AQUATIC RESOURCES REPORT 2150 Dryden Road Project Town of Dryden, Tompkins County, NY

APRIL 2017

Prepared for:

SUN8 PDC, LLC c/o Distributed Sun 601 13th Street NW Suite 450 South Washington, DC 20005

Prepared by:

Tetra Tech, Inc. 301 Ellicott Street Buffalo, NY 14203 (716) 849-9419 Fax (716) 849-9420

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Aquatic Resources Report 2150 Dryden Road Tompkins County, New York

1.0 Introduction

Tetra Tech, Inc. (Tetra Tech) was contracted by SUN8 PDC, LLC ("SUN8") to perform an aquatic resources survey of an approximately 250-acre area on and around 2150 Dryden Road (tax identification number 38.-1-3.1) in the Town of Dryden, Tompkins County, New York.

The purpose of this investigation was to determine the presence and extent of resources within the survey area that meet the criteria for federal wetlands designation according to the United States Army Corps of Engineers (USACE) guidelines, and are potentially jurisdictional and regulated under Section 404 of the Clean Water Act (CWA). Additionally, the survey was used to determine the presence and extents of any New York State Department of Environmental Conservation (NYSDEC) Freshwater Wetlands (FWW) and their 100-foot wide adjacent area or buffer. Background review information, such as U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) mapped soils, presence of U.S. Fish and Wildlife Service National Wetlands Inventory (USFWS NWI) features, and presence of NYSDEC FWW features that fall within the property boundary are summarized within Survey Methods below.

The following report summarizes the characteristics of delineated resources and report attachments include: Attachment A - Figures, Attachment B - Photographic Log, and Attachment C - Data Forms.

2.0 Survey Methods

2.1 Background Research

Prior to conducting fieldwork, Tetra Tech reviewed existing information for the survey area, including:

- Draft site plan layouts of the proposed arrays at 2150 Dryden Road produced by Labella Associates, D.P.C., dated April 7, 2017
- United States Geological Survey (USGS) 7.5-minute series topographic quadrangle maps for the survey areas (Dryden, NY 1969).
- Soil survey maps, descriptions, and lists, to determine presence and extent of hydric and upland soils (USDA, NRCS 1965), Soil Survey Geographic [SSURGO] database for: Tompkins County, NY (1965).
- NWI geospatial data available from the USFWS for the survey area (USFWS, Wetlands Mapper, data downloaded April 2017); and,
- NYSDEC FWW locations, last updated 1994 (NYSDEC, downloaded April 2017, available at http://cugir.mannlib.cornell.edu/datatheme.jsp?id=111)
- Aerial photographs to identify drainage and other hydrologic features (Environmental Sciences Research Institute, Inc. [ESRI] online mapping services, available at: services.arcgisonline.com/arcgis/service).

2.2 On-Site Delineation

Following the review of background information, two experienced wetland scientists (each has over three years' extensive experience with wetland delineations and aquatic resource restoration) performed a field survey on April 5 and 10, 2017. The surveys consisted of walk-through inspection of the survey area to identify topographic, drainage, and vegetation features that would indicate the potential for a wetland determination. Potential wetlands were further evaluated by collecting soil, vegetation, and hydrology data at upland and wetland sample locations at suspected wetland boundaries. Sample plot data were recorded

on Northcentral and Northeast Region Wetland Determination Data Forms provided within the regional supplement.

The survey area was evaluated for the presence and extent of wetlands using the routine, Level-2 determination method described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)* (USACE 2012). Wetlands identified and delineated were subsequently classified in accordance with the Classification of Wetlands and Deepwater Habitats of the United States (Cowardin *et al.* 1979). Classifications were restricted to palustrine emergent (PEM), palustrine scrub-shrub (PSS), and palustrine forested (PFO). Wetland boundaries were also flagged and marked in the field and each wetland area was photographed.

Each wetland and waterbody was further evaluated to characterize the hydrological connection to adjacent upland, wetland, and waterbody regions occurring in proximity to the survey area investigated. Specific methods for characterizing and evaluating the soils, vegetation, and hydrologic indicators are described below.

Vegetation: Dominant plant species in each major vegetation stratum (tree, sapling/shrub, herbaceous, and woody vine) were identified within 30-foot radius sample plots. The wetland indicator status of each species was assigned according to the *Eastern Mountains and Piedmont Region National Wetlands Plant List* (Lichvar *et al.* 2014a) and *Northcentral and Northeast Regional Wetland Plant List* (Lichvar *et al.* 2014b). Hydrophytic vegetation was determined to be present where more than 50 percent of the dominant species from all vegetation strata were classified as facultative (FAC), facultative wetland (FACW), or obligate wetland species (OBL). Other tests used to evaluate the dominance of hydrophytic species included the Dominance Test and the Prevalence Index (USACE 2012).

Soils: A soil auger was used at each sample plot to extract a core sample to a depth where either hydric indicators were observed, approximately 20 inches, or until rocky substrate resulted in auger refusal. The soils were characterized by determining the color and texture of each soil horizon. Soil matrix and mottle colors were identified using Munsell Soil Color Charts (Munsell Color 2009). Soils were considered hydric if they exhibited one (1) or more of the following indicators, including, but not limited to: histosols, histic epipedons, black histic, hydrogen sulfide, stratified layers, 2 cm muck, depletion below dark surface, thick dark surface, sandy mucky mineral, sandy gleyed matrix, sandy redox, stripped matrix, dark surface, polyvalue below surface, thin dark surface, loamy gleyed matrix, depleted matrix, redox dark surface, depleted dark surface, redox depressions, iron-manganese masses, umbric surface, Piedmont floodplain soils, and red parent material. These indicators support a hydric soil determination, although secondary or additional indicators may also be present.

Hydrology: Each sample plot was examined for evidence of wetland hydrology. Indicators of wetland hydrology include: surface water, high water table, saturations, water marks, sediment deposits, drift deposits, algal mat or crust, iron deposits, visible inundation on aerials, water stained leaves, aquatic fauna, true aquatic plants, hydrogen sulfide odor, oxidized rhizospheres on living roots, presence of reduced iron, recent iron reduction in tilled soils, or a thin muck surface. Presence of standing water or depth to soil saturation was recorded at each sampling location.

2.3 Waterbody Identification

Prior to field surveys, known waterbodies in the survey area were identified on USGS topographic quadrangle maps. During the field investigation a qualified biologist examined the entire field survey area for mapped and unmapped waterbodies. Waterbodies identified included perennial, intermittent, and ephemeral streams and ponds. Data recorded included stream name, associated wetlands, flow regime (perennial, intermittent, or ephemeral), direction of flow, water width, bank-to-bank width, bank height and slope, water depth, bottom and bank substrates, observed water quality, channel meander, and adjacent vegetation type. In addition, indicators of aquatic habitat, wildlife use, and soil erosion potential were recorded.

2.4 GPS Mapping

Wetland and waterbody boundaries/alignments were flagged at regular intervals to accurately represent the boundary between the aquatic resource and the adjacent upland. Flag points were then land surveyed using a Trimble, Inc. (Sunnyvale, CA) Geo XH Global Positioning System (GPS). Each point used an identification code and was numbered consecutively to facilitate the desktop mapping process. Flag points were differentially corrected in accordance with Trimble, Inc. sub-meter accuracy standards. All data was recorded in the WGS 84 coordinate zone and then projected into NAD 83 State Plane New York Central using ArcGIS 10.2.

Attribute data for all flag points was recorded, including the following information:

- Unique number or name;
- NAD 1983 coordinates;
- Date:
- Time;
- Number of positions recorded;
- Max value position dilution of precision (PDOP); and,
- Horizontal accuracy (in meters)

GPS data were differentially corrected using Pathfinder Office 5.60 software (Trimble Inc., Sunnyvale, CA) and commercial base station control points. Corrected flag points were then imported into ArcView 10.2 (ESRI; Redlands, CA) Geographic Information System (GIS) mapping software where points were connected in consecutive order and according to surveyor notes. Wetland boundaries were left "open" when the wetland extended beyond the survey boundaries and were "closed" when contained entirely within the survey boundaries. Stream alignments were connected in a similar manner and designated as "line" data. A geo-referenced wetland delineation boundary suitable for overlay onto themed base layers was created using ArcView 10.2 GIS software. The same GIS software was also used as an analytical tool, providing acreages of the delineated wetlands and coordinate location of the centroids of the polygons.

3.0 Survey Results

3.1 Background Data Review

General Area Description

Land use within the survey boundary consists shrubland, cropland, undeveloped forest, shrublands, and a variety of wetland habitats. Attachment A, Figure 2 provides an aerial basemap of the survey area.

Soils

A review of published and publicly available soils data for the survey area indicates that fourteen (14) soils series are mapped within the survey boundary (Attachment A, Figure 1). Mapped soil series are summarized in Table 1 below.

Table 1. Mapped Soil Types on the 2150 Dryden Wetland Delineation

Soil Symbol	Soil Name and Brief Description ¹	Hydric Soil Classification				
ArB	Arkport fine sandy loam, 2 to 6 percent slopes	N				
EbB	Erie channery silt loam, 3 to 8 percent slopes	Y				
FdB	Fredon silt loam, 0 to 5 percent slopes	Y				
Gn	Genesee silt loam	N				
На	Halsey silt loam	Y				
Hc	Halsey mucky silt loam	Y				
HdC	Howard gravelly loam, 5 to 15 percent simple slopes	N				
HdD	Howard gravelly loam, 15 to 25 percent slopes	N				
LaB	Langford channery silt loam, 2 to 8 percent slopes	N				
Mm	Madalin mucky silty clay loam	Y				
PhB	Phelps gravelly silt loam, 3 to 8 percent slopes	N				
RkA	Rhinebeck silt loam, 0 to 2 percent slopes	Y				
RkB	Rhinebeck silt loam, 2 to 6 percent slopes Y					
Ws	Wayland soils complex, 0 to 3 percent slopes, frequently flooded	Y				

¹USDA, NRCS, Soil Series Descriptions for Tompkins County, NY, 1965.

Mapped Wetlands

Nine (9) USFWS mapped NWI features were identified in the Site boundary. That includes three (3) freshwater emergent wetland (PEM1E) features, two (2) freshwater forested/shrub wetland (PSS1E) features, three (3) riverine (two R4SBC and one R3UBH) features, and one (1) freshwater forested/shrub wetland (PFO1E) feature. No NYSDEC Freshwater Wetlands Program wetland features or 100-foot adjacent areas were located in the immediate proximity or within the Site boundary.

Mapped Waterbodies

The USGS 7.5-minute series topographic quadrangle maps depict three (3) streams in or adjacent to the survey areas. At the northeast property boundary, NYSDEC has classified Virgil Creek as a Class C (T) (i.e., trout water) stream. Additionally, a Class C stream is identified flowing through the eastern side of the Site, and a third Class C stream is identified just outside the survey limits.

3.2 Delineated Aquatic Resources

Six (6) wetlands meeting USACE identification criteria were identified in the survey. Four (4) of the identified wetlands contain multiple cover classes (PFO, PSS, and/or PEM) as defined by Cowardin classification. Table 2 below summarizes these wetlands and their current conditions. Geometry and alignments of these wetlands are provided in Attachment A, Figure 2, and photos of these wetlands can be found in Attachment B.

Table 2. Delineated Wetlands on the 2150 Dryden Wetland Delineation

Wetland	Cover	Hydrology	Hydric Vegetation	Hydric Soils	Tyden Wettand Defineation
ID	Class ¹	Indicator ²	Indicator ^{2, 3}	Indicator ²	Brief Wetland Description
	PEM	A1, A2, A3, B7, C1, C3, C4, B10, C9, D2, D4	RT, DT, PI	F3	Basin wetland as drainage area from sloped areas
W1a	PSS	A1, A2, A3, B1, C3, C4, C7, B10, B16, D2, D4	RT, DT, PI	A11, F3	east and south of the Site. Part of a large complex wetland system that likely expands off site to the east.
	PFO	A3, B1, B9, C4, B10, B16, D2	RT, DT, PI	A11, F3	
W2a	PEM	A1, A2, A3, B1, B7, B13, C7	RT, DT, PI	A3, A4	Small, isolated feature adjacent to engineered private road. Occasionally inundated, but substrate indicates vegetation grows in a lack of stormwater.
	PEM	A2, A3, B9, C1, B10, D2, D4	RT, DT, PI	F3	Wetland system in drainage pattern to Virgil Creek, with significant runoff hydrology from the south.
W3a	PSS	A3, B1, B9, C4, B10, B16, D2, D4	RT, DT, PI	F3	Likely had previous activities causing an impoundment situation for agricultural use of the
	PFO	n/a	n/a	n/a	property.
	PEM	A1, A2, A3, C4, B10, D2, D4	RT, DT, PI	F3	Basin wetland as drainage area from sloped areas east and south of the Site. Part of a large complex
W4a	PFO	A1, A2, A3, B1, B9, B10, B16, D1, D2, D4	RT, DT, PI	A3, F3, F8	wetland system that expands off site to the west and northwest, likely to the confluence of Mill Creek and Virgil Creek.
W8a	PSS	А3	RT, DT, PI	A11, F3	Gully "draw" leading west off property, likely continues north, connecting with wetland W4a.
W1b	PEM	A1, A3, B1	RT, DT, PI	F3	Basin wetland associated with stream S2 offsite and stream S3 eastern flow towards adjacent properties. There are signs that this wetland may have
VVID	PSS	A1, A3, B1	RT, DT, PI	F3	historically been used for agriculture, but has been abandoned likely to an increase in hydrology through neighboring development.

¹Field classification based on Cowardin et al. 1979.

The wetland areas are dominated by cottonwood (*Populus deltoides*), green ash (*Fraxinus pennsylvanica*) in the tree stratum. Redosier dogwood (*Cornus sericea*), various willows (*Salix* spp.), honeysuckle (*Lonicera* spp.), and hawthorne (*Crataegus* spp.) were found in the shrub layers across the Site, and broadleaf cattail (*Typha latifolia*), reed canarygrass (Phalaris arundinacea), and sensitive fern (*Onclea sensibilis*) were the dominant species in the herb stratum. Other species present in the Site include nannyberry (*Viburnum lentago*), red maple (Acer rubrum), skunk cabbage (*Symplocarpus foetidus*), woolgrass (*Scirpus cyperinus*), and soft rush (*Juncus effusus*).

Four (4) streams were identified during the survey, all unnamed tributaries (UNT) to Virgil Creek immediately northeast of the Site. Table 3 below summarizes the streams identified on-site. Geometry and alignments of these streams are provided in Attachment A, Figure 2, and photos of these streams can be found in Attachment B.

Table 3. Delineated Streams on the 2150 Dryden Wetland Delineation

	Table 3. Defineated Streams on the 2130 bryden Wetland Defineation										
Stream ID	USGS Name	Flow Regime	Bank Width (feet)	Water Width (feet)	Water Depth (inches)	NYS Water Quality Classification	Flow Direction				
S1	UNT to Virgil Creek	Perennial	4	3	6	Drains to C(T)	N				
S2	UNT to Virgil Creek	Intermittent	4	4	3	Drains to C(T)	N				
S3	UNT to Virgil Creek	Ephemeral	3	1	2	Drains to C(T)	W				
S4	UNT to Virgil Creek	Intermittent	3	2	3	Drains to C(T)	Е				

^{*}Note that widths and depths are averages based on the assessed limits of the features

²Indicator codes from Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (V 2.0).

³RT = Rapid Test, DT = Dominance Test, PI = Prevalence Index.

Additionally, two (2) ponds were identified in the Site boundaries. Pond P1 is an intermittent pond generally retaining stormwater and groundwater seasonally. Pond P3 is an excavated pond that perennially holds water and is used for recreation and drainage.

4.0 Summary

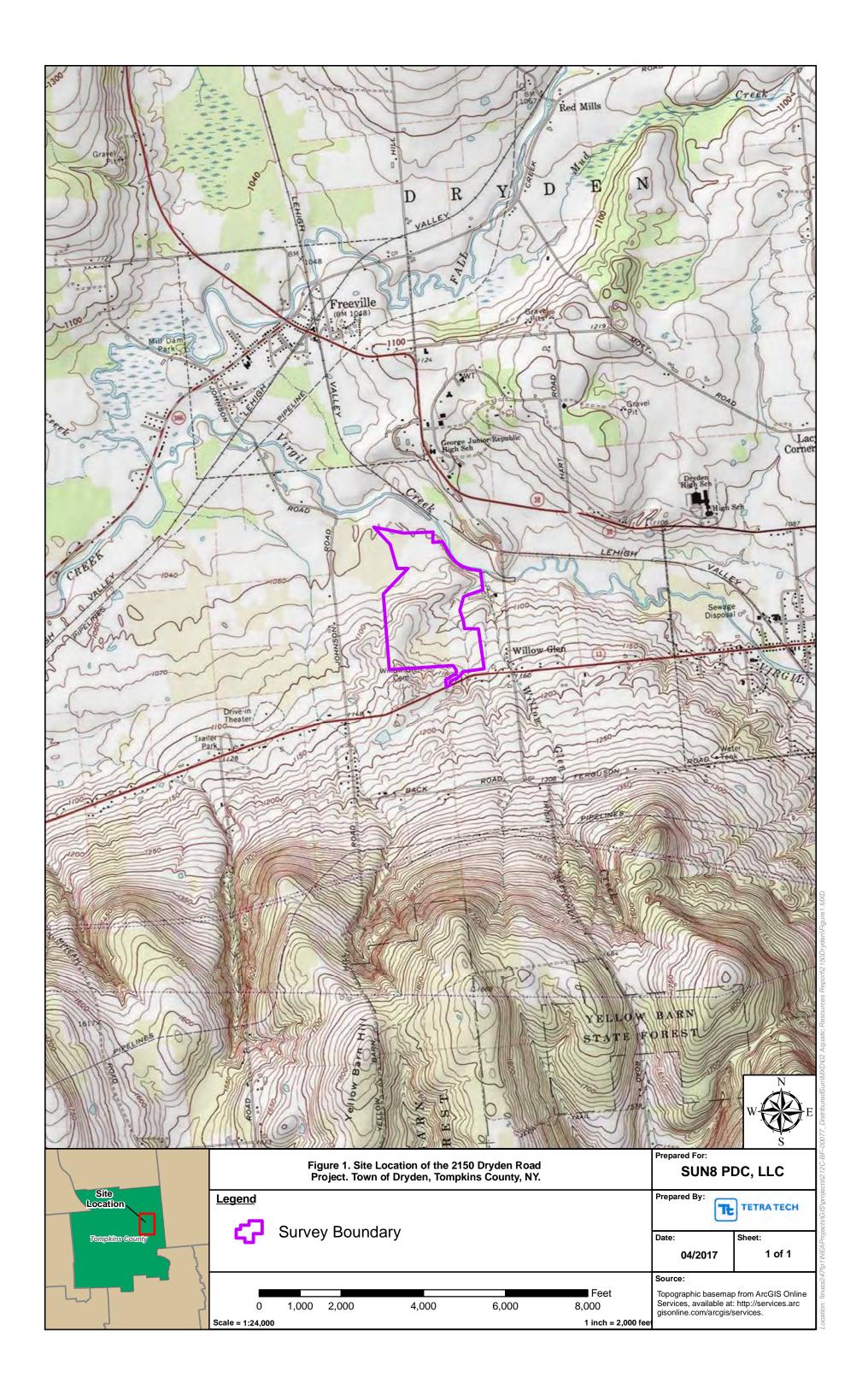
Tetra Tech completed an aquatic resource survey on an approximately 250 acre area located adjacent to Dryden Road and George Road, in the Town of Dryden, Tompkins County, New York. Six (6) wetlands, four (4) streams, and two (2) ponds were identified in the Site. Section 3.2 summarizes the data for the delineated resources. Attachment A provides figures regarding the location and results of the survey, Attachment B provides photos of the feature and the site, and Attachment C provides the data forms from the survey.

