, red maple, or black willow were observed. Herbaceous vegetation included sensitive fern, jewelweed, cattail, royal fern, reed canary grass and ostrich fern (Photo 3).

Photo 3: Representative area of Scrub-Shrub (Photo left)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Study Area
Mapped Streams
Emergent Wetland (PEM)
Forested Wetland (PFO)
Scale: AS SHOWN
Project No: 3596-001
Filename: see margin
Drawn By: SEK
Date Drawn: 06-12-2013
TRAFTON REALTY, LLC.
WATERVILLE, ME
PROPOSED TRAFTON RD. INTERCHANGE
WETLAND DELINEATION MAP
Figure
2
Kleinschmidt
141 Main St., PO Box 650
Pittsfield, Maine 04967
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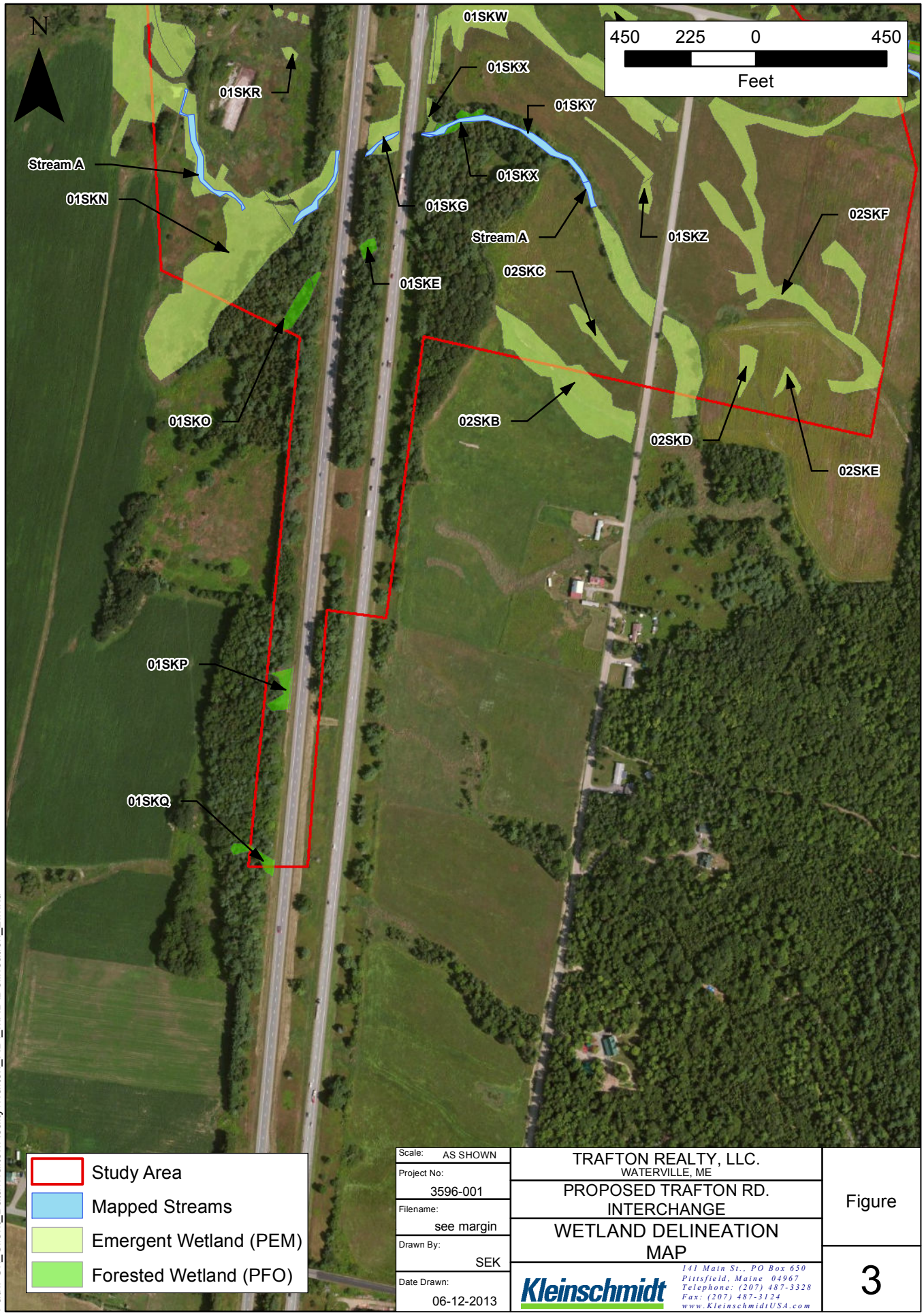
www.KleinschmidtUSA.com
Path: G:_Client_Data\TraftonRealty\Trafton_RD_MXD\Delineation_1.mxd



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Scale: AS SHOWN	TRAFTON REALTY, LLC. WATERVILLE, ME
Project No: 3596-001	PROPOSED TRAFTON RD. INTERCHANGE
Filename: see margin	WETLAND DELINEATION MAP
Drawn By: SEK	Figure 3
Date Drawn: 06-12-2013	

Kleinschmidt
141 Main St., PO Box 650
Pittsfield, Maine 04967
Telephone: (207) 487-3328
Fax: (207) 487-3124
www.KleinschmidtUSA.com

