

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Proposed Nestle Global Research Center City/County: Solon, Cuyahoga Sampling Date: 9/27/11
Applicant/Owner: Nestle R&D Center, Inc. State: Ohio Sampling Point: Upland Area south of Wet E
Investigator(s): S.Peffer/Atwell, LLC Section, Township, Range:
Landform (hillslope, terrace, etc.): slight terrace Local relief (concave, convex, none):
Slope (%): Lat: 41.407716 Long: -81.471397 Datum:
Soil Map Unit Name: Wadsworth silt loam, 0-2% slopes NWI classification:

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 [] 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:

- Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
[] Surface Water (A1) [] Water-Stained Leaves (B9) [] Surface Soil Cracks (B6)
[] High Water Table (A2) [] Aquatic Fauna (B13) [] Drainage Patterns (B10)
[] Saturation (A3) [] Marl Deposits (B15) [] Moss Trim Lines (B16)
[] Water Marks (B1) [] Hydrogen Sulfide Odor (C1) [] Dry-Season Water Table (C2)
[] Sediment Deposits (B2) [] Oxidized Rhizospheres on Living Roots (C3) [] Crayfish Burrows (C8)
[] Drift Deposits (B3) [] Presence of Reduced Iron (C4) [] Saturation Visible on Aerial Imagery (C9)
[] Algal Mat or Crust (B4) [] Recent Iron Reduction in Tilled Soils (C6) [] Stunted or Stressed Plants (D1)
[] Iron Deposits (B5) [] Thin Muck Surface (C7) [] Geomorphic Position (D2)
[] Inundation Visible on Aerial Imagery (B7) [] Other (Explain in Remarks) [] Shallow Aquitard (D3)
[] Sparsely Vegetated Concave Surface (B8) [] FAC-Neutral Test (D5)
[] Microtopographic Relief (D4)

Field Observations:

Surface Water Present? Yes [] No [X] Depth (inches):
Water Table Present? Yes [] No [X] Depth (inches):
Saturation Present? Yes [] No [X] Depth (inches):
(Includes capillary fringe)

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: **Upland E**

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: 30')																				
1.	5	Yes	FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A) Total Number of Dominant Species Across All Strata: 6 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)																
2.	50	Yes	FACU																	
3.	10	Yes	FAC																	
4.																				
5.																				
6.																				
7.																				
	65= Total Cover			Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td style="text-align:center;">x 1 =</td> </tr> <tr> <td>FACW species</td> <td style="text-align:center;">x 2 =</td> </tr> <tr> <td>FAC species</td> <td style="text-align:center;">x 3 =</td> </tr> <tr> <td>FACU species</td> <td style="text-align:center;">x 4 =</td> </tr> <tr> <td>UPL species</td> <td style="text-align:center;">x 5 =</td> </tr> <tr> <td>Column Totals:</td> <td style="text-align:center;">(A) (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A =</td> </tr> </table>	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 =	
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 =																				
Sapling/Shrub Stratum (Plot size: 30')																				
1.	5	Yes	FACW																	
2.	25	Yes	N I																	
3.																				
4.																				
5.																				
6.																				
7.																				
	30= Total Cover			Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
Herb Stratum (Plot size:)																				
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
11.																				
12.																				
	= Total Cover			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 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.																
Woody Vine Stratum (Plot size: 15')																				
1.	15	Yes	FAC																	
2.																				
3.																				
4.																				
	15= Total Cover			Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
Remarks: (Include photo numbers here or on a separate sheet.)																				

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-24	10 YR 3/2						clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: 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)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 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 (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators 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

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