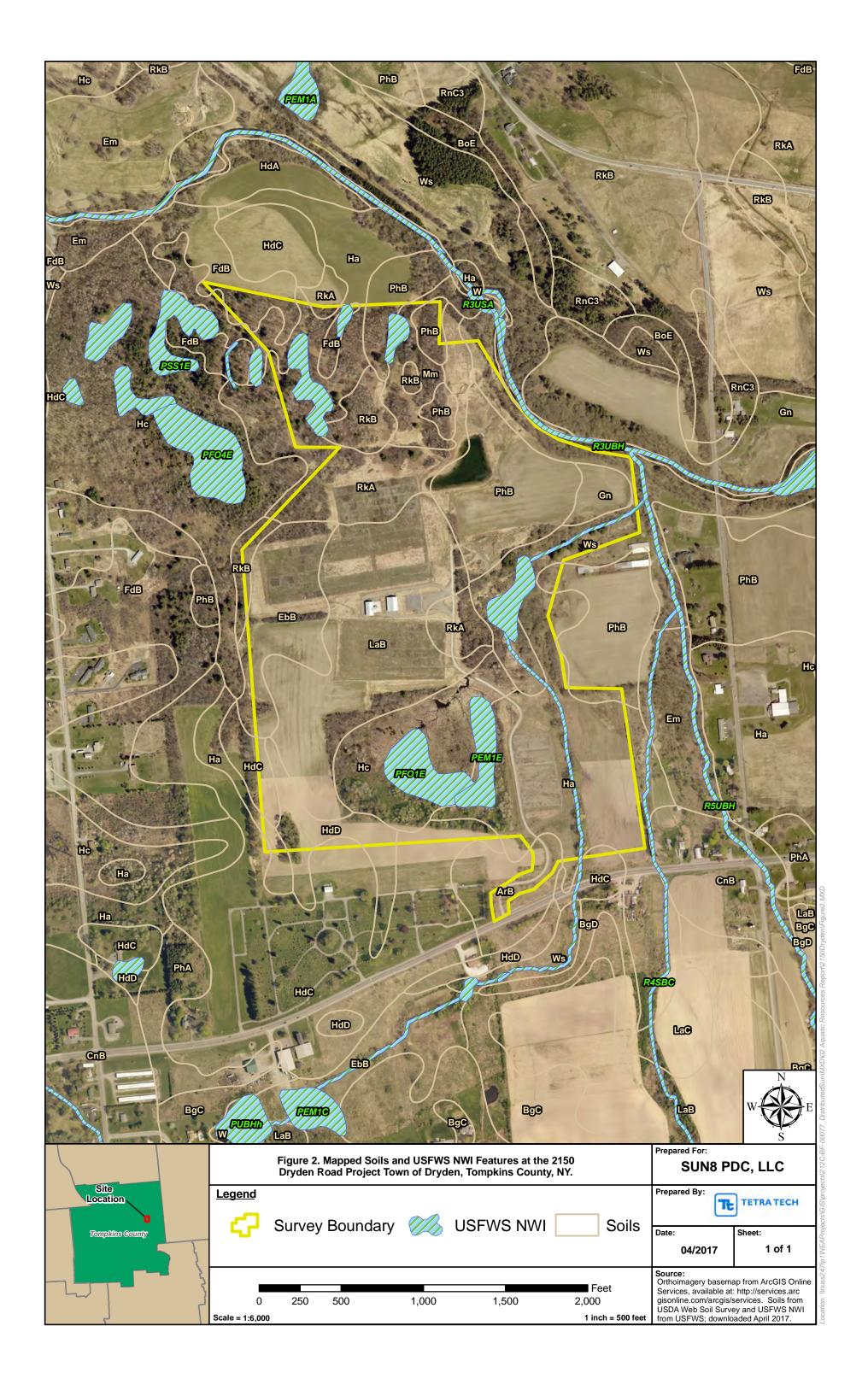
5.0 References

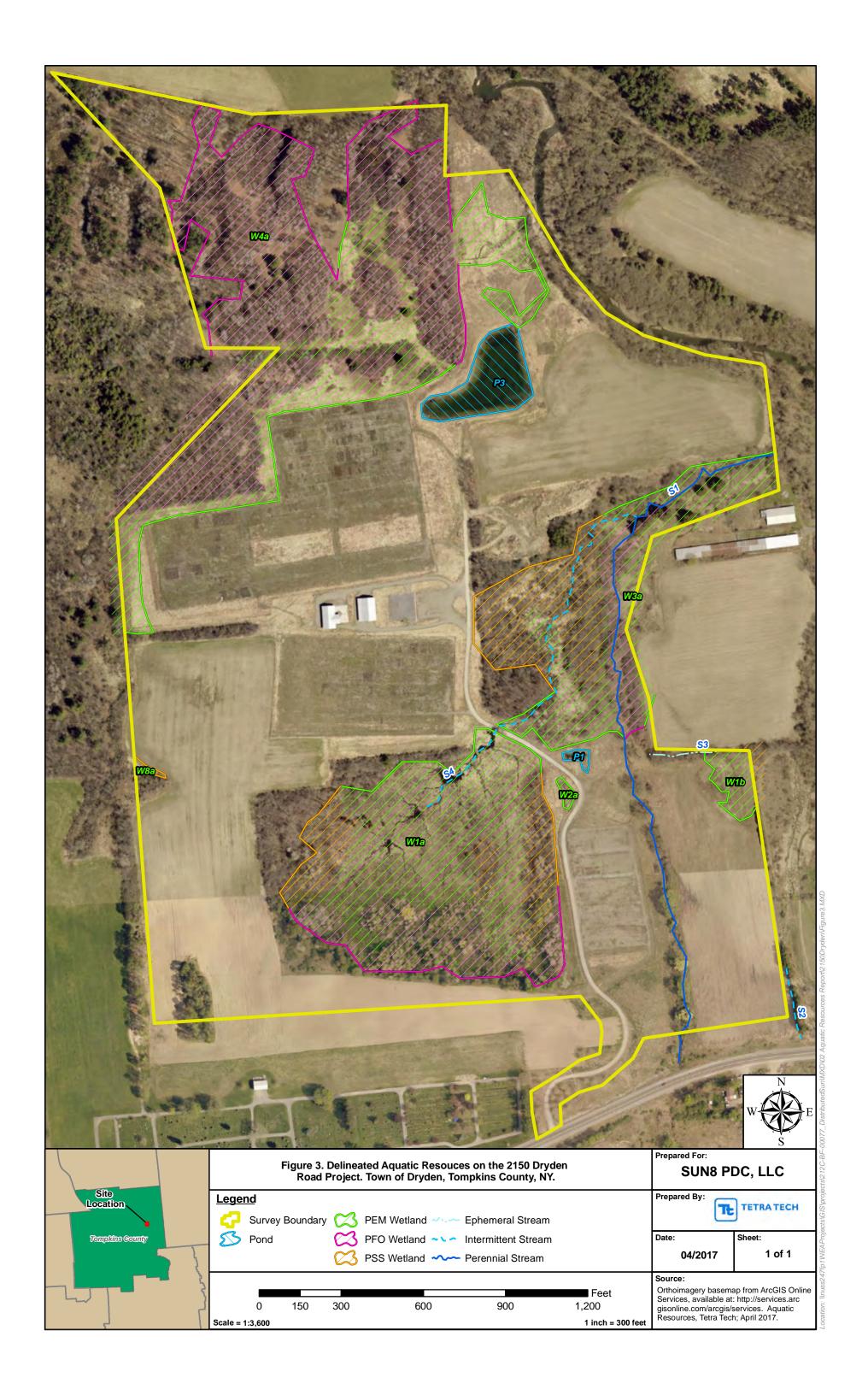
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. FWS/OBS-79/31, Washington, D.C. 131 pp.
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- Lichvar, R.W., M. Butterwick, N.C. Melvin, and W.N. Kirchner. 2014. *The National Wetland Plant List*: 2014 Update of Wetland Ratings. Phytoneuron 2014-41: 1-42.
- United States Army Corps of Engineers. 2012. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0). Vicksburg, MS. 176 pp.
- United States Department of Agriculture, Natural Resources Conservation Service and University of California Davis. 2011. SoilWeb App. Available at http://casoilresource.lawr.ucdavis.edu/soilwebapps/.

ATTACHMENT A

FIGURES







ATTACHMENT B

PHOTOGRAPHIC LOG

SUN8 PDC, LLC 2150 Dryden Road Project Photolog Company: **Project:**



Photographer: M. Guinan Date: 04/05/2017

Photo No.: 1 SW **Direction:**

Comments: Wetland W1a PEM portion characterized by tussocks

and standing water.



Photographer: M. Guinan 04/05/2017 Date:

Photo No.: 2 Е **Direction:**

Comments: Wetland W1a PSS section characterized by thick shrub vegetation growth with intermittent trees.

Company: SUN8 PDC, LLC
Project: 2150 Dryden Road Project

Photolog



Photographer: M. Guinan **Date:** 04/05/2017

Photo No.: 3
Direction: E

Comments: Wetland W1a PFO section characterized by living trees, moss lines, and some minor buttressing of individual features.



Photographer: M. Guinan **Date:** 04/05/2017

Photo No.: 4
Direction: S

Comments: Upland area adjacent to wetland W1a. No signs of hydrology are present and vegetation community changes are obvious.

SUN8 PDC, LLC 2150 Dryden Road Project Photolog Company: **Project:**



Photographer: M. Guinan Date: 04/05/2017

5 Photo No.: **Direction:** Е

Comments: Wetland W2a characterized by cattails in a roadside depressional area.



Photographer: M. Guinan 04/05/2017 Date:

Photo No.: 6 Е **Direction:**

Comments: Upland area adjacent to wetland W2a. No signs of hydrology are present and vegetation community changes are obvious.

Company: SUN8 PDC, LLC
Project: 2150 Dryden Road Project
Photolog



Photographer: M. Guinan **Date:** 04/05/2017

Photo No.: 7
Direction: N

Comments: Wetland W3a PEM section characterized by cattails in

a toeslope area.



Photographer: M. Guinan **Date:** 04/05/2017

Photo No.: 8
Direction: N

Comments: Wetland W3a PSS section characterized by thick shrub vegetation growth with

intermittent trees.

SUN8 PDC, LLC 2150 Dryden Road Project **Company: Project:**

Photolog



Photographer: M. Guinan Date: 04/05/2017

9 Photo No.: **Direction:** W

Comments: Upland area adjacent to wetland W3a. No signs of hydrology are present and vegetation community changes are obvious.



Photographer: M. Guinan 04/05/2017 Date:

Photo No.: 10 **Direction:**

Comments: Wetland W4a PEM section characterized significant saturation and vegetation community differences from adjacent uplands.

SUN8 PDC, LLC 2150 Dryden Road Project Photolog Company: **Project:**



Photographer: M. Guinan Date: 04/05/2017

11 Photo No.: **Direction:** \mathbf{S}

Comments: Upland area adjacent to wetland W4a. No signs of hydrology are present and there is an identifiable topographic change.



Photographer: N. Grosse 04/05/2017 Date:

Photo No.: 12 SW **Direction:**

Comments: Wetland W8a PSS section characterized by thick shrub vegetation growth with intermittent trees.

Company: SUN8 PDC, LLC
Project: 2150 Dryden Road Project

Photolog



Photographer: N. Grosse **Date:** 04/05/2017

Photo No.: 13
Direction: NE

Comments: Wetland W1b PEM section characterized by thick shrub vegetation growth with

intermittent trees.



Photographer: N. Grosse **Date:** 04/05/2017

Photo No.: 14 **Direction:** SW

Comments: Upland area adjacent to wetland W1b. No signs of hydrology are present and there is an identifiable topographic change.

SUN8 PDC, LLC 2150 Dryden Road Project Company: Project:

Photolog



Photographer: N. Grosse Date: 04/05/2017

Photo No.: 15 **Direction:** N

Comments: Pond P1 identified on the east side of the driveway through the Site.



Photographer: N. Grosse 04/05/2017 Date:

Photo No.: 16 **Direction:** W

Comments: Pond P3 identified in the north central area of the

Site.

Company: SUN8 PDC, LLC
Project: 2150 Dryden Road Project
Photolog



Photographer: N. Grosse **Date:** 04/05/2017

Photo No.: 17
Direction: N

Comments: Stream S1 looking

downstream.



Photographer: N. Grosse **Date:** 04/05/2017

Photo No.: 18
Direction: N

Comments: Stream S2 looking

downstream.

Company: SUN8 PDC, LLC
Project: 2150 Dryden Road Project
Photolog



Photographer: N. Grosse **Date:** 04/05/2017

Photo No.: 19
Direction: E

Comments: Stream S3 looking

upstream.



Photographer: N. Grosse **Date:** 04/05/2017

Photo No.: 20 Direction: N

Comments: Stream S4 looking

downstream.

ATTACHMENT C

DATA FORMS

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 2150 PRYDEN City/Coun	ty: Thompkins Sampling Date: 04/05 (17
Applicant/Owner: SNNB Solar	State: NY Sampling Point: WIG - WFT
Investigator(s): Section, T	Township, Range:
Landform (hillslope, terrace, etc.): Local relief (c	
Subregion (LRR or MLRA): Lat: 42° 29 51	Long: 31 . 25 . 12 Deturn 14 26 5 8/1
Soil Map Unit Name: HC-Halsey muchy silt long	Allast place is a strong DEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes_	
Are Vegetation, Soil, or Hydrology significantly disturbed?	, , , , , , , , , , , , , , , , , , ,
Are Vegetation, Soil, or Hydrology naturally problematic? SUMMARY OF FINDINGS – Attach site map showing sampling	
	the Sampled Area thin a Wetland? Yes ∨ No
Westerned Hardestern Power 10	
Wetland Hydrology Present? Yes No	es, optional Wetland Site ID:
romano. (Explain alternative procedures here of in a separate report.)	
, a	
*	*
g ==	
HYDROLOGY	
Wetland Hydrology Indicators:	52
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
V	Surface Soil Cracks (B6)
✓ Surface Water (A1) Water-Stained Leaves (B9 ✓ High Water Table (A2) Aquatic Fauna (B13)	
Saturation (A3) Marl Deposits (B15)	Moss Trim Lines (B16)
Water Marks (B1) ✓ Hydrogen Sulfide Odor (C	Dry-Season Water Table (C2) Crayfish Burrows (C8)
Sediment Deposits (B2)	
Drift Deposits (B3) Presence of Reduced Iron	
Algal Mat or Crust (B4) Recent Iron Reduction in 1	<u> </u>
Iron Deposits (B5) Thin Muck Surface (C7)	Shallow Aquitard (D3)
✓ Inundation Visible on Aerial Imagery (B7) — Other (Explain in Remarks)	s) <u>×</u> Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes X No Depth (inches): (a)	
bopar (mones): (p	× *
	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
(includes capillary fringe)	Wetland Hydrology Present? Yes K No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous	inspections), if available:
Remarks:	
	1
T	
×	* ±
765	
-	

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
· /	3			Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant Species Across All Strata:(B)
3				Species Across Air Strata.
4				Percent of Dominant Species That Are OBL, FACW, or FAC:
5				That Are OBL, FACW, or FAC:
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov		OBL species x 1 = 5
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =2
1				FAC species x 3 =
2				FACU species x 4 =
3				UPL species x 5 =
, 2				Column Totals: (A) (B)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				
7				2 - Dominance Test is >50%
		= Total Cov	/er	X 3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5)	6.		T 1 / 1 3	4 - Morphological Adaptations (Provide supporting
1. Pholoris arundinere			THEW	data in Remarks or on a separate sheet)
2. Typhe latifolia		<u>×</u>	OBL	Problematic Hydrophytic Vegetation¹ (Explain)
3. Scrpus experinus	12		OBL	¹Indicators of hydric soil and wetland hydrology must
4. Fragmites australis	10		FACW	be present, unless disturbed or problematic.
5. Juneus effusus	10		DBL	Definitions of Vegetation Strata:
6. Lythrum salicaria	_8	-	OBL	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7. Poa palustris	5		OBL	at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10.				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11,	3			
12.		*		Woody vines – All woody vines greater than 3.28 ft in height.
,	109	= Total Cov	/er	neignt.
Woody Vine Stratum (Plot size:)	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,- 1010100	,,,	
1,				Hydrophytic
2		-		Vegetation
3				Present? Yes No
4				
		= Total Co	ver	
Remarks: (Include photo numbers here or on a separate	sheet.)			
A1				
8				2