Table 3.2-1. Common Vegetation Identified within the Study Area

Common Name	Scientific Name
white pine	*Pinus strobus*
white cedar	*Thuja occidentals*
eastern hemlock	*Tsuga canadensis*
red spruce	*Picea rubens*
paper birch	*Betula papyrifera*
American beech	*Fagus grandifolia*
Canada mayflower	*Mianthemum canadense*
sensitive fern	*Onoclea sensibilis*
reed canary grass	*Phalaris arundinacea*
jewel weed	*Impatiens capensis*
bristly black nightshade	*Solanum dulcamara*
creeping buttercup	*Ranunculus arundinacea*
balsam fir	*Abies balsamea*
Morrow's honeysuckle	*Lonicera morrowii*
commonn juniper	*Juniperus communis*
silver cinquefoil	*Potentilla argenta*
Virginia creeper	*Parthenocissus aquinefolia*
cattail	*Typha latifolia*
American elm	*Ulmus americana*
green ash	*Fraxinus pennsylvanica*
speckled alder	*Alnus incana*
hawkweed	*Hieracium caespitosum*
timothy grass	*Phleum pratense*
tall buttercup	*Ranunculus acris*
Fowl meadow grass	*Poa palustris*
Kentucky bluegrass	*Poa pratensis*
common chickweed	*Stellaria media*
bluet	*Houstonia caerulea*
rough bedstraw	*Gallium asprellum*
sweet vernal grass	*Anthoxanthum odoratum*
American basswood	*Tilia americana*
black cherry	*Prunus serotina*
black willow	*Salix nigra*
meadow sweet	*Spiraea alba*
steeple bush	*Spiraea tomentosa*
interrupted fern	*Osmunda claytonia*
field horsetail	*Equisetum arvense*
soft rush	*Juncus effusus*
barber pole sedge	*Schoenoplectus tabernaemontani*
fox sedge	*Carex vulpinoidea*
fringed sedge	*Carex crinita*
tussock sedge	*Carex stricta*

Common Name	Scientific Name
broom sedge	*Carex scoparia*
royal fern	*Osmuna regalis*
marsh bedstraw	*Gallium palustre*
wool grass	*Scirpus cyperinus*
dark green bulrush	*Scirpus atrovirens*

Most wetland soils within the study area have been impacted by historic agricultural activities or development (e.g., interstate I-95). However, historic agricultural use did not present problems with the identification of hydric soils. Soils within the area are primarily derived from marine sediment with Scantic and Buxton soils being predominant. These soil series are poorly drained to moderately well drained, respectively. In some locations, areas of Hartland, Hollis, Paxton-Charlton, Scio, and Woodbridge are present, but less commonly than Scantic and Buxton (USDA, 1978). The vast majority of wetland soils within the study area were identified as having a depleted matrix. A typical wetland soil profile for the site is an Ap 0-6" 10 YR 3/1, silt loam underlain by a Bg 8-16" 2.5 Y 5/2, silt loam with prominent redoximorphic features (10 YR 5/6). Generally below 16" soils within the area are very firm and dominated by silt and clay.

A total of 6 paired USACE sample plots were completed and are presented in Table 3.2-2, completed USACE data forms are included as appendix A.

Table 3.2-2. USACE Wetland Sample Plot Locations

Wetland ID	USACE Plot	Longitude	Latitude
01SKN	UP	69˚ 42' 16.260" W	44˚ 30' 19.920" N
01SKN	WET	69˚ 42' 16.860" W	44˚ 30' 20.100" N
01SKO	UP	69˚ 42' 16.354" W	44˚ 30' 16.806" N
01SKO	WET	69˚ 42' 16.516" W	44˚ 30' 16.871" N
01SKW	WET	69˚ 42' 8.580" W	44˚ 30' 26.400" N
01SKW	UP	69˚ 42' 8.138" W	44˚ 30' 26.089" N
01SKX	UP	69˚ 42' 9.532" W	44˚ 30' 23.682" N
01SKX	WET	69˚ 42' 9.350" W	44˚ 30' 23.549" N
02SKM	UP	69˚ 42' 8.340" W	44˚ 30' 36.360" N
02SKM	WET	69˚ 42' 8.220" W	44˚ 30' 36.180" N
03SKM	WET	69˚ 41' 22.397" W	44˚ 30' 21.659" N
03SKM	UP	69˚ 41' 21.991" W	44˚ 30' 21.576" N

3.3 Streams

Two streams (Stream A and Trafton Brook) were identified within the study area. Figure 5 shows the location of mapped streams.

Stream A is a small intermittent drainage that conveys flows west to east across the I-95 corridor. The stream becomes perennial immediately east of the study site. Intermittent drainage is 2-6' in width in most channelized locations. A defined channel exists at the stream's origin, near an old farm pond and associated wetland, in the western portion of the project area. Much of this portion of the stream is located in one of the wheel tracks of a gravel road (see photo below). The stream maintains a channel for approximately 400-500 feet and then enters a large emergent wetland. As determined during site surveys in May and June of 2013, a defined channel (or braided channel) is not present within this wetland. A defined channel was mapped exiting the emergent wetland as the stream follows a storm water ditch along I-95 and then crosses the interstate via ~24-inch corrugated metal pipes (Photo 4).

