

NEW ENGLAND DISTRICT WETLAND DELINEATION DATASHEET AND SUPPLEMENTAL INFORMATION

(Revised 9/1/04)

DATASHEET NOTES

VEGETATION – for each stratum below, identify every species that has at least 1% cover of the observation plot (see DEFINITIONS below).

STRATA

OBSERVATION PLOT (radius from center)

SEEDLINGS & HERBS - woody, less than 3' tall, or nonwoody, any height	5'
SAPLINGS - woody, nonclimbing, between 0.4 and 5" dbh and at least 20' tall	15'
SHRUBS - woody, nonclimbing, between 3 and 20' tall	15'
TREES - woody, nonclimbing, at least 5" dbh and at least 20' tall	30'
VINES - woody vines, climbing on trees, shrubs, or saplings	30'

DOMINANCE MEASURE - estimated for each species in each stratum as follows:

Trees – basal area (cross-sectional area at breast height (4.5')).

Vines - number of stems (at ground level) or basal area, as appropriate.

Other Strata - percent areal coverage (i.e., estimated peak growing season foliage).

TOTAL DOMINANCE MEASURE - the sum of the dominance measures of all species in a stratum.

OBSERVED DOMINANCE = FIELD ASSESSED DOMINANCE MEASURE FOR A SPECIES / TOTAL DOMINANCE MEASURE FOR STRATUM (represented as a fraction)

RELATIVE DOMINANCE = DOMINANCE RATIO X 100%

DOMINANT VEGETATION - For each stratum of the plot, list the species that, when ranked in descending order of RELATIVE DOMINANCE and cumulatively totaled, immediately exceed 50% of the TOTAL DOMINANCE MEASURE for the stratum. List any additional species that individually comprise 20% or more of the TOTAL DOMINANCE MEASURE for that stratum. If the total is not at least 50%, include species in descending order of percent dominance until the total is >50%. If several species have the same percent dominance, include all at that percentage.

HYDROPHYTIC VEGETATION - Dominant when more than 50% of the DOMINANT VEGETATION are within the range OBL through FAC on the current [National List of Plant Species That Occur in Wetlands: Northeast \(Region 1\)](#). Species with NA or NI status are reported but are not included in the tally on the datasheet. With the exception of FAC, the + and - signs are ignored when processing the wetland indicator status data, i.e., FACW+, FACW-, FAC+, FACU+, and FACU- are considered FACW, FAC, and FACU, respectively.

Individual plants may be considered hydrophytes when those individuals display morphological or physiological adaptations to wetland hydrology and are within the observation plot. Such plants should be noted with an asterisk (*) on the datasheet. Observable plant adaptations to wetland hydrology include:

Pneumatophores	Polymorphic Leaves	Buttressed Trees	Hypertrophied Lenticels
Stooling	Inflated Leaves, Stems, or Roots	Adventitious Roots	Rhizospheric Oxidation
Shallow Root Systems	Floating Leaves	Floating Stems	

HYDROLOGY

WETLAND HYDROLOGY - permanent or periodic inundation, or soil saturation for a significant period (in New England, usually two weeks or more), during the growing season. Hydrology is often the most difficult feature to observe. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alteration, etc. Interpretation of hydrology may require repeated observation over more than one season. Evidence must occur during the growing season or reflect conditions during the growing season. Observable evidence of hydrology includes:

Inundation	Soil Saturation in Upper Portions	Water Marks
Drift Lines	Sediment Deposits	Drainage Patterns within Wetland

SOILS

HYDRIC SOIL - a soil that is saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions in the upper part.

SOIL SURFACE - The reference point (0") for depth measurements varies depending on the soil conditions. 1) For organic soils (Histosols) and soils with an organic surface horizon greater than 8" (histic epipedon), the point of measurement is the top of the part of the O-horizon that is at least slightly decomposed. Fresh leaf or needle fall that has not undergone observable decomposition is excluded from soil and may be described separately. 2) For mineral soils lacking an organic surface horizon greater than 8", the surface is the top of the mineral soil horizons.