Depth	Matrix		Redox	Feature	<u>s</u>	_				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	-	Remarks	
5-3	10422/1	100					Jil+ lova	Organi	- layer	on suffer
- 12	104R 2/1	95	7.542518	~	PH	M	Silk/clay	-		
	2 4	× — —								
 Гуре: C=C	oncentration, D=De	pletion, RM	=Reduced Matrix, MS	 =Masked	Sand Gra	ins.		PL=Pore I	ining, M=Ma	ntrix
ydric Soil	Indicators:	-		-2111			Indicators	for Problen	natic Hydric	Soils ³ :
Black Hi Hydroge Stratified Depleted Thick Da Sandy M Sandy R Stripped	pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) d Below Dark Surfac ark Surface (A12) flucky Mineral (S1) Sleyed Matrix (S4) edox (S5) Matrix (S6) rface (S7) (LRR R,		— 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)			 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, M) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, Piedmont Floodplain Soils (F19) (MLRA 14 Mesic Spodic (TA6) (MLRA 144A, 145, 14 Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) 				
ndicators of estrictive L	f hydrophytic vegeta _ayer (if observed)	tion and w	etland hydrology must	be prese	nt, unless	disturbed	or problematic			
Туре:		0								
Depth (inc	ches):						Hydric Soil	Present?	Yes <u>K</u>	_ No
emarks:					ü				a	

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site:	4		City/0	County: THW	NIKENS CO	Sampling Date: 4 15 / 17				
Applicant/Owner: 560	3 Solar					Sampling Point: WI4 - WE				
Investigator(s): Mike	ruina		Secti	Section, Township, Range:						
Landform (hillslope, terrace, e	etc.):					Slope (%):				
Subregion (LRR or MLRA):	h /1 /)	Lat: 42°29'32		ng: 7.6°20'01					
- J J	Halse	211	1 - 1 - 1 - 1	Lor						
Soil Map Unit Name: ##C						cation: P55				
Are climatic / hydrologic condi	tions on the	site typi	cal for this time of year?	′es <u>≭</u> No _	(If no, explain in F	Remarks.)				
Are Vegetation, Soil _	, or Hy	drology	significantly distur	bed? Are	"Normal Circumstances"	oresent? Yes <u>K</u> No				
Are Vegetation, Soil _	, or Hy	drology	naturally problems	atic? (If ne	eeded, explain any answe	ers in Remarks.)				
SUMMARY OF FINDIN	IGS – Atta	ach si	te map showing san	npling point l	ocations, transects	, important features, etc.				
Hydrophytic Vegetation Pres	ent?	Yes	√ No	Is the Sampled	l Area					
Hydric Soil Present?	GIIL:	Yes		within a Wetlar		No				
Wetland Hydrology Present?		Yes	K No	If yes optional \	Wetland Site ID:	-				
Remarks: (Explain alternativ				ir yes, optional t	vvetiand Site ID:					
	- p		a deparate report,							
						1				
HYDROLOGY						a				
Wetland Hydrology Indicate					Secondary Indica	tors (minimum of two required)				
Primary Indicators (minimum	of one is rec	uired; c	heck all that apply)		Surface Soil	Surface Soil Cracks (B6)				
Surface Water (A1)				ter-Stained Leaves (B9) <u>K</u> Drainage Patterns (B10)						
High Water Table (A2)			Aquatic Fauna (B13)	F5	📐 Moss Trim Li	✓ Moss Trim Lines (B16)				
Saturation (A3)			Marl Deposits (B15)		Dry-Season	Water Table (C2)				
Water Marks (B1)			Hydrogen Sulfide Odd	- · · · · · · · · · · · · · · · · · · ·						
Sediment Deposits (B2)			X Oxidized Rhizosphere	_	· ·	sible on Aerial Imagery (C9)				
Drift Deposits (B3)				ce of Reduced Iron (C4) Stunted or Stressed Plants (D1)						
Algal Mat or Crust (B4)				ent Iron Reduction in Tilled Soils (C6) K Geomorphic Position (D2)						
Iron Deposits (B5)			Thin Muck Surface (C							
Inundation Visible on Aer	0 , .	,	Other (Explain in Rem	,						
Sparsely Vegetated Cond Field Observations:	ave Sunace	(B8)			FAC-Neutral	Test (D5)				
Surface Water Present?	Vec X	No	Depth (inches): 1							
Water Table Present?			Depth (inches): ¬ ? "							
Saturation Present?			Depth (inches): 0"	1						
(includes capillary fringe)					land Hydrology Presen	? Yes <u>K</u> No				
Describe Recorded Data (stre	am gauge, r	nonitori	ng well, aerial photos, prev	ious inspections)	, if available:					
Remarks:										
Tromania.						×				
			369							

VLGETATION — 636 Scientific Harriss of plants				
Tree Stratum (Plot size: 30')		Dominant Species?		Dominance Test worksheet:
				Number of Dominant Species That Are ORL FACW or FAC: (A)
1.				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5.				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov	er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15)				FACW species x 2 =
	15		FALW	FAC species x 3 =
2. Cornus Sericca	15	×	FACW	FACU species x 4 =
3. Viburum lentago	10	×	FAL	UPL species x5 =
			OBL	Column Totals: (A) (B)
4. Salix serice	-	-	7.4	Prevalence Index = B/A =
5. Salix discolor		-	FACW	
6. Lonicera spp.	10			Hydrophytic Vegetation Indicators:
7. Cratagus SPP.	10			1 - Rapid Test for Hydrophytic Vegetation
3	50	= Total Co	/er	2 - Dominance Test is >50%
Herb Stratum (Plot size:5')	_	-		3 - Prevalence Index is ≤3.0 ¹
1. Typha lattfolia	30	×	OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Gnocica Sensibilis	20	X	FACLO	Problematic Hydrophytic Vegetation ¹ (Explain)
		X	DBL	11-dicators of hydric coil and watland hydrology must
3. Symplecarpus Foetidus			OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Juneus effusus		·	0/20	Definitions of Vagatation Strata:
5. Carex 3PP.	10			Definitions of Vegetation Strata:
6		88=		Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8.				Sapling/shrub - Woody plants less than 3 in. DBH
0				and greater than or equal to 3.28 ft (1 m) tall.
9		4		Herb - All herbaceous (non-woody) plants, regardless of
10				size, and woody plants less than 3.28 ft tall.
11,				Woody vines – All woody vines greater than 3.28 ft in
12				height.
	70	_ = Total Co	ver	
Woody Vine Stratum (Plot size:)				
1,				Hydrophytic
2				Vegetation
3		-		Present? Yes _K No
4				
		_ = Total Co	ver	
Remarks: (Include photo numbers here or on a separate	sheet.)			
A MANUTURE TO MICHAEL TO				

	cription: (Describe	to the de	pth needed to docur	ment the i	indicator	or confirm	n the absence	of indicators.)			
Depth	Matrix (Calar (main)	0/		x Feature		. 2					
(inches)	Color (moist)	_ %	Color (moist)	%	Type ¹	_Loc²	<u>Texture</u>	Remarks			
0-10	10 48 2/1	100					Silcley				
10-1011	544/1	0 ما	2.5451	40	PM	M	Silcley	·			
							,	,			
	<u> </u>					-					
-		-X	ş(-						
	*			-							
		-,	·		-						
			·):						
	-		8=====		-						
-	-		·					-			
-					•	====					
¹Type: C=Cc	ncentration D-Don	lotion DM	=Reduced Matrix, MS	-Masked	Sand O		21	er en			
Hydric Soil I	ndicators:	netion, Mi	-reduced Matrix, MS	-waskeu	Sand Gra	iins.	Indicators	: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :			
Histosol	(A1)		Polyvalue Below	v Surface	(S8) (LRR	R.		Tuck (A10) (LRR K, L, MLRA 149B)			
	ipedon (A2)		MLRA 149B)				Coast F	Prairie Redox (A16) (LRR K, L, R)			
Black His			Thin Dark Surface) 5 cm M	lucky Peat or Peat (S3) (LRR K, L, R)			
	n Sulfide (A4) Layers (A5)		Loamy Mucky M Loamy Gleyed M			L)		urface (S7) (LRR K, L, M)			
	Below Dark Surface	e (A11)	Loanly Gleyed N		l		Polyvalue Below Surface (S8) (LRR K, L)Thin Dark Surface (S9) (LRR K, L)				
	rk Surface (A12)	,	Redox Dark Sur				Iron-Manganese Masses (F12) (LRR K, L, R)				
	ucky Mineral (S1)		Depleted Dark S	•	7)		Piedmont Floodplain Soils (F19) (MLRA 149B)				
	leyed Matrix (S4)		Redox Depressi	ons (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
	edox (S5) Matrix (S6)							rent Material (F21)			
	face (S7) (LRR R, N	ILRA 149E	3)				Very Shallow Dark Surface (TF12) Other (Explain in Remarks)				
Indicators of	hydrophytic vegetat	ion and we	tland hydrology must	be prese	nt, unless	disturbed	or problematic.				
	ayer (if observed):										
Type:	#0-019 5 6										
Depth (incl	nes):						Hydric Soil F	Present? Yes 📈 No			
Remarks:											

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site:	Country To Michigan China
	County: Tankers Co Sampling Date: 1///17
Applicant/Owner: SUNB Solor	State: NY Sampling Point: We - WE 3
Investigator(s): Mike Guinan Secti	on, Township, Range:
Landform (hillslope, terrace, etc.):	lief (concave, convex, none): Slope (%):
Subregion (LRR or MLRA): LPR-R Lat: 42029 '43	
Soil Map Unit Name: WS-Wayland Soils compley, 0-30/	stopes frequently NWI classification: PFO
Are climatic / hydrologic conditions on the site typical for this time of year? Y	TIDMAR
Are Vegetation, Soil, or Hydrology significantly distur	
Are Vegetation, Soil, or Hydrology naturally problem: SUMMARY OF FINDINGS – Attach site map showing san	
/ map on only can	ipining point locations, transects, important leatures, etc.
Hydrophytic Vegetation Present? Yes No	is the Sampled Area
Hydric Soil Present? Yes _⊀ No	within a Wetland? 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:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	
High Water Table (A2) Aquatic Fauna (B13)	
✓ Saturation (A3)	Dry-Season Water Table (C2)
∠ Water Marks (B1) Hydrogen Sulfide Odd	
	es on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	
Algal Mat or Crust (B4) Recent Iron Reduction	n in Tilled Soils (C6)
Iron Deposits (B5) Thin Muck Surface (C	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Rem	narks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No _X Depth (inches):	
Water Table Present? Yes K No Depth (inches): " H	
Saturation Present? Yes No Depth (inches): δ^{h} (includes capillary fringe)	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, prev	rious inspections), if available:
Remarks:	
water 4" down in hole	
	*
	*

VEGETATION - Use scientific names of plants	•			Sampling Folit. 451% Cont.
Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
			FAL	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
1. Populus deltoides	40_			That Are OBL, FACW, or FAC:
2. Salix Nigra				Total Number of Dominant Species Across All Strata: (B)
3				Species Across All Strata:
4			-	Percent of Dominant Species That Are ORL FACW or FAC (A/B)
5				That Are OBL, FACW, or FAC: (A/B)
6.				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	and the last	= Total Cov	er	OBL species x 1 =
161	-	_ 10(a) 000		FACW species x 2 =
Sapling/Shrub Stratum (Plot size: /6 /	.سر ر	./		FAC species x 3 =
1. Vibramin lentage 2. Lonicera son	/5		FAC	FACU species x 4 =
2. Louicera sp.	100	- Common.	the state of the s	UPL species x 5 =
3,		·-	·——	Column Totals: (A) (B)
4		·		() ()
5.				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
6		×		1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
	25	= Total Cov	er er	3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size:)		,	_	4 - Morphological Adaptations (Provide supporting
1. Onnele & Bend biles	15		FALW	data in Remarks or on a separate sheet)
2. Symplocarpus factions	15	_X	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Sphagnum spp.	5	_		¹ Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed or problematic.
				Definitions of Vegetation Strata:
5				
6,				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7	-			
8		-		Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				
10.				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11.		0 %		
Tage	-	· //		Woody vines – All woody vines greater than 3.28 ft in
12	35	T-4-1 O		height.
	22	_ = Total Co	ver	
Woody Vine Stratum (Plot size:)				
1	—			the description
2				Hydrophytic Vegetation
3.				Present? Yes No
4				
76-	<i>*</i>	= Total Co	ver	
Remarks: (Include photo numbers here or on a separate	sheet)	10(a) 00	VC1	
Remarks. (moldde photo numbers here of on a separate	, 5110Ct.,			
2				

Depth	Matrix		epth needed to docui	x Feature	S					
(inches)	Color (moist)	%	Color (moist)	%_	Type ¹	_Loc ²	Texture	Remarks		
0-3	10 42 2/1	100	- 0:				511t			
8-16e	5 4 4/1	70	2.545/6	30	RH	М	Si/clay			
	-		-							
		-8			77					
		-8	- S			-				
Type: C=Co	ncentration. D=Der	oletion. Rf	M=Reduced Matrix MS	=Masked	Sand Gra	ine	21 ocation: PI = 0	Pore Lining, M=Matrix.		
Type: C=Concentration, D=Depletion, R Hydric Soil Indicators:			n-reduced Matrix, MO-Masked Sand Grams.				Indicators for Pr	oblematic Hydric Soils ³ :		
Histosol (A1) Histic Epipedon (A2) Black Histic (A3)			Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B)				2 cm Muck (A Coast Prairie	A10) (LRR K, L, MLRA 149B) Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, R)		
_ Stratified	n Sulfide (A4) Layers (A5)		Loamy Mucky Mineral (F1) (LRR K, L)Loamy Gleyed Matrix (F2)				Dark Surface (S7) (LRR K, L, M) Polyvalue Below Surface (S8) (LRR K, L)			
_ Thick Da	Below Dark Surfactork Surface (A12)	e (A11)	✓ Depleted Matrix (F3) Redox Dark Surface (F6)				Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R)			
	ucky Mineral (S1) eyed Matrix (S4) edox (S5)		Depleted Dark Surface (F7) Redox Depressions (F8)				 Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21) 			
Stripped I	Matrix (S6) ace (S7) (LRR R, I	VILRA 149	9B)				Very Shallow	Dark Surface (TF12) n in Remarks)		
ndicators of	hydrophytic vegeta ayer (if observed):	tion and w	etland hydrology must	be prese	nt, unless	disturbed	or problematic.			
Type:	ayer (ii observed).									
Depth (inch	nes):						Hydric Soil Preser	nt? Yes <u>X</u> No		
emarks:							1.,4	100		

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 2150 DayoeN	City/County:	Thomakins Sampling Date: 4/5/17
Applicant/Owner: 5LNS 5-1-		State: NY Sampling Point: Wic - W
Investigator(s): Mike Guine	Section, Towns	
Landform (hillslope, terrace, etc.): Subregion (LRR or MLRA): Soil Map Unit Name: Are climatic / hydrologic conditions on the site typical Are Vegetation, Soil, or Hydrology Are Vegetation, Soil, or Hydrology SUMMARY OF FINDINGS — Attach site Hydrophytic Vegetation Present? Hydric Soil Present? Yes Hydric Soil Present?	Local relief (concarat: 42°29′34 Anary Silt 1034 If or this time of year? Yes x significantly disturbed? naturally problematic? map showing sampling p No x No x If yes, or	ve, convex, none):
HYDROLOGY		
Wetland Hydrology Indicators:	als all that so 1 N	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; che		Surface Soil Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)
High Water Table (A2) Saturation (A3)	_ Aquatic Fauna (B13)	Moss Trim Lines (B16)
Vater Marks (B1)	Marl Deposits (B15)	Dry-Season Water Table (C2)
	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
	Oxidized Rhizospheres on Livin	• , ,
Drift Deposits (B3) Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	_
Iron Deposits (B5)	Recent Iron Reduction in Tilled	,
Inundation Visible on Aerial Imagery (B7)	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)	Microtopographic Relief (D4)
Field Observations:		FAC-Neutral Test (D5)
	Details (in also also	
		**
Water Table Present? Yes No		
Saturation Present? Yes No _X_ (includes capillary fringe)	_ Depth (inches):	Wetland Hydrology Present? Yes No √
Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous inspe	ections), if available:
Remarks:		

Tree Stratum (Plot size: 36)		Dominant Species?		Dominance Test worksheet:
				Number of Dominant Species
1. Princes scrotine	10	<u> </u>	FRICH	That Are OBL, FACW, or FAC: (A)
2.				Total Number of Deminant
				Total Number of Dominant Species Across All Strata: (B)
3	===			Species Across Air Strata.
4				Percent of Dominant Species
5.				That Are OBL, FACW, or FAC: (A/B)
· · ·				
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	15	= Total Cov	er	OBL species x 1 =
151		, rotal ooi	•.	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 151				
1. Rosa multiflux	15		FACH	FAC species x 3 =
2. Lonicera takarica		X	FACL	FACU species x 4 =
2. 10000 1000			17.	UPL species x 5 =
3				Column Totals: (A) (B)
4.				
				Prevalence Index = B/A =
5				III A A A A A A A A A A A A A A A A A A
6				Hydrophytic Vegetation Indicators:
7,				1 - Rapid Test for Hydrophytic Vegetation
	25	T-4-1 O-1		2 - Dominance Test is >50%
		= Total Cov	er er	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size:)				4 - Morphological Adaptations¹ (Provide supporting
1. Solidago altissima	15	×	FALL	data in Remarks or on a separate sheet)
Deticate are	6) 			Problematic Hydrophytic Vegetation¹ (Explain)
2. Potentilla simplex			FHELL	
3. Trifolium prateuse	20_	_ K	T-HCU.	¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4				D. Sintiliana of Manatakian Strata
5				Definitions of Vegetation Strata:
6.				Tree - Woody plants 3 in. (7.6 cm) or more in diameter
				at breast height (DBH), regardless of height.
7	-	-		0 11 11 1 11 1 1 1 1 1 1 1 1 1 1 1 1 1
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9.				and greater than or equal to 0.20 it (1 m) tall.
1.51 				Herb - All herbaceous (non-woody) plants, regardless of
10	-	-		size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12.				height.
12	50			neight.
	30	= Total Co	/er	
Woody Vine Stratum (Plot size:)				
1,			-	Hydrophytic
2		//: 		Vegetation
3.				Present? Yes No 🗶
2		98		
4	-	(i) 		
		_ = Total Co	ver	
Remarks: (Include photo numbers here or on a separate	e sheet.)			