Photo 4. View of Stream A culvert

Immediately east of I-95, the stream flows through a wooded area where the stream substrate is predominantly cobble, boulder and gravel (Photo 5). Through this forested stretch, the channel is narrow and well-defined and micro-habitat is formed by large wood and boulders. After exiting the forested area, the stream enters an agricultural area (mowed field) and becomes poorly-defined (Photo 6). Through this stretch, the stream is over-widened and embedded by fine materials (fine sand and silt). During a site visit in April 2013, the stream was not flowing through this stretch, whereas the less degraded forested stretch was flowing. This is likely due to the surface flows infiltrating into the matrix of the deep, fine-textured substrate in the emergent (wet meadow) wetlands located in the low portions of the mowed field. The defined stream channel is lost within this emergent wetland and does not become defined again until further to the east, after crossing the Junction Road through a 24 inch corrugated metal pipe. All areas, aside from the forested portion, are dominated by fine materials (silt and fine sand) and water depths in channels ranged from 0-18 inches with the deeper locations being associated with culverts (e.g., plunge pools).

Photo 5. Representative photo of forested section of Stream A, where there is a well-defined channel.

Photo 6. Photo of emergent wetland near Junction Road (no defined channel).

Trafton Brook is a perennial stream which crosses Trafton Road through a ~36" corrugated metal pipe (Photo 7). There is no outlet perch associated with the crossing, but the bottom of the culvert is degraded (i.e., rust/corrosion). The inlet of the culvert has a slight perch due to accumulated debris and sediment. A second 24" corrugated metal

pipe has been installed at a higher elevation to mitigate for high water flow events. The stream width up and downstream of the crossing ranges from 3-10' with the widest area being associated with a pool at the culvert outlet. Substrates for the stream are coarser downstream of the culvert and consisted of gravel, cobble and sand over dense subsurface clay (Photo 8). Upstream of the culvert the substrates are finer materials and include primarily silt and sand. Water depth with the portion of the stream that was visited ranged from 0-36" with the deepest water depths identified upstream of the culvert.

Photo 7. Trafton Brook culvert crossing

Photo 8. Representative substrate, downstream of Trafton Road

3.4 Functions and Values

The principle functions of the wetlands within the study area are wildlife habitat, sediment/toxicant retention, and nutrient removal and retention (data forms are included in Appendix B). Secondary functions include flood flow attenuation. Wetlands identified within the study area offer little value (*i.e.*, recreation, scenic value, etc) as most have some level of historic disturbance from residential development and/or agriculture. Wetlands in the study area are generally characterized by disturbed (cut and fill) soils, and a lack of high quality habitat. Reed canary grass dominates the emergent wetlands and there is low native plant diversity. The topography has been historically smoothed by agriculture, grading and sediment deposition. There are no vernal pools. There is a lack of micro-habitat (no snags, no pit-and-mound topography, no seasonally ponded areas used by herptiles). Areas with woody vegetation have more invasive honeysuckle than native berry-producing shrubs such as viburnums.

4.0 Discussion

Wetlands within the study area generally have some level of historic disturbance from road construction, residential construction, or agricultural activities. Wetlands that would be unavoidably impacted by the proposed interchange are primarily located within active hay fields or areas disturbed by farm pond excavation or historic fill from access roads for farm equipment. Soils are derived from cut and fill material and dominant plant species include invasives such as reed canary grass. Streams on the site are also impacted, especially Stream A which is over-widened filled with sediment from historic farm practices.

5.0 References

U.S. Army Corps. of Engineers (USACE). 1987. Corps. of Engineers Wetland Delineation Manual. U.S. Army Corps. of Engineers. 143 pp.

USACE. 2001. The Highway Methodology Workbook. U.S. Army Corps. of Engineers New England District. 29 pp. NAEEP-360-1-30a.

USACE. 2009. Interim Regional Supplement to the Corps. of Engineers Wetland Delineation Manual: Northcentral and Northeast Region. U.S. Army Corps. of Engineers. 179 pp.

United States Department of Agriculture (USDA). 1978. Soils Survey of Kennebec County Maine.

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APPENDIX A
USACE DATA FORMS

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: TRAFTON RD. City/County: WATERVILLE, KENNEBEC Sampling Date: 6-5-13

Applicant/Owner: TRAFTON REALTY, LLC State: ME Sampling Point: 01SKD-UPLAND

Investigator(s): SEK Section, Township, Range: _____

Landform (hillslope, terrace, etc.): SMALL BASIN Local relief (concave, convex, none): CONCAVE Slope (%): 0-2%

Subregion (LRR or MLRA): _____ ~~Lat~~ LON: 69°-42'-16.516"W ~~Long~~ LAT: 44°-30'-16.871"N Datum: WGS 84

Soil Map Unit Name: HrC - Hollis fine sandy loam NWI classification: NOT MAPPED

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?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	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: NONE

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ 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 gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: 015KO - UP

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pinus strobus	50	Y	FACU
2. Tsuga occidentalis	25	Y	FACU
3. Picea rubens	25	Y	FACU
4. Betula papyrifera	25	Y	FACU
5.			
6.			
7.			
	125	= Total Cover	