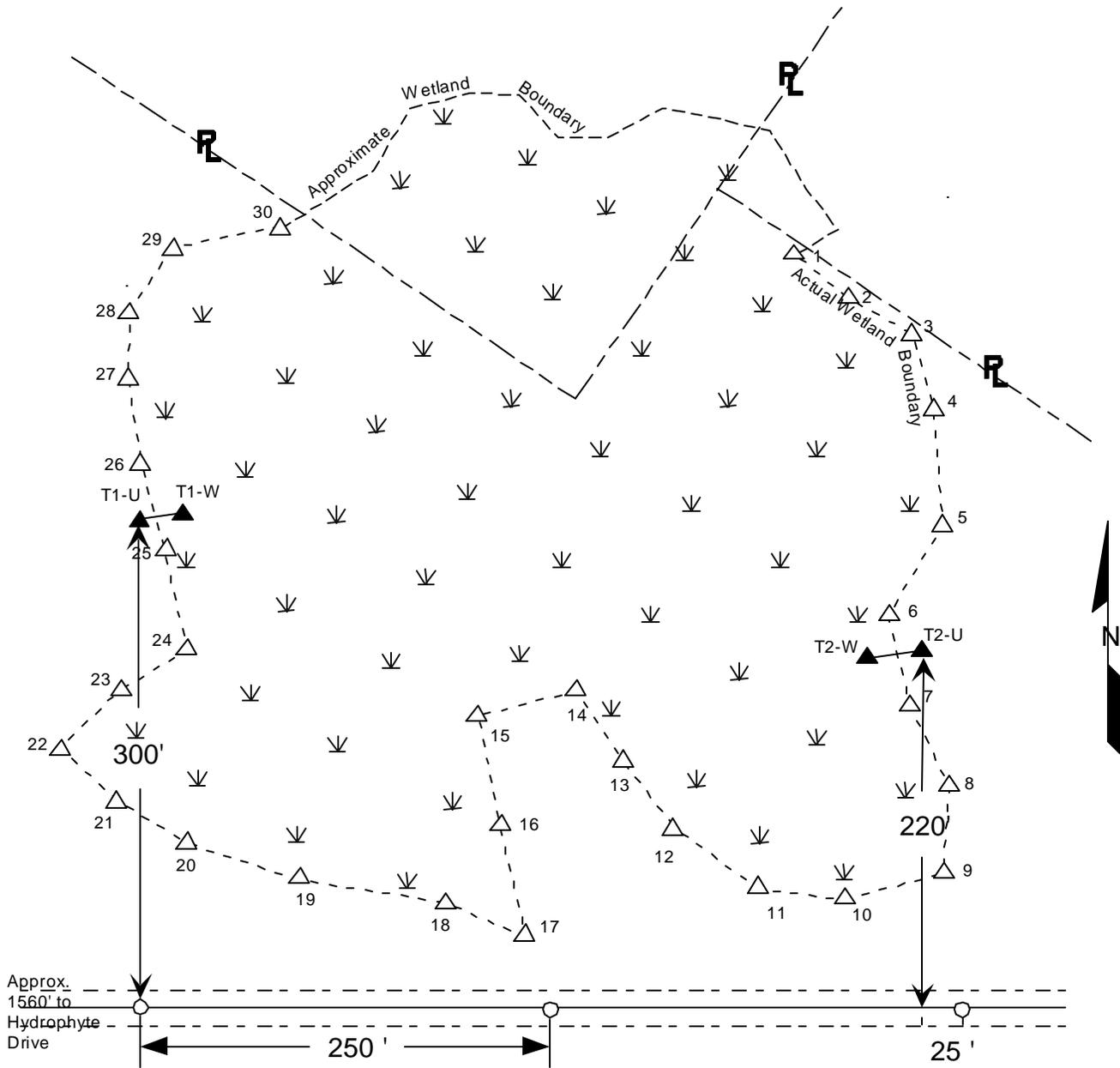
DEFINITIONS

OBSERVATION PLOT - Sites along a transect where the details about vegetation, soils, and hydrology are observed and recorded. Minimally, one observation plot upgradient and one downgradient from the wetland boundary will be recorded. Together, these two points are the delineator's reasoning behind his/her wetland boundary. It is important that these plots are fair representations of the site conditions along the boundary. It is also important that the two documented plots can be recovered and confirmed by the authenticating agency. Typically, the centers of these two plots should be 15 to 30' from each other; however, broad transitions may necessitate a wider separation. Plot locations must be recoverable from a known station.