	Matrix		Redo	x Features		. 3	_			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	-	Remarks	
0-6	7.542314						Loan			
<u></u>						-		Rock	Rifus	P Gare
					_					
							-			
				· 						
¹ Type: C=Co Hydric Soil I	oncentration, D=Deple	tion, RM=Red	duced Matrix, MS	S=Masked	Sand Gra	ins.			ining, M=Ma	
Histosol Histic Ep	(A1) pipedon (A2)	_	Polyvalue Belov MLRA 149B)				2 cm M Coast F	uck (A10) (Prairie Redo	natic Hydrid LRR K, L, M ox (A16) (LR	LRA 149B) R K, L, R)
	n Sulfide (A4)	_	Thin Dark Surfa Loamy Mucky M	fineral (F1)					or Peat (S3) ((LRR K, L, I I	(LRR K, L, R) /(i)
	Layers (A5)		Loamy Gleyed M						urface (S8) (
	l Below Dark Surface (irk Surface (A12)		Depleted Matrix Redox Dark Sur						(S9) (LRR K	
	ucky Mineral (S1)		Depleted Dark S	, ,	``					(LRR K, L, R)) (MLRA 149B)
Sandy G	leyed Matrix (S4)		Redox Depressi		,		Mesic S	podic (TA6) (MLRA 144	4A, 145, 149B)
	edox (S5) Matrix (S6)							rent Materia		10\
	face (S7) (LRR R, ML	RA 149B)						Explain in R	Surface (TF emarks)	12)
Indicators of	hydrophytic vegetation	า and wetland	d hydrology must	be presen	t, unless o	disturbed	or problematic.			
_	ayer (if observed):									
Type: 1										
	hes):						Hydric Soil F	resent?	Yes	No <u>X</u>
Remarks:										

WETLAND DETERMINATION DATA	FORM – Northcentral and Northeast Region
Project/Site:USO DEIGHT	City/County:
Applicant/Owner: SUN &	
Investigator(s): Mike Guinna	State: <u>A)Y</u> Sampling Point: <u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>
	Section, Township, Range:
	cal relief (concave, convex, none): Slope (%):
Subregion (LRR or MLRA): LRR R Lat: 42°29	Juliani, 477
Soil Map Unit Name: LaB-Halsey mucky sitt	NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of ye	ar? 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 pro	oblematic? (If needed, explain any answers in Remarks.)
13	
SUMMARY OF FINDINGS – Attach site map showing	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: (Explain alternative procedures here or in a separate repo	Is the Sampled Area within a Wetland? If yes, optional Wetland Site ID:
HYDROLOGY	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained I	= = = = = = (5.5)
High Water Table (A2) Aquatic Fauna (Saturation (A3) Marl Deposits (I	
Water Marks (B1) Hydrogen Sulfic	
_ , ,	pheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Re	- · · ·
	luction in Tilled Soils (C6) Geomorphic Position (D2)
	ce (C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in	
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No _K Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No 📈
Describe Recorded Data (stream gauge, monitoring well, aerial photos	, previous inspections), if available:
Remarks:	
remains.	

VEGETATION COO COLONIANO MARINEO EN PRIMITES				
30'		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 ')		Species?		Number of Dominant Species
1. Populus delto, des				That Are OBL, FACW, or FAC: (A)
2. Prunis serotina	10	X	Pacu	Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species That Are OBL. FACW, or FAC:
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	30	= Total Cov	er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =
1. Lowers Spp.	30	(Annual Street	or particular spinster.	FAC species x 3 =
- D	10	×	FALL	FACU species x 4 =
2. Rosa multistura			FACU	UPL species x 5 =
3. Rubus allesheriensis	10		FACO	Column Totals: (A) (B)
4				Prevalence Index = B/A =
5				
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
102	50	= Total Cov	er	2 - Dominance Test is >50%
Herb Stratum (Plot size:)				3 - Prevalence Index is ≤3.0¹
1. Solidage altissime	40	×	FALLA	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Arctium ninus			FALL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Tarexicum officianale			PACUL	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4	-	()	-	
5		0.		Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7			(at breast height (DBH), regardless of height.
8.				Sapling/shrub – Woody plants less than 3 in. DBH
9			·	and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless of
		·		size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12				height.
	90	_ = Total Cov	er	
Woody Vine Stratum (Plot size:)				
1,				
2				Hydrophytic Vegetation
3.				Present? Yes K. No
4.				
		= Total Cov	/er	
Remarks: (Include photo numbers here or on a separate	sheet \	Total Ook		
Remarks. (include photo numbers here of on a separate	Sileot.)			
				m.

Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Polyvalue Below Surface (S8) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Redox (S5) Stripped Matrix (S4) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: Type: Depleted Dark Surface (S9) (LRR R, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L) Dark Surface (S7) (LRR K, L) Dark Surface (S7) (LRR K, L) Mexic Spodic (TA6) (MLRA 144A, 145, 145, 145, 145, 145, 145, 145, 145	Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Tydric Soll Indicators: Histosol (A1) Black Histic (A3) Histic Epipedon (A2) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) MRA 149B) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Sandy Mucky Mineral (G1) Sandy Muck	Depth	n: (Describe t	- 0/	Redox	Features	. 2		
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Histosol (A1) Polyvalue Below Surface (S8) (LRR R, Coast Prairie Redox (A16) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 144A, 145, 1) Sandy Redox (S5) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 1) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators for Problematic Hydric Soils*: 2 cm Muck (A10) (LRR K, L, MLRA 149B) 5 cm Muck (A10) (LRR K, L, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Polyvalue Below Surface (S9) (LRR K, L) Dark Surface (A12) Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L) Piedmont Floodplain Soils (F19) (MLRA Mesic Spodic (TA6) (MLRA 144A, 145, 1) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 1) Redox Depressions (F8) Dark Surface (TF12) Other (Explain in Remarks)	Indicators for Problematic Hydric Soils3: Histosol (A1)	Type: C=Concent	ration D=Denk	etion RM-D	Peduced Matrix MC-	Macked Sond Co-	ino	21	Dana Elisten BA BA A A
Histosol (A1)	Histosol (A1)	lydric Soil Indica	tors:	suon, Kivi-K	leduced Matrix, MS=	wasked Sand Gra	ins.	Indicators for F	Professional Memorial Socies
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 (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L D) Dark Surface (S7) (LRR K, L, M) Polyvalue Below Surface (S7) (LRR K, L M) Polyvalue Below Surface (S8) (LRR K, L M) Polyvalue Below Surface (S9) (LRR K, L M) Mesic Spodic (TA6) (MLRA 144A, 145, 1	Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 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) Stripped Matrix (S6) Dark Surface (S7) Coast Prairie Redox (A16) (LRR K, L, R) Form Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L, M) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, I) Piedmont Floodplain Soils (F19) (MLRA 144 A, 145, 149 A) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Addicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Type: Depth (inches): Type: Depth (inches): Hydric Soil Present? Yes No	-			Polyvalue Below S	Surface (S8) (LRR	R		
Black Histic (A3)	Black Histic (A3)		n (A2)	_		ounded (OO) (ERRY	13,		
Hydrogen Sulfide (A4)	Hydrogen Sulfide (A4)	Black Histic (A:	3)	_	_ Thin Dark Surface	(S9) (LRR R, ML	RA 149B)		
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 1 Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Estrictive Layer (if observed): Type: Type: Depleted Matrix (F3) Iron-Manganese Masses (F12) (LRR K, L) Iron-Manganese Masses (F12) (LRR K	Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, I Piedmont Floodplain Soils (F19) (MLRA 144 Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149 Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) Other (Explain in Remarks) Depth (inches): Hydric Soil Present? Yes No Konders			_			L)	Dark Surfac	e (S7) (LRR K, L, M)
Thick Dark Surface (A12)	Thick Dark Surface (A12)			(044)		• •			
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 1 Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) andicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 144, 145, 149) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) adicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Type: Depth (inches): Hydric Soil Present? Yes No X			(A11) _					
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 1 Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. In the strictive Layer (if observed): Type:	Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149 Red Parent Material (F21) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) adicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Type: Depth (inches): Hydric Soil Present? Yes No			_		, ,			
Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) mdicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. restrictive Layer (if observed): Type: Type:	Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Other					, ,			
Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Other (Explain in Remarks) other (Explain in Remarks) Cestrictive Layer (if observed): Type:	Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)				•	, ,			
Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type:	ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. estrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes NoK								
testrictive Layer (if observed): Type:	### Depth (inches): Hydric Soil Present? Yes No	Dark Surface (S	67) (LRR R, ML	_RA 149B)				Other (Expla	ain in Remarks)
restrictive Layer (if observed): Type:	### Depth (inches): Hydric Soil Present? Yes No	ndicators of hydroi	hytic vegetatio	on and wetla	and hydrology must b	e nresent unless	disturbed o	or problematic	
Double Control	Depth (inches): No _<	estrictive Layer (f observed):		ma nyaratagy maat b	o present, unless	disturbed	or problematic.	
Depth (inches):	Nyamo osii 100 No	Туре:							
		Depth (inches):_						Hydric Soil Pres	ent? Yes No x
emarks:									103101

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region Project/Site: 2150 DMIEN TOMPKING CO SUNG SOLAR Applicant/Owner: Investigator(s): MUE blizwith Section, Township, Range:_ Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%): Lat: 42029 32 Long: 76°20'01 Subregion (LRR or MLRA): LK Datum: 46584 Soil Map Unit Name: Ha - Halsey silt IDam ____NWI classification:___ Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ____ (If no, explain in Remarks.) Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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. is the Sampled Area Hydrophytic Vegetation Present? within a Wetland? Yes X No Hydric Soil Present? Wetland Hydrology Present? If yes, optional Wetland Site ID: Remarks: (Explain alternative procedures here or in a separate report.) **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) ✓ Surface Water (A1) ___ Water-Stained Leaves (B9) X Drainage Patterns (B10) ✓ High Water Table (A2) X Aquatic Fauna (B13) Moss Trim Lines (B16) ★ Saturation (A3) ___ Marl Deposits (B15) __ Dry-Season Water Table (C2) Water Marks (B1) ___ Hydrogen Sulfide Odor (C1) __ Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) ___ Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) ___ Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) _ Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) K Geomorphic Position (D2) K Thin Muck Surface (C7) Iron Deposits (B5) Shallow Aquitard (D3) ★ Inundation Visible on Aerial Imagery (B7) ___ Other (Explain in Remarks) ___ Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Field Observations: Yes K No ____ Depth (inches): L' Surface Water Present? Yes ____ No ____ Depth (inches): 0 " Water Table Present? 💹 No ____ Depth (inches): D '' Saturation Present? Wetland Hydrology Present? Yes No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
				Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
1,				That Are OBL, FACVV, or FAC. (A)
2				Total Number of Dominant Species Across All Strata:
3				Species Across All Strata: (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
5				That Are OBL, FACW, or FAC: (A/B)
6.	1			Prevalence Index worksheet:
7.				Total % Cover of: Multiply by:
		= Total Cov		OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 1)	-		-	FACW species x 2 =
Sapling/Shrub Stratum (Plot size)		. /		FAC species x 3 =
1. Salix nigra	13	<u>×</u>	FACE	FACU species x 4 =
2. Salix discolor	5		FACLU	UPL species x 5 =
3	s		- 	Column Totals: (A) (B)
4.				, ,,
5.				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
6		:	× 	X 1 - Rapid Test for Hydrophytic Vegetation
7	_	-	·	✓ 2 - Dominance Test is >50%
	15	= Total Cov	er	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 9 1		,		4 - Morphological Adaptations ¹ (Provide supporting
1. Typha lattistic	90		TOBL	data in Remarks or on a separate sheet)
2. Lythorn salicaria	10_	-	FALL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Unknown 500.				¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4				Definitions of Vegetation Strata:
5,		-		_
6,	-			Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7,		J		
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9.				and greater than or equal to 0.20 it (1 m) tail.
10.				Herb – All herbaceous (non-woody) plants, regardless of
		0,0		size, and woody plants less than 3.28 ft tall.
11,	-	/ () 		Woody vines - All woody vines greater than 3.28 ft in
12				height.
	100	_ = Total Co	/er	
Woody Vine Stratum (Plot size:)				
1				Hydrophytic
1,				Vegetation
1,			-	Vegetation Present? Yes No
3				
20		= Total Co		

Depth	Matrix		pth needed to document the i Redox Feature	S					
(inches)	Color (moist)	%	Color (moist) %	Type ¹	_Loc ²	Texture	F	Remarks	
0-4	104/22/1	100	-			Muck Si	Drawin	. muc	14
4						30	Rock F	2eFu	5 6, 1
		×	·	-	-				
						ya 	-		
			8 			11			
					\ 				
	3					1 2 2			
	2. 								
	·								
Type: C=Co	oncentration, D=Depl	letion, RM	=Reduced Matrix, MS=Masked	Sand Gra	ins.	² Location:	PL=Pore Lining	a. M=Mat	rix
lydric Soil I	Indicators:					Indicators	for Problematio	Hydric \$	Soils³:
Histosol Histic Er	(A1) pipedon (A2)		Polyvalue Below Surface (MLRA 149B)	(S8) (LRR	R,		uck (A10) (LRR		
Black Hi			Thin Dark Surface (S9) (L	RR R. ML	RA 149B		Prairie Redox (A ucky Peat or Pe		
S 1777	n Sulfide (A4)		Loamy Mucky Mineral (F1) (LRR K,			urface (S7) (LRF		
	Layers (A5)		Loamy Gleyed Matrix (F2)			Polyval	ue Below Surfac	ce (S8) (L	RR K, L)
	l Below Dark Surface irk Surface (A12)	e (A11)	Depleted Matrix (F3)				ark Surface (S9)		•
	lucky Mineral (S1)		Redox Dark Surface (F6)Depleted Dark Surface (F7)	7)			inganese Masse		
	leyed Matrix (S4)		Redox Depressions (F8)	,			nt Floodplain Sc Spodic (TA6) (M I		
	edox (S5)						rent Material (F2		1, 170, 173D)
	Matrix (S6)						allow Dark Surf	-	2)
_ Dark Sur	face (S7) (LRR R, M	LRA 149E	3)			Other (E	Explain in Rema	rks)	
ndicators of	hydrophytic vegetati	on and we	tland hydrology must be preser	nt, unless	disturbed	or problematic.			
Type: 12	,								
Depth (inc						Hydric Soil F	Present? Yes	<u>×_</u>	No
emarks:									
Dist	urbed dra	ragi	the free de						

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region Project/Site: 2/50 Devoca _____ City/County: Tmp // 1/15 Co Sampling Date:_ Applicant/Owner: Sur & SOLAL State: NY Sampling Point: W2 Investigator(s): MZKF (42NF) Section, Township, Range: Landform (hilislope, terrace, etc.): Subregion (LRR or MLRA): / Datum: V6584 Soil Map Unit Name: Ha Hal NWI classification: Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ____ (If no, explain in Remarks.) Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No___ Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area Hydrophytic Vegetation Present? Yes _____ No X 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: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) Water-Stained Leaves (B9) ___ Drainage Patterns (B10) _ High Water Table (A2) ___ Aquatic Fauna (B13) ___ Moss Trim Lines (B16) Saturation (A3) ___ Marl Deposits (B15) ___ Dry-Season Water Table (C2) __ Water Marks (B1) Hydrogen Sulfide Odor (C1) ___ Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) ___ Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) __ Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) ___ Geomorphic Position (D2) __ Iron Deposits (B5) ___ Thin Muck Surface (C7) Shallow Aquitard (D3) ___ Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) ___ Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes ____ No _x Depth (inches): Water Table Present? Yes ____ No _ Depth (inches): Yes ____ No <a> Depth (inches): Saturation Present? Wetland Hydrology Present? Yes ____ No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

VEGETATION – Use scientific names of plants.