Sapling/Shrub Stratum (Plot size:)			
1. Pinus strobus	20	Y	FACU
2. Fagus grandifolia	15	Y	FACU
3. Betula papyrifera	20	Y	FACU
4.			
5.			
6.			
7.			
	55	= Total Cover	

Herb Stratum (Plot size:)			
1. Mianthemum canadense	20	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	20	= Total Cover	

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
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:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[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 diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

Herb layer sparse due to canopy cover

SOIL

Sampling Point: OISKO-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-0"	N/A						Organic	Duff
0-2"	10 YR 3/1		NONE				Organic	
2-4"	10 YR 3/2		NONE				Sandy Loam	
4-12"	10 YR 5/6		NONE				Sandy Loam	
12-16"	7.5 YR 5/4		NONE				Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: NONE

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ 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 Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: TRAFTON RD. City/County: WATERVILLE, KENNEBEC Sampling Date: 01SKO-WET

Applicant/Owner: TRAFTON REALTY, LLC State: ME Sampling Point: WET

Investigator(s): SEK Section, Township, Range: WATERVILLE

Landform (hillslope, terrace, etc.): SMALL BASIN Local relief (concave, convex, none): CONCAVE Slope (%): 0

Subregion (LRR or MLRA): _____ Lat: 44° 30' 16.871" N Long: 69° 42' 16.516 W Datum: WGS 84

Soil Map Unit Name: HrC - Hollis Fine Sandy loam NWI classification: NOT MAPPED

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No _____	Depth (inches): AT SURFACE
Water Table Present?	Yes X	No _____	Depth (inches): 4"
Saturation Present? (includes capillary fringe)	Yes X	No _____	Depth (inches): 2"

Wetland Hydrology Present? Yes X No _____

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: OISKO-WET

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. NONE PRESENT			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size:)			
1. NONE PRESENT			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size:)			
1. Onoclea sensibilis	25	Y	FACW
2. Phalaris arundinacea	10		FACW
3. Ranunculus repens	10		FAC
4. Impatiens capensis	25	Y	FACW
5. Solanum dulcamara	10		FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	80 = Total Cover		

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
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:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[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 diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)

WETLAND IS NARROW BASIN WITH UPLAND TREE COVER

SOIL

Sampling Point: DISKO - WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4"	10YR 3/1	100					Mucky	
4-14"	10 YR 5/2	60	10 YR 5/6	40	C	M	Silt loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ 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 Layer (if observed):

Type: NONE

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: TRAFTON RD City/County: WATERVILLE / KENNEBEC Sampling Date: 06-05-13

Applicant/Owner: TRAFTON REALTY, LLC State: ME Sampling Point: UPLAND

Investigator(s): SEK Section, Township, Range: WATERVILLE

Landform (hillslope, terrace, etc.): BASIN Local relief (concave, convex, none): CONCAVE Slope (%): 8%

Subregion (LRR or MLRA): _____ Lat: 44° 30' 19.920" W Long: 69° 42' 16.260" W Datum: WGS 84

Soil Map Unit Name: SCA - Scantic silt loam NWI classification: PEMIC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators: NONE

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: OISKN-UP

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Betula papyrifera	25	Y	FACU
2. Pinus strobus	25	Y	FACU
3. Abies balsamea	15		
4.			
5.			
6.			
7.			
	65	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1. Pinus strobus	25	Y	FACU
2. Lonicera Morrowii	25	Y	FACU
3. Betula papyrifera	25	Y	FACU
4. Abies balsamea	5		
5. Juniperus communis	5		
6.	10		
7.			
	95	= Total Cover	

Herb Stratum (Plot size: 5')			
1. Parthenocissus quinquefolia	20	Y	FACU
2. Maianthemum canadense	15	Y	FACU
3. Potentilla argenta	10	Y	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	45	= Total Cover	

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
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:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[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 diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 015KN-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3"	10 YR 3/2						SANDY LOAM	
3-10"	10 YR 3/4							
10-16"	7.5 YR 5/4							

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: NONE

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ 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 Layer (if observed):

Type: NONE

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: TRAFTON RD. City/County: WATERVILLE, KENNEBEC Sampling Date: 06-5-13

Applicant/Owner: TRAFTON, REALTY, LLC. State: ME Sampling Point: OISKN-WET

Investigator(s): SEK Section, Township, Range: WATERVILLE

Landform (hillslope, terrace, etc.): BASIN Local relief (concave, convex, none): CONCAVE Slope (%): 0-8%

Subregion (LRR or MLRA): Lat: 44°-30'-20,100" N Long: 69°-42'-16,860" W Datum: WGS 84

Soil Map Unit Name: 5c4 - Scantic silt loam NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present?	Yes X	No ____	If yes, optional Wetland Site ID: ____
Wetland Hydrology Present?	Yes X	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)

Portions of wetland disturbed by historic agricultural practices / road fill
Wetland boundary / soils not disturbed significantly to impact delineation

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): SURFACE
Water Table Present?	Yes X	No ____	Depth (inches): 1
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): ↓

Wetland Hydrology Present? Yes X No ____

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

Remarks:

Large PEM wetland complex associated w/ stream - drains 2 dug farm ponds (no longer in use) ponds now filled w/ emergent veg.