KNOWN STATION - An easily recognizable, accessible, and reasonably permanent cultural or natural feature used as a reference point for horizontal survey control and included in the plan of the project site. A known station must be available within 1000' of all recorded observation plots. Where such reference points are not available, known stations should be established by land survey, visibly marked and illustrated on the plan view. The land survey must be verifiable with an accuracy of 1/500 ratio of error. [Note: If a Differential Global Positioning System is used to establish the known stations, we request that the stations be established at well-defined nodes along the wetland boundary. We also request that geographic coordinates (latitude and longitude) be reported to the nearest 1/10th second.]

BASELINE – A wetland survey control feature used to establish and recover locations of transects and observation points. It is usually parallel to the watercourse or perpendicular to the hydrologic gradient. The length of the baseline may be used to guide the minimum number of transects.

TRANSECT - A line on the ground along which observations are made. Transects are used to represent conditions along the boundary of Federal jurisdiction. The number of transects must be sufficient to insure that all plant community types in the impact area along the wetland/non-wetland interface are revealed in the sampling. Generally, transects will be sampled at a rate of 3 per linear mile of baseline and increase at a rate of 1 transect per additional 0.5 mile of baseline length. Ideally, the intervals between transects should be equal; however, this consideration is subordinate to the stated need to sample all plant community types and the need to represent conditions in close proximity to the areas of the impacts.



FEDERAL WETLAND BOUNDARY

PROPERTY OF
Reginald and Regina O'Day
Joru, RI

Scale in feet

CENAE-R-PT Version 9/1/04

LEGEND

- Property Line
- Actual Wetland Limits
- Wetland Flag
- Approximate Wetland Limits
- Sanitary Sewer used as Baseline
- Manhole used as Known Station
- Transect and Data Points
- Wetland

PROJECT TITLE:

TRANSECT:

PLOT:

DELINEATOR(S):

DATE:

VEGETATION

Stratum and Species

Observed
Dominance

Relative
Dominance

D
O
M

NWI Status

HYDROPHYTES

NON-HYDROPHYTES

 OBL FACW FAC *OTHER

 FAC- FACU UPL

Hydrophytes Subtotal (A): ____

Non-hydrophytes Subtotal (B): ____

PERCENT HYDROPHYTES (100A/A+B): _____

HYDROLOGY

RECORDED DATA

Stream, lake, or tidal gage Identification: _____

Aerial photography Identification: _____

Other Identification: _____

NO RECORDED DATA

OBSERVATIONS:

Depth to Free Water: _____

Depth to Saturation (including capillary fringe): _____

Altered Hydrology (explain): _____

Inundated Saturated in upper 12" Water Marks Drift Lines Sediment Deposits Drainage Patterns within Wetland

OTHER (explain):

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.

Submission of photo of plot is encouraged.

DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)

HYDRIC SOIL INDICATOR(S):

REFERENCE(S):

OPTIONAL SOIL DATA

REFERENCE(S):

Taxonomic subgroup:
 Soil drainage class:
 Depth to active water table:
 NTCHS hydric soil criterion:

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	<input type="checkbox"/>	<input type="checkbox"/>	
Hydric soils criterion met?	<input type="checkbox"/>	<input type="checkbox"/>	
Wetland hydrology criterion met?	<input type="checkbox"/>	<input type="checkbox"/>	
IS THIS DATAPOINT IN A WETLAND?	<input type="checkbox"/>	<input type="checkbox"/>	

PROJECT TITLE:

TRANSECT:

PLOT:

PROJECT TITLE: Reginald and Regina O'Day

TRANSECT: T1

PLOT: W

DELINEATOR(S): Becky Minshee

DATE: April 1, 2004

VEGETATION	Stratum and Species	Observed Dominance	Relative Dominance	DOM	NWI Status
<u>SEEDLINGS & HERBS</u>					
	Osmunda cinnamomea	10.5/56.5	19	x	FACW
	Clethra alnifolia	10.5/56.5	19	x	FAC+
	Maianthemum canadense	20.5/56.5	37	x	FAC-
	Onoclea sensibilis	3/56.5	5		-----
	Acer rubrum	3/56.5	5		-----
	Toxicodendron radicans	3/56.5	5		-----
	Lycopodium obscurum	3/56.5	5		-----
	Aralia nudicaulis	3/56.5	5		-----
<u>SHRUBS</u>					
	Clethra alnifolia	10.5/21	50	x	FAC+
	Vaccinium corymbosum	10.5/21	50	x	FACW
<u>SAPLINGS</u>					
	Acer rubrum	63/73.5	86	x	FAC
	Pinus strobus	10.5/73.5	14		-----
<u>TREES</u>					
	Acer rubrum	320/440	73	x	FAC
	Pinus strobus *shallow roots	120/440	27	x	*FACU
<u>VINES</u>					
	Smilax glauca	6/10	60	x	FACU
	Vitis novae-anglae	4/10	40		NI

HYDROPHYTES

0 2 4 1
 OBL FACW FAC *OTHER

Hydrophytes Subtotal (A): 7

NON-HYDROPHYTES

1 1 0
 FAC- FACU UPL

Non-hydrophytes Subtotal (B): 2

PERCENT HYDROPHYTES (100A/A+B): 7/9 = 78%

HYDROLOGY

- RECORDED DATA
 Stream, lake, or tidal gage Identification: _____
 Aerial photography Identification: _____
 Other Identification: County Soil Survey, 1990 - water table at or near
 NO RECORDED DATA surface October - May

- OBSERVATIONS:
 Depth to Free Water: > 30" - Driest portion of growing season
 Depth to Saturation (including capillary fringe): >30"
 Altered Hydrology (explain): No apparent alterations

- Inundated Saturated in upper 12" Water Marks Drift Lines Sediment Deposits Drainage Patterns within Wetland
- OTHER (explain): Oxidized root channels in A-horizon. Property owner acknowledges that site is very wet in early spring.

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.

View looking north

T2-W T2-U EAST

2% slope

>5% slope

Submission of photo of plot is encouraged.

DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
3 - 2"	Oi	--	--	fibric (maple leaves and pine needles)
2 - 0"	Oa	5YR 2.5/1	--	sapric
0 - 3"	A	10YR 2/1	2.5Y 4/6, f1p	fsl, oxidized root channels, many medium & coarse roots
3 - 9"	Bw	10YR 5/3	2.5Y 5/2, c(>10%)2d	fsl, massive, common f & vf roots in upper part, f roots in lower part
9 - 20"	Bg	2.5Y 5/2	10YR 5/4, f2p	fsl, massive, no roots
20 - 30"	Cd	2.5Y 5/4	10YR 5/2, f2d	fsl, compact basal till - compact restrictive layer
>30"	--	--	--	Not observed below 30"

Note: Pit and mound microtopography. Pits comprise more than 50% of the surface area. Profile describes the typical pit at this position on the slope.

HYDRIC SOIL INDICATOR(S):

XI .A

REFERENCE(S):

NEI WPCC.April 2004. Field Indicators for Identifying Hydric Soils in New England

OPTIONAL SOIL DATA

REFERENCE(S):

Taxonomic subgroup: Aeric Epiaquept
 Soil drainage class: Poorly drained B3b(1)
 Depth to active water table: <3 inches
 NTCHS hydric soil criterion: F3

USDA, NRCS 2003. New Edition of the keys to soil Taxonomy, Ninth Ed.
 US Corps of Engineers, New England. 1991. Soil Drainage Classes - Draft Guidelines
 NRCS.WSI .2003.Field Indicators of Hydric Soils in the U.S. Version 5.01.

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Hydric soils criterion met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Wetland hydrology met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
IS THIS DATAPOINT IN A WETLAND?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

PROJECT TITLE: Reginald and Regina O' Day

TRANSECT: T1

PLOT: W