	Absolute	Dominant Ir	ndicator	
Tree Stratum (Plot size:)		Species?		Dominance Test worksheet:
				Number of Dominant Species That Are OBL, FACW, or FAC: (A)
1				That Are OBL, FACVI, of FAC.
2				Total Number of Dominant Species Across All Strata:
3,	·			Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
			-	
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cove	r	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =
				FAC species x 3 =
1				FACU species x 4 =
2				UPL species x 5 =
3				Column Totals: (A) (B)
4				,
5				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
6	-			1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
		= Total Cove	г	1.—-
Herb Stratum (Plot size:)				3 - Prevalence Index is ≤3.0¹
1. Dances cerota	15		upl	 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
2. Solidago altissima	10	X	FALL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Disparers Fullonum			FACU	¹ Indicators of hydric soil and wetland hydrology must
	2	1	FACU	be present, unless disturbed or problematic.
4. Dactylis glomerate				Definitions of Vegetation Strata:
5. Trifolium pratuse		· · · · · ·	I- MCC	
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7	l'ix	·		at breast height (DBH), regardless of height.
8.				Sapling/shrub – Woody plants less than 3 in. DBH
0,				and greater than or equal to 3.28 ft (1 m) tall.
9				Herb - All herbaceous (non-woody) plants, regardless of
10				size, and woody plants less than 3.28 ft tall.
11,				NAT. 1 All de nin es creates than 2.39 ft in
12.				Woody vines – All woody vines greater than 3.28 ft in height.
	45	= Total Cove		
35	1 77	Total Cove		
Woody Vine Stratum (Plot size:)				
1;				
2.				Hydrophytic Vegetation
				Present? Yes No
3):		
4		· ——		
		_ = Total Cove	er	
Remarks: (Include photo numbers here or on a separate	sheet.)			
1				

Depth	ription: (Describe i		Redo	x Features				maa sasta ka 12 - 2000 Tabba Tabba 1	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	arks
0'1								Gravel FE	Fuscl
		-							1.000
							·		
-							-	-	
							·		
	7							-	
					v				
Type: C=Co	noontration D=Donle	tion DM-D	laduand Matri MO				2		
lydric Soil Ir	ncentration, D=Depte	etion, Rivi=R	reduced Matrix, MS	=Masked 8	Sand Grain	ns.	*Location:	PL=Pore Lining, M	=Matrix.
Histosol (_ Polyvalue Below	Curfoss (C	CO) /I DD I	_		for Problematic Hyd	
	pedon (A2)	_	_ Polyvalue Below MLRA 149B)	Surrace (S	58) (LKK I	к,		luck (A10) (LRR K, L	
Black His			_ Thin Dark Surfac	ce (S9) (LR	RR.MIF	RΔ 149R)		Prairie Redox (A16) (lucky Peat or Peat (S	
	Sulfide (A4)	_	_ Loamy Mucky M					urface (S7) (LRR K,	
Stratified	Layers (A5)		_ Loamy Gleyed N		(,,	-,		ue Below Surface (S	
Depleted	Below Dark Surface	(A11) _	_ Depleted Matrix	(F3)				ark Surface (S9) (LR	
	k Surface (A12)	_	_ Redox Dark Surf					inganese Masses (F	
	icky Mineral (S1)	_	_ Depleted Dark S)			ont Floodplain Soils (I	
	eyed Matrix (S4)	_	_ Redox Depression	ons (F8)				Spodic (TA6) (MLRA	144A, 145, 149E
Sandy Re	dox (S5) //atrix (S6)							rent Material (F21)	
	ace (S7) (LRR R, ML	DA 140R)						nallow Dark Surface	(TF12)
_ Durk Gurk	acc (Cr) (Ertit It, IIIE	100 1400)					Other (i	Explain in Remarks)	
ndicators of h	nydrophytic vegetatio	n and wetla	and hydrology must	be present	t. unless d	isturbed o	or problematic.		
estrictive La	yer (if observed):						p. 0 5 10 11 2 10 1		
Type: 6	stavel								
Depth (inch	es): 🧿 "						Hydric Soil I	Present? Yes	No_ <u>×</u> _
emarks:							Tiyane son i	resenti les	NO_ <u>×</u>
1200	d-side								

	A FURIM - Northcentral and Northeast Region
Project/Site: 2150 De 10th	City/County: Tom(K2NS Co Sampling Date: 4/5/2017
Applicant/Owner: Sur South	State: M Sampling Point: W3 = - WET
Investigator(s): M2KF Cuznan	1.110-10
Landform (hillslope, terrace, etc.): Lo	ocal relief (concave, convex, none): Slone (%):
Subregion (LRR or MLRA): LRR R Lat: 42020	9'43 Long: 76°19'53 Datum: W6584
Soil Man Unit Name: WS - Wayland Soils Complex	0-3% slupes, frequently classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of you	TIDOGEN.
	,
Are Vegetation, Soil, or Hydrology significantly	
Are Vegetation, Soil, or Hydrology naturally pr	roblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes メ No	Is the Sampled Area
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No No	within a Wetland? Yes X No
Wetland Hydrology Present? Yes ✓ No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate repo	n yes, optional vvetiand Site iD:
	*
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two years lead)
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained	_ =
	• • · · · · · · · · · · · · · · · · ·
Saturation (A3) Marl Deposits (
Water Marks (B1) Water Marks (B1)	— , · · · · · · · · · · · · · · · · · ·
Sediment Deposits (B2) Oxidized Rhizo	ospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
	educed Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Re	eduction in Tilled Soils (C6)
Iron Deposits (B5) Thin Muck Surf	face (C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain	in Remarks) <u>K</u> Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No _X Depth (inches));
Water Table Present? Yes X No Depth (inches)	
Saturation Present? Yes X No Depth (inches) (includes capillary fringe)): ⊅ ^{≀≀} Wetland Hydrology Present? Yes <u>X</u> No
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if available:
Remarks:	
Tromans.	
κ.	
	Li control de la control de

		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	<u>Status</u>	Number of Dominant Species
1,				That Are OBL, FACW, or FAC:
2.				
7				Total Number of Dominant Species Across All Strata: (B)
3				Species Across All Strata:
4				Percent of Dominant Species
5.				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7	·			Total % Cover of: Multiply by:
		= Total Cov	/er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 5		SI .		FACW species x 2 =
				FAC species x 3 =
1. Comus derice &	15	<u>s</u> <	FALL	
2.				FACU species x 4 =
922				UPL species x 5 =
3	·			Column Totals: (A) (B)
4	·			
5				Prevalence Index = B/A =
GAZ				Hydrophytic Vegetation Indicators:
6		-	•	1 - Rapid Test for Hydrophytic Vegetation
7,	7			I — · · · · · · I
	15	= Total Cov	/er	2 - Dominance Test is >50%
Herb Stratum (Plot size:)	-			3 - Prevalence Index is ≤3.0¹
1. Typha lat Folia	20	×	084	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
			FALW	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Phalois erundinace				Troboniado Trydropriyao vogetadon (25.p.c.iv)
3. Onselec sens, bilis	15	×	Farch	Indicators of hydric soil and wetland hydrology must
4. Symplacarous Foctions				be present, unless disturbed or problematic.
5. Linknown grass				Definitions of Vegetation Strata:
5. DOTE TO WAY AT A TO	10	-		-
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7.0				at breast height (DBH), regardless of height.
				Sapling/shrub – Woody plants less than 3 in. DBH
8		-		and greater than or equal to 3.28 ft (1 m) tall.
9				Herb - All herbaceous (non-woody) plants, regardless of
10				size, and woody plants less than 3.28 ft tall.
11.				size, and woody plants rest in an executive size
		-		Woody vines – All woody vines greater than 3.28 ft in
12				height.
	05	= Total Co	ver	
Woody Vine Stratum (Plot size:)				
1,				Hydrophytic
2,				Vegetation
3.				Present? Yes K
4		(Y		
		= Total Co	ver	
Remarks: (Include photo numbers here or on a separate	sheet.)			
1				

Sampling Point: Wa- well

(inches)			Redo	x Features		or confirm		
O- 5	Color (moist)	%	Color (moist)	%	Type ¹	_Loc ²	Texture	Remarks
	1048311	90	7.542416	(0	Report	M	9.160	
			·			-		
							·	
				-				
			s)				_	
						·	-	
		•						
					3			
		(a)						
					 			
-								
Type: C=Con	centration, D=Dep	letion, RM=	Reduced Matrix, MS	=Masked (Sand Grai	ins.	² Location: P	L=Pore Lining, M=Matrix.
lydric Soil Inc			5 5.			_		Problematic Hydric Soils ³ :
Histosol (A Histic Epip	•		Polyvalue Below MLRA 149B)		S8) (LRR	R,		((A10) (LRR K, L, MLRA 149B)
Histic Epip Black Histi			Thin Dark Surface		RR R. MLF	RA 149B)		irie Redox (A16) (LRR K, L, R) ky Peat or Peat (S3) (LRR K, L, R)
	Sulfide (A4)		Loamy Mucky M				_	ace (S7) (LRR K, L, M)
	ayers (A5)		Loamy Gleyed N	Matrix (F2)			Polyvalue	Below Surface (S8) (LRR K, L)
	Below Dark Surface	∌ (A11)	✓ Depleted Matrix ✓ Depleted Matrix					Surface (S9) (LRR K, L)
	Surface (A12) cky Mineral (S1)		Redox Dark Surface Depleted Dark S		`			anese Masses (F12) (LRR K, L, R)
	yed Matrix (S4)		Redox Depression		,			Floodplain Soils (F19) (MLRA 149B dic (TA6) (MLRA 144A, 145, 149B)
_ Sandy Red	dox (S5)			(/				t Material (F21)
_ Stripped M							Very Shallo	ow Dark Surface (TF12)
_ Dark Surfa	ice (S7) (LRR R, M	LRA 149B	3)				Other (Exp	lain in Remarks)
ndicators of h	ydrophytic vegetati	on and we	tland hydrology must	be presen	t. unless d	tisturbed :	or problematic	
estrictive Lay	yer (if observed):		,	ar process	.,		or problematic.	
Туре:								
Depth (inche	es):						Undela Call Da	/
Debut (mone							Hyaric Soil Pres	sent? Yes_× No

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region Project/Site: 2150 Delber TONPKINS CO Sampling Date: Applicant/Owner: Sun & SOLAN Sampling Point: Investigator(s): Make Guar Me Section, Township, Range: Landform (hillslope, terrace, etc.): __ Local relief (concave, convex, none): Subregion (LRR or MLRA): Datum: U65 Soil Map Unit Name: WS - Wayland Soils complex 0-Wi classification: Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.) Are Vegetation _____, Soil _____, or Hydrology _ ___ significantly disturbed? Are "Normal Circumstances" present? Yes_ 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? Is the Sampled Area within a Wetland? Yes X No Hydric Soil Present? No Wetland Hydrology Present? If yes, optional Wetland Site ID: Remarks: (Explain alternative procedures here or in a separate report.) **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) ★ Water-Stained Leaves (B9) Drainage Patterns (B10) High Water Table (A2) ___ Aquatic Fauna (B13) K Moss Trim Lines (B16) ✓ Saturation (A3) ___ Marl Deposits (B15) __ Dry-Season Water Table (C2) Water Marks (B1) __ Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) ___ Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) _ Algal Mat or Crust (B4) __ Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Field Observations: Yes No X Depth (inches): Surface Water Present? Yes X No ___ Depth (inches): - 8 Water Table Present? Yes X No Depth (inches): Du Saturation Present? Wetland Hydrology Present? Yes X No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Sampling Point: W3a - WETZ

72027711011 000 0010111110 11011100 01	D to at to Contact	
Tree Stratum (Plot size: 35)	Absolute Dominant Indicator % Cover Species? Status	Dominance Test worksheet:
		Number of Dominant Species
1. Heer vubrum	10 × FAC	That Are OBL, FACW, or FAC:
2.		Total Number of Dominant
		Species Across All Strata:(B)
3		
4		Percent of Dominant Species That Are ORL FACW or FAC: (A/B)
5.		That Are OBL, FACW, or FAC: (A/B)
6		B. I. Jadan wallahaata
		Prevalence Index worksheet:
7	-\\\	Total % Cover of: Multiply by:
	= Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15		FACW species x 2 =
		FAC species x 3 =
1. Cratagns spp.		FACU species x 4 =
2. Louisera spp		UPL species x 5 =
3. Cornus serice	15 X FACW	Column Totals: (A) (B)
4. Viburnum Leitago		Column rotals (A) (5)
9		Prevalence Index = B/A =
5		Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is >50%
	55 = Total Cover	3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size:)	70 × E0/10	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
1. Onocke sensibilis	- K BL	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Symplocerious Foutidus		Problematic Hydrophytic Vegetation (Explain)
3. Sphagnum spa	30	¹ Indicators of hydric soil and wetland hydrology must
4. Glycer, a spp.	5 — —	be present, unless disturbed or problematic.
5.		Definitions of Vegetation Strata:
2		Tree – Woody plants 3 in. (7.6 cm) or more in diameter
6		at breast height (DBH), regardless of height.
7,		2. U. of hout. We advantage to be 2 in DBH
8		Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9.		and grouter than or expense ones is (1 m)
10		Herb – All herbaceous (non-woody) plants, regardless of
	-:	size, and woody plants less than 3.28 ft tall.
11	 	Woody vines – All woody vines greater than 3.28 ft in
12		height.
	= Total Cover	
Woody Vine Stratum (Plot size:)		
1		
2.		Hydrophytic Vegetation
3.		Present? Yes X No
4.		
	= Total Cover	
Remarks: (Include photo numbers here or on a separa		
Remarks. (include photo numbers here of on a separe	ato snoot,	

	cription: (Describe	to the de	pth needed to docu	ment the	indicator	or confir	m the absence of ir	ndicators.)
Depth	Matrix		Redo	x Feature	<u>s</u> ,	. 2		
(inches)	Color (moist)		Color (moist)	%	Type ¹	<u>Loc²</u>	Texture	Remarks
0-5	10 412 3/2	100					5./Lo/ch_	
5-12"	10 MR 3/2	20	7.54R 518	20	RM	M	SILCL	
K								
	9				-	-		
-			·					
			-					-
-	*							
	,,							
*	"							
							·	
-					•	·		•
IT 0-0-								
Hydric Soil I	ndicators:	letion, RM	=Reduced Matrix, MS	S=Masked	Sand Gra	ins.	*Location: PL:	=Pore Lining, M=Matrix.
Histosol (Poharalus Pales	u Curfons	(C0) // DD			roblematic Hydric Soils ³ :
	ipedon (A2)		Polyvalue Below MLRA 149B)		(56) (LKK	к,		(A10) (LRR K, L, MLRA 149B)
Black His			Thin Dark Surfa		RR R. ML	RA 149B		e Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Mucky M	lineral (F1) (LRR K,	L)	· ·	e (S7) (LRR K, L, M)
	Layers (A5)		Loamy Gleyed N			•		elow Surface (S8) (LRR K, L)
	Below Dark Surface	e (A11)	✓ Depleted Matrix					urface (S9) (LRR K, L)
	rk Surface (A12)		Redox Dark Sur					nese Masses (F12) (LRR K, L, R)
	ucky Mineral (S1) leyed Matrix (S4)		Depleted Dark S Redox Depressi		7)			oodplain Soils (F19) (MLRA 149B)
Sandy Re			Redox Depressi	ons (Fo)				ic (TA6) (MLRA 144A, 145, 149B) Material (F21)
	Matrix (S6)							w Dark Surface (TF12)
	face (S7) (LRR R, N	ILRA 149E	3)					ain in Remarks)
								,
³ Indicators of I	hydrophytic vegetati	ion and we	tland hydrology must	be prese	nt, unless	disturbed	or problematic.	
	ayer (if observed):							
Type:								
Depth (inch	hes):						Hydric Soil Prese	ent? Yes <u>X</u> No
Remarks:								
								90
								i i
								N .

WETLAND DETERMINATION	DATA FORM - N	orthcentral and Northea	st Region
Project/Site:2150 Day Dep	Citv/Countv:	Tomokzus Co	Sampling Date:4/5/2/17
Applicant/Owner: Sur 8 Such			Sampling Point:\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
	Section, Town		Camping Fourt.
Landform (hillslope, terrace, etc.):		ave, convex, none):	01 (01)
	2029 46	Long: 7(0° 19'47	Slope (%):
Soil Map Unit Name: 9n - Genesee silt			4/1
			ification:/V/A
Are climatic / hydrologic conditions on the site typical for this til			,
Are Vegetation, Soil, or Hydrology sign	-	Are "Normal Circumstances	s" present? Yes No
Are Vegetation, Soil, or Hydrology natu	rally problematic?	(If needed, explain any ans	wers in Remarks.)
SLIMMARY OF FINDINGS - Attach site man sh	owing compline	noint locations turns	4
SUMMARY OF FINDINGS – Attach site map sh	owing sampling	point locations, transec	ts, important features, etc
Hydrophytic Vegetation Present? Yes No >	∠ Is the S	Sampled Area	
Hydric Soil Present? Yes No ;	^	a Wetland? Yes	No ×
Wetland Hydrology Present? Yes No >		ptional Wetland Site ID:	
Remarks: (Explain alternative procedures here or in a separa	ate report.)		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indi	cators (minimum of two required)
Primary Indicators (minimum of one is required; check all that	apply)		pil Cracks (B6)
	Stained Leaves (B9)	Drainage F	
<u> </u>	Fauna (B13)		Lines (B16)
	posits (B15)	Of the second se	n Water Table (C2)
Water Marks (B1) Hydroge	en Sulfide Odor (C1)		urrows (C8)
	d Rhizospheres on Livir	, , ,	Visible on Aerial Imagery (C9)
	e of Reduced Iron (C4)		Stressed Plants (D1)
I	Iron Reduction in Tilled	• •	ic Position (D2)
	ck Surface (C7)	Shallow Aq	
Inundation Visible on Aerial Imagery (B7) Other (E Sparsely Vegetated Concave Surface (B8)	explain in Remarks)		raphic Relief (D4)
Field Observations:		FAC-Neutra	al Test (D5)
	inches):		
	inches):		
· · ·	inches):	Wetland Hydrology Prese	ent? Yes No ×
(includes capillary fringe)	•		int: TesNo ~
Describe Recorded Data (stream gauge, monitoring well, aeria	al photos, previous insp	ections), if available:	
Remarks:			

VEGETATION – Use scientific names of plants.