VEGETATION – Use scientific names of plants.

Sampling Point: OISKN - WET

Tree Stratum (Plot size: N/A)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. Impatiens capensis	20	Y	FACW
2. Onoclea sensibilis	10		FACW
3. Phalaris arundinacea	10		FACW
4. Typha latifolia	40	Y	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	80 = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
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:

- X 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[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 diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: OISKN-WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10 YR 3/1	100					organic	
8-16"	2.5Y 5/2	70	10 YR 5/6	30	C	M	Silt loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- X Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ 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 Layer (if observed):

Type: NONE

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: TRAFTON RD City/County: WATERVILLE, KENNEBEC Sampling Date: 06-5-13

Applicant/Owner: TRAFTON REALTY, LLC State: ME Sampling Point: 015KX-UP

Investigator(s): SEK Section, Township, Range: WATERVILLE

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): CONCAVE Slope (%): 0-2%

Subregion (LRR or MLRA): Lat: 44° 30' 23.652" N Long: 69° 42' 9.532" W Datum: WGS 84

Soil Map Unit Name: ScA - Scantic silt loam NWI classification: NONE

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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? Yes X No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present? Yes X No ____	If yes, optional Wetland Site ID: ____
Wetland Hydrology Present? Yes X No ____	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators: NONE

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____

Water Table Present? Yes ____ No X Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: ORSKX-UP

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Ulmus americana	5		FACW
2. Tsuga occidentalis	75	Y	FACU
3. Pinus strobus	20	Y	FACU
4.			
5.			
6.			
7.			
	100	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1. Fraxinus pennsylvanica	25	Y	FACW
2. Tsuga occidentalis	15	Y	FACU
3. Ulmus americana	5		
4.			
5.			
6.			
7.			
	45	= Total Cover	

Herb Stratum (Plot size: 5')			
1. Panthenocissus quinquefolia	10	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	10	= Total Cover	

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
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:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[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 diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 015KX-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3"	2.5 Y 4/2	100					silt loam	
3-10"	2.5 Y 5/3	100					↓	
10-12"	2.5Y 5/2	75	10YR 5/6	25	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: NONE

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ 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 Layer (if observed):

Type: NONE

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: TRAFTON, ED City/County: WATERVILLE, KENNEBEC Sampling Date: 06-5-13

Applicant/Owner: TRAFTON REALTY State: ME Sampling Point: 015EX-WET

Investigator(s): SEK Section, Township, Range: WATERVILLE

Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): NONE Slope (%): 0

Subregion (LRR or MLRA): _____ Lat: 44° 36' 23.549"N Long: 69° 42' 2.350" W Datum: WGS 84

Soil Map Unit Name: SeA - Scantic silt loam NWI classification: NONE

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present?	Yes X	No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No _____	Depth (inches): surface
Water Table Present?	Yes X	No _____	Depth (inches): 8"
Saturation Present? (includes capillary fringe)	Yes X	No _____	Depth (inches): 6"

Wetland Hydrology Present? Yes X No _____

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: OSKX-WET

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus pennsylvanica	40	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	40 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. Alnus incana	20	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. Onoclea sensibilis	15		FACW
2. Impatiens capensis	10		FACW
3. Solanum dulcamara	25	Y	FAC
4. Ranunculus repens	60	Y	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	110 = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
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:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[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 diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Veg plots rectangular to fit w/in floodplain

SOIL

Sampling Point: OISEX-WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4"	10 YR 3/2	100					Silt loam	
4-12"	10 YR 5/1	60	10 YR 5/6	40	C	M	Silt loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ 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 Layer (if observed):

Type: NONE

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: TRAFTON RD City/County: WATERVILLE, KENNEBEC Sampling Date: 06-5-13

Applicant/Owner: TRAFTON REALTY, LLC State: ME Sampling Point: OISKWW-WP

Investigator(s): SEK Section, Township, Range: WATERVILLE

Landform (hillslope, terrace, etc.): Gentle hillslope Local relief (concave, convex, none): CONVEX Slope (%): 0-2

Subregion (LRR or MLRA): _____ Lat: 44° 30' 26.089" N Long: 69° 42' 8.138" W Datum: WGS 84

Soil Map Unit Name: ScA - Scantic silt loam NWI classification: NONE

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators: NONE

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: 015KW-UP

Tree Stratum (Plot size: N/A)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. Hieracium caespitosum	10		UPL
2. Phleum pratense	20		FACU
3. Ranunculus acris	5		FAC
4. Poa pratensis	60	Y	FACU
5. Stellaria media	25	Y	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	120 = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
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:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[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 diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: OISKW-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6"	2.5 Y 4/3	100					Fine sandy loam.	
6-10"	2.5 Y 4/4	100					Fine sandy loam	
10-16"	2.5 Y 6/3	100					Fine sandy loam.	
16-18"	↓	60	7.5YR 5/6	40	C	M	↓	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: NONE

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ 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 Layer (if observed):

Type: NONE

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

- small knoll of glacial till located w/in scantic silt loam field.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: TRAFTON RD City/County: WATERVILLE, KENNEBEC Sampling Date: 06-5-18

Applicant/Owner: TRAFTON REALTY, LLC State: ME Sampling Point: DISK W-wet

Investigator(s): SEK Section, Township, Range: WATERVILLE

Landform (hillslope, terrace, etc.): Knoll Local relief (concave, convex, none): NONE/CONCAVE Slope (%): 0-8

Subregion (LRR or MLRA): Lat: 44° 30' 26.40"N Long: 69° 42' 8.580" W Datum: WGS 84

Soil Map Unit Name: ScA - Scantic Silt Loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present?	Yes X	No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Area is w/in Active hay field

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No _____	Depth (inches): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes X	No _____	Depth (inches): 12"

Wetland Hydrology Present? Yes X No _____

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

Remarks:

Portions of wetland are "wetter" near the drainage channel w/in the field.