4 L O L I / 1 1 1 1 1 1 1 1 1 1				
Trop Charles (Diet eine)		Dominant Species?		Dominance Test worksheet:
Tree Stratum (Plot size:)	70 COVE	Opecies:	Otatus	Number of Dominant Species
1,				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3.				Species Across All Strata:
4.				Percent of Dominant Species
				That Are OBL, FACW, or FAC: (A/B)
5	$\overline{}$			
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov	er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =
				FAC species x 3 =
1				FACU species x 4 =
2				UPL species x 5 =
3				Column Totals: (A) (B)
4.				Column rotals (A) (B)
				Prevalence Index = B/A =
5		-		I hadronhatin Vonetetian Indicators
6		-		Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov	er	2 - Dominance Test is >50%
Herb Stratum (Plot size:)				3 - Prevalence Index is ≤3.0 ¹
1. Solidaço al tissima	30	×	FACL	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
2. Dipsascus Fullonum		×	FALL	Problematic Hydrophytic Vegetation ¹ (Explain)
2. DIPSASCOLS FACTORAGE				
3. Arctium minus	1-		WPL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Hotenisa Vulgaris	5	-	we	
5.				Definitions of Vegetation Strata:
6.				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
			**	at breast height (DBH), regardless of height.
7		0. =====	5,	Sapling/shrub – Woody plants less than 3 in. DBH
8				and greater than or equal to 3.28 ft (1 m) tall.
9				
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
				size, and woody plants less than 3.20 tt tail.
11		(Woody vines – All woody vines greater than 3.28 ft in
12		X		height.
	45	= Total Cov	/er	
Woody Vine Stratum (Plot size:)				
1.				
				Hydrophytic
2				Vegetation Present?
3				Present? Yes No K
4.				
		= Total Co	ver	
Remarks: (Include photo numbers here or on a separate	sheet)			
Remarks. (include prioto numbers here of on a separate	Sileot.)			

DepthMatrix	Redo	x Features	See as				
(inches) Color (moist) %	Color (moist)	%	Type ¹	_Loc ²	<u>Texture</u>	Remarks	
0-8 7.54R416	-					Disturbul	
	- (:						
							
	· · · · · · · · · · · · · · · · · · ·						
						i 	
				-			
	- 7						
	-						
Type: C=Concentration, D=Depletion, RI	M=Reduced Matrix MS		Sand Gra			: PL=Pore Lining, M=Matrix	
ydric Soil Indicators:					Indicators	for Problematic Hydric Sc	oils³:
Histosol (A1) Histic Epipedon (A2)	Polyvalue Belov MLRA 149B)		58) (LRR	R,		luck (A10) (LRR K, L, MLR Prairie Redox (A16) (LRR K	
Black Histic (A3)	Thin Dark Surfa		RR, ML	RA 149B)		lucky Peat or Peat (S3) (LR	
_ Hydrogen Sulfide (A4)	Loamy Mucky M		(LRR K,	L)	Dark S	urface (S7) (LRR K, L, M)	
_ Stratified Layers (A5)	Loamy Gleyed N	, ,				lue Below Surface (S8) (LR	
_ Depleted Below Dark Surface (A11) _ Thick Dark Surface (A12)	Depleted Matrix					ark Surface (S9) (LRR K, L)	
_ Sandy Mucky Mineral (S1)	Redox Dark Sur Depleted Dark S		`			anganese Masses (F12) (LF	
Sandy Gleyed Matrix (S4)	Redox Depressi		,			ont Floodplain Soils (F19) (N	
_ Sandy Redox (S5)	redux Deplessi	ons (r o)				Spodic (TA6) (MLRA 144A, arent Material (F21)	145, 1491
Stripped Matrix (S6)						hałlow Dark Surface (TF12)	
Dark Surface (S7) (LRR R, MLRA 149	9B)					Explain in Remarks)	
dicators of hydrophytic vegetation and w	vetland hydrology must	t be present	t, unless	disturbed	or problematic	·	
strictive Layer (if observed): Type:							
Depth (inches):	-				Hydric Soil	Present? Yes	No <u> </u>
emarks:							

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region Project/Site: 2150 DICYDER _____ City/County: _______ Congress Co. Sampling Date: Applicant/Owner: San & South State: ___NY___ Sampling Point: Log Investigator(s): MZKE CUZNKN Section, Township, Range: Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Subregion (LRR or MLRA): . L Datum: 165 86 Soil Map Unit Name: KK Are climatic / hydrologic conditions on the site typical for this time of year? Yes _ (If no, explain in Remarks.) Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ 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? Is the Sampled Area within a Wetland? Yes _____ No ⋉ Hydric Soil Present? Yes _____ No × Wetland Hydrology Present? __. No 🗡 If yes, optional Wetland Site ID:_____ Remarks: (Explain alternative procedures here or in a separate report.) **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) __ Surface Water (A1) ___ Drainage Patterns (B10) ___ Water-Stained Leaves (B9) High Water Table (A2) __ Aquatic Fauna (B13) ___ Moss Trim Lines (B16) __ Saturation (A3) Marl Deposits (B15) ___ Dry-Season Water Table (C2) Water Marks (B1) __ Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) _ Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) _ Drift Deposits (B3) Presence of Reduced Iron (C4) ___ Stunted or Stressed Plants (D1) _ Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) __ Iron Deposits (B5) __ Thin Muck Surface (C7) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Field Observations: Yes ____ No 🔀 Depth (inches): Surface Water Present? Yes _____ No K Depth (inches): Water Table Present? Yes K__ No ____ Depth (inches): △ in Saturation Present? Wetland Hydrology Present? Yes _____ No ⋉ (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Sampling Point: <u>U3 a - LU</u> 2.

	Absolute	Dominant Ind	icator	Barriagnas Tast warkshoots
Tree Stratum (Plot size:)	The section of the se	Species? S		Dominance Test worksheet:
1. Primas serations	20	X F	ALL	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
				mar Ale OBL, 1 AOW, Of 1 AO.
2				Total Number of Dominant
3				Species Across All Strata: (B)
4.				Percent of Dominant Species
				That Are OBL, FACW, or FAC: (A/B)
5				
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
· :	20	= Total Cover	7.	OBL species x 1 =
1,000	-	- Total Cover		
Sapling/Shrub Stratum (Plot size: 15 1				FACW species x 2 =
1 Cretegno spo	15	Art	pyth .	FAC species x 3 =
2. LONILLE EDD.				FACU species x 4 =
1/12 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -			51 4 3 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	UPL species x 5 =
3. Posa muitiflus	(0	<u>×</u>	ALG	Column Totals: (A) (B)
4				
5				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
6				1 1
7				1 - Rapid Test for Hydrophytic Vegetation
	35	= Total Cover		2 - Dominance Test is >50%
Herb Stratum (Plot size: 9)				3 - Prevalence Index is ≤3.0 ¹
				4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
1		/_		
2				Problematic Hydrophytic Vegetation¹ (Explain)
3.				¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4		(Definitions of Vegetation Strata:
5				Definitions of Vegetation Stratz.
6.				Tree - Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
				Sapling/shrub – Woody plants less than 3 in. DBH
8		· · · · · · · · ·		and greater than or equal to 3.28 ft (1 m) tall.
9				
10.				Herb – All herbaceous (non-woody) plants, regardless of
				size, and woody plants less than 3.28 ft tall.
11		-		Woody vines – All woody vines greater than 3.28 ft in
12				height.
		= Total Cover		
Woody Vine Stratum (Plot size:)				
woody vine stratum (Plot Size)				
1				Hudrophytic
2				Hydrophytic Vegetation
3.				Present? Yes No 🖔
		-		
4		0-		
		= Total Cover		
Remarks: (Include photo numbers here or on a separate	sheet.)			

Sampling Point: <u>W34-</u> W2

Depth	Matrix	ne depth needed to docu	ox Features	aloutor (or commit	and absence of	mulcators.)	
(inches)		% Color (moist)	%	Type ¹	Loc ²	Texture	Rema	arks
0-8	10 4R414 14	5				51/60		
					-			
					-			
				×				
¹Type: C=Ce	naontration D-Danistics	DM-Dadward Marks - M			•100-0	2	127.21047-7-21 4279	
Hydric Soil I	ndicators:	i, RM=Reduced Matrix, M	S=Masked S	and Gra	ins.	Location: P	L=Pore Lining, M	=Matrix.
Histosol (Poharakio Polor	u Curfoso (C	0\ /L DD	D		Problematic Hyd	
	ipedon (A2)	Polyvalue Below MLRA 149B	-	8) (LKK	к,		((A10) (LRR K, L	
Black His		Thin Dark Surfa		RR MI	RA 149R)		irie Redox (A16) (LRR K, L, R) 33) (LRR K, L, R)
	Sulfide (A4)	Loamy Mucky N					ice (S7) (LRR K,	
	Layers (A5)	Loamy Gleyed		,	_,		Below Surface (S	
	Below Dark Surface (A1)						Surface (S9) (LR	
	rk Surface (A12)	Redox Dark Su				Iron-Mang	anese Masses (F	12) (LRR K, L, R)
	ucky Mineral (S1)	Depleted Dark \$						F19) (MLRA 149B)
	eyed Matrix (S4)	Redox Depress	ions (F8)					144A, 145, 149B)
Sandy Re	edox (S5) Matrix (S6)						t Material (F21)	
	ace (S7) (LRR R, MLRA	149R)					ow Dark Surface	(TF12)
- July 2011	doo (o/) (Elder, MEIde	1400)				Other (Exp	lain in Remarks)	
Indicators of I	hydrophytic vegetation ar	nd wetland hydrology mus	t be present.	unless	disturbed (or problematic.		
Restrictive La	ayer (if observed):							
Type:								
Depth (inch	nes):					Hydric Soil Pre	sent? Yes	No K
Remarks:						Try dric don't le	sent: 1es	
tomanto.								

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region 2150 DeyDEND City/County: TOMPKZNS Applicant/Owner: Sun & South Sampling Point: b Investigator(s): MZKE (UZNAN) Section, Township, Range: Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Subregion (LRR or MLRA): OSIDDES NWI classification: Are climatic / hydrologic conditions on the site typical for this time of year? Yes _ (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? Is the Sampled Area within a Wetland? Hydric Soil Present? Wetland Hydrology Present? If yes, optional Wetland Site ID: Remarks: (Explain alternative procedures here or in a separate report.) **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) X Surface Water (A1) Water-Stained Leaves (B9) Drainage Patterns (B10) High Water Table (A2) Aquatic Fauna (B13) Moss Trim Lines (B16) ✓ Saturation (A3) Marl Deposits (B15) Dry-Season Water Table (C2) Water Marks (B1) __ Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) X Presence of Reduced Iron (C4) Drift Deposits (B3) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) _ Thin Muck Surface (C7) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Field Observations: Yes X No Depth (inches): \ ' Surface Water Present? Yes Ko Depth (inches): -211 Water Table Present? No ____ Depth (inches): 💍 Saturation Present? Wetland Hydrology Present? Yes X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

	Absolute	Daminant I	ndicator	
Tree Stratum (Plot size:)	Absolute % Cover	Dominant In Species?		Dominance Test worksheet:
			Otatao	Number of Dominant Species
1,				That Are OBL, FACW, or FAC:(A)
2	o 			Total Number of Dominant
3				Species Across All Strata: (B)
9				Decree of Decree of Consider
4	XV 			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
5				mac/10 052,17/071, 0117/01
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
-		= Total Cove	_	OBL species x 1 =
	-	= Total Cove		
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =
1				FAC species x 3 =
2				FACU species x 4 =
2				UPL species x 5 =
3	-			Column Totals: (A) (B)
4				11
5				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				
		= Total Cove	er	2 - Dominance Test is >50%
Herb Stratum (Plot size:)				3 - Prevalence Index is ≤3.01
1. Jun Lus effusus	30	×	OBL	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
2. Onoclea sensibilis				Problematic Hydrophytic Vegetation¹ (Explain)
3. Scirpus cyperinus	10		DRL	¹Indicators of hydric soil and wetland hydrology must
4.				be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7				at breast neight (DDF7), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
				and greater than or equal to 3.28 ft (1 m) tall.
9		Y0 Y		Herb – All herbaceous (non-woody) plants, regardless of
10				size, and woody plants less than 3.28 ft tall.
11.		// ==== 7		1 1 2000:
12.				Woody vines – All woody vines greater than 3.28 ft in height.
1.66.	55	- Teks! O:		neight.
	J. W.	_ = Total Cove	er	
Woody Vine Stratum (Plot size:)				
1.				
				Hydrophytic
2		×		Vegetation Present? Yes X No
3		· ———		Present? Yes _X No
4				
		= Total Cove	or.	
Danieles (Institute abote numbers here or on a congreto	choot \	10ta/ 0010		
Remarks: (Include photo numbers here or on a separate	sneet.)			

Profile Desc	cription: (Describe	e to the de	pth needed to docu	ment the	indicator	or confirm	m the absence of in	ndicators.)
Depth	Matrix	0/	. Redo	ox Feature	S	. 2		
(inches)	Color (moist)	%	Color (moist)		Type ¹	_Loc ² _	<u>Texture</u>	Remarks
0-5	10 48 4/2	100	·:				41	
5-10	10423/1	90	7.54616	10	PIL	M	5: /CL	
							-	
			·					
-			. ————					
	-		·	g1 			*	
	-		« 					
								-
		-11		66 	-			
		-					·	
							.v <u></u> v. <u></u>	
¹Type: C=Co	ncentration D=Der	oletion RM	I=Reduced Matrix, MS	S=Masked	Sand Gre		² l acation: DI	=Pore Lining, M=Matrix.
Hydric Soil I		olotion, rai	ricadoca iviatir, ivi	O-Masked	Oand Gra	allis.	Indicators for P	Problematic Hydric Soils ³ :
Histosol ((A1)		Polyvalue Belov	w Surface	(S8) (LRR	R.		(A10) (LRR K, L, MLRA 149B)
Histic Ep	ipedon (A2)		MLRA 149B)		, .	-,		ie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa					Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Mucky N			, L)		e (S7) (LRR K, L, M)
	Layers (A5) Below Dark Surface	ο (Δ11)	Loamy Gleyed I)			selow Surface (S8) (LRR K, L)
	rk Surface (A12)	C (A11)	Redox Dark Sui					furface (S9) (LRR K, L) nese Masses (F12) (LRR K, L, R)
	ucky Mineral (S1)		Depleted Dark \$		7)			loodplain Soils (F19) (MLRA 149B)
	eyed Matrix (S4)		Redox Depress		•			ic (TA6) (MLRA 144A, 145, 149B)
Sandy Re							Red Parent	Material (F21)
	Matrix (S6)		- \					w Dark Surface (TF12)
Dark Suri	face (S7) (LRR R, I	WLKA 149	3)				Other (Expla	ain in Remarks)
³ Indicators of	hydrophytic vegetai	tion and w	etland hydrology mus	t be prese	nt. unless	disturbed	or problematic	· ·
Restrictive La	ayer (if observed):	8	, 1 1 0, 11		,		T problematic.	
Type:								
Depth (inch	nes):						Hydric Soil Prese	ent? Yes <u>×</u> No
Remarks:								
								il i

WEILAND DETERMINATION DATA	A FORM – Northcentral and Northeast Region
Project/Site: 2150 DRYDEN	City/County: Tongyans Co Sampling Date: 4/5/2017
Applicant/Owner: Sur & South	State: Sampling Point: いしょこ い
Investigator(s): MIKE GUINTY	Section, Township, Range:
Landform (hillslope, terrace, etc.):L	ocal relief (concave, convex, none): Slope (%):
Subregion (LRR or MLRA): LDR R Lat: 42°29	157 Long: 16 20'07 Datum: W6584
Soil Map Unit Name: Mm Magalin Mucky 511	The state of the s
Are climatic / hydrologic conditions on the site typical for this time of y	
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally pr	•
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes ⋉ No	Is the Sampled Area
Hydric Soil Present? Yes X No	within a Wetland? Yes _X No
Wetland Hydrology Present? Yes _X No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate repo	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	
✓ Surface Water (A1) ✓ Water-Stained	
High Water Table (A2) Aquatic Fauna	, ,
Saturation (A3) Marl Deposits (· · · · · · · · · · · · · · · · · · ·
✓ Water Marks (B1) Hydrogen Sulfi	
	spheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
	educed Iron (C4) X Stunted or Stressed Plants (D1)
	duction in Tilled Soils (C6)
Iron Deposits (B5) Thin Muck Surf	<u></u>
Inundation Visible on Aerial Imagery (B7) Other (Explain Sparsely Vegetated Concave Surface (B8)	, 1 , 3 , 1 ,
Field Observations:	FAC-Neutral Test (D5)
Surface Water Present? Yes No Depth (inches)	511
Water Table Present? Yes X No Depth (inches)	· · · · · · · · · · · · · · · · · · ·
Saturation Present? Yes X No Depth (inches)	
(includes capillary fringe)	, 10, 111
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if available:
Remarks:	

Tree Stratum (Plot size: 30)	Will a control with the control	Tames and the company of the land	A CONTRACTOR OF THE PROPERTY OF	
Tree Stratum (Plot size:)	Absolute	Dominant Species?		Dominance Test worksheet:
		× Species?		Number of Dominant Species
1. Populus deltoides		-1/	FAC	That Are OBL, FACW, or FAC: (A)
2. Frexious pennsylvanica	10		FLACE	Total Number of Dominant
3. Quereus palmstris	_5	104		Species Across All Strata:(B)
4. Fraxions nigra	5			Percent of Dominant Species
5. Princes serotine	5		FACEL	That Are OBL, FACW, or FAC: (A/B)
6.				S. Landa da de la descripto
			====	Prevalence Index worksheet:
7	1,-			Total % Cover of: Multiply by:
	40	= Total Cov	er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15)				FACW species x 2 =
1 Accor negundo	5	×	FHC	FAC species x 3 =
2. Fraxious pinnsylvenica		×	FALW	FACU species x 4 =
3. Lindera bin 70m	5	X	FALW	UPL species x 5 =
3. LIVECTA BOX TOTAL			TACIO	Column Totals: (A) (B)
4				Disvelance Index = P/A =
5		(Prevalence Index = B/A =
6		V=====		Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
': 		= Total Cov		2 - Dominance Test is >50%
a	-1-2	- Total Cov	CI	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size:) 1. Glyceria Striage	5		OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Symplocarpus foctions	E-		0126	Problematic Hydrophytic Vegetation¹ (Explain)
3. Sphagnum spp				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4				
5				Definitions of Vegetation Strata:
6.				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
				Sapling/shrub – Woody plants less than 3 in. DBH
8		-		and greater than or equal to 3.28 ft (1 m) tall.
9				Herb – All herbaceous (non-woody) plants, regardless of
10				size, and woody plants less than 3.28 ft tall.
11.				
				Woody vines – All woody vines greater than 3.28 ft in
12	30	- Total Ca		height.
A	<u>50</u>	= Total Co	/er	
Woody Vine Stratum (Plot size:)				
1.				
· ·				Hydrophytic
2.				Vegetation Present? Yes X
2				Fresentr res v. No
		-		Present les <u>y</u> No
2		-		resent ies <u>y.</u> No
2		= Total Co	ver	resent ies <u>y.</u> No
2		= Total Co	ver	resent res <u>y</u> no

Profile Desc	cription: (Describe	to the de	pth needed to docu	ment the i	indicator	or confirm	n the absence of i	indicators.)	
Depth	Matrix		Redo	x Feature	<u>s</u> .				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	_Loc ² _	<u>Texture</u>	Remarks	
0-4	10 412 3/1								
4-12	10 4R 3/2	80	5485h	20	12 1-4	Art	5.1ch/60		
					400.0		0110-070		14
l 			R		-		· — — — —		
									- "F K
	*			10		•			
		-	v. 						-
 ;									

			·	3			8		
			-)):- 		
		, 					(—————————————————————————————————————		
¹Type: C=Co	oncentration D=Deol	etion RM	=Reduced Matrix, MS	S=Macked	Sand Gra	ine	2l costion: DI	_=Pore Lining, M=Mar	
Hydric Soil I	ndicators:	ouon, rur	ricodoca madiz, me	Jiviasheu	Garia Gra	1113.	Indicators for	Problematic Hydric	Soils ³
Histosol	(A1)		Polyvalue Belov	v Surface	(S8) (LRR	R.		(A10) (LRR K, L, ML	
	ipedon (A2)		MLRA 149B)	(Coast Prair	rie Redox (A16) (LRR	
<u></u> Black His	· · ·		Thin Dark Surfa	ce (S9) (L	RR R, ML	RA 149B)		y Peat or Peat (S3) (I	
	n Sulfide (A4) Layers (A5)		Loamy Mucky N			L)		ce (S7) (LRR K, L, M	
	Below Dark Surface	(Δ11)	Loamy Gleyed I)			Below Surface (S8) (L	
	rk Surface (A12)	(11)	Redox Dark Sur					Surface (S9) (LRR K, anese Masses (F12) (
	ucky Mineral (S1)		Depleted Dark S		7)			Floodplain Soils (F19)	
	leyed Matrix (S4)		K Redox Depressi	ions (F8)	•			dic (TA6) (MLRA 144	
Sandy Re							Red Parent	t Material (F21)	
	Matrix (S6) face (S7) (LRR R, M		3 \					ow Dark Surface (TF1	2)
Dark Suri	ace (S/) (LKK K, W	LRA 1491	5)				Other (Expl	lain in Remarks)	
3Indicators of	hydrophytic vegetation	on and we	etland hydrology mus	t be prese	nt. unless o	disturbed	or problematic		
Restrictive La	ayer (if observed):		. 0,		.,		T Problematic		
Type:									
Depth (inch	nes):						Hydric Soil Pres	sent? Yes 🖔	No
Remarks:									
									1
									- 1
									4

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region 2190 DRYDEN City/County: TOMPKZNS CO Applicant/Owner: ______ 5014A State: Sampling Point: 64 Investigator(s): MZKE GUZNAT Section, Township, Range: Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Subregion (LRR or MLRA): Soil Map Unit Name: The De Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.) Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _ 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. is the Sampled Area Hydrophytic Vegetation Present? within a Wetland? Yes _____ No 💢 Hydric Soil Present? Wetland Hydrology Present? Yes ____ No If yes, optional Wetland Site ID:____ Remarks: (Explain alternative procedures here or in a separate report.) **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) _ Water-Stained Leaves (B9) _ Drainage Patterns (B10) High Water Table (A2) _ Aquatic Fauna (B13) Moss Trim Lines (B16) Saturation (A3) __ Marl Deposits (B15) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Depth (inches): Yes ____ No _X Water Table Present? Depth (inches): Saturation Present? No K Depth (inches): Wetland Hydrology Present? Yes _____ No

✓ (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
Total Number of Dominant Species Across All Strata:
Percent of Dominant Species That Are OBL, FACW, or FAC:
Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species
Total % Cover of: Multiply by: OBL species
FACW species x 2 =
FACU species x 4 =
UPL species x 5 =
Column Totals:
Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportin data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators 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
1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportin data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators 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
2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportin data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators 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
a 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportindata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators 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
data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators 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
Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators 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
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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.
al Cover
Hydrophytic
Vegetation Present? Yes No
Present? Tes No
al Cover

Depth	cription: (Describe to Matrix		Redo	x Features				,	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	_Loc2	Texture	Remarks	
0-8	7 5 48 313	100				_	Loam		
	(
							·		
							o'= -		
				27(-	
					-				
								·	
Type: C=Co	encentration, D=Deple	tion DM-Do	duood Matrix MA					720 EV 18000	
Hydric Soil I	ndicators:	uon, Rivi-Re	duced Matrix, Mi	s=iviasked S	and Gra	ins.	Location:	PL=Pore Lining, M=Matrix for Problematic Hydric So	
Histosol (Polyvalue Belov	v Surface /S	:g\ /I DD	D		-	
	ipedon (A2)	_	MLRA 149B)		oo) (LKK	. г.,		luck (A10) (LRR K, L, MLR Prairie Redox (A16) (LRR K	
Black His			Thin Dark Surfa		R R. ML	RA 149B)		ucky Peat or Peat (S3) (LR	
	Sulfide (A4)		Loamy Mucky N	fineral (F1)	(LRR K,	L)		urface (S7) (LRR K, L, M)	IX IX, L, IX)
	Layers (A5)		Loamy Gleyed I		. ,	,		ue Below Surface (S8) (LR	R K. L)
	Below Dark Surface ((A11)	Depleted Matrix	(F3)				ark Surface (S9) (LRR K, L)	
	rk Surface (A12)	_	Redox Dark Sur	, ,				inganese Masses (F12) (LF	
	ucky Mineral (S1)	_	Depleted Dark S					nt Floodplain Soils (F19) (N	
Sandy Gi Sandy Re	eyed Matrix (S4)	_	Redox Depressi	ons (F8)			Mesic S	Spodic (TA6) (MLRA 144A,	145, 149B)
	Matrix (S6)							rent Material (F21)	
	ace (S7) (LRR R, ML	RA 149R)						nallow Dark Surface (TF12)	
		.011405)					Other (i	Explain in Remarks)	
Indicators of I	hydrophytic vegetatio	n and wetlan	d hydrology musi	be present	, unless	disturbed of	or problematic.		
Restrictive La	ayer (if observed):								
Type:									
Depth (inch	nes):		*				Hydric Soil F	Present? Yes	No _X
Remarks:	^-						Tiyana oon i	1636116: 163	40
torriamo.									
	8:								

WEILAND DETERMINATION DATA FO	RM – Northcentral and Northeast Region
Project/Site: Dry La City/C	County: Dryden Thompking Sampling Date: 4/5/17
Applicant/Owner: SUN 8	State: NY Sampling Point: W&u - Ve
Investigator(s): N. Grosse / M. Guiron Section	on, Township, Range: Drydon
11.11.1	ief (concave, convex, none): Slope (%):
Subregion (LRR or MLRA): LRR-R Lat: 42.492798	Long: 76, 339242 Datum: V65 8 4
Soil Map Unit Name: EbB - Erie channery silt loan	NWI classification: PSS
Are climatic / hydrologic conditions on the site typical for this time of year? Y	
Are Vegetation, Soil, or Hydrology significantly distur	
Are Vegetation, Soil, or Hydrology naturally problems	
	•
SUMMARY OF FINDINGS – Attach site map showing sam	ipling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: (Explain alternative procedures here or in a separate report.)	Is the Sampled Area within a Wetland? Yes No If yes, optional Wetland Site ID:
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leaves	- '
High Water Table (A2) Aquatic Fauna (B13)	X Moss Trim Lines (B16)
➤ Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odd	. ,
	es on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced Algal Mat or Crust (B4) Recent Iron Reduction	
Algal Mat or Crust (B4) Recent Iron Reduction Iron Deposits (B5) Thin Muck Surface (C	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Rem	,
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes NoX Depth (inches):	
Saturation Present? Yes \(\frac{\sqrt{1}}{\sqrt{1}} \) No \(\frac{\sqrt{1}}{\sqrt{2}} \) Depth (inches): \(\frac{\sqrt{2}}{\sqrt{2}} \) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous p	
boombo Noosided Bata (Stream gauge, monitoring well, aenar priotos, prev	lous inspections), if available.
Remarks:	
Remarks.	
Mr. Nepa	N
Survey 1. Active Wan Scribs	Active N Gold
	×

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:		
1				Number of Dominant Species That Are OBL, FACW, or FAC: (A)		
3,				Total Number of Dominant Species Across All Strata: (B)		
4.				Percent of Dominant Species		
5				That Are OBL, FACW, or FAC; (A/B)		
6	=:====			Prevalence Index worksheet:		
7,				Total % Cover of: Multiply by:		
Carolina (Charles Charles (Charles)		= Total Co	ver	OBL species		
Sapling/Shrub Stratum (Plot size:) 1	25	V	FACW	FACW species $70 \times 2 = 140$ FAC species $3 \times 3 = 255$		
2. Cornus racemosa	45		FAC	FACU species 10 x 4 = 40		
3. Lonivera Morrowii	10		FACU	UPL species x 5 =		
4				Column Totals: 170 (A) 440 (B)		
5				Prevalence Index = B/A = 2.59		
6	- \ <u>-</u>			Hydrophytic Vegetation Indicators:		
7		-		1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50%		
Herb Stratum (Plot size:)	80	= Total Cov	/er	X 3 - Prevalence Index is ≤3.0¹		
1. Solidago Sel	40	V	FAC	4 - Morphological Adaptations¹ (Provide supporting		
2. Phlaris arundiacea	-	y	FACW	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)		
3. Onocleus sensibilis	10		FACW			
4. Symplocarpus fuetidus	_5		OBL	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
5	-			Definitions of Vegetation Strata:		
6.4				Tree – Woody plants 3 in. (7.6 cm) or more in diameter		
7.				at breast height (DBH), regardless of height.		
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.		
9			*	77		
11				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
12.				Woody vines – All woody vines greater than 3.28 ft in		
	= Total Cover			height.		
Woody Vine Stratum (Plot size:)						
1	5 			-		
2						
4				Hydrophytic Vegetation		
		Total Cove	er	Present? Yes No		
Remarks: (Include photo numbers here or on a separate s	heet.)					
112211 011						
4334 -SW						

Profile Desc	cription: (Describe t	o the dep	th needed to docun	nent the	indicator	or confirn	n the absence of indi	cators.)
Depth	epth Matrix Redox Features							
(inches) ()-(0	Color (moist)	/00	Color (moist)	%	Type ¹	_Loc ² _		Remarks
	10/12/1	<u> </u>					Sicley	
10-17	5 9 4/1	60	2.545/6	40	PM	M	Siclay	
							/	
							-	
		-						=======================================
		-						
	 6							
								\(\text{\tint{\text{\tint{\text{\tin}\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tex{\tex
								9.
		-						
						-		
¹Type: C=Co	ncentration, D=Deple	etion, RM=	Reduced Matrix, MS	=Masked	Sand Gra	ins.	² Location: PL=Pa	ore Lining, M=Matrix.
Hydric Soil I	ndicators:						Indicators for Pro	olematic Hydric Soils ³ :
Histosol (-	Polyvalue Below	Surface	(S8) (LRR	R,		0) (LRR K, L, MLRA 149B)
Histic Ep	ipedon (A2)		MLRA 149B)	o (CO) (I	DD D MI	DA 440D)		Redox (A16) (LRR K, L, R)
	n Sulfide (A4)	-	Thin Dark Surfac Loamy Mucky M	ineral (F1	KKK, MIL) (LRRK	RA 149B) I I	5 cm Mucky Pe	eat or Peat (S3) (LRR K, L, R)
Stratified	Layers (A5)	-	Loamy Gleyed N			_,		w Surface (S8) (LRR K, L)
	Below Dark Surface	(A11)	Depleted Matrix					ace (S9) (LRR K, L)
	rk Surface (A12) ucky Mineral (S1)	-	Redox Dark Surf		- .			e Masses (F12) (LRR K, L, R)
	eyed Matrix (S4)	-	Depleted Dark SRedox Depression		()			dplain Soils (F19) (MLRA 149B)
Sandy Re		-	redox bopressio) (1 O)			Red Parent Ma	TA6) (MLRA 144A, 145, 149B) terial (E21)
	Matrix (S6)							ark Surface (TF12)
Dark Surf	ace (S7) (LRR R, ML	.RA 149B)	•				Other (Explain	
3Indicators of	hydrophytic vegetatio	n and wet	land hydrology must	he nresei	nt unless	disturbed :	or problematic	
Restrictive La	ayer (if observed):		and hydrology must	be preser	it, unless	disturbed	or problematic.	
Type:	× • • • • • • • • • • • • • • • • • • •							
Depth (inch	nes):						Hydric Soil Present	? Yes No
Remarks:					_			
			14					

WEILAND DETERMINATION DATA FORM – Northcentral and Northeast Region	. / 1
Project/Site:	4/5/17
Applicant/Owner: State: NY Sampling Point:	W8a-V1
Investigator(s): N. Grosu / M. Grainen Section, Township, Range: Dayler	- 1
Landform (hillslope, terrace, etc.): hills to pe Local relief (concave, convex, none):	100 5
Subregion (LRR or MLRA): LRQ-Q Lat: 42.492862 Long: 76.339/92 Datum:	: (%):
Soil Mary Hall Marrier Flore Frie deance city la	•
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are Vegetation, SoilX, or Hydrology significantly disturbed? Are "Normal Circumstances" present? YesX	
A 14 - 4 15 - 4	No
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important feat	tures, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No X Wetland Hydrology Present? Yes No X If yes, optional Wetland Site ID:	
Upland sample point	
HYDROLOGY	
Wetland Hydrology Indicators: Secondary Indicators (minimum of two	o required)
Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6)	
Surface Water (A1) Water-Stained Leaves (B9) Drainage Patterns (B10)	
High Water Table (A2) Aquatic Fauna (B13) Moss Trim Lines (B16)	
Saturation (A3) Marl Deposits (B15) Dry-Season Water Table (C2)	
Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8)	
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Image Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D4)	ery (C9)
Otdited of otlessed Flattis (DT)	
Less Benedits (B5)	
Gridinov Aquitaru (D3)	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)	
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes NoX Depth (inches):	
Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No	10_ <u>X</u> 01
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	/\
Δ	
Remarks:	
Upland site - active agricultural field: soybeans.	
	7
	1

1	Absolute Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2		Species Across All Strata:(B)
5		That Are OBL, FACW, or FAC: (A/B)
7		Prevalence Index worksheet:
	= Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:)		FACW species x 2 =
1		FAC species x3 =
2		FACU species x 4 =
3		UPL species x 5 = Column Totals: (A) (B)
4		(B)
5		Prevalence Index = B/A =
6		Hydrophytic Vegetation Indicators:
7		1 - Rapid Test for Hydrophytic Vegetation
	= Total Cover	2 - Dominance Test is >50%
Herb Stratum (Plot size:)		3 - Prevalence Index is ≤3.0¹
1		4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
2		Problematic Hydrophytic Vegetation ¹ (Explain)
3.		
4		¹ Indicators of hydric soil and wetland hydrology must
		be present, unless disturbed or problematic.
5		Definitions of Vegetation Strata:
6		Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7		at breast height (DBH), regardless of height.
8		Sapling/shrub – Woody plants less than 3 in. DBH
9	9	and greater than or equal to 3.28 ft (1 m) tall.
10		Herb - All herbaceous (non-woody) plants, regardless
11		of size, and woody plants less than 3.28 ft tall.
12		Woody vines - All woody vines greater than 3.28 ft in
	= Total Cover	height.
Woody Vine Stratum (Plot size:)		
1		8
2		
3	× ×	Hydrophydia
I		Hydrophytic Vegetation V
	= Total Cover	Present? Yes No
Remarks: (Include photo numbers here or on a separate she	et.)	
Ground is have south	as howested f	previous fell.
Ground is bare, south		
2 P	1	

Depth (inches)	Matrix Color (moist)		Redox Featu	ires			tion of the second seco	
	7	% Color	(moist) %	Type ¹	Loc ²	Texture	Rem	
0-10	7.54R 4/6						Dijourk	ecl
						,,,		
	x							
						-		
						7		
								