Rachel

VEGETATION – Use scientific names of plants.

Sampling Point: O/SKW-WET

Tree Stratum (Plot size: N/A)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. Stellaria media	5		FACU
2. Houstonia caerulea	5		FACU
3. Galium aparine	5		OBL
4. Ranunculus sceleratus	10		FAC
5. Phalaris arundinacea	60	Y	FACW
6. Anthoxanthum odoratum	15		FACU
7. Hieracium caespitosum	25	Y	UPL
8.			
9.			
10.			
11.			
12.			
	125 = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	60	x 2 =	120
FAC species	10	x 3 =	30
FACU species	25	x 4 =	100
UPL species	25	x 5 =	125
Column Totals:	125 (A)		380 (B)

Prevalence Index = B/A = 3.0 (3.04)

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[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 diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No _____

Remarks: (Include photo numbers here or on a separate sheet.)

Area is within an active hay field, UPL species likely a result of agriculture / Hay.

SOIL

Sampling Point: OISK W- wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6"	2.5 Y 5/3	60	10 YR 5/6	40	C	M	silt loam	
6-12"	2.5 Y 6/2	60	10 YR 5/6	40	C	M	Silt loam	
12"			10 YR 6/6				silt/clay	Refusal

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ 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 Layer (if observed):

Type: Dense clay/silt - aquitard

Depth (inches): 12"

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: TRAFTON RD City/County: WATERVILLE, KENNEBEC Sampling Date: 06-5-13

Applicant/Owner: TRAFTON REALTY State: ME Sampling Point: OP SKM - UP

Investigator(s): SCK Section, Township, Range: WATERVILLE

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 8%

Subregion (LRR or MLRA): _____ Lat: 44° 30' 36.360" N Long: 69° 42' 8.340" W Datum: WGS 84

Soil Map Unit Name: ScA - Scantic silt loam NWI classification: NONE

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators: NONE

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: 0.5 KM - AP

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Tsuga canadensis	10		FACU
2. Tilia americana	25	Y	FACU
3. Fraxinus pennsylvanica	35	Y	FACW
4.			
5.			
6.			
7.			
	70	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1. Tilia americana	15	Y	FACU
2. Prunus serotina	10	Y	FACU
3.			
4.			
5.			
6.			
7.			
	25	= Total Cover	

Herb Stratum (Plot size: 5')			
1. Toxicodendron radicans	10	Y	FAC
2. Hieracium caespitosum	10	Y	FACU
3. Maianthemum racemosum	5	Y	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	25	= Total Cover	

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 29% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
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:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[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 diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 0.25 KM - UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-0"								DUFF
0-10"	10 YR 4/3						Sandy loam	
10-24"	10 YR 4/4						Sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: NONE

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ 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 Layer (if observed):

Type: NONE

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: TRAFTON, RD City/County: WATERVILLE, KENNEBEC Sampling Date: 06-5-13

Applicant/Owner: TRAFTON REALTY, LLC State: ME Sampling Point: 02SKM -WET

Investigator(s): SEK Section, Township, Range: WATERVILLE

Landform (hillslope, terrace, etc.): Basin Local relief (concave, convex, none): CONCAVE Slope (%): 0-5

Subregion (LRR or MLRA): Lat: 44°30' 36180" N Long: 69° 42' 8.220" W Datum: WGS 84

Soil Map Unit Name: ScA - Scantic silt loam NWI classification: PFO

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 X 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? Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present? Yes X No _____	
Wetland Hydrology Present? Yes X No _____	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No _____ Depth (inches): _____

Water Table Present? Yes X No _____ Depth (inches): 2"

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): Surface

Wetland Hydrology Present? Yes X No _____

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: OISKM-WET

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix nigra	30	Y	OBL
2. Ulmus americana	20	Y	FACW
3.			
4.			
5.			
6.			
7.			
	50	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1. Salix nigra	30	Y	OBL
2. Lonicera Morrowii	35	Y	FACU
3. Spiraea alba	10		FACW
4.			
5.			
6.			
7.			
	75	= Total Cover	

Herb Stratum (Plot size: 5')			
1. Onoclea sensibilis	60	Y	FACW
2. Osmunda claytonia	5		FAC
3. Equisetum arvense	2		FAC
4. Impatiens capensis	40	Y	FACW
5. Ranunculus acris	10		FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	117	= Total Cover	

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
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:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[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 diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: OISK M-WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10 YR 2/1	70	10 YR 5/6	30	C	M	Silt loam	
10-14"	2.5Y 5/2	70	10 YR 5/6	30	C	M	Silt loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ 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 Layer (if observed):

Type: NONE

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

combination of F3 and F6.

APPENDIX B
USACE FUNCTIONS AND VALUES DATA FORMS

Wetland Function-Value Evaluation Form

025KC, 625KD, 025KE
025KF, 025KJ, 015KW

(multiple)

Total area of wetland 7.6 Human made? N Is wetland part of a wildlife corridor? N or a "habitat island"? N

Adjacent land use Agriculture Distance to nearest roadway or other development <25'

Dominant wetland systems present PEM Contiguous undeveloped buffer zone present N

Is the wetland a separate hydraulic system? N If not, where does the wetland lie in the drainage basin? upper

How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. 015KW, 625KE

Latitude – Longitude –

Prepared by: SEK Date 7/30/13

Wetland Impact:
Type Fill Area 0.12

Evaluation based on:
Office ____ Field X

Corps manual wetland delineation completed? Y X N ____

Function/Value	Occurence Y	Occurence N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
Groundwater Recharge/Discharge		X			
Floodflow Alteration		X			
Fish and Shellfish Habitat		X			
Sediment/Toxicant Retention	X		1,4,5,7		
Nutrient Removal	X		1,3,4,5,6,7,8,9,	X	
Production Export		X			
Sediment/Shoreline Stabilization		X			
Wildlife Habitat	X		16,17		Red wing Blacke birds / green frogs.
Recreation		X			
Educational Scientific Value		X			
Uniqueness/Heritage		X			
Visual Quality/Aesthetics		X			
ES Endangered Species Habitat		X			
Other		X			

Notes:

* Refer to back up list of numbered considerations.

Wetland Function-Value Evaluation Form

Total area of wetland 0.44 Human made? N Is wetland part of a wildlife corridor? Y or a "habitat island"? N

Adjacent land use Highway / Forested Distance to nearest roadway or other development < 25'

Dominant wetland systems present PFO Contiguous undeveloped buffer zone present Yes

Is the wetland a separate hydraulic system? N If not, where does the wetland lie in the drainage basin? Middle

How many tributaries contribute to the wetland? 1 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. 015KM

Latitude – Longitude –

Prepared by: SEK Date 7/30/13

Wetland Impact:
Type Ø Area Ø

Evaluation based on:
Office ____ Field X

Corps manual wetland delineation completed? Y X N ____

Function/Value	Occurence Y	Occurence N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
Groundwater Recharge/Discharge	X		7		
Floodflow Alteration	X		5,6,8,13,18		
Fish and Shellfish Habitat		X			
Sediment/Toxicant Retention	X		1,4,8,10,		
Nutrient Removal	X		7		
Production Export		X			
Sediment/Shoreline Stabilization	X		1,2,3,5,6,7,12	Y	
Wildlife Habitat	X		1,3,4,5,6,7,8,9,10	Y	Partial fragmented from I-95
Recreation		X			
Educational Scientific Value		X			
Uniqueness/Heritage		X			
Visual Quality/Aesthetics		X			
ES Endangered Species Habitat		X			
Other		X			

Notes: Associated w/ stream 015KK

*Refer to back up list of numbered considerations.

Wetland Function-Value Evaluation Form

015K5

Total area of wetland 0.2 Human made? N Is wetland part of a wildlife corridor? Y or a "habitat island"? N

Adjacent land use Forested / Highway/agri. Distance to nearest roadway or other development 25-50'

Dominant wetland systems present PFO Contiguous undeveloped buffer zone present partially

Is the wetland a separate hydraulic system? N If not, where does the wetland lie in the drainage basin? middle

How many tributaries contribute to the wetland? 1 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. 025KM, 025KN,

Latitude - Longitude -

Prepared by: SEK Date 7/30/13

Wetland Impact: Type Fill Area 0.04

Evaluation based on:
Office _____ Field _____

Corps manual wetland delineation completed? Y_____ N_____

Function/Value	Occurence Y	Occurence N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
Groundwater Recharge/Discharge		X			
Floodflow Alteration		X			
Fish and Shellfish Habitat		X			
Sediment/Toxicant Retention	X		1,4,8		
Nutrient Removal	X		4,7,8		
Production Export		X			
Sediment/Shoreline Stabilization		X			
Wildlife Habitat	X		6,7,8,17	Y	Deer tracks
Recreation		X			
Educational Scientific Value		X			
Uniqueness/Heritage		X			
Visual Quality/Aesthetics		X			
ES Endangered Species Habitat		X			
Other		X			

Notes:

* Refer to back up list of numbered considerations.