				= 1 t				
12-		===:						
				-10				
Type: C=Conc	entration D=Donlot	ion PM-Daduard						
Hydric Soil Indi	entration, D=Deplet	ion, Rivi-Reduced	Matrix, MS=Maske	ed Sand Grain	ns.	*Location:	PL=Pore Lining, M	=Matrix.
Histosol (A1		Doha	ralisa Balassi Custa-	- (00) (1.00.1	_		or Problematic Hyd	
Histic Epipe			alue Below Surfac .RA 149B)	e (58) (L RR I	≺,	2 cm Mu	uck (A10) (LRR K, L	., MLRA 149B)
Black Histic			Dark Surface (S9)	ERRR MIR	A 1/0R)	Coast P	rairie Redox (A16) (LRR K, L, R)
Hydrogen S	ulfide (A4)	Loam	y Mucky Mineral (F	1) (LRR K. L) .)	Dark Su	ucky Peat or Peat (S rface (S7) (LRR K, I	53) (LRR K, L, R)
Stratified La		Loam	y Gleyed Matrix (F	2)	•/		ie Below Surface (S	
	elow Dark Surface (A		eted Matrix (F3)	10)		Thin Da	rk Surface (S9) (LRI	RKI)
	Surface (A12)		x Dark Surface (F6			Iron-Mar	nganese Masses (F	12) (LRR K. L. R)
	y Mineral (S1)		ted Dark Surface (Piedmor	nt Floodplain Soils (I	=19) (MLRA 149B)
Sandy Gleye Sandy Redo:	ed Matrix (S4)	Redox	x Depressions (F8)			Mesic Si	podic (TA6) (MLRA	144A, 145, 149B)
Sandy Redo Stripped Mat						Red Par	ent Material (F21)	
	e (S7) (LRR R, MLR	A 140D)					allow Dark Surface ((TF12)
	s (o.) (Eltit It, MEI	M 143D)				Other (E	xplain in Remarks)	
ndicators of hyd	frophytic vegetation	and wetland hydro	ology must be pres	ent unless di	eturbad ar	problematic		
testrictive Laye	r (if observed):	The trouble try and	nogy must be pies	ent, unless ui	sturbed or	problematic.		
Type:	The second secon							
	١.				1.			\/
Depth (inches))· 				-	Hydric Soil P	resent? Yes	No_ <u>X</u>
emarks:			4 .					
Distr	bed ag	ricultural	field-	50,1	hes	clear	ly been	
		/				,		
haire	d / disk	d - /e.	Me Sh	abbie	Lin			
MINE	ajan	1.	701		- i in a	L		
				i)		9		
				8				

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region
Project/Site: Dryden City/County: Dryden / Thompkins Sampling Date: 4/5/17
Applicant/Owner: SUN 8 State: NY Sampling Point: W Sampling Point:
Investigator(s): No Grosse / M. Guina Section, Township, Range: Dryden
l andform (hillstone terrace etc.):
Subregion (LRR or MLRA):
Soil Map Unit Name: Ha - Halsey Silt loam
Soil Map Unit Name: NWI classification: NWI classification: Need to the site typical for this time of year? Yes No (If no, explain in Remarks.)
And March 11
, a particular territorial ter
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes No Is the Sampled Area
Hydric Soil Present? Yes No within a Wetland? Yes No No
Wetland Hydrology Present? Yes No If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)
HYDROLOGY
Wotland Undrala w. India to
Primary Indicators (minimum of one is as a six a
V 0. f (M.)
High Water Table (A2)
Aquatic Fauna (B13) Moss Trim Lines (B16) Marl Deposits (B15) Dry-Season Water Table (C2)
✓ Water Marks (B1)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Shallow Aquitord (D3)
Grianow Aquitatu (D3)
Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) Sparsely Vegetated Concave Surface (B8)
Field Observations:
Surface Water Present? Yes X No Depth (inches):/
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes X No Depth (inches): /// Wetland Hydrology Present? Yes X No No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:
*
S

	Absolute	Dominar	nt Indicator	Dominance Test weeks best
Tree Stratum (Plot size:)			? Status	Number of Descinent County
1.		£7		That Are OBL, FACW, or FAC:
2				
3				Total Number of Dominant Species Across All Strata: (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 3/3 (A/B)
5				
6				Prevalence Index worksheet:
7		-		Total % Cover of: Multiply by:
		= Total Co	over	OBL species 90 x 1 = 90
Sapling/Shrub Stratum (Plot size:)				FACW species x2 = O
1. Acer rubrum	5	У	FAC	FAC species
				FACU speciesO x4 =O
2	- 11			UPL species
3				Column Totals: 120 (A) 180 (B)
4				
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7	-)			✓ 1 - Rapid Test for Hydrophytic Vegetation
	5	T		∠X2 - Dominance Test is >50%
Hoch Chatter (Distance	-	= Total Co	ver	X 3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size:)		V	~ 0.	4 - Morphological Adaptations¹ (Provide supporting
1. Juneus ettusus	60	Y	OBL	data in Remarks or on a separate sheet)
2. Carex sep	25	<u> </u>	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Scirpus cypernus	15		OBL	
4. Lythrum Salicaria	15		OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				
6				Definitions of Vegetation Strata:
				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub - Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11,	***********			of size, and woody plants less than 3.28 ft tall.
12	-			WARM CO. COLORS
	115		 -	Woody vines – All woody vines greater than 3.28 ft in height.
1445 (F-241, 2004) - C-42 (V-1)	=	Total Cov	er	
Woody Vine Stratum (Plot size:)				
1				Δ
2			·	
3				
4				Hydrophytic Vegetation
				Present? Yes No
Remarks: (Include photo numbers here or on a separate s		Total Cov	ег	
cernaixs. (include photo numbers here or on a separate s	heet.)			
4337 in				
4338 out				
1000				

Sampling Point: W/5 - wet/

Depth Matrix (inches) Color (moist) %	Redo Color (moist)	x Features		VEN R	
0-10 10 YR 3/1 85		% Type¹	Loc ² _	Texture	Remarks
10 /10 0/1 01	7.5 YR4/6	15 RM		SiLo	
		18			
		(1)			
			4		
\\.					
		·			
<u> </u>					
	-				
				70	
Type: C=Concentration, D=Depletion, R	M=Reduced Matrix MS	=Masked Sand Co	oine	21	10114002000
ydric Soil Indicators:	III TROUBUCK MIRITA, MIO	-Maskeu Sanu Gr	airis.	Indicators for Pre	ore Lining, M=Matrix.
_ Histosol (A1)	Polyvalue Below	Surface (S8) (LRI	D D		oblematic Hydric Soils ³ :
_ Histic Epipedon (A2)	MLRA 149B)	Curiace (OO) (LIVE	、 ι、,	2 cm IVIUCK (A	10) (LRR K, L, MLRA 149B) Redox (A16) (LRR K, L, R)
Black Histic (A3)		e (S9) (LRR R, MI	LRA 149B)	5 cm Mucky P	eat or Peat (S3) (LRR K, L, R)
_ Hydrogen Sulfide (A4)	Loamy Mucky M	ineral (F1) (LRR K	, L)		(S7) (LRR K, L)
Stratified Layers (A5)	Loamy Gleyed N	latrix (F2)	,	Polyvalue Bel	ow Surface (S8) (LRR K, L)
_ Depleted Below Dark Surface (A11)	Depleted Matrix		×	Thin Dark Sur	face (S9) (LRR K, L)
Thick Dark Surface (A12)	Redox Dark Surf			Iron-Mangane	se Masses (F12) (LRR K, L, R
_ Sandy Mucky Mineral (S1) _ Sandy Gleyed Matrix (S4)	Depleted Dark S			Piedmont Floor	dplain Soils (F19) (MLRA 149
_ Sandy Gleyed Matrix (S4) _ Sandy Redox (S5)	Redox Depression	ons (F8)		Mesic Spodic	(TA6) (MLRA 144A, 145, 149B
_ Stripped Matrix (S6)				Red Parent Ma	
Dark Surface (S7) (LRR R, MLRA 149)B)				Dark Surface (TF12)
, ,,	-,			Other (Explain	in Remarks)
ndicators of hydrophytic vegetation and w	etland hydrology must	be present, unless	disturbed of	or problematic	
estrictive Layer (if observed):				or problematic.	
Туре:					. /
Depth (inches):			1	Hydric Soil Presen	12 Var X
marks:					t? Yes No
Tidino.					

	A FORM – Northcentral and Northeast Region
Project/Site:/mden	City/County: Dryder Thompkins Sampling Date: 4/5/17
Applicant/Owner:SUN 8	State: NY Sampling Point: WIb-Up
Investigator(s): N. Grosse M. Guines	Section Township Pages: Deadle
TARRE A	
Subregion (I BB of MI BA): RP - P 42 4918	2993 Long:
Soil Map Unit Name: Ha - Halsey silt loam	Sc = - 1/2 / 1/2
	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? YesX_ No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	
Are Vegetation, Soil, or Hydrology naturally pro	oblematic? (if needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point locations, transects, important features, etc.
/	
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area
Hydric Soil Present? Yes NoX	within a Wetland? Yes NoX
Wetland Hydrology Present? Yes No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report	rt.)
Upland sample point	
Option of the first	
9	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained L	
High Water Table (A2) Aquatic Fauna (
Saturation (A3) Marl Deposits (E	
Water Marks (B1) Hydrogen Sulfid	de Odor (C1) Crayfish Burrows (C8)
	spheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Rec	duced Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Red	duction in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surfa	
Inundation Visible on Aerial Imagery (B7) Other (Explain in	
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	·
Water Table Present? Yes NoX_ Depth (inches):	
Saturation Present? Yes NoX Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos	s, previous inspections), if available:
	, passes in the second of the
Domostics	
Remarks:	
1 / 1 / 1 / 1 / 1	
Active agriculture field. Soy	1 5 06 05
. /	e
	*
	×
	,

Sampling Point: W16-Up1

(inches)	Matrix Color (moist).	 _	Colorida	edox Feature	s				
			Color (moist		Type ¹	Loc ²	<u>Texture</u>		marks
0-8	7.5 YR4/6							Disturb	bed
				_					
							_		
		-						-	
						_			10
				-,					
Type: C=Con	centration D-Doub		4 4 8 8 7 8						
ydric Soil Inc	centration, D=Deple	tion, RIVI=Re	educed Matrix,	MS=Masked	Sand Grains		² Location:	PL=Pore Lining,	M=Matrix.
_ Histosol (A			Daharahia D		·			for Problematic H	
Histic Epip			_ Polyvalue Be MLRA 14!	elow Surface	(S8) (LRR R ,		2 cm M	luck (A10) (LRR K	, L, MLRA 149B)
_ Black Histi				яв) ırface (S9) (L	DD D 441 D4	4405)	Coast F	Prairie Redox (A16	6) (LRR K, L, R)
	Sulfide (A4)		Loamy Muck	y Mineral (F1	KK K, WILKA	1498)	5 cm M	ucky Peat or Peat	(S3) (LRR K, L, R)
Stratified L	127			ed Matrix (F2)				urface (S7) (LRR I	
	Below Dark Surface	(A11)	Depleted Ma				Folyvar	ue Below Surface ark Surface (S9) (L	(S8) (LRR K, L)
	Surface (A12)		Redox Dark				Iron-Ma	ing Sunace (39) (L	(F12) (LRR K, L, R
	ky Mineral (S1)	_		k Surface (F7	')		Piedmo	nt Floodplain Soils	s (F19) (MLRA 149)
	yed Matrix (S4)	_	Redox Depre	ssions (F8)			Mesic S	podic (TA6) (MLR	A 144A, 145, 149E
_ Sandy Red			,					rent Material (F21)	
_ Stripped Ma					77			allow Dark Surfac	
_ Dark Surfac	ce (S7) (LRR R, M L	.RA 149B)						Explain in Remarks	
ndicators of hy	rdrophytic vocatatie		al boots to						
estrictive I av	vdrophytic vegetation	n and wetian	ia nyarology m	ust be preser	it, unless dis	turbed o	r problematic.		
	er (ir observed).								
									/
Туре:									
Type:	s):		-				Hydric Soil F	resent? Yes _	No <u>X</u>
Type:	s):						Hydric Soil F	Present? Yes _	NoX_
Type: Depth (inche			-						
Type: Depth (inche		, blue	6000	lhee	hield	the			
Type: Depth (inche	s):	chive	agricu	there	field	the			
Type: Depth (inche		chive	agricu	lture	field	the			
Type: Depth (inche		chive	agricu	there	field	the			
Type: Depth (inche		chive	agricu	there	field	the			
Type: Depth (inche		ichive	agricu	lhare	field	the			
Type: Depth (inche		ichive	agricu	lture	field	the			
Type: Depth (inchemarks:		ichve	agricu	lhare	field	the			
Type: Depth (inchemarks:		ichve	agricu	There	field	the			
Type: Depth (inche marks:		ichive	agricu	there	field	the			
Type: Depth (inchemarks:		ichive	agricu	there	field	the			
Type: Depth (inchemarks:		ichive	agricu	There	field	the			
Type: Depth (inche marks:		chive	agrien	There	field	the			
Type: Depth (inche marks:		ichve	agricu	lture	field	the			
Type: Depth (inche marks:		ichve	agricu	There	field	the			

11.0	
Surveyors: N. Cosse M. Guiñari Date: 4/5/17 Resource ID Number: 5/	
Surveyors: N. Gasse M. Guiner Date: 4/5/17 Resource ID Number: 5/ Project: 50N8 - Dryden Side State: NY County: Thompskin	1
Photo Number (s): 4310 ↓ Canopy Cover: 70 %	-
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
Flow Direction: Bank Width: feet	feet
High water Depth: feet Water Depth: feet Turbidity: Clear	<u>-</u> v
Flow Regime: [Perennial [] Intermittent [] Ephemeral [] Flowing Ditch [] Dry/Stage	nant Ditch
Sinuosity: Features:	
[] Low K Riffles [] Sand/Mud Bar K Run/Glide Medium Pools [] Gravel Bar [] Braided	
[] High [] Rapids [] Aquatic Vegetation [] Other	
I 1 Bedrock % Height Left Right Left	Right
[] Boulder% [] <10 feet	[]
[] Sand 10 % [] Boulder [] 57 <25 feet [] Sitt() [] <50 feet	[2] []
[] Sand [] <100 feet	[]
[⅓] Organic / ○ % [] Silt/Clay [] [] >100 feet ☑ Organic [ʎ]	[]
Dominant Vegetation: [X] Forested	
Species: Salix spp Her rubium	
[X] Shrub Species: Cornus Serius Cornus	
[y] Herbaceous	
[X] Forested Species: [X] Shrub Species: [X] Herbaceous Species: Species:	
Wildlife Observed/Notes:	
Sketch:	
To large to sketch accorately - 10.5 mile long	
	16)

Surveyors: N. Grosse M. Guinan Date: 4/5/17 Resource ID Number: S2 Project: SUNR State: NY County: Thompkins
Project: SUN ? State: NY County: Thompkins
Photo Number (s): 43/9 7, 43204 Canopy Cover: 70 %
Flow Direction: Bank Width: feet
Flow Regime: [] Perennial [] Intermittent [] Ephemeral [] Flowing Ditch [] Dry/Stagnant Ditch
Sinuosity: Features: ✓ Low [] Riffles [] Sand/Mud Bar ✓ Run/Glide [] Medium [] Pools [] Gravel Bar [] Braided [] High [] Rapids [] Aquatic Vegetation [] Other
Substrate: Bank Substrate: Floodplain Width: [] Bedrock% Height: Left Right Left Right [] Boulder% [] Bedrock [] [] <10 feet
Dominant Vegetation: Forested Pica glanca Species: Phlanis crundinacia Species: Phlanis crundinacia
Wildlife Observed/Notes:
Sketch:
Field

ROAD

Surveyors: No Gross / M. Gyman Date: 4/5/17 Resource ID Number: 53 Project: SUN 8 State: NY County: Thompkins Photo Number (s): 4321,4322 V Canopy Cover: 95 %
Flow Direction: Bank Width: feet
Flow Regime: [] Perennial [] Intermittent [X] Ephemeral [] Flowing Ditch [] Dry/Stagnant Ditch
Sinuosity: Features: [X] Low
Substrate: Bank Substrate: Floodplain Width: [] Bedrock% Height: Left Right Left Right [] Boulder% [] Bedrock [] [] <10 feet
Dominant Vegetation: [X] Forested Species:
Wildlife Observed/Notes:
Sketch: field
End State St
field with

Surveyors: N. Grosse / MiGraha Date: 48/17 Resource ID Number: 54 Project: SUN8 State: NY County: Thompkins Photo Number (s): 4326 1, 4321 V Canopy Cover: 75 %
Flow Direction: Bank Width: feet
Flow Regime: [] Perennial [X Intermittent [] Ephemeral [] Flowing Ditch [] Dry/Stagnant Ditch
Sinuosity: Features: [] Low [] Riffles [] Sand/Mud Bar [X Run/Glide [] Medium [X] Pools [X] Gravel Bar [] Braided [] High [] Rapids [X] Aquatic Vegetation [] Other
Substrate: Bank Substrate: Floodplain Width: [] Bedrock% Height: Left/* Right _/* Left Right [] Boulder% [] Bedrock [] [] <10 feet []
Dominant Vegetation: [XForested Species: Malns spp. Populoides dentata [M Shrub Species: Loriara Morrowii, Corons spp. [] Herbaceous Species:
Wildlife Observed/Notes:
Whiteful dar + Wild Turkey tracks
Long (33 m.) - difficult to sketch participy, see mapping.

Tetra Tech Waterbody Data Sheet

Surveyors: N. Grosse M. Grinen Date: 4/5/17 Resource ID Number: POND Project: SUN8 State: NY County: Thempkins Photo Number (s): 4325-N Canopy Cover: 0 %
LAKE/BAY/OCEAN
Name:
Associated Stream ID:
•
POOL/POND
Associated Stream ID: MA Water Width: 25 feet Water Depth: 4 feet Turbidity: 6
Type:
[] Agricultural [] Landscape [] Topographic [X Stormwater
Observed Use:
[]Drinking []Irrigation []Fishing []Boating []Drainage
•
Dominant Vegetation:
[] Forested Species:
[] Shrub
Species:
Merbaceous Species: Typha, Various grass spp on banks [] Barren
Beach Type:
Wildlife Observed/Notes:
Red-winged Blackbird
Cleatala
Sketch:
Pond1

Tetra Tech Waterbody Data Sheet