Wetland Function-Value Evaluation Form

Total area of wetland 0.54 Human made? N Is wetland part of a wildlife corridor? N or a "habitat island"? N

Adjacent land use Highway Distance to nearest roadway or other development <10'

Dominant wetland systems present PEM Contiguous undeveloped buffer zone present N

Is the wetland a separate hydraulic system? N If not, where does the wetland lie in the drainage basin? Upper

How many tributaries contribute to the wetland? 1 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. 015KJ / 015KG

Latitude - Longitude -

Prepared by: SEK Date 7/30/13

Wetland Impact:
Type Ø Area Ø

Evaluation based on:
Office ____ Field X

Corps manual wetland delineation completed? Y X N ____

Function/Value	Occurence Y	Occurence N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
Groundwater Recharge/Discharge		X			
Floodflow Alteration	X		2,5,6,7,13		
Fish and Shellfish Habitat		X			
Sediment/Toxicant Retention	X		1,2,3,4,		
Nutrient Removal		X			
Production Export		X			
Sediment/Shoreline Stabilization	X		1,2,3,5,7,9,12	X	associated w/ intermittent watercourse.
Wildlife Habitat		X			
Recreation		X			
Educational Scientific Value		X			
Uniqueness/Heritage		X			
Visual Quality/Aesthetics		X			
ES Endangered Species Habitat		X			
Other		X			

Notes: Stream 015KB

*Refer to back up list of numbered considerations.

Wetland Function-Value Evaluation Form

Total area of wetland 0.29 Human made? N Is wetland part of a wildlife corridor? N or a "habitat island"? N

Adjacent land use Agriculture / Highway Distance to nearest roadway or other development <25'

Dominant wetland systems present PFO Contiguous undeveloped buffer zone present N

Is the wetland a separate hydraulic system? N If not, where does the wetland lie in the drainage basin? ~~Middle~~ Upper

How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. OISKO, OISKE

Latitude - Longitude -

Prepared by: SEK Date 7/30/13

Wetland Impact:
Type Fill Area 0.03

Evaluation based on:
Office ____ Field X

Corps manual wetland delineation completed? Y X N ____

Function/Value	Occurence Y	Occurence N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
Groundwater Recharge/Discharge		X			
Floodflow Alteration		X			
Fish and Shellfish Habitat		X			
Sediment/Toxicant Retention	X		1,4		
Nutrient Removal	X		5,6,7	X	
Production Export					
Sediment/Shoreline Stabilization					
Wildlife Habitat	X		8		
Recreation		X			
Educational Scientific Value		X			
Uniqueness/Heritage		X			
Visual Quality/Aesthetics		X			
ES Endangered Species Habitat		X			
Other		X			

Notes:

* Refer to back up list of numbered considerations.

Wetland Function-Value Evaluation Form

Total area of wetland 0.54 Human made? NO Is wetland part of a wildlife corridor? NO or a "habitat island"? NO

Adjacent land use Agriculture Distance to nearest roadway or other development adjacent

Dominant wetland systems present PEM/PFO Contiguous undeveloped buffer zone present NO

Is the wetland a separate hydraulic system? N If not, where does the wetland lie in the drainage basin? middle

How many tributaries contribute to the wetland? 1 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. 02SKB, 02SKD

Latitude – Longitude –

Prepared by: SEK Date 8/5/13

Wetland Impact:
Type Fill Area 0.04

Evaluation based on:
Office ____ Field X

Corps manual wetland delineation completed? Y X N ____

Function/Value	Occurence Y	Occurence N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
Groundwater Recharge/Discharge	X		7,13		
Floodflow Alteration	X		2,4,6,8,9,13	Y	
Fish and Shellfish Habitat		X			
Sediment/Toxicant Retention	X		1,4,8,9,10	Y	
Nutrient Removal	X		4,5,6,7,8,9	Y	
Production Export	X		1,10		
Sediment/Shoreline Stabilization	X		3,4,6,7,8,9,12,13,14	Y	
Wildlife Habitat	X		6,7,8,13		
Recreation		X			
Educational Scientific Value		X			
Uniqueness/Heritage		X			
Visual Quality/Aesthetics		X			
ES Endangered Species Habitat		X			
Other		X			

Notes:

*Refer to back up list of numbered considerations.

Wetland Function-Value Evaluation Form

Total area of wetland 7.9 Acres Human made? NO Is wetland part of a wildlife corridor? NO or a "habitat island"? _____

Adjacent land use Agriculture Distance to nearest roadway or other development less than 100'

Dominant wetland systems present PEM Contiguous undeveloped buffer zone present NO

Is the wetland a separate hydraulic system? _____ If not, where does the wetland lie in the drainage basin? UPPER PORTION

How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. 015KD, 015KN, 015K6

Latitude - Longitude -

Prepared by: SEK Date 7/30/13

Wetland Impact:
Type Fill Area .23

Evaluation based on:
Office _____ Field X

Corps manual wetland delineation completed? Y X N _____

Function/Value	Occurence Y	Occurence N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
Groundwater Recharge/Discharge		X			
Floodflow Alteration	X		1,2,3,5,6,7,8,9,10,13 14,16,18	Y	retains water for intermittent stream
Fish and Shellfish Habitat		X			
Sediment/Toxicant Retention	X		1,2,3,4,5,10,11,14,16	Y	adjacent agriculture
Nutrient Removal	X		1,3,4,5,6,7,8,9	Y	adjacent agriculture
Production Export	X		7,10		
Sediment/Shoreline Stabilization	X		1,2,3,4,6		
Wildlife Habitat	X		6,8,12,13,17		Red wing black bird, green frogs, bull frogs, deer tracks/scat
Recreation		X			
Educational Scientific Value		X			
Uniqueness/Heritage		X			
Visual Quality/Aesthetics		X			
ES Endangered Species Habitat		X			
Other		X			

Notes:

* Refer to back up list of numbered considerations.